CITY OF MORETON BAY

Enquiries: Clayton Forbes
Direct 07 5433 2543
Our Ref: DA/2024/4845
Your Ref: M2584E5
Date: 3 January 2025

DFC (Project Management) Pty Ltd,
c/- JFP Urban Consultants Pty Ltd
PO Box 3634
SOUTH BRISBANE QLD 4101

Dear Applicant,

Re: DEVELOPMENT APPROVAL
Planning Act 2016

Development Application No.:	**DA/2024/4845**
Property Location:	**Lot 800 Flinders Street D'AGUILAR**
Property Description:	**Lot 800 SP 331595**
Development Type:	**Operational Works - Development Permit for Earthworks, Roadworks & Stormwater**

Please be advised that on 2 January 2025 the above development application was approved by Council's Delegate as the Assessment Manager in accordance with section 63 of the *Planning Act 2016* subject to conditions.

The following type of approval has been issued:

- **Development Permit - Operational Works for Earthworks, Roadworks & Stormwater**

The development allowed by this approval must be carried out in accordance with the attached Decision package.

Attached is an extract from the *Planning Act 2016* which details your appeal rights and the appeal rights of any submitters, if applicable, regarding this decision.

Should you require any further information about this matter, please contact Clayton Forbes as referenced above.

Yours faithfully

Clayton Forbes
Senior Engineer
Development Services

Enclosures: Attachment 1 - Decision Notice
Attachment 2 - Assessment Manager Conditions
Attachment 3 - Approved Plans / Documents
Attachment 4 - Appeal Rights

ATTACHMENT 1

Decision Notice

Decision Notice

Planning Act 2016, section 63

APPLICATION DETAILS

Application No:	**DA/2024/4845**
Applicant:	**DFC (Project Management) Pty Ltd,**
Street Address:	**Lot 800 Flinders Street D'AGUILAR**
Real Property Description:	**Lot 800 SP 331595**
Planning Scheme:	**Moreton Bay Regional Council Planning Scheme**

APPROVAL DETAILS

Date of Decision: **2 January 2025**

The development application was approved by Council's Delegate as the Assessment Manager subject to conditions (refer Attachment 2).

Application Type	**Development Permit**	**Preliminary Approval**
Operational Works for **Earthworks, Roadworks & Stormwater**	☑	☐

OTHER NECESSARY PERMITS

Not applicable.

In addition to this approval, you may also be required to obtain a water approval from the Northern SEQ Distributor Retailer, trading as Unitywater. To engage a Registered Certifier to lodge your connection application, go to Unitywater's website www.unitywater.com/certifier

CURRENCY PERIOD OF APPROVAL

The currency period stated in section 85 of the *Planning Act 2016* applies to this approval as outlined below:

- Operational Works - 2 years from the date of this approval starts to have effect.

DEEMED APPROVAL

Not applicable.

VARIATION APPROVAL

Not applicable.

INFRASTRUCTURE

Unless otherwise specified, all assessment manager conditions of this development approval relating to the provision of infrastructure are non-trunk infrastructure conditions under Chapter 4, section 145 of the *Planning Act 2016*.

ASSESSMENT MANAGER CONDITIONS

The Conditions relevant to this development approval are listed in Attachment 2 of the Decision package.

APPROVED PLANS / DOCUMENTS

The approved plans and/or documents as listed below for this development approval are included in Attachment 3 of the Decision package.

The approved plans/documents for this development approval are listed below.

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Cover Sheet	M2584E_5	JFP	
Construction Staging Plan	M2584E_5 LO1 C	JFP	18/11/2024
Earthworks Layout Plan - Sheet 1 of 2	M2584E_5 EW01 E	JFP	21/10/2024
Earthworks Layout Plan - Sheet 2 of 2	M2584E_5 EW02 H	JFP	13/12/2024
Earthworks Details Layout Plan- Sheet 1 of 4	M2584E_5 EW03 E	JFP	21/10/2024
Earthworks Details Layout Plan- Sheet 2 of 4	M2584E_5 EW04 E	JFP	21/10/2024
Earthworks Details Layout Plan- Sheet 3 of 4	M2584E_5 EW05 H	JFP	18/11/2024
Earthworks Details Layout Plan- Sheet 4 of 4	M2584E_5 EW06 H	JFP	13/12/2024
Earthworks Details & Notes Plan Sheet 1 of 2	M2584E_5 EW07 D	JFP	21/10/2024
Earthworks Bioretention Basin 4 Layout Plan & Details	M2584E_5 EW08 F	JFP	13/12/2024
Earthworks Bioretention Layout Plan & Details	M2584E_5 EW08B A	JFP	13/12/2024
Earthworks Bioretention Basin 3 Layout Plan & Details	M2584E_5 EW09 C	JFP	29/10/2024
Earthworks Details & Notes Plan Sheet 2 of 2	M2584E_5 EW10 B	JFP	21/10/2024
Roadworks Notes and Details Plan	M2584E_5 R03 B	JFP	21/10/2024
Roadworks Intersection Details Plan - Sheet 2 of 2	M2584E_5 R05 C	JFP	13/12/2024
Roadworks Longitudinal Sections - Road 3 (Flinders Street)	M2584E_15 R06 B	JFP	21/10/2024

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Roadworks Cross Sections - Road 3(Flinders Street)-Sheet 2 of 2	M2584E_5 R08 B	JFP	Undated
Roadworks Longitudinal Sections - Road 7 (Bushman Court)	M2584E_5 R09 A	JFP	Undated
Signs and Linemarking Plan - Sheet 1 of 2	M2584E_5 SL01 C	JFP	18/11/2024
Signs and Linemarking Plan - Sheet 2 of 2	M2584E_5 SL02 D	JFP	13/12/2024
Drainage Catchment Plan	M2584E_5 D01 D	JFP	13/12/2024
Drainage Layout Plan - Sheet 1 of 2	M2584E_5 D02 B	JFP	21/10/2024
Drainage Layout Plan - Sheet 2 of 2	M2584E_5 D03 E	JFP	13/12/2024
Drainage Longitudinal Sections Line M,3M, N,1A-7M & 1B-7M	M2584E_5 D04 B	JFP	21/10/2024
Drainage Longitudinal Sections Line 0,1A-20 &J	M2584E_5 D05 C	JFP	29/10/2024
Drainage Calculations Table Sheet 1 of 2	M2584E_5 D06 B	JFP	21/10/2024
Drainage Calculations Table Sheet 2 of 2	M2584E_5 D07 B	JFP	21/10/2024
Drainage Structure Details Sheet 1 of 2	M2584E_5 D08A B	JFP	21/10/2024
Drainage Structure Details Sheet 2 of 2	M2584E_5 D08B A	JFP	12/13/2024
Bioretention Plan & Details - Basin 3	M2584E_5 D09 C	JFP	13/12/2024
Bioretention 3 Sediment Forebay 1 Plan & Sections	M2584E_5 D10 B	JFP	29/10/2024
Bioretention 3 Sediment Forebay 2 Plan & Sections	M2584E_5 D11 B	JFP	29/10/2024
Bioretention Plan & Details - Basin 4	M2584E_5 D12 D	JFP	13/12/2024
Bioretention 4 Sediment Forebay Plan & Sections	M2584E_5 D13 D	JFP	13/12/2024

Plans and Documents to be Amended			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Roadworks Layout Plan - Sheet 1 of 2	M2584E_5 R01 B	JFP	21/10/2024
Roadworks Layout Plan - Sheet 2 of 2	M2584E_5 R02 D	JFP	18/11/2024
Roadworks Intersection Details Plan - Sheet 1 of 2	M2584E_5 R04 D	JFP	18/11/2024
Roadworks Cross Sections - Road 3(Flinders Street)-Sheet 1 of 2	M2584E_5 R07 B	JFP	Undated
Roadworks Cross Sections - Road 7(Bushman Court)	M2584E_5 R10 B	JFP	Undated

ASSESSMENT BENCHMARKS

The Assessment Benchmarks that applied to the development from the following Categorising Instruments include;

Categorising Instrument (*Planning Regulation 2017*)

State Planning Policy
- *State Planning Policy 2017*, Part E.

Regional Plan
- *South East Queensland Regional Plan 2017 (ShapingSEQ).*

Local Categorising Instrument (Moreton Bay Regional Planning Scheme)

- MBRC Planning Scheme - Works Code

Local Categorising Instrument (Variation Approval)

Not applicable.

Local Categorising Instrument (Temporary Local Planning Instrument)

Not applicable.

OTHER RELEVANT ASSESSMENT MATTERS

Not applicable.

REASONS FOR THE DECISION

Not Applicable.

REASONS FOR APPROVAL DESPITE NON-COMPLIANCE WITH ASSESSMENT BENCHMARKS

Not applicable.

REFERRAL AGENCY CONDITIONS

There were no Referral Agencies applicable to this development application.

SUBMISSIONS

Not applicable.

APPEAL RIGHTS

Attachment 4 of the Decision package is an extract from the *Planning Act 2016* which details your appeal rights, and the appeal rights of any submitters, if applicable, regarding this decision.

ATTACHMENT 2

Assessment Manager Conditions of Approval

CONDITION		TIMING
OPERATIONAL WORKS		
1	**Retaining Wall Location**	
	Type A2 and A5 retaining walls within Lots 121-123 & 126-128 where fronting onto Road or Drainage Reserve are to be full located within the respective lot.	Prior to requesting an On Maintenance inspection.
2	**Road Classifications for Pavement Design**	
	Design pavement in accordance with the following road classifications: Road 3 - Living Residential Road - $1.2x10^5$ ESA Road 7 - Living Residential Road - $1.2x10^5$ ESA	Prior to subgrade inspections.
3	**Amendments Required**	
	The following amendments must be completed and submitted for approval by Council's delegated officer: 1. Remove the inconsistencies between the Road 3 and Road 7 Roadworks Cross Sections plans indicating Steel Beam Guardrails and the corresponding Roadworks Layout Plans indicating Hardwood Timber Vehicle Barriers. The amended Roadwork Layout Plans are to detail the extent of the Steel Beam Guardrails having consideration for the extent of the adjacent hazard. The submission is to include a copy of the hazard assessment undertaken in accordance with Austroads Guide to Road Design Part 6 to determine the proposed barrier. The design drawings must approved by Council's delegated officer. Provide a complete set of all drawings to Council.	Prior to a prestart meeting being held.
4	**Approved Plans and/or Documents**	
	Undertake development generally in accordance with the approved plans and/or documents. These plans and/or documents will form part of the approval, unless otherwise amended by conditions of this approval.	At all times during construction and prior to works being accepted Off Maintenance.
5	**Errors and Omissions**	
	Where errors or omissions occur in the design or works do not conform to or meet Council standards then these works shall be rectified to comply with Council standards at no cost to Council. Where drawings contain insufficient detail or do not contain details of works that are either necessary or associated with the development then these works shall be designed and constructed to Council standards. Only the approved plans shall be used for construction.	At all times during construction and prior to works being accepted Off Maintenance.

CONDITION		TIMING
	Note: Council reserves the right to amend the approved drawings or request further information should this become necessary.	
6	**Works – Applicant's Expense**	
	All works, services, facilities and/or public utility alterations required by or as a consequence of this approval or stated condition/s, whether carried out by the Council or otherwise, shall be at the developer's expense unless otherwise specified or agreed in writing. Replace existing Council infrastructure (including but not limited to street trees and footpaths) to Council's standards.	At all times during construction and prior to works being accepted Off Maintenance.
7	**As Constructed Drawings**	
A	Provide, for review and approval, Council with a preliminary set of the surveyor and engineering As Constructed drawings for the approved works and a digital ADAC file. Note: The current design standard and relevant planning scheme policy is MBRC Planning Scheme Policy Operational Works inspection, maintenance and bonding procedures.	Prior to requesting an On Maintenance inspection.
B	Submit 'As Constructed' drawings and digital ADAC file in accordance with Council's Planning Scheme, relevant Planning Scheme Policies and design standards current at the time of development.	Prior to works being accepted On Maintenance.
8	**Works in Existing Roads**	
A	Works carried out in or affecting existing Roads must be undertaken so that these roads are maintained in a safe and useable condition.	At all times.
B	Provide to Council's delegated officer and receive acknowledgement of a Traffic Management Plan, with site specific Guidance Scheme, prepared and signed by an appropriately qualified person and in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) for any works that will affect traffic movements or traffic safety in existing roads. Note: • A 'Part Road Closure Application' for Development Works form is to accompany the Traffic Management Plan submission. • This submission is required to be made in addition to any Traffic Management Plan which has been submitted and/or approved as part of a Construction Management Plan for the site during the development application process for Material Change of Use or	At least five (5) days prior to undertaking the works in or affecting existing roads.

CONDITION		TIMING
	Reconfiguring a Lot or subsequent non-IDAS applications.	
9	**Information Sign – Works in Existing Roads**	
	A construction advisory road sign must be erected and regularly updated and maintained displaying the developer and contractors details and the expected completion date for works on existing roads. The sign shall be located so as be clearly legible to the public from of minimum 15m distance from the existing road on which the works are to be carried out on.	For the duration of the works from commencement to acceptance of On Maintenance.
10	**Information Sign – Development Works**	
	An information sign containing the following details and after hours contact details must be provided at each entrance to the development site: • Developer • Supervising Consultant/ Engineers / Project Manager • Principal Contractor The sign must be at least 0.9m (W) by 0.6m (H). The sign must be erected and maintained for the duration of the development works.	For the duration of the development works from commencement to acceptance On Maintenance by Council.
11	**Prestart Meeting**	
	Arrange a prestart meeting with Council officers from Development Engineering section (Email - Council@moretonbay.qld.gov.au - Attention - Development Services - Engineering North - DA/2024/4845 The following people will be required to attend the prestart meeting: • Developer's Supervising Engineer • Contractor's Engineer / Project Manager • Contractor's Site Supervisor • Fauna Manager (where required).	Not less than 7 days prior to commencing any construction works.
12	**Mandatory Inspections with Council Officers**	
	Submit required documentation for each mandatory inspection in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to requesting inspection.
	Undertake the following inspections with Council's delegated officer (where applicable to approved works) in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures:	As prescribed below.
A	Stormwater drainage.	Prior to backfilling stormwater trenches.

CONDITION		TIMING
B	Subgrade / box inspection.	Prior to placement of structural pavements.
C	Preseal inspection.	Prior to priming and sealing of structural pavements.
D	For concrete slabs and concrete pavements - foundations / subgrade and pre-pour inspections.	Prior to concrete pouring.
E	On maintenance inspection for Council's acceptance of all works.	Prior to works being accepted On Maintenance.
F	Off maintenance inspection of all works. Note: Reinspections attract a fee in accordance with Council's Fee Schedule. The fee must be paid prior to the reinspection.	After maintenance period has elapsed.
G	Provide Council's delegated officer with a copy of an Engineers' Certificate Soil tester's reports demonstrating that required compaction standards, finished levels and textures of finish have been obtained in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to proceeding to construction of next layer or surfacing.
13	**Testing Frequency – General**	
A	All testing of the works shall be carried to comply with the minimum testing frequencies given in MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. Note: Council's delegated officer may vary the frequency of testing to suit site conditions but must provide written advice to the supervising engineer prior to commencement of the relevant works.	At all times during construction.
B	Provide a plan identifying locations where testing has occurred.	Prior to works being accepted On Maintenance.
14	**Construction Hours Restrictions**	
	Ensure hours of construction are limited to 0630 to 1830 Monday to Saturday and not at all on Sundays and public holidays. Note: Council's engineer may approve (in writing) work outside the above hours where it can be demonstrated to the satisfaction of Council that the work will not cause unreasonable interference with the amenity of adjoining premise and any person.	At all times.
15	**Construction Nuisance and Annoyance**	
	Ensure construction works do not cause unreasonable interference with the amenity of adjoining premise and any person by reason of noise, vibration, electrical interference, smell, fumes, vapour, steam, soot, ash,	At all times.

CONDITION		TIMING
	dust, silt, wastewater, waste products, grit, oil or otherwise.	
16	**Construction Site Management**	
	Ensure the construction site is kept in a clean and tidy state.	At all times.
A	Implement an Erosion and Sediment Control Plan which is prepared by an experienced Certified Professional in Erosion and Sediment Control (CPESC) in accordance with International Erosion Control Association Australasia (IECA) Best Practice and Sediment Control document and MBRC Planning Scheme current at the time of development.	Prior to commencement of works and to be maintained current at all times during construction and until the development is accepted off-maintenance.
B	The temporary erosion and sediment control measures shall be maintained and be functional until the end of the Maintenance Period for the works or earlier if Council's delegated officer considers they are no longer required. Note: Council's delegated officer may order additional measures to control silt on site at no cost to Council.	At all times during construction.
17	**Spillage onto Existing Roads**	
	Clean those parts of the access route to the site that are affected by any material dropped, deposited or spilled on the roads as a result of construction processes associated with the site. Note: • All materials must be swept up and removed from the roads and not directed into Council's stormwater drainage system. • All care must be taken to prevent sediments being deposited on roads.	At all times during construction.
18	**Dust Control – Nuisance and Annoyance**	
	Implement suitable dust control measures. If airborne particles are observed leaving the site, any work is to cease immediately and satisfactory dust suppression is to be implemented. Note: Dust suppression measures must be in place at all times including weekends and public holidays.	At all times prior to works being accepted Off Maintenance.
19	**Earthworks Batters**	
	Where approved drawings do not include specifications for scour and erosion protection apply the following treatments to batter slopes: • Slopes of 1:6 or flatter – topsoil and seed • Slopes between 1:6 and 1:4 – topsoil and turf • Slopes of 1:4 or greater – provide treatment recommendation from a qualified geotechnical	At all times during construction.

CONDITION		TIMING
	engineer (RPEQ.) for Council approval prior to undertaking batter works • Or as directed by Council. Note: Batters within Open and Civic Spaces are to be treated in accordance with MBRC Planning Scheme Policy Integrated Design - Open and Civil Space Design.	
20	**Earth Retaining Structures**	
A	Design and construct all earth retaining structures in accordance with: • Council's Planning Scheme and relevant Planning Scheme Policies; • Relevant Australian Standards; and • Relevant Building Code requirements. The minimum design life (the period assumed in design for which a structure or structural element is required to perform its intended purpose without replacement or major structural repairs) for the earth retaining structure that is specified in Table 3.1 of Australian Standard AS4678. Note: Timber retaining structures and bolder retaining walls are not accepted unless specifically approved in writing by Council.	At all times.
B	Provide written certification from a suitably qualified and experienced RPEQ that the works comply with this permit condition.	Prior to works being accepted On Maintenance.
21	**Unsuitable Fill Materials**	
	Ensure that all fill material used on the development site is free of unsuitable materials, identified in AS3798 and the following: • actual acid sulfate soils and potential acid sulfate soils; • organic or putrescible matter; • material imported from land which is, or has been, listed on the "Environmental Management Register" under the *Environmental Protection Act 1994*; and • building demolition material.	At all times.
22	**Compaction Requirements**	
	All fill material which is intended to be load bearing, or the finished surface level of which is required to remain approximately constant, is selected, placed and compacted to the standard prescribed in Australian Standard AS3798 Guidelines on Earthworks for Commercial and Residential developments.	At all times during construction.
23	**Pavement Design**	
A	All road pavements must be designed, constructed and tested in accordance with MBRC Planning Scheme Policy - Integrated Design - Street, Roads and Utilities	At all times during construction.

CONDITION		TIMING
	and standard drawings current at the time of construction. Note: • Council requires a primer seal placed under all asphalt surfaces. • Increased asphalt surface thicknesses for road thresholds are to be identified in the pavement design.	
B	Submit, for review and approval by Council's delegated officer, a pavement design for all roads. Pavement designs are to include Soil tester's reports.	Prior to subgrade inspection.
24	**Pavement Jointing Detail**	
	Undertake pavement jointing in accordance with IPWEA. Standard Drawings RS-170.	Prior to works being accepted On Maintenance
25	**Road Thresholds**	
A	Design and construct road threshold treatments in accordance with Council's Planning Scheme Policy Integrated Design - Streets, Roads and Utilities, standard drawings current at the time of construction and the following requirements: • Urban areas only: Concrete threshold treatment - full depth colour batched concrete. • All areas: Streetprint/indented/stamped asphalt treatment - an additional 10mm asphalt depth to be applied to the total area of threshold. Increased asphalt depth to be identified in Pavement Design	At all times.
B	Submit, for review and approval by Council's delegated officer, the proposed colours and surface patterns for all road thresholds. Note: Road threshold colours are to be bright and natural and able to withstand continuous traffic use without discolouration.	At least 7 days prior to commencing construction of thresholds.
26	**Concrete Footpaths**	
	Construct concrete footpaths and kerb ramps in accordance with IPWEA Standard Drawings RS-065 and RS-093.	Prior to works being accepted On Maintenance.
27	**Street Signs**	
	Street signs must be provided in accordance with Council's Standard Drawings and IPWEA Standard Drawings. Note: • House numbers required for these signs shall be obtained from Council's house numbering officer by contacting Council's Customer Service. • The MBRC Logo is not to be put on the sign.	Prior to works being accepted On Maintenance.

CONDITION		TIMING
28	**Stormwater Pipe Outlets and Culvert Inlets and Outlets**	

	Stabilise all culvert inlets and outlets or stormwater drainage outlets in accordance with industry best practice and the following requirements:
	• Rock gabion baskets/rock mattresses
	• Grouted rock/stone pitching with a properly designed and prepared base and constructed to the following requirements:
	  o Mortar to be 1 part cement to 3 parts sand (by volume).
	  o Open face stone pitching is to be used where the concrete is recessed 50mm behind the stone facing.
	  o Select spalls to avoid sharp edges.
	• Other solutions as approved by Council's delegated officer.
	
	Note: Dumped rock is generally not considered as an appropriate solution.
		At all times.

29	**Stormwater Overland Flow – Site Earthworks**	

	Earthworks must be undertaken on the site so as not to cause nuisance and annoyance to any person or premises. The development must:
	• Allow stormwater overland flow which entered the land prior to the commencement of the earthworks to continue to enter the land; and
	• Ensure stormwater overland flow from the development site is not discharged or diverted onto land (other than a road) adjacent to the site in a manner which:
	  o concentrates the rate of flow at any point along the property boundary; or
	  o increases the peak flow rates of stormwater discharged at any point along the property boundary; beyond that which existed prior to commencement of these earthworks.
		At all times during construction.

30	**CCTV – Stormwater Pipes**	
A	Provide a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes including inter allotment roofwater drainage. CCTV to clearly display all joints (full surrounds) and any form of damage or defects. The recording is to include a report signed by an R.P.E.Q. stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide method of rectification to Council for approval, prior to carrying out any rectification works.	At least 7 days prior to the On Maintenance inspection.

CONDITION		TIMING
B	Undertake and provide, to the satisfaction of the Council, a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes, including inter allotment roof water drainage. Recording to be undertaken within one month immediately preceding making a request for Off Maintenance inspection. CCTV to clearly display all joints (full surrounds) and any form of damage or defects, including date and time of the recording. The recording is to include a report signed by a suitably qualified Registered Professional Engineer Queensland (RPEQ) stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide method of rectification to Council for approval, prior to carrying out any rectification works.	Prior to a request for Off Maintenance inspection.
31	**Drainage Behind Retaining Walls**	
	Design and install agricultural pipes or strip drains behind retaining walls in accordance with Q.U.D.M. to connect to: • The proposed inter-allotment drainage systems; or • To drainage inlet structures via a stub connection in roadways; or • Directly to kerb and channel if there are no drainage structures within 10m of the frontage of the land; or • As approved in writing by Council's delegated officer. Notes: • Corrugated pipes are not to be used to connect the stormwater drainage to Council's infrastructure. • The drainage system behind retaining walls must not connect to Council's subsurface drainage system in the Council road.	Prior to works being accepted On Maintenance.
32	**Provision of Kerb Adapters**	
	Provide a minimum of two (2) metal kerb adaptors per lot for lots that drain to the road. Where a lot has side crossfall of up to 1.5%, one (1) kerb adaptor shall be located at each side of the lot. Where a lot has side crossfall of greater than 1.5%, both kerb adaptors shall be located at the low side of the lot. For lots with a concrete footpath at the frontage, the kerb adaptors shall be connected to the front boundary of the lot with Class SN8 uPVC stormwater pipe.	Prior to works being accepted On Maintenance.
33	**Certification – Public Stormwater Management Infrastructure**	
	Provide documentation to Council from a Registered Professional Engineer (RPEQ) specialising in stormwater design certifying that the stormwater management	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	treatment train as approved in the stormwater management plan and design drawings has been constructed in accordance with engineering best practise and is functioning as designed. The certification shall include the completed sign-off forms for bioretention systems prepared by Water by Design in Partnership with Healthy Waterways shall be completed. The sign-off forms are accessible from www.waterbydesign.com.au.	
34	**Public Bioretention Inspections**	
	Provide Council with notice of the subsoil drains being laid and the filter media being installed. Note: Council's delegated officer may attend the inspection.	Not less than 48 hours prior to subsoil drains being laid and the filter media being installed.
35	**Maintenance Process for Public Bioretention Basin**	
A	The entire bioretention basin shall act as a sediment basin. Note: Council will consider alternative solutions to achieve the desired outcome.	During the build-out phase (80%) or up to a maximum of two (2) years.
B	Submit, for review and approval by Council's delegated officer, a deferred works schedule to cover the cost of basin conversion plus twenty-five percent (25%) and in accordance with the requirements of Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. The following works are to be included as a minimum in the deferred works bond schedule: • removal of sacrificial turf and geofabric; and • In-situ hydraulic conductivity testing of filter material in accordance with the "Guidelines for Soil Filter Media in Bioretention Systems: (produced by the Faculty for Advanced Water Biofiltration) requirements. • Planting out of the basin in accordance with the approved landscaping drawings.	Prior to the bioretention basin area being accepted On Maintenance as a sediment basin.
C	Construct deferred works and any other works necessary to convert to the basin from sediment basin to a functioning bioretention basin in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. In-situ hydraulic conductivity testing of filter material is to be provided to Council's delegated officer to demonstrate that area can be planted out. Where in-situ hydraulic conductivity testing shows that the filter material is not acceptable then replacement of the filter material is required in addition to planting out of basin area.	Once the contributing catchment achieves eighty percent (80%) build-out or a maximum of 2 years.

CONDITION		**TIMING**
	Note: Deferred Works for bioretention basin conversion are subject to a separate on maintenance process to the other civil works for the development. The On Maintenance process is to be in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures including on and off maintenance inspections and maintenance period.	

ADVICES	
1	**Development Permit**
	This approval shall comply with all the conditions of related approval as stipulated in Council's Decision Notice – Development Permit dated 18 September 2024 referenced as **DA/2024/2888**. The Applicant needs to be aware that the Currency Period of that Decision Notice may determine the validity period of this Decision Notice.
2	**Extent of Checking by Council**
	This approval shall not be taken to mean that the drawings have been checked in detail and Council accepts no responsibility whatsoever for the survey information, the design, or for the accuracy of any information or detail contained in the approved drawings and specifications.
3	**Aboriginal Cultural Heritage Act**
	The *Aboriginal Cultural Heritage Act 2003* commenced in Queensland on April 16, 2004. Under the Act, indigenous parties are key in assessing cultural heritage significance. The *Aboriginal Cultural Heritage Act 2003* establishes a Duty of Care for indigenous cultural heritage. This applies on all land and water, including freehold land. The Cultural Heritage Duty of Care lies with the person or entity conducting the activity. Penalty provisions apply for failing to fulfil the Cultural Heritage Duty of Care. Those proposing an activity that involves additional surface disturbance beyond that which has already occurred on the proposed site need to be mindful of the Duty of Care requirement. Details of how to fulfil the Duty of Care are outlined in the Duty of Care Guidelines gazetted with the Act. Council strongly advises that you contact the relevant state agency to obtain a copy of the Duty of Care Guidelines and further information on the responsibilities of developer under the terms of the *Aboriginal Cultural Heritage Act 2003*.
4	**Environmental Protection Act**
	It remains the duty of care of the site owner not to cause Environmental Harm as defined under the *Environmental Protection Act 1994*.
5	**Biosecurity Act 2014 - Fire Ant Control**
	Significant portions of the Moreton Bay are within Fire Ant Biosecurity Zone 2 and must remain vigilant for the presence of fire ants. Under the Biosecurity Act 2014, individuals and businesses are responsible for ensuring that they follow the movement controls for specific organic materials to help prevent the spread of fire ants within South East Queensland's fire ant biosecurity zones. Movement of a fire ant carrier from within the fire ant biosecurity zone may need a biosecurity instrument permit. More information is available on https://www.fireants.org.au/treat/business-and-industry/movement-controls

ATTACHMENT 3

Approved Plans / Documents

PROJECT:

OPERATIONAL WORKS CIVIL ENGINEERING

PROJECT DETAILS:

'ARCHERS WAY' ESTATE - STAGE 5 AT 22-80 CASH STREET, D'AGUILAR

PROJECT NUMBER: M2584E_5
MORETON BAY REGIONAL COUNCIL
REFERENCE: DA/2024/2888

35 ALLOTMENTS
LOT 1 & 2 ON RP230991 & RP80309
AREA - 5.722 ha

LOCALITY PLAN

N.T.S.

SAFETY IN DESIGN

THE ENGINEERING DESIGN FOR THE PROPOSAL HAS BEEN DEVELOPED TO MEET THE STATED PROJECT BRIEF, AS EXPRESSED IN JFP URBAN CONSULTANTS OFFER FOR THE WORKS, AND THE DESIGN STANDARDS STIPULATED BY THE LOCAL AUTHORITY NAMED ON THIS PLAN. IT IS EXPECTED THAT A COMPETENT PRINCIPAL CONTRACTOR WILL BE APPOINTED FOR THE PROJECT AND THAT ALL 'HIGH RISK' CONSTRUCTION WORKS WILL BE ADDRESSED AS PART OF THEIR PROJECT SAFETY PLAN FOR THE SITE.

NON-STANDARD DESIGN SOLUTIONS ADOPTED IN THE PREPARATION OF THE PROPOSAL ARE LISTED AS FOLLOWS;

THERE ARE NO NON-STANDARD DESIGN ITEMS TO LIST

INDEX:

STAGING & SITE SURVEY PLANS

EARTHWORKS PLANS

SEWERAGE PLANS

WATER RETICULATION PLANS

ACOUSTIC FENCE

ROADWORKS PLANS

SIGNS AND LINEMARKING PLANS

DRAINAGE PLANS

EROSION & SEDIMENT CONTROL PLANS

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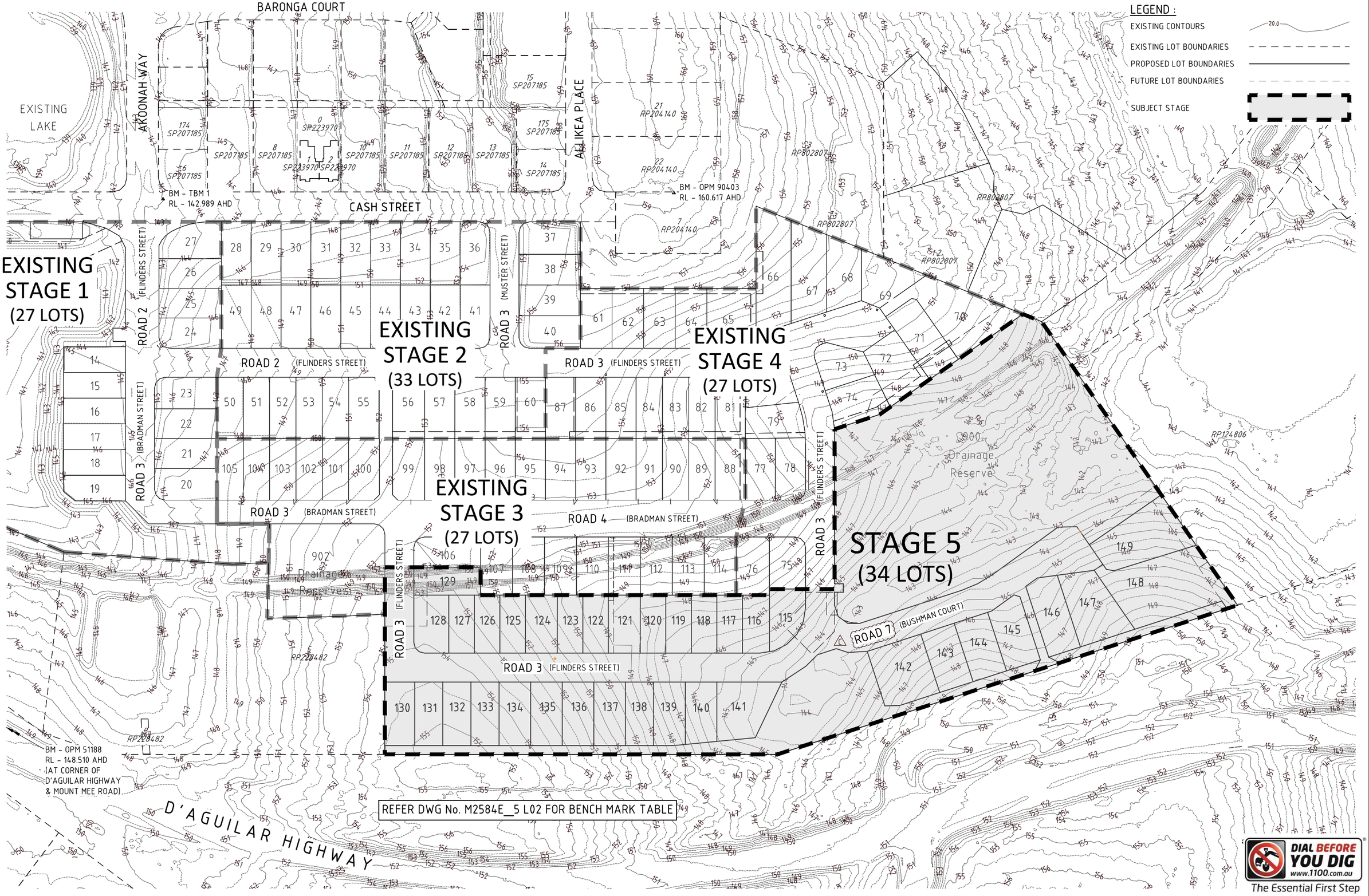
JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 010 494 032
PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

PROJECT NUMBER
M2584E_5

FILE NAME: COVERSHEET.DWG



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NORTH:

SCALE: 1:1000 on A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE — 0 10 20 30 40 50 (A1) 1:1000 100 Metres (A3) 1:2000

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.M°KINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086 | S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	ROAD NAME CHANGED	18/11/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	18/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

TITLE:

CONSTRUCTION STAGING PLAN

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

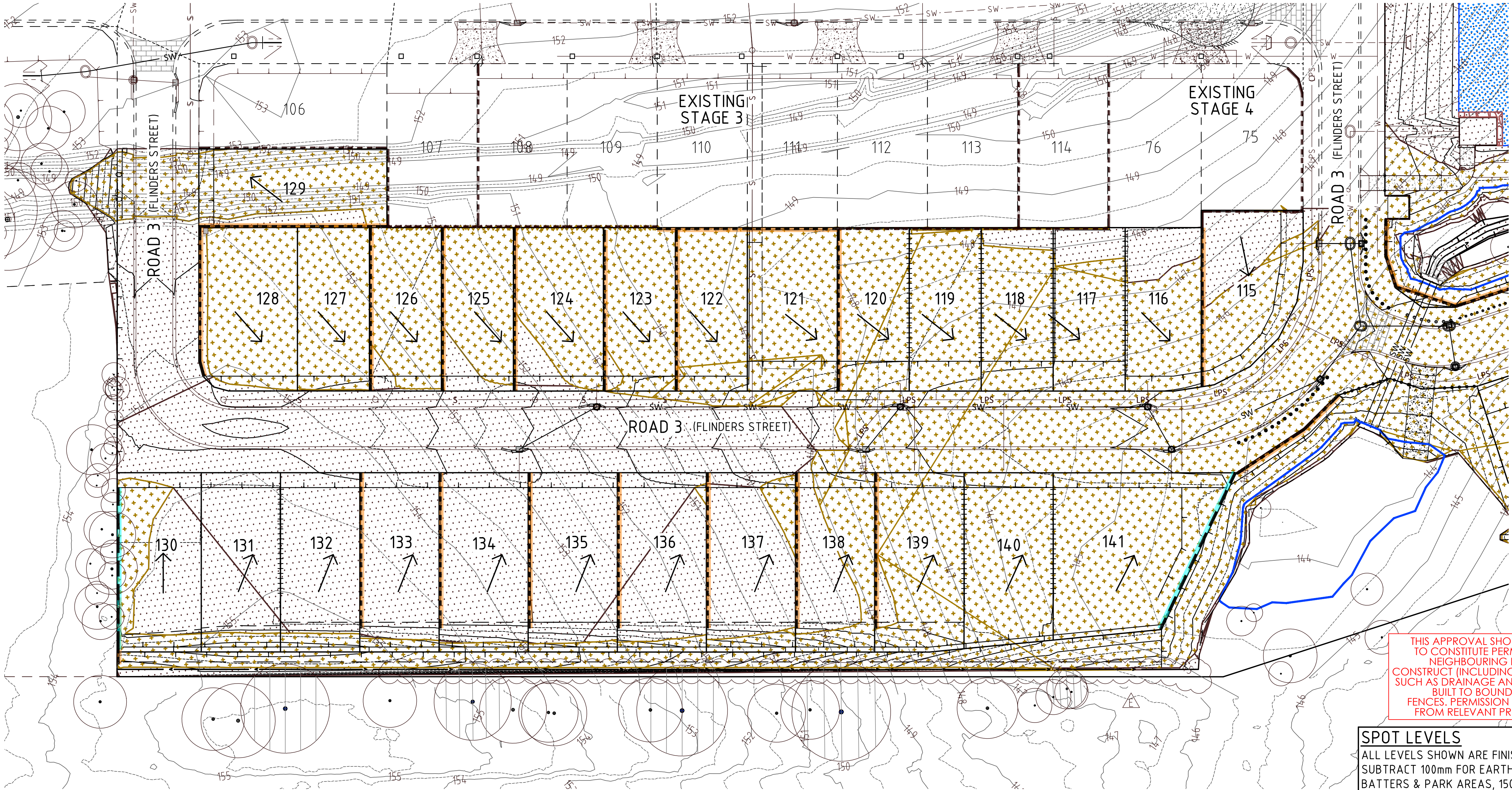
DETAILS:

JOB NO: M2584E_5
PLAN: L01 ISSUE: C
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: STAGING.DWG

16/12/2024 R:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\STAGING

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845



THIS APPROVAL SHOULD NOT BE TAKEN TO CONSTITUTE PERMISSION TO ENTER NEIGHBOURING PROPERTIES TO CONSTRUCT (INCLUDING ASSOCIATED WORKS SUCH AS DRAINAGE AND EXCAVATION) ANY BUILT TO BOUNDARY WALL OR FENCES. PERMISSION MUST BE OBTAINED FROM RELEVANT PROPERTY OWNERS.

LEGEND:

- EXISTING CONTOURS
- FINISHED CONTOURS
- PROPOSED KERB AND CHANNEL
- SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL)
- PAD LEVEL (PL) — PL 40.65
- PROPOSED FILLING
- PROPOSED EXCAVATION
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS
- BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)
- BATTER TO ALLOTMENT
- PROPOSED SEWERAGE LINE
- PROPOSED STORMWATER LINE
- PROPOSED ROOFWATER LINE
- PROPOSED LOW PRESSURE SEWERAGE LINE
- PROPOSED Q100 LINE

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

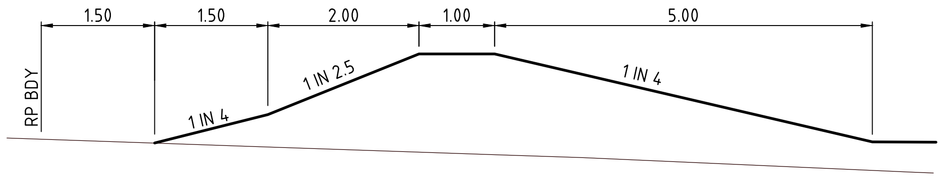
SPOT LEVELS

ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

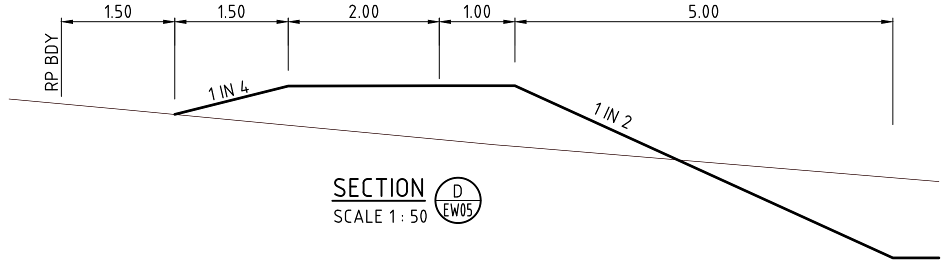
Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. If you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.



SECTION B (EW04)
SCALE 1 : 50



SECTION D (EW05)
SCALE 1 : 50

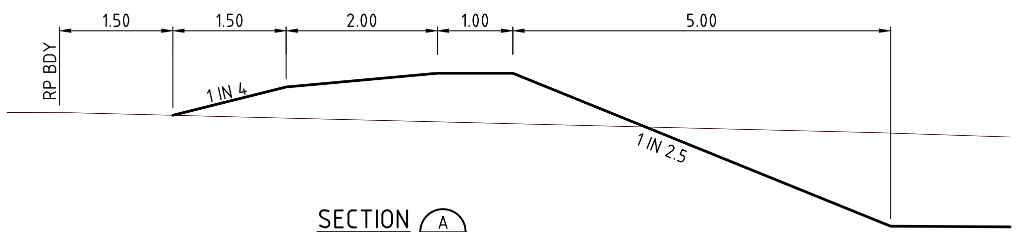
NOTE:

THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

RETAINING WALL CERTIFICATION

1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER & CONCRETE BLOCK RETAINING WALLS.
2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.

EPZ
Environmental Protection Zone
to be clearly demarcated onsite and protected in accordance with the conditions of approval.



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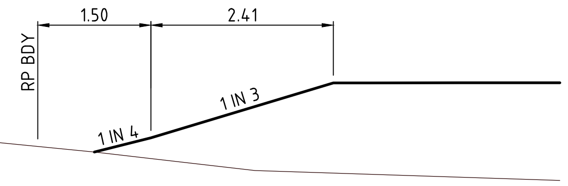

SECTION C (EW04)
SCALE 1 : 50

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

FOR NOTES AND DETAILS REFER DWG No.M2584E_5 EW07

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

SAFETY FENCE NOTE

STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

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ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:500 A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE — 0 5 10 15 20 25 (A1) 1:500 50 Metres (A3) 1:1000

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.McKINNEY RPEQ 5087 — A.FRASER RPEQ 5691 — J.PAPPAS RPEQ 6086 — S.MARSH RPEQ 8068 — H.WATSON RPEQ 6200

DESIGNED: CDV — DRAWN: WN — CHECKED: PNH — DATUM: AHD

ISSUE	DETAILS	DATE	INIT
E	CONCRETE SWALE REMOVED	21/10/24	FR
D	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
C	MINOR AMENDMENT	07/09/22	FR
B	LOT 128-148 EARTHWORKS AMENDED	27/06/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV

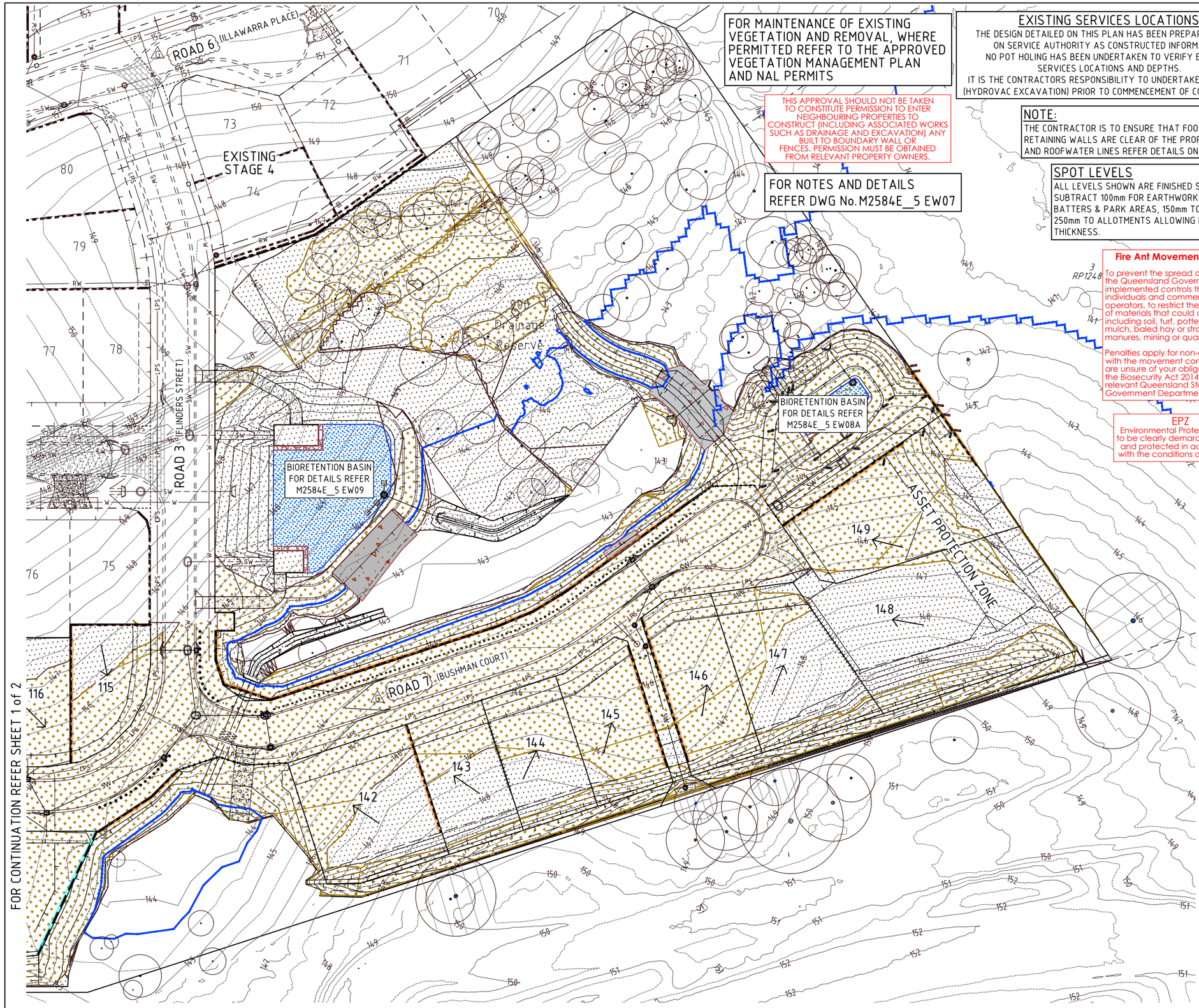
TITLE: EARTHWORKS LAYOUT PLAN - SHEET 1 OF 2

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

JOB NO: M2584E_5
PLAN: EW01 — ISSUE: E
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG



FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

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FOR NOTES AND DETAILS REFER DWG No.M2584E_5 EW07

EXISTING SERVICES LOCATIONS

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NOTE:

THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

SPOT LEVELS

ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. If you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

EPZ
Environmental Protection Zone to be clearly demarcated onsite and protected in accordance with the conditions of approval.

LEGEND:

- EXISTING CONTOURS — 32
- FINISHED CONTOURS — 32
- PROPOSED KERB AND CHANNEL
- SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL) — #19.05
- PAD LEVEL (PL) — PL40.65
- PROPOSED FILLING
- PROPOSED EXCAVATION
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS
- BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)
- BATTER TO ALLOTMENT
- PROPOSED SEWERAGE LINE — S
- PROPOSED STORMWATER LINE — SW
- PROPOSED ROOFWATER LINE — RW
- PROPOSED LOW PRESSURE SEWERAGE LINE — LPS
- PROPOSED Q100 LINE

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

SAFETY FENCE NOTE

STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

RETAINING WALL CERTIFICATION

1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER & CONCRETE BLOCK RETAINING WALLS.
2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.

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LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

H	BASIN 4 UPDATED	13/12/24	AKM
G	ROAD NAMES CHANGED	18/11/24	FR
F	SCOUR PROTECTION ON WEIRS & BASIN 4 WALL MODS	29/10/24	FR
E	CONCRETE SWALE REMOVED	21/10/24	FR
D	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
C	MINOR AMENDMENT	07/09/22	FR
B	LOT 128-148 EARTHWORKS AMENDED	27/06/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV
ISSUE:	DETAILS:	DATE:	INIT:

TITLE:
EARTHWORKS LAYOUT PLAN - SHEET 2 OF 2

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW02 ISSUE: H
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

THIS APPROVAL SHOULD NOT BE TAKEN TO CONSTITUTE PERMISSION TO ENTER NEIGHBOURING PROPERTIES TO CONSTRUCT (INCLUDING ASSOCIATED WORKS SUCH AS DRAINAGE AND EXCAVATION) ANY BUILT TO BOUNDARY WALL OR FENCES. PERMISSION MUST BE OBTAINED FROM RELEVANT PROPERTY OWNERS.

THE RETAINING WALL IS TO BE INCOPORATED INTO THE ACOUSTIC WALL WHERE APPLICABLE.
DTMR DESIGN REQUIREMENTS APPLY TO COMBINED RETAINING ACOUSTIC WALL.

SPOT LEVELS
ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

EXISTING SERVICES LOCATIONS
THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EXISTING STAGE 3

NOTE:
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

FOR NOTES AND DETAILS REFER DWG No.M2584E_5 EW07

SAFETY FENCE NOTE
STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

ROAD 3 (FLINDERS STREET)

FOR CONTINUATION REFER SHEET 2 of 4

LEGEND:
- EXISTING CONTOURS
- FINISHED CONTOURS
- PROPOSED KERB AND CHANNEL
- SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL)
- PAD LEVEL (PL) PL 40.65
- PROPOSED FILLING
- PROPOSED EXCAVATION
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS
- BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)
- BATTER TO ALLOTMENT
- PROPOSED SEWERAGE LINE
- PROPOSED STORMWATER LINE
- PROPOSED ROOFWATER LINE
- PROPOSED LOW PRESSURE SEWERAGE LINE
- PROPOSED Q100 LINE

TREE LEGEND
TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

Fire Ant Movement Controls
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Environmental Protection Zone
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RETAINING WALL CERTIFICATION
1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER & CONCRETE BLOCK RETAINING WALLS.
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PLANNERS · URBAN DESIGNERS · SURVEYORS · ENGINEERS · LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:250 at A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 · A.FRASER RPEQ 5691 · J.PAPPAS RPEQ 6086 · S.MARSH RPEQ 8068 · H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE	DETAILS	DATE	INIT
E	CONCRETE SWALE REMOVED	21/10/24	FR
D	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
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B	LOT 128-148 EARTHWORKS AMENDED	27/06/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV

TITLE:
EARTHWORKS DETAILS LAYOUT PLAN - SHEET 1 OF 4
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW03 ISSUE: E
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\M2584\DATA\E_S\DESIGN\WORKING\DRAWINGS\EARTHWORKS

NOTE:
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

FOR NOTES AND DETAILS REFER DWG No. M2584E_5 EW07

SPOT LEVELS
ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

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PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

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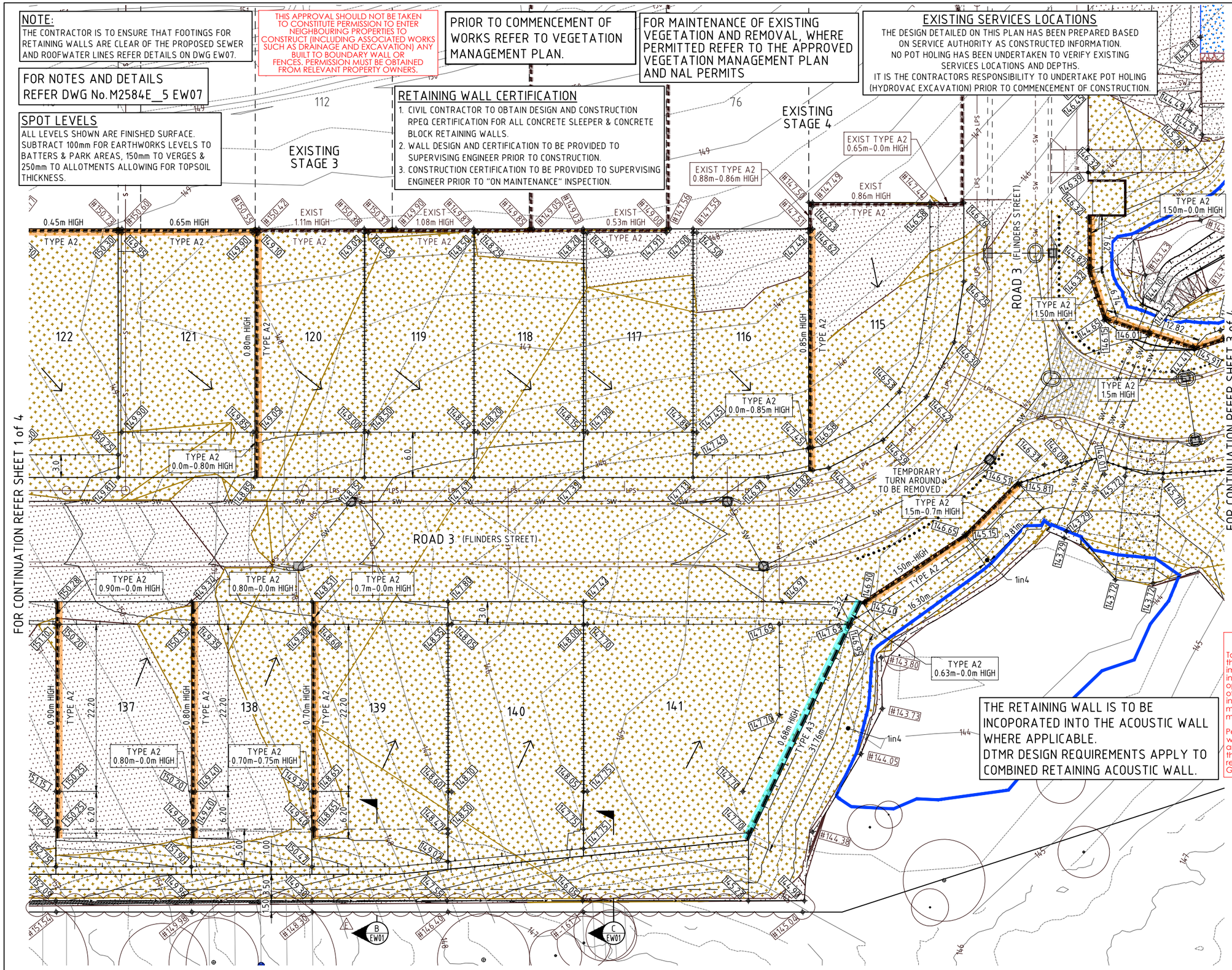

THE RETAINING WALL IS TO BE INCOPORATED INTO THE ACOUSTIC WALL WHERE APPLICABLE.
DTMR DESIGN REQUIREMENTS APPLY TO COMBINED RETAINING ACOUSTIC WALL.

LEGEND:

- EXISTING CONTOURS — 32
- FINISHED CONTOURS — 32
- PROPOSED KERB AND CHANNEL
- SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL) — #19.06
- PAD LEVEL (PL) — PL40.65
- PROPOSED FILLING
- PROPOSED EXCAVATION
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS
- BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)
- BATTER TO ALLOTMENT
- PROPOSED SEWERAGE LINE — S
- PROPOSED STORMWATER LINE — SW
- PROPOSED ROOFWATER LINE — RW
- PROPOSED LOW PRESSURE SEWERAGE LINE — LPS
- PROPOSED Q100 LINE

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

Fire Ant Movement Controls
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EPZ
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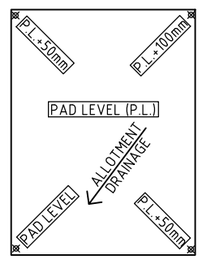

TYPICAL ALLOTMENT GRADING DETAIL
N.T.S.

SAFETY FENCE NOTE
STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

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PLANNERS
URBAN DESIGNERS
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LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:250 at A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.M°KINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

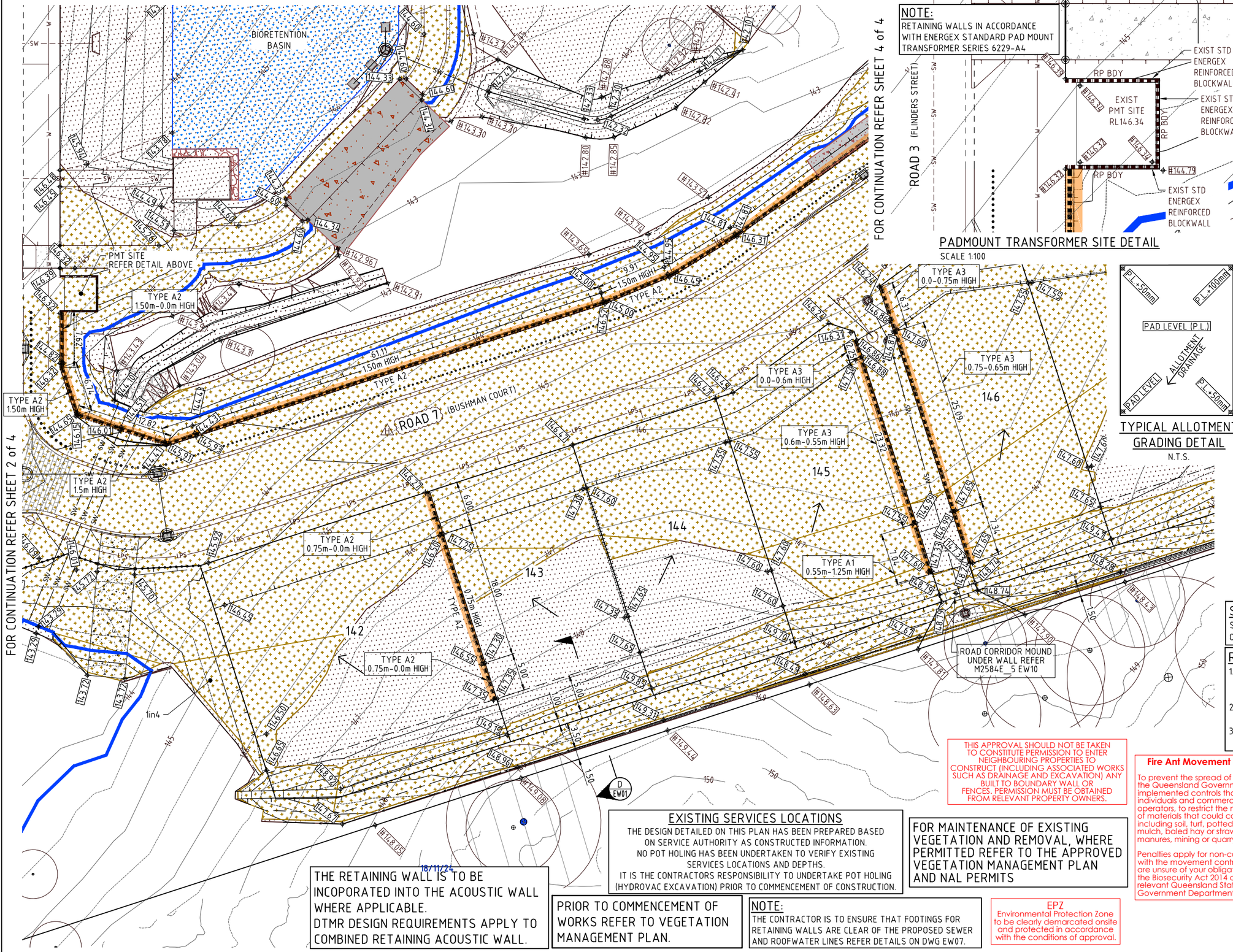
ISSUE:

ISSUE	DETAILS:	DATE:	INIT:
E	CONCRETE SWALE REMOVED	21/10/24	FR
D	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
C	MINOR AMENDMENT	07/08/22	FR
B	LOT 128-148 EARTHWORKS AMENDED	07/09/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV

TITLE:
EARTHWORKS DETAILS LAYOUT PLAN - SHEET 2 OF 4
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW04 ISSUE: E
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

16/12/2024 N:\M2584\DFAC_5\DESIGN\WORKING\DRAWINGS\EARTHWORKS



NOTE:
RETAINING WALLS IN ACCORDANCE WITH ENERGEX STANDARD PAD MOUNT TRANSFORMER SERIES 6229-A4

PADMOUNT TRANSFORMER SITE DETAIL
SCALE 1:100

TYPICAL ALLOTMENT GRADING DETAIL
N.T.S.

LEGEND:
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- FINISHED CONTOURS — 32
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- PROPOSED Q100 LINE

TREE LEGEND
- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
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RETAINING WALL CERTIFICATION
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2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.

SPOT LEVELS
ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

FOR NOTES AND DETAILS REFER DWG No.M2584E_5 EW07

THE RETAINING WALL IS TO BE INCOPORATED INTO THE ACOUSTIC WALL WHERE APPLICABLE.
DTMR DESIGN REQUIREMENTS APPLY TO COMBINED RETAINING ACOUSTIC WALL.
18/11/24

EXISTING SERVICES LOCATIONS
THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

THIS APPROVAL SHOULD NOT BE TAKEN TO CONSTITUTE PERMISSION TO ENTER NEIGHBOURING PROPERTIES TO CONSTRUCT (INCLUDING ASSOCIATED WORKS SUCH AS DRAINAGE AND EXCAVATION) ANY BUILT TO BOUNDARY WALL OR FENCES. PERMISSION MUST BE OBTAINED FROM RELEVANT PROPERTY OWNERS.

Fire Ant Movement Controls
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Penalties apply for non-compliance with the movement controls. if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

NOTE:
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

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Environmental Protection Zone
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APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.M^cKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 J.PAPPAS RPEQ 6086
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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
H	ROAD NAMES CHANGED	18/11/24	FR
G	SCOUR PROTECTION ON WEIRS & BASIN 4 WALL MODS	29/10/24	FR
F	CONCRETE SWALE REMOVED	21/10/24	FR
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B	LOT 128-148 EARTHWORKS AMENDED	27/06/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV

TITLE:
EARTHWORKS DETAILS LAYOUT PLAN - SHEET 3 OF 4
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW05 ISSUE: H
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

16/12/2024 N:\M2584E\STAGE_5\DESIGN\WORKING\DRAWINGS\EARTHWORKS

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

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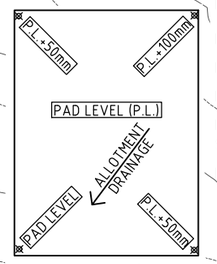

TYPICAL ALLOTMENT GRADING DETAIL

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FOR NOTES AND DETAILS REFER DWG No. M2584E_5 EW07

SAFETY FENCE NOTE

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FOR CONTINUATION REFER SHEET 3 of 4

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APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 — A.FRASER RPEQ 5691 — J.PAPPAS RPEQ 6086
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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

H	BASIN 4 UPDATED	13/12/24	AKM
G	ROAD NAMES CHANGED	18/11/24	FR
F	SCOUR PROTECTION ON WEIRS & BASIN 4 WALL MODS	29/10/24	FR
E	CONCRETE SWALE REMOVED	21/10/24	FR
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B	LOT 128-148 EARTHWORKS AMENDED	27/06/22	CDV
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV
ISSUE:	DETAILS:	DATE:	INIT:

TITLE:
EARTHWORKS DETAILS LAYOUT PLAN - SHEET 4 OF 4
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW06 ISSUE: H
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

EARTHWORKS NOTES

1. ALL LOTS TO BE FREE DRAINING TO ROOFWATER DRAINAGE OR ROADWAY.

CLEARING AND GRUBBING

2. ANY CLEARING REQUIRED TO BE UNDERTAKEN BY THE CONTRACTOR IS TO BE STRICTLY IN ACCORDANCE WITH THE COUNCIL APPROVED VEGETATION MANAGEMENT PLAN, INCLUDING THE LIMITS OF ALLOWABLE CLEARING, TREE PROTECTION REQUIREMENTS AND THE USE OF A FAUNA SPOTTER/CATCHER, AS SPECIFIED.
3. UNLESS OTHERWISE SPECIFIED OR DIRECTED, THE AREA TO BE CLEARED IS THAT REQUIRED BY SITE REGRADING WORKS, INCLUDING THE AREA OCCUPIED BY THE COMPLETED ROAD FORMATION AND ASSOCIATED DRAINAGE WORKS AND EROSION AND SEDIMENTATION MEASURES, THE CONTRACTOR SHALL ENSURE THAT ONLY THE ABSOLUTE MINIMUM AREA FOR CONSTRUCTION IS CLEARED.
4. THE AREA WITHIN THE LIMITS OF CLEARING SHALL BE CLEARED OF ALL VEGETATION, BOTH LIVING AND DEAD, ALL MINOR MAN-MADE STRUCTURES (SUCH AS FENCES, BUILDING MATERIAL AND EXISTING DRIVEWAYS), ALL RUBBISH AND OTHER MATERIALS WHICH, IN THE OPINION OF THE SUPERINTENDENT, ARE UNSUITABLE FOR USE IN THE WORKS WITH THE EXCEPTION OF CERTAIN TREES MARKED FOR PRESERVATION.
5. ALL TREES AND STUMPS ON OR WITHIN THE LIMITS OF CLEARING, THAT ARE TO BE REMOVED BY GRUBBING OPERATION SHALL BE CARRIED OUT TO A DEPTH OF 0.5m BELOW THE NATURAL SURFACE OR 1.5 METRES BELOW THE FINISHED SURFACE LEVEL, WHICHEVER IS THE LOWER.

TOPSOIL

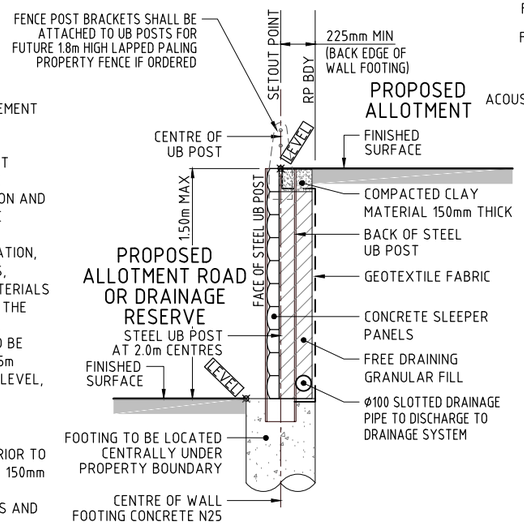
6. ALL TOPSOIL ON ROADWORKS AREAS SHALL BE STRIPPED AND STOCKPILED PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS OPERATIONS. A TOPSOIL DEPTH OF 150mm HAS BEEN USED TO DETERMINE TOPSOIL AND EARTHWORK QUANTITIES. THE CONTRACTOR IS TO SATISFY HIMSELF OF THE ACCURACY OF THESE QUANTITIES AND TO MAKE ANY NECESSARY ALLOWANCE IF HE DISAGREES WITH QUANTITIES.

EARTHWORKS

7. EARTHWORKS ARE TO BE IN ACCORDANCE WITH AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" (LATEST ISSUE - INCLUDING ALL AMENDMENTS).
8. ALL FILLING SHALL BE COMPLETED TO A LEVEL 1 ARRANGEMENT, UNDER THE SUPERVISION OF THE CONTRACTOR'S APPOINTED GEOTECHNICAL ENGINEER.
9. THE EARTHWORKS QUANTITIES FOR ROADWORKS ARE CALCULATED USING THE MINIMUM ALLOWABLE TOTAL PAVEMENT THICKNESS (NOMINAL PAVEMENT). VARIATIONS TO THE PAVEMENT DEPTHS WILL BE PAYABLE AT THE RATES SHOWN IN THE PRICED SCHEDULE OF RATES.
10. "CUT" AND "FILL" QUANTITIES HAVE BEEN CALCULATED TO THE UNDERSIDE OF THE TOPSOIL LAYER.
11. ALL EARTHWORK QUANTITIES HAVE BEEN CALCULATED AND BILLED IN THE CONTRACT AS "NETT" QUANTITIES, THAT IS NO ALLOWANCE FOR BULKING OR COMPACTION HAS BEEN MADE.
12. ALL FILL PLACED ON THIS SITE IS TO COMPRISE OF ONLY NATURAL EARTH AND ROCK AND IS TO BE FREE OF ALL CONTAMINANTS (REFER TO THE ENVIRONMENTAL PROTECTION ACT 1994 SECTION 11.), NO DEMOLITION MATERIAL IS TO BE USED.

ALLOTMENT FILLING COMPACTION/TESTING

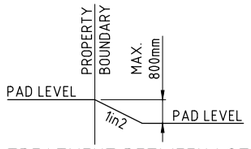
13. MATERIAL TO BE PLACED IN 300mm(MAXIMUM) LAYERS AND COMPACTED TO A MINIMUM OF 95% AS. 1289(STANDARD) OF THE MAXIMUM DRY DENSITY.THE INSITU DENSITY OF THE FILL MATERIAL SHALL BE TESTED AT THE RATE OF ONE LOCATION PER ALLOTMENT AT THE FOLLOWING INTERVALS
    - TOTAL DEPTH LESS THAN 300mm: -NO TEST REQUIRED
    - TOTAL DEPTH OF FILL 300mm - 600mm: -ONE(1) TEST PER ALLOTMENT
    - TOTAL DEPTH EXCEEDING 600mm: -ONE(1) TEST IN THE FIRST LAYER THEN -ONE(1) TEST ON EACH ALTERNATIVE LAYER PLACED OVER THE FIRST LAYER



TYPICAL SECTION - TYPE A
CONCRETE SLEEPER/UB POST RETAINING WALL

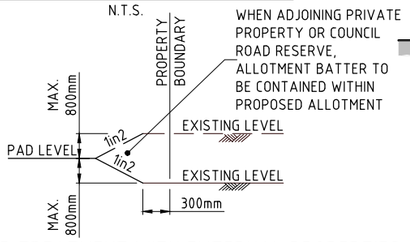
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



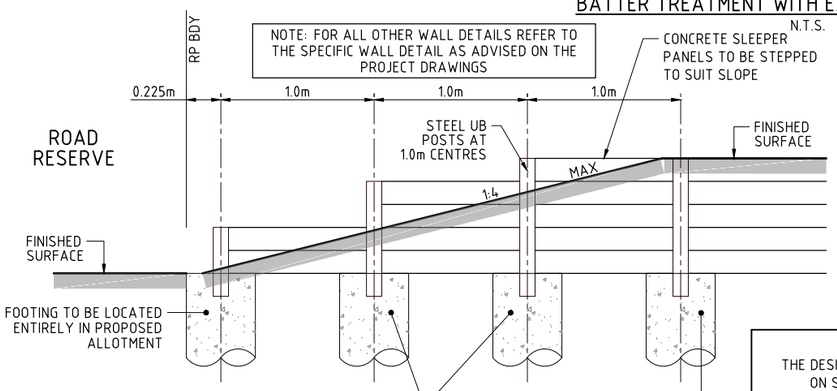
BATTER TREATMENT BETWEEN LOTS

N.T.S.



BATTER TREATMENT WITH EXTERNAL PROPERTIES

N.T.S.



TYPICAL END OF SLEEPER WALL DETAIL BETWEEN INTERNAL ADJACENT LOTS

SCALE 1:20

Fire Ant Movement Controls

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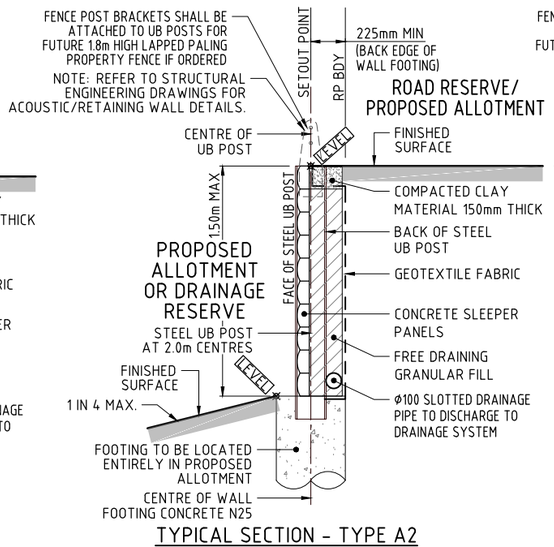
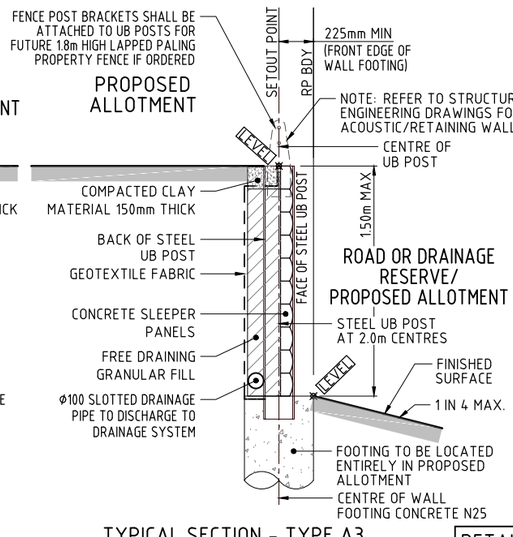


TYPICAL SECTION - TYPE A2
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE A3
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

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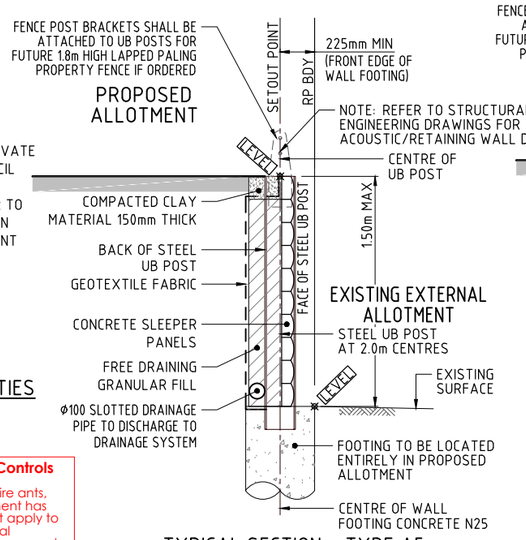
FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

NOTE:
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

RETAINING WALL CERTIFICATION

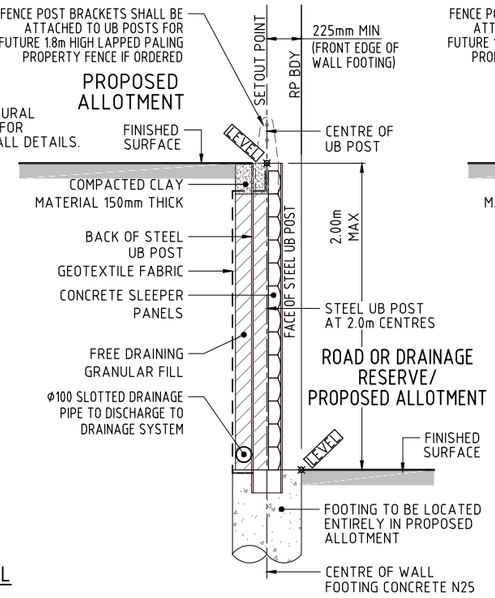
1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER & CONCRETE BLOCK RETAINING WALLS.
2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.



TYPICAL SECTION - TYPE A5
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

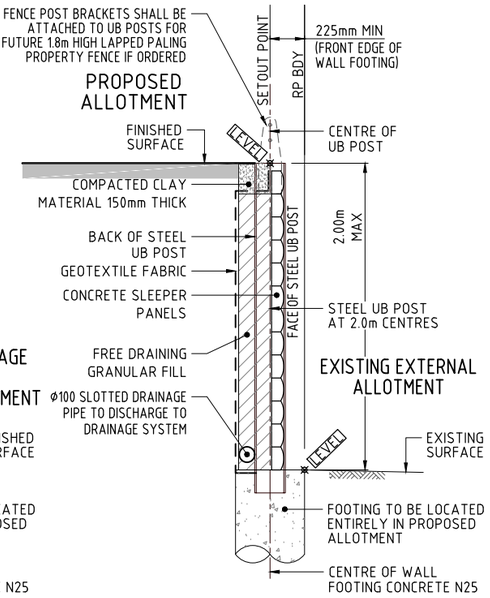
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE B3
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE B5
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

NOTE: REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR ACOUSTIC/RETAINING WALL DETAILS.

SAFETY FENCE NOTE

STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 (A1) — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.M^cKINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086 | S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

D	MINOR AMENDMENT	21/10/24	FR
C	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
B	MINOR AMENDMENT	07/09/22	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV
ISSUE:	DETAILS:	DATE:	INIT:

TITLE:
EARTHWORKS DETAILS & NOTES PLAN SHEET 1 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

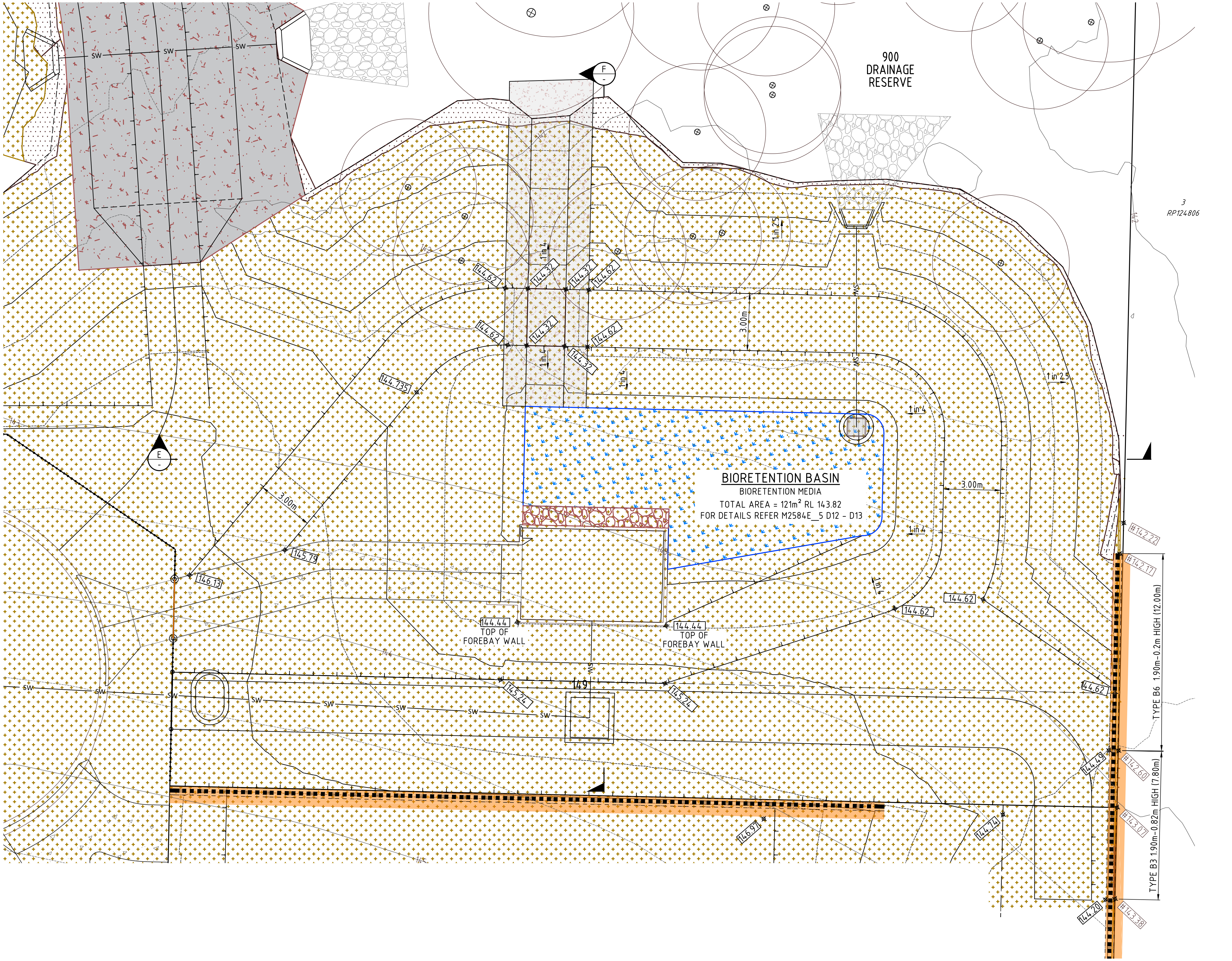
DENNIS FAMILY CORPORATION

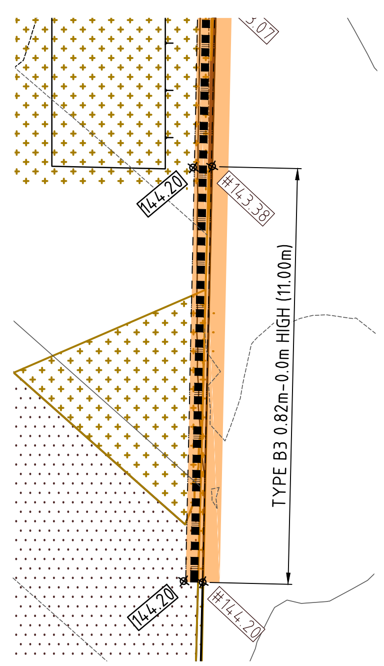
DETAILS:
JOB NO: M2584E_5
PLAN: EW07 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\EARTHWORKS

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845





LEGEND:

EXISTING CONTOURS	32
FINISHED CONTOURS	32
PROPOSED KERB AND CHANNEL	
SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL)	19.06
PAD LEVEL (PL)	PL40.65
PROPOSED FILLING	
PROPOSED EXCAVATION	
PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL	
PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS	
BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)	
BATTER TO ALLOTMENT	
PROPOSED SEWERAGE LINE	S
PROPOSED STORMWATER LINE	SW
PROPOSED ROOFWATER LINE	RW
PROPOSED LOW PRESSURE SEWERAGE LINE	LPS
PROPOSED Q100 LINE	

NOTE:
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

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PLANNERS
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ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:100 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 10 Metres (A1) 1:100 (A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
F	BASIN 4 UPDATED	13/12/24	AKM
E	BASIN 4 WALL MODS & OUTLET HEADWALL ADDED	29/10/24	FR
D	MINOR AMENDMENT	21/10/24	FR
C	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
B	MINOR AMENDMENT	07/09/22	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	##/##/##	CDV

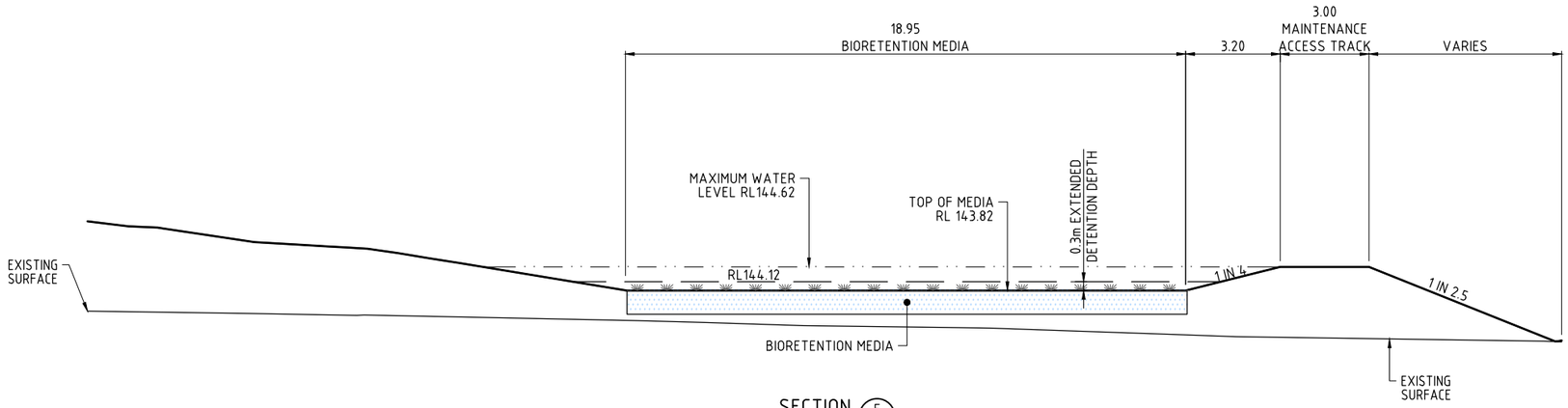
TITLE:
EARTHWORKS BIORETENTION BASIN 4 LAYOUT PLAN & DETAILS

DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

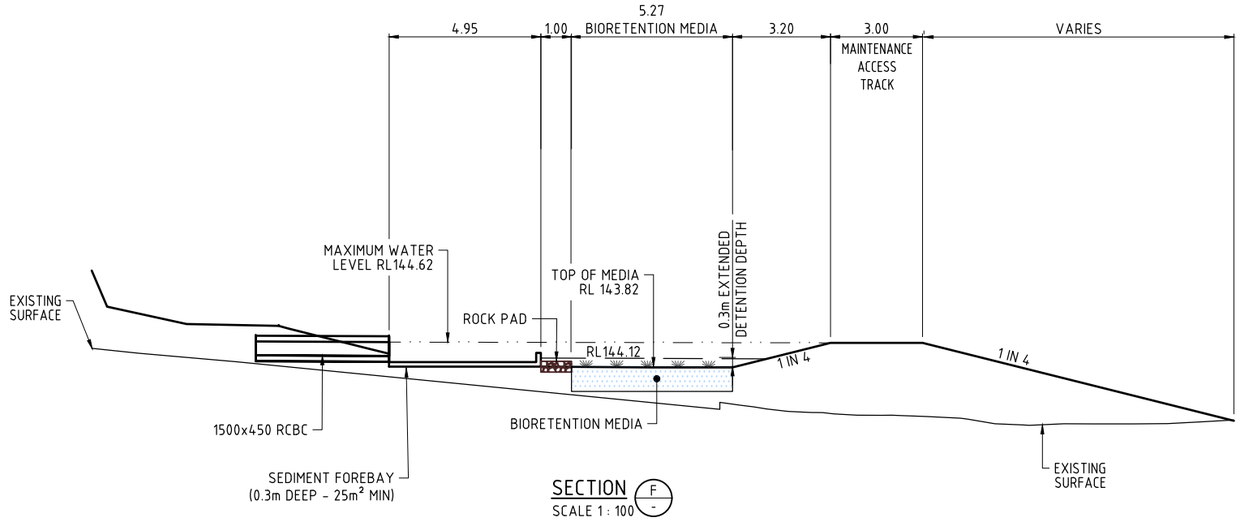
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW08A ISSUE: F
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\EARTHWORKS



SECTION E
SCALE 1 : 100



SECTION F
SCALE 1 : 100

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ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE:
1:100
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
13/12/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	AM
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	13.12.24	AM

TITLE:
EARTHWORKS BIORETENTION LAYOUT PLAN & DETAILS
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW08B ISSUE: A
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

10/12/2024 N:\M2584\STAGE_5\SUSHI\WORKING DRAWINGS\EARTHWORKS

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NAL PERMITS

RETAINING WALL CERTIFICATION

1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER & CONCRETE BLOCK RETAINING WALLS.
2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.

SAFETY FENCE NOTE

STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

FOR NOTES AND DETAILS REFER DWG No. M2584E_5 EW07

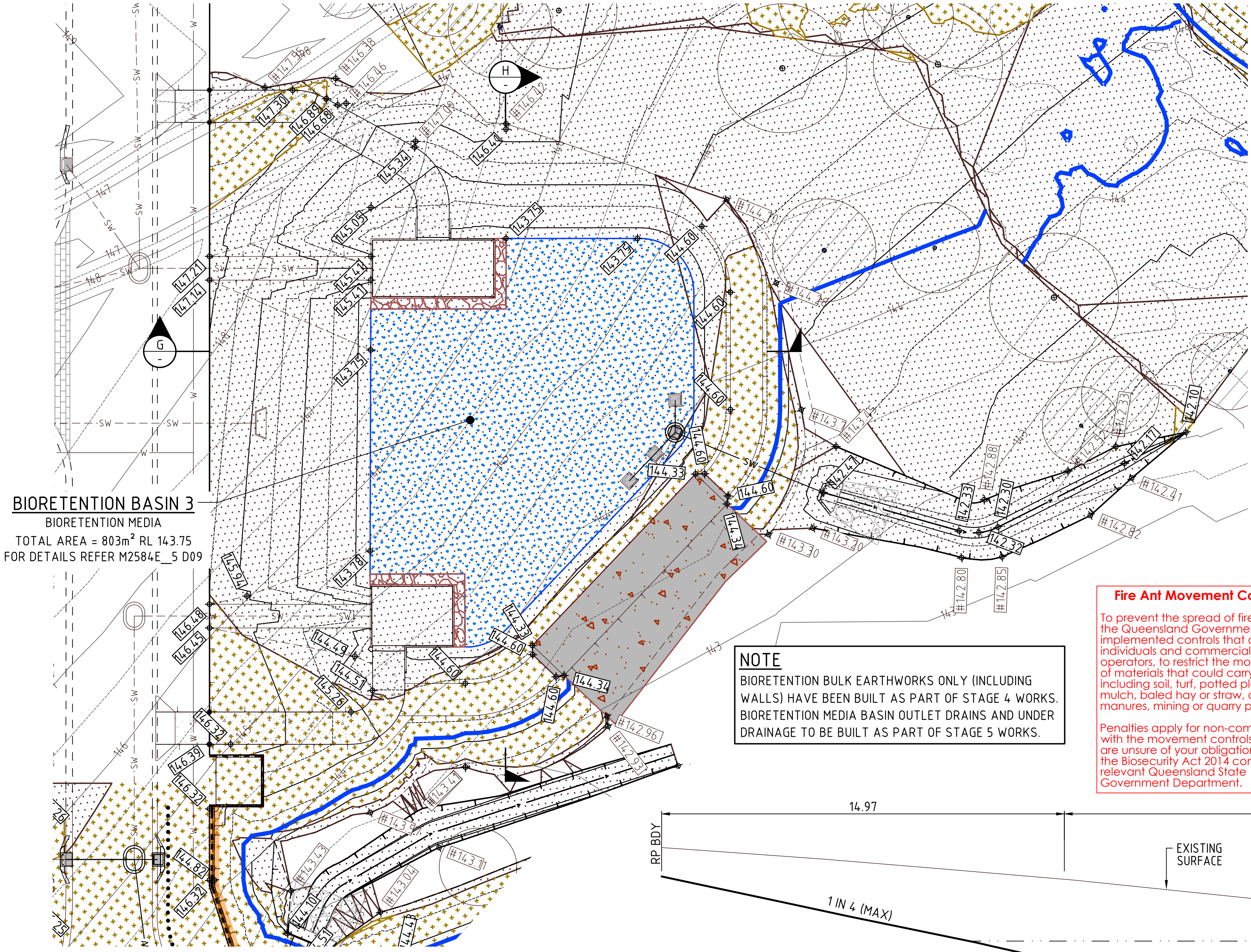
SPOT LEVELS

ALL LEVELS SHOWN ARE FINISHED SURFACE. SUBTRACT 100mm FOR EARTHWORKS LEVELS TO BATTERS & PARK AREAS, 150mm TO VERGES & 250mm TO ALLOTMENTS ALLOWING FOR TOPSOIL THICKNESS.

REFER TO LANDSCAPE DRAWINGS FOR DETAILS OF FENCES ABOVE RETAINING WALLS

LEGEND:

- EXISTING CONTOURS
- FINISHED CONTOURS
- PROPOSED KERB AND CHANNEL
- SPOT LEVELS (#19.62 DENOTES NATURAL SURFACE LEVEL)
- PAD LEVEL (PL) — PL 40.65
- PROPOSED FILLING
- PROPOSED EXCAVATION
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL
- PROPOSED UB POST/CONCRETE SLEEPER RETAINING WALL INTEGRATED WITH AF AS PER DTMR REQUIREMENTS
- BATTER BETWEEN ALLOTMENTS (at 1 in 2 max.)
- BATTER TO ALLOTMENT
- PROPOSED SEWERAGE LINE
- PROPOSED STORMWATER LINE
- PROPOSED ROOFWATER LINE
- PROPOSED LOW PRESSURE SEWERAGE LINE
- PROPOSED Q100 LINE



DETAIL

SCALE 1 : 250

NOTE

BIORETENTION BULK EARTHWORKS ONLY (INCLUDING WALLS) HAVE BEEN BUILT AS PART OF STAGE 4 WORKS. BIORETENTION MEDIA BASIN OUTLET DRAINS AND UNDER DRAINAGE TO BE BUILT AS PART OF STAGE 5 WORKS.

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

EPZ
Environmental Protection Zone to be clearly demarcated onsite and protected in accordance with the conditions of approval.

RPEQ DESIGNED SHORING SYSTEM TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS ON SITE.

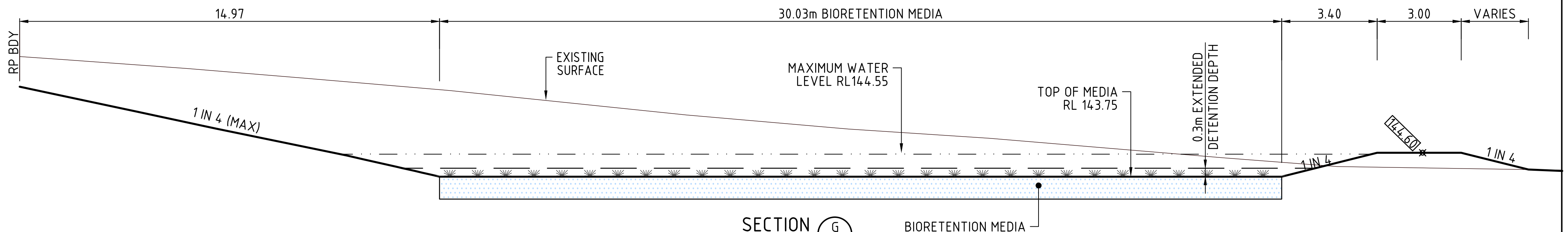
CONTRACTOR TO ENSURE EXCAVATION FACE ADJACENT TO BOUNDARY IS IN A STABLE STATE AT ALL TIMES DURING CONSTRUCTION.

CONTRACTOR TO ENSURE NO DAMAGE OCCURS TO ADJOINING PROPERTY DURING WORKS.

NOTE:

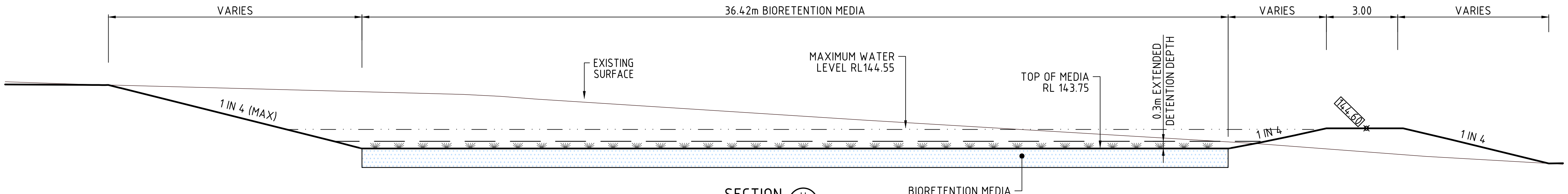
THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES REFER DETAILS ON DWG EW07.

THIS APPROVAL SHOULD NOT BE TAKEN TO CONSTITUTE PERMISSION TO ENTER NEIGHBOURING PROPERTIES TO CONSTRUCT (INCLUDING ASSOCIATED WORKS SUCH AS DRAINAGE AND EXCAVATION) ANY BUILT TO BOUNDARY WALL OR FENCES. PERMISSION MUST BE OBTAINED FROM RELEVANT PROPERTY OWNERS.



SECTION G

SCALE 1 : 100



SECTION H

SCALE 1 : 100

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URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 50 Metres
(A1) 1:500
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

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DESIGNED	CDV			
DRAWN	WN			
CHECKED	PNH			
DATUM: AHD				

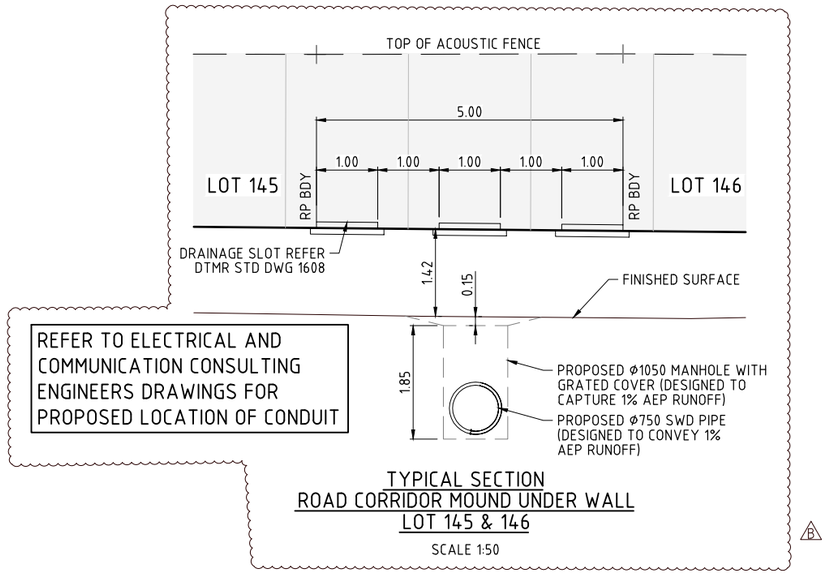
ISSUE	DETAILS	DATE	INIT
C	SCOUR PROTECTION ON WEIR & AT SW HEADWALLS	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
EARTHWORKS BIORETENTION BASIN 3
LAYOUT PLAN & DETAILS

DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

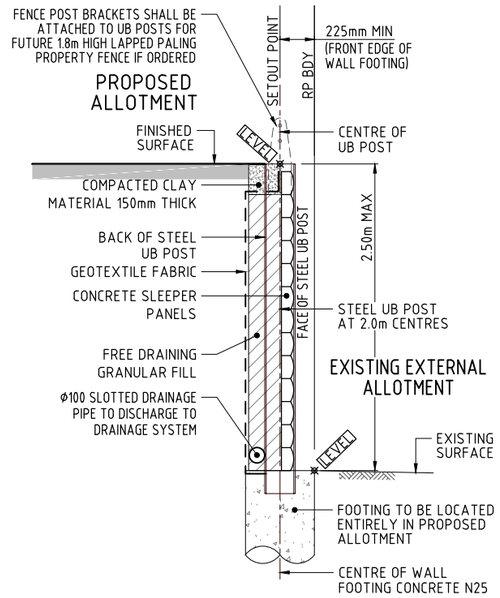
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW09
ISSUE: C
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG



TYPICAL SECTION
ROAD CORRIDOR MOUND UNDER WALL
LOT 145 & 146

SCALE 1:50



TYPICAL SECTION – TYPE B6
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE

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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE:
1:50
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 0.5 1 1.5 2 2.5 (A1) 1:50 5 Metres
(A3) 1:100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
21/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087
A.FRASER RPEQ 5691
J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068
H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	MINOR AMENDMENT	21/10/24	FR
A	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	07/08/24	CDV

TITLE:
EARTHWORKS DETAILS & NOTES PLAN
SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: EW10
ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: EARTHWORKS.DWG

16/12/2024 N:\M2584\SHARE_S\DESIGN\WORKING DRAWINGS\EARTHWORKS

ROADWORKS NOTES

1. ALL DIMENSIONS ON THE DRAWINGS ARE IN METRES UNLESS SHOWN OTHERWISE.
2. ALL TURNOUT RADII ARE TO THE LIP OF THE CHANNEL.
3. LENGTH AND LOCATION OF MITRE DRAINS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT.
4. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT MORETON BAY REGIONAL COUNCIL STANDARDS AND STANDARD DRAWINGS UNLESS DIRECTED OTHERWISE.
5. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING SERVICES WITH ALL RELEVANT AUTHORITIES BEFORE COMMENCING CONSTRUCTION. ANY COSTS ASSOCIATED WITH REPAIRING DAMAGE TO EXISTING SERVICES SHALL BE PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL ERECT TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE RELEVANT AUTHORITY SPECIFICATIONS.
7. SUB-BASE GRAVEL COMPACTED TO 95% AS1289 (MODIFIED) AND OF MINIMUM THICKNESS 75mm SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm (MIN.) BEHIND THE KERB.
8. NBN TO RECEIVE 3 WEEKS NOTICE BEFORE INSTALLATION OF CONDUITS.
9. THE CONTRACTOR SHALL VERIFY OFFSET PEG LOCATIONS AND BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE THE COMMENCEMENT OF CONSTRUCTION.
10. KERB AND CHANNEL TO BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD. DWG. RS-080.
11. SIDE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD DRAWINGS RS-140 AND 142.
    a. TRIMMING AND COMPACTION OF SUBGRADE IS TO BE COMPLETED AND APPROVED BEFORE SUBSOIL DRAINS AND SERVICE CONDUITS ARE CONSTRUCTED. THE TRENCHES SHALL THEN BE EXCAVATED, AND THE EXCAVATED MATERIAL PLACED ON THE FOOTPATH AND NOT THE SUBGRADE.
    b. WHERE SUBSOIL DRAINS PASS UNDER SERVICE CONDUITS, THE SIDE DRAINS ARE TO BE DEEPENED AND GRADED OUT TO A NORMAL DEPTH AT A MINIMUM GRADE OF 1:250.
    c. IN DISPERSIVE, SOLUBLE OR FINE GRAINED SOILS, THE DEVELOPER'S REPRESENTATIVE IS TO EVALUATE WHETHER GEOFABRIC WRAPPED SUBSOIL DRAINS ARE REQUIRED. WHERE GEOFABRIC WRAPPED SUBSOIL DRAINS ARE PROPOSED THE DEVELOPER'S REPRESENTATIVE IS TO PROVIDE DETAILS FOR APPROVAL BY COUNCIL'S NOMINATED REPRESENTATIVE.
    d. ROAD SUBSOIL DRAINAGE MUST BE 'DAYLIGHTED' AND DISCHARGED TO AN APPROVED LEGAL POINT OF DISCHARGE. CAPS ARE TO BE PROVIDED TO UPSTREAM ENDS OF SUBSOIL DRAINS.
12. EACH PAVEMENT COURSE SHOULD NOT BE COMMENCED UNTIL THE PREVIOUS COURSE HAS BEEN INSPECTED AND APPROVED AND CERTIFIED BY THE CONSULTANT WITH RESPECT TO COMPACTION, FINISHED LEVELS AND TEXTURE OF FINISH. COMPACTION TESTS OF EACH LAYER ARE REQUIRED BEFORE PROCEEDING TO THE NEXT LAYER. ALL TEST RESULTS ARE TO BE PROVIDED TO COUNCIL'S NOMINATED REPRESENTATIVE PRIOR TO SURFACING.
13. SUBGRADE IS TO BE TRIMMED TO AN EVEN SURFACE FREE FROM LOOSE MATERIAL AND GRADED TO BE FREE-DRAINING. UNSUITABLE MATERIAL SUCH AS ORGANIC MATTER IS TO BE REMOVED. SUBGRADE AFFECTED BY RAINFALL AFTER FINAL TRIMMING SHALL NOT BE ACCEPTED UNTIL APPROPRIATE DRYING OUT TREATMENT HAS BEEN AFFECTED.
14. UNBOUND PAVEMENT COURSE MATERIAL IS TO BE PLACED ONLY ON UNDERLYING LAYERS MAINTAINED AT THE CORRECT MOISTURE CONTENT. PREPARED SUBGRADES AND PRECEDING LAYERS OF BASE COURSE SHALL BE MOISTENED IMMEDIATELY PRIOR TO SPREADING THE NEXT COURSE. PAVEMENT MATERIAL IS TO BE MAINTAINED AT THE SPECIFIED MOISTURE CONTENT PRIOR TO AND DURING SPREADING. THE LEADING EDGES OF THE PAVEMENT MATERIAL ARE TO BE KEPT MOIST. MINIMUM COMPACTED LAYER THICKNESS SHALL BE 100 MILLIMETRES AND MAXIMUM COMPACTED THICKNESS SHALL BE 150mm.
15. PRAM RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD DWG PC-2101A

CONCRETE PATHWAYS

CONCRETE PATHWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEA STD DWG RS-065

PAVEMENT DEPTH VERIFICATION

PAVEMENT DEPTHS SHALL BE VERIFIED BY THE PROVISION OF AS CONSTRUCTED LEVELS OF THE SUBGRADE AND PRE-SEAL STAGE (OR TOP OF KERB IF INSTALLED) AT A FREQUENCY OF THREE (3) LEVELS (RIGHT HAND SIDE, CENTRE AND LEFT HAND SIDE) EVERY 50 METRES. THE SURVEYED INFORMATION IS TO BE PROVIDED IN A TABULATED FORMAT AND IS TO BE CERTIFIED BY BOTH THE SURVEYOR AND CONSULTING ENGINEER PROVIDED WITH ON MAINTENANCE SUBMISSION.

SUBGRADE TESTING

A DESIGN CALIFORNIA BEARING RATION (CBR) IS TO BE DETERMINED FOR EACH IDENTIFIABLE UNIT DEFINED ON THE BASIS OF TOPOGRAPHY, GEOLOGICAL AND DRAINAGE CONDITION OF THE SITE. THE FOUR DAY SOAKED CBR AT A COMPACTION OF 100% STANDARD COMPACTION IS TO BE THE STANDARD TEST. TESTS ARE TO BE CARRIED OUT IN A NATA REGISTERED LABORATORY (NATIONAL ASSOCIATION OF TESTING AUTHORITIES). THE SAMPLING IS TO BE RANDOMLY LOCATED WITHIN EACH LENGTH OF THE PROPOSED ROADWAY WITH CONSTANT SUBGRADE MATERIAL. IT IS REQUIRED THAT A MINIMUM OF 1 TEST PER MATERIAL TYPE BE CARRIED OUT. THE LOCATION OF MATERIAL TYPE VARIANCES ARE TO BE DETAILED IN ACCORDANCE WITH SAMPLE TEST AND ADJOINING LOT. THE SAMPLES SHALL BE TAKEN GENERALLY IN THE POSITION OF THE OUTER WHEEL PATH ON BOTH SIDES OF THE PROPOSED ROAD. A SKETCH PLAN SHOWING THE LOCATION OF ALL TESTS IS TO BE SUBMITTED WITH THE TEST RESULTS.

ACCESS ROUTES.

THE CONTRACTOR MAY BE REQUIRED, FROM TIME TO TIME, DURING THE PERIOD OF CONSTRUCTION, TO CLEAN THOSE PARTS OF THE ACCESS ROUTE TO THE SITE THAT MAY BE AFFECTED BY ANY MATERIAL DROPPED, DEPOSITED OR SPILLED ON THE ROADS AS A RESULT OF CONSTRUCTION PROCESSES ASSOCIATED WITH THE SITE. ALL CONSTRUCTION TRAFFIC TO THE SUBJECT PROPERTY SHALL BE ACCESSED VIA BRISBANE ROAD.

DRIVEWAY NOTES:

ALL CONCRETE DRIVEWAYS ARE TO BE 3.0M. WIDE U.N.O., 125mm. THICK WITH F72 MESH, 50mm TOP COVER, ON A 75mm. THICK CBR15 GRAVEL BASE.
THE CONTRACTOR IS TO ENSURE THAT ALL SERVICE CONDUITS ARE IN PLACE BEFORE POURING THE DRIVEWAYS.
THE BACK OF KERB AND CHANNEL IS TO BE CUT DOWN AT ALL DRIVEWAY ENTRANCES.
THE EXACT LOCATION AND EXTENT OF THE DRIVEWAY WILL BE DETERMINED ON SITE BY THE SUPERVISING ENGINEER.

COMPACTION TESTING AND FREQUENCY

DETERMINATION OF THE COMPACTION PERFORMANCE OF THE SUBGRADE AND PAVEMENT GRAVEL MATERIALS -LABORATORY REFERENCE DENSITY, FIELD DENSITY, OPTIMUM MOISTURE CONTENT, FIELD MOISTURE CONTENT -SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1289 METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES, IN PARTICULAR THE E SERIES TESTS. THE LABORATORY REFERENCE DENSITY SHALL BE:

- NATURAL SUBGRADE - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT UPPER AND LOWER SUB BASE LAYERS - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT BASE LAYER - 100% STANDARD MAXIMUM DRY DENSITY (MDD)

THE MINIMUM FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH COUNCIL'S PLANNING SCHEME POLICY OPERATIONAL WORKS INSPECTIONS, MAINTENANCE AND BONDING PROCEDURES. PLANNING SCHEME POLICY - INTEGRATED DESIGN - PAGE 45 OF 60.

A MINIMUM OF THREE (3) TESTS PER PROJECT WILL BE REQUIRED. A SKETCH PLAN SHOWING THE LOCATION OF THE TESTS IS TO BE SUBMITTED WITH THE RESULTS. ALL TESTS ARE TO BE DISTRIBUTED REASONABLY EVENLY THROUGH THE FULL DEPTH AND AREA OF PAVEMENT.

SURFACING

1. IN URBAN AND RURAL RESIDENTIAL AREAS, THE ASPHALTIC CONCRETE (A.C.) SURFACING THICKNESS IS TO BE:
   - 30mm (BCC TYPE 2) ON ACCESS TYPE STREETS AND LANEWAYS WITH TRAFFIC VOLUMES LESS THAN 4×10^5;
   - 50mm (BCC TYPE 3) FOR ARTERIAL AND SUB ARTERIAL ROADS; AND
   - 40mm (BCC TYPE 3) FOR ALL OTHER STREETS.

   IN COMMERCIAL AND INDUSTRIAL AREAS THE MINIMUM A.C. SURFACING THICKNESS IS TO BE 40mm.
2. WHERE STENCILED OR PATTERNED SURFACE TREATMENTS ARE PROPOSED AN ADDITIONAL 10mmSHALL BE ADDED TO THE DESIGN THICKNESS OF THE SURFACING. THE A.C. BINDER TYPE IS TO BE IN ACCORDANCE WITH AUSTROADS.
3. A.C. SURFACINGS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH BRISBANE CITY COUNCIL STANDARDS (BCC S310 SUPPLY OF DENSE GRADED ASPHALT AND S320 LAYING OF ASPHALT).
4. PRIMERS SEALS ARE REQUIRED TO BE PLACED UNDER ALL ASPHALT SURFACES. PRIMER SEALS SHALL CONSIST OF CUTBACK BITUMEN (AMC4) OR BITUMEN EMULSION TO MAIN ROADS SPECIFICATION (MRTS 11 SPRAYED BITUMINOUS SURFACINGS EXCLUDING EMULSIONS) AND MRTS 12 SPRAYED BITUMINOUS EMULSION SURFACINGS) WITH 10MM AGGREGATE. WHERE CUTBACK BITUMEN IS USED THE MINIMUM CURING TIME BEFORE THE NEXT SEALED LAYER (ASPHALT) CAN BE PLACED WILL BE FOURTEEN (14) DAYS. WHERE BITUMEN EMULSION IS USED THE MINIMUM CURING TIME BEFORE THE NEXT SEALED LAYER (ASPHALT) CAN BE PLACED WILL BE FOUR (4) DAYS.
5. IN RURAL AREAS AND WHERE SPECIFIED, BITUMEN SPRAY SEAL SURFACING IS TO BE PROVIDED IN THE FORM OF A 2 COAT POLYMER SPRAY SEAL (14MM/7MM) IN ACCORDANCE WITH MAIN ROAD TECHNICAL SPECIFICATIONS (MRTS 18 POLYMER MODIFIED BINDERS, MRTS 11 SPRAYED BITUMINOUS SURFACINGS EXCLUDING EMULSIONS).

THE DEGREE OF SATURATION OF BASE COURSE PRIOR TO SURFACING IS TO BE LESS THAN 65%. TEST RESULTS DEMONSTRATING DEGREE OF SATURATION ARE TO BE PROVIDED TO COUNCIL'S NOMINATED REPRESENTATIVE AT THE PRESEAL INSPECTION AND AS A PART OF THE ON MAINTENANCE DOCUMENTATION.

PAVEMENT

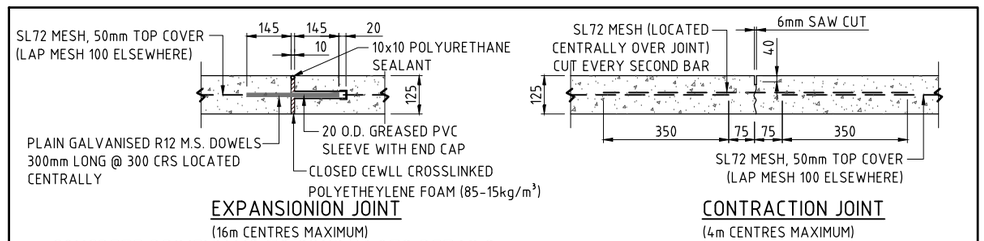
1. THE ROAD PAVEMENT ADOPTED WILL BE DETERMINED BY THE ENGINEER AND APPROVED BY MORETON BAY REGIONAL COUNCIL. THIS PAVEMENT SHALL BE BASED ON SOIL TESTS TAKEN AT FORMATION LEVEL.
2. ANY VARIATIONS TO THE NOMINAL PAVEMENT THICKNESS WILL BE PAID AT THE RATES SHOWN IN THE PRICED SCHEDULE OF RATES.

TOPSOIL

1. ALL TOPSOIL ON ROADWORK AREAS SHALL BE STRIPPED AND STOCKPILED PRIOR TO THE COMMENCEMENT OF ANY ROADWORK OPERATIONS.
2. A TOPSOIL DEPTH OF 150mm. HAS BEEN USED TO DETERMINE TOPSOIL AND EARTHWORK QUANTITIES. THE CONTRACTOR IS TO SATISFY HIMSELF OF THE ACCURACY OF THESE QUANTITIES AND TO MAKE ANY NECESSARY ALLOWANCE IF HE DISAGREES WITH THEM.
3. A TOPSOIL RESPREAD DEPTH OF 250mm ON ALLOTMENTS HAS BEEN USED TO DETERMINE EARTHWORK QUANTITIES.

ROAD 3 (BRADMAN STREET & FLINDERS STREET) CONTROL LINE DETAILS

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
EXISTING STAGE 2	IP 1	0.000	480858.894	7014713.201	187°29'57.03"			
	TC	74.434	480849.180	7014639.404	187°29'57.03"			
	IP 2	86.215	480847.222	7014624.532		R = -15.000	23.562	90°00'00.00"
	CT	97.996	480862.094	7014622.574	97°29'57.03"			
EXISTING STAGE 4	TC	196.535	480959.789	7014609.714	97°29'57.03"			
	IP 3	203.608	480966.861	7014608.783		R = -45.000	14.147	18°00'45.00"
	CT	210.682	480973.873	7014610.085	79°29'12.03"			
	TC	234.589	480997.380	7014614.447	79°29'12.03"			
	IP 4	245.192	481010.653	7014616.910		R = 13.500	21.206	90°00'00.00"
	CT	255.795	481013.116	7014603.637	169°29'12.03"			
	TC	278.295	481017.222	7014581.514	169°29'12.03"			
	IP 5	291.345	481019.623	7014568.577		R = 83.000	26.099	18°01'00.07"
	CT	304.395	481017.904	7014555.531	187°30'12.10"			
STAGE 5	TC	396.875	481005.828	7014463.843	187°30'12.10"			
	IP 6	423.186	481001.453	7014430.629		R = 33.500	52.622	90°00'00.00"
	CT	449.497	480968.240	7014435.004	277°30'12.10"			
	TC	641.596	480777.786	7014460.089	277°30'12.10"			
	IP 7	652.593	480763.903	7014461.918		R = 14.000	21.994	90°00'44.90"
	CT	663.590	480765.735	7014475.800	7°30'57.00"			
EXISTING STAGE 3	TC	721.680	480773.333	7014533.392	7°30'57.00"			
	IP 8	732.678	480775.165	7014547.276		R = -14.000	21.995	90°00'59.97"
	CT	743.676	480761.281	7014549.103	277°29'57.03"			
EXISTING STAGE 1	TC	863.314	480642.666	7014564.718	277°29'57.03"			
	IP 9	874.309	480628.785	7014566.545		R = 14.000	21.991	90°00'00.00"
	CT	885.305	480630.613	7014580.425	7°29'57.03"			
	IP 10	943.305	480638.182	7014637.929				
	IP 11	947.459	480638.741	7014642.173		R = 14.000	8.308	34°00'07.78"
	IP 12	951.613	480641.577	7014645.379				
	IP 13	961.944	480648.423	7014653.116	41°30'02.74"			



EXPANSIONION JOINT (16m CENTRES MAXIMUM)

CONTRACTION JOINT (4m CENTRES MAXIMUM)

CONCRETE DRIVEWAYS TO SINGLE LOTS DETAILS

1. ALL CONCRETE DRIVEWAYS TO SINGLE LOTS ARE TO BE 3.0m WIDE U.N.O, GRADE N25 CONCRETE, 125mm THICK WITH SL72 MESH, 50mm TOP COVER, ON A 75mm CBR 15 GRAVEL BASE.
2. THE CONTRACTOR IS TO ENSURE THAT ALL SERVICE CONDUITS ARE IN PLACE BEFORE POURING THE DRIVEWAYS.
3. THE BACK OF KERB AND CHANNEL IS TO BE CUT DOWN AT ALL DRIVEWAY ENTRANCES. FOR DETAILS SEE MBRC STD DWGS RS-049 & RS 050
4. THE SUPERVISING ENGINEER IS TO BE NOTIFIED PRIOR TO POURING CONCRETE FOR INSPECTION OF PLACED MESH
5. THE EXACT LOCATION AND EXTENT OF THE DRIVEWAY WILL BE DETERMINED ON SITE BY THE SUPERVISING ENGINEER.
6. EXPANSION AND CONTRACTION JOINTS TO BE CONSTRUCTED IN ACCORDANCE WITH ABOVE DETAILS.

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NORTH:

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DESIGNED	CDV			
DRAWN	WN	B	MINOR AMENDMENT	21/10/24 FR
CHECKED	PNH	A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22 CDV
DATUM: AHD		ISSUE:	DETAILS:	DATE: INIT:

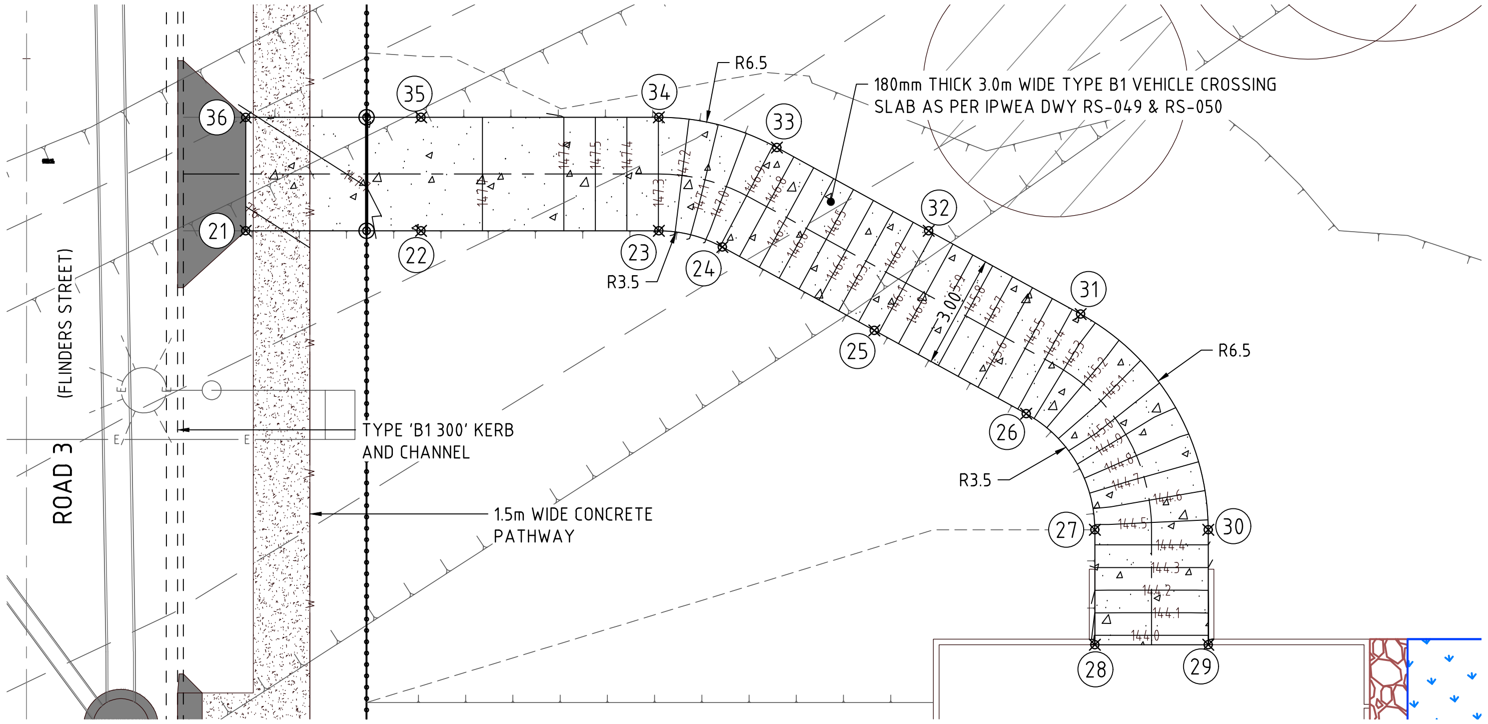
TITLE: ROADWORKS NOTES AND DETAILS PLAN

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

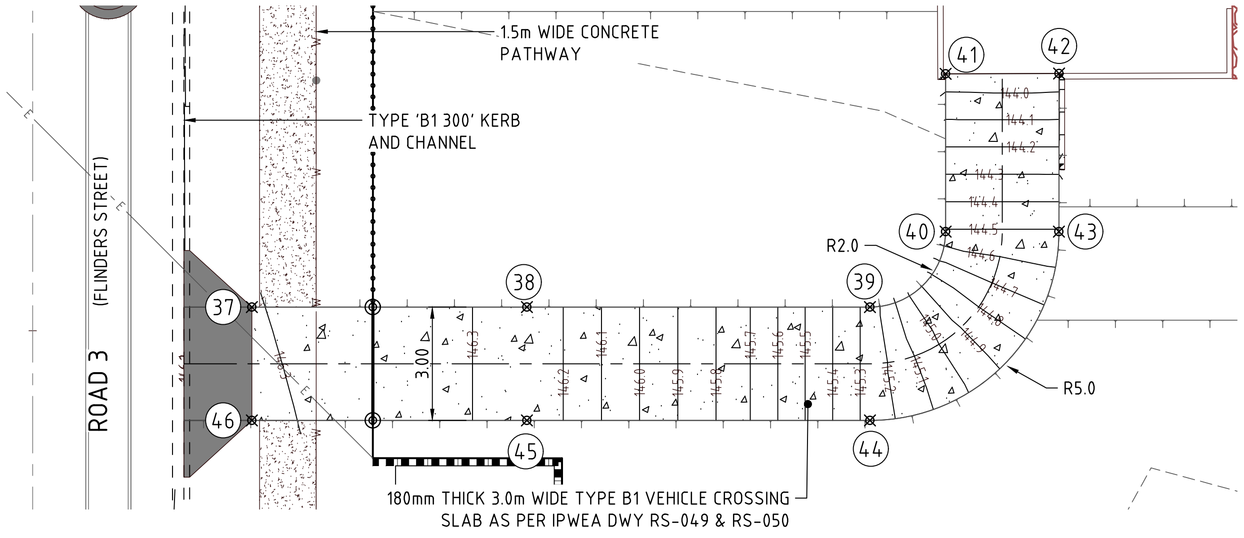
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R03 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS.DWG



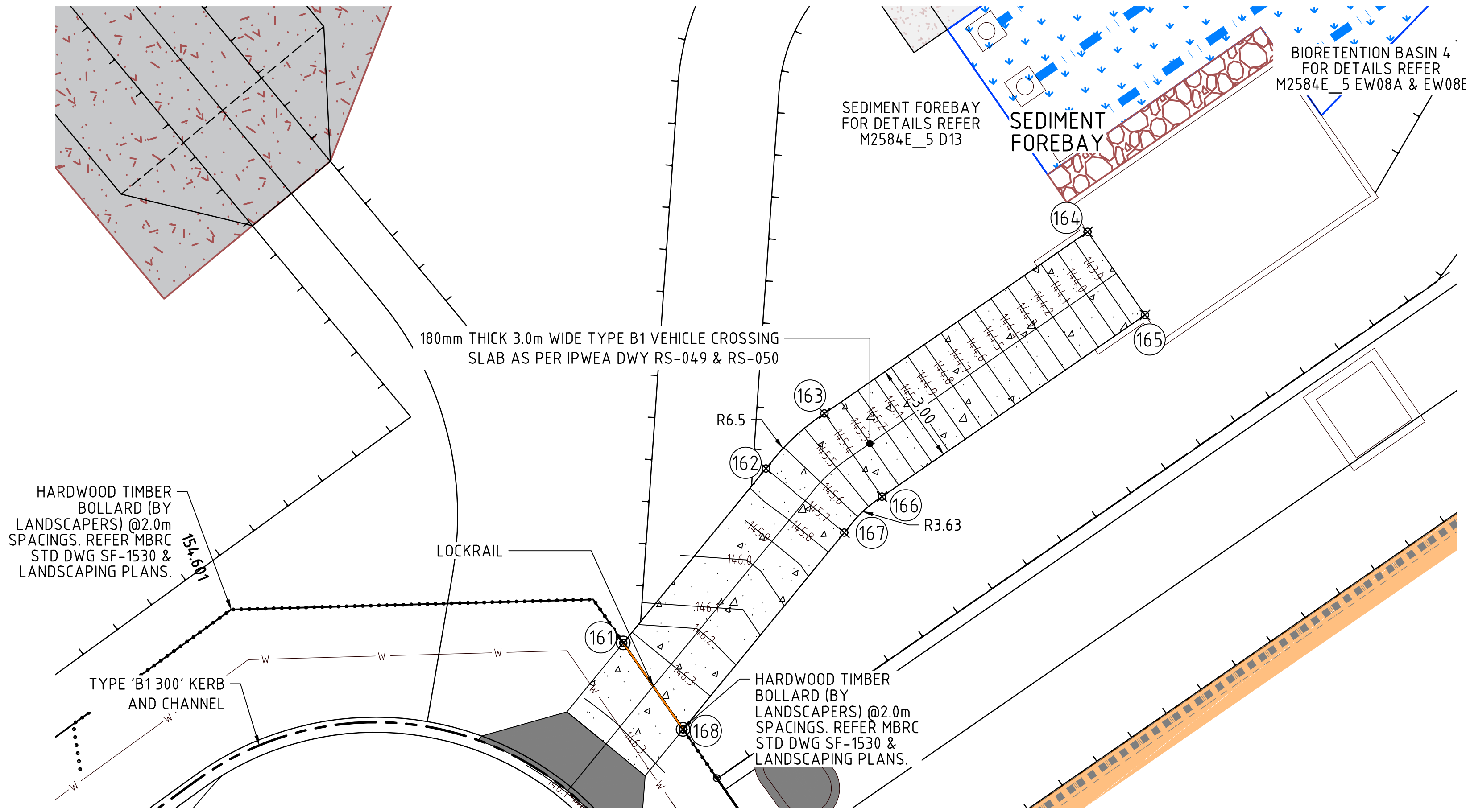
INTERSECTION DETAIL - BASIN 3 DRIVEWAY No.1

SCALE 1:100



INTERSECTION DETAIL - BASIN 3 DRIVEWAY No.2

SCALE 1:100



INTERSECTION DETAIL - BASIN 4 DRIVEWAY

SCALE 1:100

BASIN 3 DRIVEWAY SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
21	IP	481021.023	7014534.792	147.581
22	IP	481025.626	7014534.189	147.764
23	IP	481031.864	7014533.368	147.299
24	IP	481033.475	7014532.722	146.884
25	IP	481037.173	7014530.014	146.122
26	IP	481040.871	7014527.306	145.357
27	IP	481042.274	7014524.025	144.466
28	IP	481041.877	7014521.014	143.936
29	IP	481044.851	7014520.622	143.921
30	IP	481045.248	7014523.633	144.466
31	IP	481042.644	7014529.727	145.354
32	IP	481038.945	7014532.435	146.120
33	IP	481035.247	7014535.142	146.885
34	IP	481032.256	7014536.342	147.298
35	IP	481026.017	7014537.164	147.764
36	IP	481021.415	7014537.766	147.697
37	IP	481013.863	7014480.435	146.296
38	IP	481021.076	7014479.485	146.253
39	IP	481030.073	7014478.300	145.264
40	IP	481032.317	7014480.022	144.508
41	IP	481032.862	7014484.160	143.934
42	IP	481035.838	7014483.779	143.933
43	IP	481035.292	7014479.630	144.508
44	IP	481029.682	7014475.326	145.264
45	IP	481020.684	7014476.511	146.253
46	IP	481013.472	7014477.461	146.275

BASIN 4 DRIVEWAY SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
161	IP	481158.265	7014488.881	146.320
162	TP	481163.413	7014493.716	145.649
163	TP	481165.032	7014494.831	145.407
164	IP	481173.505	7014499.174	143.980
165	IP	481174.873	7014496.505	143.982
166	TP	481166.400	7014492.161	145.407
167	TP	481165.467	7014491.529	145.649
168	IP	481159.689	7014486.103	146.328

LEGEND:

- PAVEMENT CONTOURS
- PROPOSED KERB AND CHANNEL
- PROPOSED STORMWATER
- SEWERAGE
- WATER MAIN
- LOW PRESSURE SEWERAGE MAIN
- EXISTING KERB AND CHANNEL
- EXISTING U/G ELECTRICAL
- TELSTRA
- THRESHOLD PAVEMENT TREATMENT
- KERB TRANSITION
- KERB RAMP

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

NOTE: ALL RADII ARE MEASURED TO THE LIP OF THE KERB AND CHANNEL.
◑ 1.8m LENGTH TRANSITION BETWEEN KERB TYPES UNLESS SHOWN OTHERWISE.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

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(A3) 1:200
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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
C	BASIN 4 UPDATED	13/12/24	AKM
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS INTERSECTION DETAILS PLAN - SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R05 ISSUE: C
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: INTERSECTIONS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\INTERSECTIONS

NOTES:

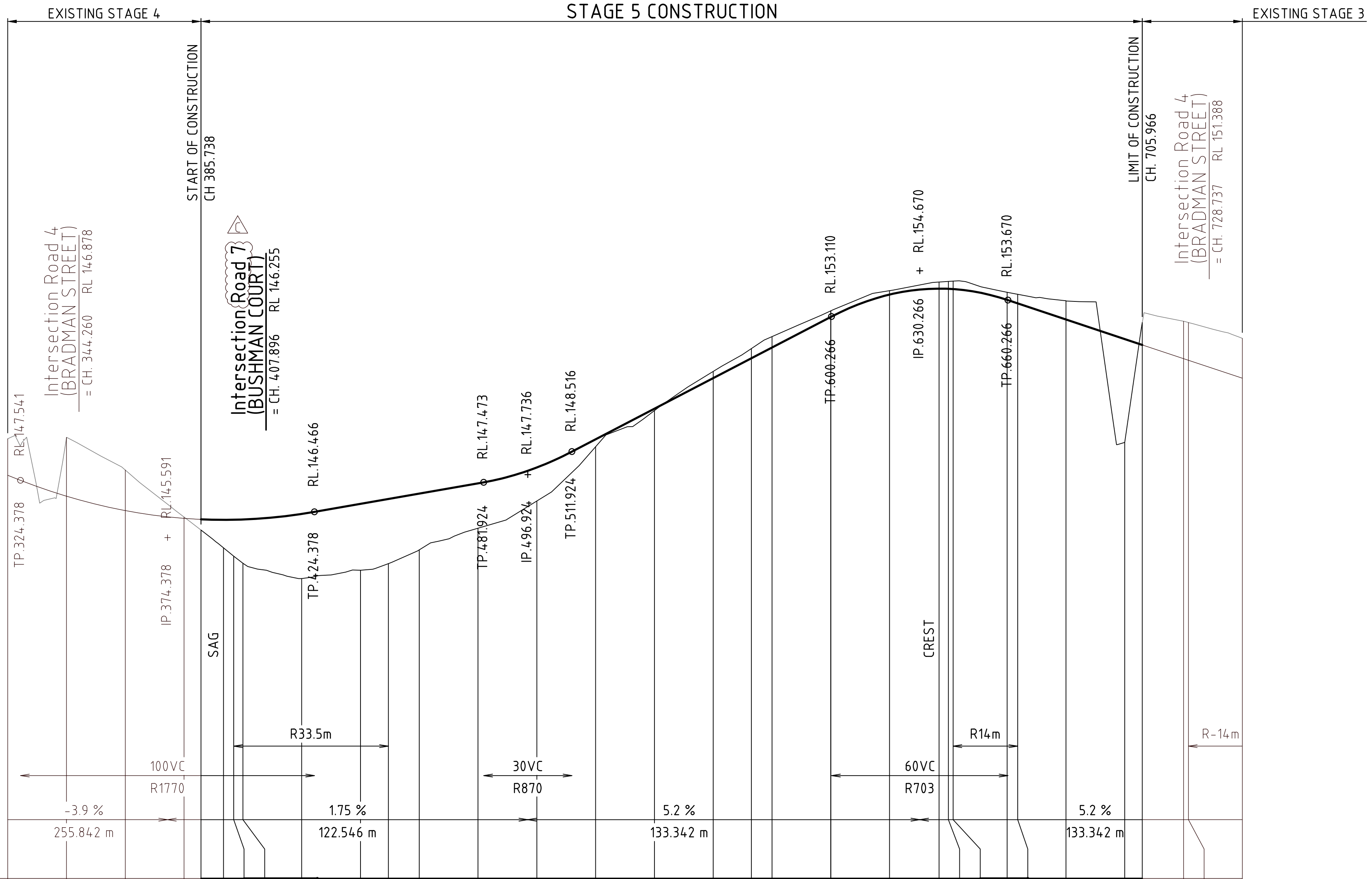
ASSUMED TOPSOIL DEPTH 150mm

ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.

ESA's $1.2x10^5$
"LIVING RESIDENTIAL" - ACCESS STREET

NOMINAL PAVEMENT
CH **385.783** TO CH **705.966**
30mm AC (BCC TYPE 2)
125mm BASE COURSE (CBR 60)
215mm SUB-BASE COURSE (CBR 45)

✳ REFER INTERSECTION DETAILS FOR LIP OF KERB LEVELS ON DWG No. **M2584E_5 R04**



DATUM R.L.134.0

PEGGED CHAINAGE ALONG CONTROLLINE	LHS LIP OF KERB LEVELS	RHS LIP OF KERB LEVELS	CUT (-ve) FILL	PAVEMENT LEVELS ALONG CONTROLLINE	SURFACE LEVELS ALONG CONTROLLINE
320.000	147.601	147.600	-1.242	147.712	148.954
340.000	146.890		-1.997	147.001	148.998
360.000	146.400	146.399	-1.382	146.511	147.892
380.000	146.135	146.134	-0.043	146.246	146.289
385.738					
393.404	146.084	146.083	0.949	146.195	145.247
396.875	146.088	146.087	1.237	146.199	144.961
400.000	✳	146.096	1.489	146.208	144.719
420.000	✳	146.283	2.197	146.395	144.198
440.000	146.628	146.628	2.257	146.740	144.483
449.497	146.794	146.794	2.198	146.906	144.708
460.000	146.978	146.978	1.913	147.090	145.177
480.000	147.328	147.328	1.528	147.440	145.912
500.000	147.866	147.866	1.140	147.977	146.838
520.000	148.824	148.824	0.254	148.936	148.682
540.000	149.864	149.864	0.063	149.976	149.913
560.000	150.904	150.904	-0.229	151.016	151.245
575.000	151.684	151.684	-0.362	151.796	152.157
580.000	151.944	151.944	-0.374	152.056	152.430
600.000	152.984	152.984	-0.209	153.096	153.305
620.000	153.747	153.747	-0.131	153.859	153.990
636.832	153.948	153.948	-0.223	154.060	154.283
640.000	153.941	153.941	-0.252	154.053	154.305
641.596	153.932	153.932	-0.272	154.044	154.316
660.000	✳	153.567	-0.256	153.679	153.935
663.590	✳	153.447	-0.307	153.559	153.866
680.000	152.901	152.900	-0.633	153.012	153.646
700.000	152.235	152.234	3.517	152.346	148.829
705.966					
720.000	151.568	151.567	-1.271	151.679	152.950
721.680	151.512		-1.285	151.623	152.909
740.000	150.902	150.901	-1.356	151.013	152.368

LONGITUDINAL SECTION - ROAD 3 (FLINDERS STREET)

("LIVING RESIDENTIAL" - ACCESS STREET CH. 385.738 - CH. 705.966)

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PLANNERS
URBAN DESIGNERS
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ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

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Horizontal 1:1000
Vertical 1:100
A1
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(A1) 1:100 — 0 1 2 3 4 5 10 Metres
(A1) 1:1000 — 0 10 20 30 40 50 100
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APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

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☑ A.FRASER RPEQ 5691
☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068
☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

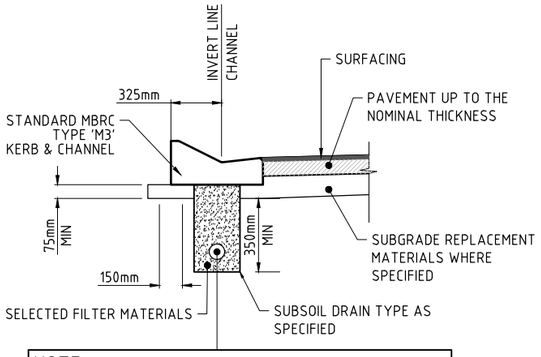
ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS LONGITUDINAL SECTIONS - ROAD 3 (FLINDERS STREET)
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R06 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS SECTIONS.DWG

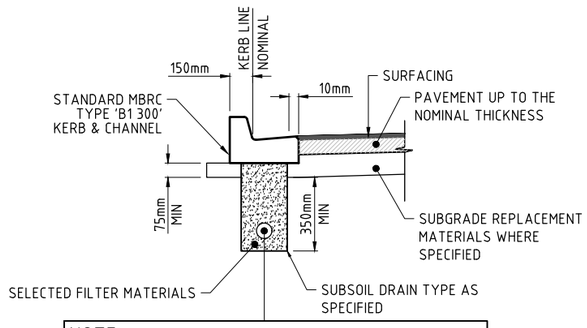
16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\ROADWORKS SECTIONS



NOTE:
SIDE DRAINS ARE TO BE LOCATED UNDER ALL KERB AND CHANNEL. FOR DETAILS OF SIDE DRAIN CONSTRUCTION REFER TO IPWEAQ STD DRAWING RS-140 & RS-142

TYPICAL LOCATION NEW CONSTRUCTION - TYPE M3

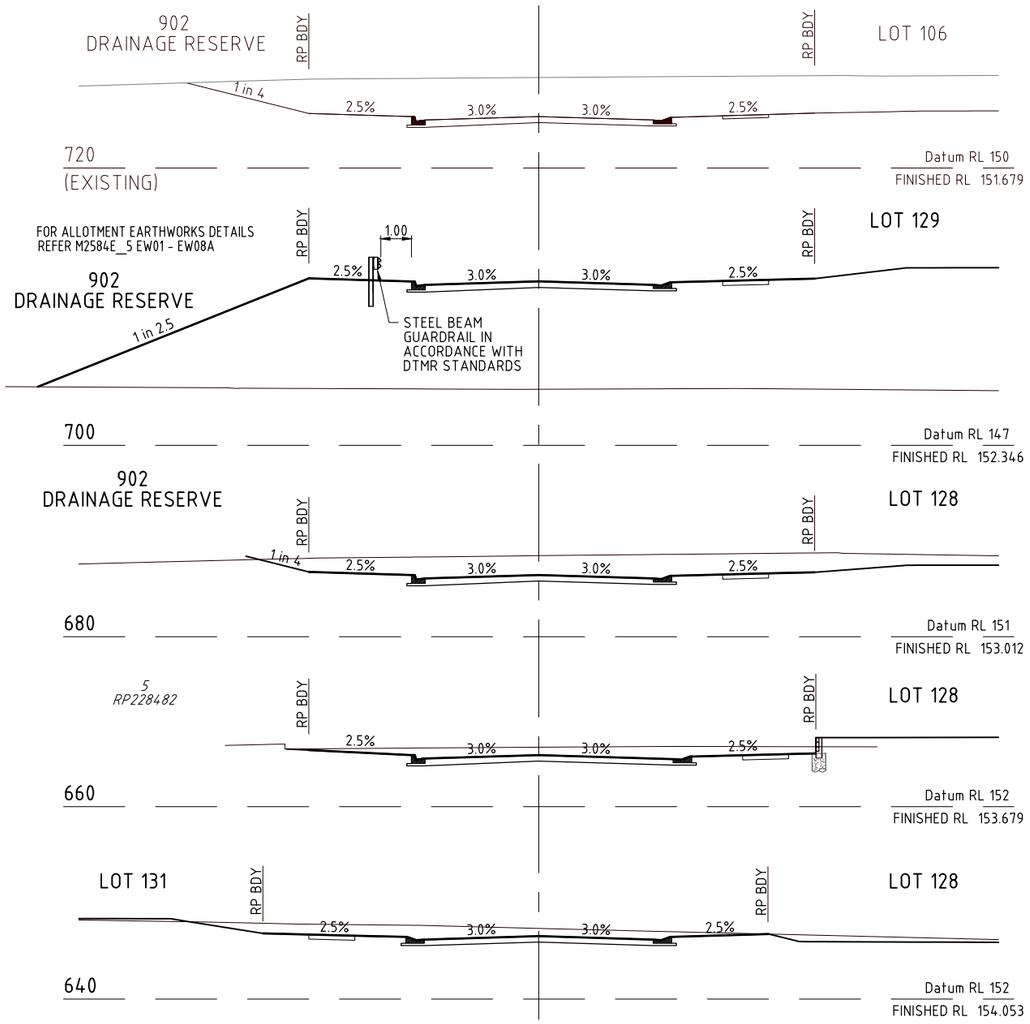
SCALE 1:20

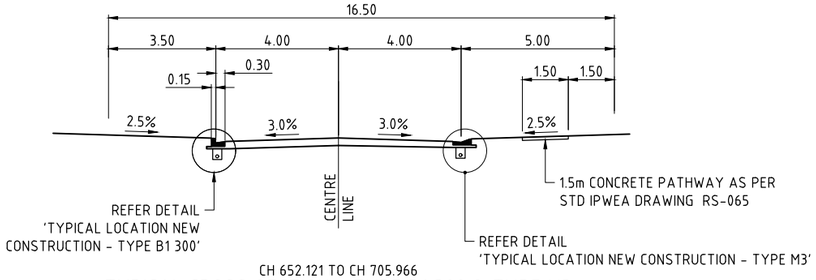


NOTE:
SIDE DRAINS ARE TO BE LOCATED UNDER ALL KERB AND CHANNEL. FOR DETAILS OF SIDE DRAIN CONSTRUCTION REFER TO IPWEAQ STD DRAWING RS-140 & RS-142

TYPICAL LOCATION NEW CONSTRUCTION - TYPE B1 300

SCALE 1:20

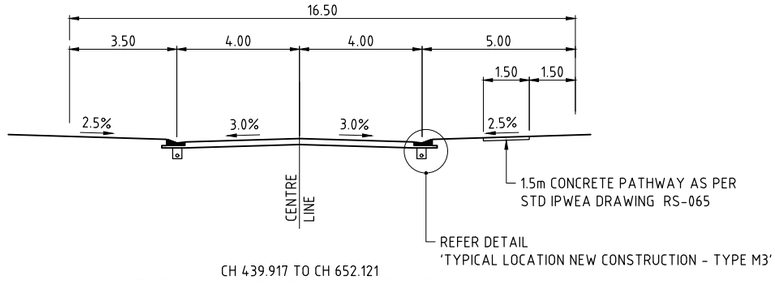




CH 652.121 TO CH 705.966

TYPICAL CROSS SECTION - TYPE B1 300 & TYPE M3

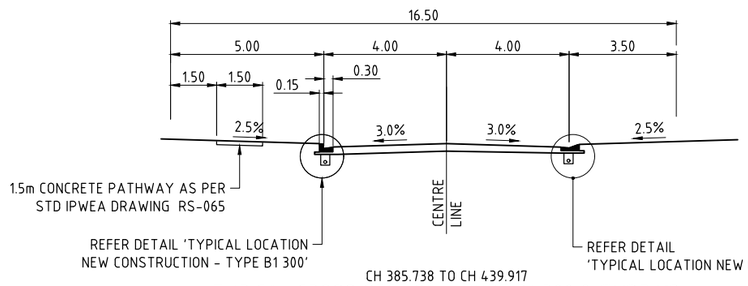
(TYPE B1 & M3 - RESIDENTIAL ROAD 3)
SCALE 1 : 100



CH 439.917 TO CH 652.121

TYPICAL CROSS SECTION - TYPE M3

(TYPE B1 & M3 - RESIDENTIAL ROAD 3)
SCALE 1 : 100



CH 385.738 TO CH 439.917

TYPICAL CROSS SECTION - TYPE B1 300 & TYPE M3

(TYPE B1 & M3 - RESIDENTIAL ROAD 3)
SCALE 1 : 100

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:100 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS CROSS SECTIONS - ROAD 3 (FLINDERS STREET)-SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R08 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS SECTIONS.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\M2584E\STAGE_5\DESIGN\WORKING DRAWINGS\ROADWORKS\ROADWORKS SECTIONS

NOTES:

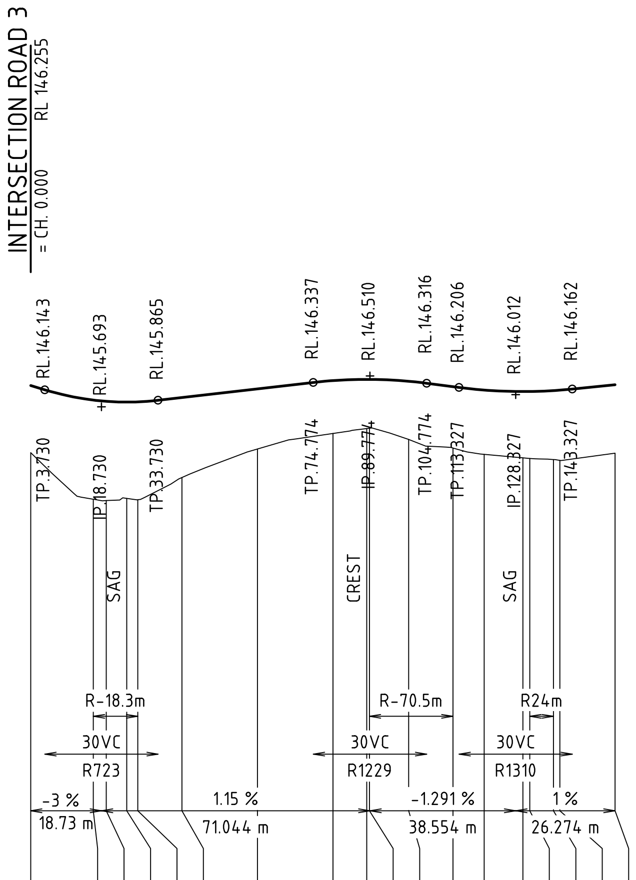
ASSUMED TOPSOIL DEPTH 150mm

ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.

ESA's 1.2x10^5
"LIVING RESIDENTIAL" - ACCESS STREET

NOMINAL PAVEMENT
CH **0.000** TO CH **154.601**
30mm AC (BCC TYPE 2)
125mm BASE COURSE (CBR 60)
215mm SUB-BASE COURSE (CBR 45)

✳ REFER INTERSECTION DETAILS FOR LIP OF KERB LEVELS ON DWG No. **M2584E_5 R04**



DATUM R.L.133.0

LHS LIP OF KERB LEVELS	✳	145.761	145.727	145.707	145.712	145.826	146.056	146.275	146.308	146.307	146.258	146.115	146.026	145.986	145.987	✳		
RHS LIP OF KERB LEVELS	✳	145.761	145.727	145.707	145.712	145.826	146.056	146.274	146.307	146.307	146.257	146.114	146.025	145.985	145.986	✳		
CUT (-ve) FILL	1.779	2.625	2.627	2.549	2.592	2.116	1.593	1.398	1.301	1.292	1.538	1.625	1.703	1.756	1.774	1.825	1.859	1.810
PAVEMENT LEVELS ALONG CONTROLLINE	146.255	145.872	145.838	145.818	145.823	145.937	146.167	146.386	146.419	146.418	146.369	146.226	146.137	146.097	146.098	146.122	146.133	146.275
SURFACE LEVELS ALONG CONTROLLINE	144.476	143.246	143.211	143.269	143.231	143.821	144.574	144.988	145.118	145.127	144.830	144.602	144.434	144.341	144.324	144.296	144.275	144.465
PEGGED CHAINAGE ALONG CONTROLLINE	0.000	16.573	20.000	25.417	28.332	40.000	60.000	80.000	88.910	89.616	100.000	111.743	120.000	130.230	132.073	138.322	140.000	154.601

LONGITUDINAL SECTION - ROAD 7 (BUSHMAN COURT)

("LIVING RESIDENTIAL" - ACCESS STREET CH. 0.000 - CH. 154.601)

B

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LANDSCAPE ARCHITECTS

NORTH:

SCALE: Horizontal 1:1000 Vertical 1:100 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
A1 — 0 1 2 3 4 5 (A1) 1:100 10 Metres — 0 10 20 30 40 50 (A1) 1:1000 100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED: CDV | DRAWN: WN | CHECKED: PNH | DATUM: AHD

ISSUE:	DETAILS:	DATE:	INIT:
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS LONGITUDINAL SECTION - ROAD 7 (BUSHMAN COURT)
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R09 ISSUE: A
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS SECTIONS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\ROADWORKS SECTIONS

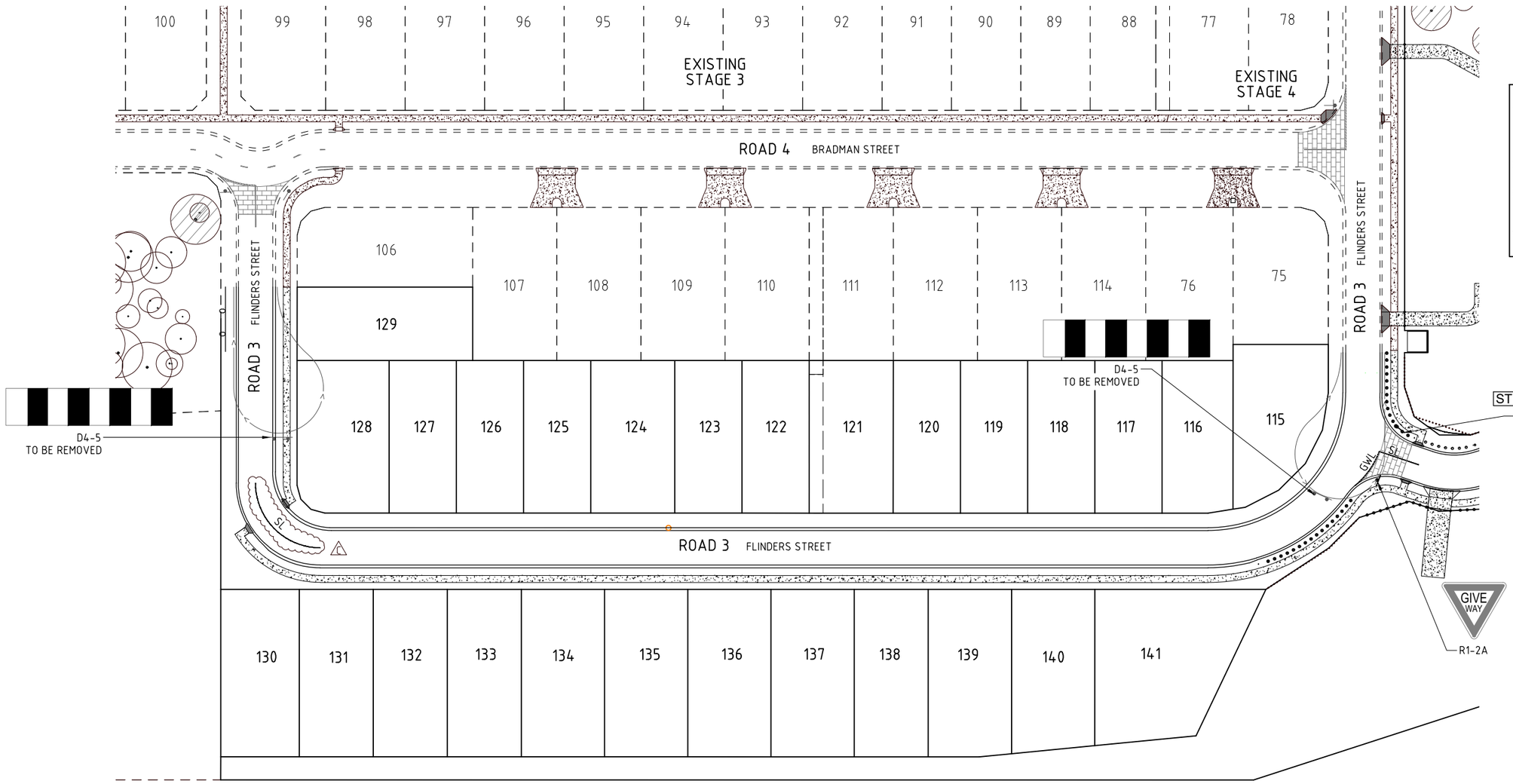
LEGEND

SL	– SEPARATION LINE
BL	– BARRIER LINE
LL	– LANE LINE
EL	– EDGE LINE
CL	– CONTINUITY LINE
TL	– TURN LINE
OL	– PAINTED ISLAND
HL	– HOLD LINE
NSL	– NO STOPPING LINES
SPL	– STOP LINE
GWL	– GIVEWAY LINE
CW	– CROSSWALK LINE

NOTES

1. ALL PAVEMENT MARKING AND TRAFFIC SIGNS TO BE INSTALLED IN ACCORDANCE WITH THE QUEENSLAND DEPARTMENT OF MAIN ROADS, MANUAL OF UNIFORM TRAFFIC CONTROLS DEVICES (MUTCD).
2. TRAFFIC ISLAND NOSES ARE TO BE PAINTED WITH WHITE REFLECTORISED PAINT.
3. RAISED REFLECTORISED PAVEMENT MARKERS (RRPM's) ARE TO BE PLACED IN ACCORDANCE WITH M.U.T.C.D. – PART 2 SECTION 4.6.5.3.
4. INSTALL TGS1 ON ALL RAMPED KERB CROSSINGS IN ACCORDANCE WITH M.B.R.C. STANDARD DRAWING PC-2170.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.



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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:500 A1

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	CENTRELINE ADDED TO 90 DEGREE BEND	18/11/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:

SIGNS AND LINEMARKING PLAN - SHEET 1 OF 2

DFC (PROJECT MANAGEMENT PTY LTD)

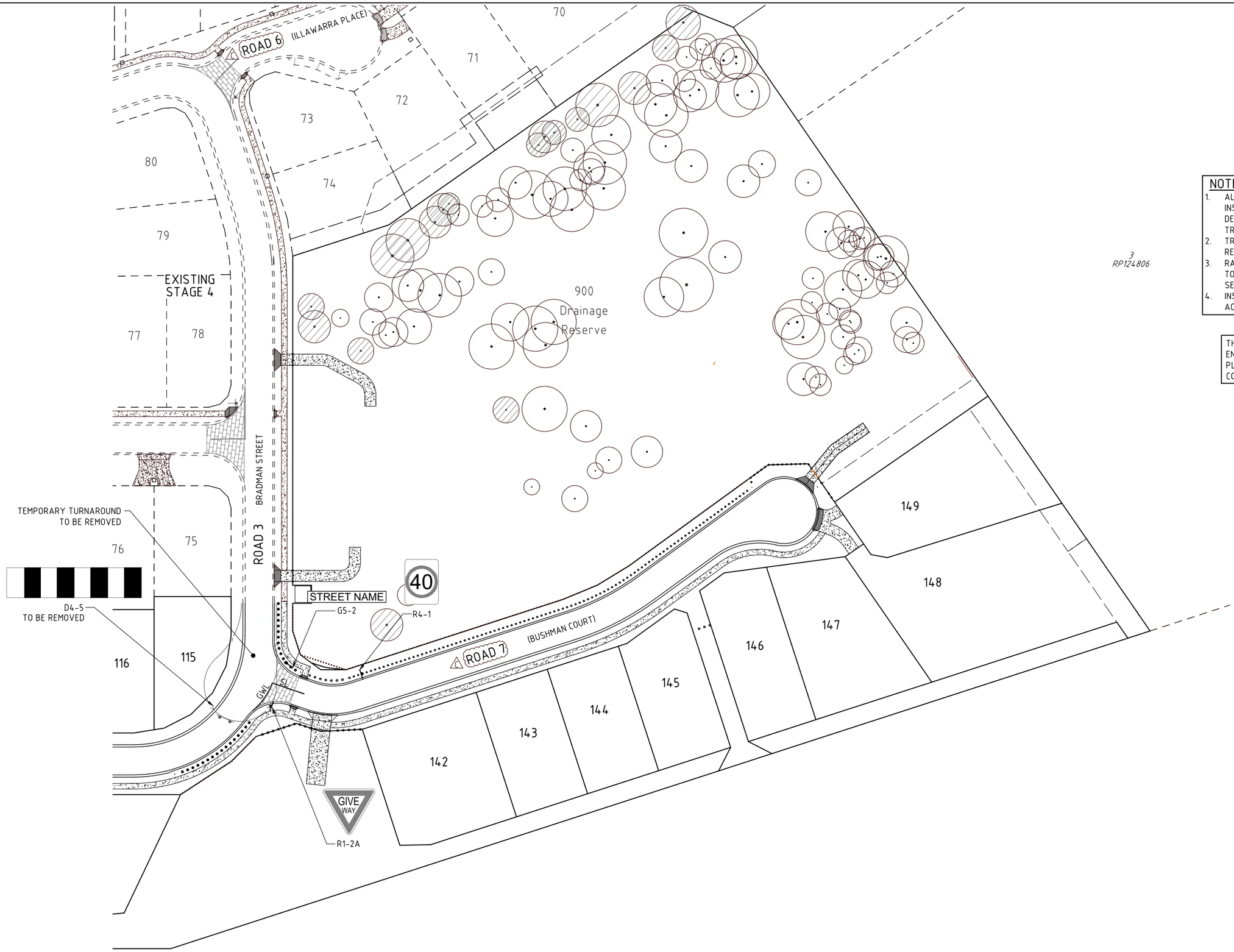
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:

JOB NO: M2584E_5
PLAN: SL01 ISSUE: C

MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: LINEMARKING.DWG



LEGEND

SL	– SEPARATION LINE
BL	– BARRIER LINE
LL	– LANE LINE
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4. INSTALL TGS1 ON ALL RAMPED KERB CROSSINGS IN ACCORDANCE WITH M.B.R.C. STANDARD DRAWING PC-2170.

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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE:
1:500
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
D	BASIN 4 UPDATED	13/12/24	AKM
C	ROAD NAMES CHANGED	18/11/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

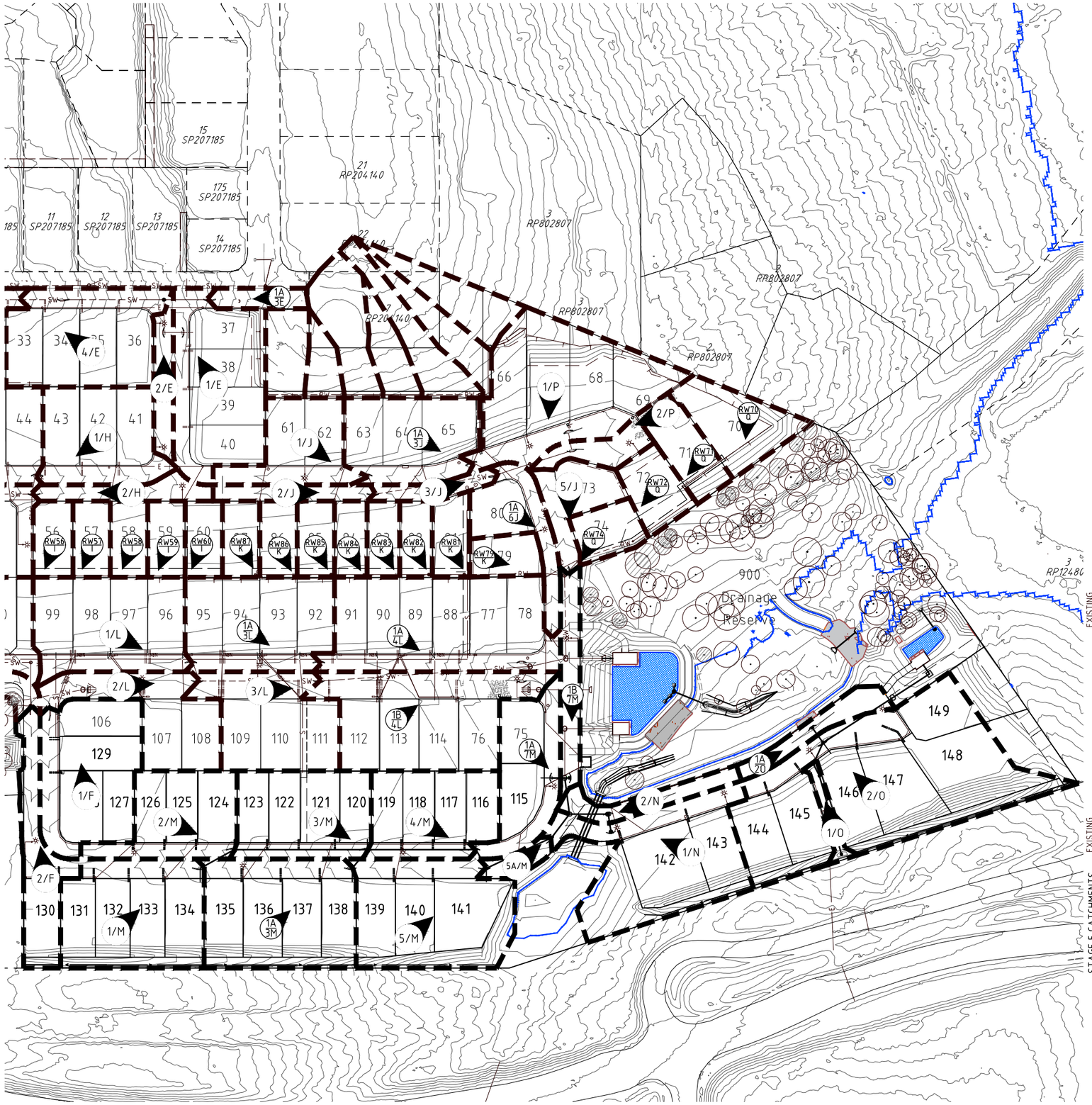
TITLE:
SIGNS AND LINEMARKING PLAN - SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: SL02 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: LINEMARKING.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\JOBS\SL\STAGE_5\DESIGN\WORKING\DRAWINGS\LINEMARKING



CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR
1/A	0.069	0.88	1.00
3/A	0.046	0.88	1.00
4/A	0.031	0.88	1.00
RW1/B	0.066	0.91	1.00
RW2/B	0.067	0.91	1.00
RW3/B	0.067	0.91	1.00
RW13/D	0.063	0.91	1.00
RW12/D	0.060	0.91	1.00
RW11/D	0.060	0.91	1.00
RW10/D	0.060	0.91	1.00
RW9/D	0.060	0.91	1.00
RW8/D	0.074	0.91	1.00
RW4/B	0.070	0.91	1.00
1A/6A	0.087	0.88	1.00
6/A	0.030	0.88	1.00
7/A	0.172	0.88	1.00
RW5/C	0.102	0.91	1.00
1/O	0.026	0.88	1.00
1A/20	0.070	0.88	1.00
2/O	0.843	0.88	1.00
RW87/K	0.060	0.91	1.00
RW86/K	0.060	0.91	1.00
RW85/K	0.060	0.91	1.00
RW84/K	0.053	0.91	1.00
RW83/K	0.053	0.91	1.00
RW82/K	0.053	0.91	1.00
RW81/K	0.064	0.91	1.00
RW79/K	0.061	0.91	1.00
RW70/Q	0.125	0.91	1.00
RW71/Q	0.095	0.91	1.00
RW72/Q	0.083	0.91	1.00
RW74/Q	0.069	0.91	1.00
1/J	0.193	0.88	1.00
2/J	0.055	0.88	1.00
1/L	0.307	0.88	1.00
2/L	0.210	0.88	1.00
1/P	0.459	0.88	1.00
2/P	0.074	0.88	1.00
1A/3J	0.244	0.88	1.00
3/J	0.044	0.88	1.00
5/J	0.120	0.88	1.00
1A/3L	0.291	0.88	1.00
3/L	0.250	0.88	1.00
1A/4L	0.442	0.88	1.00
1B/4L	0.379	0.88	1.00
1A/6J	0.131	0.88	1.00
1/M	0.322	0.88	1.00
2/M	0.209	0.88	1.00
1A/3M	0.350	0.88	1.00
3/M	0.250	0.88	1.00
4/M	0.231	0.88	1.00

EXISTING STAGE 1 CATCHMENTS
STAGE 5 CATCHMENTS
EXISTING STAGE 4 CATCHMENTS
EXISTING STAGE 3 CATCHMENTS
EXISTING STAGE 4 CATCHMENTS
EXISTING STAGE 3 CATCHMENTS
EXISTING STAGE 4 CATCHMENTS
STAGE 5 CATCHMENTS

LEGEND:

FINISHED CONTOURS 33

PROPOSED STORMWATER DRAINAGE

PROPOSED CATCHMENT BOUNDARIES

CATCHMENT NUMBERS 1/A

PROPOSED Q100 LINE

CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR
5/M	0.348	0.88	1.00
5A/M	0.032	0.88	1.00
1/N	0.376	0.88	1.00
2/N	0.070	0.88	1.00
1A/7M	0.199	0.88	1.00
1B/7M	0.091	0.88	1.00
RW60/I	0.060	0.91	1.00
RW59/I	0.060	0.91	1.00
RW58/I	0.060	0.91	1.00
RW57/I	0.060	0.91	1.00
RW56/I	0.064	0.91	1.00
1/F	0.315	0.88	1.00
2/F	0.171	0.88	1.00
4/F	0.247	0.88	1.00
1A/5F	0.127	0.88	1.00
5/F	0.217	0.88	1.00
7/F	0.333	0.88	1.00
8/F	0.386	0.88	1.00
1/E	0.334	0.88	1.00
2/E	0.062	0.88	1.00
1/H	0.239	0.88	1.00
2/H	0.069	0.88	1.00
1A/3E	0.041	0.88	1.00
4/E	0.308	0.88	1.00
5/E	0.399	0.88	1.00
1A/3H	0.230	0.88	1.00
3/H	0.236	0.88	1.00
1A/4H	0.253	0.88	1.00
4/H	0.211	0.88	1.00
1A/10F	0.372	0.88	1.00
10/F	0.082	0.88	1.00
1/G	0.171	0.88	1.00

EXISTING STAGE 5 CATCHMENTS
EXISTING STAGE 2 CATCHMENTS
EXISTING STAGE 3 CATCHMENTS
EXISTING STAGE 1 CATCHMENTS
EXISTING STAGE 2 CATCHMENTS
EXISTING STAGE 1 CATCHMENTS

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LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:1000 (A1) 1:1000 (A3) 1:2000
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 10 20 30 40 50 100 Metres
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068 H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

	DETAILS:	DATE:	INIT:
D	BASIN 4 UPDATED	13/12/24	AKM
C	SCOUR PROTECTION ON WEIR & AT SW HEADWALLS	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
DRAINAGE CATCHMENT PLAN
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

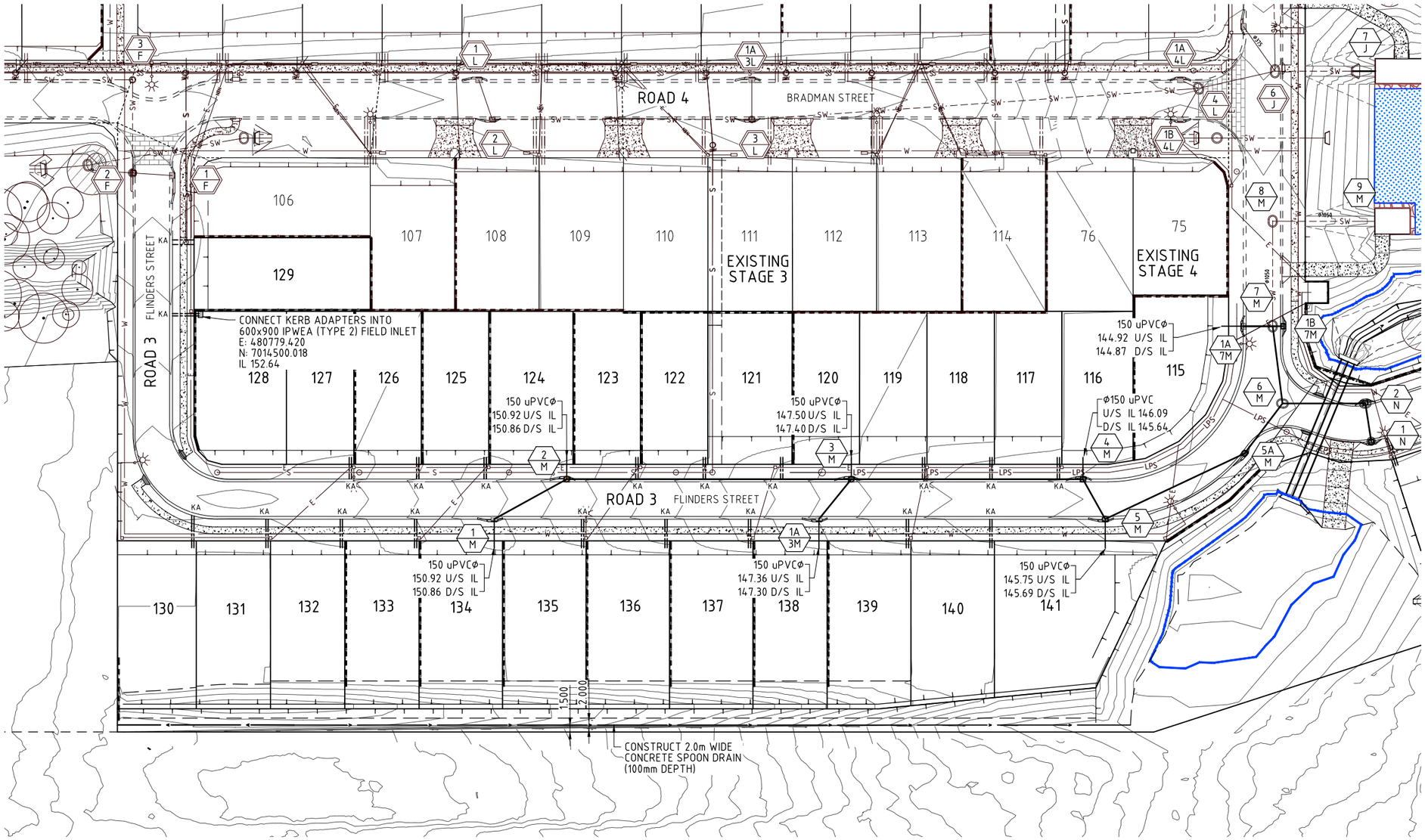
DETAILS:
JOB NO: M2584E_5
PLAN: D01 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\DRAINAGE

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.



LEGEND:

EXISTING STORMWATER DRAINAGE

FINISHED CONTOURS

PROPOSED STORMWATER DRAINAGE

PROPOSED ROOFWATER DRAINAGE

GRAVITY SEWERAGE

PROPOSED LOW PRESSURE SEWERAGE

WATER MAIN

ROOFWATER DRAINAGE KERB ADAPTORS (FULL DEPTH TYPE)

STRUCTURE NUMBERS

EXISTING / PROPOSED

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

DRAINAGE NOTES:

1. ROOFWATER LINES TO BE LAID 0.6m FROM PROPERTY BOUNDARIES, WHERE ROOFWATER LINE IS PARALLEL WITH SEWER 1.0m CLEARANCE TO SEWER LINE IS TO BE PROVIDED.
2. ROOFWATER PITS TO BE IN ACCORDANCE WITH IPWEAQ STD DWG D-0110 WITH CONCRETE INFILL GATIC LIDS OR APPROVED EQUIVALENT.
3. GRATED ROOFWATER PITS TO BE IN ACCORDANCE WITH IPWEAQ STD DWG D-0050 WITH 'BOLT DOWN' HEAVY DUTY GRATES & HOT DIPPED GALVANISED TO AS 1650.
4. THE DESIGN SURFACE LEVELS SHOWN FOR ROOFWATER PITS IS INDICATIVE ONLY.
   - PITS WITH SOLID COVERS SHALL FINISH 25mm (APPROX) ABOVE THE FINISHED SURFACE LEVEL
   - PITS WITH GRATED TOPS SHALL FINISH:
     a)AT THE INVERT OF CUT-OFF DRAINS (IF APPLICABLE)
     b)200mm BELOW THE SURROUNDING FINSHED SURFACE
4. THE FINISHED SURFACE SHALL BE SHAPED TO DIRECT OVERLAND FLOW TO THE GRATED PITS
5. ALL GULLIES ARE TO BE LIP IN LINE TYPE S LINTEL IN ACCORDANCE WITH IPWEA STD DWGS DS-061, DS-062 & DS-063.
6. LOTS WITH FIELD INLETS ARE TO BE GRADED TO DIVERT WATER TO PITS.
7. ALL GRATES IN PRIVATE PROPERTY ARE TO BOLTED DOWN.
8. ACCESS CHAMBERS (MANHOLES) TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEA STD DWGS DS-010. DS-015, DS-018, DS-019, DS-020 & DS-021.
9. STORMWATER BEDDING AND BACKFILL TO BE IN ACCORDANCE WITH IPWEA STD DWGS DS-030 AND DS-031. THE MINIMUM FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH COUNCIL'S PLANNING SCHEME POLICY OPERATIONAL WORKS INSPECTIONS MAINTENANCE AND BONDING PROCEDURES-INTEGRATED DESIGN.
10. PIPES TO BE CONCRETE REINFORCED (CLASS 2) UNLESS NOTED OTHERWISE. (U) DENOTES uPVC CLASS SN8.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PIPES DURING CONSTRUCTION AND SHALL ADOPT CONSTRUCTION PRACTICES TO PREVENT CRACKING. ALL PIPES TO BE CCTV INSPECTED AT THE AND OF WORKS.
12. PIPES UP TO AND INCLUDING 600mm DIAMETER SHALL BE RUBBER RING JOINTED.
13. PIPES GREATER THAN 600mm WHERE NOT LOCATED IN SANDY SOILS, SHALL BE INTERNAL FLUSH JOINTED WITH PIPE MANUFACTURERS PROPRIETARY EXTERNAL BANDS.

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BRISBANE - SUNSHINE COAST - CENTRAL QLD
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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE (A1) 1:500 (A3) 1:1000 — DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.M^cKINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086 | S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:

DRAINAGE LAYOUT PLAN - SHEET 1 OF 2

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

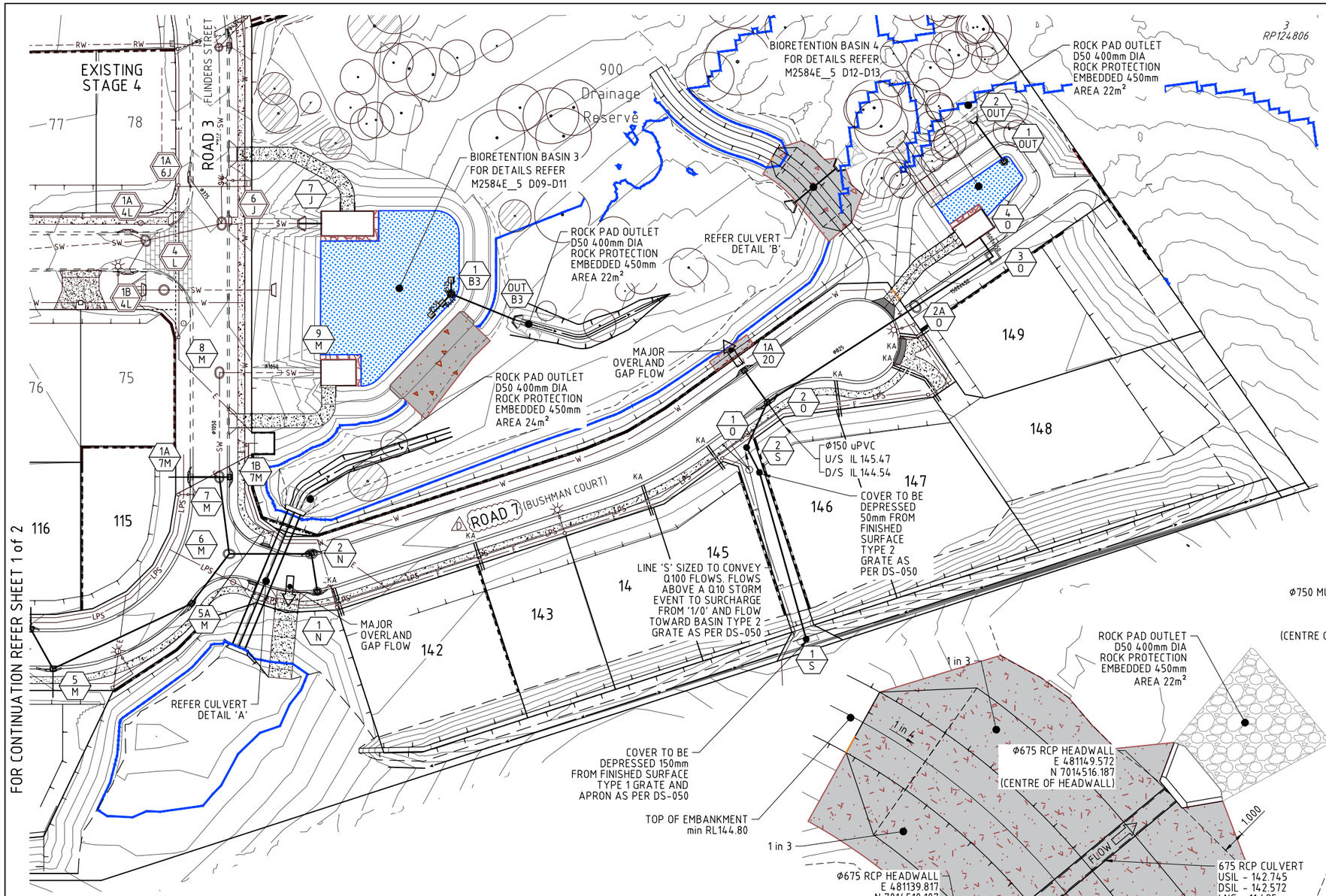
DETAILS:

JOB NO: M2584E_5
PLAN: D02 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\DRAINAGE



CULVERT DETAIL 'B'
SCALE 1:100

CULVERT DETAIL 'A'
SCALE 1:100

0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200

LEGEND:

- EXISTING STORMWATER DRAINAGE
- FINISHED CONTOURS
- PROPOSED STORMWATER DRAINAGE
- PROPOSED ROOFWATER DRAINAGE
- GRAVITY SEWERAGE
- PROPOSED LOW PRESSURE SEWERAGE
- WATER MAIN
- ROOFWATER DRAINAGE KERB ADAPTORS (FULL DEPTH TYPE)
- STRUCTURE NUMBERS (EXISTING / PROPOSED)

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

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LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.McKINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
E	BASIN 4 UPDATED	13/12/04	LK
D	ROAD NAMES CHANGED	18/11/24	FR
C	SCOUR PROTECTION ON WEIR & AT SW HEADWALLS	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
DRAINAGE LAYOUT PLAN - SHEET 2 OF 2

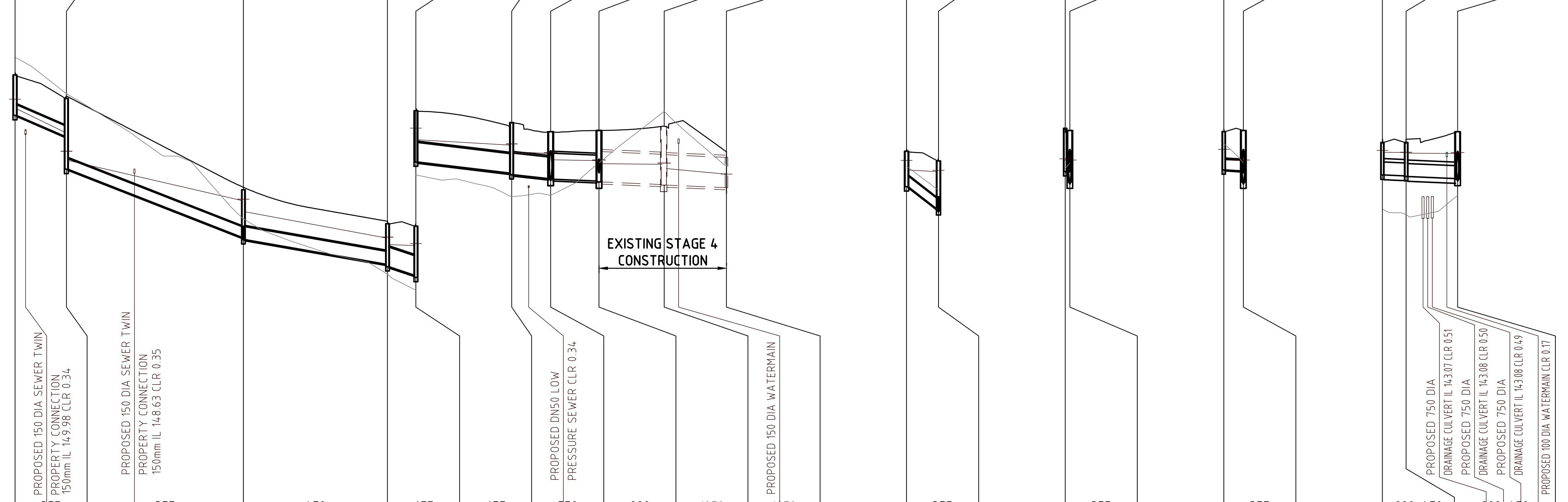
DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D03 ISSUE: E
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE.DWG

DRAINAGE LONGITUDINAL SECTIONS
LINE M, 3M, N, 1A-7M & 1B-7M



LINE M

Structure Number	Structure Description	Water Level in Structure	Hydraulic Grade Level (in / out)	Depth to Invert (in / out)	Invert Level of Drain (in / out)	Design Surface Level	Setout Coordinates	Running Chainage
1/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	151.202	150.874	1.400	150.640	152.040	E480836.453 N7014448.027	0.000
(property connection)					150.504			3.646
2/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	149.400	150.053 / 149.083	1.312 / 2.450	149.915 / 148.777	151.227	E480853.076 N7014454.507	17.841
(property connection)					147.874			23.559
3/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	147.742	147.692 / 147.306	1.651 / 1.726	146.415 / 146.339	148.066	E480913.900 N7014446.496	79.191
4/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	146.426	146.393 / 146.165	1.403 / 1.487	145.485 / 145.401	146.889	E480963.432 N7014439.972	129.150
5/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	146.199	146.132 / 145.798	1.700 / 1.776	145.105 / 145.029	146.805	E480967.069 N7014430.824	138.995
5A/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type B1(300) K&C ON 1050mm DIA MANHOLE	145.653	145.614 / 145.378	1.749 / 1.802	144.641 / 144.588	146.390	E480998.728 N7014440.933	172.229
(sewer crossing)					144.528			5.907
6/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	145.356	145.325 / 145.104	1.624 / 1.644	144.453 / 144.433	146.077	E481008.229 N7014450.543	185.743
7/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	145.095	145.074 / 144.970	1.754 / 1.784	144.366 / 144.337	146.120	E481008.801 N7014467.274	202.483
8/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	144.989	144.948 / 144.798	2.023 / 2.043	144.246 / 144.226	146.269	E481011.757 N7014489.713	225.116
(watermain crossing)					144.208			5.000
9/M	OUTLET to PROPOSED SEDIMENT FOREBAY	144.609	144.609	1.050	144.140 / 144.140	145.190	E481033.154 N7014486.895	246.698

Pipe	Pipe Size (mm)	Pipe Class	Pipe Grade (%)	Pipe Grade (1 in)	Part Pipe Velocity (m/s)	Full Pipe Velocity (m/s)	Pipe Flow (Cumecs)	Pipe Capacity at Grade (Cumecs)	Pipe Length
1/M – 2/M	375	3	4.06%	1 in 24.6	2.76	3.20	0.101	0.354	17.841
2/M – 3/M	375	3	3.85%	1 in 26	3.13	3.12	0.174	0.344	61.349
3/M – 4/M	450	3	1.71%	1 in 58.5	2.66	2.35	0.385	0.373	49.960
4/M – 5/M	675	3	3.01%	1 in 33.2	3.66	4.08	0.483	1.459	9.844
5/M – 5A/M	675	3	1.17%	1 in 85.7	2.74	2.54	0.626	0.909	33.234
5A/M – 6/M	750	3	1%	1 in 100	2.66	2.52	0.698	1.114	13.514
6/M – 7/M	900	2	0.4%	1 in 249.5	1.99	1.80	0.890	1.147	16.741
7/M – 8/M	1050	2	0.4%	1 in 249.8	2.08	2.00	1.034	1.728	22.633
8/M – 9/M	1050	2	0.4%	1 in 250.1	2.74	2.89	1.026	2.505	21.582

DATUM RL (m) 132.0 / RL128.0

LINE M

LINE 1A/3M

Structure Number	Structure Description	Water Level in Structure	Hydraulic Grade Level (in / out)	Depth to Invert (in / out)	Invert Level of Drain (in / out)	Design Surface Level	Setout Coordinates	Running Chainage
1A/3M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	148.083	147.748	1.228	147.172	148.400	E480905.855 N7014438.887	0.000
3/M	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	147.742	147.692 / 147.306	1.670 / 1.726	146.396 / 146.339	148.066	E480913.900 N7014446.496	11.073

Pipe	Pipe Size (mm)	Pipe Class	Pipe Grade (%)	Pipe Grade (1 in)	Part Pipe Velocity (m/s)	Full Pipe Velocity (m/s)	Pipe Flow (Cumecs)	Pipe Capacity at Grade (Cumecs)	Pipe Length
1A/3M – 3/M	375	3	7.01%	1 in 14.3	3.56	4.20	0.124	0.464	11.073

DATUM RL (m) 131.0

LINE 1A/3M

LINE 1B/7M

Structure Number	Structure Description	Water Level in Structure	Hydraulic Grade Level (in / out)	Depth to Invert (in / out)	Invert Level of Drain (in / out)	Design Surface Level	Setout Coordinates	Running Chainage
1B/7M	IPWEA SAG GULLY 2.4m LINTEL Type B1(300) K&C	145.138	145.074	1.497	144.697	146.194	E481010.405 N7014467.062	0.000
7/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	145.095	145.074 / 144.970	1.436 / 1.784	144.684 / 144.337	146.120	E481008.801 N7014467.274	1.618

Pipe	Pipe Size (mm)	Pipe Class	Pipe Grade (%)	Pipe Grade (1 in)	Part Pipe Velocity (m/s)	Full Pipe Velocity (m/s)	Pipe Flow (Cumecs)	Pipe Capacity at Grade (Cumecs)	Pipe Length
1B/7M – 7/M	375	3	0.82%	1 in 121.7	1.20	1.44	0.040	0.159	1.618

DATUM RL (m) 128.0

LINE 1B/7M

LINE 1A/7M

Structure Number	Structure Description	Water Level in Structure	Hydraulic Grade Level (in / out)	Depth to Invert (in / out)	Invert Level of Drain (in / out)	Design Surface Level	Setout Coordinates	Running Chainage
1A/7M	IPWEA SAG GULLY 2.4m LINTEL Type M3 K&C	145.465	145.094	1.329	144.754	146.083	E481002.062 N7014468.161	0.000
7/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	145.095	145.074 / 144.970	1.403 / 1.784	144.718 / 144.337	146.120	E481008.801 N7014467.274	6.797

Pipe	Pipe Size (mm)	Pipe Class	Pipe Grade (%)	Pipe Grade (1 in)	Part Pipe Velocity (m/s)	Full Pipe Velocity (m/s)	Pipe Flow (Cumecs)	Pipe Capacity at Grade (Cumecs)	Pipe Length
1A/7M – 7/M	375	3	0.54%	1 in 184.7	1.32	1.17	0.112	0.129	6.797

DATUM RL (m) 128.0

LINE 1A/7M

LINE N

Structure Number	Structure Description	Water Level in Structure	Hydraulic Grade Level (in / out)	Depth to Invert (in / out)	Invert Level of Drain (in / out)	Design Surface Level	Setout Coordinates	Running Chainage
1/N	IPWEA SAG GULLY 2.4m LINTEL Type B1(300) K&C ON 1200mm DIA MANHOLE	145.430	145.363	1.129	144.577	145.707	E481026.131 N7014439.977	0.000
2/N	IPWEA SAG GULLY 2.4m LINTEL Type B1(300) K&C ON 1500mm DIA MH EXTENDED 600mm	145.365	145.360 / 145.334	1.162 / 1.182	144.544 / 144.524	145.707	E481025.938 N7014448.210	8.235
(culvert crossing)					144.501			5.881
(culvert crossing)					144.494			7.472
(culvert crossing)					144.488			9.063
(watermain crossing)					144.466			14.130
6/M	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 600mm	145.356	145.325 / 145.104	1.624 / 1.644	144.453 / 144.433	146.077	E481008.229 N7014450.543	26.097

Pipe	Pipe Size (mm)	Pipe Class	Pipe Grade (%)	Pipe Grade (1 in)	Part Pipe Velocity (m/s)	Full Pipe Velocity (m/s)	Pipe Flow (Cumecs)	Pipe Capacity at Grade (Cumecs)	Pipe Length
1/N – 2/N	900x450	RCBC	0.4%	1 in 249.6	1.17	1.37	0.169	0.557	8.235
2/N – 6/M	900x450	RCBC	0.4%	1 in 250.2	1.24	1.37	0.199	0.556	17.862

DATUM RL (m) 128.0

LINE N

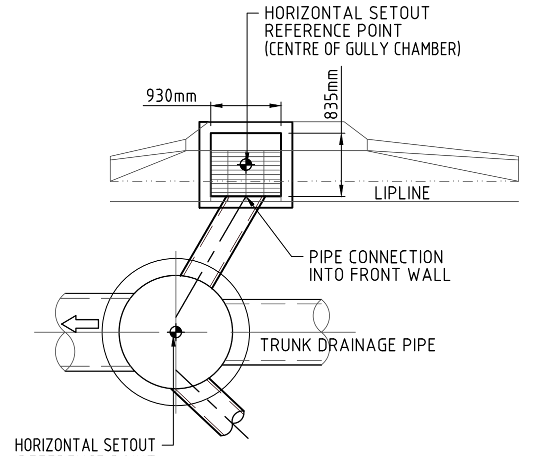
Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	℄ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
TYPE 'A' GULLY PIT, LIP IN LINE	CENTRE OF GULLY	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY	TOP OF GRATE OR COVER
HEADWALL	℄ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.



CONTRACTOR IS TO ENSURE THAT PIPE CONNECTIONS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS

GULLY PIT PIPE CONNECTION DETAIL
SCALE: NTS

REFER M2584E_5 D08A FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE

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APPROVED 21/10/24 — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 — A.FRASER RPEQ 5691 — J.PAPPAS RPEQ 6086 — S.MARSH RPEQ 8068 — H.WATSON RPEQ 6200

DESIGNED: CDV — DRAWN: WN — CHECKED: PNH — DATUM: AHD

ISSUE	DETAILS	DATE	INIT
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE: DRAINAGE LONGITUDINAL SECTIONS LINE M, 3M, N, 1A-7M & 1B-7M
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS: JOB NO: M2584E_5 — PLAN: D04 — ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE SECTIONS.DWG

LINE 0

STRUCTURE NUMBER	1/0	2/0	2A/0	3/0	4/0
STRUCTURE DESCRIPTION	STD IPWEA MANHOLE 1050mm DIA WITH TYPE 2 600x600 GRATED COVER	IPWEAQ SAG GULLY 3.6m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 900mm	CUSTOM MANHOLE	HW TO SUIT 1500mmx450mm RCBC
PIPE SIZE (mm)	600	825	1500x450	1500x450	
PIPE CLASS	2	2	RCBC	RCBC	
PIPE GRADE (%)	0.4%	0.4%	0.4%	0.4%	
PIPE GRADE (1 in)	1 in 250	1 in 249.7	1 in 249.3	1 in 250	
PART PIPE VELOCITY (m/s)	1.70	1.91	1.73	1.73	
FULL PIPE VELOCITY (m/s)	1.37	1.70	1.51	1.51	
DATUM RL (m)	128.0				
PIPE FLOW (Cumecs)	0.481	0.771	0.766	0.764	
PIPE CAPACITY AT GRADE (Cumecs)	0.388	0.909	1.021	1.020	
WATER LEVEL IN STRUCTURE	145.683	145.287	144.623	144.662	144.465
HYDRAULIC GRADE LEVEL	145.323	145.257 / 145.046	144.841 / 144.623	144.625	144.488 / 144.465
DEPTH TO INVERT	1.786	1.501 / 1.521	1.820 / 1.840	1.145	1.165 / 0.600
INVERT LEVEL OF DRAIN	144.527 / 144.508	144.484 / 144.464	144.311 / 144.291	144.210	144.190 / 144.170
DESIGN SURFACE LEVEL	146.314	145.985	146.131	145.355	144.770 / 144.170
SETOUT COORDINATES	E481122.545 N7014458.754	E481128.282 N7014467.892	E481162.862 N7014484.297	E481180.948 N7014492.877	E481178.621 N7014497.415
RUNNING CHAINAGE	0.000	10.790 / 10.790	38.274 / 49.064	20.018 / 69.082	5.100 / 74.182
PIPE LENGTH	4.781				

DN50 A 50mm IL 145.44

COVER TO BE DEPRESSED 50mm FROM FINISHED SURFACE TYPE 2 GRATE AS PER DS-050

COVER TO BE DEPRESSED 150mm FROM FINISHED SURFACE TYPE 1 GRATE AND APRON AS PER DS-050

FLOWS ABOVE A Q10 STORM EVENT TO SURCHARGE AND FLOW TOWARD BASIN TYPE 2 GRATE AS PER DS-050

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

LINE S-Q100

STRUCTURE NUMBER	1/S	2/S	1/0	1A/20	2/0
STRUCTURE DESCRIPTION	TO SUIT 1500mmx450mm RCBC STD IPWEA MANHOLE 1050mm DIA WITH TYPE 1 600X600 GRATED COVER	STD IPWEA MANHOLE 1050mm DIA WITH TYPE 2 600X600 GRATED COVER	STD IPWEA MANHOLE 1050mm DIA WITH TYPE 2 GRATED COVER	IPWEA SAG GULLY 2.4m LINTEL Type B1(300) K&C	IPWEA SAG GULLY 3.6m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE
PIPE SIZE (mm)	750	750			375
PIPE CLASS	3	3			3
PIPE GRADE (%)	1%	1%			0.4%
PIPE GRADE (1 in)	1 in 100	1 in 100			1 in 250
PART PIPE VELOCITY (m/s)	2.77	2.77			0.86
FULL PIPE VELOCITY (m/s)	2.52	2.52			1.00
DATUM RL (m)	129.0				128.0
PIPE FLOW (Cumecs)	0.840	0.840			0.030
PIPE CAPACITY AT GRADE (Cumecs)	1.114	1.114			0.111
WATER LEVEL IN STRUCTURE	146.065	145.891			145.659 / 145.267
HYDRAULIC GRADE LEVEL	146.065	145.856	145.669	145.601	145.295 / 145.232
DEPTH TO INVERT	1.848	1.752	1.772	1.273	1.787 / 1.310
INVERT LEVEL OF DRAIN	145.497	145.121	145.101	145.040	144.526 / 144.676
DESIGN SURFACE LEVEL	147.345	146.873		146.314	145.986 / 145.985
SETOUT COORDINATES	E481129.957 N7014415.865	E481124.615 N7014453.051		E481122.545 N7014458.754	E481124.274 N7014475.291 / E481128.282 N7014467.892
RUNNING CHAINAGE	0.000	37.568	37.568 / 6.067	43.635	0.000 / 8.415
PIPE LENGTH	37.568				8.415

SIZED TO CONVEY Q100 FLOWS

LINE J

STRUCTURE NUMBER	1/J	2/J	3/J	4/J	5/J	6/J	7/J
STRUCTURE DESCRIPTION	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C ON 1050mm DIA MANHOLE	STD IPWEA MANHOLE 1050mm DIAMETER	STD IPWEA MANHOLE 1350mm DIAMETER	STD IPWEA MANHOLE 1500mm DIAMETER EXTENDED 900mm	OUTLET HEADWALL to EXISTING DRAINAGE RESERVE
PIPE SIZE (mm) AND PIPE CLASS	375(2)	375(2)	600(2)	600(2)	675(2)	1050(2)	
PIPE GRADE %	0.45%	3.93%	1.00%	4.45%	2.88%	0.40%	
PIPE SLOPE 1 in X	222.11	25.48	100.05	22.48	34.76	250.02	
FULL PIPE FLOW VELOCITY (m/s)	0.57		1.24	2.06	2.63		
PART FULL FLOW VELOCITY (m/s)		2.60	2.26	4.49	4.29	2.29	
DATUM RL (m)	136.0						
WATER LEVEL IN STRUCTURE	152.486	152.331	149.402	149.201	146.821	145.522	145.000
HYDRAULIC GRADE LEVEL	152.486 / 152.332	152.320	149.402 / 149.270	149.185	146.821 / 146.800	145.522 / 146.426	145.313 / 145.000
PIPE FLOW (Cumecs)	0.063	0.085	0.363	0.601	0.969	1.730	
PIPE CAPACITY AT GRADE (Cumecs)	0.118	0.347	0.641	1.353	1.482	1.797	
DEPTH TO INVERT	1.495	1.415	1.480	1.928	2.618	2.356	2.737 / -0.204
INVERT LEVEL OF DRAIN	151.934	151.893 / 151.873	149.606	148.510	145.816	144.628	144.247 / **144.160**
DESIGN SURFACE LEVEL	153.429	153.308	151.086	150.438	148.434	146.984	144.956
STRUCTURE SETOUT CO-ORDINATES	E480936.720 N7014617.085	E480938.672 N7014608.159	E480996.399 N7014609.894	E481011.555 N7014612.632	E481020.890 N7014560.174	E481015.980 N7014521.777	E481037.445 N7014518.950
RUNNING CHAINAGE	0.000	9.137 / 9.137	57.753	66.890 / 81.898	15.008 / 53.354	135.252 / 173.962	38.710 / 195.612
PIPE LENGTH	9.137						21.650

PROPOSED 150 DIA WATERMAIN

Sewer Line DN 150 (IL 14.967 approx)

PROPOSED DN50 LOW PRESSURE SEWER

LOW PRESSURE SEWER PROPERTY CONNECTION DN 40

LOW PRESSURE SEWER PROPERTY CONNECTION DN 40

PROPOSED 150 DIA WATERMAIN

35.675m

41.941m

2.705m

18.952m

39.646m

5.000m

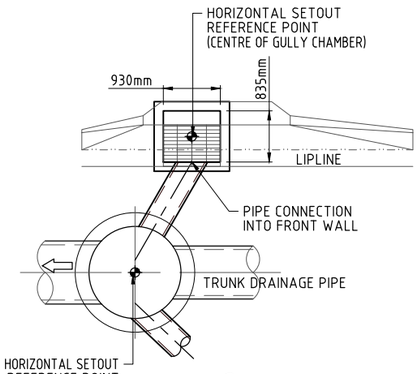
4.880

EXISTING STAGE 4 CONSTRUCTION

STAGE 5 CONSTRUCTION

REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	℄ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
TYPE 'A' GULLY PIT, LIP IN LINE	CENTRE OF GULLY	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY	TOP OF GRATE OR COVER
HEADWALL	℄ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.



CONTRACTOR IS TO ENSURE THAT PIPE CONNECTIONS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS

GULLY PIT PIPE CONNECTION DETAIL

SCALE: NTS

REFER M2584E_5 D08A FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: Horizontal 1:1000 Vertical 1:1100 — A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE (A1) 1:1000 (A1) 1:1000 Metres — DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.M^cKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 J.PAPPAS RPEQ 6086 S.MARSH RPEQ 8068 H.WATSON RPEQ 6200

DESIGNED CDV | DRAWN WN | CHECKED PNH | DATUM: AHD

ISSUE:	DETAILS:	DATE:	INIT:
C	PIT TYPES ON 1/S, 2/S & 1/O CHANGED	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:

DRAINAGE LONGITUDINAL SECTIONS LINE 0, 1A-20 & J

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:

JOB NO: M2584E_5
PLAN: D05 ISSUE: C
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE SECTIONS.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\DRAINAGE SECTIONS

Drainage Model: SWD
Rainfall File: AUS QLD Brisbane.12dhydro
Tc Method: Direct
Rainfall Method IFD Table
Runoff C Method: QUDM 2007
Storm Event Type: Minor

LOCATION			SUB-CATCHMENT RUNOFF							INLET DESIGN												DRAIN DESIGN																HEAD LOSSES									PART FULL		DESIGN LEVELS															
			Tc	I	fi	C	A	CA	Qc	Qa									Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Vf=Q/A	Qcap	Vcap	Vt		S/Do	Qg/Qo	Du/Do	$Vf^2/2g$	Ku	hu	Kw	hw	Sf	hf	dn	Vn															
DESIGN A.R.I.	STRUCTURE No.	DRAINAGE SECTION	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	FRACTION IMPERVIOUS	COEFFICIENT OF RUNOFF $C=\frac{A_1 \times C_1 + A_2 \times C_2}{A}$	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	FLOW D x V	ROAD GRADE AT INLET	ROAD XFALL AT INLET	12d INLET TYPE	12d INLET CURVE	FLOW INTO INTEL	BYPASS FLOW	BYPASS FLOW STRUCTURE	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	FULL PIPE VELOCITY	CAPACITY FLOW	CAPACITY VELOCITY	TRAVEL VELOCITY	12d Ku / Kw CHART IDENTIFIERS Refer to: a) QUDM Vol. 2 Charts 32-41, b) FHWA Culvert Charts	SUBMERGENCE RATIO USED IN CHARTS	FLOW RATIO USED IN CHARTS	DIAMETER RATIO USED IN CHARTS	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E. COEFFICIENT	CHANGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VELOCITY	PIPE U/S I.L.	PIPE D/S I.L.	PIPE U/S H.G.L.	PIPE D/S H.G.L.	W.S.E.	GRATE LEVEL	FREEBOARD	STRUCTURE No.
years			min	mm/hr	fi	C	ha	ha	L/s	L/s	L/s	m	m	m^2/s	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		m/s	L/s	m/s	m/s					m		m		m	%	m	m	m/s	m	m	m	m	m	m	m	m	m	
10	1A/2O	A	5	213	0.70	0.865	0.059	0.051	30	30					0.07	3	SAG SML E	SAG	30		LOST	5	213	0.051	30	30	8.415	0.4	375	2	0.86	111	1	2	G2	1.65	1		0.004	8.9	0.034		0.034	0.03	0.003	0.134	0.86	144.676	144.642	145.26	145.257	145.294	145.986	0.692	1A/2O
	2/O		5	213	0.70	0.865	0.717	0.62	367	367					0.07	3.11	SAG SML D	SAG	260	107	LOST														T3/T6	1.29	0.34	0.86		1.99	0.211	2.27	0.241							145.287	145.985	0.698	2/O
	1A/3M	A	5	213	0.70	0.865	0.298	0.257	152	191					5.2	3	SML D	4G,3.3X	124	67	5/M	5	213	0.257	152	124	11.073	7.01	375	2	3.56	464	4.2	2	G2	2.43	1		0.065	5.19	0.335		0.335	0.5	0.056	0.133	3.56	147.172	146.396	147.748	147.692	148.083	148.4	0.317	1A/3M
	3/M		5	213	0.70	0.865	0.213	0.184	109	125					4.46	3.38	SML D	4G,3.3X	94	32	4/M														T1/T3	3.12	0.24	1		1.29	0.386	1.45	0.436							147.742	148.066	0.324	3/M
	1B/7M	A	5	213	0.70	0.865	0.078	0.067	40	40					0.06	3.01	SAG SML E	SAG	40		2/N	5	213	0.067	40	40	1.618	0.82	375	2	1.2	159	1.44	2	G2	1.18	1		0.007	9.7	0.064		0.064	0.05	0.001	0.128	1.2	144.697	144.684	145.074	145.074	145.138	146.194	1.056	1B/7M
	7/M				0.70												MH 1500																		T1/T3	1.12		0.99		1.42	0.103	1.71	0.124							145.095	146.12	1.026	7/M
	1A/7M	A	5	213	0.70	0.865	0.169	0.146	87	112					0.06	3.01	SAG SML D		112			5	213	0.146	87	112	6.797	0.54	375	2	1.32	129	1.17	2	G2	1.99	1		0.052	7.07	0.37		0.37	0.31	0.024	0.27	1.32	144.754	144.718	145.094	145.074	145.465	146.083	0.619	1A/7M
	7/M				0.70												MH 1500																		T1/T3	1.12		0.99		1.42	0.103	1.71	0.124							145.095	146.12	1.026	7/M
	1/M	A	5	213	0.70	0.865	0.274	0.237	140	140					5.2	3	SML D	4G,3.3X	101	39	1A/3M	5	213	0.237	140	101	17.841	10.33	375	2	3.86	564	5.1	2	G2	1.88	1		0.043	7.67	0.328		0.328	8.77	1.621	0.108	3.86	150.64	148.797	150.874	149.31	151.202	152.04	0.838	1/M
	2/M	A	5	213	0.70	0.865	0.177	0.153	91	91					5.2	3	SML D	4G,3.3X	74	17	3/M	5.15	212	0.391	230	174	61.349	3.85	375	2	3.13	344	3.12	2	T3/T6	1.75	0.42	1	0.127	1.78	0.227	2.22	0.282	2.27	1.43	0.189	3.13	148.777	146.415	149.083	147.692	149.365	151.227	1.862	2/M
	3/M		5	213	0.70	0.865	0.213	0.184	109	125					4.46	3.38	SML D	4G,3.3X	94	32	4/M														T1/T3	3.12	0.24	1		1.29	0.386	1.45	0.436							147.742	148.066	0.324	3/M
	4/M	A	5	213	0.70	0.865	0.196	0.17	100	132					1.75	3	SML D	2G,3.3X	107	25	1A/7M	6.08	204	1.015	576	483	9.844	3.01	675	2	3.66	1459	4.08	2	T6/T9	1.52	0.22	0.67	0.093	2.46	0.229	2.81	0.261	0.33	0.032	0.268	3.66	145.401	145.105	146.165	146.132	146.426	146.889	0.463	4/M
	5/M	A	5	213	0.70	0.865	0.296	0.256	151	219					1.75	3	SML D	2G,3.3X	146	72	5A/M	6.16	204	1.279	723	626	33.234	1.17	675	2	2.74	909	2.54	2	T9/T10	1.73	0.23	1	0.156	2.14	0.335	2.57	0.401	0.55	0.184	0.412	2.74	145.029	144.641	145.798	145.614	146.199	146.805	0.606	5/M
	5A/M	A	5	213	0.70	0.865	0.027	0.024	14	86					1.37	3.02	SML E	1G,3.3X	81	5	1/N	6.44	201	1.304	729	698	13.514	0.15	750	2	1.58	431	0.98	2	T3/T6	1.4	0.11	0.9	0.127	1.85	0.236	2.16	0.275	0.39	0.053	0.75	1.58	144.603	144.583	145.378	145.325	145.653	146.39	0.737	5A/M
	6/M	A			0.70												TMR MH 1500					6.55	200	1.645	915	890	16.741	0.4	900	2	1.99	1147	1.8	2	T6/T9	1.28		1	0.1	2.21	0.221	2.52	0.251	0.18	0.046	0.596	1.99	144.433	144.366	145.104	145.074	145.356	146.077	0.722	6/M
	7/M				0.70												MH 1500																		T1/T3	1.12		0.99		1.42	0.103	1.71	0.124							145.095	146.12	1.026	7/M
	8/M	A			0.70												MH 1500 EX 600					6.88	198	1.868	1026	1026	21.582	0.4	1050	2	2.74	2505	2.89	2	T10	1.18		1	0.072	2.09	0.15	2.66	0.19	0.88	0.037	0.469	2.74	144.226	144.14	144.798	144.609	144.989	146.269	1.28	8/M
	9/M				0.70												HW																																		144.609	145.19		9/M
	1/N	A	5	213	0.70	0.865	0.32	0.277	164	169					0.07	3	SAG SML E	SAG	169		LOST	5	213	0.277	164	169	8.235	0.4	900x 450	RCBC	1.17	557	1.37	2	G2	1.9	1		0.009	7.57	0.067		0.067	0.04	0.003	0.16	1.17	144.577	144.544	145.363	145.36	145.43	145.707	0.276	1/N
	2/N	A	5	213	0.70	0.865	0.059	0.051	30	30					0.24	2.99	SAG SML E	SAG	30		LOST	5.07	212	0.328	194	199	17.862	0.4	900x 450	RCBC	1.24	556	1.37	2	T9/T10	1.87	0.15	1	0.012	2.1	0.026	2.52	0.031	0.05	0.009	0.179	1.24	144.524	144.453	145.334	145.325	145.365	145.707	0.341	2/N
	6/M	A			0.70												TMR MH 1500					6.55	200	1.645	915	890	16.741	0.4	900	2	1.99	1147	1.8	2	T6/T9	1.28		1	0.1	2.21	0.221	2.52	0.251	0.18	0.046	0.596	1.99	144.433	144.366	145.104	145.074	145.356	146.077	0.722	6/M
	1/O	A	5	213	0.70	0.865	0.022	0.019	11	11						-2.5	RW 600x600 GRATE		11			5	213	0.019	481	481	10.79	0.4	600	2	1.7	388	1.37	2	T6/T9	1.93	0.01	1	0.148	2.03	0.301	2.43	0.36	0.61	0.066	0.6	1.7	144.527	144.484	145.323	145.257	145.683	146.314	0.631	1/O
	2/O		5	213	0.70	0.865	0.717	0.62	367	367					0.07	3.11	SAG SML D	SAG	260	107	LOST														T3/T6	1.29	0.34	0.86		1.99	0.211	2.27	0.241							145.287	145.985	0.698	2/O
	2A/O	A			0.70												MH 1500 EX 900					5.39	210	0.692	873	766	20.018	0.4	1500 x450	RCBC	1.73	1021	1.51	2	T1	1		0.89	0.066				-0.01	0.041	0.295	1.73	144.291	144.21	144.623	144.625	144.623	146.167	1.544	2A/O
	3/O	A			0.70												CUSTOM MANHOLE					5.56	208	0.692	870	764	5.1	0.4	1500 x450	RCBC	1.73	1020	1.51	2	T10	1.39		1	0.065	2.09	0.136	2.66	0.174	0.46	0.02	0.295	1.73	144.19	144.17	144.488	144.465	144.662	145.355	0.693	3/O
	4/O				0.70												HW																																		144.465	144.77		4/O
	1/S																																																																
	2/S																																																												
	1/O																																																												

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NORTH:

SCALE: Horizontal 1:1000 Vertical 1:100 — A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE — 0 1 2 3 4 5 (A1) 1:100 10 Metres; 0 10 20 30 40 50 (A1) 1:1000 100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.M°KINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086 ☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
DRAINAGE CALCULATIONS TABLE SHEET 1 OF 2 - MINOR
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D06 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE SECTIONS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\DRAINAGE SECTIONS

Drainage Model: SWD
Rainfall File: AUS QLD Brisbane.12dhydro
Tc Method: Direct
Rainfall Method: IFD Table
Runoff C Method: QUDM 2007
Storm Event Type: Minor

LOCATION / SUB-CATCHMENT RUNOFF / INLET DESIGN

DESIGN A.R.I. (years)	STRUCTURE No.	DRAINAGE SECTION	Tc SUB-CATCHMENT TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/hr)	fi FRACTION IMPERVIOUS (fi)	C COEFFICIENT OF RUNOFF C = A1 x C1 + A2 x C2 / A (C)	A SUB-CATCHMENT AREA (ha)	CA EQUIVALENT AREA (ha)	Qc SUB-CATCHMENT DISCHARGE (L/s)	Qa FLOW IN K&C (INC. BYPASS) (L/s)	HALF ROAD CAPACITY (L/s)	FLOW WIDTH (m)	FLOW DEPTH (m)	FLOW D x V (m^2/s)	ROAD GRADE AT INLET (%)	ROAD XFALL AT INLET (%)	12d INLET TYPE	12d INLET CURVE	Qg FLOW INTO INLET (L/s)	Qb BYPASS FLOW (L/s)	BYPASS FLOW STRUCTURE
50	1A/20	A	5	288	0.70	0.964	0.059	0.057	46	46					0.07	3	SAG SML E	SAG	40	5	LOST
	2/O		5	288	0.7	0.964	0.717	0.692	553	553					0.07	3.11	SAG SML D	SAG	130	423	LOST
	1A/3M	A	5	288	0.7	0.964	0.298	0.287	230	336					5.2	3	SML D	4G,3.3X	140	196	5/M
	3/M		5	288	0.7	0.964	0.213	0.205	164	221					4.46	3.38	SML D	4G,3.3X	68	153	4/M
	1B/7M	A	5	288	0.7	0.964	0.078	0.075	60	60					0.06	3.01	SAG SML E	SAG	24	36	2/N
	7/M				0.7												MH 1500				
	1A/7M	A	5	288	0.7	0.964	0.169	0.163	131	293					0.06	3.01	SAG SML D		293		
	7/M				0.7												MH 1500				
	1/M	A	5	288	0.7	0.964	0.274	0.264	212	212					5.2	3	SML D	4G,3.3X	105	106	1A/3M
	2/M	A	5	288	0.7	0.964	0.177	0.171	137	137					5.2	3	SML D	4G,3.3X	80	57	3/M
	3/M		5	288	0.7	0.964	0.213	0.205	164	221					4.46	3.38	SML D	4G,3.3X	68	153	4/M
	4/M	A	5	288	0.7	0.964	0.196	0.189	151	304					1.75	3	SML D	2G,3.3X	142	162	1A/7M
	5/M	A	5	288	0.7	0.964	0.296	0.285	228	424					1.75	3	SML D	2G,3.3X	171	254	5A/M
	5A/M	A	5	288	0.7	0.964	0.027	0.027	21	275					1.37	3.02	SML E	1G,3.3X	134	140	1/N
	6/M	A			0.7												TMR MH 1500				
	7/M				0.7												MH 1500				
	8/M	A			0.7												MH 1500 EX 600				
	9/M				0.7												HW				
	1/N	A	5	288	0.7	0.964	0.32	0.309	247	387					0.07	3	SAG SML E	SAG	120	267	LOST
	2/N	A	5	288	0.7	0.964	0.059	0.057	46	82					0.24	2.99	SAG SML E	SAG	82		LOST
	6/M	A			0.7												TMR MH 1500				
	1/O	A	5	288	0.7	0.964	0.022	0.021	17	17						-2.5	RW 600x600 GRATE		17		
	2/O		5	288	0.7	0.964	0.717	0.692	553	553					0.07	3.11	SAG SML D	SAG	130	423	LOST
	2A/O	A			0.7												MH 1500 EX 900				
	3/O	A			0.7												CUSTOM MANHOLE				
	4/O				0.7												HW				
	1/S																				
	2/S																				
	1/O																				

DRAIN DESIGN

STRUCTURE No.	Tc CRITICAL TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/hr)	CA TOTAL (C x A) (ha)	Qrat PEAK FLOW (L/s)	Q PIPE FLOW (L/s)	L REACH LENGTH (m)	S PIPE GRADE (%)	PIPE SIZE (mm)	PIPE CLASS	Vf=Q/A FULL PIPE VELOCITY (m/s)	Qcap CAPACITY FLOW (L/s)	Vcap CAPACITY VELOCITY (m/s)	Vt TRAVEL VELOCITY (m/s)
1A/20	5	288	0.057	46	40	8.415	0.4	375	2	0.92	111	1	2
2/O													
1A/3M	5	288	0.287	230	140	11.073	7.01	375	2	3.68	464	4.2	2
3/M													
1B/7M	5	288	0.075	60	24	1.618	0.82	375	2	1.03	159	1.44	2
7/M													
1A/7M	5	288	0.163	131	293	6.797	0.54	375	2	2.65	129	1.17	2
7/M													
1/M	5	288	0.264	212	105	17.841	10.33	375	2	3.91	564	5.1	2
2/M	5.15	286	0.436	347	183	61.349	3.85	375	2	3.17	344	3.12	2
3/M													
4/M	6.08	275	1.132	866	508	9.844	3.01	675	2	3.71	1459	4.08	2
5/M	6.16	274	1.427	1087	672	33.234	1.17	675	2	2.78	909	2.54	2
5A/M	6.44	271	1.455	1095	793	13.514	0.15	750	2	1.8	431	0.98	2
6/M	6.55	270	1.835	1375	982	16.741	0.4	900	2	2.02	1147	1.8	2
7/M													
8/M	6.88	266	2.085	1539	1272	21.582	0.4	1050	2	2.89	2505	2.89	2
9/M													
1/N	5	288	0.309	247	120	8.235	0.4	900x450	RCBC	1.04	557	1.37	2
2/N	5.07	287	0.366	292	201	17.862	0.4	900x450	RCBC	1.24	556	1.37	2
6/M	6.55	270	1.835	1375	982	16.741	0.4	900	2	2.02	1147	1.8	2
1/O	5	288	0.021	487	487	10.79	0.4	600	2	1.72	388	1.37	2
2/O													
2A/O	5.39	283	0.771	1077	649	20.018	0.4	1500x450	RCBC	1.64	1021	1.51	2
3/O	5.56	281	0.771	1073	644	5.1	0.4	1500x450	RCBC	1.63	1020	1.51	2
4/O													
1/S													
2/S													
1/O													

HEAD LOSSES / PART FULL / DESIGN LEVELS

STRUCTURE No.	12d Ku / Kw CHART IDENTIFIERS Refer to: a) QUDM Vol. 2 Charts 32-47, b) FHWA Culvert Charts	S/Do SUBMERGENCE RATIO USED IN CHARTS	Qg/Qo FLOW RATIO USED IN CHARTS	Du/Do DIAMETER RATIO USED IN CHARTS	$Vf^2/2g$ VELOCITY HEAD (m)	Ku U/S HEAD LOSS COEFFICIENT	hu U/S HEAD LOSS (m)	Kw W.S.E. COEFFICIENT	hw CHANGE IN W.S.E. (m)	Sf PIPE FRICTION SLOPE (%)	hf PIPE FRICTION HEAD LOSS (m)	dn NORMAL DEPTH (m)	Vn NORMAL DEPTH VELOCITY (m/s)	PIPE U/S I.L. (m)	PIPE D/S I.L. (m)	PIPE U/S H.G.L. (m)	PIPE D/S H.G.L. (m)	W.S.E. (m)	GRATE LEVEL (m)	FREEBOARD (m)	STRUCTURE No.
1A/20	G2	1.43	1		0.007	9.7	0.066		0.066	0.05	0.004	0.156	0.92	144.676	144.642	145.146	145.142	145.212	145.986	0.774	1A/20
2/O	T3/T6	1.21	0.2	0.86		2.05	0.158	2.28	0.175									145.159	145.985	0.826	2/O
1A/3M	G2	3.19	1		0.082	3.6	0.293		0.293	0.63	0.07	0.141	3.68	147.172	146.396	148.074	148.004	148.368	148.4	0.033	1A/3M
3/M	T3	3.81	0.17	1		1.15	0.337	1.33	0.389									148.056	148.066	0.01	3/M
1B/7M	G2	1.75	1		0.002	8.37	0.019		0.019	0.02		0.097	1.03	144.697	144.684	145.333	145.333	145.352	146.194	0.842	1B/7M
7/M	T3/T6	1.23		0.99		1.8	0.203	2.16	0.243									145.373	146.12	0.748	7/M
1A/7M	G2	3.54	1		0.201	3.21	0.645		0.645	1.56	0.106	0.375	2.65	144.754	144.718	145.439	145.333	146.083	146.083		1A/7M
7/M	T3/T6	1.23		0.99		1.8	0.203	2.16	0.243									145.373	146.12	0.748	7/M
1/M	G2	1.92	1		0.047	7.43	0.345		0.345	8.62	1.595	0.11	3.91	150.64	148.797	150.879	149.341	151.225	152.04	0.816	1/M
2/M	T3/T6	1.82	0.43	1	0.141	1.78	0.25	2.18	0.307	1.77	1.122	0.195	3.17	148.777	146.415	149.09	148.004	149.397	151.227	1.83	2/M
3/M	T3	3.81	0.17	1		1.15	0.337	1.33	0.389									148.056	148.066	0.01	3/M
4/M	T6/T9	2.11	0.27	0.67	0.103	1.93	0.199	2.42	0.248	0.36	0.036	0.275	3.71	145.401	145.105	146.58	146.544	146.828	146.889	0.061	4/M
5/M	T9/T10	2.33	0.25	1	0.18	1.85	0.332	2.17	0.39	0.64	0.212	0.432	2.78	145.029	144.641	146.211	145.999	146.601	146.805	0.204	5/M
5A/M	T3/T6	1.91	0.17	0.9	0.164	1.72	0.282	1.94	0.318	0.51	0.069	0.75	1.8	144.603	144.583	145.717	145.649	146.036	146.39	0.355	5A/M
6/M	T6/T9	1.39		1	0.122	2.2	0.267	2.5	0.304	0.29	0.049	0.641	2.02	144.433	144.366	145.382	145.333	145.686	146.077	0.391	6/M
7/M	T3/T6	1.23		0.99		1.8	0.203	2.16	0.243									145.373	146.12	0.748	7/M
8/M	T10	1.28		1	0.11	2.09	0.23	2.66	0.293	0.91	0.038	0.531	2.89	144.226	144.14	144.867	144.671	145.16	146.269	1.11	8/M
9/M																		144.671	145.19		9/M
1/N	G2	2.5	1		0.004	4.89	0.022		0.022	0.02	0.002	0.128	1.04	144.577	144.544	145.682	145.68	145.704	145.707	0.003	1/N
2/N	T9/T10	2.58	0.41	1	0.013	1.76	0.022	2.01	0.025	0.05	0.009	0.18	1.24	144.524	144.453	145.658	145.649	145.683	145.707	0.023	2/N
6/M	T6/T9	1.39		1	0.122	2.2	0.267	2.5	0.304	0.29	0.049	0.641	2.02	144.433	144.366	145.382	145.333	145.686	146.077	0.391	6/M
1/O	T6/T9	1.77	0.02	1	0.151	2.17	0.328	2.53	0.382	0.63	0.068	0.6	1.72	144.527	144.484	145.21	145.142	145.592	146.314	0.722	1/O
2/O	T3/T6	1.21	0.2	0.86		2.05	0.158	2.28	0.175									145.159	145.985	0.826	2/O
2A/O	T1	1		0.89	0.047					0.02	0.057	0.264	1.64	144.291	144.21	144.558	144.554	144.558	146.167	1.609	2A/O
3/O	T10	1.27		1	0.046	2.09	0.097	2.66	0.124	0.46	0.02	0.263	1.63	144.19	144.17	144.456	144.433	144.58	145.355	0.775	3/O
4/O																		144.433	144.77		4/O
1/S																					
2/S																					
1/O																					

REFER M2584E_5 D08
FOR ALLOWABLE STORMWATER
PIPE CONSTRUCTION EQUIPMENT
LOAD TABLE

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NORTH:

SCALE: Horizontal 1:1000 Vertical 1:100 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE — A1 — (A1) 1:100 — (A1) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24 — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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DESIGNED: CDV — DRAWN: WN — CHECKED: PNH — DATUM: AHD

ISSUE	DETAILS	DATE	INIT
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
DRAINAGE CALCULATIONS TABLES
SHEET 2 OF 2 - MAJOR
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

JOB NO: M2584E_5
PLAN: D07 — ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE SECTIONS.DWG

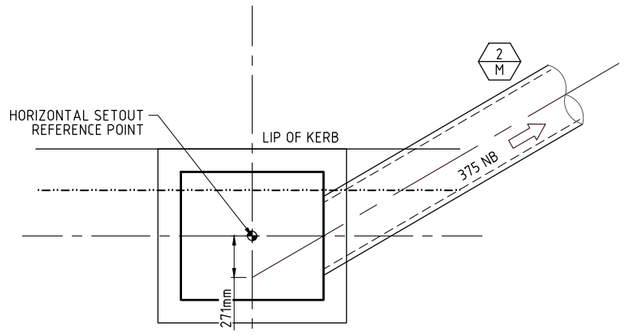
CONSTRUCTION EQUIPMENT	PIPE CLASS	MINIMUM COMPACTION COVER TO PIPE OBVERT								
		ϕ375	ϕ450	ϕ525	ϕ600	ϕ675	ϕ750	ϕ825	ϕ900	ϕ1050
VIBRATORY RAMMER (UP TO 75kg)	2	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.25
	3	0.300	0.300	0.300	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH ROLLER (UP TO 2t)	2	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
	3	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (7t)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
	3	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (10t)	2	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
	3	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR AND COMPACTION WHEEL (15t)	2	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
	3	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR AND COMPACTION WHEEL (25t)	2	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
	3	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER [CAT120H] 14.5t)	2	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER [CAT140H] (17.0t)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER [CAT613C11] (27.2t)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
SCRAPER [CAT621F] (53.8t)	2	0.700	0.650	0.650	0.650	0.600	0.600	0.600	0.600	0.600
	3	0.650	0.600	0.600	0.650	0.600	0.600	0.600	0.600	0.600
DOZER [CATD7 G]	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER [CATD9 R]	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR [CAT315B] (15.8t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR [CAT317] (17.3t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR [CAT325B] (25.9t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

NOTES:

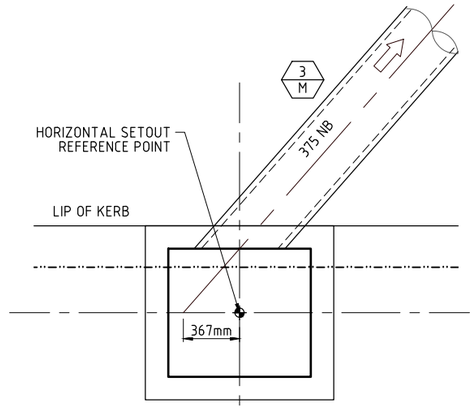
1. SOIL TYPE USED FOR THIS TABLE IS CLAYEY SAND. ALL OTHER SOIL TYPES MUST BE REFERRED IMMEDIATELY TO THE SUPERVISING ENGINEER SO MINIMUM COVERS CAN BE CALCULATED.
2. INSTALLATION TYPE FOR THIS TABLE IS HS2. (REFER DETAIL)
3. ANY CONSTRUCTION EQUIPMENT, INSTALLATION TYPE, PIPE CLASS OR PIPE DIAMETER NOT COVERED IN THIS TABLE SHOULD BE REFERRED ONTO THE SUPERVISING ENGINEER BEFORE ANY CONSTRUCTION COMMENCES
4. DISTANCES SHOWN ARE THE ABSOLUTE MINIMUM COMPACTION COVER TO THE OBVERT OF THE STORMWATER PIPE FOR THE NOMINATED MACHINERY. THE CONTRACTOR IS TO ENSURE THAT MACHINES THAT REQUIRE HIGHER COMPACTION COVER ARE KEPT CLEAR OF STORMWATER PIPES AND TRENCHES UNTIL THEIR NECESSARY COMPACTION COVER IS ACHIEVED.
5. CONSTRUCTION EQUIPMENT LISTED IN THIS TABLE ARE EXAMPLES ONLY AND EQUIVALENT MACHINERY MAY BE USED.

NOTE:
CRACKED PIPES WILL NOT BE ACCEPTED AT 'ON MAINTENANCE' AND IT IS TO BE DEMONSTRATED IN ACCORDANCE WITH COUNCIL STANDARDS THAT THE STORMWATER SYSTEM IS ACCEPTABLE TO COUNCIL WITH REGARD TO CRACKED PIPES. (THE CONTRACTOR IS TO REFER TO SECTION 6.5.1 OF THE SUBDIVISION AND DEVELOPMENT GUIDELINES FOR FURTHER INFORMATION.)

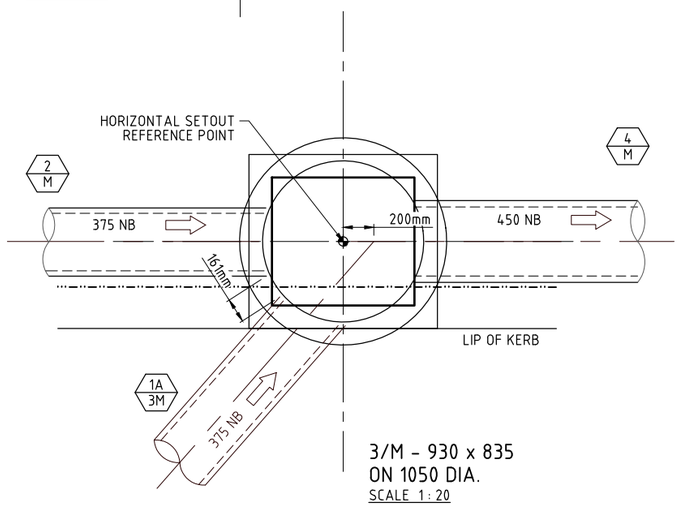
STORMWATER PIPE BEDDING TO BE IN ACCORDANCE WITH IPWEA STANDARD DRAWING DS-030



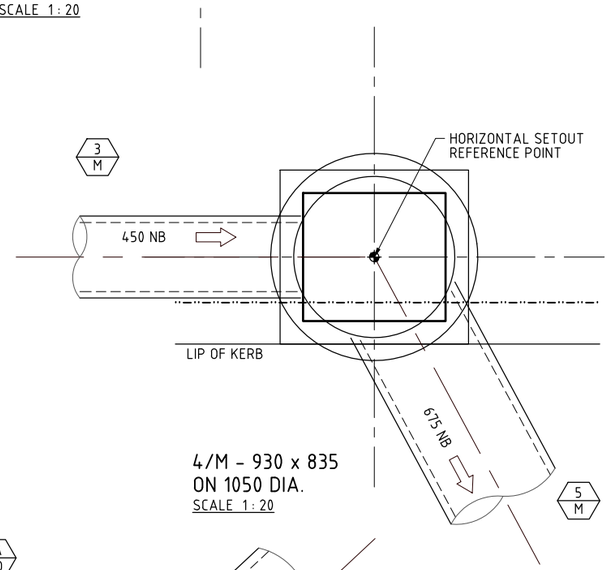
1/M - 930 x 835
SCALE 1:20



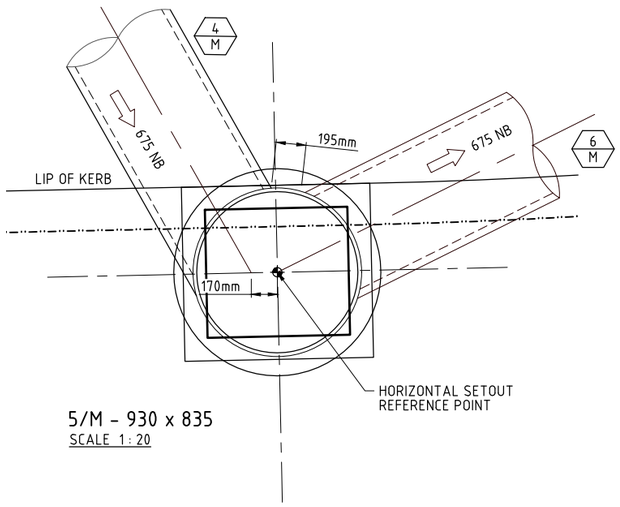
1A/3M - 930 x 835
SCALE 1:20



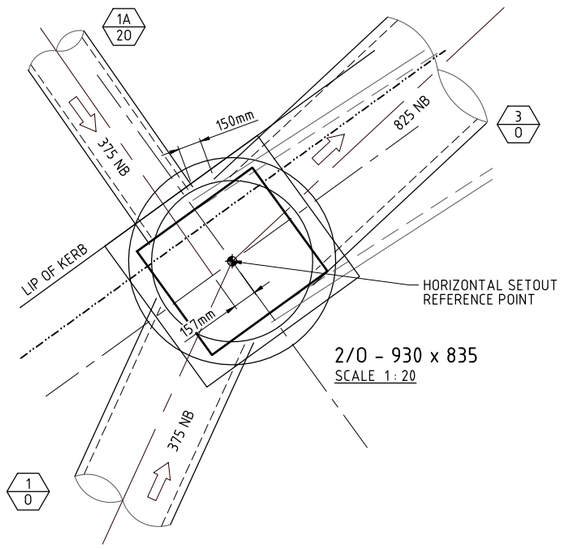
3/M - 930 x 835
ON 1050 DIA.
SCALE 1:20



4/M - 930 x 835
ON 1050 DIA.
SCALE 1:20



5/M - 930 x 835
SCALE 1:20



2/O - 930 x 835
SCALE 1:20

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

NORTH: N

SCALE: 1:20 (A1) / (A3) 1:40
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 0.2 0.4 0.6 0.8 1 (A1) 1:20 2 Metres
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APPROVED 21/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE: DRAINAGE STRUCTURES DETAILS - SHEET 1 OF 2

DFC (PROJECT MANAGEMENT PTY LTD)

'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D08A ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE STRUCTURES.DWG

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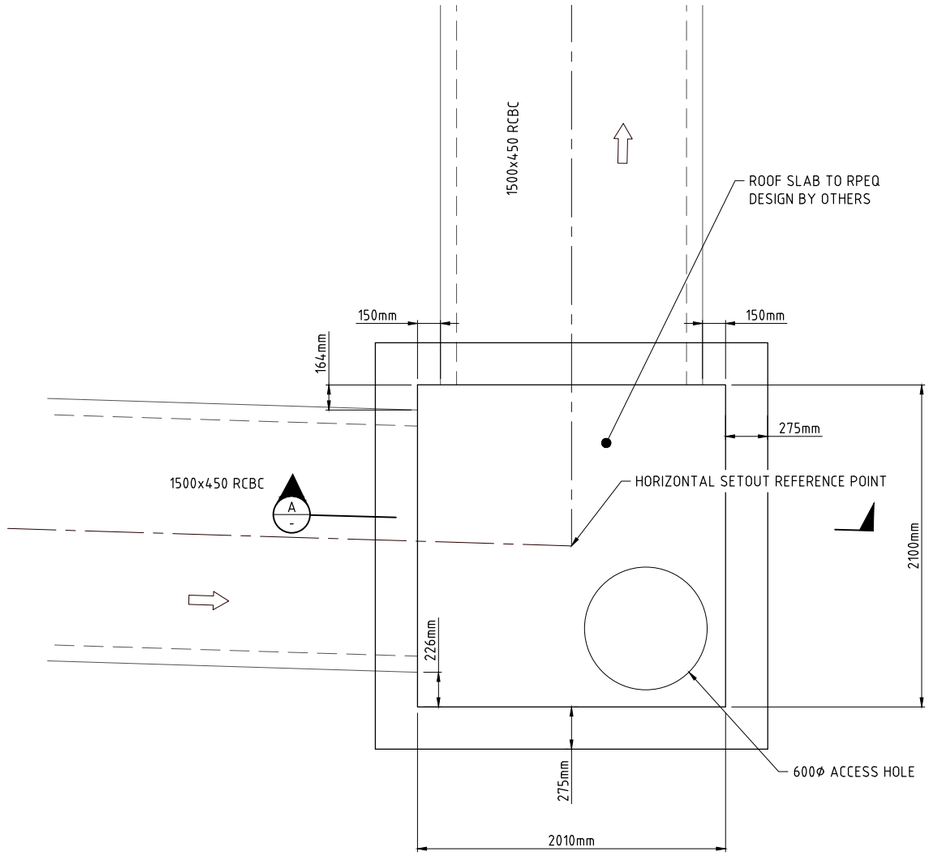
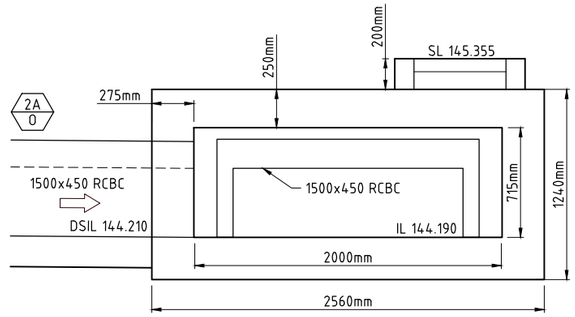
ENGINEERS
LANDSCAPE ARCHITECTS

16/12/2024 N:\DESIGN\WORKING DRAWINGS\DRAINAGE STRUCTURES

DRAINAGE STRUCTURE TO DESIGNED AND CERTIFIED BY A STRUCTURAL REGISTERED PROFESSIONAL ENGINEER(RPEQ) AND APPROVED BY THE RELEVANT AUTHORITY PRIOR TO CONSTRUCTION WORKS BEING UNDERTAKEN



STRUCTURE 3/0
CUSTOM STRUCTURE
SCALE 1:20



STRUCTURE 3/0 - SECTION A-A
CUSTOM STRUCTURE
SCALE 1:20

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LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:20 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 0.2 0.4 0.6 0.8 1 (A1) 1:20 2 Metres
(A3) 1:40
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

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FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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☑ A.FRASER RPEQ 5691 ☐ H.WATSON RPEQ 6200
☐ J.PAPPAS RPEQ 6086

DESIGNED	CDV
DRAWN	LK
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	13/12/24	LK

TITLE:
DRAINAGE STRUCTURES DETAILS - SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DETAILS:
JOB NO: M2584E_5
PLAN: D08B ISSUE: A
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: DRAINAGE STRUCTURES.DWG

DENNIS FAMILY CORPORATION

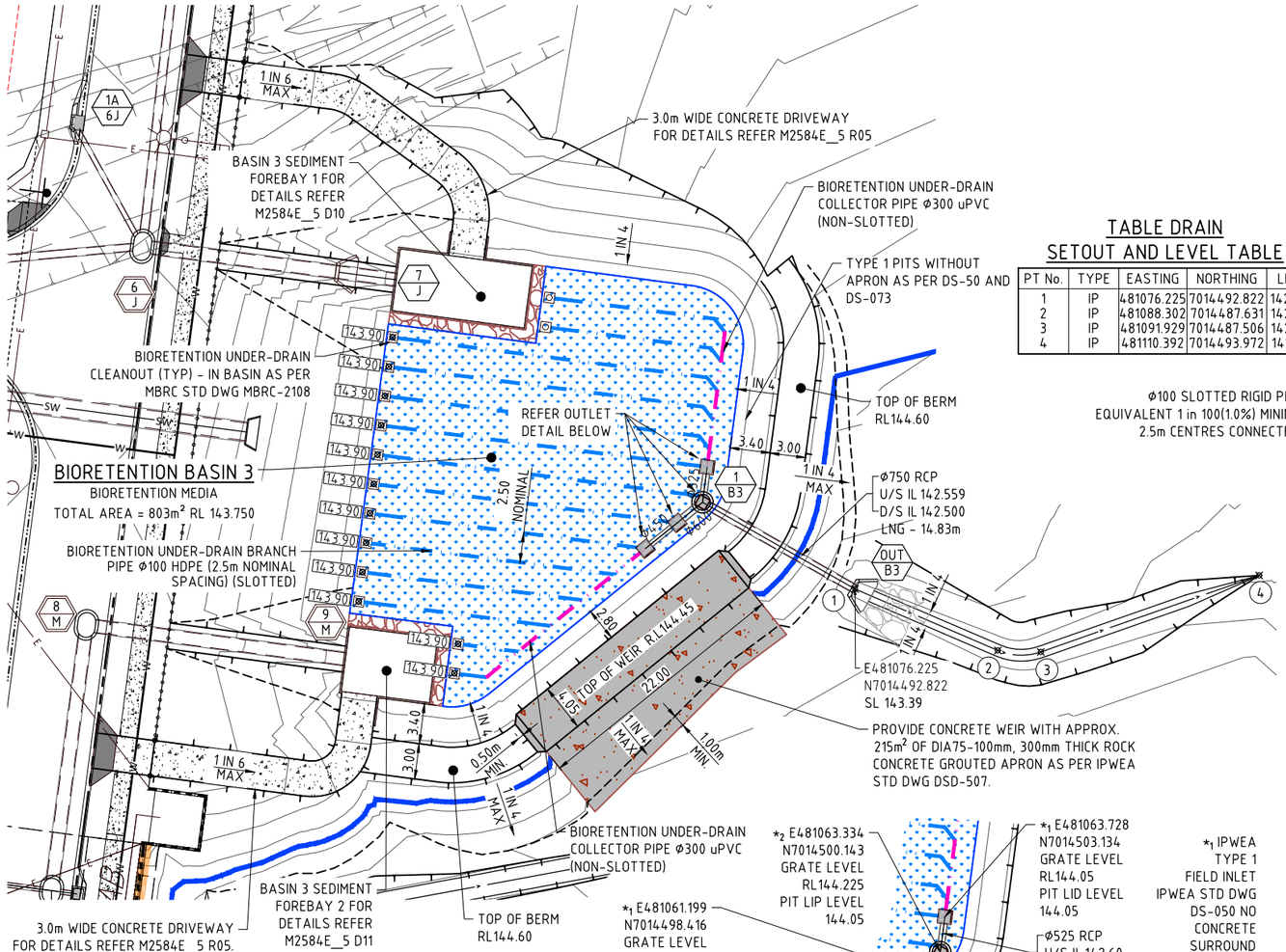
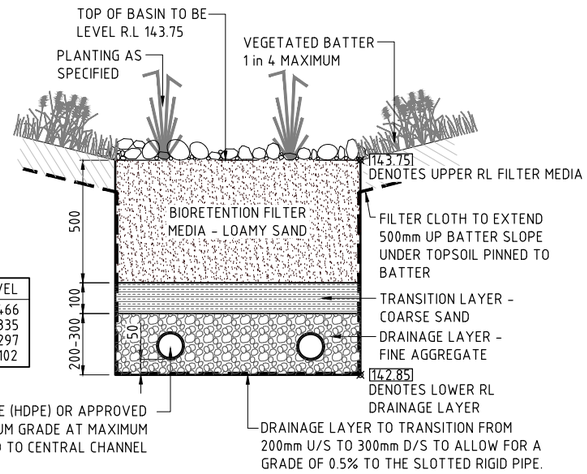


TABLE DRAIN SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
1	IP	481076.225	7014492.822	142.466
2	IP	481088.302	7014487.631	142.335
3	IP	481091.929	7014487.506	142.297
4	IP	481110.392	7014493.972	142.102



LEGEND:

- PROPOSED STORMWATER DRAINAGE — SWD
- PROPOSED UNDER DRAINAGE Ø100 SLOTTED PIPE
- PROPOSED UNDER DRAINAGE Ø225 NON SLOTTED PIPE
- PROPOSED UNDER DRAINAGE Ø300 NON SLOTTED PIPE
- STRUCTURE NUMBERS — 1/16, 1/A, 1/10B — EXISTING / PROPOSED / FUTURE
- FENCE (REFER LANDSCAPE DRAWINGS)

BIORETENTION FILTER MATERIAL DETAIL

NOT TO SCALE

1. CONSTRUCTION TOLERANCES AS DOCUMENTED IN THE "WATER SENSITIVE URBAN DESIGN CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS" (WATER BY DESIGN) MUST BE ACHIEVED.
2. FILTER CLOTH IS NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. FILTER CLOTH IS TO EXTEND 500mm UP BATTER UNDER TOPSOIL PINNED TO BATTER.
3. UNDER-DRAIN: SLOTTED RIGID PIPE (HDPE OR SIMILAR TO AS 2439.1) OR APPROVED EQUIVALENT, 0.5% MIN. GRADE. PIPE JOINS SHOULD BE GLUED USING PLUMBING CEMENT. PIPE SHOULD NOT BE INSTALLED WITH A FILTER SOCK AT MAX 2.5m CENTRES.

BIORETENTION MEDIA SPECIFICATION

FILTER MATERIAL SHELL BE GRADED AND CAN BE SILICEOUS OR CALCAREOUS IN ORIGIN.
THE FILTER MATERIAL SHALL BE EVENLY PLACED AND LIGHTLY COMPACTED. THE FILTER MATERIAL SHALL COMPLY WITH THE FOLLOWING CRITERIA:

MATERIAL:
SANDY LOAM OR APPROVED EQUIVALENT WITH A HYDRAULIC CONDUCTIVITY OF 180mm/hr AND BE FREE FROM RUBBISH AND DETRITUS MATERIAL.

PARTICLE SIZE:
TYPICAL SOIL COMPOSITION WOULD BE:
CLAY 5-15% (PARTICLE SIZE <0.002mm)
SILT <30% (PARTICLE SIZE 0.002-0.05mm)
SAND 50%-70% (PARTICLE SIZE 0.05mm-2.0mm)
AND APPROVED MATERIAL DOES NOT HAVE TO BE SCREENED TO REMOVE LARGE PARTICLES.

ORGANIC CONTENT:
ACCEPTABLE RANGE BETWEEN 5%-10%,MEASURED IN ACCORDANCE WITH AS1289 4.1.1

pH
6.0 TO 7.5, SILICEOUS MATERIAL MAY BE LOWER.

TRANSITIONAL LAYER
SHALL BE WELL GRADED SAND OR COURSE SAND MATERIAL. THE GRADING OF THE TRANSITIONAL LAYER SHALL COMPLY WITH THE FOLLOWING CRITERIA:

%	PASSING
	1.4mm 100%
	1.0mm 80%
	0.7mm 44%
	0.5mm 8.4%

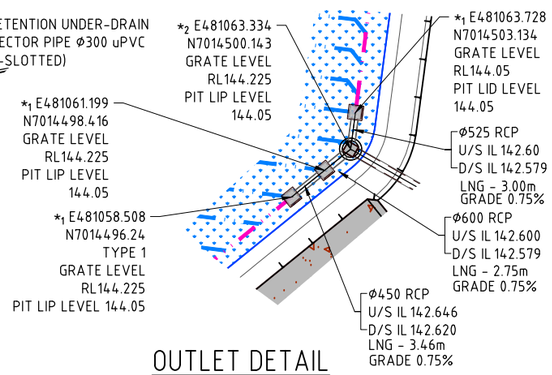
THE TRANSITIONAL LAYER SHALL HAVE A HYDRAULIC CONDUCTIVITY OF 1800mm/hr

DRAINAGE LAYER:
SHALL BE WELL GRADED COURSE SAND OR SCREENINGS (2mm OR 5mm) AND SHALL HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 3600mm/hr.

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

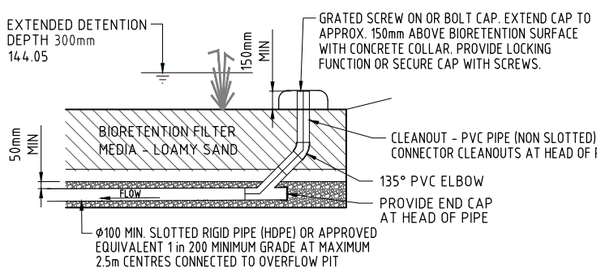


*1 IPWEA TYPE 1 FIELD INLET IPWEA STD DWG DS-050 NO CONCRETE SURROUND

*2 IPWEA TYPE 1 FIELD INLET GRATE ON 1350 Ø MANHOLE NO CONCRETE SURROUND

OUTLET DETAIL

SCALE 1 : 250



UNDER-DRAIN CLEANOUT TYPICAL DETAIL

SCALE 1 : 25 (REFER TO MBRC STD DWG MBRC-2108 IPWEA STD DWG. DS-073

BIORETENTION 3 UNDER-DRAIN SIZING DESIGN CRITERIA

PIPE REACH	BIORETENTION PROPERTIES					UNDER-DRAIN PIPE SIZING				
	'K$_{SAT}$' INFILTRATION RATE (mm/hr)	'A' BIORETENTION FILTER AREA (m²)	'h' EXTENDED DETENTION DEPTH (m)	'd' BIORETENTION FILTER DEPTH (m)	'Q$_{max}$' FLOW THROUGH FILTER (l/s)	Q$_{SLOTTED}$ REQUIRED PIPE FLOW (l/s)	PIPE DIAMETER (mm)	PIPE GRADE (%)	PIPE CAPACITY (SINGLE) (l/s)	NUMBER OF PIPES
UNDER-DRAIN SLOTTED BRANCH PIPE	180	803	0.30	0.50	64.2	77.1	100	1.0	6.1	13
UNDER-DRAIN COLLECTOR PIPE	180	803	0.30	0.50	64.2	77.1	300	0.5	80.8	1

1. BASIN TO BE LEFT IN PROTECTED STATE FOR 24MONTHS (MAINTENANCE PERIOD) TO ALLOW SUBSTANTIAL AMOUNT OF BUILDING WORK TO BE COMPLETED
2. PRIOR TO PLANTING, THE PROTECTIVE LAYER IS REMOVED AND A MINIMUM OF THREE (3) IN-SITU INFILTRATION TESTS ARE PROVIDED THAT DEMONSTRATE THAT THE HYDRAULIC CONDUCTIVITY MEETS OR EXCEEDS THE DESIGN HYDRAULIC CONDUCTIVITY (TYPICALLY 180mm/h). THIS IS TO BE NOTED ON PLANS. AVERAGE: VALUES ARE NOT ACCEPTABLE
3. UPON SUCCESSFUL INFILTRATION TESTS AND PRIOR TO OFF MAINTENANCE THE BASIN IS TO BE PLANTED OUT AND A FURTHER 12 MONTH MAINTENANCE SECURITY TAKEN FOR LANDSCAPING

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN, REHABILITATION PLAN AND LANDSCAPE ARCHITECTS PLANS

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LANDSCAPE ARCHITECTS

NORTH: SCALE: 1:250 A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE 0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres (A3) 1:500

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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
C	BASIN 3 PIT UPDATED	13/12/24	LK
B	SCOUR PROTECTION ON WEIR, SW HEADWALLS & OUTLET PIPE LENGTH	29/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE: BIORETENTION PLAN & DETAILS - BASIN 3

DFC (PROJECT MANAGEMENT PTY LTD)

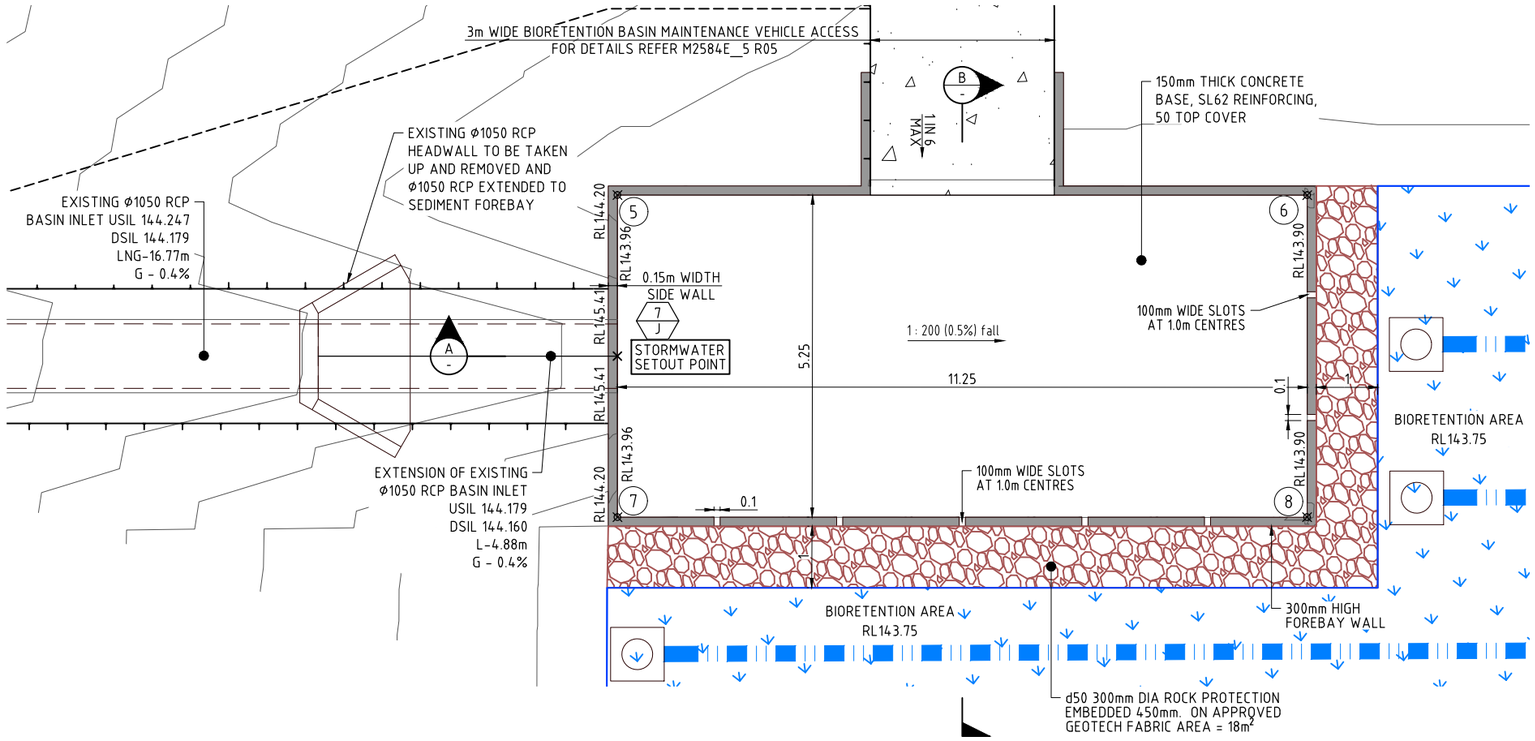
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D09 ISSUE: C
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: BIORETENTION.DWG

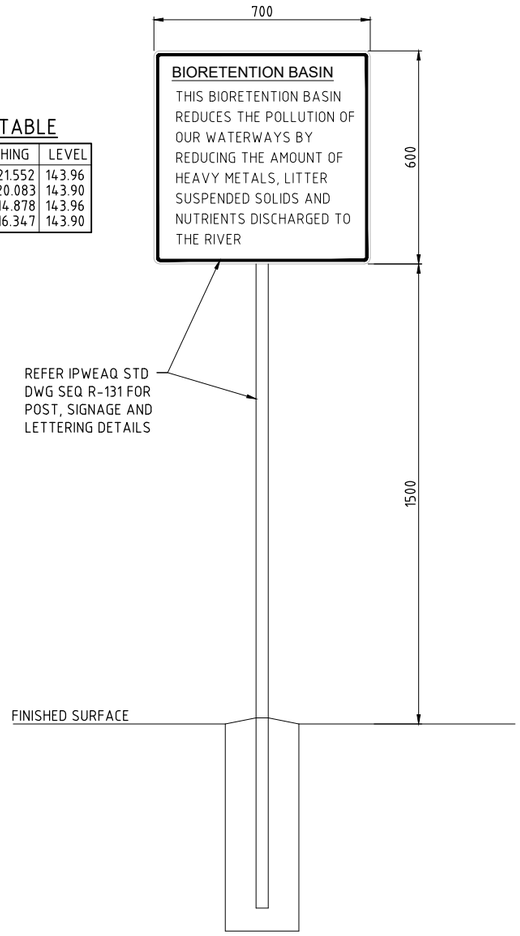
CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845



SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
5	IP	481037.787	7014521.552	143.96
6	IP	481048.941	7014520.083	143.90
7	IP	481048.256	7014514.878	143.96
8	IP	481037.102	7014516.347	143.90

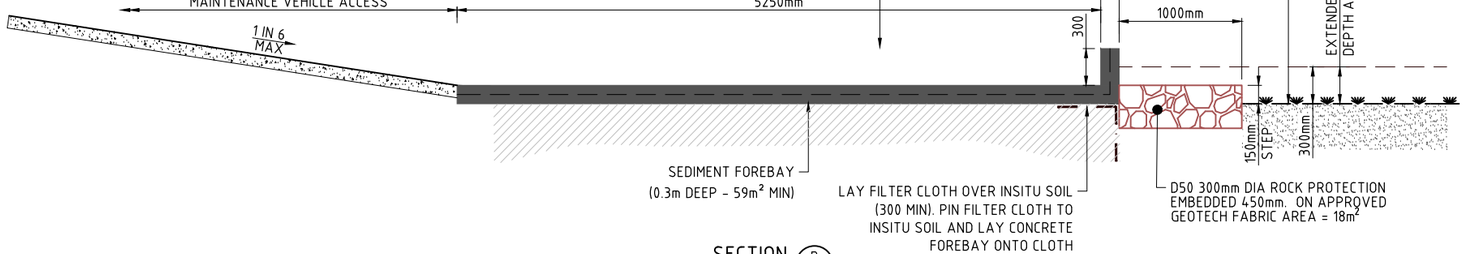


TYPICAL WATER QUALITY BASIN ADVISORY SIGN & POST ARRANGEMENT

N.T.S.

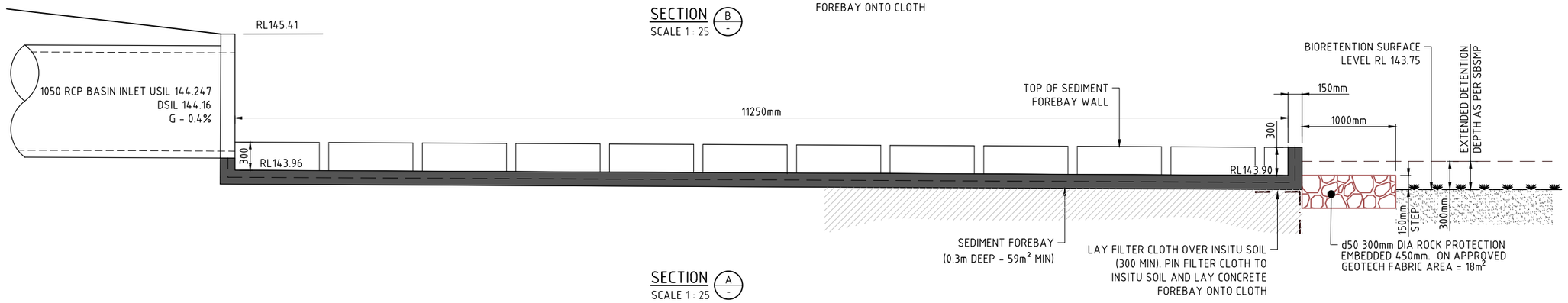
BASIN 3 SEDIMENT FOREBAY 1 DETAIL

SCALE 1 : 50



SECTION B

SCALE 1 : 25



SECTION A

SCALE 1 : 25

1:25

0 0.25 0.5 0.75 1.0 1.25 (A1) 1:25 2.5 Metres
(A3) 1:50

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ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE:
1:50
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 0.5 1 1.5 2 2.5 (A1) 1:50 5 Metres
(A3) 1:100
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A.FRASER RPEQ 5691
J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068
H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

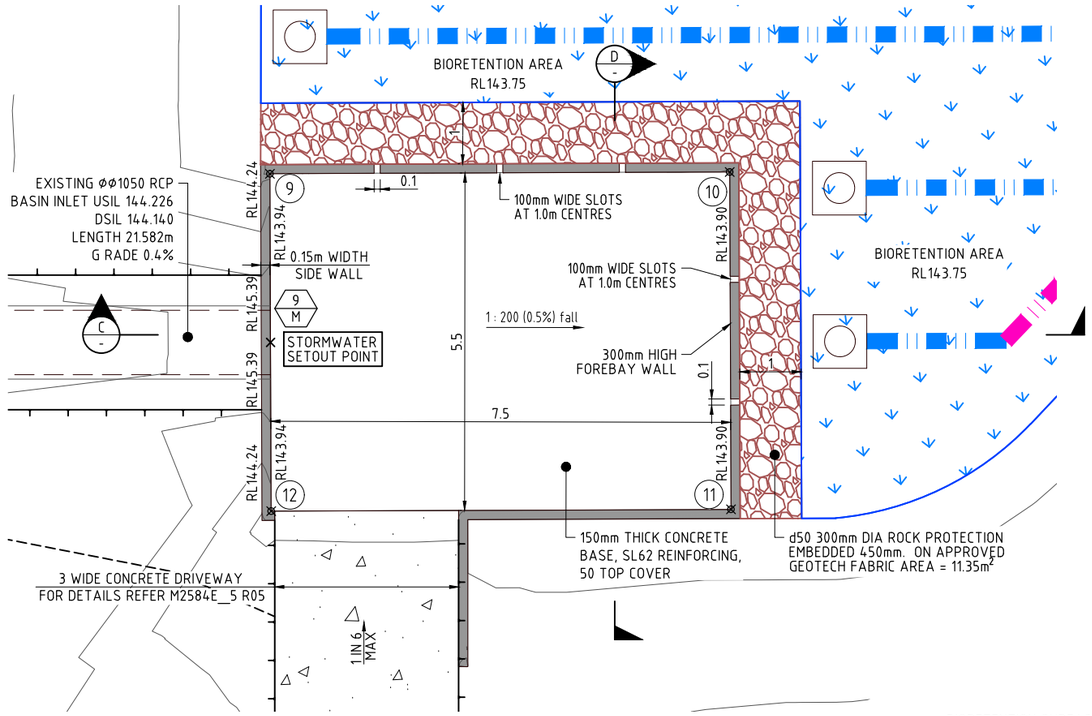
ISSUE:

ISSUE	DETAILS	DATE	INIT
B	SIGN WORDING CHANGED	29/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
BIORETENTION 3 SEDIMENT FOREBAY 1 PLAN & SECTIONS
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D10 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: BIORETENTION.DWG

12/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING\DRAWINGS\BIORETENTION

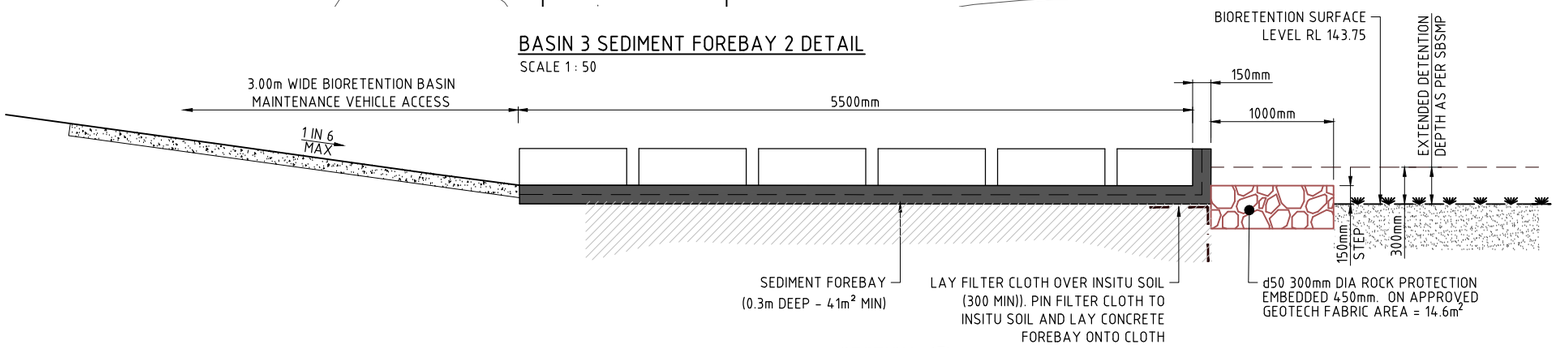


SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
9	IP	481033.502	7014489.623	143.94
10	IP	481040.942	7014488.672	143.90
11	IP	481040.245	7014483.216	143.90
12	IP	481032.805	7014484.167	143.94

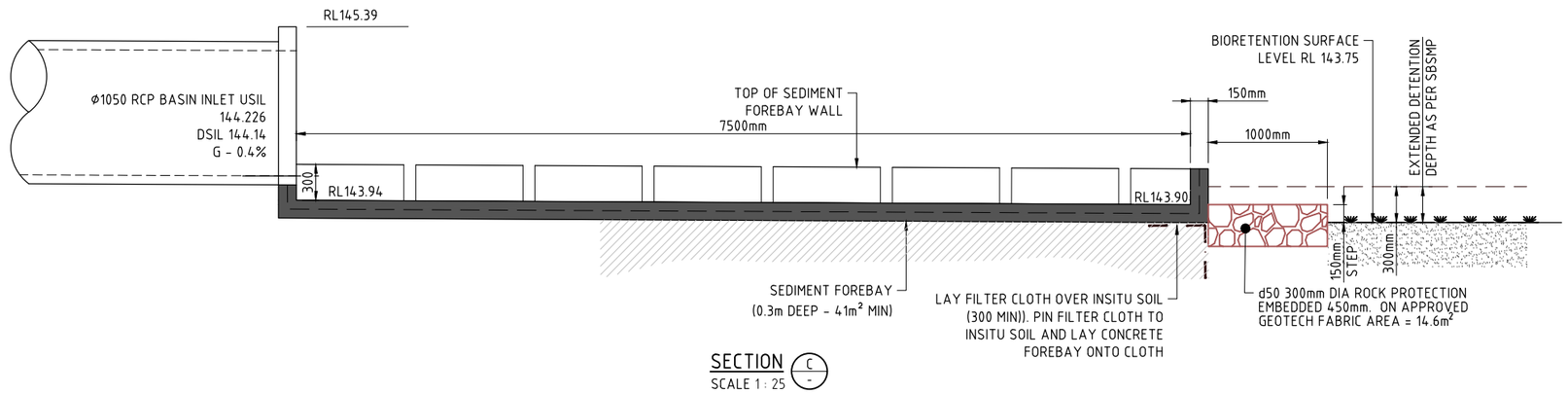
BASIN 3 SEDIMENT FOREBAY 2 DETAIL

SCALE 1 : 50



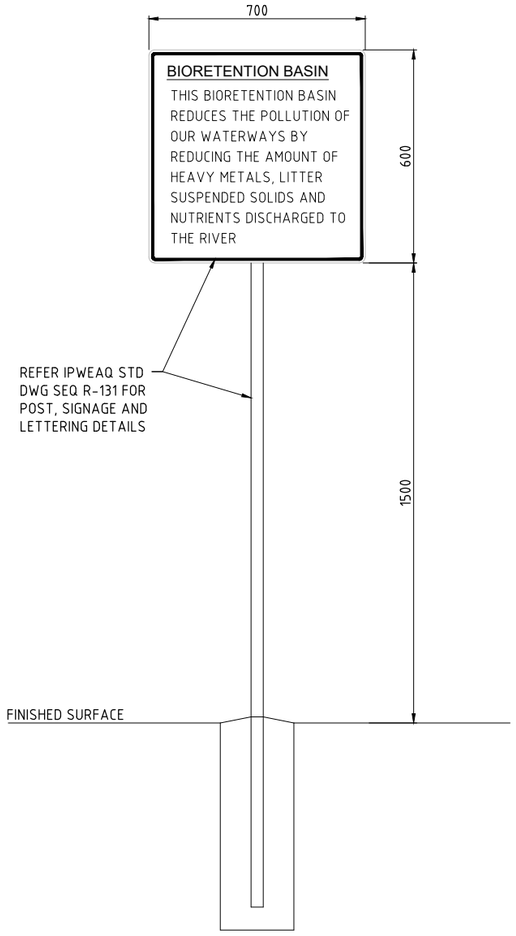
SECTION D

SCALE 1 : 25



SECTION C

SCALE 1 : 25



TYPICAL WATER QUALITY BASIN ADVISORY SIGN & POST ARRANGEMENT

N.T.S.

1:25

0 0.25 0.5 0.75 1.0 1.25 (A1) 1:25 2.5 Metres
(A3) 1:50

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LANDSCAPE ARCHITECTS

NORTH: N

SCALE:
1:50
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 0.5 1 1.5 2 2.5 (A1) 1:50 5 Metres
(A3) 1:100
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29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	SIGN WORDING CHANGED	29/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
BIORETENTION 3 SEDIMENT FOREBAY 2 PLAN & SECTIONS
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

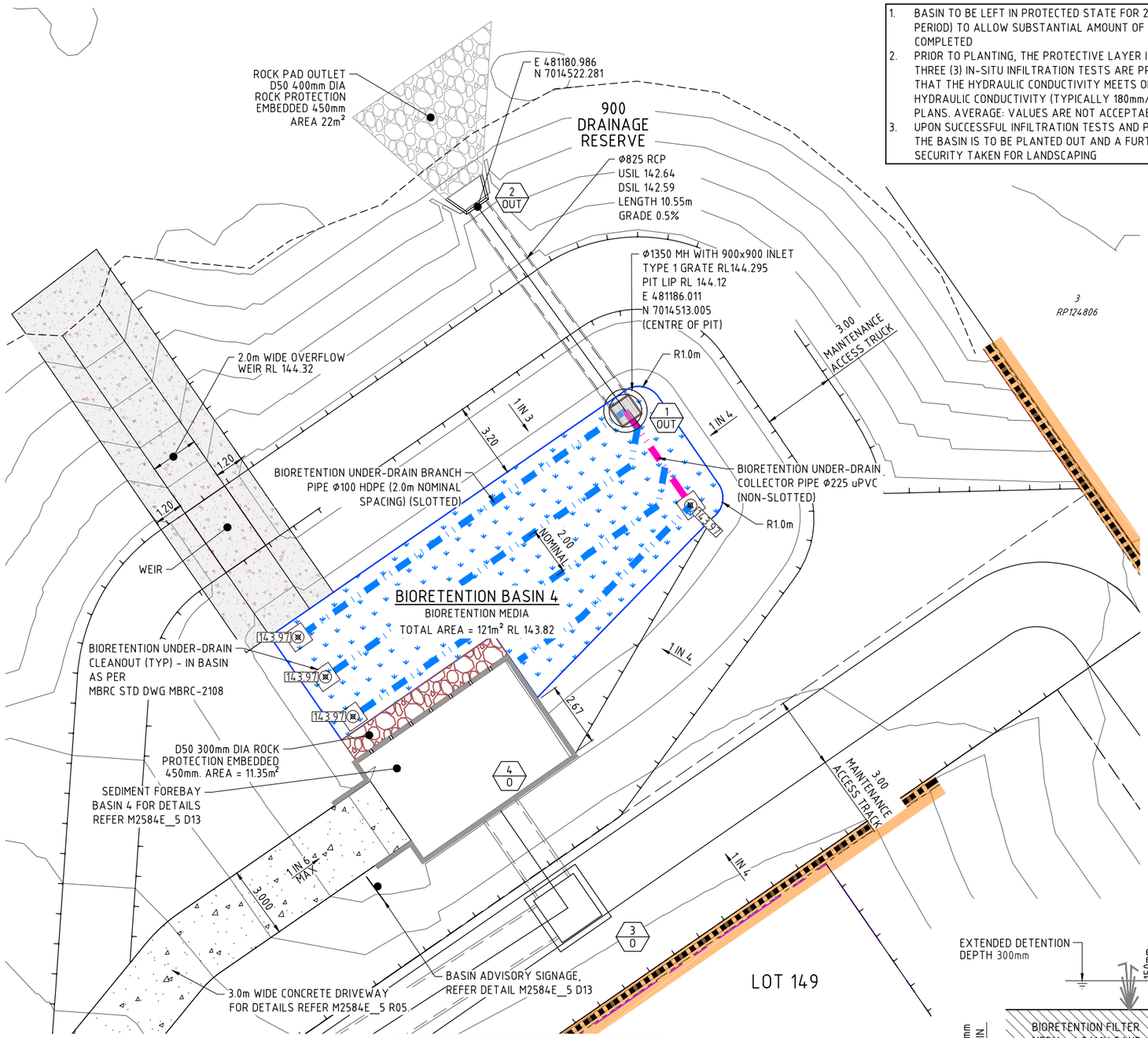
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D11 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: BIORETENTION.DWG

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845

16/12/2024 N:\M2584\SURFACE_C\DESIGN\WORKING\DRAWINGS\BIORETENTION



1. BASIN TO BE LEFT IN PROTECTED STATE FOR 24MONTHS (MAINTENANCE PERIOD) TO ALLOW SUBSTANTIAL AMOUNT OF BUILDING WORK TO BE COMPLETED
2. PRIOR TO PLANTING, THE PROTECTIVE LAYER IS REMOVED AND A MINIMUM OF THREE (3) IN-SITU INFILTRATION TESTS ARE PROVIDED THAT DEMONSTRATE THAT THE HYDRAULIC CONDUCTIVITY MEETS OR EXCEEDS THE DESIGN HYDRAULIC CONDUCTIVITY (TYPICALLY 180mm/h). THIS IS TO BE NOTED ON PLANS. AVERAGE: VALUES ARE NOT ACCEPTABLE
3. UPON SUCCESSFUL INFILTRATION TESTS AND PRIOR TO OFF MAINTENANCE THE BASIN IS TO BE PLANTED OUT AND A FURTHER 12 MONTH MAINTENANCE SECURITY TAKEN FOR LANDSCAPING

BIORETENTION UNDER-DRAIN SIZING DESIGN CRITERIA

PIPE REACH	BIORETENTION PROPERTIES					UNDER-DRAIN PIPE SIZING				
	'K$_{SAT}$' INFILTRATION RATE (mm/hr)	'A' BIORETENTION FILTER AREA (m²)	'h' EXTENDED DETENTION DEPTH (m)	'd' BIORETENTION FILTER DEPTH (m)	'Q$_{max}$' FLOW THROUGH FILTER (l/s)	Q$_{SLOTTED}$ REQUIRED PIPE FLOW (l/s)	PIPE DIAMETER (mm)	PIPE GRADE (%)	PIPE CAPACITY (SINGLE) (l/s)	NUMBER OF PIPES
UNDER-DRAIN SLOTTED BRANCH PIPE BOTH BRANCHES COMBINED	180	122	0.30	0.50	9.8	11.7	100	1.0	6.1	4
UNDER-DRAIN COLLECTOR PIPE	180	122	0.30	0.50	9.8	11.7	225	0.5	80.8	1

BIORETENTION MEDIA SPECIFICATION

FILTER MATERIAL SHELL BE GRADED AND CAN BE SILICEOUS OR CALCAREOUS IN ORIGIN.
THE FILTER MATERIAL SHALL BE EVENLY PLACED AND LIGHTLY COMPACTED. THE FILTER MATERIAL SHALL COMPLY WITH THE FOLLOWING CRITERIA:

MATERIAL:
SANDY LOAM OR APPROVED EQUIVALENT WITH A HYDRAULIC CONDUCTIVITY OF 180mm/hr AND BE FREE FROM RUBBISH AND DETRITUS MATERIAL.

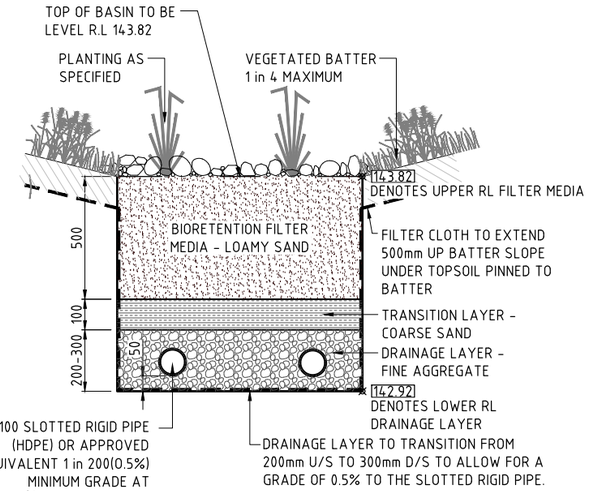
PARTICLE SIZE:
TYPICAL SOIL COMPOSITION WOULD BE:
CLAY 5-15% (PARTICLE SIZE <0.002mm)
SILT <30% (PARTICLE SIZE 0.002-0.05mm)
SAND 50%-70% (PARTICLE SIZE 0.05mm-2.0mm)
AND APPROVED MATERIAL DOES NOT HAVE TO BE SCREENED TO REMOVE LARGE PARTICLES.

ORGANIC CONTENT:
ACCEPTABLE RANGE BETWEEN 5%-10%,MEASURED IN ACCORDANCE WITH AS1289 4.1.1

pH
6.0 TO 7.5, SILICEOUS MATERIAL MAY BE LOWER.

TRANSITIONAL LAYER
SHALL BE WELL GRADED SAND OR COURSE SAND MATERIAL. THE GRADING OF THE TRANSITIONAL LAYER SHALL COMPLY WITH THE FOLLOWING CRITERIA:
% PASSING 1.4mm 100%
1.0mm 80%
0.7mm 44%
0.5mm 8.4%
THE TRANSITIONAL LAYER SHALL HAVE A HYDRAULIC CONDUCTIVITY OF 1800mm/hr

DRAINAGE LAYER:
SHALL BE WELL GRADED COURSE SAND OR SCREENINGS (2mm OR 5mm) AND SHALL HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 3600mm/hr.



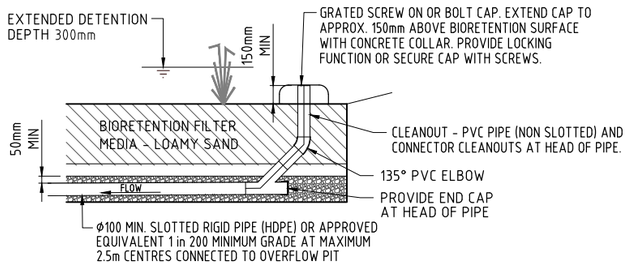
BIORETENTION FILTER MATERIAL DETAIL

NOT TO SCALE

1. CONSTRUCTION TOLERANCES AS DOCUMENTED IN THE "WATER SENSITIVE URBAN DESIGN CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS" (WATER BY DESIGN) MUST BE ACHIEVED.
2. FILTER CLOTH IS NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. FILTER CLOTH IS TO EXTEND 500mm UP BATTER UNDER TOPSOIL PINNED TO BATTER.
3. UNDER-DRAIN: SLOTTED RIGID PIPE (HDPE OR SIMILAR TO AS 2439.1) OR APPROVED EQUIVALENT, 0.5% MIN. GRADE. PIPE JOINS SHOULD BE GLUED USING PLUMBING CEMENT. PIPE SHOULD NOT BE INSTALLED WITH A FILTER SOCK AT MAX 2.5m CENTRES.

LEGEND:

PROPOSED STORMWATER DRAINAGE — SWD
PROPOSED UNDER DRAINAGE Φ100 SLOTTED PIPE
PROPOSED UNDER DRAINAGE Φ225 NON SLOTTED PIPE
PROPOSED UNDER DRAINAGE Φ300 NON SLOTTED PIPE
STRUCTURE NUMBERS — 1/16, 1/A, 1/10B — EXISTING / PROPOSED / FUTURE
FENCE (REFER LANDSCAPE DRAWINGS)



UNDER-DRAIN CLEANOUT TYPICAL DETAIL

SCALE 1 : 25 (REFER TO MBRC STD DWG MBRC-2108)

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN, REHABILITATION PLAN AND LANDSCAPE ARCHITECTS PLANS

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THIS DRAWING TO BE READ IN CONJUNCTION WITH IPWEAQ "WATER BY DESIGN" STANDARD DRAWINGS:

WSUD-001 - "BIORETENTION STANDARD PROFILE OVERFLOW PIT"
WSUD-003 - "STANDARD PROFILE UNDERDRAIN CLEANOUT"
WSUD-005 - "LARGE COARSE SEDIMENT FOREBAY"
WSUD-006 - "BASIN WEIR DETAILS"

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URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:250 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 — A.FRASER RPEQ 5691 — J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068 — H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
D	BASIN 4 UPDATED	13/12/24	LK
C	BASIN 4 WALL MODS & OUTLET HEADWALL ADDED	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE: BIORETENTION PLAN & DETAILS - BASIN 4

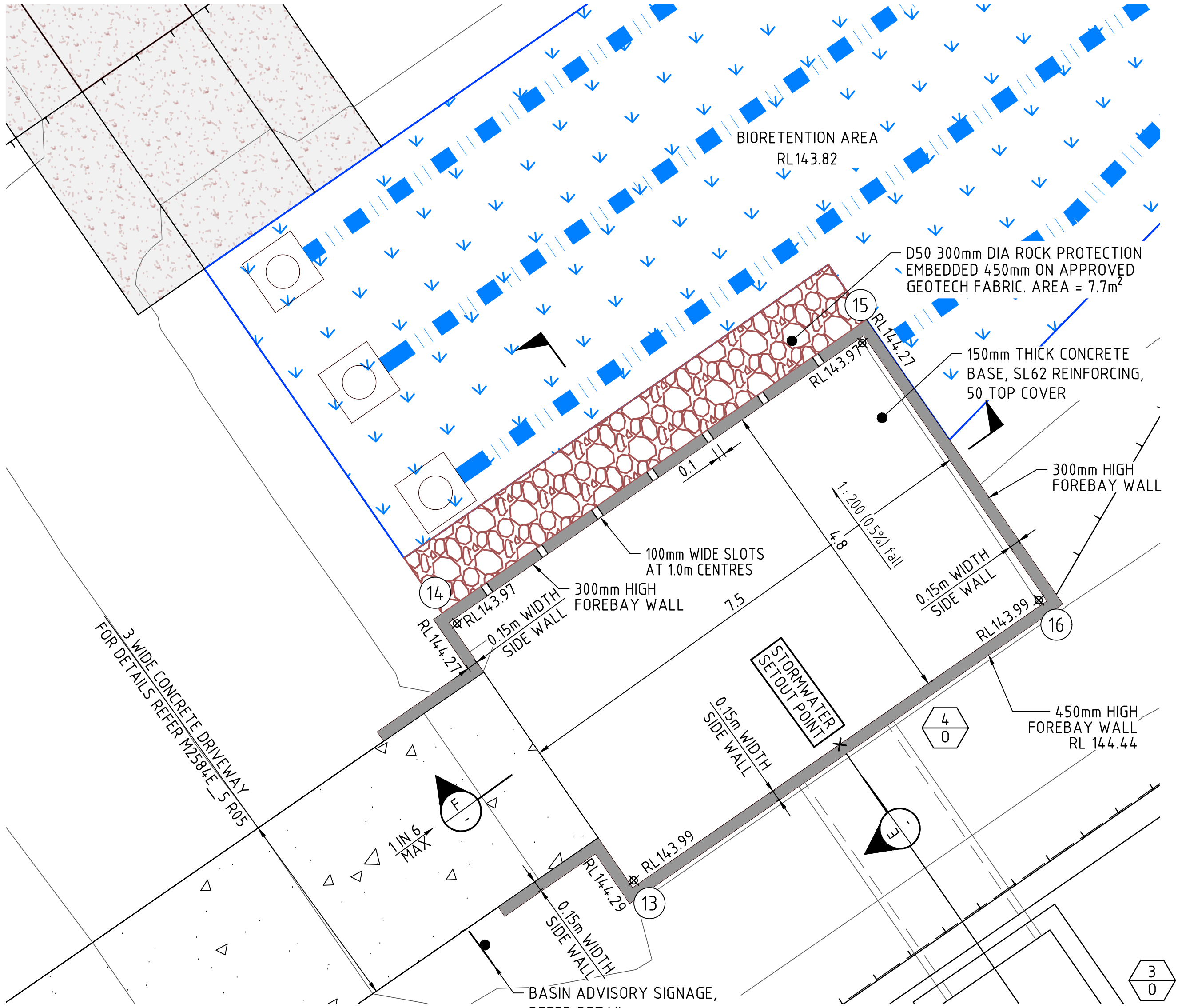
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: D12 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: BIORETENTION.DWG

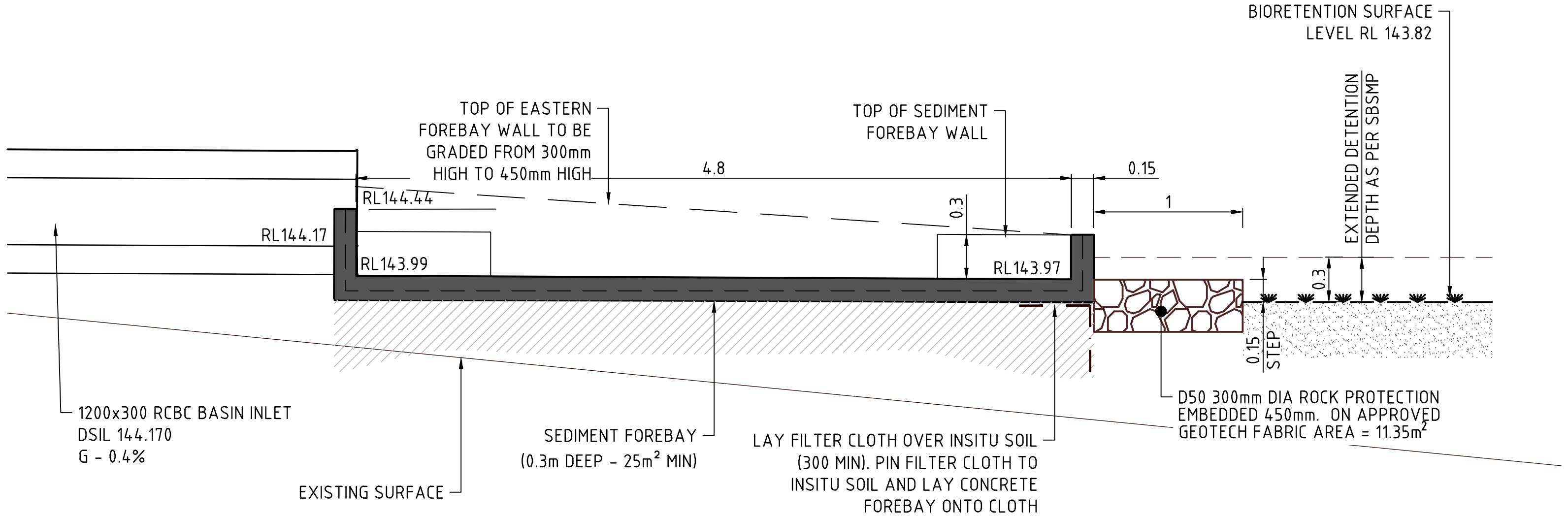
CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/4845



SEDIMENT FOREBAY DETAIL

SCALE 1 : 50

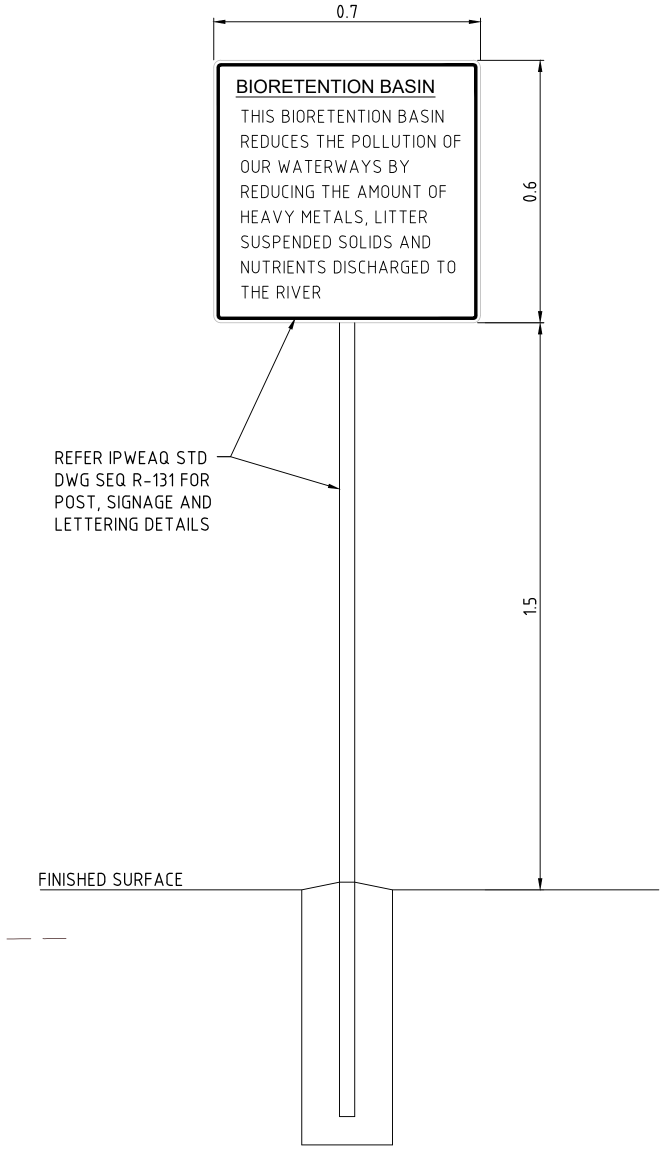


SECTION E

SCALE 1 : 25

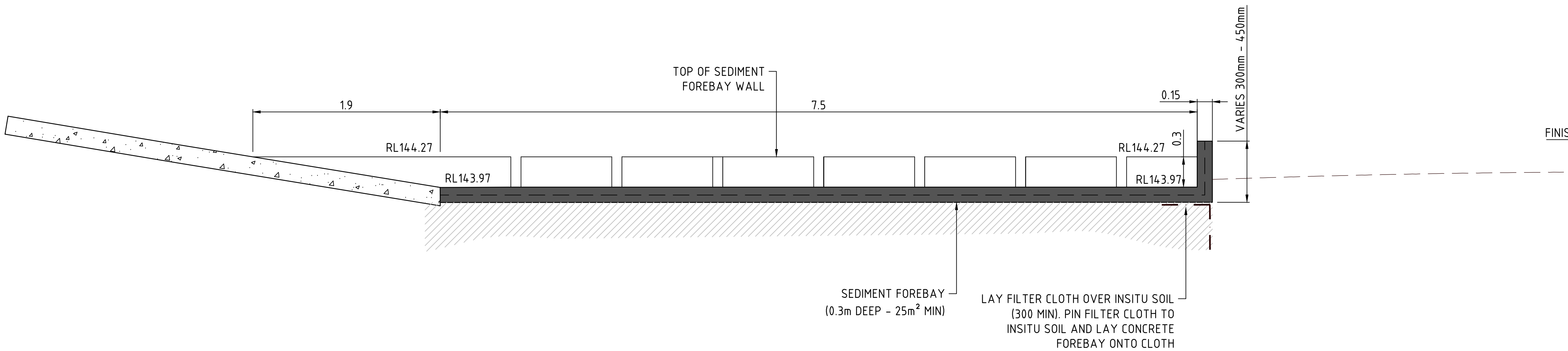
SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
13	IP	481175.284	7014495.704	143.994
14	IP	481173.094	7014499.975	143.970
15	IP	481179.767	7014503.398	143.970
16	IP	481181.958	7014499.126	143.994



TYPICAL WATER QUALITY BASIN ADVISORY SIGN & POST ARRANGEMENT

N.T.S.



SECTION F

SCALE 1 : 25

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:50 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
(A1) 1:50 (A3) 1:100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 29/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.M'KINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086 | S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED: CDV | DRAWN: WN | CHECKED: PNH | DATUM: AHD

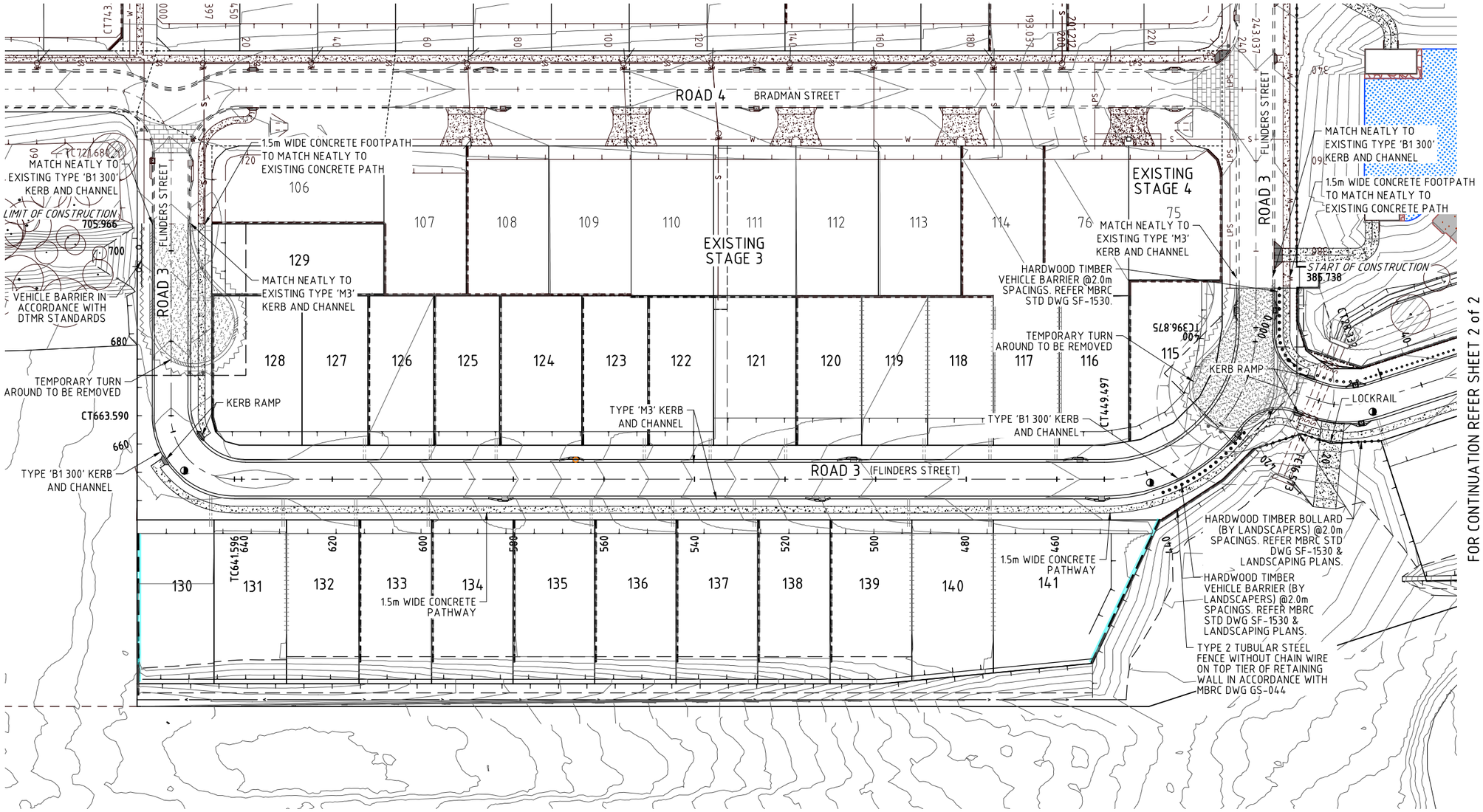
ISSUE	DETAILS	DATE	INIT
D	BASIN 4 UPDATED	13/12/24	LK
C	WALL TYPE CHANGED ON SECTION E	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
BIORETENTION 4 SEDIMENT FOREBAY PLAN & SECTIONS

DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

JOB NO: M2584E_5
PLAN: D13 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: BIORETENTION.DWG



FOR CONTINUATION REFER SHEET 2 of 2

LEGEND :

- FINISHED CONTOURS
- EXISTING KERB AND CHANNEL
- EXISTING STORMWATER
- EXISTING SEWERAGE
- EXISTING LOW PRESSURE SEWER
- EXISTING WATER
- EXISTING U/G ELECTRICAL
- EXISTING TELSTRA
- PROPOSED KERB AND CHANNEL
- FUTURE KERB AND CHANNEL
- PROPOSED RETAINING WALL
- DENOTES TRANSITION IN K&C REFER INTERSECTION DETAILS
- SINGLE PLATE STREET NAME SIGN
- HAZARD MARKER D4-5
- THRESHOLD TREATMENT
- BOLLARDS @ 1.5m CENTRES

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

FOR NOTES REFER TO DWG No. M2584E_5 R03

REFER TO LANDSCAPE PLANS FOR FINAL TRIM DETAILS

FOR EARTHWORKS DETAILS REFER TO DWG No. M2584E_5 EW01 - EW08A

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 21/10/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
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DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS LAYOUT PLAN - SHEET 1 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

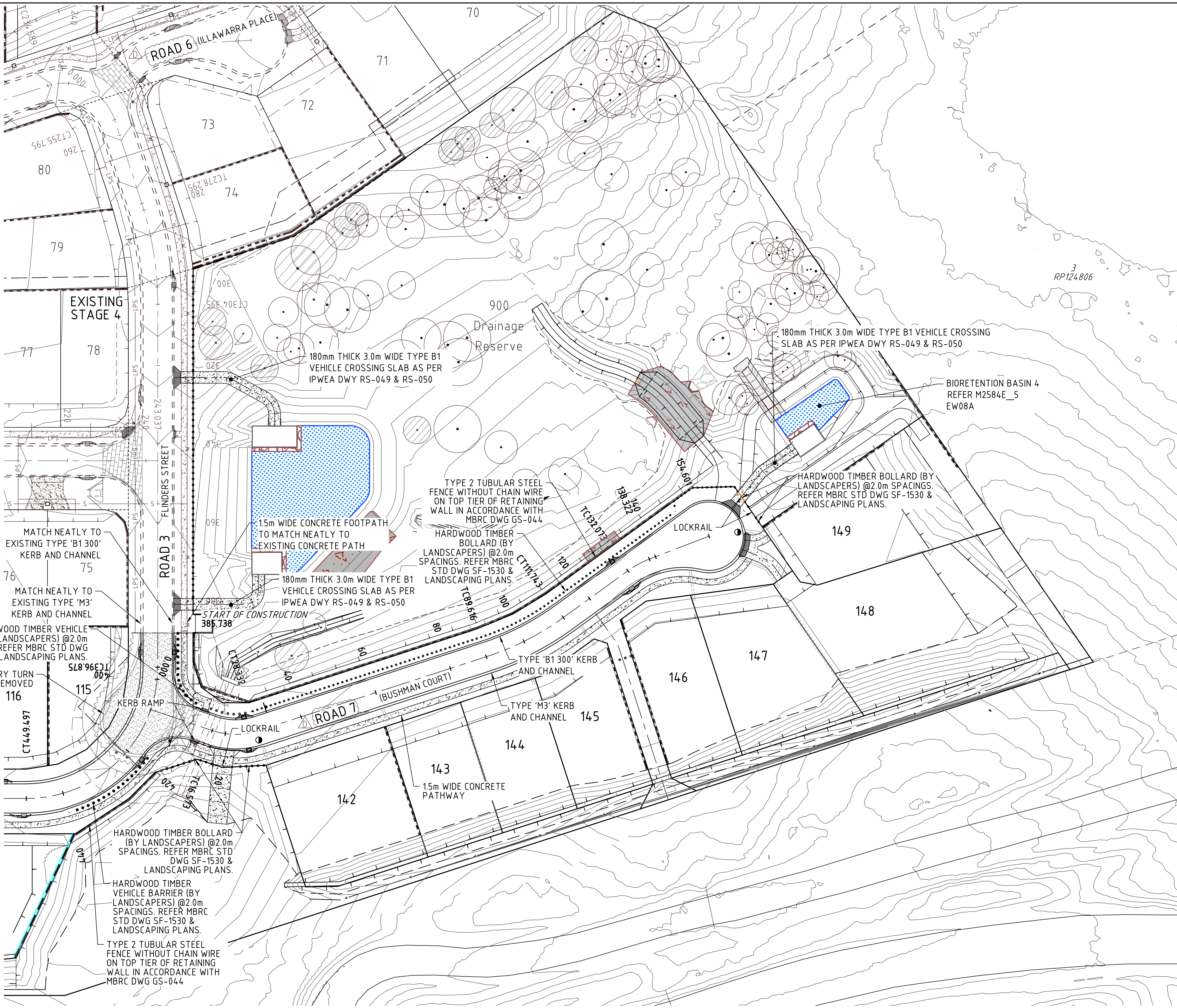
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R01 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS.DWG

CITY OF MORETON BAY

Not Approved DA/2024/4845

N:\M2584E\STAGE_5\DESIGN\WORKING\DRAWINGS\ROADWORKS



LEGEND :

- FINISHED CONTOURS
- EXISTING KERB AND CHANNEL
- EXISTING STORMWATER
- EXISTING SEWERAGE
- EXISTING LOW PRESSURE SEWER
- EXISTING WATER
- EXISTING U/G ELECTRICAL
- EXISTING TELSTRA
- PROPOSED KERB AND CHANNEL
- FUTURE KERB AND CHANNEL
- PROPOSED RETAINING WALL
- DENOTES TRANSITION IN K&C REFER INTERSECTION DETAILS
- SINGLE PLATE STREET NAME SIGN
- HAZARD MARKER D4-5
- THRESHOLD TREATMENT
- BOLLARDS @ 1.5m CENTRES

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

FOR NOTES REFER TO DWG No. M2584E_5 R03

REFER TO LANDSCAPE PLANS FOR FINAL TRIM DETAILS

FOR EARTHWORKS DETAILS REFER TO DWG No. M2584E_5 EW01 - EW08A

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

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LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
E	BASIN 4 UPDATED	13/12/24	AKM
D	ROAD NAMES CHANGED	18/11/24	FR
C	SCOUR PROTECTION ON WEIRS & LOW POINT BATTER	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS LAYOUT PLAN - SHEET 2 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

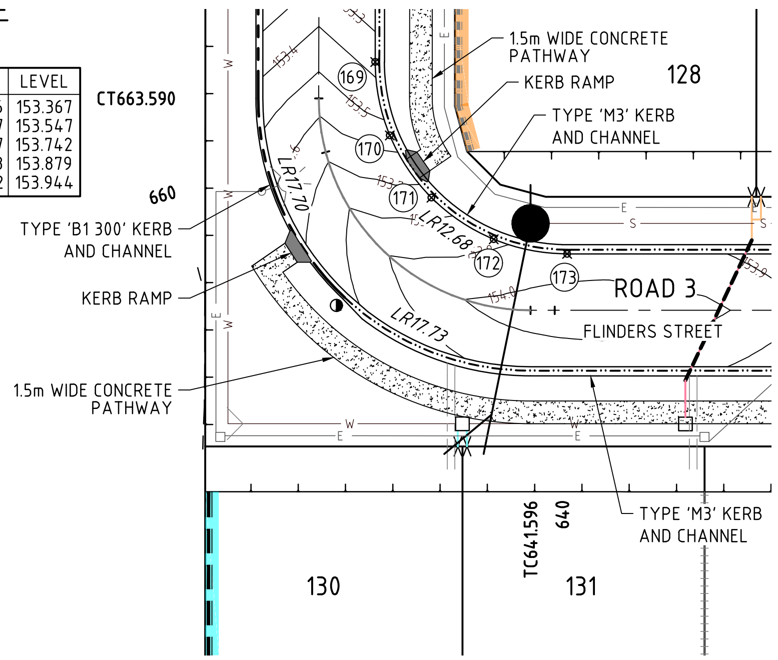
DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R02 ISSUE: E
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS.DWG

16/12/2024 N:\M2584\STAGE_5\DESIGN\WORKING DRAWINGS\ROADWORKS

LIP OF KERB SETOUT TABLE - ROAD 3 (FLINDERS STREET)

PT No.	TYPE	EASTING	NORTHING	LEVEL
169	KTP	480769.749	7014477.706	153.367
170	IP	480770.071	7014472.767	153.547
171	IP	480772.259	7014468.327	153.742
172	IP	480775.980	7014465.063	153.879
173	KTP	480780.667	7014463.472	153.944



LEGEND:

PAVEMENT CONTOURS
PROPOSED KERB AND CHANNEL
PROPOSED STORMWATER
SEWERAGE
WATER MAIN
LOW PRESSURE SEWERAGE MAIN
EXISTING KERB AND CHANNEL
EXISTING U/G ELECTRICAL
TELSTRA
THRESHOLD PAVEMENT TREATMENT
KERB TRANSITION
KERB RAMP
BOLLARDS @ 1.5m CENTRES

TREE LEGEND

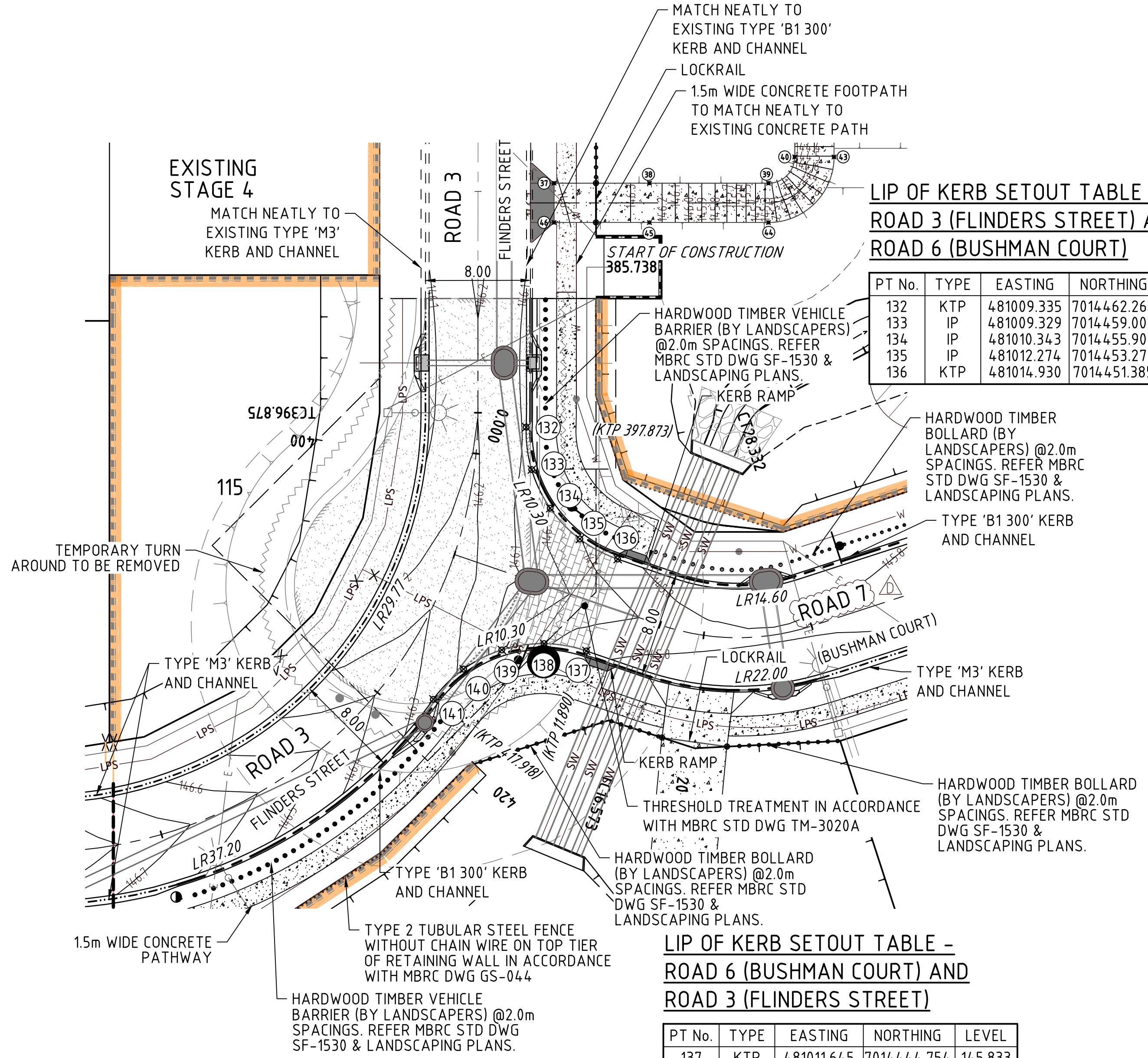
TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

NOTE: ALL RADII ARE MEASURED TO THE LIP OF THE KERB AND CHANNEL.
◑ 1.8m LENGTH TRANSITION BETWEEN KERB TYPES UNLESS SHOWN OTHERWISE.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

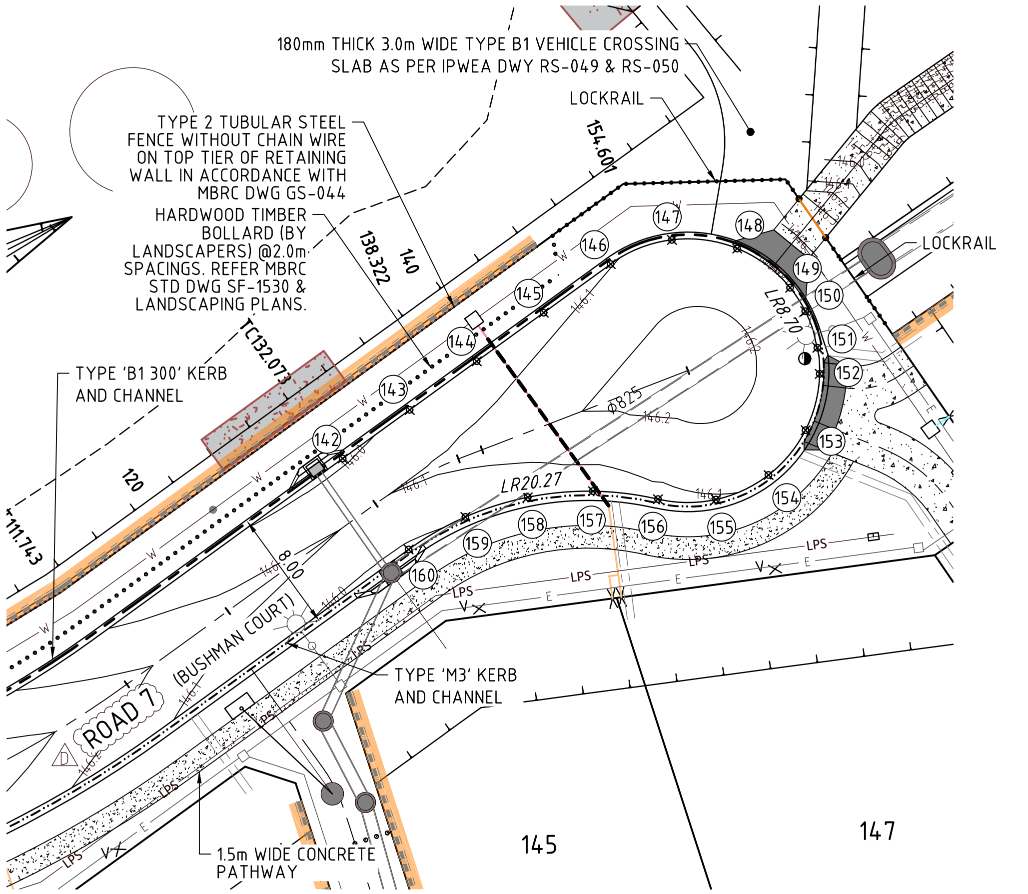


LIP OF KERB SETOUT TABLE - ROAD 3 (FLINDERS STREET) AND ROAD 6 (BUSHMAN COURT)

PT No.	TYPE	EASTING	NORTHING	LEVEL
132	KTP	481009.335	7014462.263	146.090
133	IP	481009.329	7014459.002	146.071
134	IP	481010.343	7014455.903	145.996
135	IP	481012.274	7014453.276	145.905
136	KTP	481014.930	7014451.385	145.833

LIP OF KERB SETOUT TABLE - ROAD 6 (BUSHMAN COURT) AND ROAD 3 (FLINDERS STREET)

PT No.	TYPE	EASTING	NORTHING	LEVEL
137	KTP	481011.645	7014444.754	145.833
138	IP	481008.531	7014445.720	145.918
139	IP	481005.271	7014445.665	146.052
140	IP	481002.192	7014444.594	146.181
141	KTP	480999.601	7014442.613	146.254



LIP OF KERB SETOUT TABLE - ROAD 6 (BUSHMAN COURT)

PT No.	TYPE	EASTING	NORTHING	LEVEL
142	IP	481126.088	7014475.799	145.987
143	IP	481130.903	7014478.407	146.014
144	IP	481135.719	7014481.016	146.042
145	IP	481140.535	7014483.626	146.069
146	KTP	481145.351	7014486.235	146.097
147	IP	481149.577	7014487.284	146.115
148	IP	481153.783	7014486.155	146.128
149	IP	481156.914	7014483.129	146.134
150	IP	481157.706	7014481.462	146.134
151	IP	481158.187	7014478.965	146.133
152	IP	481158.119	7014477.225	146.131
153	IP	481156.701	7014473.656	146.123
154	IP	481153.888	7014471.040	146.110
155	IP	481150.225	7014469.885	146.092
156	KTP	481146.420	7014470.414	146.073
157	IP	481142.226	7014471.498	146.051
158	IP	481137.899	7014471.666	146.030
159	IP	481133.634	7014470.910	146.008
160	KTP	481129.627	7014469.266	145.986

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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:250 THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
A1 (A1) 1:250 (A3) 1:500
0 2.5 5 7.5 10 12.5 25 Metres

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED 18/11/24
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.M'KINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086 | S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

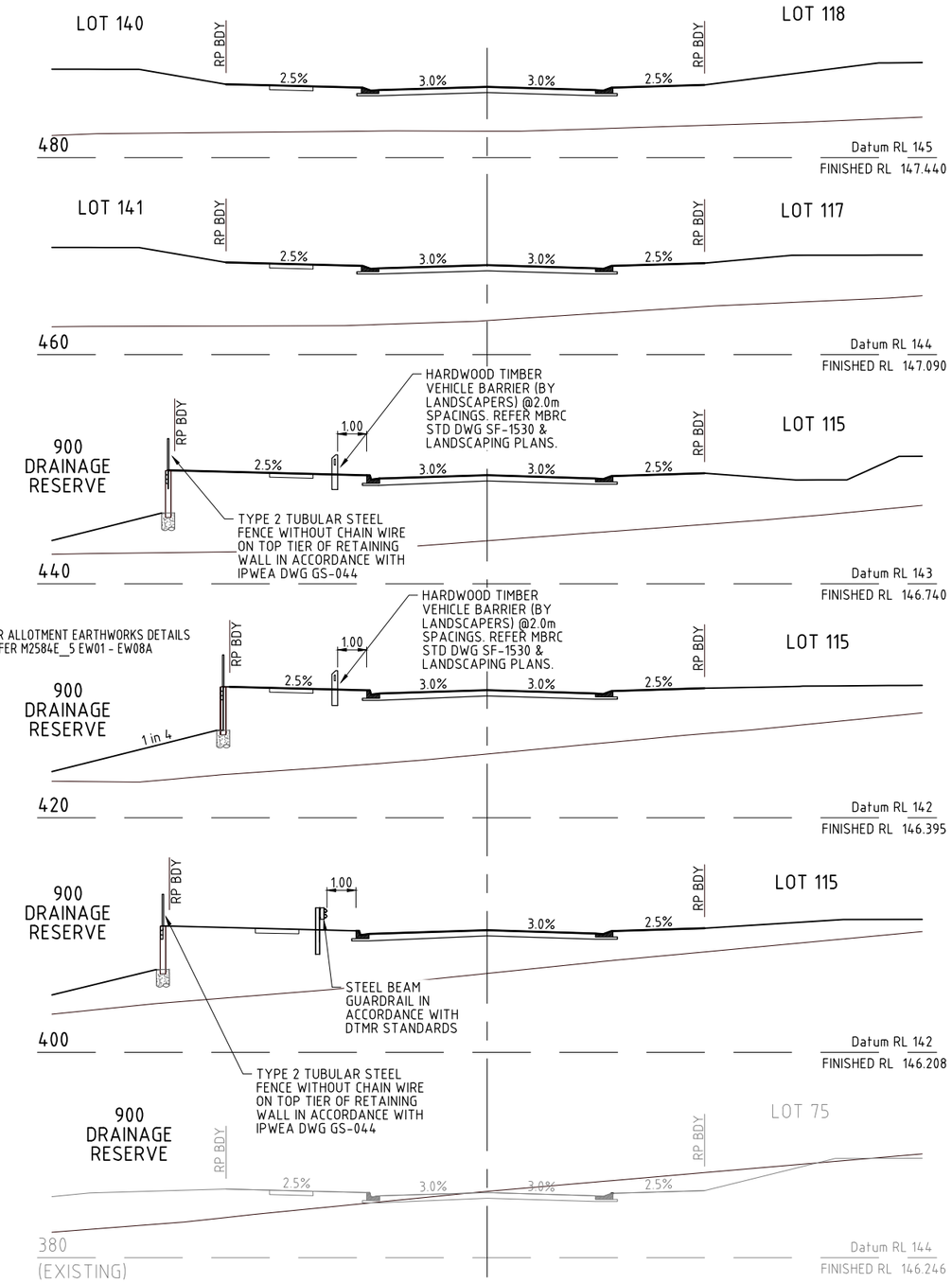
DESIGNED CDV | DRAWN WN | CHECKED PNH | DATUM: AHD

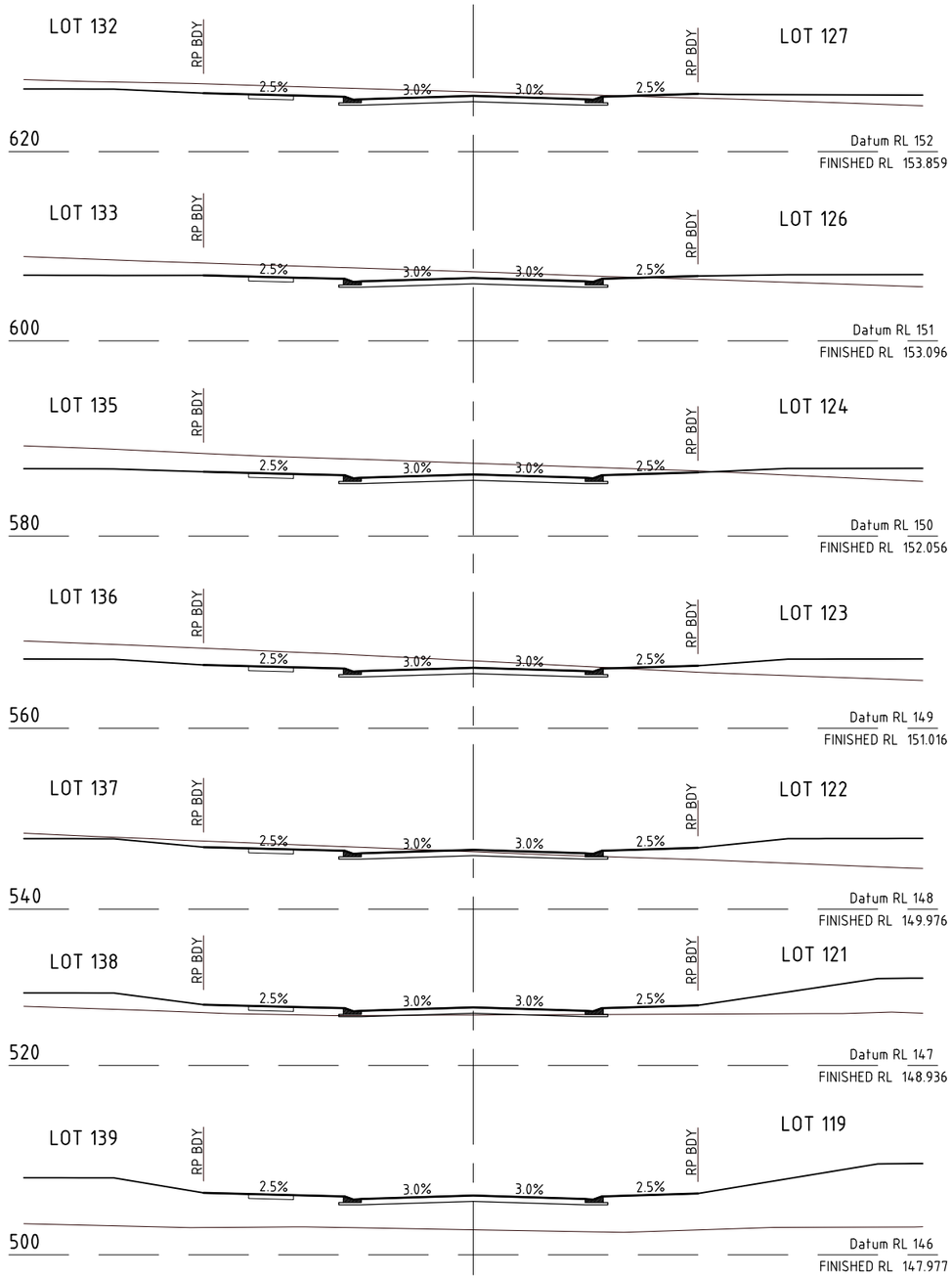
ISSUE	DETAILS	DATE	INIT
D	ROAD NAMES CHANGED	18/11/24	FR
C	SCOUR PROTECTION ON WEIRS, LOW POINT BATTER & OUTLETS	29/10/24	FR
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS INTERSECTION DETAILS PLAN - SHEET 1 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R04 ISSUE: D
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: INTERSECTIONS.DWG





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NORTH:

SCALE:
1:100
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☐ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	CDV
DRAWN	WN
CHECKED	PNH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	DESIGN CHANGED TO MATCH REVISED LOT LAYOUT	21/10/24	FR
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	07/09/22	CDV

TITLE:
ROADWORKS CROSS SECTIONS - ROAD 3 (FLINDERS STREET)-SHEET 1 OF 2
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DETAILS:
JOB NO: M2584E_5
PLAN: R07 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS SECTIONS.DWG

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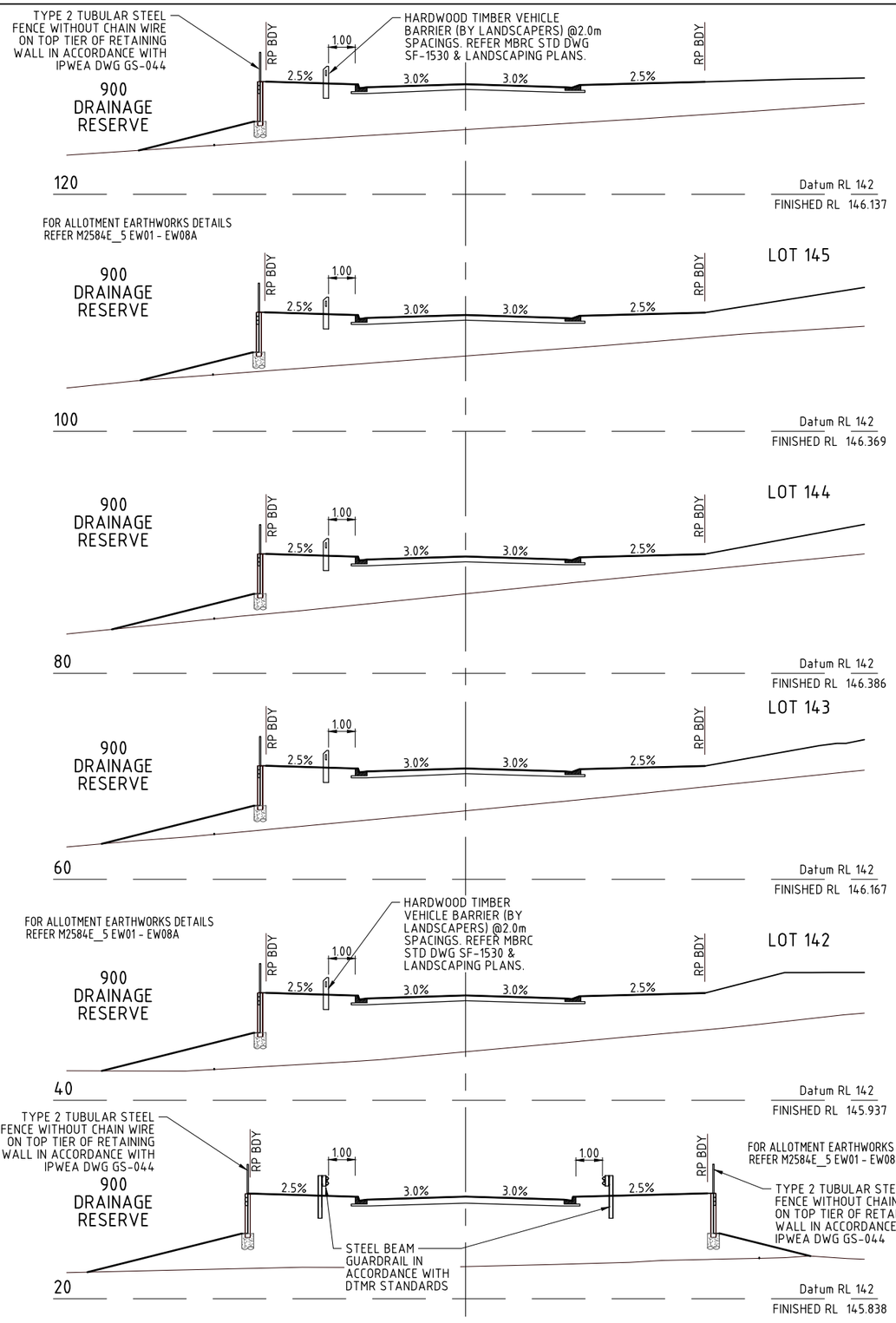
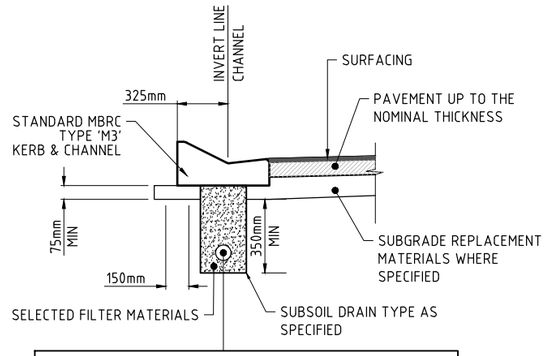
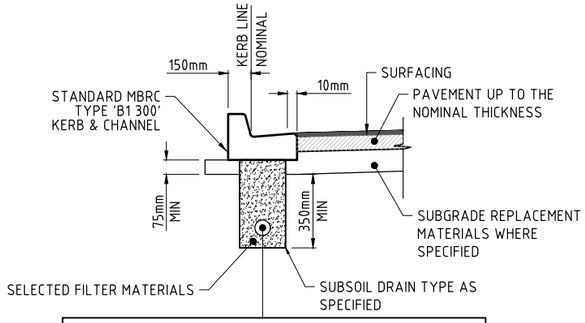
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS





NOTE:
SIDE DRAINS ARE TO BE LOCATED UNDER ALL KERB AND CHANNEL. FOR DETAILS OF SIDE DRAIN CONSTRUCTION REFER TO IPWEAQ STD DRAWING RS-140 & RS-142

TYPICAL LOCATION NEW CONSTRUCTION - TYPE M3
SCALE 1:20



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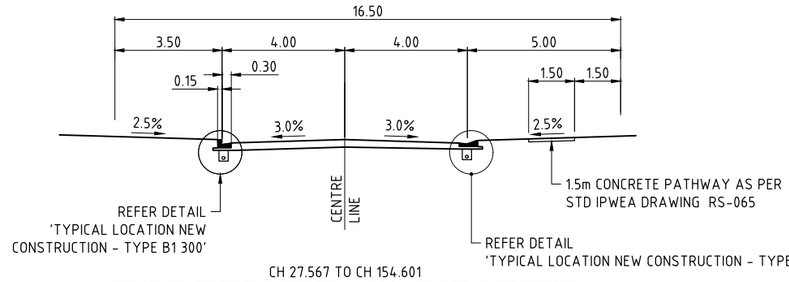
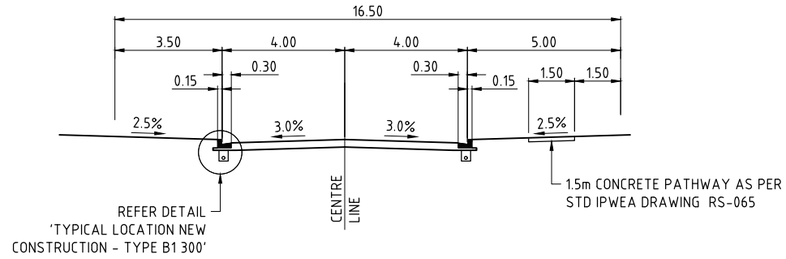
TYPICAL LOCATION NEW CONSTRUCTION - TYPE B1 300
SCALE 1:20



CH 27.567 TO CH 154.601
TYPICAL CROSS SECTION - TYPE B1 300 & TYPE M3
(TYPE B1 & M3 - RESIDENTIAL ROAD 3)
SCALE 1 : 100



CH 0.000 TO CH 27.567
TYPICAL CROSS SECTION - TYPE B1 300
(TYPE B1 & M3 - RESIDENTIAL ROAD 3)
SCALE 1 : 100

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NORTH:

SCALE:
1:100
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

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TITLE:
ROADWORKS CROSS SECTIONS - ROAD 7 (BUSHMAN COURT)
DFC (PROJECT MANAGEMENT PTY LTD)
'ARCHERS WAY' ESTATE - STAGE 5
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
JOB NO: M2584E_5
PLAN: R10 ISSUE: B
MORETON BAY REGIONAL COUNCIL REF: DA/2024/2888
FILE NAME: ROADWORKS SECTIONS.DWG

ATTACHMENT 4

Appeal Rights

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

(1) Schedule 1 states—

(a) matters that may be appealed to—

(i) either a tribunal or the P&E Court; or

(ii) only a tribunal; or

(iii) only the P&E Court; and

(b) the person—

(i) who may appeal a matter (the ***appellant***); and

(ii) who is a respondent in an appeal of the matter; and

(iii) who is a co-respondent in an appeal of the matter; and

(iv) who may elect to be a co-respondent in an appeal of the matter.

(2) An appellant may start an appeal within the appeal period.

(3) The ***appeal period*** is—

(a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or

(b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or

(c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or

(d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or

(e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or

(f) for an appeal relating to the *Plumbing and Drainage Act 2018*—

(i) for an appeal against an enforcement notice given because of a belief mentioned in the *Plumbing and Drainage Act 2018*, section 143(2)(a)(i), (b) or (c)—5 business days after the day the notice is given; or

(ii) for an appeal against a decision of a local government or an inspector to give an action notice under the *Plumbing and Drainage Act 2018*—5 business days after the notice is given; or

(iii) for an appeal against a failure to make a decision about an application or other matter under the *Plumbing and Drainage Act 2018*—at anytime after the period within which the application or matter was required to be decided ends; or

(iv) otherwise—20 business days after the day the notice is given; or

(g) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

Note—

See the P&E Court Act for the court's power to extend the appeal period.

(4) Each respondent and co-respondent for an appeal may be heard in the appeal.

(5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.

(6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—

(a) the adopted charge itself; or

(b) for a decision about an offset or refund—

(i) the establishment cost of trunk infrastructure identified in a LGIP; or

(ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

(1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—

(a) is in the approved form; and

(b) succinctly states the grounds of the appeal.

(2) The notice of appeal must be accompanied by the required fee.

(3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—

(a) the respondent for the appeal; and

(b) each co-respondent for the appeal; and

(c) for an appeal about a development application under schedule 1, section 1, table 1, item 1—each principal submitter for the application whose submission has not been withdrawn; and

(d) for an appeal about a change application under schedule 1, section 1, table 1, item 2—each principal submitter for the application whose submission has not been withdrawn; and

(e) each person who may elect to be a co-respondent for the appeal other than an eligible submitter for a development application or change application the subject of the appeal; and

(f) for an appeal to the P&E Court—the chief executive; and

(g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.

(4) The ***service period*** is—

(a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or

(b) otherwise—10 business days after the appeal is started.

(5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).

(6) A person elects to be a co-respondent to an appeal by filing a notice of election in the approved form—

(a) if a copy of the notice of appeal is given to the person—within 10 business days after the copy is given to the person; or

(b) otherwise—within 15 business days after the notice of appeal is lodged with the registrar of the tribunal or the P&E Court.

(7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department's website for this purpose.

231 Non-appealable decisions and matters

(1) Subject to this chapter, section 316(2), schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.

(2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.

(3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.

(4) In this section—

decision includes—

(a) conduct engaged in for the purpose of making a decision; and

(b) other conduct that relates to the making of a decision; and

(c) the making of a decision or the failure to make a decision; and

(d) a purported decision; and

(e) a deemed refusal.

non-appealable, for a decision or matter, means the decision or matter—

(a) is final and conclusive; and

(b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and

(c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

232 Rules of the P&E Court

(1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.

(2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.