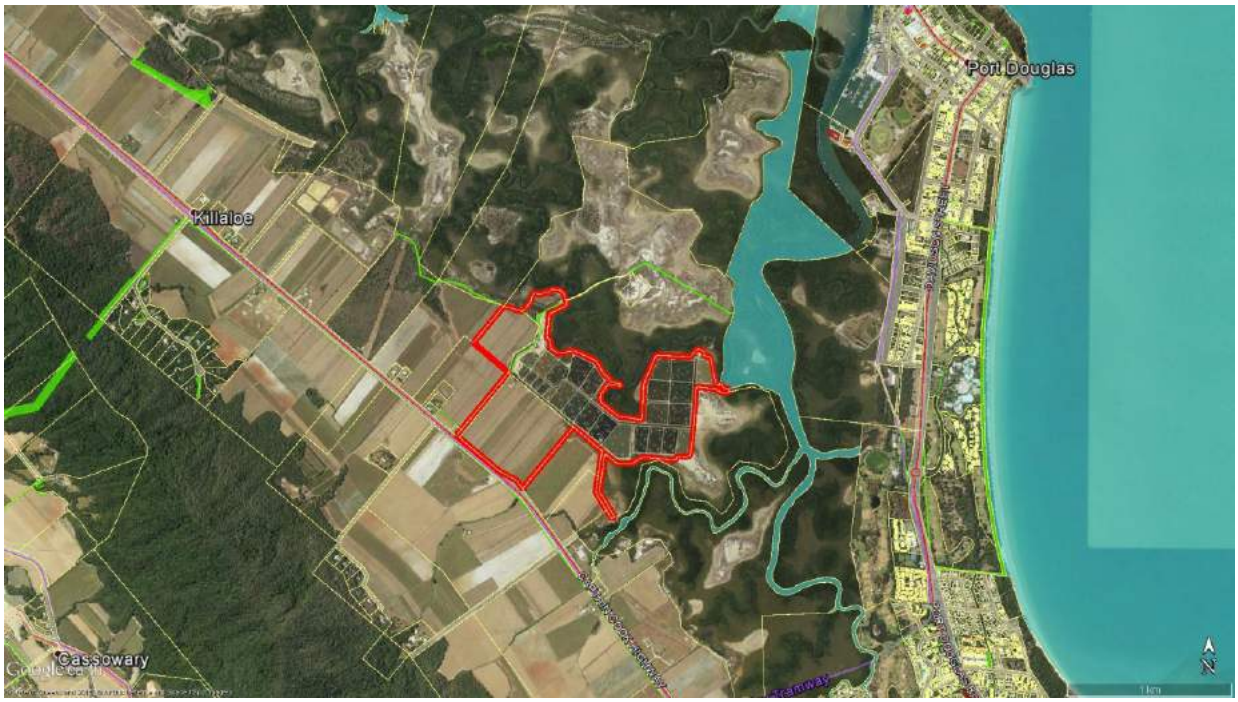
5.1. MATERIAL CHANGE OF USE (AQUACULTURE & CARETAKER'S RESIDENCE), REONFIGURATION OF A LOT (BOUNDARY REALIGNMENT) & OPERATIONAL WORKS (BULK EARTHWORKS)

REPORT AUTHOR(S):	Neil Beck, Planning Officer
GENERAL MANAGER:	Paul Hoye, General Manager Operations
DEPARTMENT:	Development Assessment and Coordination
PROPOSAL:	Material Change of Use (Expansion of Aquaculture Facility & Caretaker's Residence), Reconfiguring a Lot (Boundary Realignment) & Operational Works (Bulk Earthworks)
APPLICANT:	Gold Coast Marine Aquaculture C/- Gassman Development Perspectives PO Box 392 BEENLEIGH QLD 4207
LOCATION OF SITE:	Captain Cook Highway Killaloe
PROPERTY:	Lot 8 NR153, Lot 201 SP222765 & Lot 7 RP846941

LOCALITY PLAN



LOCALITY:	Rural Areas and Rural Settlements
PLANNING AREA:	Rural
PLANNING SCHEME:	Douglas Shire Planning Scheme 2006
REFERRAL AGENCIES:	Department of Infrastructure Local Government & Planning Department of Transport & Main Roads Department of Environment & Heritage Protection
NUMBER OF SUBMITTERS:	None
STATUTORY ASSESSMENT DEADLINE:	26 May 2016
APPLICATION DATE:	11 September 2015

RECOMMENDATION:

That Council approves the development application for Material Change of Use (Expansion of Aquaculture Facility & Caretaker's Residence), Reconfiguring a Lot (Boundary Realignment) & Operational Works (Bulk Earthworks) over land described as Lot 8 NR152, Lot 201 SP222765 and Lot 7 on RP846941, located at Captain Cook Highway, Killaloe subject to the following:

A. CONDITIONS APPLICABLE TO EXPANSION OF AQUACULTURE FACILITY & CARETAKER'S RESIDENCE

APPROVED DRAWING(S) AND / OR DOCUMENT(S)

The term 'approved drawing(s) and / or document(s)' or other similar expressions means:

Drawing or Document	Reference	Date
Proposal Plan	Drawing No. 5555 P PP 100	19 August 2015
Concept Plan - Operational Area	Drawing No. 555-P CP01.C	4 September 2015
Statement of Landscape Intent	Drawing No. 555 L L/01 – Plans 01 – 03 inclusive	30 June 2015

ASSESSMENT MANAGER CONDITIONS

1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:

a. The specifications, facts and circumstances as set out in the application submitted to Council; and

b. The following conditions of approval and the requirements of Council's Planning Scheme and the *FNQROC Development Manual*.

Except where modified by these conditions of approval.

Timing of Effect

2. The conditions of the Development Permit must be effected prior to the commencement of use except where specified otherwise in these conditions of approval.

Limitation on Use

3. No direct retail sales to the general public are to be conducted from the site.

Building Details

4. Scaled drawings of proposed buildings are to be submitted to Council for is agreement prior to the issue of a development permit for building works. Such buildings will:

a. not exceed 10 metres in height;

b. not utilise white and / or shining metallic surfaces on external surfaces,

unless otherwise agreed in writing by Council.

Operational Works

5. An Operational Works Approval is required for the earthworks, drainage and external road upgrade associated with the development.

Such works must be completed to the satisfaction of the Chief Executive Officer prior to commencement of use or issue of a compliance certificate for the plan of survey, whichever occurs first. Where plans are required, three (3) A1 size copies of the plans and one (1) copy at A3 size must be submitted to Council.

Earthworks

6. The extent of the works is to be revised to ensure the limit of works is contained within the site. In particular, the limit of works and interface with the existing surface along the south east boundary is to be confirmed to be within the development site and not to encroach into the existing drainage path.

The filling of the site must not compromise the drainage of external areas through the site.

The minimum filling for the operations centre pad is to be 3.2m in accordance with the Mortons Urban Solutions drawings.

Water Supply Works

7. Undertake the following water supply works to the site to connect the site to existing Council water supply infrastructure:

a. **Augment existing water supply infrastructure to the extent necessary such that the development does not adversely affect the water supply to adjacent properties and such that a water service connection can be provided at the lot frontage;**

b. **Ensure the appropriate minimum water pressure and flows (including fire-fighting flow) requirements can be provided to the site in accordance with FNQROC and the appropriate building classification for the use. Identify any extensions or upgrades proposed including on-site storage if required to achieve compliance for the classification of building and the use. Certification form an appropriately qualified hydraulic designer is required to confirm compliance;**

c. **Provide a single metered internal water connection;**

All the above works must be designed and constructed in accordance with the FNQROC Development Manual.

The works outlined above require approval from Council. A plan of the works at A1 must be endorsed by the Chief Executive Officer prior to commencement of such works. Such work must be constructed in accordance with the endorsed plan to the satisfaction of the Chief Executive Officer prior to commencement of use.

On-Site Effluent Disposal

8. **The method of on-site effluent disposal must be in accordance with the Queensland Plumbing & Wastewater Code. The sewage loading must include the various uses on the site and appropriate supporting information and justification of the sewage loads is to be submitted for Council's review. Location, size, levels and grading of the primary disposal area and reserve area are to be provided.**

   Details of the wastewater treatment system to be installed must be approved by the Chief Executive Officer prior to the issue of a development permit for building work.

Vehicle Parking

9. **The amount of vehicle parking must be as specified in Council's Planning Scheme which is a minimum of 10 spaces. The car parking layout must comply with the Australian Standard AS2890.1 2004 Parking Facilities – off-street car parking and be constructed in accordance with Austroads and good engineering design. In addition, all parking, driveway and vehicular manoeuvring areas must be imperviously sealed, drained and line marked.**

   Turning templates for the design vehicle must be submitted to confirm the manoeuvring areas and to demonstrate the clearances to proposed parking areas.

   The parking, manoeuvring and access plans (and construction details) must be endorsed by the Chief Executive Officer prior to the issue of a development permit for building work.

External Works

10. Undertake the following works external to the land at no cost to Council:

a. Upgrade the road to the site from the Captain Cook Highway. The road is to be constructed generally in accordance with the typical section provided on Mortons Urban Solutions Drawing 307–01–091 subject to changes required to achieve compliance with these conditions.

b. The pavement design is certified by an RPEQ and must be in accordance with the FNQROC guideline. Traffic assumptions and generation rates are to be provided to Council and are to be certified as appropriate by the RPEQ.

c. The road design must have regard to the stormwater flood modelling outcomes and any inundation per the drainage conditions.

d. The road is to be imperviously sealed to Council's satisfaction. Unless otherwise agreed, the seal width is to be 6.0m to facilitate vehicles passing noting the proximity to the drain and the power poles.

e. Demonstrate how vehicles utilising the public road can turn around within the road reserve without entering private property. The presence of the drainage infrastructure within the reserve is noted in this regard.

f. Confirm the clearance to existing power poles within the road reserve and demonstrate clearance is acceptable in accordance with FNQROC and AUSTROADS guidelines.

e. The applicant is to engage an appropriately qualified and experienced RPEQ to undertake a risk assessment on road operation and traffic adjacent to the proposed open drain/major overland flow path in accordance with Safety in Design principles and the Workplace Health and Safety Act 2011. The assessment must include, but not be limited to:-

- **the operation of the road in dry conditions noting the proximity to the open drain;**
- **the operation of the road in typical rainfall conditions with the drain containing water;**
- **the operation of the road in flood conditions noting the predicted inundation of the road and drain and the potential ambiguity of the carriageway delineation.**

The development must be designed to be "low" or "very low" risk. In locations where the identified risk(s) lie outside of these acceptable risk ranges, mitigation measures must be adopted to reduce the risks to these tolerable levels. A copy of the risk assessment and drawings detailing the proposed works shall be certified by the RPEQ as being in accordance with the legislative and conditional requirements. The drawings and risk assessment shall be required to be approved by Council.

The external works outlined above require approval from Council. Three (3) copies of a plan of the works at A1 size and one (1) copy at A3 size must be endorsed by the Chief Executive Officer prior to commencement of such works. Such work must be constructed in accordance with the endorsed plan to the satisfaction of the Chief Executive Officer prior to commencement of use.

Drainage Study of Site

11. The applicant is to review the existing local drainage study and update where necessary to ensure it addresses the following requirements.

Undertake a local drainage study of the site to determine the drainage impacts on upstream and downstream properties and the mitigation measures required to minimise such impacts. In particular, the study must address the following:

a. The contributing catchment boundaries;

b. The extent of the 1% AEP/100 year ARI flood event in relation to the site both pre and post development;

c. Primary and secondary flow paths for the 5, 20, 50 and 100 year ARI flood events;

d. The location of proposed drainage crossings of the flow paths for pedestrian and vehicle movements within the site and the hydraulic implication of these on the flood modelling;

e. Confirm the extent of the distributor and inlet channels noting the differing extents shown on the Gassman Proposal Plan and the Morton's Urban Solutions Bulk Earthworks plans.

f. Subject to the extents of the channels per e. above, confirm the impacts and interfacing arrangements/structures at the crossing of the existing corridors as follows:

- **vegetated drainage corridor along the common boundary of current Lot 7 on RP846941 and Lot 201 on SP222765; and**
- **on the access easement A on SP222765.**

g. Identify any requirement for drainage easements. In particular, the formalised flow paths that convey external runoff through the site;

h. With reference to the typical sections on Mortons Urban Solutions drawing 307-01-091, assess the operation of the drainage swales adjacent the pond batters and confirm that the proposed pond batters are not compromised by the drainage conveyance. Advice on velocities, duration of inundation etc is required. An appropriately qualified engineer is to assess the operation of the drainage elements and satisfy themselves as to the long term stability of the common batters of the drain and pond. Any mitigation measures or stability works are to be nominated and included in the amended drawings;

i. confirm the flow depth in the roadside drain and confirm that the road immunity and depth parameters comply with the FNQROC requirements for the minor and major rainfall events;

j. Confirm any additional measures required for pedestrian safety in the event that the drainage depths and flows do not comply with the pedestrian safety parameters set out in FNQROC/QUDM;

k. Identify the need and tenure for flood detention areas to ensure a no worsening impact on downstream properties for the entire development;

l. Information on the proposed works and any impacts proposed at the drainage outlet from the proposed development;

m. Lawful point of discharge.

The study must be endorsed by the Chief Executive Officer prior to the issue of a development permit for building work with the necessary works being undertaken prior to commencement of use or issue of a compliance certificate for the plan of survey, whichever occurs first.

Acid Sulfate Soil Management Plan

12. Undertake an Acid Sulfate Soil investigation in the area to be affected by this development. Soil sampling and analysis must be undertaken in accordance with procedures specified in, 'Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils in Queensland' (1998) or updated version of document produced by the Department of Natural Resources and Mines (Previously DNRW – QASSIT), and State Planning Policy 2/02 – 'Planning and Managing Development involving Acid Sulfate Soils'. The results of this investigation must be submitted to Council for approval prior to any earthworks or clearing being commenced on the site.

Identification of soils with a pyrite content in excess of the action levels nominated in the latest version of DNRM – QASSIT: 'Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils in Queensland' (1998) will trigger the requirement for preparation of an Acid Sulfate Soil Environmental Management Plan in accordance with the most recent requirements of the DNRM: 'Queensland Acid Sulfate Soil Technical Manual' (2002) including Soil Management Guidelines (updated Feb. 2003) which must be prepared to the satisfaction of the Chief Executive Officer.

Storage of Machinery and Plant

13. The storage of any machinery, material and vehicles must not cause a nuisance to surrounding properties, to the satisfaction of the Chief Executive Officer.

Demolish Structures

14. All structures not associated with the approved development (including disused services and utilities) must be demolished and/or removed from the subject land prior to Commencement of Use.

Access Easement/s

15. Demonstrate how the existing Access Easement will be maintained or provide advice on alternative access location and easement proposed to allow vehicle access and on-site manoeuvring for the adjacent property.

The access and easements are to be to the requirements and satisfaction of the Chief Executive Officer. A copy of any updated easement documents must be submitted to Council for the approval of Council's solicitors at no cost to Council.

The approved easement documents must be lodged and registered with the Department of Natural Resources & Mines prior to the Commencement of Use.

Amalgamation of Lots

16. A Plan of Survey must be prepared amalgamating proposed Lot 202 having an area of 62.06 hectares with Lot 8 on NR153 into one allotment. The Plan of Survey must be registered with the Department of Natural Resources and Mines and a new certificate of title issued at the applicant's/owner's cost prior to Commencement of Use.

Lawful Point of Discharge

17. All stormwater from the property must be directed to a lawful point of discharge such that it does not adversely affect surrounding properties or properties downstream from the development, all to the requirements and satisfaction of the Chief Executive Officer.

Minimum Fill and Floor Levels

18. The site is to be filled generally in accordance with the Morton's Urban Solutions Bulk Earthworks plans (except where modified by the conditions). The fill level in the operations centre and caretakers is to be filled to 3.2m in accordance with the Bulk Fill drawings.

In addition, all habitable floor levels must be located 300 mm above the 1% AEP flood immunity level (Q100).

Sediment and Erosion Control

19. Soil and water management measures must be installed / implemented prior to discharge of water from the site, such that no external stormwater flow from the site adversely affects surrounding or downstream properties (in accordance with the requirements of the Environmental Protection Act 1994, and the FNQROC Development Manual).

Landscape Plan

20. The site must be landscaped generally in accordance with the Statement of Landscape Intent details and in accordance with a Landscaping Plan. All landscaping works must be contained on the site. The Landscaping Plan must show:

a. **A landscape buffer adjacent the Captain Cook Highway to screen the development when viewed from the Highway. The landscape buffer must have a minimum width of 10 metres unless otherwise approved by the Chief Executive Officer at the time of the assessment of the Landscape Plan.**

b. **A landscape buffer adjacent the northern boundary of Lot 8 on NR153 having a minimum width of 5 metres;**

c. **Nominate the plant species to be used and planting densities in order to achieve screening of the development from adjoining properties over time;**

d. **Detail ground preparation and removal of potential contaminated soils associated with concrete surfacing works. The soil must be well prepared (not compacted) and fertilized with organic fertilizers to encourage strong growth;**

e. **Detail the interface between landscaping works and the ponds and / road and drainage infrastructure;**

f. **Species to have regard to Council's Planning Scheme Policy No.7 Landscaping;**

g. **Details of any proposed fencing;**

h. **Inclusion of any other relevant conditions included in this Development Permit. A copy of this Development Approval must be given to the applicant's Landscape Architect/Designer.**

The Landscape Plan must be endorsed by the Chief Executive Officer. All landscaping works must be undertaken in accordance with the endorsed plan prior to the Commencement of Use and maintained at all times to the satisfaction of the Chief Executive Officer.

Noise

21. The proposed activity must be conducted in a manner that -

a. **applies such reasonable and practicable means necessary to avoid, minimise or manage (in that order) the emission or likelihood of emission of noise that constitutes an intrusive or nuisance noise; and**

b. **achieves the acoustic quality objectives of the Environmental Protection (Noise) Policy 2008.**

Air Quality

22. The activity must be conducted in a manner that –

a. **does not cause an environmental nuisance or detrimental effect on any surrounding land uses and activities by reason of the emission of odour, fumes, smoke, vapour, steam, particulate matter or other emissions to the air; and**

b. **is consistent with achieving the air quality objectives of the Environmental Protection (Air) Policy 2008.**

B. CONDITIONS APPLICABLE TO RECONFIGURING A LOT (BOUNDARY REALIGNMENT)

APPROVED DRAWING(S) AND / OR DOCUMENT(S)

The term 'approved drawing(s) and / or document(s)' or other similar expressions means:

Drawing or Document	Reference	Date
Proposed Reconfiguration of Land (Boundary Relocation)	Drawing No. 5555 P ROL 02	15 February 2015
Proposal Plan	Drawing No. 5555 P PP 100 Issue A	19 August 2015

ASSESSMENT MANAGER CONDITIONS

1. **Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:**

   a. **The specifications, facts and circumstances as set out in the application submitted to Council; and**

   b. **The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual.**

   Except where modified by these conditions of approval

Timing of Effect

2. **The conditions of the Development Permit must be effected prior to the issue of a Compliance Certificate for the Plan of Survey, except where specified otherwise in these conditions of approval.**

Existing Services

3. **Written confirmation of the location of existing services for the land must be provided. In any instance where existing services are contained within another lot, the following applies, either:**

   a. **Relocate the services to comply with this requirement; or**

   b. **Arrange registration of necessary easements over services located within another lot prior to, or in conjunction with, the lodgement of a Compliance Certificate for the Plan of Survey creating the lot.**

C. CONDITIONS APPLICABLE TO OPERATIONAL WORKS (BULK EARTHWORKS)

The standard conditions are shown in Appendix A and must be read in conjunction with any approved plans and project specific conditions identified below.

The information or amended drawings required in accordance with these conditions must be submitted and approved prior to the pre-start meeting unless otherwise noted.

The information or amended drawings required in accordance with these conditions must be submitted and approved prior to the pre-start meeting unless otherwise noted.

APPROVED DRAWING(S) AND / OR DOCUMENT(S)

The term 'approved drawing(s) and / or document(s)' or other similar expressions means:

Drawing or Document	Reference	Date
General		
307-01-000	Cover Sheet	2/03/2016
307-01-001	General Notes and Legend	24/06/2015
307-01-003	Key Plan	24/06/2015
307-01-005	Existing Surface Plan-Sheet 01	24/06/2015
307-01-006	Existing Surface Plan-Sheet 02	24/06/2015
307-01-007	Existing Surface Plan-Sheet 03	24/06/2015
Sediment and Erosion		
307-01-010	Control Plan Sheet 01	26/06/2015
307-01-011	Control Plan Sheet 02	26/06/2015
307-01-012	Control Plan Sheet 03	26/06/2015
307-01-013	Control Plan Sheet 04	26/06/2015
307-01-014	Control Plan Sheet 05	26/06/2015
307-01-015	Control Plan Sheet 06	26/06/2015
307-01-016	Control Plan Sheet 07	26/06/2015
307-01-017	Control Plan Sheet 08	26/06/2015

Drawing or Document	Reference	Date
Bulk Earthworks		
307-01-030	**Cut Fill Plan-Sheet 01**	**26/06/2015**
307-01-031	**Cut Fill Plan-Sheet 02**	**26/06/2015**
307-01-032	**Cut Fill Plan-Sheet 03**	**26/06/2015**
307-01-033	**Cut Fill Plan-Sheet 04**	**26/06/2015**
307-01-034	**Cut Fill Plan-Sheet 05**	**26/06/2015**
307-01-035	**Cut Fill Plan-Sheet 06**	**26/06/2015**
307-01-036	**Cut Fill Plan-Sheet 07**	**26/06/2015**
307-01-037	**Cut Fill Plan-Sheet 08**	**26/06/2015**
307-01-050	**Earthworks Sections Key Plan**	**24/06/2015**
307-01-051	**Bulk Earthworks Sections Sheet 01**	**24/06/2015**
307-01-052	**Bulk Earthworks Sections Sheet 02**	**24/06/2015**
307-01-053	**Bulk Earthworks Sections Sheet 03**	**24/06/2015**
Typical Sections and Details		
307-01-090	**Sheet 01**	**24/06/2015**
307-01-091	**Sheet 02**	**24/06/2015**

ASSESSMENT MANAGER CONDITIONS – PROJECT SPECIFIC:

1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:

a. The specifications, facts and circumstances as set out in the application submitted to Council; and

b. The following conditions of approval and the requirements of Council's Planning Scheme and the *FNQROC Development Manual*.

Except where modified by these conditions of approval

Timing of Effect

2. The conditions of the Development Permit must be effected prior to the request for a Pre-Start Meeting unless except where specified otherwise in these conditions of approval.

General

3. This Decision Notice should be read in conjunction with the following;

- **Reconfiguring a Lot conditions;**
- **Material Change of Use conditions.**

4. This Operational Work Permit Covers:

- **Earthworks**
- **Drainage (overland flow)**

All works not explicitly covered by this approval are required to be covered by a separate operational works approval. It should be noted that additional works approval will need to be sought for roadworks and public utility service works.

Earthworks - Amendment to design

5. The extent of works is to be revised to ensure that all earthworks for the ponds are wholly contained within the applicant's land. The extent of works on the north west boundary is to be revised to ensure that a 3.0m access and maintenance track is provided on the property side of the road boundary (between drainage channel and toe of the pond batter). The access and maintenance track is to be wholly contained within the applicant's land.

6. Confirm (with site survey) the presence of the existing drainage channel along the Lot 201/Lot 7 Property Boundary in relation to the proposed works. The survey is to identify trees of diameter 100mm or greater.

7. The earthworks on the Mortons Urban Solutions drawings are to be amended to comply with the footprint per the Gassman Development Perspectives Drawing 5555 PPP 100 dated 19 Dec 2014, unless otherwise approved by Council. In particular, the filled pad for the operations centre and the Northern ponds is to be clear of the vegetation and drainage along the existing boundary between lot 7 and Lot 201.

Three (3) copies of the amended plans of the works at A1 size and one (1) copy at A3 size must be endorsed by the Chief Executive Officer prior to commencement of such works. The work must be constructed in accordance with the endorsed plan to the satisfaction of the Chief Executive Officer prior to Commencement of Use

8. The applicant is to provide clarification on the earthworks volumes and to confirm if the proposed earthworks are surplus, balance or imported. Supporting information is to include the volume calculations with outputs from a 3 dimensional design package. Calculations are to confirm the volume of topsoil stripping material and/or material not suitable for bulk filling and to confirm how this material will be managed and stored on site or the approved disposal facility if exported from the site.

If the proposed earthworks are not in balance with either surplus material to be exported or additional material to be imported, the volumes are to be advised to Council. Prior to the commencement of filling, the applicant/contractor is to confirm the alternative borrow or fill site has appropriate approvals in place to remove or receive material.

9. Subject to the advice in Condition # above, if material is to be imported or exported, the applicant is to prepare a plan of the Haul route. Where the haul route utilises Council Roads, the applicant is to prepare a Road Condition Report of the proposed haulage route indicating all existing problems with the roadway along the identified haul route. On completion, the haul route shall be subject to a joint inspection by the applicant and Council Officers to identify any further damage that has occurred. If any additional damage has occurred, all rectification works shall be at the applicant's expense, to the satisfaction of the Chief Executive Officer. The report is to contain (but not limited to): location of existing deficiencies of the roadway and site photos of the route especially at areas where turning movements will occur.

Access Easement/s

10. The applicant is to demonstrate how the existing access easement A/SP22765 will be maintained during and after the completion of the proposed operational works. Reference is made to Condition 15 of the Material Change of Use.

11. In the event that the application seeks to amend the location of the access easement and/or nominates alternative access arrangements either temporarily or permanently, these details are to be provided to Council for review.

Roadworks

12. The applicant is to nominate the proposed timing for the upgrade to the external road between the site entry and the Captain Cook Highway.

If roadworks are not intended until completion of the bulk earthworks, demonstrate that construction vehicles can safely enter and exit the site.

Drainage

13. The Bulk Earthworks profiles and footprint is subject to the review of the drainage study as required in the conditions of the Material Change of Use Decision Notice.

The study must be endorsed by the Chief Executive Officer prior to the commencement of construction of the earthworks on site.

Any changes to the scope of works and the engineering plans that are required as a result of the approved drainage study must be detailed on amended plans to be approved prior to the commencement of the works.

Erosion and Sediment Control

14. An Erosion and Sediment Control (ESC) plan is to be prepared and certified by a suitability qualified person (Certified Professional in Erosion and Sediment Control or suitable equivalent person) and submitted to Council prior to commencement of any works. The ESC Plan must be relevant to all phases of the construction and be updated where necessary as works progress. In particular the ESC plan must define roles and responsibilities on site for the day to day management of the active work site including such items as monitoring weather forecasts, preparing the site for imminent weather events and post event assessment of effectiveness of measures with the plan updated and amended regularly to suit the work staging.

The erosion and sediment control plan at a minimum must address the following;

a. Construction traffic entry/exit points and control measures;

b. Internal haul routes;

c. Dividing the site into hydraulically manageable drainage areas;

d. Proposed sequencing and staging (by footprint) of works to minimise soil disturbance at any one time;

e. Define the extent of soil disturbance for each stage;

f. Proposed installation sequence for ESC measures;

g. Control of clean water upstream of the site;

h. Control erosion on disturbed areas;

i. Control of runoff within active worksite;

j. Location of and types of sediment traps and basins within the site;

k. Control sediment runoff at site boundary;

l. Site revegetation and rehabilitation requirements, (including a staged revegetation plan);

m. Assess the potential for inundation of the active work area during tidal events (Highest Astronomical Tide) and rainfall events and identification of management measures to address this;

n. identification of roles and responsibilities on site;

o. identification of end of day controls.

The Erosion and Sediment Control Plan must be prepared and submitted to Council for Council's records prior to commencement of works on site. Council may request advice on the suitability of measures, however, it will remain the responsibility of the Contractor's CPESC and/or RPEQ to ensure the measures are adequate for the works occurring on site.

The erosion and sediment control measures must be installed/implemented prior to discharge of water from the site, such that stormwater flow from the site does not adversely affect surrounding or downstream properties or waterway systems (in accordance with the requirements of the Environmental Protection Act 1994, and the FNQROC Development Manual).

Acid Sulfate Soils Management Plan

15. An Acid Sulfate Soils Management Plan is to be prepared which, amongst other things, is to address:

a. bunding and drainage of areas of disturbance;

b. control and monitoring of any run-off water that is collected by this bunding or drainage; and

c. regular inspections.

The findings of the Acid Sulfate Soil investigation with respect to the control and monitoring of ground water for de-watering extraction are to be addressed in the Management Plan.

The Acid Sulfate Soils Management plan is to be supplied to Council prior to the commencement of earthworks.

Appendix A – Standard Conditions (where directly applicable)

1. The proposed works are permitted subject to any alterations:

a. Found necessary by Chief Executive Officer at the time of examination of Engineering drawings or during construction of the works because of particular engineering requirements; and.

b. To ensure the works comply in all respects with the requirements of FNQROC Development Manual and good engineering practice; and.

c. To comply with project specific conditions and the following standard conditions of approval.

All works must be carried out in accordance with the approved plans, conditions and specifications, to the requirements and satisfaction of the Chief Executive Officer.

2. The conditions of any Reconfiguration of Lot or Material Change of Use permits applicable shall be complied with in conjunction with this development permit.

3. Council's examination of the documents should not be taken to mean that the documents have been checked in detail and Council takes no responsibility for their accuracy. If during construction, inadequacies of the design are discovered, it is the responsibility of the Principal Consulting Engineer to resubmit amended plans to Council for approval and rectify works accordingly.

4. Notwithstanding any approval given to engineering documents, where a discrepancy occurs between these documents and Council's standards, then Council's standards shall apply. All works must be performed in accordance with Council standards and Local Laws and other statutory requirements.

5. If in fact there are errors, omissions or insufficient detail on the plans for the purpose of construction, these deficiencies shall be made good during construction and Council reserves the right to withhold approval of construction until such deficiencies are made good to its satisfaction.

6. Work and or Technical Documents identified within these Development Approval Conditions are nominated as requiring Compliance Assessment under section 398 of the Sustainable Planning Act 2009. In particular, As-Constructed Water, Stormwater & Sewerage Plans must be submitted to the Compliance Assessor (Douglas Shire Council) on the approved form (Form 32) and will be assessed against the provisions of Councils FNQROC Development Manual. Council must issue a Compliance Certificate for the assessable Documents prior to granting Early Plan Sealing or Plan Sealing of a Subdivision Plan or the issue of a Works Acceptance Certificate, whichever occurs first.

Timing of Effect

7. The conditions of this development permit must be effected prior to the approval and dating of the survey plan, except where specified otherwise in these conditions of approval, or at Council's discretion.

Easement Documentation

8. Easement documents are to be submitted to Council's Solicitors for checking in accordance with the conditions of the Development Permit. In this instance.

Portable Long Service Leave Notification

9. As per the QLeave – Building and Construction Industry Authority Guidelines, if the works are over $80,000, Council must sight a copy of the receipted Portable Long Service Notification and Payment form prior to commencement of work.

Construction Security Bond

10. Lodgement of Construction Security Bond as per the FNQROC Development Manual, Section CP1.07, (i.e., 5% of the value of the works) is required, prior to commencement of work. The bond shall be in favour of Council and in the format of cash or an unconditional bank guarantee, which must cover all aspects of the construction and have no termination date.

Third Party Agreement

11. The developer must obtain written agreement from third parties and/or Referral Agencies for any works proposed on adjacent properties. The agreement(s) must be provided prior to the associated works commencing on site. All agreements must be available for Council scrutiny, upon request.

Commencement of Works

12. Council is to receive written Notice of Intention to Commence Works and all matters relevant to the Pre-Start meeting are to be attended to in accordance with Section CP1.07, CP1.08 and Section CP1.09, of FNQROC Development Manual.

Construction Monitoring Fee

13. Payment of the Construction Monitoring Fee is required prior to work commencing. This figure is based on a $1,604.00 base fee, plus $143.00/lot.

Hours of Work

14. Work involving the operation of construction plant and equipment of any description, shall only be carried out on site during the following times:

a. 7.00am to 6.00pm, Monday to Friday;

b. 7.00am to 1.00pm Saturdays;

c. No work is permitted on Sundays or Public Holidays.

Any variations to the above working hours must be authorised by the Chief Executive Officer, prior to the commencement of such works.

Public Notification of the Works

15. The developer or the nominated representative must provide:

a. Public notification of the development in local newspapers in accordance with Section CP1.11 of the FNQROC Development Manual.

b. Signage identifying the location of the project, general allotment layout, contact numbers (including out of office hours emergency numbers) must be provided at all entrance points to the development. All signage must be appropriately positioned, prior to the commencement of any works on the site.

Site Inspections

16. Council requires a number of major inspections to be completed as Witness and Hold Points for Consulting Engineers and Council officers during the construction of the works. Inspections undertaken during construction shall be in accordance with Section CP1.16 (Inspection and Testing) of FNQROC Development Manual. These Witness and Hold points are to be included in the contractors Inspection and Test Plan (ITP) and be made available for inspection, prior to the commencement of any works on the site.

Soil and Water Management

17. All works must be in accordance with Section CP1.13 and D5 of the FNQROC Development Manual, and must comply with the following:

a. A copy of the contractors Erosion and Sediment Control (ESC) Plan is to be submitted to Council and endorsed by the Consulting Engineer, prior to commencement of any works. In particular, the ESC Plan must address the Institution of Engineers Australia Guidelines for Soil Erosion and Sediment Control and the Environment Protection (Water) Policy and Clauses CP1.06, CP1.13 and D5.10 of Council's FNQROC Development Manual. The ESC Plan must be relevant to all phases of the construction and be updated where necessary as works progress.

b. Any dewatering activities will require approval from Council, telephone 07 4099 4999, and a valid permit obtained prior to commencement.

c. During the construction period, the Consulting Engineer shall randomly audit and inspect ESC measures for compliance with the Engineer endorsed Contractors ESC Plan, derived from the Engineers ESC Strategy (As per FNQROC CP1 Appendix A).

d. It is the Contractors responsibility to ensure that the ESC Plan is updated and amended to reflect any changes in the construction methodology. All such amendments shall be approved by the Engineer and presented to Council.

e. The developer shall be held responsible for any rectification works required to clean up dust, pollutants and sediments that may leave the site as a result of construction activities.

f. The developer or their representative shall be responsible for communicating with third parties affected by any dust, pollutants or sediment leaving the site as a result of any construction activity that is associated with the project site.

Infrastructure Plans for Utility Services

18. Approved infrastructure plans for gas, electrical and telecommunications services must be endorsed by Council, prior to the commencement of associated works.

Landscaping General

19. Landscaping shall be provided in accordance with Part D9 and Part S8 of the FNQROC Development Manual, unless approved otherwise by Council.

20. The landscaping works must be constructed in accordance with the approved plans and conditions. The developer must seek approval in writing from the Council for any changes to the plan or the landscaping works on the site. This approval must be obtained prior to commencement of these works on site.

21. The landscape must be maintained in good order by the developer for at least three months during the Works Acceptance period, and generally timed to coincide with the Final Works Acceptance Inspection, when all landscaping works must be in a condition suitable for Council to commence regular maintenance.

Structures and Retaining Walls

22. Separate building certification and/or structural certification is required for any works to alter existing structures, provide new structures or construct retaining walls that are over 900mm high. Certification by a suitably qualified engineer must be provided, prior to opening the work site to the public.

The Location of Stormwater Quality Interception Devices (SQIDS)

23. Council must approve the location of any SQIDS prior to installation. They shall be positioned to allow for economic and efficient maintenance operations, and will require a reinforced concrete hard standing area to be provided from the edge of the carriageway to the SQID location. Vehicular access from the public road reserve to the SQID must remain unrestricted.

Sewer and Water

24. All water and sewerage works must be in accordance with Sections D6 and D7 of FNQROC Development Manual, and must comply with the following:

a. Council requires a minimum of five (5) working days notice of intention to commence water and sewerage related works. The notice shall be given to the Plumbing Inspector at Council either in writing, by telephone (07) 4099 9444 or email to enquiries@douglas.qld.gov.au prior to the commencement of works.

b. The developer shall be responsible for confirming the location of all existing sewer, water and utility service infrastructure prior to the commencement of works on site. Any permits necessary to alter/interfere with such services must be obtained prior to the commencement of work and be available for Council inspection if required.

c. Any works over or within the zone of influence of Council's existing water and sewerage infrastructure must be approved by Council prior to the commencement of the proposed works. Unless otherwise approved in writing, existing infrastructure impacted by the development shall be subject to the maintenance period provisions contained in this Decision Notice.

Construction works shall include any works that may impact on existing infrastructure such as, but not limited to, mobilisation of heavy earthmoving equipment, stripping and grubbing, site filling, stockpiling of materials and installation of erosion and sediment control measures.

d. All testing and acceptance of water and sewerage works shall be in accordance with CP1 Construction Procedures of the FNQROC Development Manual. Works are to be certified as acceptable by Council, and any operating manuals etc. be provided to Council, prior to making an application for the acceptance of the works.

e. Any works over or within the zone of influence of Council's existing water and sewerage infrastructure must be approved by Council prior to the commencement of the proposed works. Unless otherwise approved in writing, existing infrastructure impacted by the development shall be subject to the maintenance period provisions contained in this Decision Notice. Construction works shall include any works that may impact on existing infrastructure such as, but not limited to, mobilisation of heavy earthmoving equipment, stripping and grubbing, site filling, stockpiling of materials and installation of erosion and sediment control measures.

f. All testing and acceptance of water and sewerage works shall be in accordance with CP1 Construction Procedures of Council's FNQROC Development Manual. Works are to be certified as acceptable by Council, and any operating manuals etc. be provided to Council, prior to making an application for the acceptance of the works.

Water

25. Council must be contacted to perform any direct connection to live water mains whether being as a permanent connection, a connection for irrigation purposes or for construction water. Unless otherwise approved in writing, separate applications on the prescribed forms shall be made to Council for connections, together with payment of the relevant fee. All connections are to be provided subject to the terms and conditions of Council's "Application for a Water Service Connection".

a Amended drawings in accordance with these conditions must be approved prior to the pre-start meeting.

b The Inspection and Test Plan must be approved prior to the pre-start meeting. At project completion the completed and validated ITP must be submitted and approved prior to the issue of a Works Acceptance Certificate.

c Minimum clearances between water mains and other services must be in accordance with the Water Supply Code of Australia in particular the minimum clearance between water mains and sewer mains must be 500mm with the sewer under the water main.

d As-constructed water drawings must be approved prior to Issue of a Works Acceptance Certificate. The as-constructed submission is to include the "Statement of Compliance – As-constructed Documentation" and must be the final issue.

Roads and Footpaths

26. All works are to be designed and constructed in accordance with AS 1428.1-2001: 'Design for access and mobility' - General requirements for access - New building work, and associated standard AS/NZS 1428.4 2002, 'Design for Access and Mobility' - Tactile Indicators. The design is required to provide equal access for people with disability and include the provision of suitable ramps and landing areas and the installation of Tactile Ground Surface Indicators (TGSI's) where required.

Cultural Heritage

27. The Aboriginal Cultural Heritage Act 2003 seeks to protect artefacts and cultural sites that are of significance to Aboriginal people. The Act requires anyone carrying out an activity to exercise a Duty of Care. Guidelines have been produced to enable assessment of sites under the Act. These are available from Department of Environment & Heritage Protection (DEHP) and can be downloaded from their website at www.dehp.qld.gov.au. The work identified in the project documentation is likely to require assessment of the site under the Act.

EXECUTIVE SUMMARY

Council is in receipt of a Combined Development Application seeking approval to expand the existing Aquaculture Facility (Prawn Farm) over land located on the eastern side of the Captain Cook Highway, Killaloe.

The development involves a significant increase in the number of ponds, the reorganisation and expansion of existing on-site processing and administration facilities to take place within a new building, a Caretaker's Residence, a boundary realignment to accommodate the expansion and an operational works approval for bulk earthworks to construct the ponds.

The land is located in the Rural Planning Area and contained within the Rural Areas and Rural Settlements Locality within the Planning Scheme. The land has a total site area of approximately 101 hectares with frontage of approximately 690 metres to the Captain Cook Highway.

The Environmentally Relevant Activity (ERA) approval for the existing facility administered by the State does not require amending as a consequence of the expansion. The existing ERA approval provides sufficient scope to cater for the proposed expansion.

The application required referral to the Department of Transport & Main Roads (DTMR) & Department of Environment & Heritage Protection (DEHP) as Concurrence Agencies through the State Assessment & Referral Agency (SARA). Both Concurrency Agencies have provided responses which attach to the approval.

The proposed development represents a significant expansion and investment into existing operations. The development does not conflict with the Planning Scheme and other planning instruments and is able to be supported, subject to conditions.

Approval of the development is recommended.

TOWN PLANNING CONSIDERATIONS

Site & Locality

The site is located on the eastern side of the Captain Cook Highway and is presently used for existing aquaculture operations and associated processing facilities in addition to the production of sugar cane.

The plan below illustrates the total extent of land to accommodate the expansion of the facility following the boundary realignment.

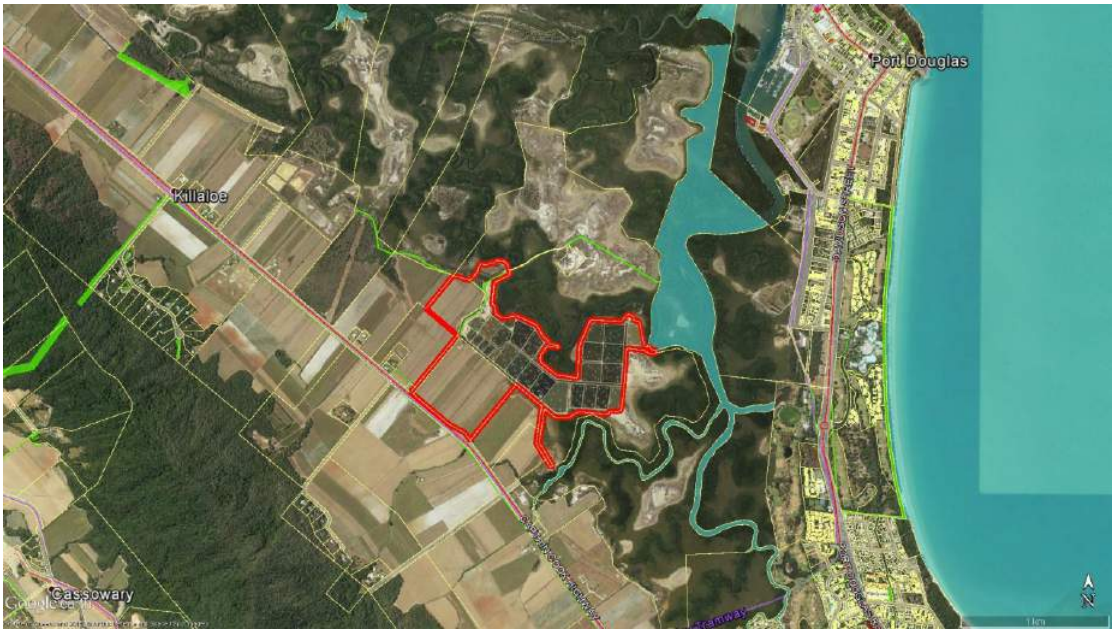


Figure 1 – Area of land occupied by expansion

Access to the land is available via an un-named road which extends in an easterly direction for approximately 490 metres from the Captain Cook Highway. The road has a reserve width of 20 metres. A road licence is currently in place having a width of 10 metres adjacent the south eastern boundary of Lot 7 on RP846941.

The locality is rural in nature predominately consisting of agricultural lands associated with the production of sugar cane. The site has been extensively farmed over the years and therefore no defined vegetation has been identified that would warrant further consideration within the site. No removal, destruction or damage of marine plants is proposed as part of this application.

The subject site can be generally described as flat, with a minor slope running from the high point located in the south portion of the site back towards the existing aquaculture use. The drop in levels is approximately 0.5m over a distance of 570 metres equating to a slope of around 0.01%.

Proposal

The following section provides an overview of the proposal to expand the existing aquaculture facility. In summary, the proposed development is seeking Development Permits for:

- Material Change of Use - expand the existing Aquaculture facility, inclusive of an Administration building (approximately 200m^2 in area), Primary Processing building (approximately 800m^2 in area), Waste Collection and maintenance Shed (approximately 200m^2 in area and Caretaker's Residence (approximately 120m^2 in area);
- Reconfigure the existing boundaries of the subject land to realise a lot pattern where the proposed expansion of the existing aquaculture facility can be accommodated within two distinct lots.
- Operational works to construct the ponds – Bulk Earthworks

Further detail on each component of the development application is as follows: -

Material Change of Use

1. The construction of 21 additional ponds predominately located on the land between the existing operations and the Captain Cook Highway. The proposed ponds have been designed and arranged on site responding to key site characteristics and operational requirements of prawn production. In this regard the ponds can be generally described as follows:

    i. Each pond will be filled and drained by gravity (i.e. the inlet will be higher than the outlet);

    ii. An internal slope of approximately 0.5% will run towards the outlet;

    iii. Each pond will be lined in a specific poly-plastic lining that protects stability of each pond bank;

    iv. The water level in each pond will be retained at approximately 1.5m in accordance with health and safety standards.

2. A significant landscape buffer is proposed between the Captain Cook Highway and the new ponds;

3. A new and consolidated administration and processing area located to the north western portion of the site. The new area will include:

    i. New administration building, approximately 200m^2 in area, which will act as front-of-house facility. This structure has been strategically placed in order to act as a gate-house for any visitors to the site with car parking available. A gate will be erected at this location for security reasons;

ii. A primary processing facility will be located to the rear of the administration building. This structure will house all processing machinery with a gross floor area of 800m². Significantly, the structure will be accessible from both the adjoining driveway and a large hardstand area to the front;

iii. A waste storage and collection area will be located to the rear of the processing unit. The proposed operation does not require significant waste storage. However, a sizeable area has been provided as a conservative position. This area will also be utilised to store maintenance machinery and equipment;

iv. A caretaker's residence will be constructed that will house an employee of the facility. The proposed caretaker's facility has been positioned in a central location to facilitate surveillance over key facilities. The proposed dwelling will have a gross floor area of 120m² and will include designated car parking and 50m² of private open space that will be landscaped appropriately to allow for privacy;

v. A large hardstand area will also be provided in order to ensure servicing arrangement and machinery movement can be conducted safely and efficiently;

vi. A total of 30 formal car parking spaces have been proposed to cater for the operation. The parking has been provided in two separate locations providing a distinction between short term parking to the front and longer term parking to the rear.

4. The hydraulic performance of the proposal has been carefully designed by the applicant's consulting engineers. The resulting design has sought to ensure that stormwater and flood waters are appropriately managed on site to ensure existing facilities and infrastructure can be protected without adversely impacting on neighbouring properties;

5. A servicing strategy has been developed that will seek to cater for the location's isolation from existing Council infrastructure until such time as they become available. In this regard the strategy is based around the following:

i. With respect to water, the subject proposal incorporates several large rainwater tanks that will seek to capture rainwater to be reused on the site primarily for rainwater purposes. Further potable water tanks will be established on site for human consumption and other relevant uses, these tanks will be positioned strategically on site and will be serviced by a relevant provider on a regular basis. Finally, several large fire-fighting tanks will be constructed to cater for any potential fire event;

ii. An on-site wastewater system will be provided to cater for staff facilities.

A copy of the proposed pond expansion and details of the processing facility forms Attachment 1.

Reconfiguring a Lot

The development proposal incorporates a boundary realignment that will seek to integrate land located to the west of the existing operation into the balance site containing the main operation. The key characteristics of the proposal are outlined in the table below:

Table 1 – Details of Boundary Realignment

Existing Arrangement	Proposed Arrangement		
Lot 7 RP846941	**Proposed Lot 203**		
Area	23.33 ha	Area	14.94 ha
Frontage	204 m	Frontage	204 m
Lot 201 on SP222765	**Proposed Lot 202**		
Area	53.67 ha	Area	62.06 ha
Frontage	20 m	Frontage	20 m – Un-named Road

A plan illustrating the proposed boundary realignment forms Attachment 2.

Operational Works (Bulk Earthworks)

The development proposal seeks approval for Operational Works (Bulk Earthworks) to construct the ponds and channels to expand the operation. The applicant has commissioned detailed flood and drainage investigations in order to understand the contributing catchment of the site and to investigate and demonstrate that such works does not have an adverse impact on surrounding properties.

The detail engineering drawings for the earthworks, as amended by Department of Environment and Heritage Protection's requirements form Attachment 3 to this report.

State Planning Requirements

The proposed development triggers a number of State Planning Interests to be considered and addressed in the assessment of the application. Such interests relate to the coastal environment, water quality, acid sulfate soils and natural hazards with particular reference to flooding.

In support of the proposed development, the applicant commissioned specialist reports relating to drainage and flooding, acid sulfate soils and traffic impact investigation.

The State Assessment Referral Agency (SARA) referred the application to the Department of Agriculture and Fisheries (DAF), Department of Transport and Main Roads (DTMR) and Department of Environment and Heritage Protection (DEHP) with respect to the various State Interests and their roles as Concurrence Agencies under the Sustainable Planning Regulations.

With the exception of the expansion in the north eastern portion of the site, the ponds will be constructed away from the adjoining wetland / coastal area.

The proposed development does not conflict with the Interim Development Assessment Provisions of the State Planning Policy

Douglas Shire Planning Scheme Assessment

The land is part of the Rural Areas and Rural Settlements Locality and is contained within the Rural Planning Area within the Planning Scheme.

The expansion of the existing Aquaculture Facility and associated processing plant constitutes impact assessable development within the Planning Scheme and is therefore assessed against the entire Planning Scheme, while the proposed Caretaker's Residence and boundary realignment is code assessable development.

Achieving Outcomes through the Planning Scheme

Development within the Shire must satisfy outcomes identified in the Planning Scheme which seek to achieve ecological sustainability. Outcomes are categorised within the following levels:

- Desired Environmental Outcomes
- Overall Outcomes for Localities
- Specific Outcomes for areas affected by an Overlay
- Specific Outcomes for Planning Areas or Particular Development
- Performance Criteria and associated Acceptable Solutions for a Specific Outcome,
- Performance Criteria and associated or Acceptable Solutions for Overall Outcomes.

Desired Environmental Outcomes

Chapter 2 of the Planning Scheme outlines the Desired Environmental Outcomes that underpin the Planning Scheme.

The Desired Environmental Outcomes are grouped under core matters which comprise ecological sustainability as follows:

- Ecological Processes and Natural Systems;
- Economic Development;
- Cultural, Economic, Physical and Social Well-being of the Community.

1. Ecological Processes and Natural Systems

Desired Environmental Outcome		Comment
DEO 1:	The unique environmental values of the Shire, which result from its location within the Wet Tropics Bioregion, are maintained and protected for current and future generations.	Necessary approvals have been obtained from DEHP and DAFF with respect to proposed expansion and licensing requirements associated with operating the facility. Concurrence agency conditions and Assessment Managers conditions are also attached to the approval with respect to acid sulfate soils and sediment and erosion control matters to ensure against adverse impacts on the adjoining mangrove and wetland areas and the environment generally.
DEO 2:	Those parts of the Shire located within the Wet Tropics and Great Barrier Reef World Heritage Areas and other adjacent areas of environmental value and ecological significance, are preserved and protected for nature conservation, landscape/scenic quality, biodiversity and habitat values, in particular the protection of the Southern Cassowary and its habitat and to ensure the integrity of natural processes.	The proposed expansion is taking place on land previously used for sugar cane production and is heavily disturbed. The proposed development does not involve the removal of any marine plants or other vegetation.
DEO 3:	Natural waterways such as the Daintree River, the Mossman River, the Mowbray River and Dicksons Inlet, all wetlands but particularly those on the Directory of Wetlands of Importance in Australia, being the Lower Daintree River, Alexandra Bay and the Hilda Creek Headwater; and all catchments located in the coastal areas within the Shire, are managed to protect their ecological processes, enhance water quality, conserve riparian ecological values and landscape/scenic quality, while acknowledging nature based recreation opportunities.	As mentioned above in DEO 1 & DEO 2, the necessary approvals and licenses for the expansion of the facility have been obtained by the Applicant. No vegetation is being removed as a consequence of the expansion.

Desired Environmental Outcome	Comment
DEO 4: The unique environmental character of the Shire comprised of internationally renowned landscapes, ecologically significant rainforest systems, sensitive coastal systems and areas of unsurpassed natural beauty, are maintained in association with sustainable development practices, which seek to minimise the effects of development on the natural environment.	The proposed development will not compromise the unique environmental character of the Shire. The proposed development includes a substantial landscape buffer to screen the ponds from the Captain Cook Highway.

2. Economic Development

Desired Environmental Outcome		Compliance
DEO 5:	A prosperous community with a strong rural sector, a dynamic tourism industry and commercial and industrial activities offering a diverse range of employment opportunities is supported by the sustainable use and management of the natural resources of the Shire.	The proposed development will support the local economy and rural sector. While the development does not take the form of the traditional rural industry of the Shire, it represents a significant investment in the region and diversity in primary production pursuits. The proposed expansion requires an on-site caretaker in addition to an increase in staff in the order of 10–12 people for 3-4 months of the year once operational.
DEO 6:	The natural resources of the Shire, such as GQAL, extractive resources, water and forestry resources, are protected and managed in a manner that ensures their ecological and economic values are assured for present and future generations.	The proposed development is consistent with the intent of this DEO in so far as it does not alienate GQAL but rather uses the land for an alternative more intensive primary purpose. The proposed development represents a significant investment in aquaculture in the Shire and cements this facility as a successful and long term agricultural enterprise in the Shire.
DEO 7:	The values of the Shire are protected by a preferred pattern of development through identifying GQAL which sustains productive primary industries, particularly sugar, horticulture and cattle grazing industries, and consolidates growth and employment opportunities, primarily in the identified locations of Mossman and Port Douglas.	The surrounding land is not intended to be developed for incompatible uses.
DEO 8:	The economic development of the Shire is facilitated by the provision of physical infrastructure which complements the conservation economy of the Shire with 82% of its lands within the WTWHA in an efficient, equitable and environmentally safe manner, as well as circulation networks which	The proposed development supports the economic development of the Shire but not in the manner identified by this particular DEO. The ponds will be screened from the Captain Cook Highway overtime to ensure the scenic amenity is not impacted.

Desired Environmental Outcome	Compliance
provide for the efficient movement of people and goods, without compromising the Captain Cook Highway as the scenic entry corridor to the Shire.	

3. Cultural, Economic, Physical and Social Well-being of the Community

Desired Environmental Outcome	Compliance
DEO 9: Places of cultural and heritage significance, both Indigenous and European, are identified, protected and retained for their significance and importance to the history and identity of the Shire.	The proposed development does not impact on places of cultural or heritage significance in the Shire.
DEO 10: A range of housing options, which provide a high standard of living and a variety of different residential lifestyle opportunities, are available in the Shire and are provided in a sustainable manner with regard to the environment, including its people and communities and the provision of services and facilities.	Not relevant to the proposed development
DEO 11: The distinctive character and unique sense of place of the towns, villages and other settlement areas in the Shire including the Daintree Lowlands Community, are maintained, promoting community pride and well-being and community safety and prosperity.	The proposed development will not impact on the character of the rural setting in which it is located.
DEO 12: Residential communities, particularly within the major tourism areas of Port Douglas, Daintree Village and the Daintree Lowlands maintain a prosperous economy, a sense of community with the natural features, character of those areas and community values and cohesion, promoting harmony between residents and visitors.	The proposed development represents a significant investment in the aquaculture industry within the Shire. Such an investment represents a long term commitment to ongoing operations of the facility supporting the local economy and community.

Overall Outcomes for Localities

The land is included within the Rural Areas and Rural Settlements Locality where the rural activities and rural production forms the predominant surrounding land uses.

The proposed use is considered to be generally consistent with the overall outcomes of the locality code, as outlined below:

- The proposed development represents an expansion of an aquaculture use which is appropriately located in this locality.
- The proposed development seeks to reorganise and expand existing operations which in turn will create efficiencies, overall productivity and viability of the facility.
- The development does not result in the removal of vegetation or marine plants in order to expand operations in the manner proposed.
- The development will not have an adverse impact on the rural setting in which it is located or the scenic amenity of the area.

Specific Outcomes for Areas affected by an Overlay

The land is affected by the Acid Sulfate Soils Overlay and the Natural Hazards Overlay.

The Acid Sulfate Soils Overlay as it applies to the site is illustrated below.

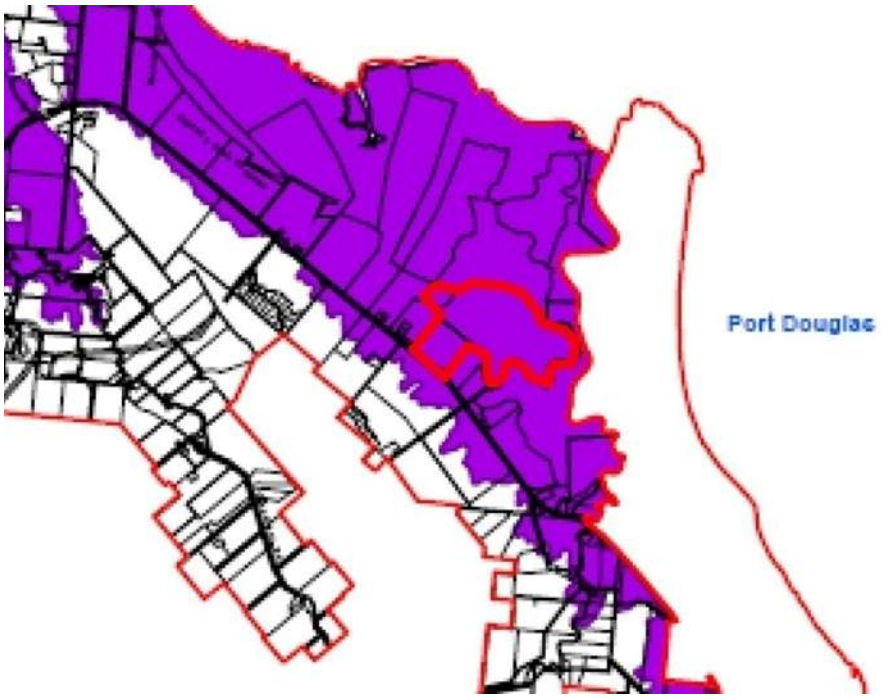


Figure 2 – Acid Sulfate Soils Overlay

Supporting information submitted with the development application illustrate that the land ranges between 1.03 AHD to 1.92 AHD and therefore there is considerable chance that it will contain Acid Sulfate Soils.

The applicant commissioned a site investigation with respect to acid sulfate soils which involved drilling 34 bore holes and further analyses of the samples taken.

The findings of investigations revealed that such excavation and works are likely to encounter some areas of potentially acid sulfate soils and recommends the treatment of these soils through the application of lime.

The findings recommend the preparation of an Acid Sulfate Soils Management Plan with the Management Plan to address:-

- bunding and drainage of areas of disturbance;
- control and monitoring of any run-off water that is collected by this bunding or drainage; and
- regular inspections.

The findings of the investigations also recommended control and monitoring of groundwater for de-watering extraction will also be required and addressed in the Management Plan.

A condition of approval requiring the preparation of an Acid Sulfate Soils Management Plan has been placed on both the Material Change of Use and Operational Works approval.

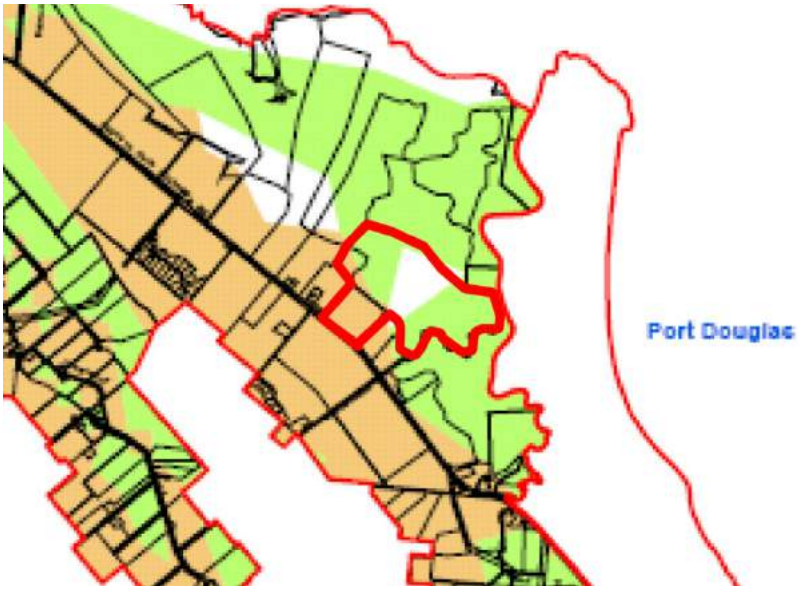


Figure 3 – Natural Hazards Overlay

The Natural Hazards Overlay (Low - Medium Bushfire Hazard) is of limited relevance to the proposed use as the land is characterised cane paddocks with limited fringing coastal / marine plants to the east.

The purpose of the associated Natural Hazards Overlay Code is to ensure that development does not occur in areas prone to the natural hazard of bushfires and to minimise any risks associated with bushfires. Clearly, this is not relevant to the assessment of the application.

The Natural Hazards Overlay Code is of no consequence to the proposed development.

Specific Outcomes for Planning Areas

The land is included within the Rural Planning Area in which the expansion of an existing Aquaculture Facility is identified as an Impact Assessable use. Other components of the development application being the Caretaker's Residence, Boundary Realignment and Operational Works constitute Code Assessable development.

The principal purpose of the Rural Planning Area is to conserve areas used for primary production, facilitate a wide range of agricultural uses which are compatible with other primary production, retain rural character and function and to ensure riparian and remnant vegetation is protected.

The proposed development is consistent with the purpose statements of the Rural Planning Area and is appropriately located having regard to the surrounding land uses.

Douglas Shire Planning Scheme Assessment

Douglas Shire **Rural Areas and Rural Settlements Planning Locality**		**Code Applicability**	**Compliance**
Locality	Rural Areas and Rural Settlements	✓	Complies
Planning Area	Rural	✓	Complies
Defined Use	Aquaculture Caretaker's Residence	✓ ✓	Complies Complies
Overlay Codes	Acid Sulfate Soils Code	✓	Conditioned to Comply
	Cultural Heritage and Valuable Sites Code	✗	Not Applicable
	Natural Hazards Code	✓	Applicable but not relevant to the proposal
General Codes	Design and Siting of Advertising Devices Code	✗	n/a
	Filling and Excavation Code	✓	Conditioned to Comply
	Landscaping Code	✓	Conditioned to Comply
	Natural Areas and Scenic Amenity Code	✗	n/a
	Reconfiguring a Lot Code	✓	Complies
	Vehicle Parking and Access Code	✓	Complies
	Sustainable Development Code	✗	Not Applicable

Compliance Issues

Flooding & Drainage

In support of the proposed development, the Applicant commissioned a detailed flood investigation of the contributing stormwater catchment as it relates to the site and the implications such a development would have on the surrounding properties.

Prior to the lodgement of the development application, Council Officers advised that this would form a key consideration in any future expansion of the facility.

The detailed investigation and analysis both pre and post development has been able to adequately demonstrate that the proposed development can be undertaken without adversely impacting on surrounding properties. The study has also identified that the Q100 event is approximately 2.55 m AHD. It is noted that the earthwork plans at the location of the new processing facility and proposed Caretakers Residence identifies that pad levels will be constructed to 3.2 m AHD providing sufficient flood immunity and freeboard into the design. It is also noted that the top of the ponds are well above Highest Astronomical Tide (HAT) and the Q100 flood level.

While the overall flood immunity and demonstration that adverse flooding impacts on surrounding properties will not be an issue, stormwater run-off and the conveyance of stormwater through the site entering the property from the un-named road requires further investigation in relation to the management of this stormwater (velocities and delivery to a lawful point of discharge).

Further investigations are also required into how the function of existing access and services easements currently in place over Lot 201 are going to be maintained post-development.

A condition of approval has been added to the recommendation to ensure these aspects of the development are adequately addressed.

Landscaping & Screening

A Statement of Landscape Intent has been submitted as part of the supporting material to illustrate the intended landscaping treatment to the boundaries fronting the Captain Cook Highway and the southern side of the un-named road.

The landscape intent is considered satisfactory. A condition of approval requires the landscape buffer adjacent the Captain Cook Highway to have a minimum width of 10 metres and the buffer adjacent the un-named road to be 5 metres in width. All landscaping works are to be contained on site.

A copy of the Statement of Landscape Intent is at Attachment 4.

Amalgamation of Land

The proposed plan nominates the retention of Lot 8 on NR153 as an individual allotment separate to the main facility on Lot 201. The plan nominates the expansion of Lot 201 to the north to incorporate part of Lot 7. However, the plan does not illustrate the intent to amalgamate the allotments.

It is recommended that the use be consolidated to the one allotment through the amalgamation of the 201 and Lot 8. The applicant has been advised of this proposed action and has agreed to this action.

External Works & Access

The un-named road is presently an unsealed rural standard road. Having regard to the size and scale of the proposed expansion and the types and size of vehicles entering the site, and to ensure the performance of this road, a condition of approval requires this road be upgraded. The upgrade consists of 6.0 metre wide seal to facilitate vehicles passing with the road pavement design to be certified by an RPEQ having regard to traffic loads and generation rates.

The road upgrade must also have regard to the outcomes of the stormwater modelling and the existing drain located on the southern side of the road to ensure both investigation and road upgrade designs align.

In addition to access considerations, a condition of approval also requires the swept path of vehicles to remain either on the road or on the site and do not enter other lands not part to the development application.

Sediment & Erosion

The proposed development involves the excavation, placement and relocation of thousands of cubic metres of soil. To ensure that sediment is contained to the site and not distributed into stormwater drains and areas external to the site, conditions of approval attaching to the material change of use and the operational works have been strengthened.

Sediment and erosion control measures must be in place, their performance monitored and satisfactorily maintained throughout the construction phase and beyond to ensure sediment is retained on-site.

It is also noted that Concurrence Agencies responses also include this requirement as conditions of their approvals.

Referral Agency Requirements

The State Assessment Referral Agency (SARA) referred the application to the Department of Agriculture and Fisheries (DAF), Department of Transport and Main Roads (DTMR) and Department of Environment and Heritage Protection (DEHP).

Each State agency has assessed the proposed development with respect to their associated jurisdictions with each agency forwarding conditions of approval.

Key conditions of approval issued by SARA relate to treatment of acid sulfate soils, sediment and erosion control issues, access and stormwater issues associated with the Captain Cook Highway and protection of the natural environment amongst others.

It is noted that through the Referral and Information Request period, DEHP had concerns over the proximity of the proposed ponds in the north eastern and south eastern corner of the site as illustrated below.

Figure 4 – Location of Proposed Ponds

As a consequence, the earthwork plans were amended to ensure satisfactory separation from the marine plants.

The response from SARA is at Attachment 5.

Public Notification / Submissions

Public notification was carried out in accordance with the requirements of the Sustainable Planning Act and no submissions were received.

ADOPTED INFRASTRUCTURE CHARGES

The proposed development triggers Adopted Infrastructure Charges as the site has access to Council's reticulated water network.

A copy of the Infrastructure Charges forms Attachment 6.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following area outlines where Council has a clear responsibility to act:

Regulator: Meeting the responsibilities associated with regulating activities through legislation or local law.

Under the Sustainable Planning Act 2009 and the Sustainable Planning Regulation 2009, Council is the assessment manager for the application.

CONSULTATION

Internal: Council's Environmental Health Unit were engaged for internal consultation with regard to environmental licences for the site.

External: The application was publically notified in accordance with the Sustainable Planning Act.

ATTACHMENTS

Attachment 1 – Proposed Pond Expansion & Processing Facility

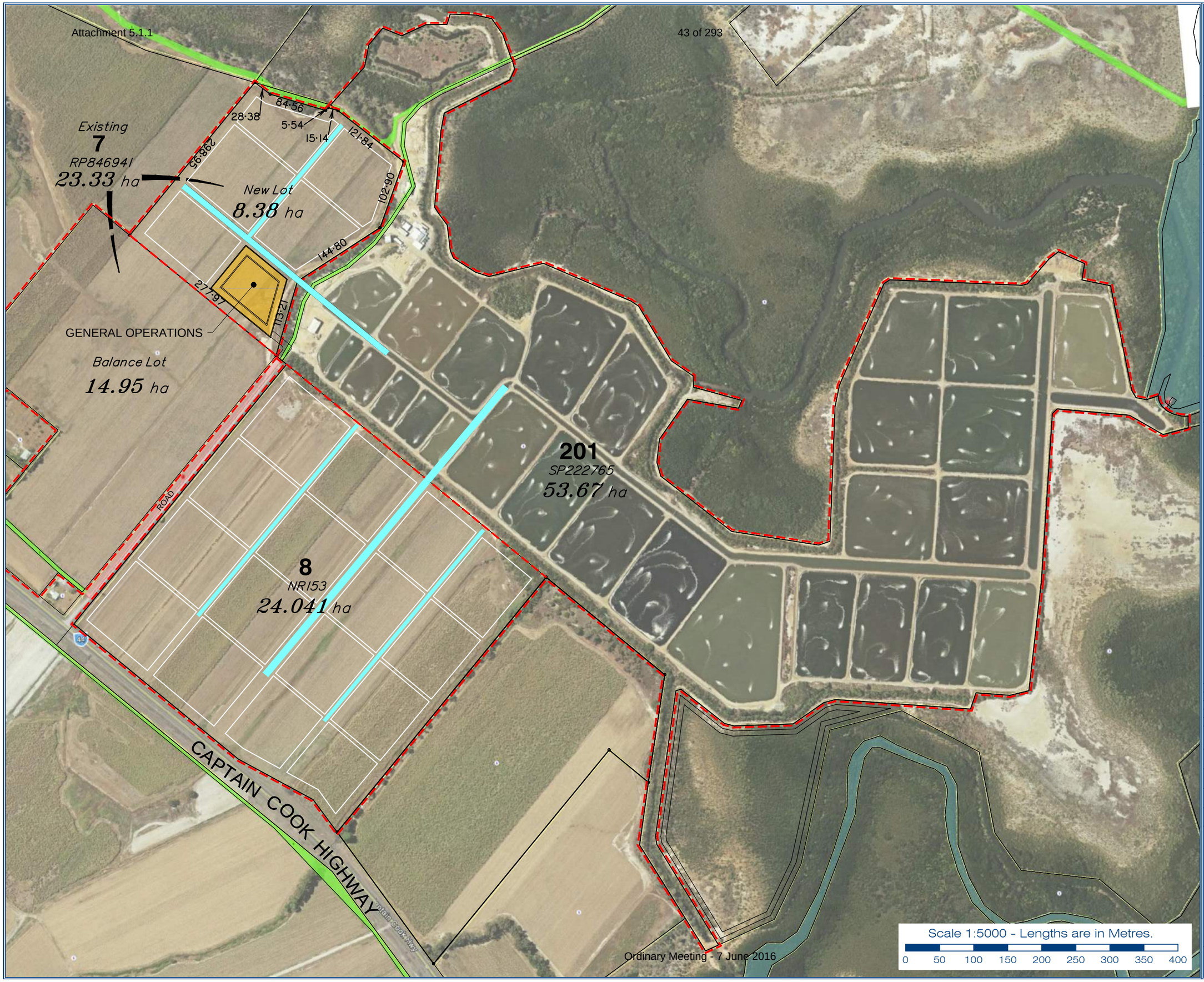
Attachment 2 – Proposal Plan (Boundary Realignment)

Attachment 3 – Operational Works (Bulk Earthworks)

Attachment 4 – Statement of Landscape Intent

Attachment 5 - Referral Agency Conditions & Requirements

Attachment 6 - Infrastructure Charges Notice



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Client:

GCMA

Site Address:

Captain Cook Highway, Killaloe

RPD:
Lot:
Plan:
Parish: .
County: .
Local Authority: Douglas Shire Council
Level Datum: .
Meridian: .
Contour Interval: .
PSM: .
RL: .

Associated Consultants:

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The details of this plan have been prepared based on the most current Digital Cadastral Data Base (DCDB) information available from Queensland Department of Environment and Resource Management and is subject to survey.

Property boundaries have not been defined by this survey and have been compiled from RP.

All dimensions are approximate only and subject to survey.

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Issue	Date	Description	DRN	CHK
-	19-12-14	ORIGINAL ISSUE	RGM	BC

Scale at A3: 1:5000

Date: 19-08-15

Design: -

Drawn: RGM

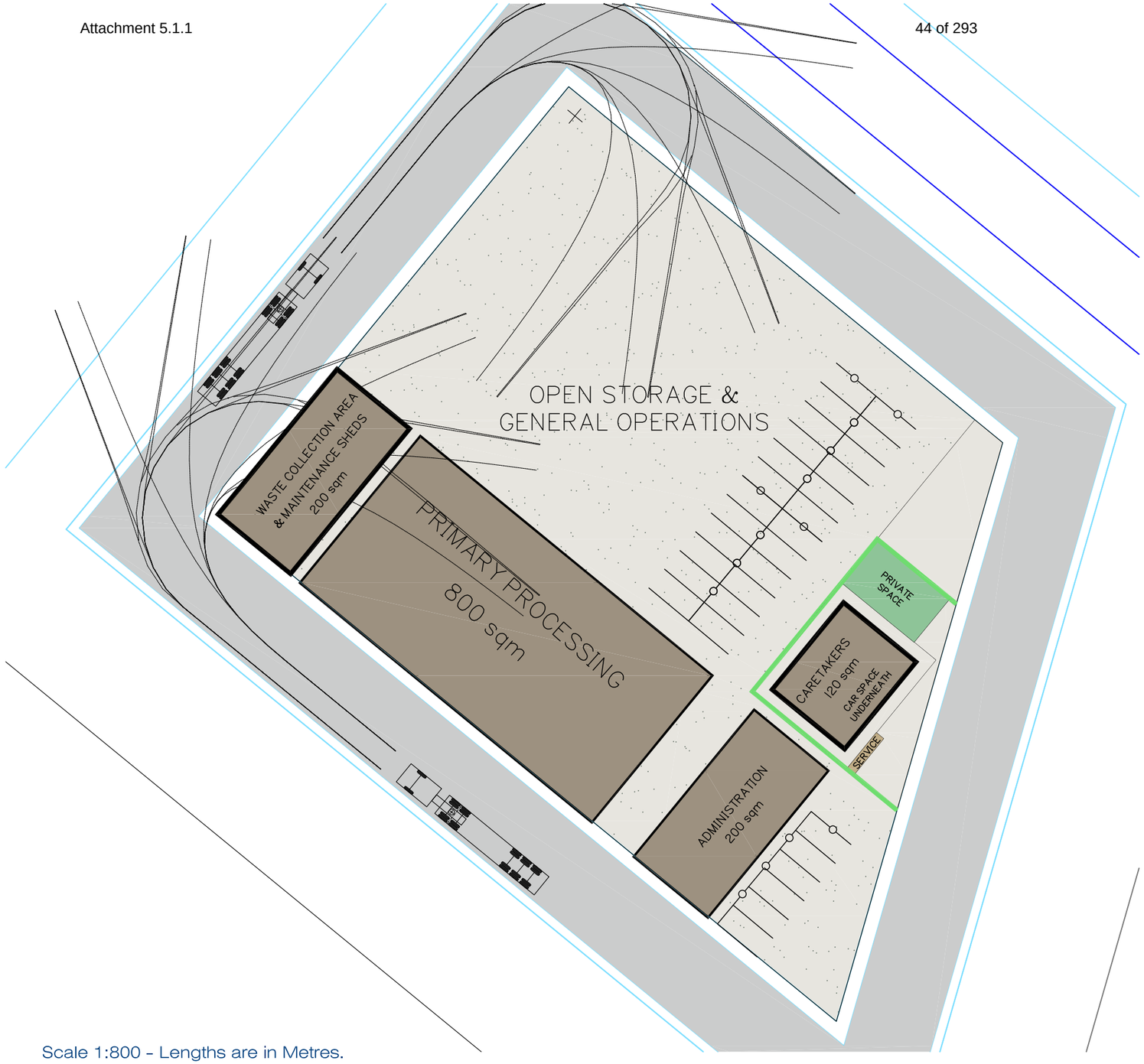
Checked: BC

Drawing Title:

Proposal Plan
Lot 7 on RP846941
Lot 8 on NR153
Lot 201 on SP222765

Drawing No: 5555 P PP 100

Rev. No:



Scale 1:800 - Lengths are in Metres.

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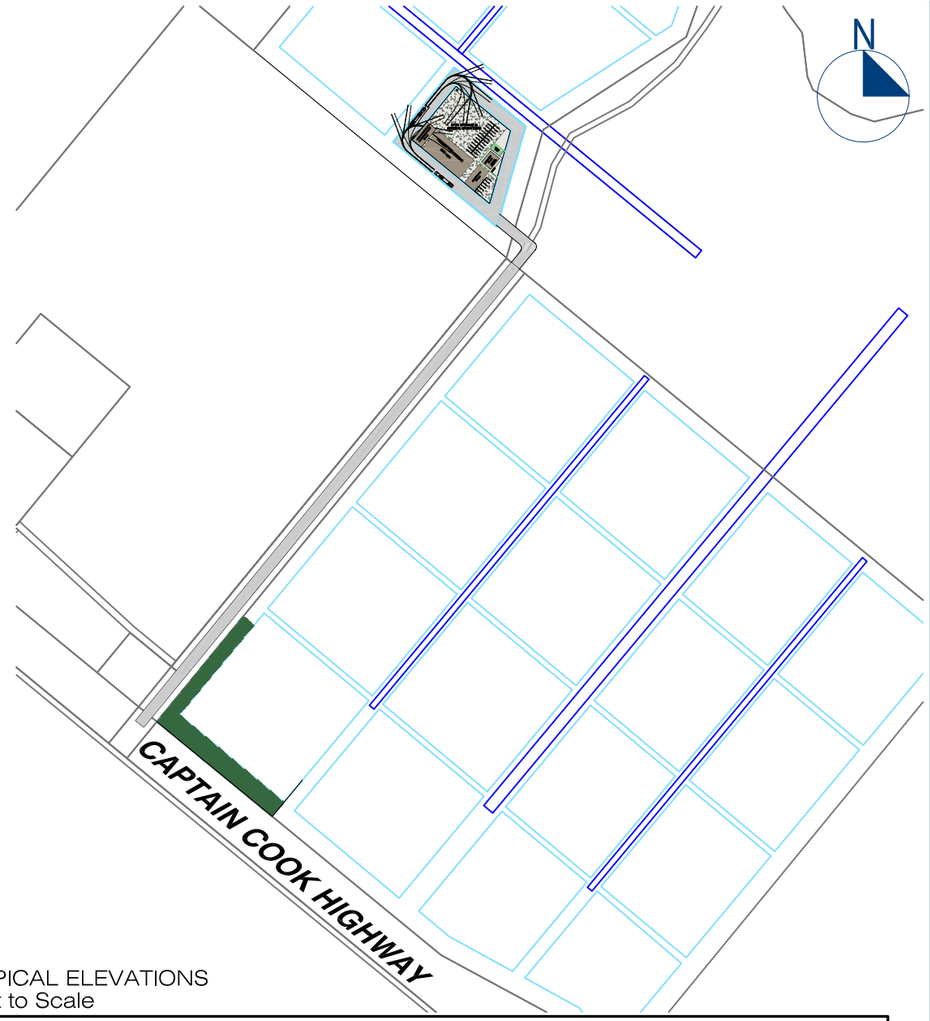
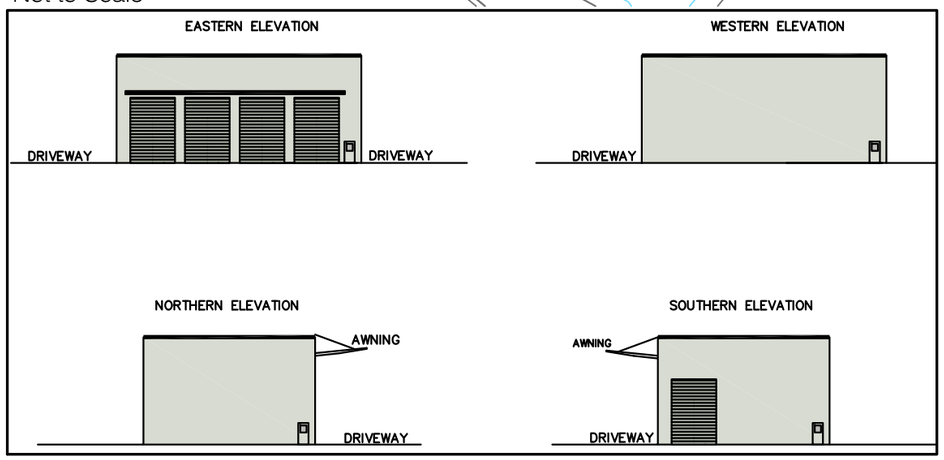


TYPICAL ELEVATIONS
Not to Scale



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Scale at A3:	1:800
Date:	04-09-15
Design:	PC
Drawn:	PC
Checked:	BFG

Issue	Date	Description	DRN	CHK
-	00-00-00	ORIGINAL ISSUE	SJH	BFG

Project:

CAPTAIN COOK HIGHWAY, KILLALOE

Client:

GCMA AQUACULTURE
Ordinary Meeting - 7 June 2016

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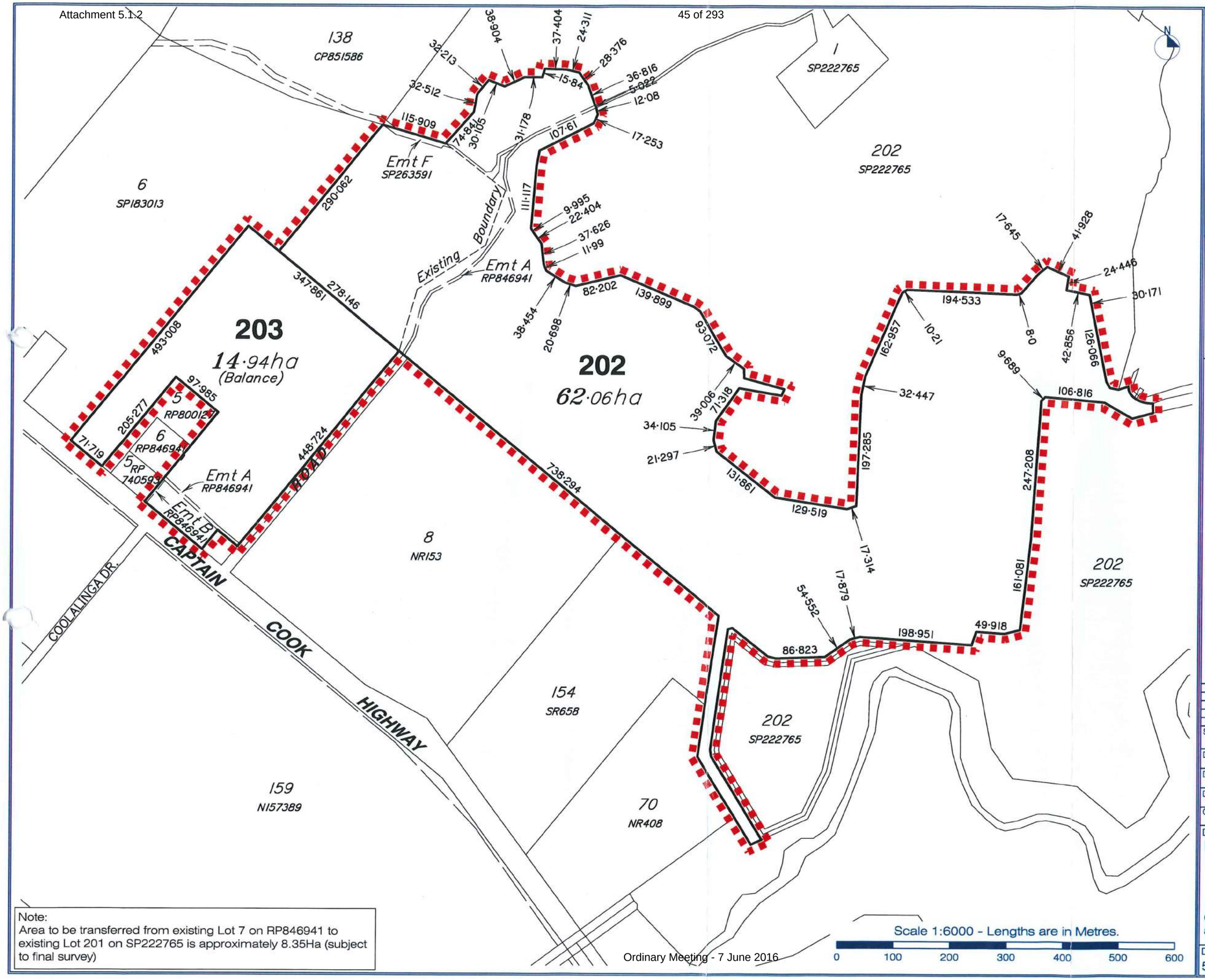
Drawing Title:

CONCEPT PLAN OPERATIONAL AREA

Drawing No: 5555-P CP 01.C

Revision No: 000



Note:
Area to be transferred from existing Lot 7 on RP846941 to existing Lot 201 on SP222765 is approximately 8.35Ha (subject to final survey)

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Client:
GCMA

Site Address:
Captain Cook Highway, Killaloe

RPD:

Lot:	201/SP222765 &
Plan:	7/RP846941
Parish:	Victory
County:	Solander
Local Authority:	Douglas Shire Council
Level Datum:	MGA
Meridian:	DCDB
Contour Interval:	.
PSM:	.
RL:	.

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Issue	Date	Description	DRN	CHK
-	05-02-15	ORIGINAL ISSUE	SJH	BFG

Scale at A3: 1:6000

Date: 05-02-15

Design: -

Drawn: SJH

Checked: BFG

Drawing Title:
Proposed Reconfiguration of Land (Boundary Relocation)

Canceling Lot: 201 on SP222765 and Lot 7 on RP846941

Drawing No: 5555 P ROL 02

Rev. No:

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS - STAGE 01 & 02
No.307- 01 - PRAWN FARM

SCHEDULE OF DRAWINGS

NUMBER	REV NO	TITLE
GENERAL		
307-01-000	C	COVER SHEET
307-01-001	A	GENERAL NOTES & LEGEND
307-01-003	A	KEY PLAN
307-01-005	A	EXISTING SURFACE PLAN-SHEET 01
307-01-006	A	EXISTING SURFACE PLAN-SHEET 02
307-01-007	A	EXISTING SURFACE PLAN-SHEET 03
SEDIMENT & EROSION		
307-01-010	B	CONTROL PLAN-SHEET 01
307-01-011	B	CONTROL PLAN-SHEET 02
307-01-012	B	CONTROL PLAN-SHEET 03
307-01-013	B	CONTROL PLAN-SHEET 04
307-01-014	B	CONTROL PLAN-SHEET 05
307-01-015	B	CONTROL PLAN-SHEET 06
307-01-016	B	CONTROL PLAN-SHEET 07
307-01-017	B	CONTROL PLAN-SHEET 08
BULK EARTHWORKS		
307-01-030	B	CUT FILL PLAN-SHEET 01
307-01-031	B	CUT FILL PLAN-SHEET 02
307-01-032	B	CUT FILL PLAN-SHEET 03
307-01-033	B	CUT FILL PLAN-SHEET 04
307-01-034	C	CUT FILL PLAN-SHEET 05
307-01-035	B	CUT FILL PLAN-SHEET 06
307-01-036	C	CUT FILL PLAN-SHEET 07
307-01-037	C	CUT FILL PLAN-SHEET 08
307-01-050	B	EARTHWORKS SECTIONS KEY PLAN
307-01-051	B	BULK EARTHWORK SECTIONS SHEET 01
307-01-052	B	BULK EARTHWORK SECTIONS SHEET 02
307-01-053	A	BULK EARTHWORK SECTIONS SHEET 03
TYPICAL SECTIONS AND DETAILS		
307-01-090	A	SHEET 01
307-01-091	A	SHEET 02

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

CLIENT:

GOLD COAST MARINE AQUACULTURE

LOCALITY PLAN

f:\autocad client\307 - gold coast marine aquaculture (gcma)\01 - mossman\Overall\engineering drawings\Current\307-01-000.dwg, COVER SHEET, 2/03/2016 10:13:27 AM

GENERAL

1. CONTRACT SPECIFICATIONS
   ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION.
2. SETOUT
   SURVEY SETOUT INFORMATION HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR TO ENABLE THE CONTRACTOR TO ACCURATELY SETOUT THE WORKS TO THE CO-ORDINATES SHOWN.
   SETOUT INFORMATION SHALL NOT BE OBTAINED BY SCALING FROM THESE DRAWINGS.
3. DATUM
   LEVELS SHOWN ARE TO A.H.D.
4. EXISTING SERVICES - External Works
   THE LOCATIONS OF ALL EXISTING SERVICES WITHIN THE WORK AREA SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION COMMENCING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT AUTHORITIES AND TO ENSURE THAT THE EXISTING SERVICES ARE NOT DAMAGED OR DISTURBED IN ANY WAY.
5. ALL MATERIALS ARISING FROM ROADS AND SERVICES ARE TO BE COMPACTED TO FUTURE STAGES, TO LEVEL 1 OR IF DIRECTED BY THE SUPERINTENDENT SHALL BE TRUCKED TO A LICENSED TIP.
6. CONTRACTOR IS RESPONSIBLE TO ENSURE ANY ELECTRONIC DATA FILES MATCH THE DRAWINGS

CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

1. PRE START
   ERECT SITE SIGNAGE. CONSTRUCT ENTRY AND EXIT POINT AS INDICATED.
   CONSTRUCT VEHICLE WASHDOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.
   CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA.
   ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED.
   ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL AND IN ACCORDANCE WITH AS4970 PROTECTION OF TREES ON DEVELOPMENT SITES.
   CONSTRUCT ROCK CHECK DAMS AND SILT FENCES DOWNSTREAM OF BASIN. CONSTRUCT BASIN TO FULL DEPTH.
   CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS. BASIN TO BE UTILISED AS TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE & DIRECTED BY SUPERINTENDENT.
2. CLEARING AND BULK EARTHWORKS
   THERE SHALL BE NO CLEARING OF PROTECTED SIZE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS 4970.
   SILT FENCE, SAND BAGS AND EARTH RILLS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING.
   SUPERINTENDENT TO CONFIRM EXTENT OF CLEARING TO CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
   SILT FENCES AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING EARTHWORKS.
3. CONSTRUCTION OF SEWER/ROOFWATER/STORMWATER/SERVICES
   EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.
   TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
   DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. CONSTRUCTION - SEDIMENT BASINS
   SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN.
   STORMWATER OUTLET PIPES TO BE TEMPORARILY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES).
   PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREA AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER.
5. CONSTRUCTION - STOCKPILING
   TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.
   STOCKPILE SITE TO BE CLEAR OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE A NUISANCE TO ADJOINING PROPERTIES.
   NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.
6. CONSTRUCTION - ROADWORKS
   SILT FENCES TO ALLOTMENTS TO BE ERECTED.
   KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. CONSTRUCTION - ALLOTMENTS
   TOPSOIL AND SEED ALLOTMENTS.
   SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
   COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATED THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
8. POST CONSTRUCTION - ALLOTMENTS
   TOPSOIL AND GRASS SEED ALL ALLOTMENTS.
   COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING)..
9. POST CONSTRUCTION - ROAD RESERVES
   TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
10. MAINTENANCE (PRE TO POST CONSTRUCTION)
    THE SILT FENCES ARE TO BE INSPECTED WEEKLY.
    ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY.
    SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.

BASIN CONSTRUCTION

1. PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORKS AREA, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DEWATERING.
2. BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE.
3. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO A DENSITY RATIO WITHIN THE RANGE 98% - 102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENTS SHOULD BE WITHIN THE RANGE OMC -1% TO OMC +2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION).
4. CONTRACTOR TO PROVIDE SAFETY FENCING TO BASINS DURING CONSTRUCTION & APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).

SEDIMENT AND EROSION

1. THE OBJECTIVE OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE TO:
   A) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.
   B) MINIMISE SOIL EROSION FROM WATER AND WIND.
   C) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.
   D) MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTION SITE.
   E) ENSURE THAT THE VALUE AND USE OF RESIDENTIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL, THE SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES, THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES.
   THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
   NOTWITHSTANDING THE FINISHED EARTHWORKS DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY SEDIMENT LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.
3. THE CONTRACTOR IS TO FOLLOW THE CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/ SILT MANAGEMENT PROGRAM.
   ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%.
   ALL PERIMETER BANK/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
   AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS.
   INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS DIRECTED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALISATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETED.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT.
   CLEARING OF SITE AND STOCK PILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER.
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES).
   APPROVAL FOR REMOVAL OF PROTECTED SIZE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.
7. PLACE ROCK BUND AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. PLACE 0.8m WIDE TURF STRIP BEHIND ALL KERBS AND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED.
   THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEEDED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING.
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
9 TURF FROM BACK OF KERB TO ROAD RESERVE BOUNDARY ON ALL ROADS AFTER EARTHWORKS ARE COMPLETED.
10. GEOFABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.
11. FILLING AND OR MAINTENANCE OF EXISTING AND OR SEDIMENT BASINS MAY REQUIRE FLOCCULATION.
12. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH APPROVED OPEN SPACE MANAGEMENT PLAN (OSMP).
13. IT IS THE CONTRACTORS RESPONSIBILITY TO CLEAN OUT GPT'S, FOREBAYS AND ALL OTHER SEDIMENT CONTROL DEVICES AT BOTH ON AND OFF MAINTENANCE. THE CONTRACTOR SHALL ALLOW FOR THE COST OF THESE WORKS WITHIN HIS SUBMITTED TENDER PRICE.

EARTHWORKS/ROADWORKS

1. TOPSOIL STRIPPING
   TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
2. EARTHWORKS LEVELS
   EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL.
3. COMPACTION STANDARD
   SITE FILLING AND TRENCH BACKFILL SHALL BE COMPACTED TO THE STANDARDS OUTLINED IN DSC STANDARD SPECIFICATION SS4.
4. PAVEMENT DEPTHS
   THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE DEPTHS SHOWN IN THE SCHEDULE OF PAVEMENT DEPTHS. THE PAVEMENT DEPTHS GIVEN ARE DESIGN DEPTHS ONLY AND MAY BE VARIED AFTER SUBGRADE TESTS ARE TAKEN.
5. TESTING
   ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. TESTING AUTHORITY.
   ALL SITE FILLING SHALL BE TESTED AT LEVEL 1 REQUIREMENTS.
6. TOPSOIL REPLACEMENT
   ALL FOOTPATHS, BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOPSOILED WITH TOPSOIL FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING IF DIRECTED BY SUPERINTENDENT. THE CONTRACTOR SHALL ALLOW IN HIS RATE FOR SCREENING, THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES.
7. GRASSING
   ALL CUT/FILL AREAS, DISTURBED AREAS AND TRENCHED AREAS SHALL BE GRASSED TO THE SATISFACTION OF THE SUPERINTENDENT.
8. SUBSOIL DRAINS
   SUBSOIL DRAINS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH DSC STD DWG 05-02-103 AND SHALL BE PLACED UNDER ALL KERB STRUCTURES AND ARE TO BE CONSTRUCTED TO A DEPTH GREATER THAN THAT OF THE INVERT OF THE DEEPEST SERVICE CROSSING.
9. ROCK
   THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATE.
10. EARTHWORKS ZONE
    THE FOLLOWING ACTIVITIES ARE PROHIBITED OUTSIDE THE EARTHWORKS ZONE - STORAGE AND MIXING OF MATERIALS, VEHICLE PARKING, LIQUID DISPOSAL, MACHINERY REPAIRS/REFUELING, PLACEMENT OF SITE OFFICES OR SHEDS, COMBUSTION OF ANY MATERIAL, STOCKPILING OF SOIL, RUBBLE OR DEBRIS, ANY FILLING OR EXCAVATION INCLUDING TRENCHES, TOPSOIL, SKIMMING AND OR SURFACE EXCAVATION UNLESS OTHERWISE APPROVED BY DSC CHIEF EXECUTIVE OFFICER.
11. STOCKPILES
    THE CONTRACTOR SHALL NOT CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS DIRECTED BY THE SUPERINTENDANT. ALL MATERIALS ARISING FROM THE WORKS SHALL BE COMPACTED TO FUTURE FILL AREAS AS NOMINATED.

FEATURE LEGEND

OVERLAND FLOW PATH/SWALE
CATCH DRAIN (NOT LINED)
DIVERSION CHANNEL
TABLE DRAIN
STREAM INVERT
CATCH DRAIN (CONCRETE LINED)
SILT FENCE
CHAINWIRE FENCE
TREE PROTECTION FENCE
STAR PICKET & FLAGGING TAPE FENCE
BRIFEN WIRE SAFETY BARRIER
GUARDRAIL (STANDARD)
RETAINING WALL (PILED)
RETAINING WALL (WITH FOOTINGS)
TOP OF BATTER / BERM
NOISE WALL
EDGE OF VEGETATION
PROPERTY LINE
PROPERTY LINE WITH FENCE
FACE OF KERB, FOOTPATHS
LIP AND BACK OF KERB
CONTROL LINE / CENTER OF ROAD
RAILWAY (MAJOR)
RAILWAY (MINOR)
EXISTING PROPERTY LINE
EXISTING PROPERTY LINE WITH FENCE
EXISTING SURVEY BOUNDARIES
EXISTING COUNTY BOUNDARY
EXISTING KERB
EXISTING EDGE OF BITUMEN
EXISTING RAILWAY (MAJOR)
EXISTING RAILWAY (MINOR)
EXISTING FEATURES
FUTURE PROPERTY LINE
SITE BOUNDARY
STAGE BOUNDARY
LIMIT OF WORKS
CATCHMENT BOUNDARY
EXISTING CONTOURS
DESIGN CONTOURS
BULK EARTHWORKS CONTOURS

SERVICES LEGEND

PROPOSED RISING MAIN
PROPOSED SEWER
PROPOSED STORMWATER
PROPOSED ROOFWATER
PROPOSED SUBSOIL
PROPOSED WATER
PROPOSED RECYCLED WATER
PROPOSED OIL
PROPOSED FUEL
PROPOSED GAS
PROPOSED PIPELINE
PROPOSED HIGH VOLTAGE ELECTRICITY
PROPOSED UNDERGROUND ELECTRICITY
PROPOSED OVERHEAD ELECTRICITY
PROPOSED LIGHTING
PROPOSED TELSTRA
PROPOSED COMMUNICATIONS
PROPOSED GAS, ELECT
PROPOSED GAS, TELSTRA
PROPOSED ELECT, TELSTRA
PROPOSED GAS, ELECTRICITY, TELSTRA

EXISTING RISING MAIN
EXISTING SEWER
EXISTING STORMWATER
EXISTING ROOFWATER
EXISTING SUBSOIL
EXISTING WATER
EXISTING WATER RECYCLED
EXISTING OIL
EXISTING FUEL
EXISTING GAS
EXISTING PIPELINE
EXISTING HIGH VOLTAGE ELECTRICITY
EXISTING UNDERGROUND ELECTRICITY
EXISTING OVERHEAD ELECTRICITY
EXISTING LIGHTING
EXISTING TELSTRA
EXISTING COMMUNICATIONS

DEMOLISH RISING MAIN
DEMOLISH SEWER
DEMOLISH STORMWATER
DEMOLISH SUBSOIL
DEMOLISH WATER
DEMOLISH OIL
DEMOLISH FUEL
DEMOLISH HIGH VOLTAGE ELECTRICITY
DEMOLISH UNDERGROUND ELECTRICITY
DEMOLISH OVERHEAD ELECTRICITY
DEMOLISH LIGHTING
DEMOLISH GAS
DEMOLISH PIPELINE
DEMOLISH TELSTRA
DEMOLISH COMMUNICATIONS

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
A	23-07-15	COUNCIL ISSUE

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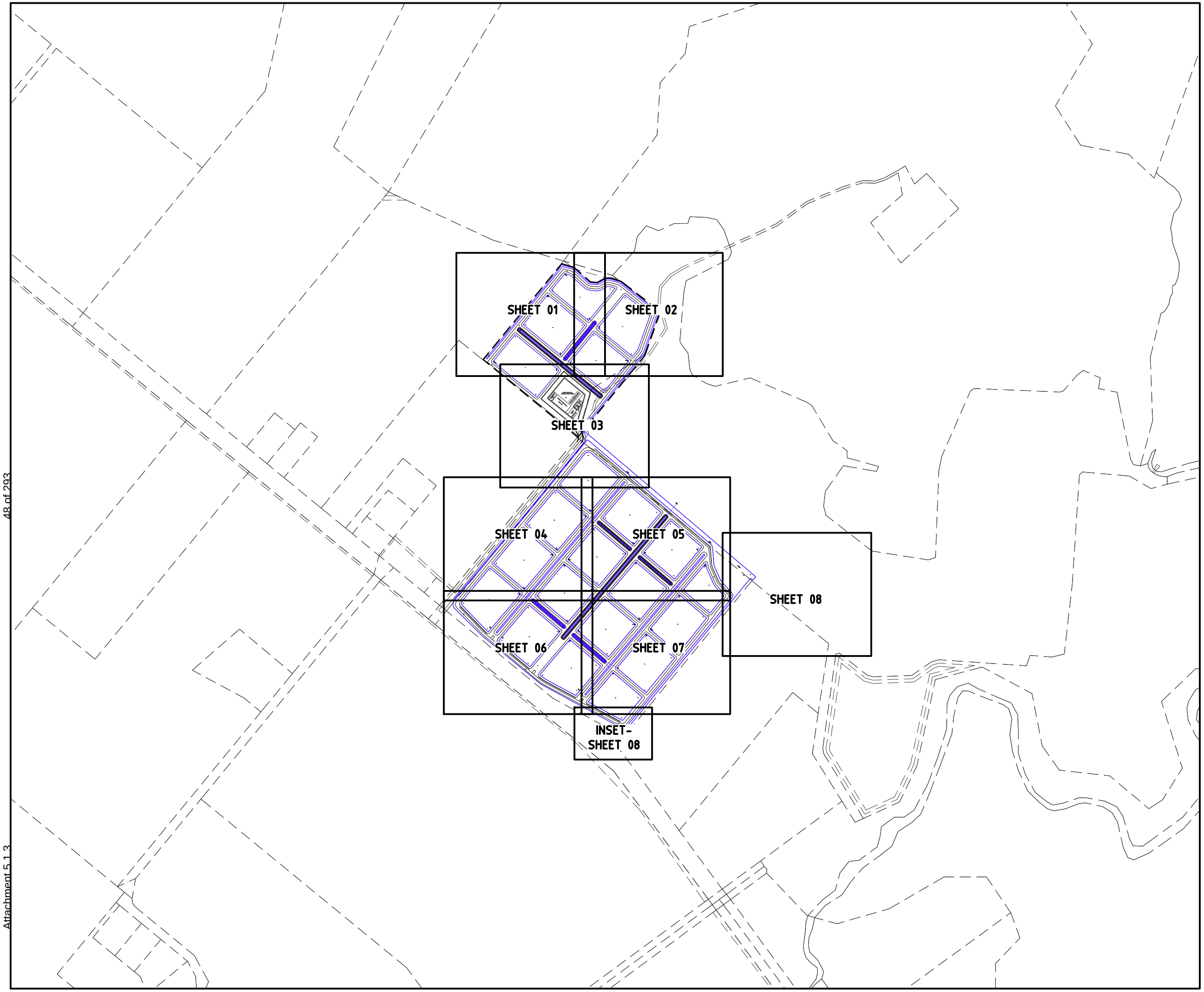

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R. P. DESCRIPTION

LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE
AQUACULTURE

NORTH

0 40 80 120 160 200m

Scale 1:4000 - A1 (1:8000 - A3)

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ASSOCIATED CONSULTANTS

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KEY PLAN
SEDIMENT & EROSION,
CUTFILL PLAN

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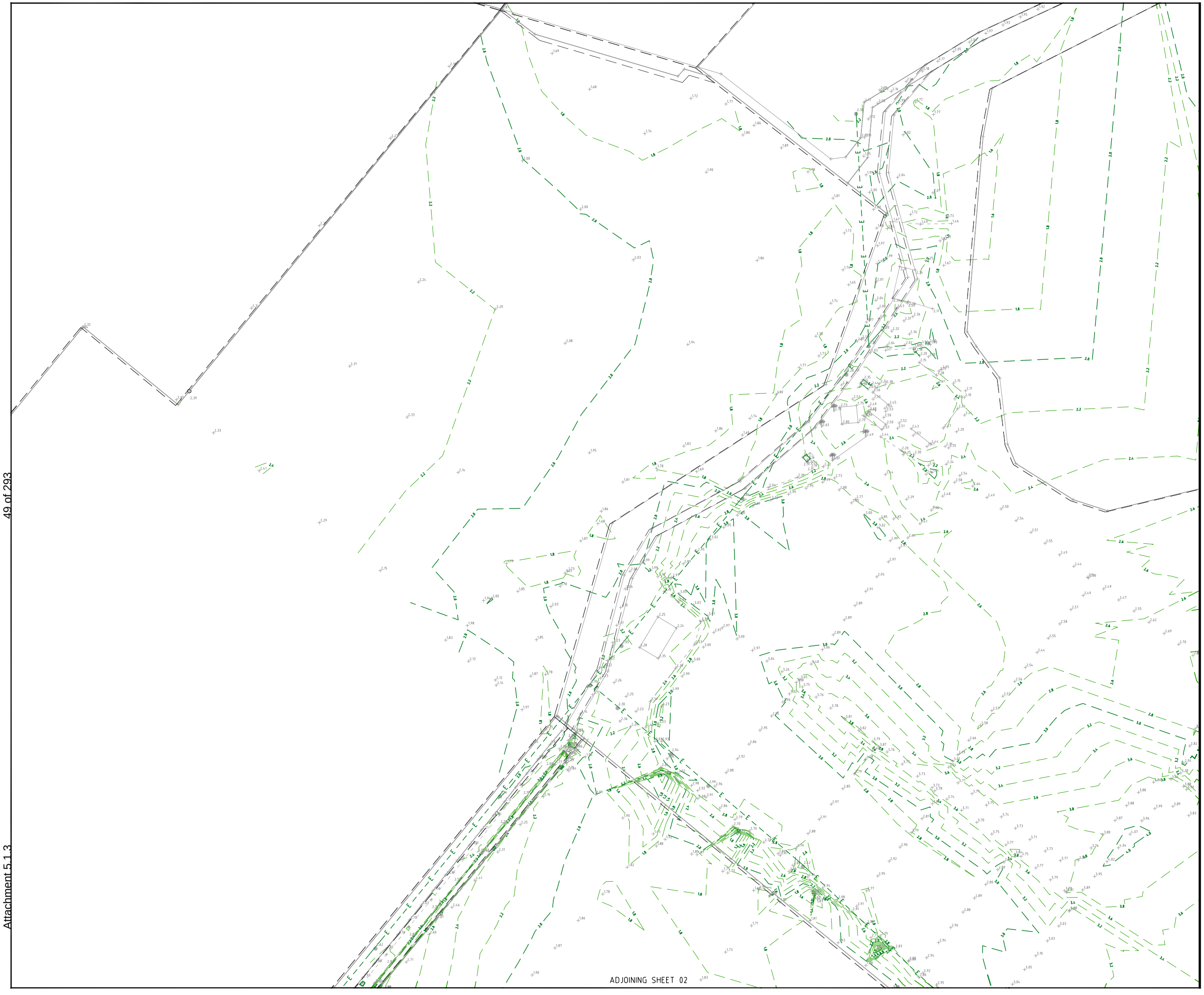

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION

LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 10 20 30 40 50m

Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	23-07-15	
CONSTRUCTION		

PRE	DATE	AMENDMENT
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NATURAL SURFACE LEVEL PLAN
SHEET 01

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PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

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NATURAL SURFACE LEVEL PLAN
SHEET 02

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PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R. P. DESCRIPTION

LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 10 20 30 40 50m

Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	23-07-15	
CONSTRUCTION		

PRE	DATE	AMENDMENT
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NATURAL SURFACE LEVEL PLAN
SHEET 03

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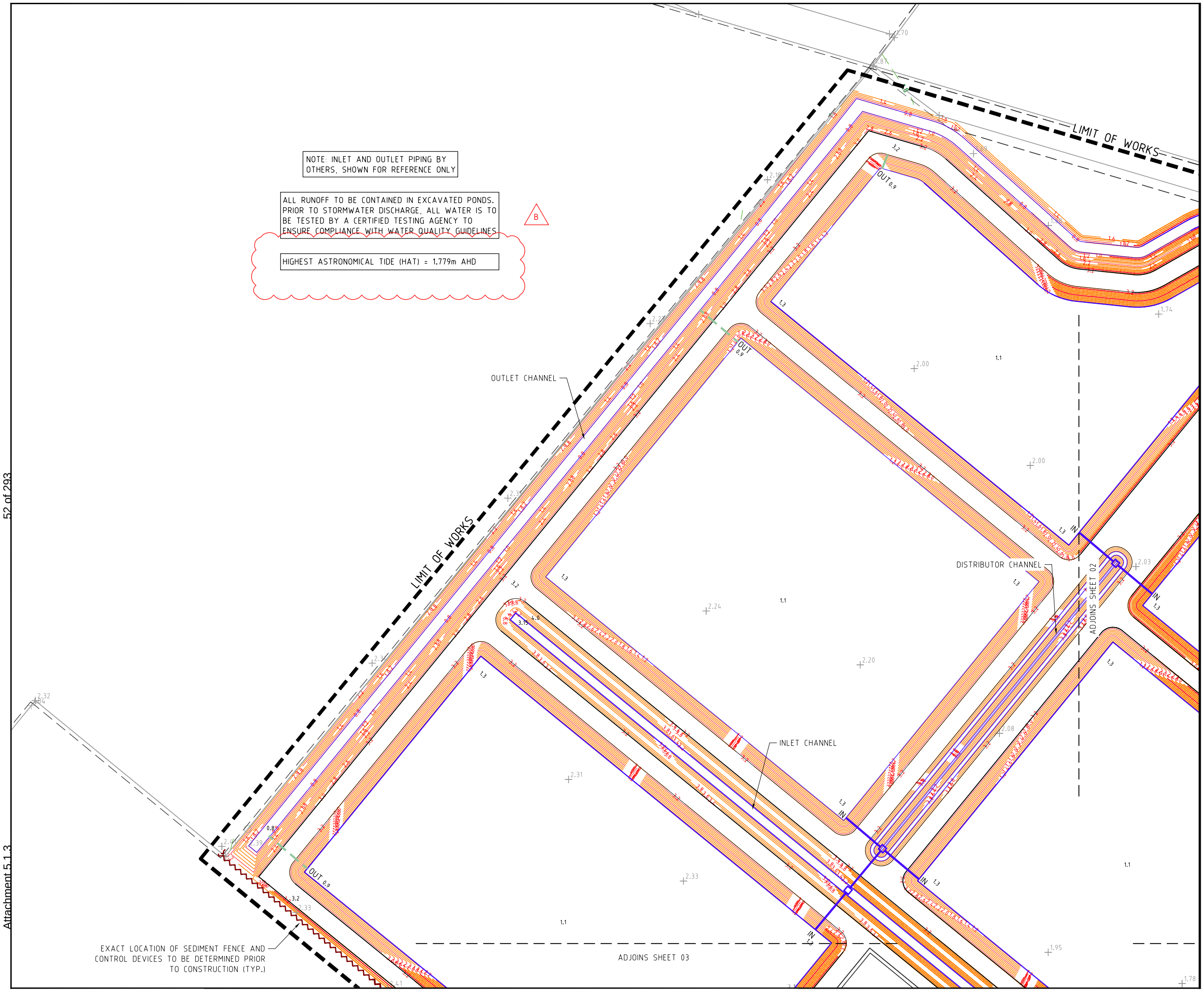

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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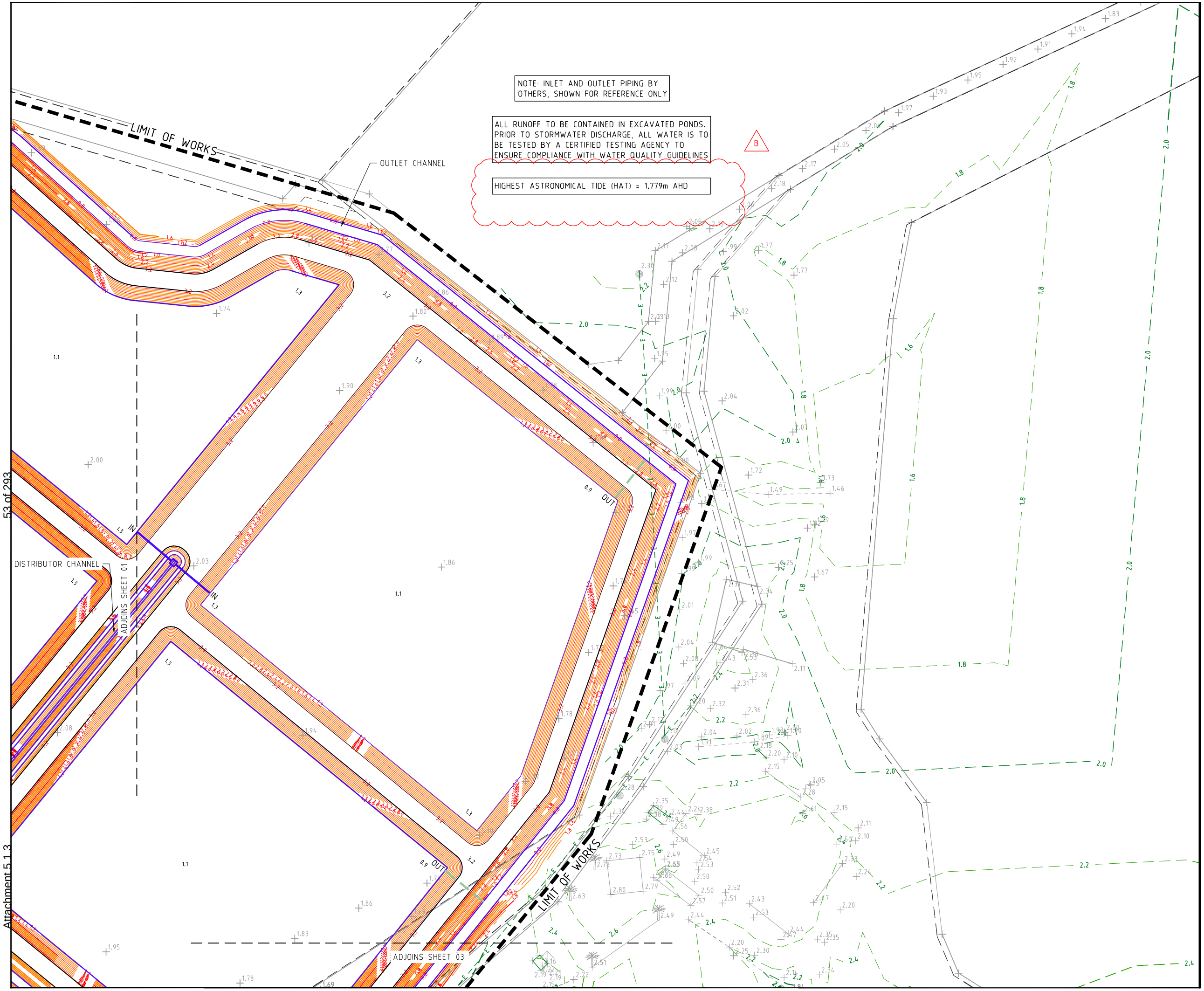

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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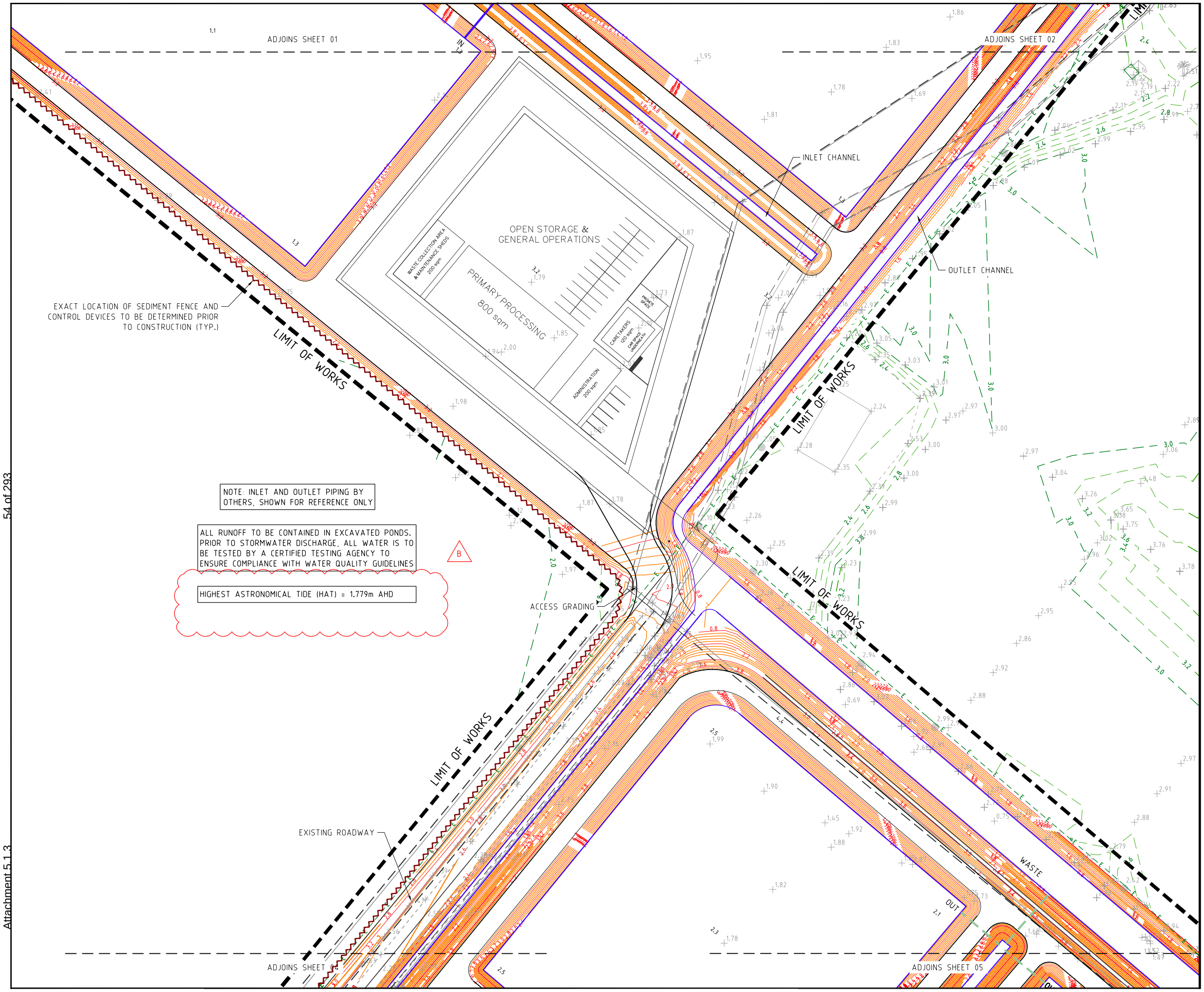

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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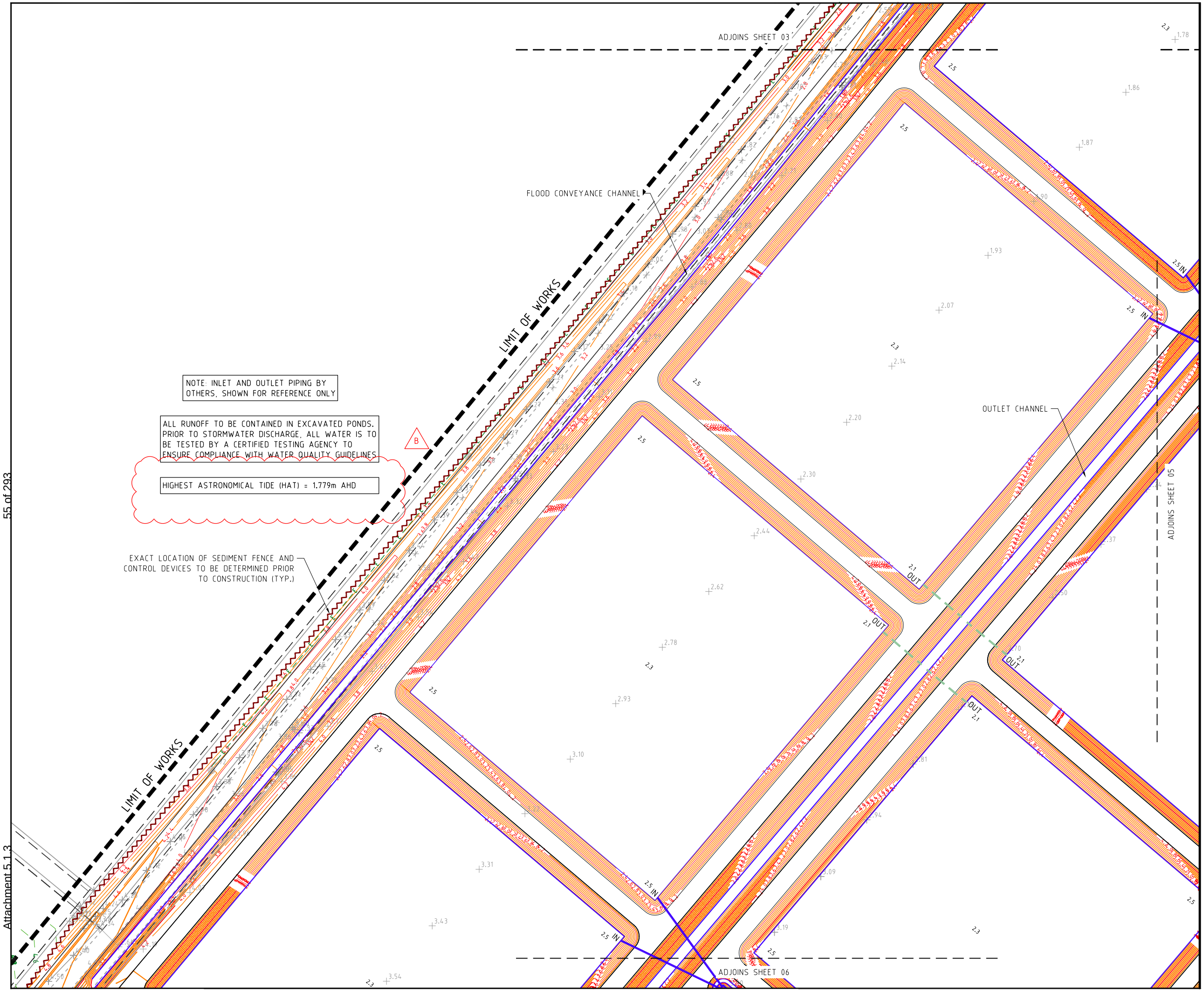

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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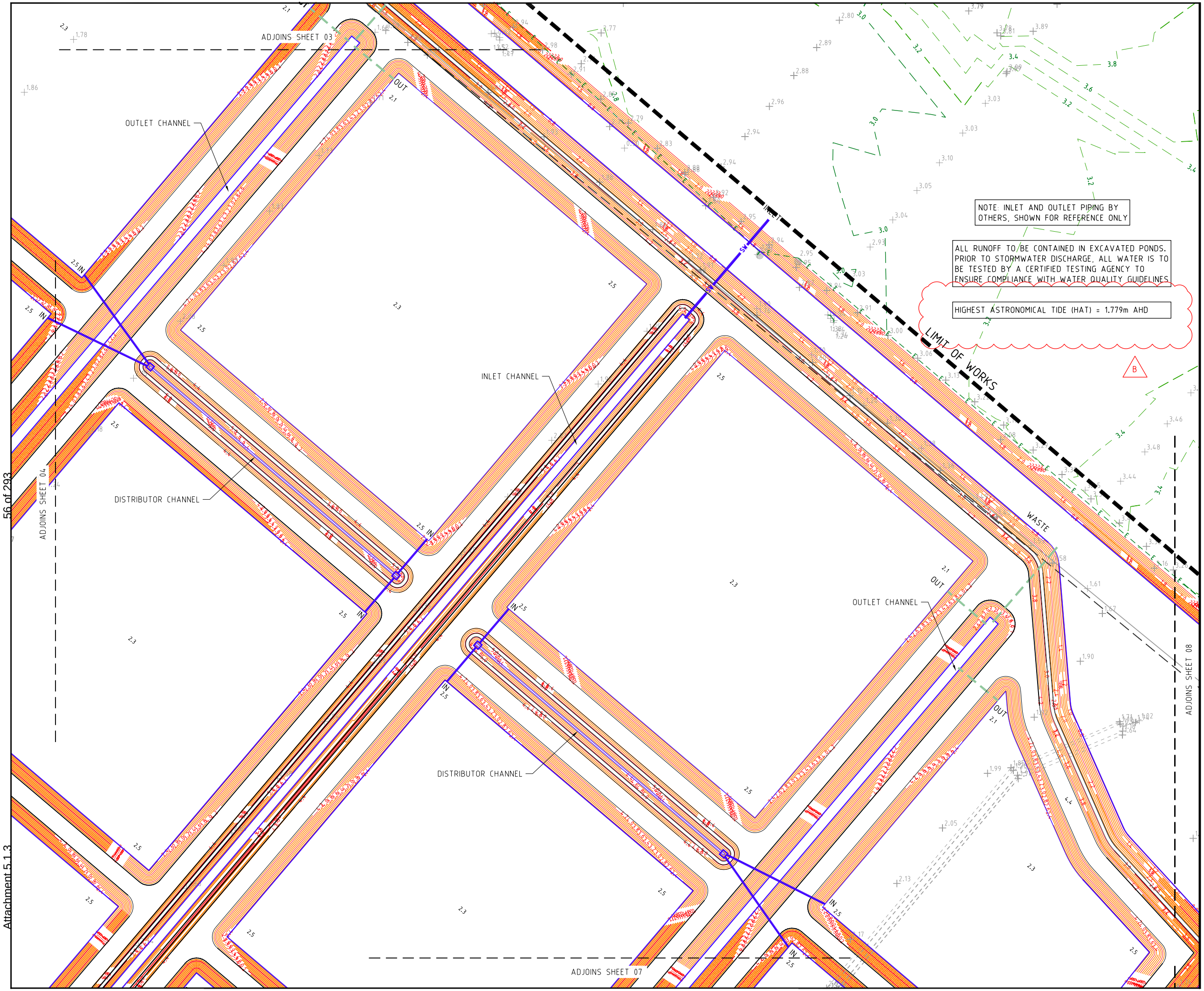

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

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GENERAL ARRANGEMENT
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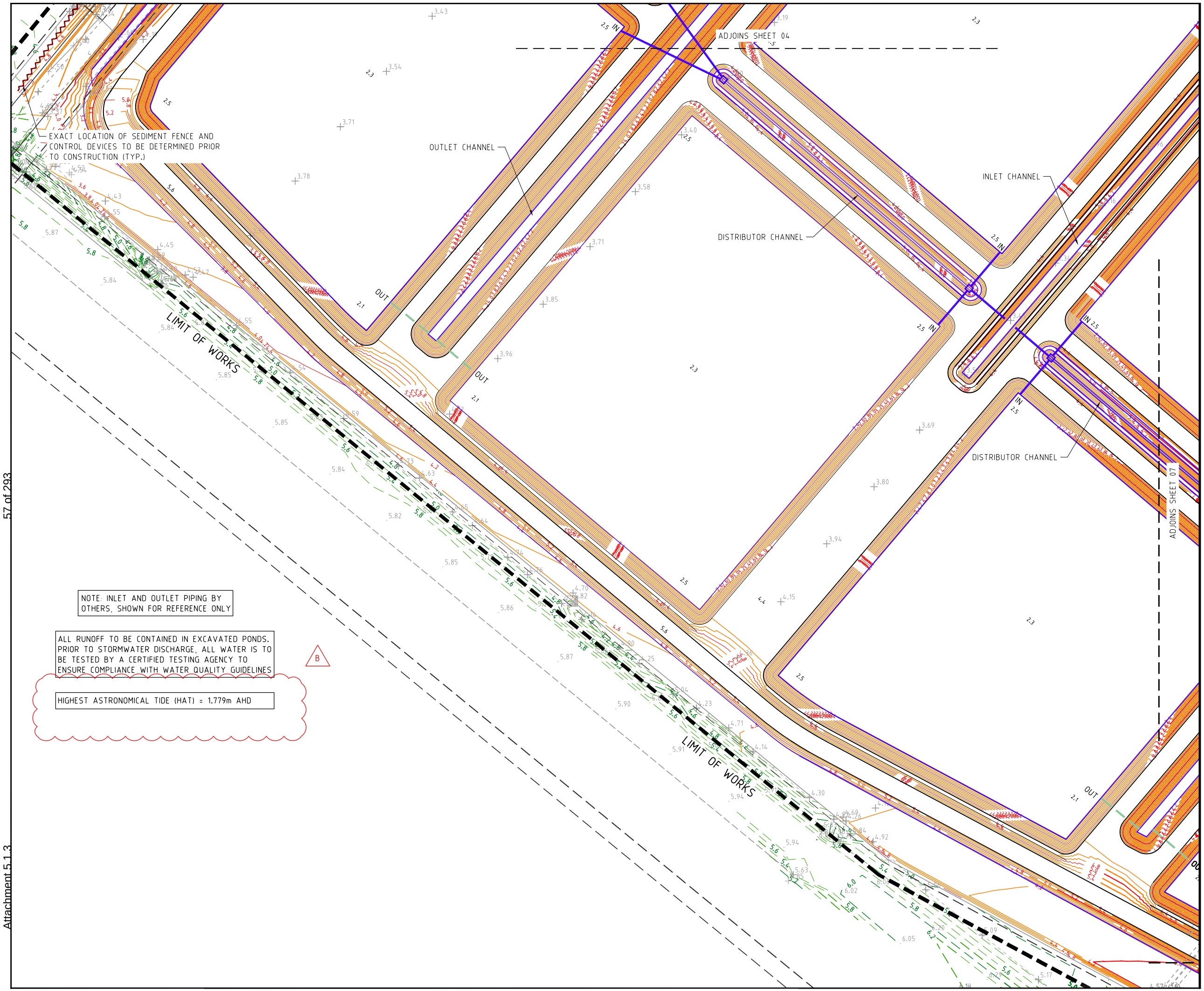

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
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GENERAL ARRANGEMENT
SEDIMENT & EROSION
CONTROL PLAN
SHEET 06

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APPROVED	RPEQ 4706	DATE 26-06-15

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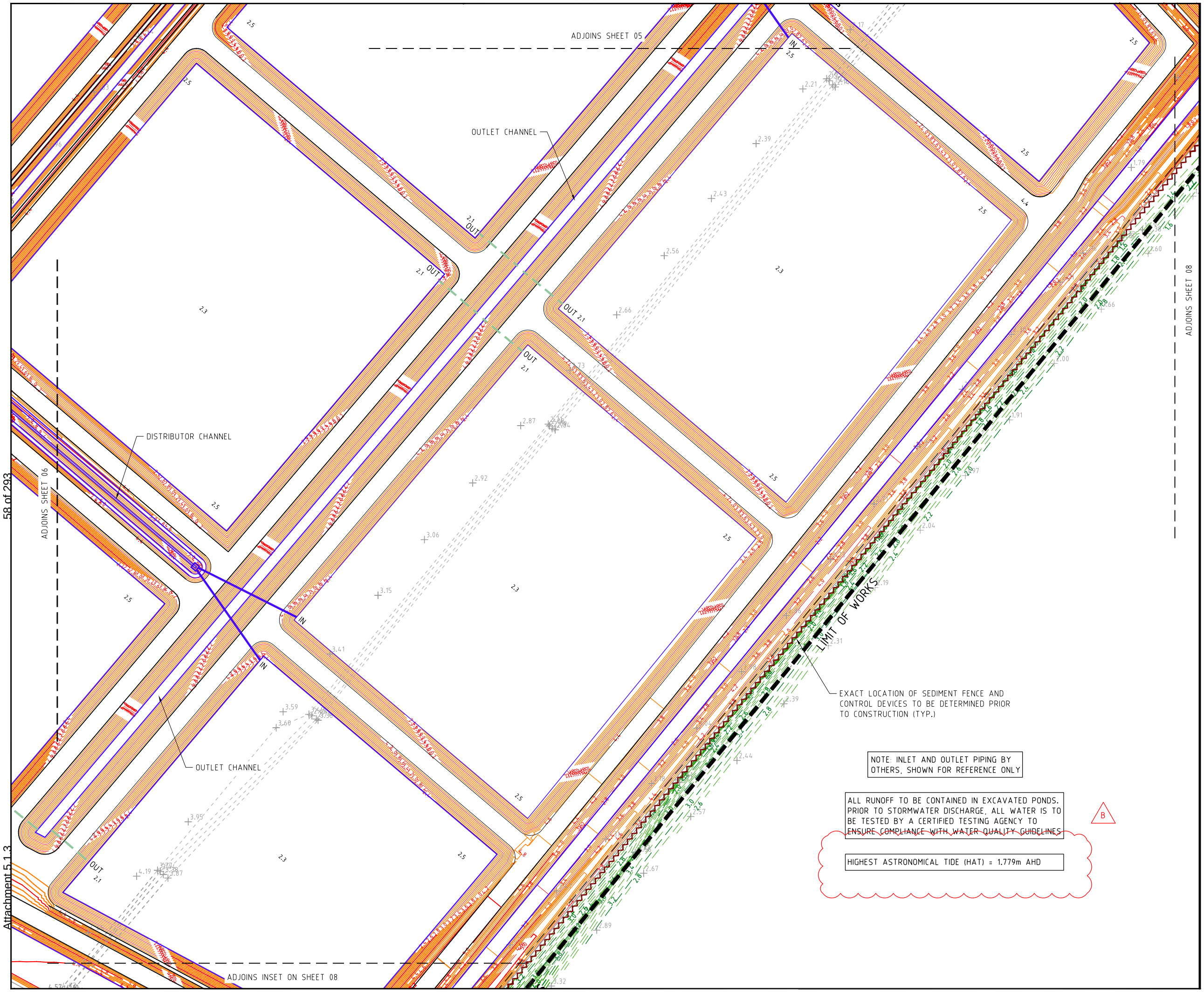

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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DRAWING TITLE

GENERAL ARRANGEMENT
SEDIMENT & EROSION
CONTROL PLAN
SHEET 07

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307-01-016	B

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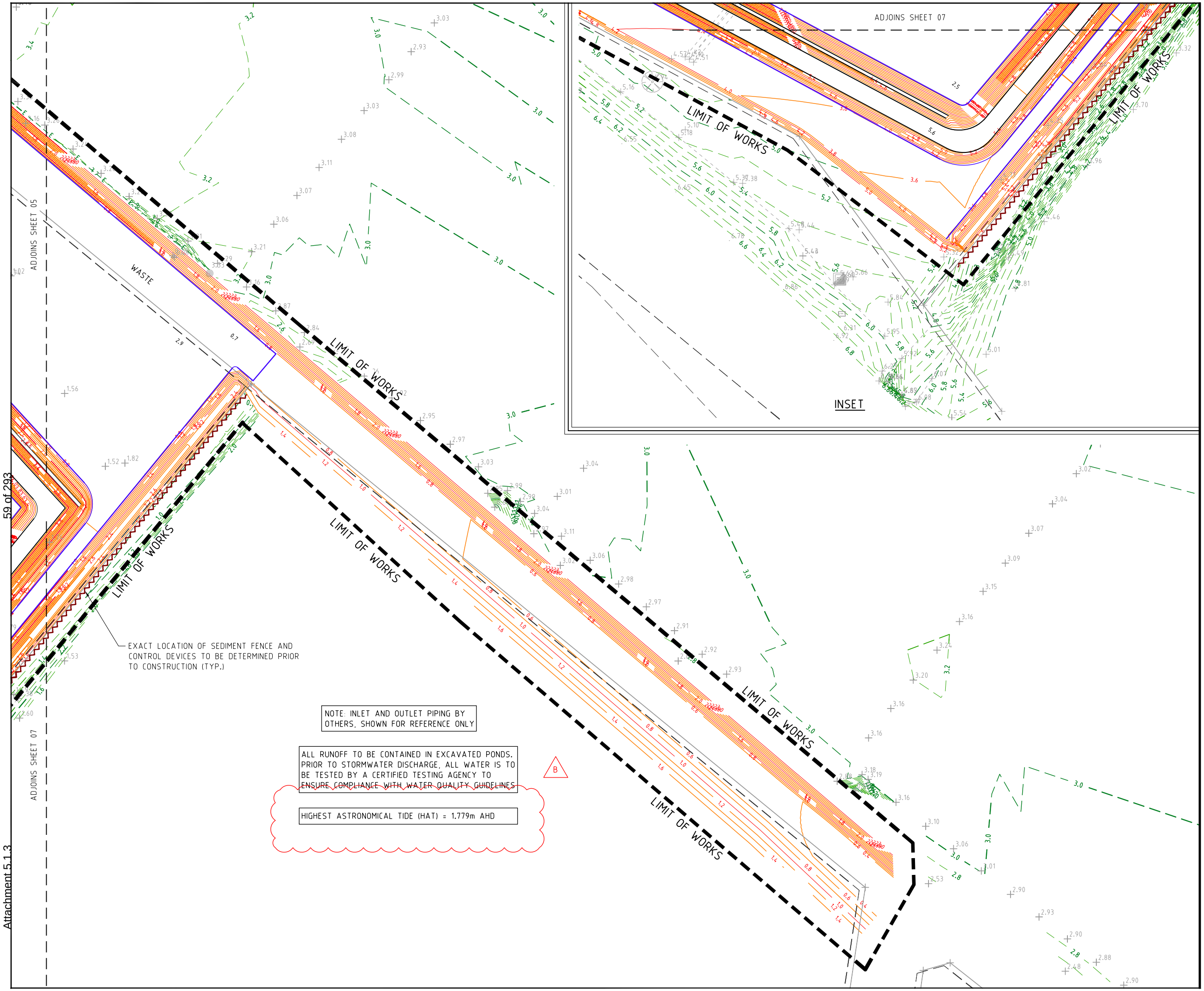

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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APPROVED	RPEQ 4706	DATE	26-06-15

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307-01-017	B

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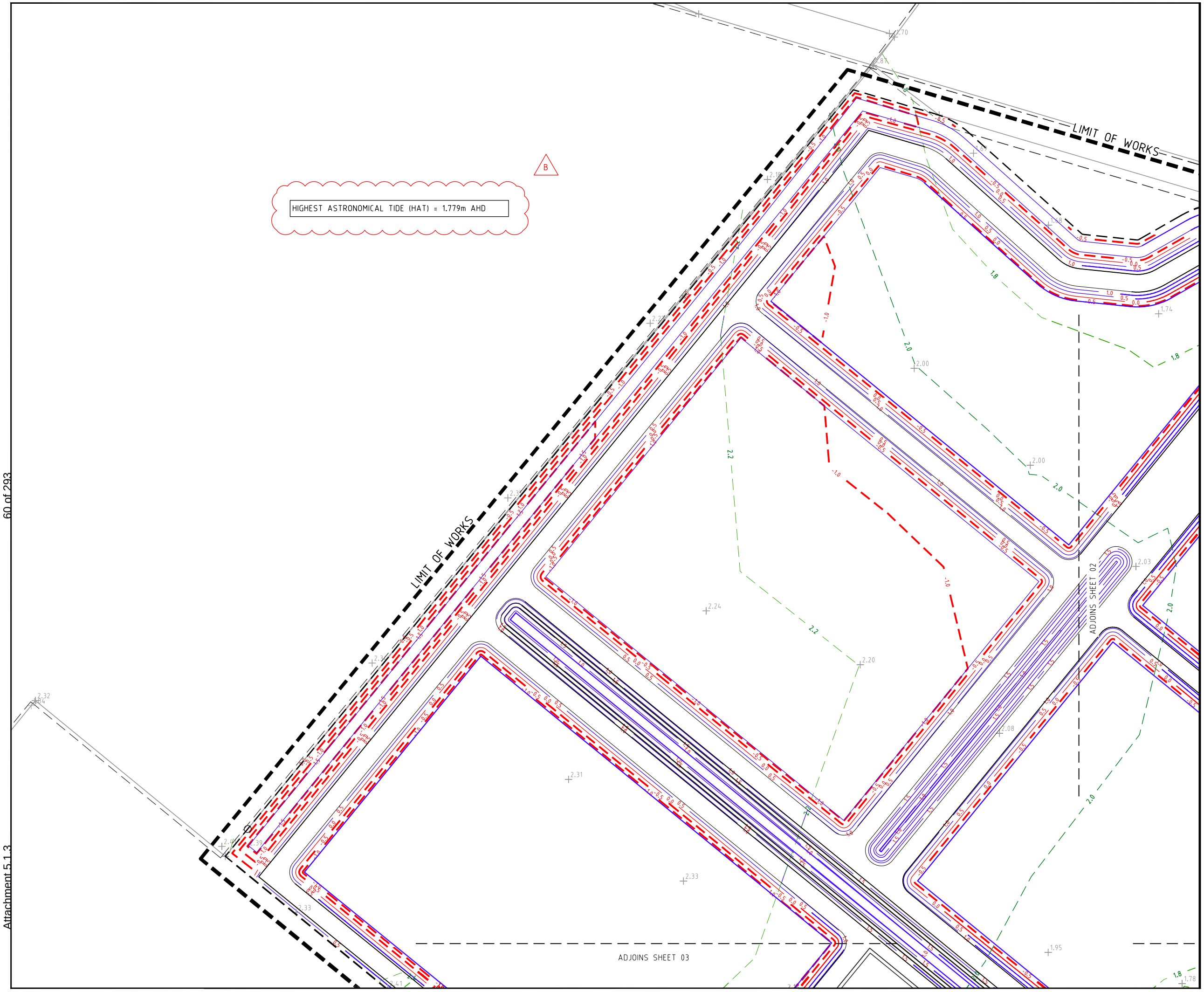

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	23-07-15	
CONSTRUCTION		

PRE	DATE	AMENDMENT
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BULK EARTHWORKS
CUTFILL PLAN
SHEET 01

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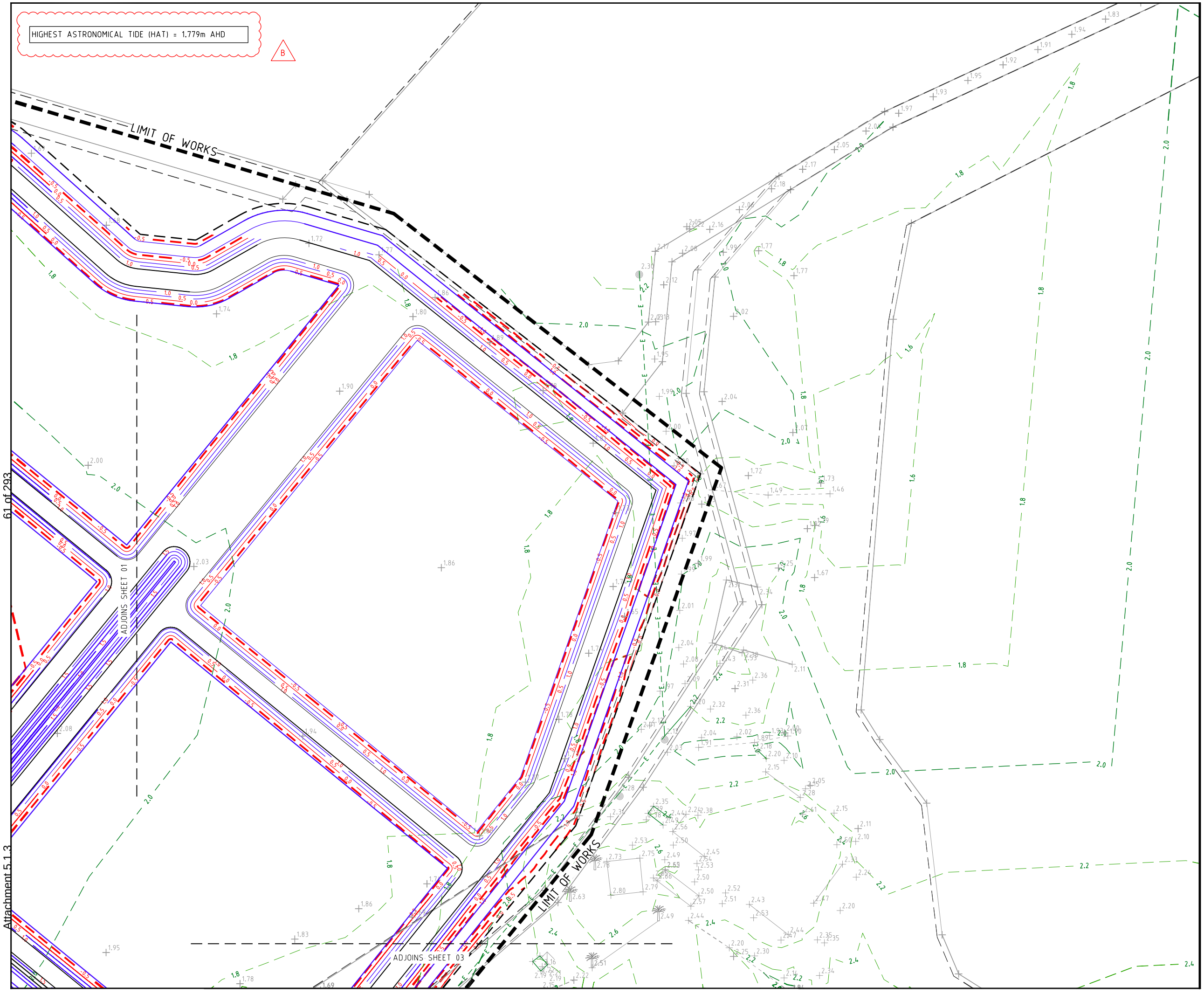
DRAWING NUMBER 307-01-030
AMEND. B



PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
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BULK EARTHWORKS
CUTFILL PLAN
SHEET 02

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307-01-031	B

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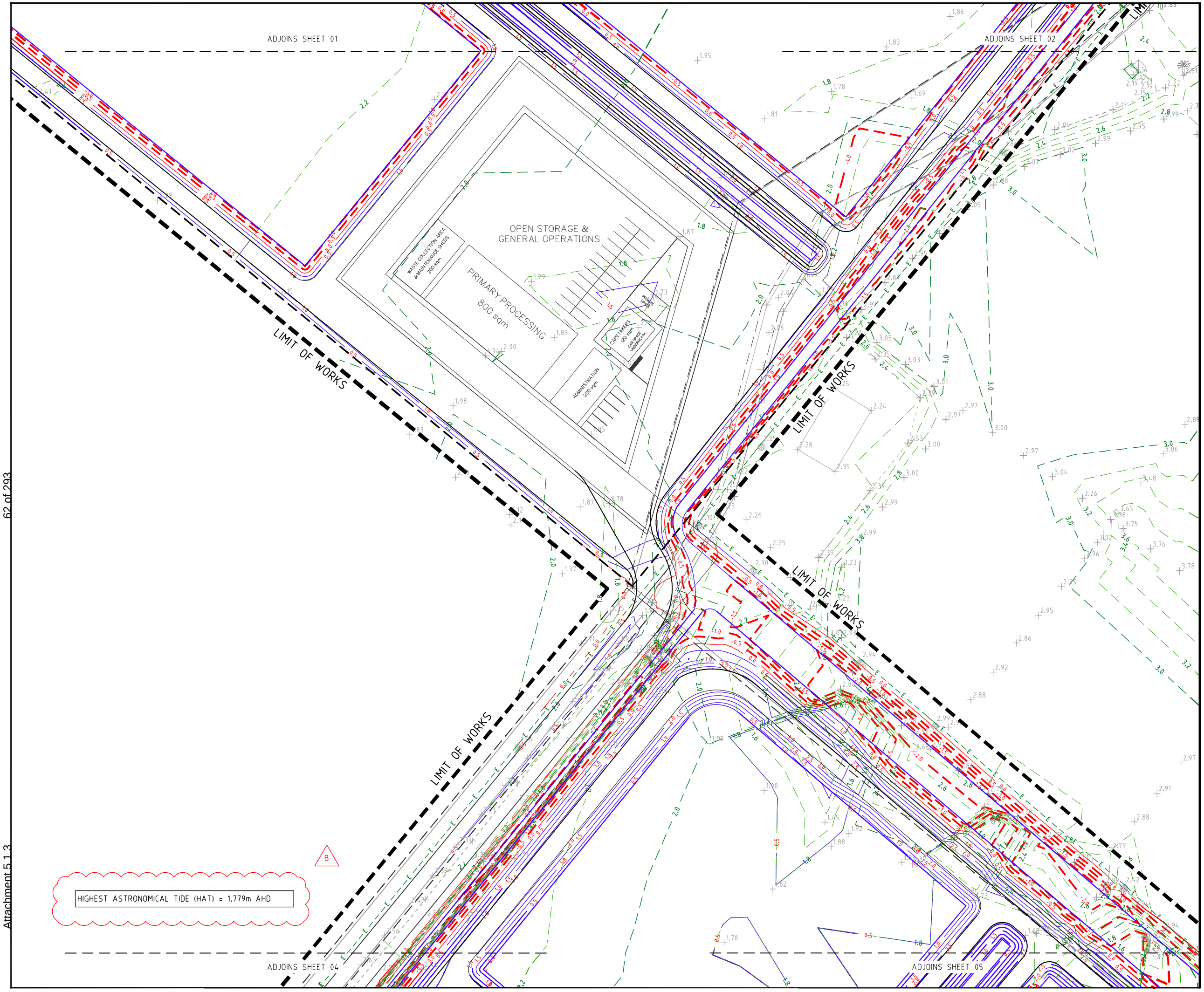

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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BULK EARTHWORKS
CUTFILL PLAN
SHEET 03

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APPROVED	RPEQ 4706	DATE	26-06-15

DRAWING NUMBER	AMEND.
307-01-032	B

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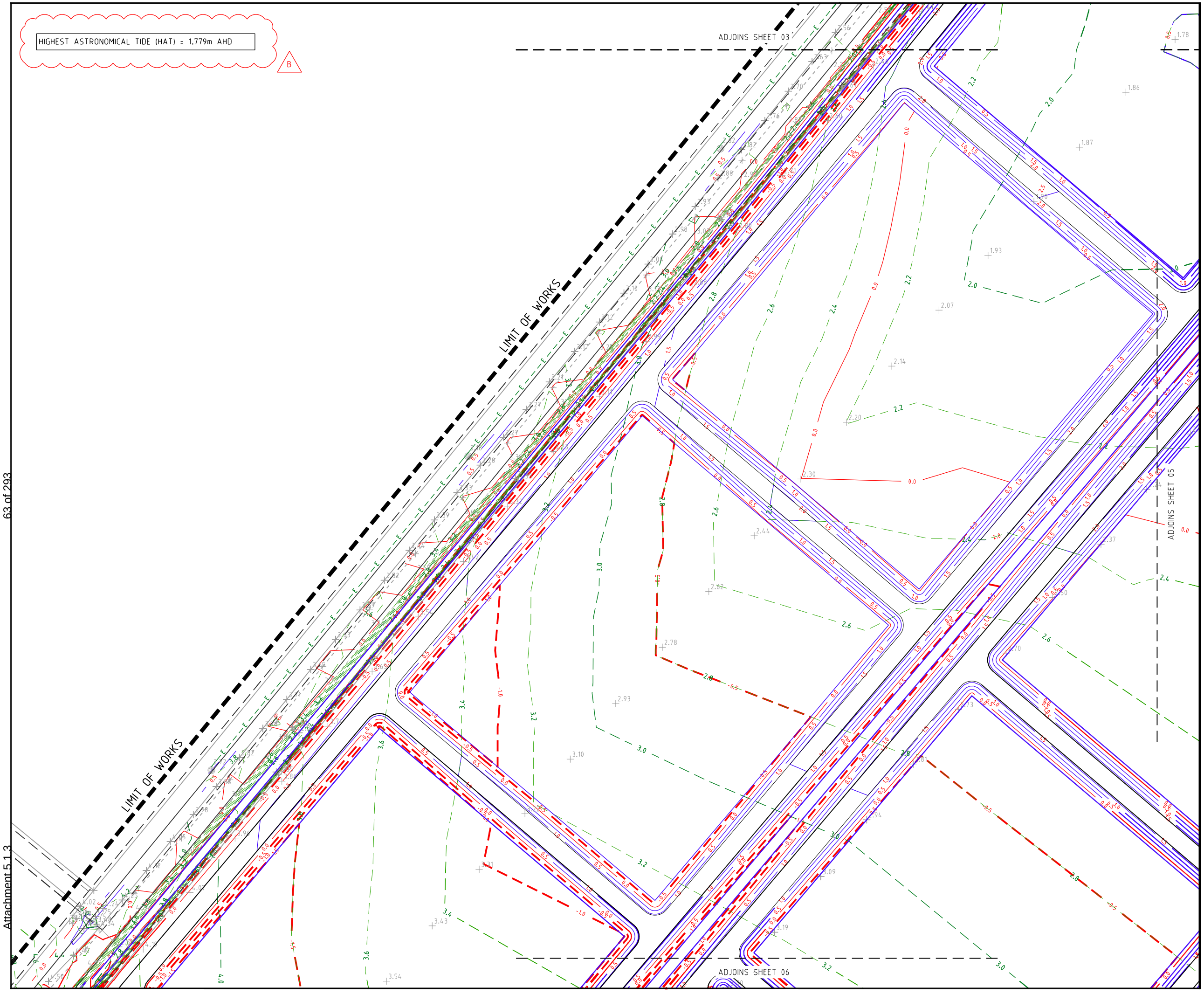

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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BULK EARTHWORKS
CUTFILL PLAN
SHEET 04

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DRAWING NUMBER	AMEND.
307-01-033	B

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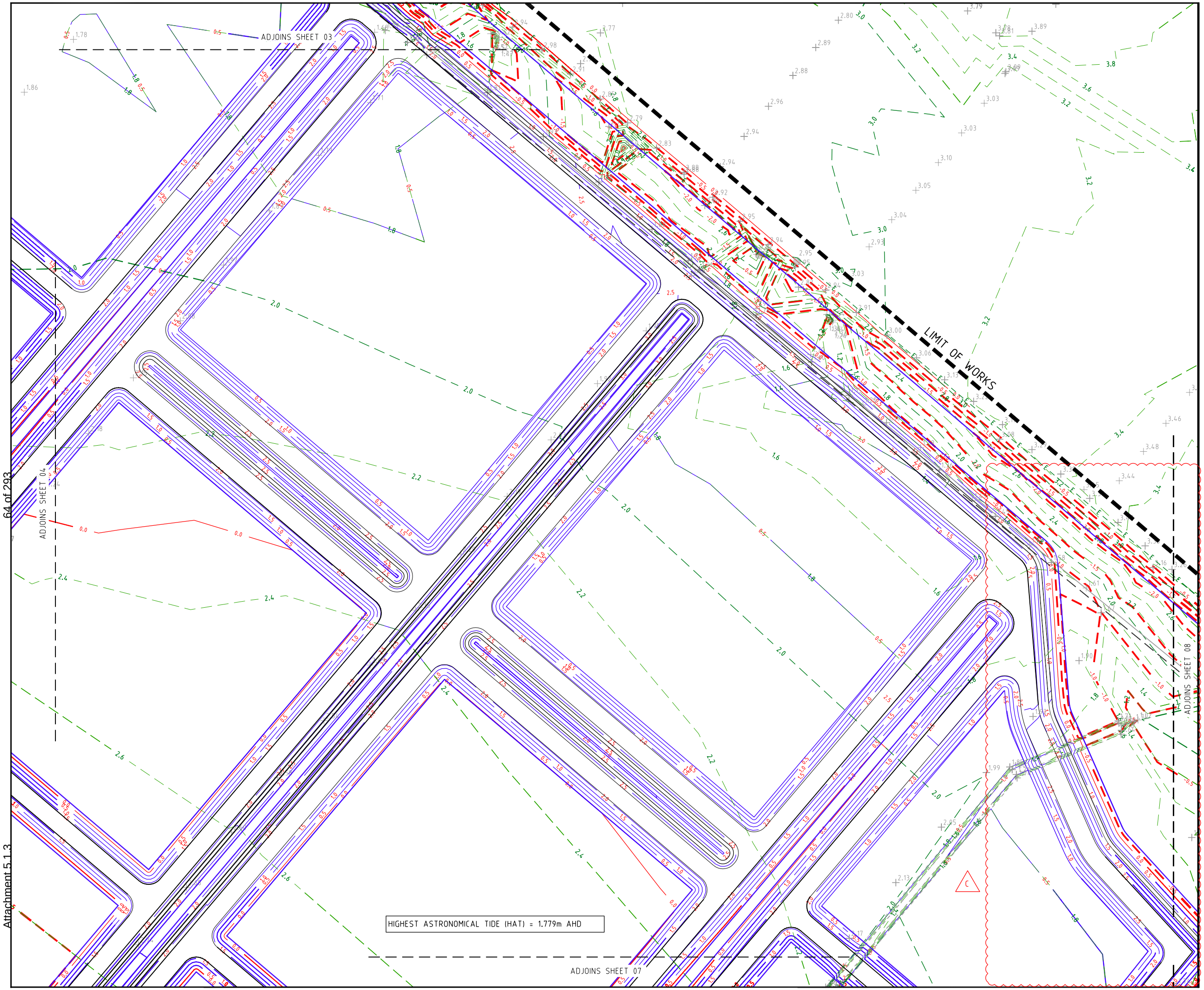

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
C	02-03-16	EARTHWORKS REVISED
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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BULK EARTHWORKS
CUTFILL PLAN
SHEET 05

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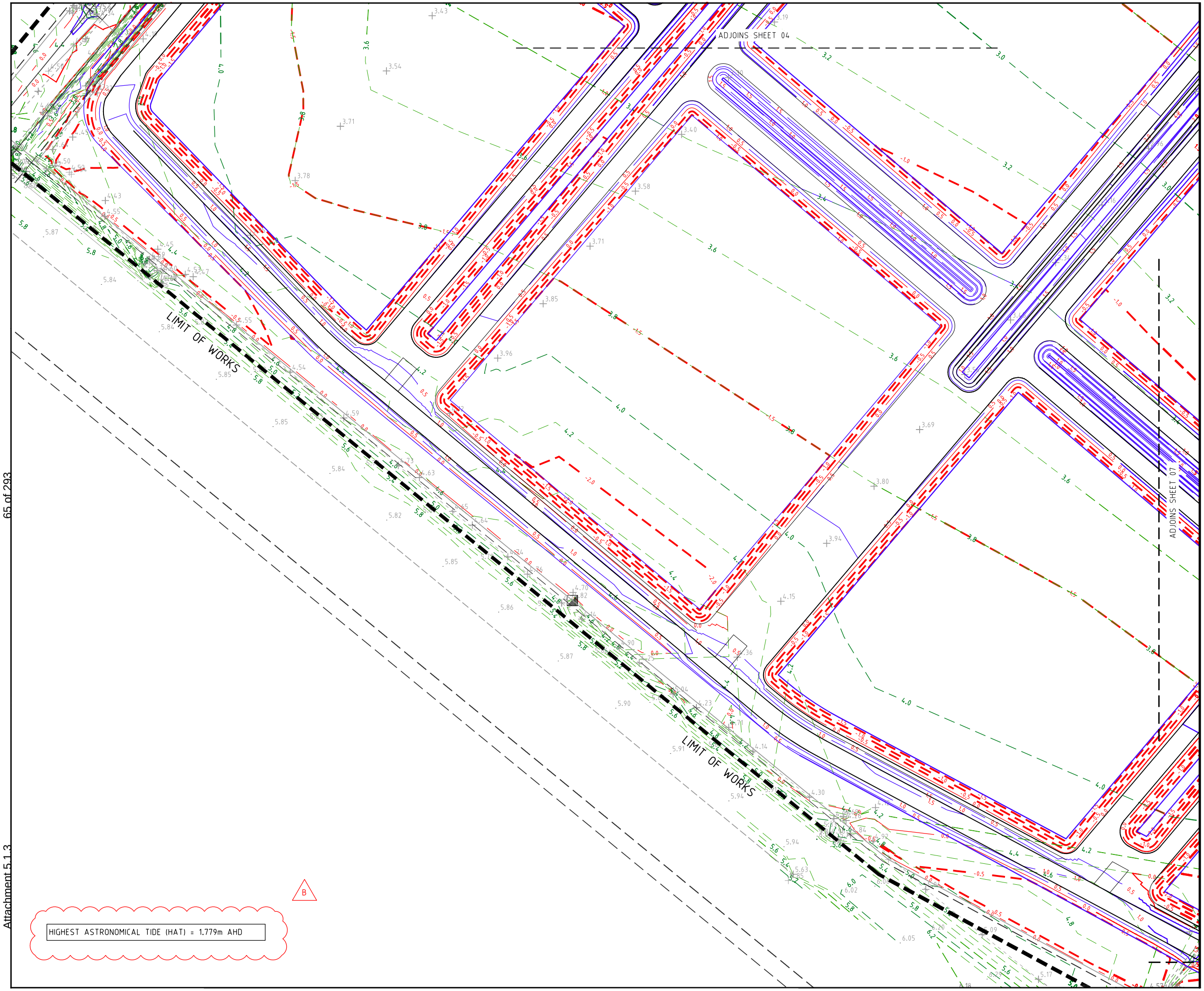
DESIGNED	RB	DRAWN	RV
APPROVED	RPEQ 4706	DATE	26-06-15

DRAWING NUMBER	AMEND.
307-01-034	C



PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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BULK EARTHWORKS
CUTFILL PLAN
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307-01-035	B

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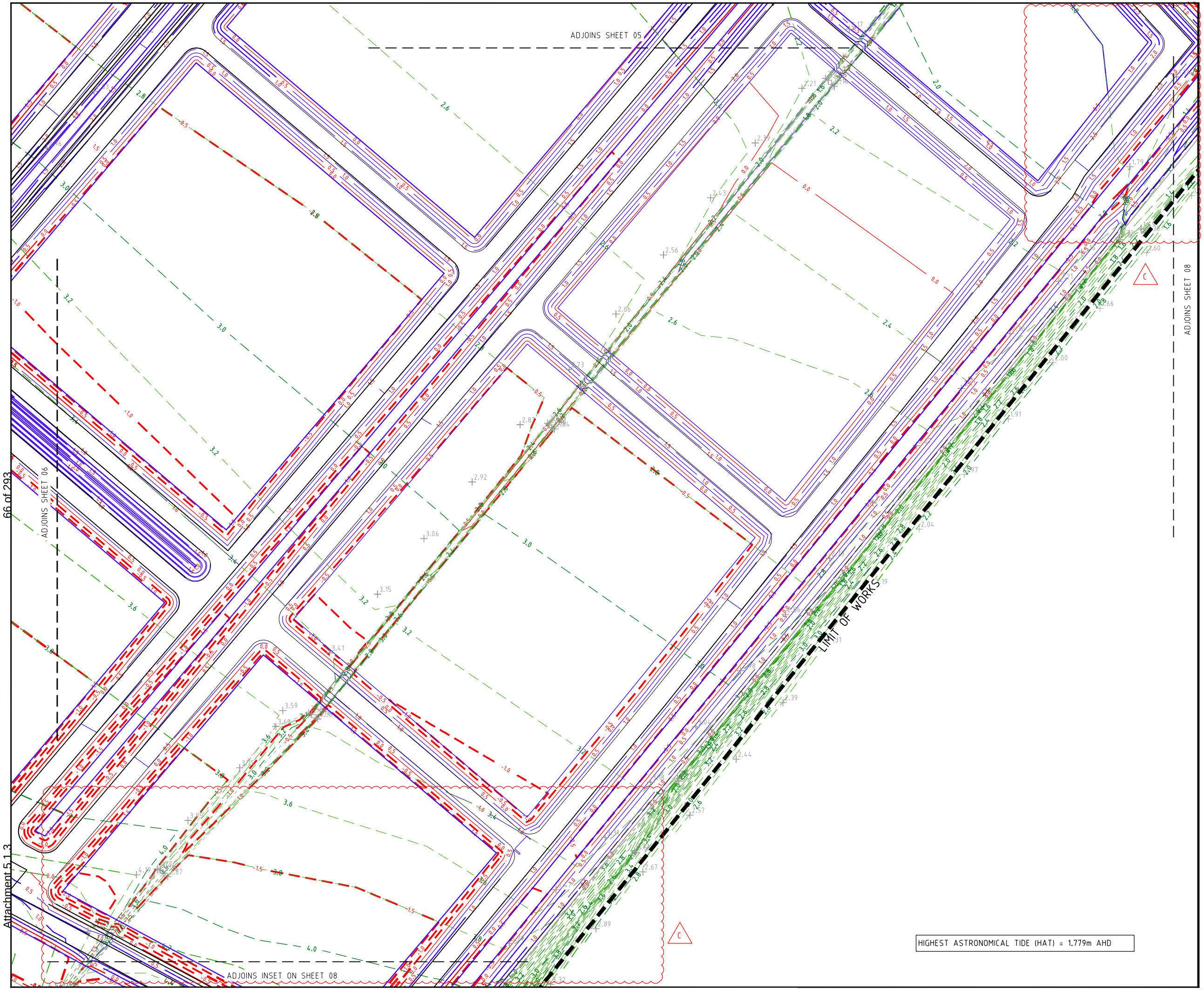

HIGHEST ASTRONOMICAL TIDE (HAT) = 1.779m AHD

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
C	02-03-16	EARTHWORKS REVISED
B	21-12-15	NOTE ADDED
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CUTFILL PLAN
SHEET 07

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307-01-036	C

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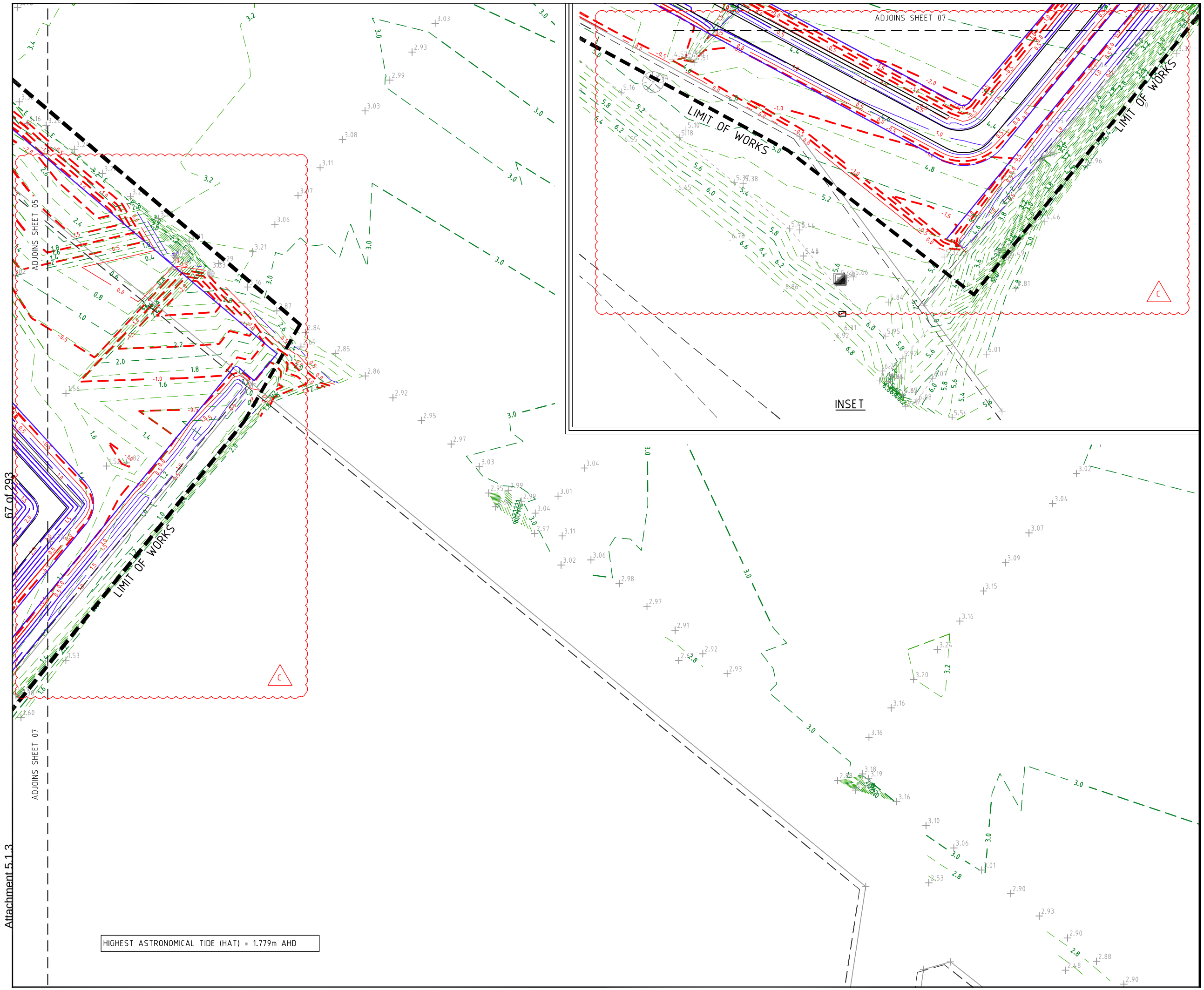

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	23-07-15	
CONSTRUCTION		

PRE	DATE	AMENDMENT
C	02-03-16	EARTHWORKS REVISED
B	21-12-15	NOTE ADDED
A	23-07-15	COUNCIL ISSUE

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CUTFILL PLAN
SHEET 08

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307-01-037	C

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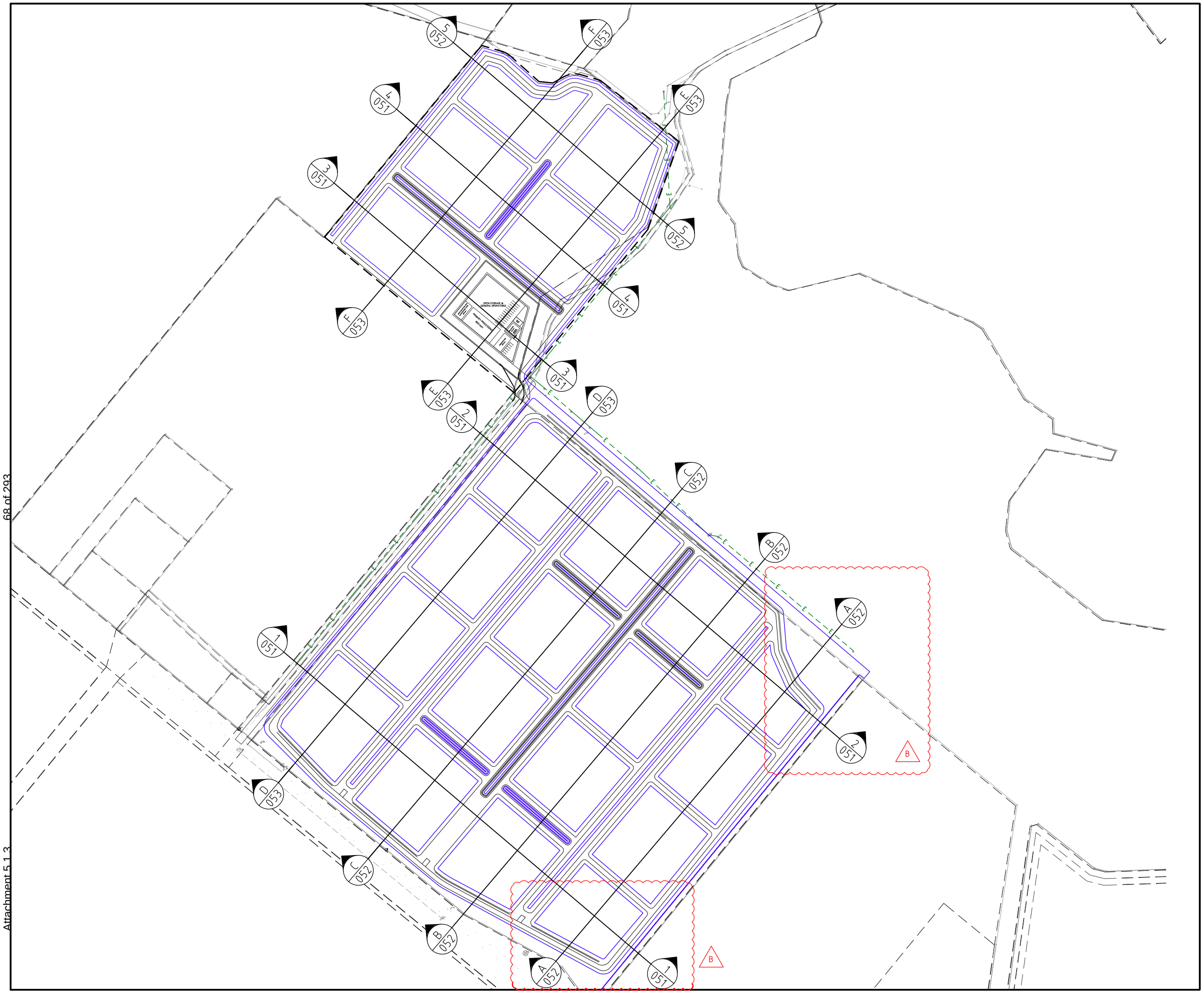

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION

LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

NORTH

0 20 40 60 80 100m
Scale 1:2000 - A1 (1:4000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
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A	23-07-15	COUNCIL ISSUE

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DRAWING TITLE

BULK EARTHWORKS
SECTIONS KEY PLAN

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DRAWING NUMBER 307-01-050		AMEND. B

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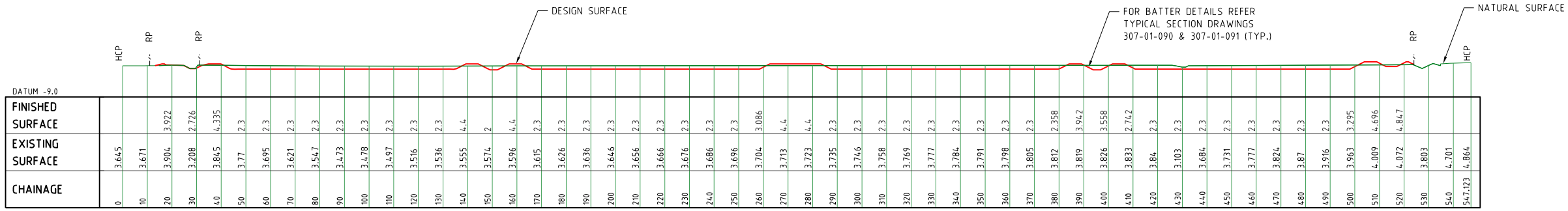

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20	3.904	3.922
30	3.208	2.726
40	3.845	4.335
50	3.77	2.3
60	3.695	2.3
70	3.621	2.3
80	3.547	2.3
90	3.473	2.3
100	3.478	2.3
110	3.497	2.3
120	3.516	2.3
130	3.536	2.3
140	3.555	4.4
150	3.574	2
160	3.596	4.4
170	3.615	2.3
180	3.626	2.3
190	3.636	2.3
200	3.646	2.3
210	3.656	2.3
220	3.666	2.3
230	3.676	2.3
240	3.686	2.3
250	3.696	2.3
260	3.704	3.086
270	3.713	4.4
280	3.723	4.4
290	3.735	2.3
300	3.746	2.3
310	3.758	2.3
320	3.769	2.3
330	3.777	2.3
340	3.784	2.3
350	3.791	2.3
360	3.798	2.3
370	3.805	2.3
380	3.812	2.358
390	3.819	3.942
400	3.826	3.558
410	3.833	2.742
420	3.84	2.3
430	3.103	2.3
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450	3.731	2.3
460	3.777	2.3
470	3.824	2.3
480	3.87	2.3
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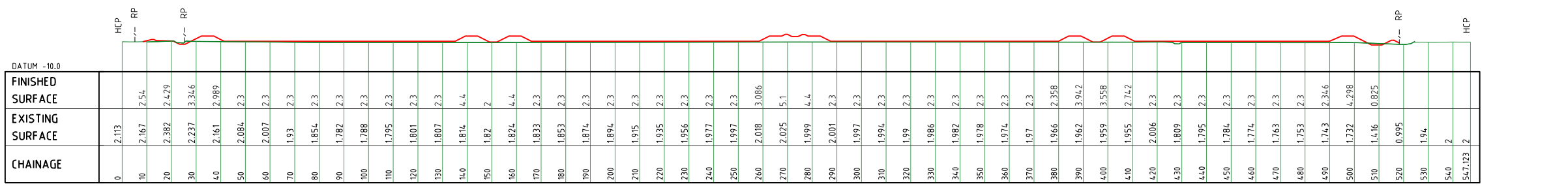
510	4.009	4.696
520	4.072	4.847
530	3.803	
540	4.701	
547.123	4.864	

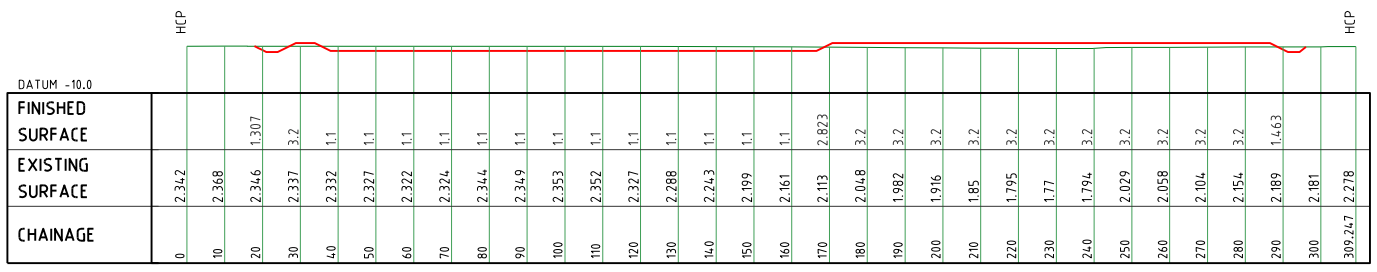
SECTION 1



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	2.113	
10	2.167	2.54
20	2.382	2.429
30	2.237	3.346
40	2.161	2.989
50	2.084	2.3
60	2.007	2.3
70	1.93	2.3
80	1.854	2.3
90	1.782	2.3
100	1.788	2.3
110	1.795	2.3
120	1.801	2.3
130	1.807	2.3
140	1.814	4.4
150	1.82	2
160	1.824	4.4
170	1.833	2.3
180	1.853	2.3
190	1.874	2.3
200	1.894	2.3
210	1.915	2.3
220	1.935	2.3
230	1.956	2.3
240	1.977	2.3
250	1.997	2.3
260	2.018	3.086
270	2.025	5.1
280	1.999	4.4
290	2.001	2.3
300	1.997	2.3
310	1.994	2.3
320	1.99	2.3
330	1.986	2.3
340	1.982	2.3
350	1.978	2.3
360	1.974	2.3
370	1.97	2.3
380	1.966	2.358
390	1.962	3.942
400	1.959	3.558
410	1.955	2.742
420	2.006	2.3
430	1.809	2.3
440	1.795	2.3
450	1.784	2.3
460	1.774	2.3
470	1.763	2.3
480	1.753	2.3
490	1.743	2.346
500	1.732	4.298
510	1.416	0.825
520	0.995	
530	1.94	
540	2	
547.123	2	

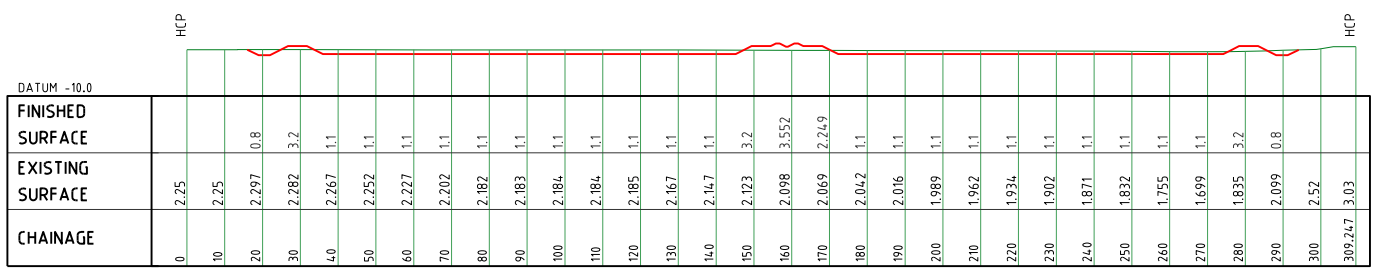
SECTION 2

B



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	2.342	
10	2.368	
20	2.346	1.307
30	2.337	3.2
40	2.332	1.1
50	2.327	1.1
60	2.322	1.1
70	2.324	1.1
80	2.344	1.1
90	2.349	1.1
100	2.353	1.1
110	2.352	1.1
120	2.327	1.1
130	2.288	1.1
140	2.243	1.1
150	2.199	1.1
160	2.161	1.1
170	2.113	2.823
180	2.048	3.2
190	1.982	3.2
200	1.916	3.2
210	1.85	3.2
220	1.795	3.2
230	1.77	3.2
240	1.794	3.2
250	2.029	3.2
260	2.058	3.2
270	2.104	3.2
280	2.154	3.2
290	2.189	1.463
300	2.181	
309.247	2.278	

SECTION 3



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	2.25	
10	2.25	
20	2.297	0.8
30	2.282	3.2
40	2.267	1.1
50	2.252	1.1
60	2.227	1.1
70	2.202	1.1
80	2.182	1.1
90	2.183	1.1
100	2.184	1.1
110	2.184	1.1
120	2.185	1.1
130	2.167	1.1
140	2.147	1.1
150	2.123	3.2
160	2.098	3.552
170	2.069	2.249
180	2.042	1.1
190	2.016	1.1
200	1.989	1.1
210	1.962	1.1
220	1.934	1.1
230	1.902	1.1
240	1.871	1.1
250	1.832	1.1
260	1.755	1.1
270	1.699	1.1
280	1.835	3.2
290	2.099	0.8
300	2.52	
309.247	3.03	

SECTION 4

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	02-03-16	SECTION 1 & SECTION 2 REVISED
A	23-07-15	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS
SECTIONS SHEET 01

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Urban & Regional Planning
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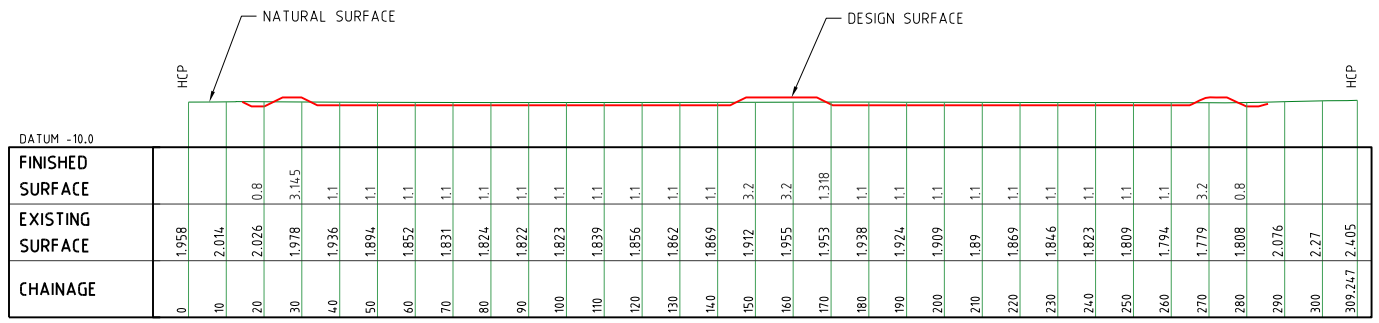
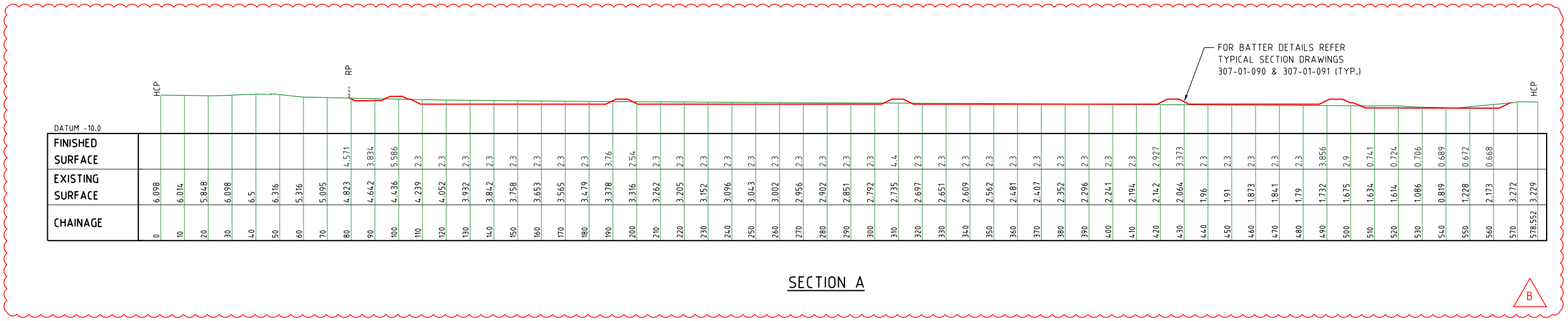
DESIGNED RB | DRAWN RV
APPROVED | RPEQ 4706 | DATE 24-06-15

DRAWING NUMBER 307-01-051 | AMEND. B



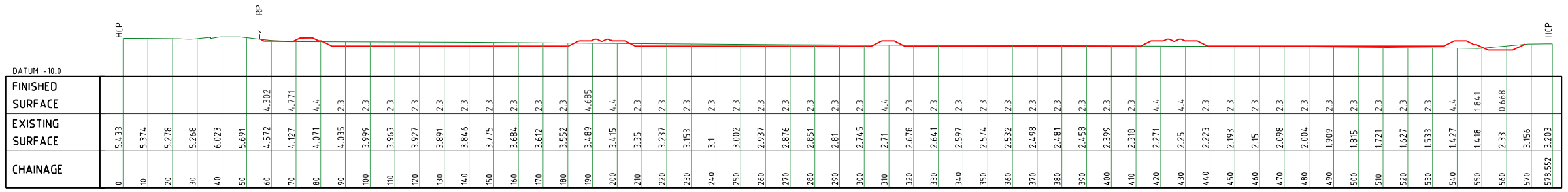
CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	1.958	
10	2.014	
20	2.026	0.8
30	1.978	3.145
40	1.936	1.1
50	1.894	1.1
60	1.852	1.1
70	1.831	1.1
80	1.824	1.1
90	1.822	1.1
100	1.823	1.1
110	1.839	1.1
120	1.856	1.1
130	1.862	1.1
140	1.869	1.1
150	1.912	3.2
160	1.955	3.2
170	1.953	1.318
180	1.938	1.1
190	1.924	1.1
200	1.909	1.1
210	1.89	1.1
220	1.869	1.1
230	1.846	1.1
240	1.823	1.1
250	1.809	1.1
260	1.794	1.1
270	1.779	3.2
280	1.808	0.8
290	2.076	
300	2.27	
309.247	2.405	

SECTION 5



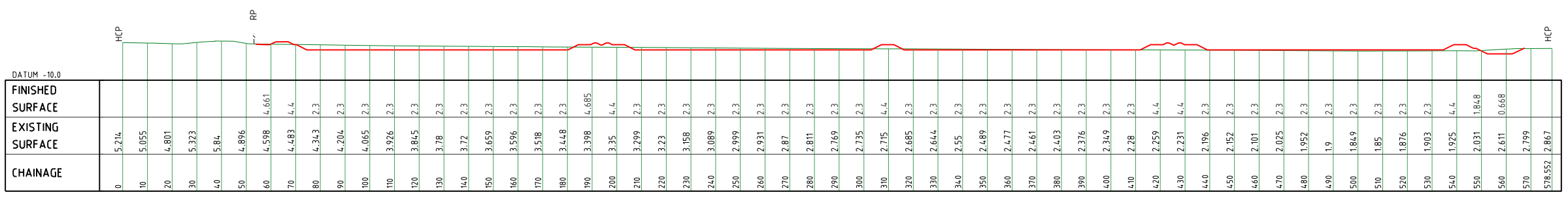
CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	6.098	
10	6.014	
20	5.848	
30	6.098	
40	6.5	
50	6.316	
60	5.316	
70	5.095	
80	4.823	4.571
90	4.642	3.834
100	4.436	5.586
110	4.239	2.3
120	4.052	2.3
130	3.932	2.3
140	3.842	2.3
150	3.758	2.3
160	3.653	2.3
170	3.565	2.3
180	3.479	2.3
190	3.378	3.76
200	3.316	2.54
210	3.262	2.3
220	3.205	2.3
230	3.152	2.3
240	3.096	2.3
250	3.043	2.3
260	3.002	2.3
270	2.956	2.3
280	2.902	2.3
290	2.851	2.3
300	2.792	2.3
310	2.735	4.4
320	2.697	2.3
330	2.651	2.3
340	2.609	2.3
350	2.562	2.3
360	2.481	2.3
370	2.407	2.3
380	2.352	2.3
390	2.296	2.3
400	2.241	2.3
410	2.194	2.3
420	2.142	2.927
430	2.064	3.373
440	1.96	2.3
450	1.91	2.3
460	1.873	2.3
470	1.841	2.3
480	1.79	2.3
490	1.732	3.856
500	1.675	2.9
510	1.634	0.741
520	1.614	0.724
530	1.086	0.706
540	0.819	0.689
550	1.228	0.672
560	2.173	0.668
570	3.272	
578.552	3.229	

SECTION A



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	5.433	
10	5.374	
20	5.278	
30	5.268	
40	6.023	
50	5.691	
60	4.572	4.302
70	4.127	4.771
80	4.071	4.4
90	4.035	2.3
100	3.999	2.3
110	3.963	2.3
120	3.927	2.3
130	3.891	2.3
140	3.846	2.3
150	3.775	2.3
160	3.684	2.3
170	3.612	2.3
180	3.552	2.3
190	3.489	4.685
200	3.415	4.4
210	3.35	2.3
220	3.237	2.3
230	3.153	2.3
240	3.1	2.3
250	3.002	2.3
260	2.937	2.3
270	2.876	2.3
280	2.851	2.3
290	2.81	2.3
300	2.745	2.3
310	2.71	4.4
320	2.678	2.3
330	2.641	2.3
340	2.597	2.3
350	2.574	2.3
360	2.532	2.3
370	2.498	2.3
380	2.481	2.3
390	2.458	2.3
400	2.399	2.3
410	2.318	2.3
420	2.271	4.4
430	2.25	4.4
440	2.223	2.3
450	2.193	2.3
460	2.15	2.3
470	2.098	2.3
480	2.004	2.3
490	1.909	2.3
500	1.815	2.3
510	1.721	2.3
520	1.627	2.3
530	1.533	2.3
540	1.427	4.4
550	1.418	1.841
560	2.33	0.668
570	3.156	
578.552	3.203	

SECTION B



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	5.214	
10	5.055	
20	4.801	
30	5.323	
40	5.84	
50	4.896	
60	4.598	4.661
70	4.483	4.4
80	4.343	2.3
90	4.204	2.3
100	4.065	2.3
110	3.926	2.3
120	3.845	2.3
130	3.78	2.3
140	3.72	2.3
150	3.659	2.3
160	3.596	2.3
170	3.518	2.3
180	3.448	2.3
190	3.398	4.685
200	3.35	4.4
210	3.299	2.3
220	3.23	2.3
230	3.158	2.3
240	3.089	2.3
250	2.999	2.3
260	2.931	2.3
270	2.87	2.3
280	2.811	2.3
290	2.769	2.3
300	2.735	2.3
310	2.715	4.4
320	2.685	2.3
330	2.644	2.3
340	2.55	2.3
350	2.489	2.3
360	2.477	2.3
370	2.461	2.3
380	2.403	2.3
390	2.376	2.3
400	2.349	2.3
410	2.28	2.3
420	2.259	4.4
430	2.231	4.4
440	2.196	2.3
450	2.152	2.3
460	2.101	2.3
470	2.025	2.3
480	1.952	2.3
490	1.9	2.3
500	1.849	2.3
510	1.85	2.3
520	1.876	2.3
530	1.903	2.3
540	1.925	4.4
550	2.031	1.848
560	2.611	0.668
570	2.799	
578.552	2.867	

SECTION C

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R. P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
B	02-03-16	SECTION A REVISED
A	23-07-15	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS
SECTIONS SHEET 02

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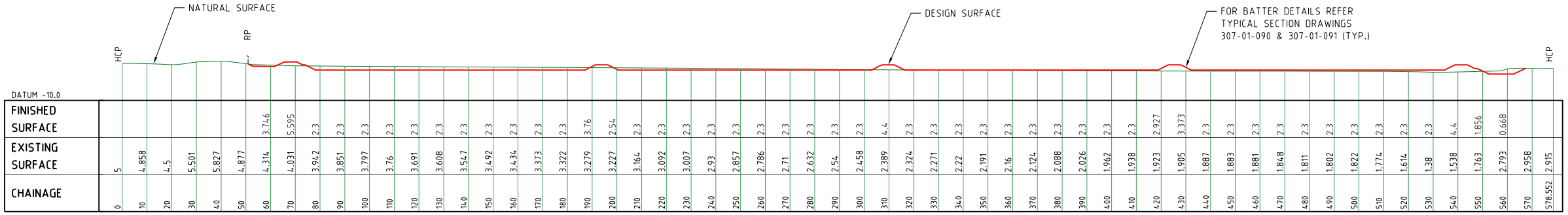
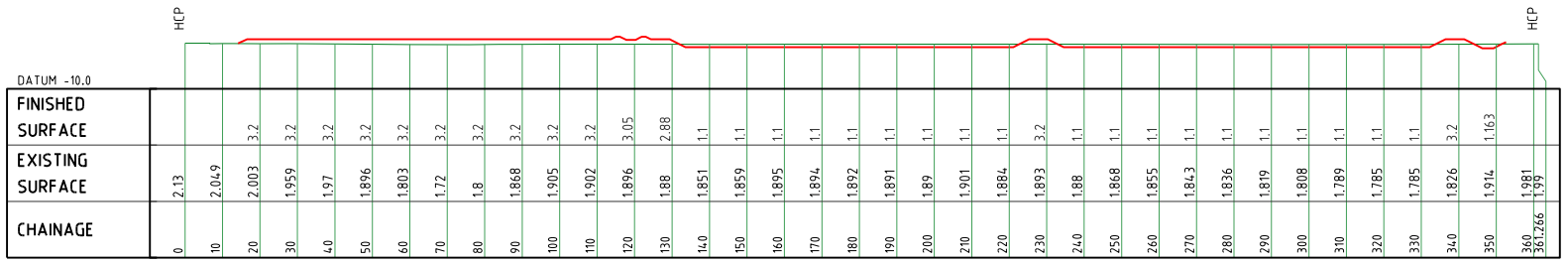
DESIGNED RB | DRAWN RV
APPROVED | RPEQ 4706 | DATE 24-06-15

DRAWING NUMBER 307-01-052 | AMEND. B



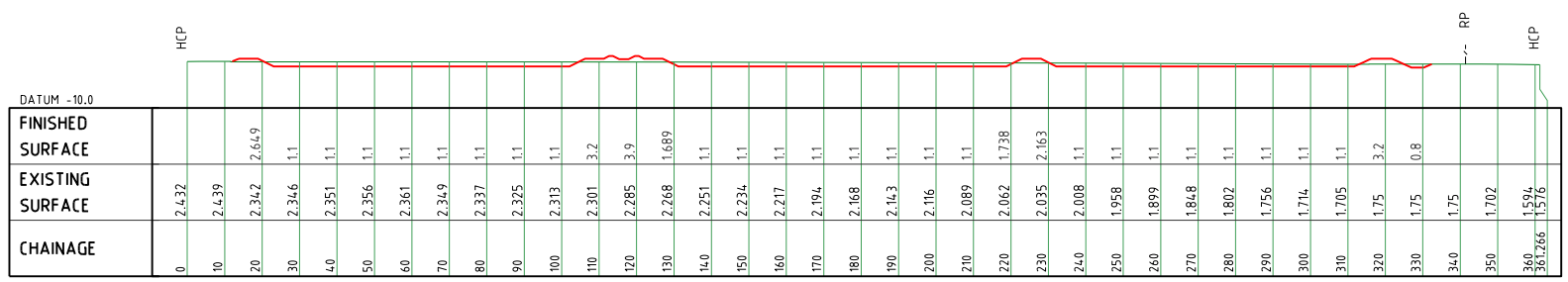
CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		5
10		4.858
20		4.5
30		5.501
40		5.827
50		4.877
60	3.746	4.314
70	5.595	4.031
80	2.3	3.942
90	2.3	3.851
100	2.3	3.797
110	2.3	3.76
120	2.3	3.691
130	2.3	3.608
140	2.3	3.547
150	2.3	3.492
160	2.3	3.434
170	2.3	3.373
180	2.3	3.322
190	3.76	3.279
200	2.54	3.227
210	2.3	3.164
220	2.3	3.092
230	2.3	3.007
240	2.3	2.93
250	2.3	2.857
260	2.3	2.786
270	2.3	2.71
280	2.3	2.632
290	2.3	2.54
300	2.3	2.458
310	4.4	2.389
320	2.3	2.324
330	2.3	2.271
340	2.3	2.22
350	2.3	2.191
360	2.3	2.16
370	2.3	2.124
380	2.3	2.088
390	2.3	2.026
400	2.3	1.962
410	2.3	1.938
420	2.927	1.923
430	3.373	1.905
440	2.3	1.887
450	2.3	1.883
460	2.3	1.881
470	2.3	1.848
480	2.3	1.811
490	2.3	1.802
500	2.3	1.822
510	2.3	1.774
520	2.3	1.614
530	2.3	1.38
540	4.4	1.538
550	1.856	1.763
560	0.668	2.793
570		2.958
578.552		2.915

SECTION D



CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		2.13
10		2.049
20	3.2	2.003
30	3.2	1.959
40	3.2	1.97
50	3.2	1.896
60	3.2	1.803
70	3.2	1.72
80	3.2	1.8
90	3.2	1.868
100	3.2	1.905
110	3.2	1.902
120	3.05	1.896
130	2.88	1.88
140	1.1	1.851
150	1.1	1.859
160	1.1	1.895
170	1.1	1.894
180	1.1	1.892
190	1.1	1.891
200	1.1	1.89
210	1.1	1.901
220	1.1	1.884
230	3.2	1.893
240	1.1	1.88
250	1.1	1.868
260	1.1	1.855
270	1.1	1.843
280	1.1	1.836
290	1.1	1.819
300	1.1	1.808
310	1.1	1.789
320	1.1	1.785
330	1.1	1.785
340	3.2	1.826
350	1.163	1.914
360		1.981
361.266		1.99

SECTION E



CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		2.432
10		2.439
20	2.649	2.342
30	1.1	2.346
40	1.1	2.351
50	1.1	2.356
60	1.1	2.361
70	1.1	2.349
80	1.1	2.337
90	1.1	2.325
100	1.1	2.313
110	3.2	2.301
120	3.9	2.285
130	1.689	2.268
140	1.1	2.251
150	1.1	2.234
160	1.1	2.217
170	1.1	2.194
180	1.1	2.168
190	1.1	2.143
200	1.1	2.116
210	1.1	2.089
220	1.738	2.062
230	2.163	2.035
240	1.1	2.008
250	1.1	1.958
260	1.1	1.899
270	1.1	1.848
280	1.1	1.802
290	1.1	1.756
300	1.1	1.714
310	1.1	1.705
320	3.2	1.75
330	0.8	1.75
340		1.75
350		1.702
360		1.594
361.266		1.576

SECTION F

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
A	23-07-15	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS
SECTIONS SHEET 03

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Urban & Regional Planning
Civil Engineering
Project Coordination

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Southport QLD 4215

DESIGNED	DRAWN	
RB	RV	
APPROVED	RPEQ 4706	DATE 24-06-15

DRAWING NUMBER	AMEND.
307-01-053	A

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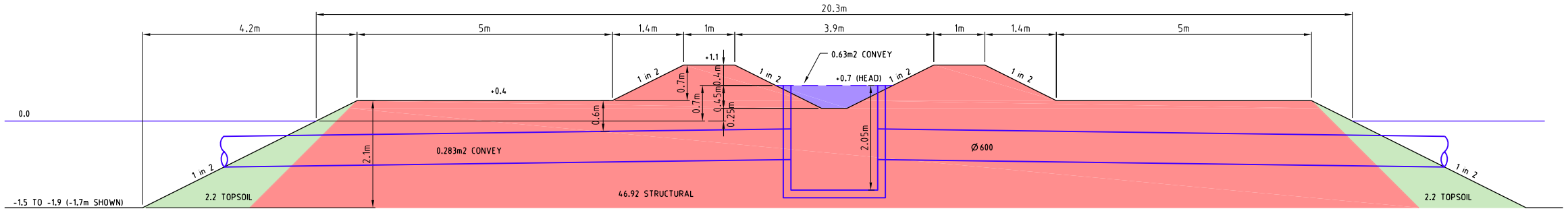

TYPICAL SECTION
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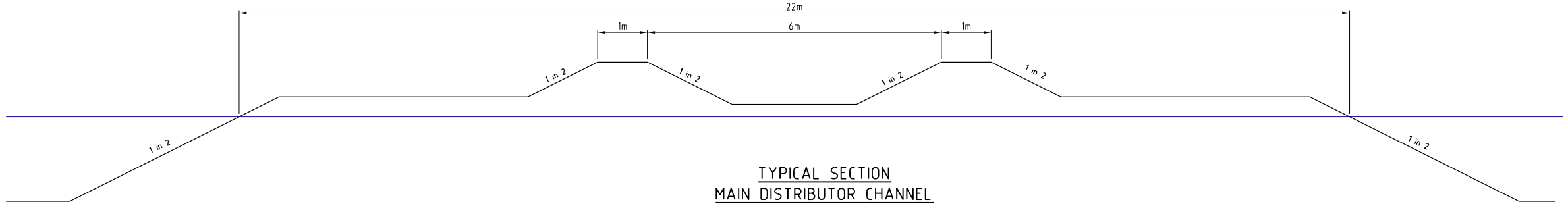

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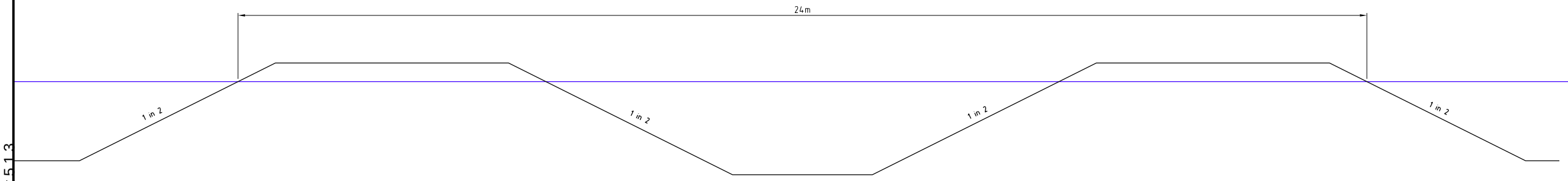

TYPICAL SECTION
EMPTY CHANNEL

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
A	23-07-15	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

TYPICAL SECTIONS
SHEET 01

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DESIGNED RB	DRAWN RV	
APPROVED	RPEQ 4706	DATE 24-06-15

DRAWING NUMBER 307-01-090
AMEND. A

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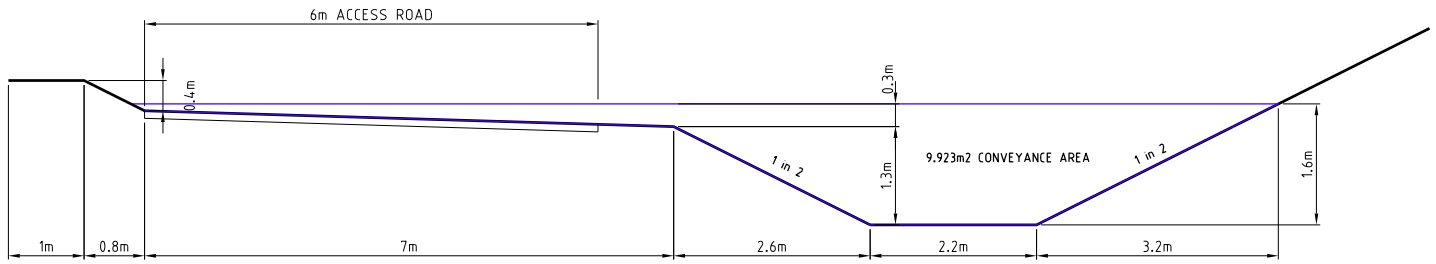
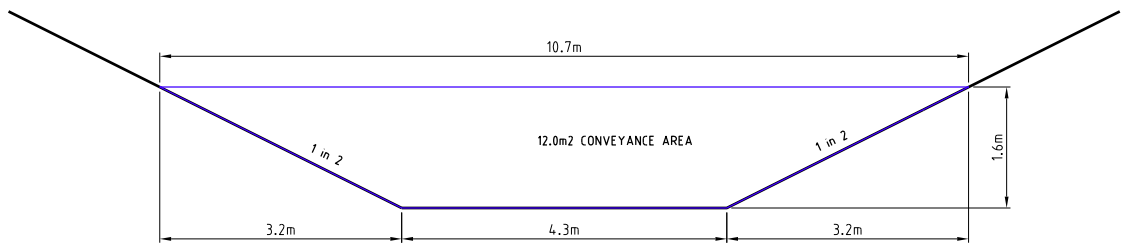


TYPICAL SECTION
NORTH SIDE SWALE / ROAD PROFILE



TYPICAL SECTION
SOUTH SIDE SWALE / ROAD PROFILE

PROJECT NAME

MOSSMAN

CHANGE OF LEVEL OF LAND
BULK EARTHWORKS-STAGE 01 & 02

R.P. DESCRIPTION
LOT 8, NR153
MOSSMAN FARM

CLIENT

GOLD COAST MARINE AQUACULTURE

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)

ISSUES	DATE
TENDER	
COUNCIL	23-07-15
CONSTRUCTION	

PRE	DATE	AMENDMENT
A	23-07-15	COUNCIL ISSUE

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DESIGNED RB	DRAWN RV	
APPROVED	RPEQ 4706	DATE 24-06-15

DRAWING NUMBER	AMEND.
307-01-091	A

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The landscape design intent will create site scale and setting and respond to the environmental conditions of the site.

Design details, finishes and materials will be complimentary to provide visual consistency throughout the development. The softscape palette has been selected in response to the location of the site.

The planting hierarchy throughout the development will reflect Crime Prevention through Environmental Design principles. By utilising plants with low heights and trees with thin trunks, this will allow for passive surveillance as well as recognition of traffic and pedestrian movements. The planting within the car park area will create legibility and ensure sight lines are unobstructed for safety and security.

Planting has been selected for ease of maintenance as well as the suitability and tolerance to the varying conditions of the site. Water Sensitive Urban Design principles will be applied where space allows.

A high quality landscape that will improve visual amenity of the development and enhance local character.

A landscape buffer to Captain Cook Highway will soften the development, reduce its visual impact and contribute to the streetscape amenity.

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e: mail@gassman.com.au

Statement of Landscape Intent

Client - Gold Coast Marine Aquaculture

Address - Captain Cook Highway, Killaloe

Date: 30/06/2015
Scale: 1:3000 @ A3
Dwg No: 5555 L LI 01
Sheet: 1 of 3

Planting within the car park area that allows sight lines to be unobstructed for safety and security.

Creating a sustainable landscape through considered plant selection encourages cost-effective maintenance.

A landscape buffer that will soften the proposed building lines and reduce visual impact of the development.

Ensuring a high quality landscape that improves visual amenity of the development

Landscape Buffer to provide visual amenity and local character.

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Statement of Landscape Intent

Client - Gold Coast Marine Aquaculture

Address - Captain Cook Highway, Killaloe

Date: 30/06/2015
Scale: 1:500 @ A3
Dwg No: 5555 L LI 01
Sheet: 2 of 3

PLANTING HAS BEEN SELECTED FOR EASE OF MAINTENANCE AS WELL AS THE SUITABILITY AND TOLERANCE TO THE VARYING CONDITIONS OF THE SITE.

THE PLANTING SCHEME USED IS PREDOMINATELY NATIVE WHICH SOFTENS THE BUILT FORM, IMPROVES NATURAL ECOSYSTEMS AND MINIMISED WATER USAGE.

THE SCALE AND NATURE OF THE LANDSCAPING MATERIALS SHALL BE APPROPRIATE TO THE SIZE OF THE STRUCTURES AND THE AVAILABLE SPACE.

CODE	BOTANIC NAME	COMMON NAME
ACA red	*Acalypha wilkesiana "red"*	Fijian fire plant
ACE smi	*Acmena smithii*	Lilly pilly
ACH spp	*Acehmea spp*	Bromeliad
AGA blu	*Agapanthus orientalis "blue"*	Agapanthus blue
AGA whi	*Agapanthus orientalis "white"*	Agapanthus white
ARC ale	*Archontophoenix alexandrae*	Alexendra Palm
ARC cun	*Archontophoenix cunninghamia*	Pickabean Palm
BUC cel	*Buckinghamia celcissima*	Ivory Curl
BAC cit	*Backhousia citriodora*	Lemon Scented Myrtle
BAR syu	*Barklya syingifolia*	Crown of Gold
BIS nob	*Bismarkia nobilis*	Bismark Palm
BRA bid	*Brachychiton bidwillii*	Little Kurrajong
BRA mul	*Brachyscome multifida*	Cut Leaf Daisy
BRA pop	*Brachychiton populneus*	Kurrajong
CAL pro	*Callistemon "Prolific Pink"*	Bottle Brush
CAL red	*Caladiums 'red flash'*	Elephant ear
CAR acu	*Carpentaria acuminata*	Carpentaria Palm
CAS que	*Cassia queenslandica*	Queensland Cassia
CLI min	*Clivia miniata*	Clivia
COR can	*Cordyline cannifolia*	Palm lily
COR red	*Cordyline australis "Red Sensation"*	Cordyline
CRI ped	*Crinum pedunculatum*	Swamp Lily
CUR rec	*Curculigo recurvata*	Palm Grass
DIA bre	*Dianella brevipedunculata*	Pin Cushion Flax Lily
DIA cae	*Dianella caerulea*	Flax Lily
DIA can	*Dianella congesta*	Coast Flax Lily
DIP aus	*Diploglottis australis*	Native tamarind
DOR exc	*Doryanthes excelsa*	Gymea Lily
ELA eum	*Elaeocarpus eumundii*	Eumundi Quandong
FLI aus	*Flindersia australis*	Crows ash
HEL spp	*Heliconia spp.*	Golden Torch
HIB het	*Hibiscus heterophyllus*	Native Hibiscus
HIB til	*Hibiscus tiliaceus*	Cottonwood Hibiscus
IXO spp	*Ixora species*	Ixoras
LIV aus	*Livistona australis*	Cabbage Palm, Fan Palm
LIV dec	*Livistonia decipiens*	Weeping Cabbage tree palm
MEL ell	*Melicope elleryana*	Pink Euodia
RAN fit	*Randia fitzalani*	Native Gardenia
STR nic	*Strelitzia nicolai*	Gaint Bird of Paradise
STR reg	*Strelitzia reginae*	Bird of Paradise
THY max	*Thysanolaena maxima*	Tiger Grass
TRA jas	*Trachelospermum jasminoides*	Star Jasmine

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Statement of Landscape Intent

Client - Gold Coast Marine Aquaculture

Address - Captain Cook Highway, Killaloe

Date: 30/05/2015
Scale: NTS
Dwg No: 5555 L LI 01
Sheet: 3 of 3

DOUGLAS SHIRE COUNCIL
Received
File Name CA1044/2015
Document No.
31 MAR 2016
Attention NRB orig ✓
Information

Queensland Government

Department of Infrastructure, Local Government and Planning

Our reference: SDA-1015-024906
Your reference: CA 1044/2015

24 March 2016

Chief Executive Officer
Douglas Shire Council
PO Box 723
Mossman QLD 4873

Att: Neil Beck

Dear Sir / Madam

Concurrence agency response—with conditions

Development application for a material change of use (expansion of existing aquaculture facility & caretaker's residence), Reconfiguration of a lot (boundary realignment) and Operational work on land located at Captain Cook Highway, Killaloe and more particularly described as Lot 8 on NR153, Lot 201 on SP222765 and Lot 7 on RP846941
(Given under section 285 of the *Sustainable Planning Act 2009*)

The referral agency material for the development application described below was received by the Department of Infrastructure, Local Government and Planning under section 272 of the *Sustainable Planning Act 2009* on 20 October 2015.

Applicant details

Applicant name:	Gold Coast Marine Aquaculture c/- Gassman Development Perspectives
Applicant contact details:	PO Box 392 Beenleigh QLD 4207 bcraddock@gassman.com.au

Site details

Street address:	Captain Cook Highway, Killaloe
Lot on plan:	Lot 8 on NR153, Lot 201 on SP222765 and Lot 7 on RP846941
Local government area:	Douglas Shire Council

Far North Queensland Regional Office
Ground Floor, Cairns Port Authority
PO Box 2358
Cairns QLD 4870

Application details

Proposed development:	Development permit (combined application) for a material change of use (expansion of existing aquaculture facility & caretaker's residence), Reconfiguration of a lot (boundary realignment) and Operational work for change to ground level

Aspects of development and type of approval being sought

Nature of Development	Approval Type	Brief Proposal of Description	Level of Assessment
Material Change of Use	Development permit	Expansion of existing aquaculture facility & caretaker's residence	Impact Assessment
Reconfiguring a Lot	Development permit	Boundary realignment	Impact Assessment
Operational Work	Development permit	Change to ground levels	Impact Assessment

Referral triggers

The development application was referred to the department under the following provisions of the *Sustainable Planning Regulation 2009*:

Referral trigger	**Schedule 7, Table 2, Item 13 –** Tidal works, or development in a coastal management district
	Schedule 7, Table 2, Item 28 – Certain aquaculture
	Schedule 7, Table 3, Item 1 – State-controlled road
	Schedule 7, Table 3, Item 5 – Coastal management districts

Conditions

Under section 287(1)(a) of the *Sustainable Planning Act 2009*, the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for decision to impose conditions

Under section 289(1) of the *Sustainable Planning Act 2009*, the department must set out the reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Further advice

Under section 287(6) of the *Sustainable Planning Act 2009*, the department offers advice about the application to the assessment manager—see Attachment 3.

Approved plans and specifications

The department requires that the following plans and specifications set out below and in Attachment 4 must be attached to any development approval.

Drawing/Report Title	Prepared by	Date	Reference	Version/Issue

SDA-1015-024906

			no.	
Aspect of development: Material change of use and operational work				
Proposal Plan - Lot 7 on RP846941, Lot 8 on NR153, Lot 201 on SP222765	Gassman Development Perspectives	09-02-16	555 P PP 100	A
Concept Plan Operational Area	Gassman Development Perspectives	04-09-15	555-P CP 01.C	-
Statement of Landscaping Intent	Gassman Development Perspectives	30/06/2015	5555 L LI 01 (Sheet 1 of 3)	-
General Arrangement Sediment & Erosion Control Sheet 06	Mortons Urban Solutions	21-12-15	307-01-015	B
General Arrangement Sediment & Erosion Control Sheet 08	Mortons Urban Solutions	21-12-15	307-01-017	B
Bulk Earthworks CutFill Plan Sheet 06	Mortons Urban Solutions	21-12-15	307-01-035	B
Bulk Earthworks CutFill Plan Sheet 08	Mortons Urban Solutions	02-03-16	307-01-037	C
TMR Layout Plan (20A – 64.48km)	Queensland Government Transport and Main Roads	17/11/2015	275/20A (500-924)	A
Rural Property Access – Single or Dual Carriageway (Conditional)	Austroads: Part 4 - Intersections and Crossings - General	2009	Figure 7.2	-
Aspect of development: Reconfiguration of a lot				
Existing & Proposed Reconfiguration of Land (Boundary Relocation)	Gassman Development Perspectives	05-02-16	5555 P ROL 02 – 2OF 2 (Sheet 2 of 2)	A

A copy of this response has been sent to the applicant for their information.

For further information, please contact Joanne Manson, Principal Planning Officer, SARA Far North QLD on 4037 3228 or email joanne.manson@dilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Graeme Kenna
Manager (Planning)

cc: Gold Coast Marine Aquaculture, c/- Gassman Development Perspectives
email: bcraddock@gassman.com.au

enc: Attachment 1—Conditions to be imposed
Attachment 2—Reasons for decision to impose conditions
Attachment 3—Further advice
Attachment 4—Approved Plans and Specifications

Our reference: SDA-1015-024906
Your reference: 5555:BC

Attachment 1—Conditions to be imposed

No.	Conditions	Condition timing
Material change of use (expansion of existing aquaculture facility & caretaker's residence), and Operational work		
Schedule 7, Table 2, Item 13 – Tidal work, or development in a coastal management district (operational work) and **Schedule 7, Table 3, Item 5** - Coastal management districts (material change of use) —Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering the Act nominates the Director-General of the **Department of Environment and Heritage Protection** to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	The development must be carried out generally in accordance with the following plan: • Existing & Proposed Reconfiguration of Land (Boundary Relocation), prepared by Gassman Development Perspectives, dated 05-02-16, drawing no. 555P ROI02-OF2, Sheet 2 of 2, Issue A • Proposal Plan - Lot 7 on RP846941, Lot 8 on NR153 and Lot 201 on SP222765, prepared by Gassman Development Perspectives, dated 09-02-16, drawing no. 555 P PP100, Issue A • Concept Plan Operational Area, prepared by Gassman Development Perspectives, dated 04-09-15, drawing no. 555-P CP 01.C	Prior to the commencement of use and to be maintained at all times
2.	Erosion and sediment control measures are to be installed and maintained to prevent the release of sediment to tidal waters.	Prior to commencement of the works and maintained until their completion
3.	Any disturbed or oxidised acid sulphate soil must be treated and managed in accordance with the current *Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines v4.0*, prepared by the Department of Science, Information Technology, Innovation and the Arts, 2014.	For the duration of the works the subject of this approval
Material change of use (expansion of existing aquaculture facility)		
Schedule 7, Table 2, Item 28 — Certain aquaculture - Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering the Act nominates the Director-General of the **Department of Agriculture and Fisheries** to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
4.	The development must be carried out generally in accordance with following plans: • Proposal Plan Lot 7 on RP846941, Lot 8 on NR153, Lot 201 on SP222765 prepared by Gassman Development Perspectives dated 09-12-16, reference 5555 P PP 100, Issue A	Prior to the commencement of use and to be maintained at all times

No.	Conditions	Condition timing
5.	Development authorised under this approval is limited as follows: • Conduct aquaculture in the approved Aquaculture Area being limited to 62.42 hectares and show in Proposal Plan Lot 7 on RP846941, Lot 8 on NR153 Lot 201, on SP222765 prepared by Gassman Development Perspectives dated 09-02-16, reference 5555 P PP 100, Issue A	At all times
6.	The operator is authorised to conduct aquaculture on and harvest the following approved species. **Common Name** — **Scientific Name** Australian bass — *Macquaria novemaculeata* Banana prawn — *Penaeus merguiensis* Barcoo grunter — *Scortum barcoo* Barramundi — *Lates calcarifer* Barramundi cod — *Cromileptes altivelis* Barred-cheek coral trout — *Plectropomus maculatus* Batik Lobster — *Panulirus longipes* Black Lobster — *Panulirus penicillatus* Black Slipper Lobster — *Parribacus antarcticus* Black tiger prawn — *Penaeus monodon* Blue endeavour prawn — *Metapenaeus endeavouri* Blue-spot coral trout — *Plectropomus laevis* Blunt Slipper Lobster — *Scyllarides squammosus* Brown tiger prawn — *Penaeus esculentus* Cobia — *Rachycentron canadum* Common coral trout — *Plectropomus leopardus* Eel tail catfish — *Tandanus tandanus* Estuary cod — *Epinephelus coioides* Flowery cod — *Epinephelus fuscoguttatus* Golden perch (Cooper Creek strain) — *Macquaria ambigua n.sp* Golden perch (Dawson River strain) — *Macquaria ambigua oriens* Golden perch (Murray-Darling strain) — *Macquaria ambigua ambigua* Golden Snapper — *Lutjanus johnii* Green Tropical Lobster — *Panulirus versicolor* Gulf Saratoga — *Scleropages jardinii*	At all times

No.	Conditions	Condition timing
	Kuruma prawn *Penaeus japonicus* Mahi Mahi *Coryphaena hippurus* Mangrove jack *Lutjanus argentimaculatus* Moreton Bay bug *Thenus orientialis* Moreton Bay bug *Thenus indicus* Mud Lobster *Panulirus polyphagus* Mulloway *Argyrosomus japonicus* Murray cod *Maccullochella peeli peeli* Passionfruit trout *Plectropomus areolatus* Queensland groper *Epinephelus lanceolatus* Sand Lobster *Panulirus homarus* Sand whiting *Sillago ciliata* Silver perch *Bidyanus bidyanus* Sleepy cod *Oxyeleotris lineolatus* Snapper *Pagrus auratus* Southern saratoga *Scleropages leichardti* Tropical rock lobster *Panulirus ornatus*	
7.	The administering authority must be informed via notifications@daf.qld.gov.au of any changes to the personal contact details for this development approval.	Within 28 days
8.	An aquaculture production return must be submitted in the approved form to the Department of Agriculture and Fisheries (Fisheries Qld). This includes lodging a nil return when no activity has occurred.	By 31 July each year
9.	The possession and use of "regulated fishing apparatus" under the *Fisheries Regulation 2008*, Chapter 4, Part 1, Division 4, Subdivision 1 (freshwater) and Subdivision 2, sections 188 and 189 (marine), are authorised at the approved aquaculture area.	At all times
10.	Aquaculture fisheries resources must not be released into Queensland waters (as defined in the *Acts Interpretation Act 1954*) other than those waters approved under this development approval. Unless otherwise authorised, aquaculture fisheries resources must not be sold, traded or given away for the purposes of using for bait. This includes the use of whole fish and any part of the fish.	At all times
11.	The movement of animals of any species cultivated under this approval must comply with the relevant species specific health protocol. If the species being cultivated under this approval does not have a species specific health protocol the following conditions 12 and 13 apply.	At all times
12.	Animals of a species approved for aquaculture under this development approval must not be brought into Queensland for rearing without a health certificate or pathology report issued by	At all times

No.	Conditions	Condition timing
	the exporting state or territory's fisheries, or a veterinary authority certifying the animals health, which must include a statement that the specimens originate from: (a) a hatchery, farm, aquaculture premises or region which is recognised as free from infection by the diseases on the Queensland Declared Disease List based on the requirements listed in the *OIE Manual of Diagnostic Tests for Aquatic Animals*, current edition (Fourth Edition 2003 or later) for recognition as free from infection; or (b) a hatchery, farm, aquaculture premises or region in which an appropriate targeted surveillance scheme over 2 years has been undertaken under the supervision of State or Territory Fisheries agencies or fisheries approved Veterinary authorities and where the requirements for recognition as free from infection by diseases of concern for that species on the *OIE Manual of Diagnostic Tests for Aquatic Animals*, current edition (Fourth Edition 2003 or later) have been met; or (c) a single batch of gametes, larvae, fry, post-larvae, spat or early juvenile or adult of a species of finfish, crustaceans or molluscs, isolated from open waters, which has been tested using suitable techniques (refer to DAF Health Translocation Protocols appropriate for the approved species) to provide evidence that the batch is free from infection by diseases of concern on the Queensland Declared Disease List for that species. (d) an animal of an aquatic species that is not finfish, crustacean or mollusc must not be brought into Queensland for rearing without a specific risk assessment and under a specific translocation protocol for that species.	
13.	(a) Animals of a species approved for aquaculture under this development approval must not be brought into Queensland for rearing unless an "*Application to allow the Translocation of Live Aquatic Animals into and within Queensland form*"(FDU1398) and Pathology Report has been completed and the administering authority has provided written acknowledgement and approval of the "Details of translocation form" and the Pathology Report. (b) The "*Application to allow the Translocation of Live Aquatic Animals into and within Queensland form*" and a signed copy of the Pathology Report (as detailed above) must be provided to the administering authority via translocation@daf.qld.gov.au, a minimum of three (3) working days prior to all shipments into Queensland. It is a requirement that the pathology report/health certificate is dated no more than 14 days before shipment date. (c) After arrival, any unusual clinical signs or mortalities in the stock must be reported immediately to the Queensland Boating and Fisheries Patrol. If directed by an officer of the administering authority, specimens must be forwarded to a veterinary laboratory as directed by the officer.	(a) At all times (b) A minimum three working days prior to shipments into Queensland (c) At all times
14.	The control over the release of water from all ponds, tanks and	At all times

No.	Conditions	Condition timing
	drainage systems within the approved aquaculture area must be maintained at all times.	
15.	The aquaculture area is secured to prevent the overland escape of aquaculture product by maintaining a perimeter barrier that is impervious to all size classes of the aquaculture fisheries resources that are capable of overland escape.	At all times
16.	All reasonable and practicable measures to ensure that all waters (ponds, tanks, aquaria drainage systems etc.) on the approved aquaculture area are screened in such a way to prevent the escape of any specimens (eggs, juveniles or adults) into Queensland waters (as defined in the *Acts Interpretation Act 1954*).	At all times
17.	Where waters are introduced for the aquaculture of the approved species, all reasonable measures must be taken to ensure all waters are sufficiently screened to prevent the movement of any juvenile or adult wild fauna (excepting zooplankton) into the approved aquaculture area.	At all times
18.	This development approval authorises the purchase of broodstock and/or culture stock from the holder of a commercial fishing boat licence, a commercial fisher, or holder of any other authority that allows the sale of the approved species	At all times
19.	Any Development Approval and/or Resource Allocation Authority area, and any associated areas which are used for activities related to the approved aquaculture operation (including processing), and all records relating to the aquaculture activity, must be made available for inspection by an inspector under the *Fisheries Act 1994* during reasonable hours.	At all times
Material change of use (expansion of existing aquaculture facility & caretakers residence)		
Schedule 7, Table 3, Item 1— State-controlled road (material change of use) - Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering the Act nominates the Director-General of the **Department of Transport and Main Roads** to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
In accordance with approved plans		
20.	The development must be carried out generally in accordance with the following plans: • Existing & Proposed Reconfiguration of Land (Boundary Relocation), prepared by Gassman Development Perspectives, dated 05-02-16, drawing no. 555P RO102-OF2, Sheet 2 of 2, Issue A • Proposal Plan Lot 7 on RP846941, Lot 8 on NR153, Lot 201 on SP222765, prepared by Gassman Development Perspectives, dated 09-02-16, Drawing No 555 P PP 100, Issue A • Statement of Landscaping Intent, prepared by Gassman Development Perspectives, dated 30/06/2015, Dwg No 5555 L LI 01, Sheet 1 of 3 • General Arrangement Sediment & Erosion Control Sheet 06 prepared by Mortons Urban Solutions, dated 21-12-15, Drawing No 307-01-015, Amend B • General Arrangement Sediment & Erosion Control Sheet	Prior to the commencement of use and to be maintained at all times

No.	Conditions	Condition timing
	08, prepared by Mortons Urban Solutions, dated 21-12-15, Drawing No 307-01-017, Amend B • Bulk Earthworks CutFill Plan Sheet 06 prepared by Mortons Urban Solutions, dated 21-12-15, Drawing No 307-01-035, Amend B • Bulk Earthworks CutFill Plan Sheet 08 prepared by Mortons Urban Solutions, dated 02-03-16, Drawing No 307-01-037, Amend C • TMR Layout Plan (20A – 64.48km) prepared by Queensland Government Transport and Main Roads, dated 17/11/2015, File Ref: 275/20A (500-924), Issue A.	
In accordance with approved report		
21.	The development must be in accordance with the Development Application, prepared by Gassman Development Perspectives, dated September 2015, and given reference/revision number Section 6.0: The Proposal and in particular: • Creation of an additional 21 aquaculture ponds and associated buildings. • No excavated fill will be transported from the land (balance cut/fill). • No retail sales to the general public all deliveries are freighted to the Cairns Airport	Prior to the commencement of use and to be maintained at all times
Location of the direct vehicular access to the state-controlled road		
22.	The permitted road access location, for which approval under section 62 of the *Transport Infrastructure Act 1994* must be obtained, is to be located generally in accordance with TMR Layout Plan (20A – 64.48km) prepared by Queensland Government Transport and Main Roads, dated 17/11/2015, File Ref: 275/20A (500-924), Issue A.	At all times
Design vehicle and traffic volume		
23.	Road access works comprising of a sealed property access to the development, for which approval under section 33 of the *Transport Infrastructure Act 1994* must be obtained, at the permitted road access location, must be provided generally in accordance with TMR Layout Plan (20A – 64.48km) prepared by Queensland Government Transport and Main Roads, dated 17/11/2015, File Ref: 275/20A (500-924), Issue A. The road access works must be designed and constructed in accordance with Guide to Road Design - Part 4 of Austroads: Intersections and Crossings - General, Figure 7.2 (rural property access – single or dual carriageway (conditional)).	Prior to the commencement of use and to be maintained at all times
Stormwater and Drainage impacts on the state-controlled road		
24.	(a) The development must be in accordance with the Stormwater Management Plan entitled Proposed Prawn Farm Expansion - Flood Assessment, prepared by BMT WBM Pty Ltd, dated 24/08/15, and given reference/revision number R.B21286.00: (b) Any works on the land must not: i. create any new discharge points for stormwater runoff onto the state-controlled road; ii. interfere with and/or cause damage to the existing stormwater drainage on the state-controlled road;	(a) and (b) At all times

No.	Conditions	Condition timing
	iii. surcharge any existing culvert or drain on the state-controlled road; iv. reduce the quality of stormwater discharge onto the state-controlled road. AND (c) RPEQ certification must be provided to the Program Delivery and Operations Unit, Department of Transport and Main Roads, Far North Queensland Region: (Far.North.Queensland.IDAS@tmr.qld.gov.au), within the Department of Transport and Main Roads, confirming that the development has been designed and constructed in accordance with parts (a) and (b) of this condition.	(c) Prior to the commencement of use

Our reference: SDA-1015-024906
Your reference: 5555:BC

Attachment 2—Reasons for decision to impose conditions

The reasons for this decision are:

- To ensure the development is carried out generally in accordance with the plans of development submitted with the application.
- To ensure the development carried out generally in accordance the aspects of the planning report submitted with the application.
- To ensure the development is carried out in the location and to the extent specified on the approved plans of development.
- To ensure the development avoids or minimises adverse impacts on coastal resources and their values.
- To ensure that the authorised species are managed for the net benefit of the species in question and to avoid or acceptably minimise biosecurity risks to any rare, threatened or endangered fish.
- To facilitate the monitoring of the development works for compliance purposes.
- To ensure that the aquaculture facility is designed to maintain integrity of the aquaculture product.
- To ensure that the aquaculture facility is designed and constructed to mitigate risks of impact on the natural environment and to allow for the management of disease.
- To ensure that the aquaculture facility is designed and constructed to mitigate risks of impact on the natural environment and to allow for the management of disease and to ensure that land based aquaculture facilities that hold fish capable of overland escape are designed to prevent such escape.
- To ensure the aquaculture facility is designed, constructed and maintained to avoid leakage, to ensure immunity from flooding and minimise biosecurity and disease risks.
- To ensure that the authorised species are managed for the net benefit of the species in question and to avoid or acceptably minimise biosecurity risks to any rare, threatened or endangered fish.
- To ensure the road access location to the state-controlled road from the site does not compromise the safety and efficiency of the state-controlled road.
- To ensure the design of any road access maintains the safety and efficiency of the state-controlled road.
- To ensure that the impacts of stormwater events associated with development are minimised and managed to avoid creating adverse impacts on the state transport corridor.
- To ensure the development achieves the outcomes in 3.1 Aquaculture state code, 10.1 Tidal works, or development in a coastal management district and 19.1 Access to state-controlled roads state code in the State Development Assessment Provisions version 1.6.

Our reference: SDA-1015-024906
Your reference: CA 1044/2015

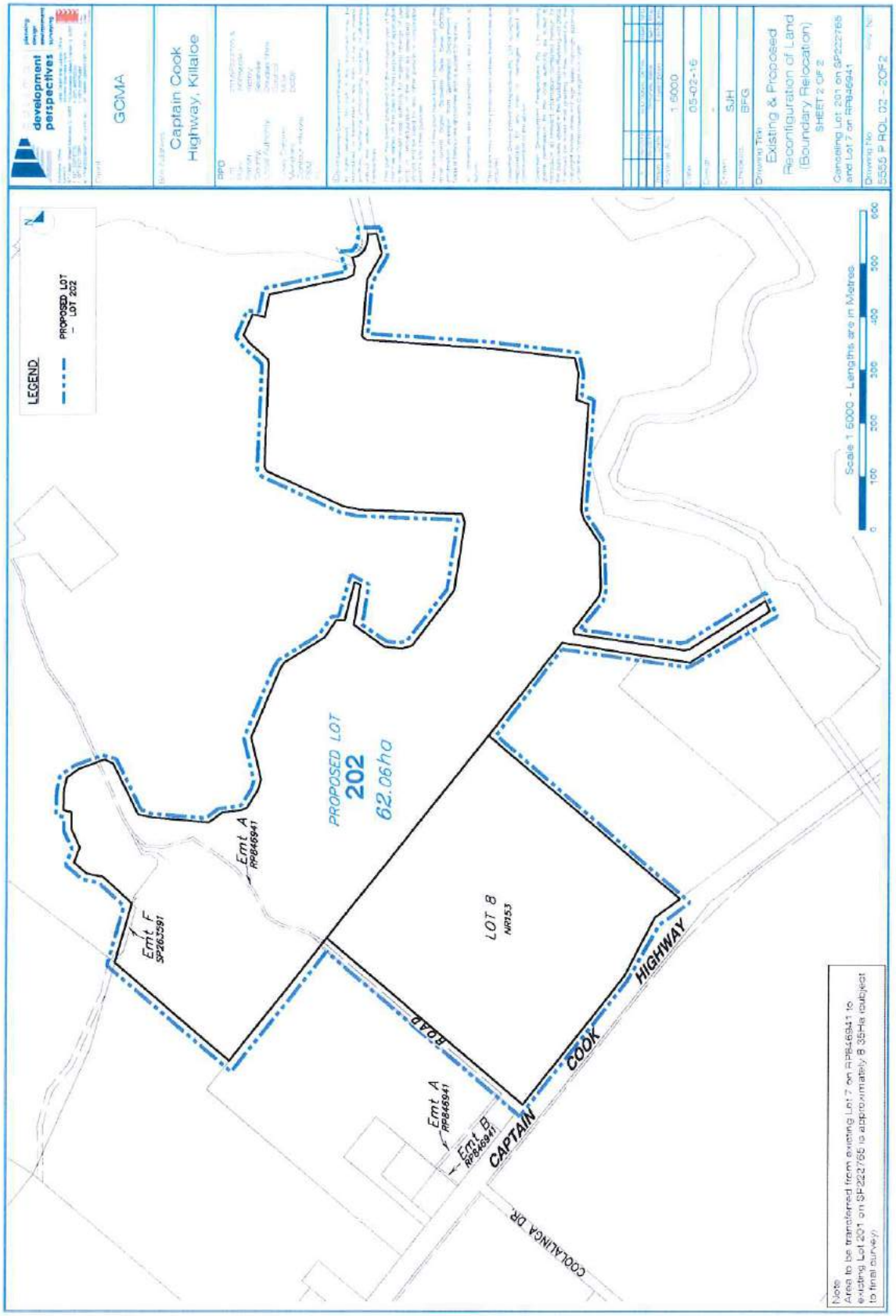
Attachment 3—Further advice

General advice	
Ref	**State Planning Policy July 2014 interim development assessment provisions**
1.	Douglas Shire Council, in its role as assessment manager, must assess the development application against the State Planning Policy July 2014, and in particular the interim development assessment provisions (Part E), such Coastal environment, Water quality and Natural hazards, risk and resilience and to the extent it is relevant to the proposed development.
Further development permits, compliance permits or compliance certificates	
Ref	**Road access works approval**
2.	Under sections 62 and 33 of the *Transport Infrastructure Act 1994,* written approval is required from the Department of Transport and Main Roads to carry out road works that are road access works (including driveways) on a state-controlled road. Please contact the Department of Transport and Main Roads on 4045 7144 at the Cairns district office to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). **The road access works approval process takes time – please contact the Department of Transport and Main Roads as soon as possible to ensure that gaining approval does not delay construction.**
Applicable self-assessable codes	
Ref	**Self-assessable code MPO3 On-farm drain maintenance works involving the removal, destruction or damage of marine plant (Department of Agriculture and Fisheries)**
3.	Section 6.10 Marine plants are only removed from the bed and one bank from drains that are 2 to 8 metres wide.
4.	Section 6.5 The removal of marine plants is only undertaken where necessary to maintain the function of existing on-farm drains.
5.	Section 6.6 a. Mangroves are pruned or trimmed no more frequently than every 12 months; b. Mangroves are pruned or trimmed by no more than a third of their height.

Our reference: SDA-1015-024906
Your reference: 5555:BC

Attachment 4—Approved plans and specifications

SDA-1015-024906

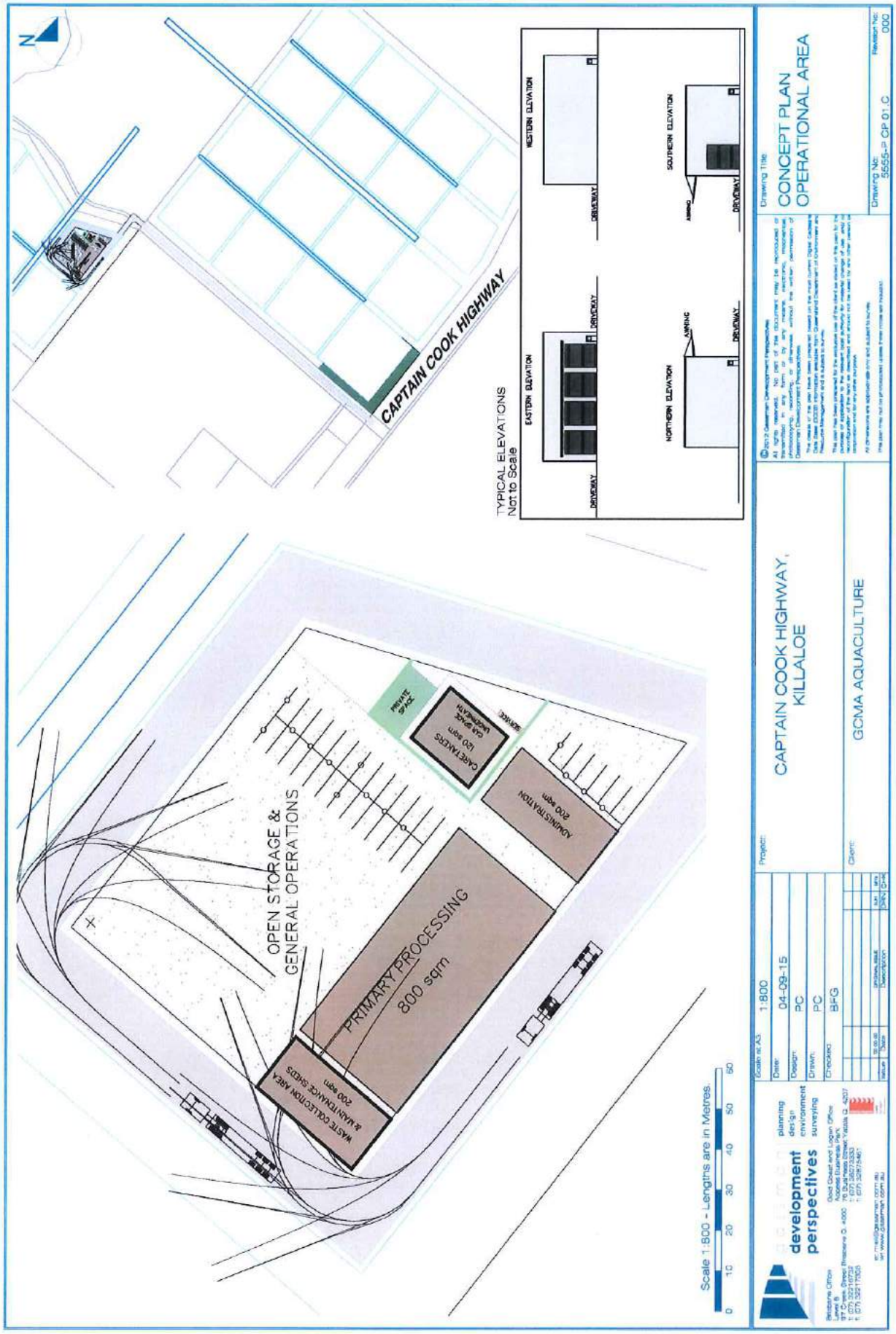


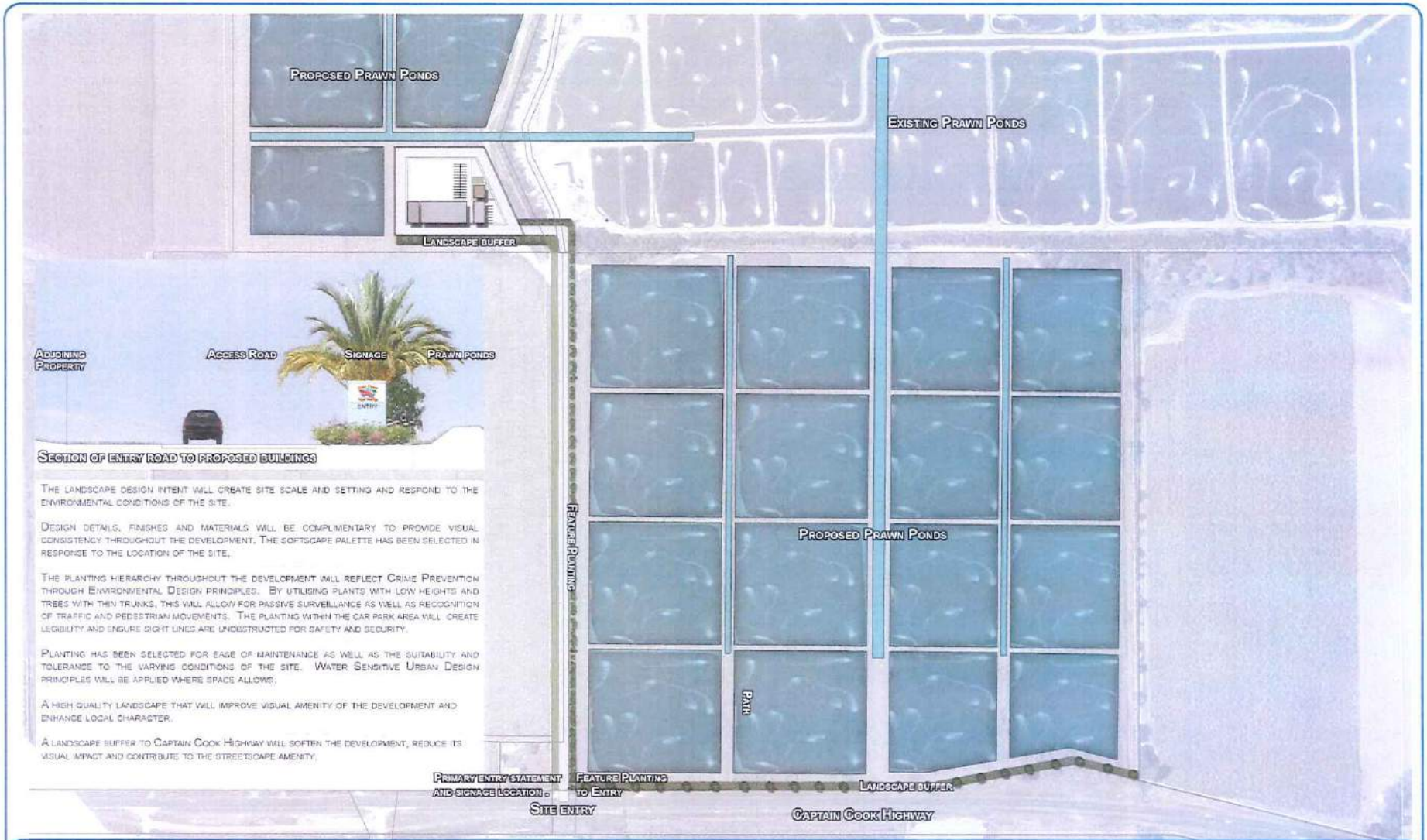
Department of Infrastructure, Local Government and Planning

SDA-1015-024906

Department of Infrastructure, Local Government and Planning

SDA-1015-024906





Section of entry road to proposed buildings

The landscape design intent will create site scale and setting and respond to the environmental conditions of the site.

Design details, finishes and materials will be complimentary to provide visual consistency throughout the development. The softscape palette has been selected in response to the location of the site.

The planting hierarchy throughout the development will reflect Crime Prevention through Environmental Design principles. By utilising plants with low heights and trees with thin trunks, this will allow for passive surveillance as well as recognition of traffic and pedestrian movements. The planting within the car park area will create legibility and ensure sight lines are unobstructed for safety and security.

Planting has been selected for ease of maintenance as well as the suitability and tolerance to the varying conditions of the site. Water Sensitive Urban Design principles will be applied where space allows.

A high quality landscape that will improve visual amenity of the development and enhance local character.

A landscape buffer to Captain Cook Highway will soften the development, reduce its visual impact and contribute to the streetscape amenity.

gassman development perspectives | planning design environment surveying

Brisbane Office
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97 Creek Street Brisbane Q. 4000
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f (07) 3221 7309
w www.gassman.com.au

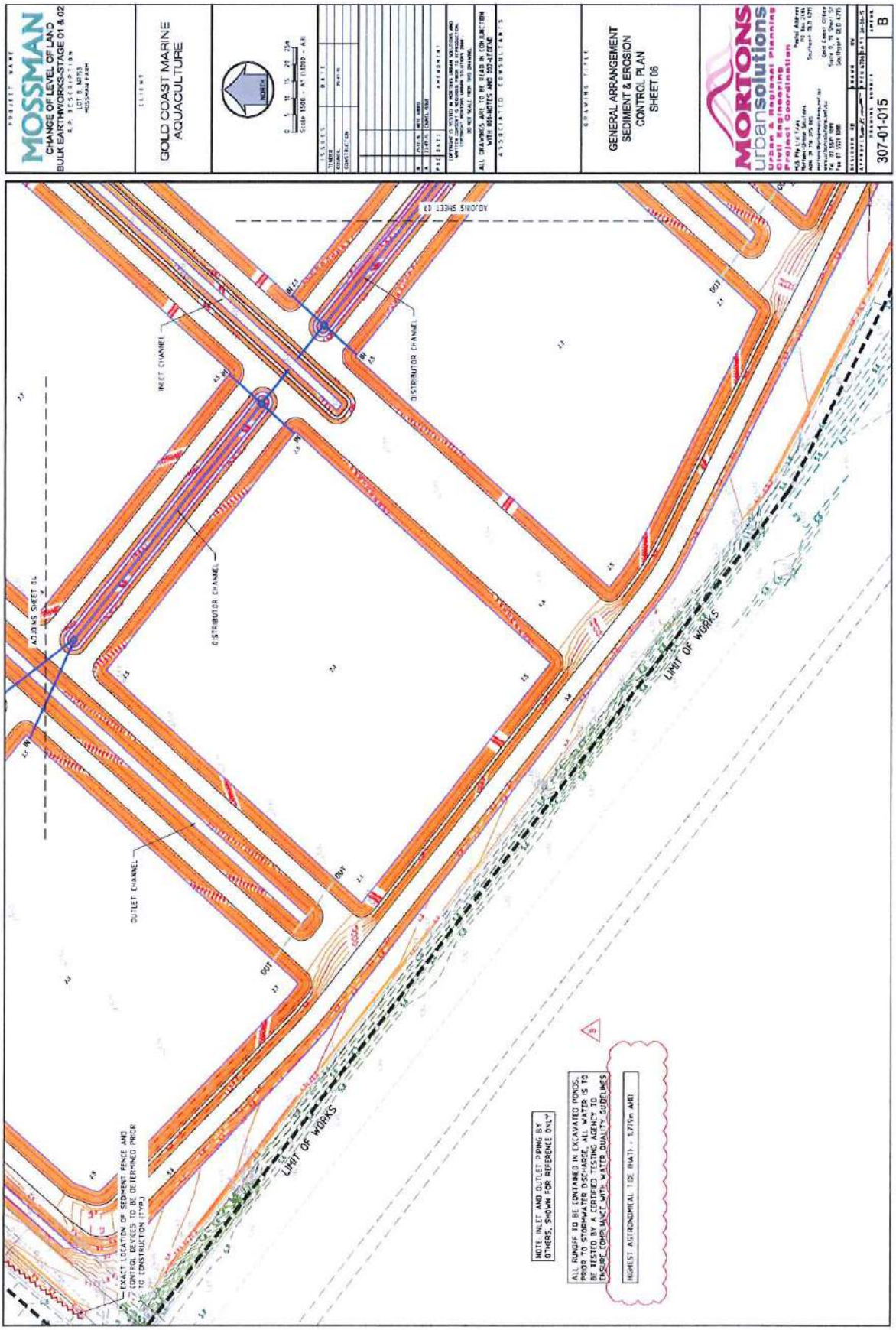
Gold Coast and Logan Office
Access Business Park
76 Business Street Yatala Q. 4207
t (07) 38073333
f (07) 32076491
e mail@gassman.com.au

Statement of Landscape Intent

Client - Gold Coast Marine Aquaculture
Address - Captain Cook Highway, Killaloe

Date: 30/06/2015
Scale: 1:3000 @ A3
Dwg No: 5555 L LI 01
Sheet: 1 of 3

SDA-1015-024996



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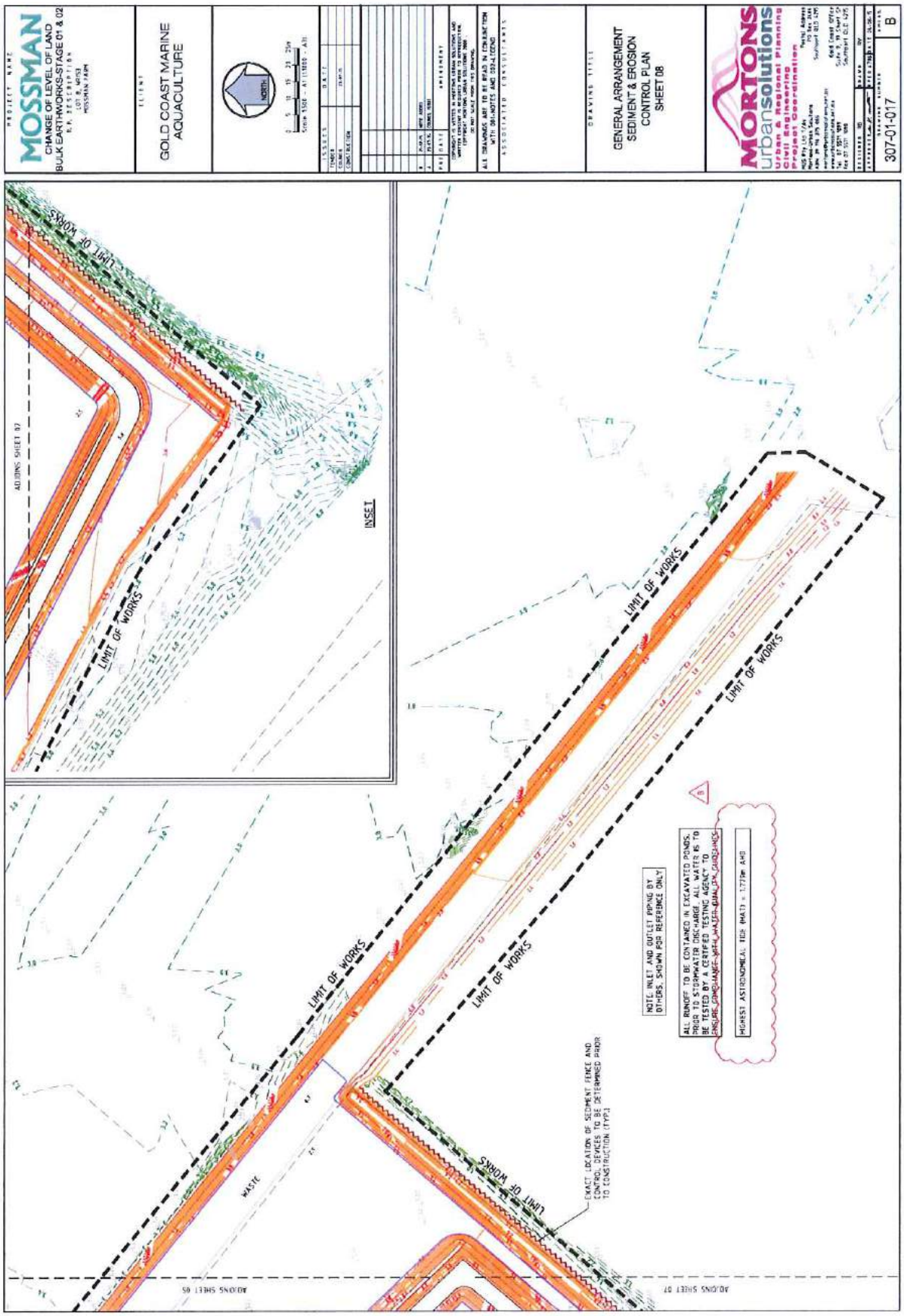

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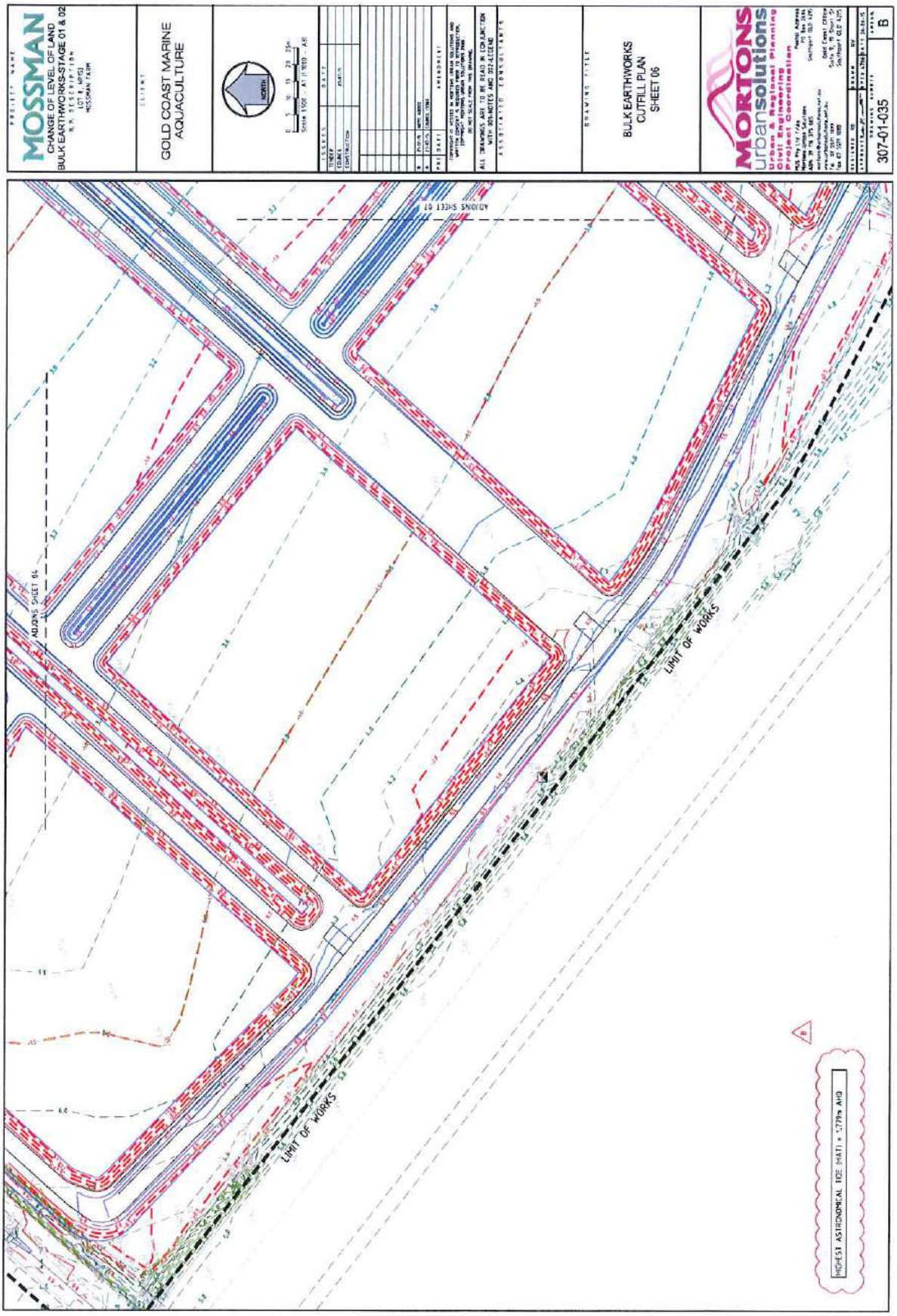
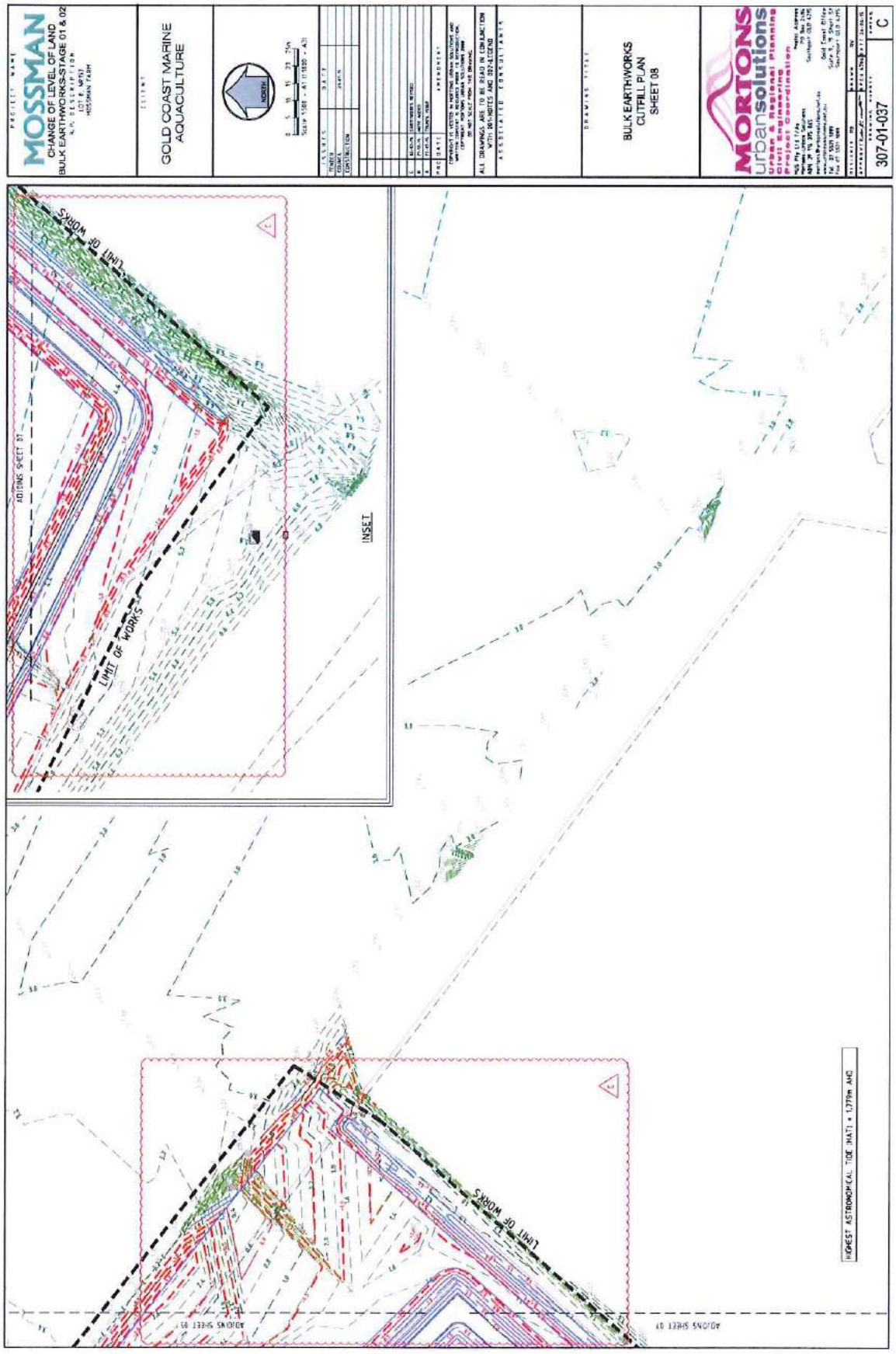


Department of Infrastructure, Local Government and Planning

SDA-1015-024906



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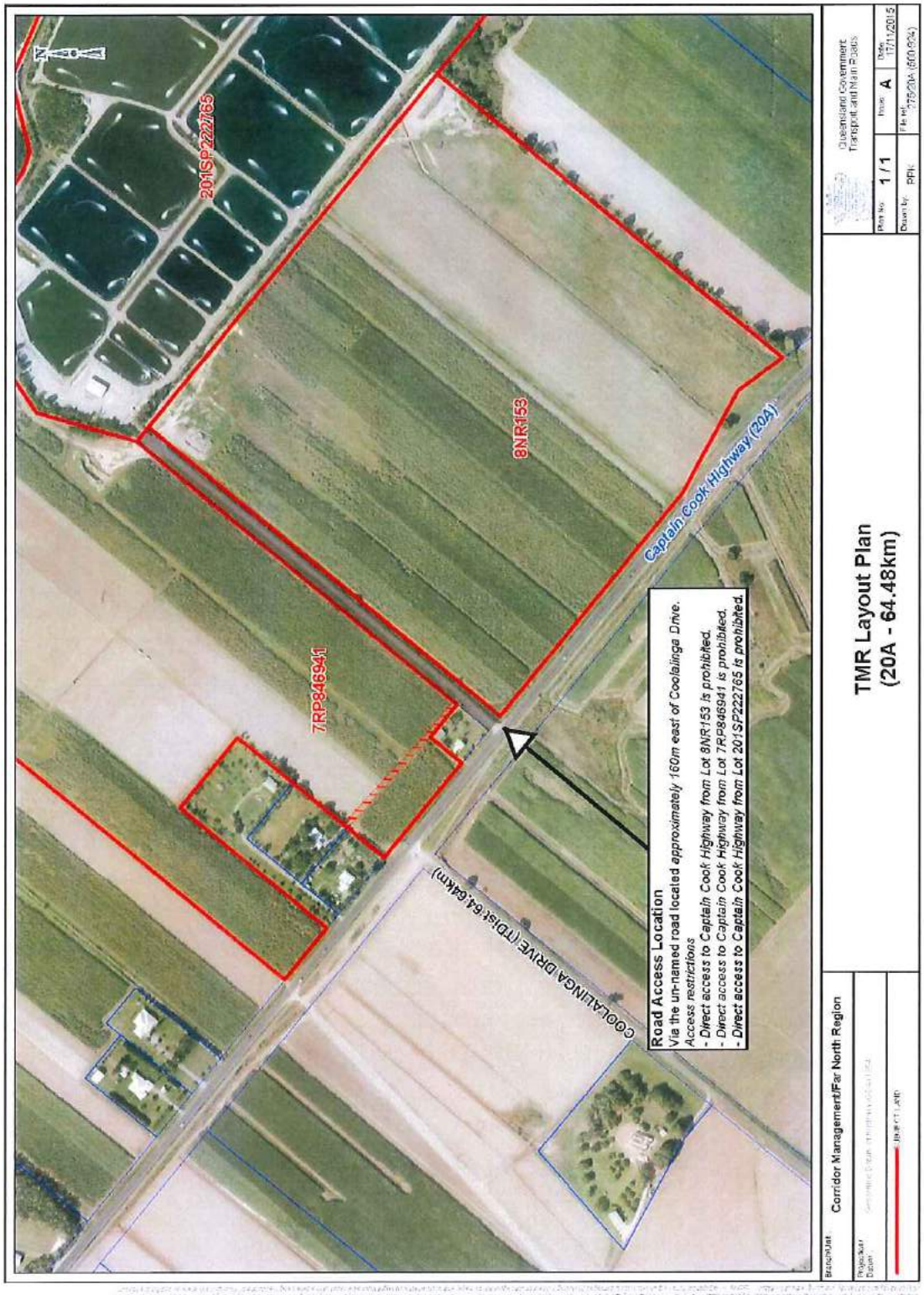
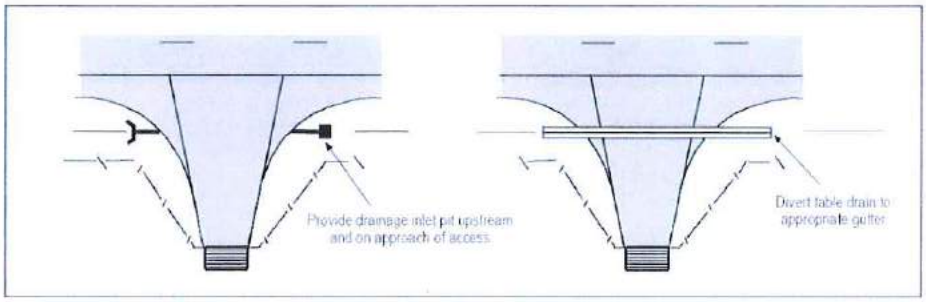
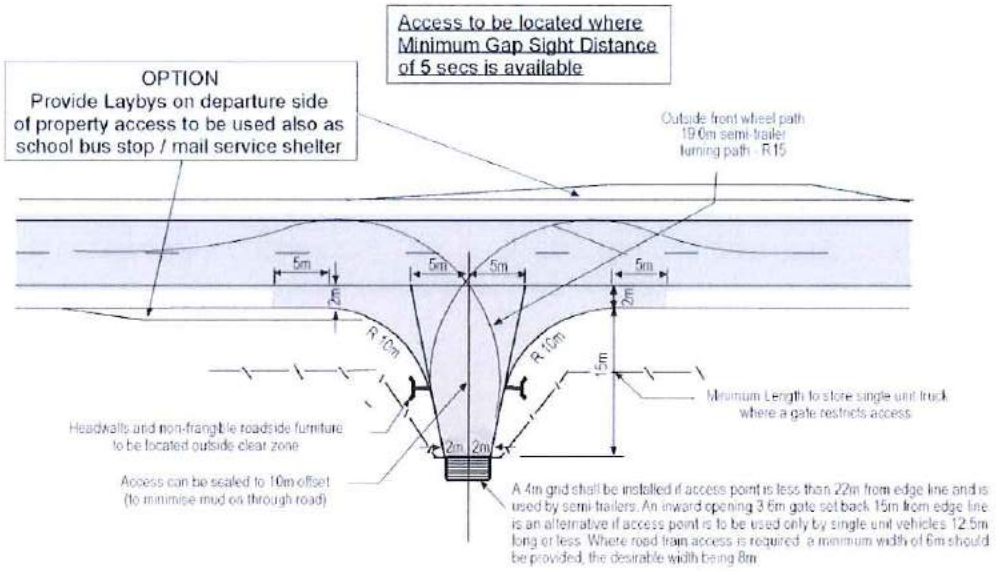




ALTERNATE TREATMENTS FOR TABLE DRAIN CROSSING



DOUGLAS SHIRE COUNCIL

2006 & 2008 Douglas Shire Planning Schemes Applicatio

INFRASTRUCTURE CHARGES NOTICE

Gold Coast Marine Aquaculture		0	0
DEVELOPERS NAME		ESTATE NAME	STAGE
Captain Cook Highway	Killaloe	8NR153, 201SP222765, 7RP846941	5000, 151233, 5004
STREET No. & NAME	SUBURB	LOT & RP No.s	PARCEL No.
Combined; ROL, MCU, Ops Wrks	1044/2015	25-May-16	Four (4)
DEVELOPMENT TYPE	COUNCIL FILI		VALIDITY PERIOD (years)
775426	1		
DSC Reference Doc . No.	VERSION No.		

		Use	Charge per Use	Amount Due	Amount Paid	Receipt Code & GL Code
Rural Areas - Water Only						
	proposed	800	42.50	34,000.00		
		200	55.74	11,148.00		
		1	11,411.06	11,411.06		
	existing	0	0.00	0.00		
	Total			**56,559.06**		
Urban Areas - Water only						
	proposed	0	0.00	0.00		
		0	0.00	0.00		
	existing	0	0.00	0.00		
	Total			**0.00**		
Urban Areas - Water & Sewer						
	proposed	0	0.00	0.00		
		0	0.00	0.00		
	existing	0	0.00	0.00		
	Total			**0.00**		
			TOTAL	**56,559.06**		

Prepared by	D Lamond	25-May-16	**Amount Paid**	
Checked by	N Beck	25-May-16	**Date Paid**	
Date Payable			**Receipt No.**	
Amendments		**Date**	**Cashier**	

Note:

The Infrastructure Charges in this Notice are payable in accordance with Part 2 Division 1 of the *Sustainable Planning Act 2009 (SPA).*

Charges are payable to: Douglas Shire Council. You can make payment at any of Council's Business Offices or by mail with your cheque or money order to Douglas Shire Council, PO Box 723, Mossman QLD 4873. Cheques must be made payable to Douglas Shire Council and marked 'Not Negotiable.' Acceptance of a cheque is subject to collection of the proceeds. Post dated cheques will not be accepted

Any enquiries regarding Infrastructure Charges can be directed to the Development & Environment, Douglas Shire Council on 07 4099 9444 or by email on enquiries@douglas.qld.gov.au