



Gladstone Ports Corporation

Growth, Prosperity, Community.

GPC Document No. 1474356
GPC Ref: DA2018/12
Your Ref.:

12 February 2019

Gladstone Ports Corporation Limited
c/- Anthea Bennett
PO Box 259
GLADSTONE QLD 4680

Email: bennetta@gpcl.com.au

Dear Ms Bennett

DECISION NOTICE – APPROVAL WITH CONDITIONS – DA2018/12

(GIVEN UNDER S63 PLANNING ACT 2016 AND THE PROVISIONS OF GLADSTONE PORTS CORPORATION LAND USE PLAN 2012)

1. Application Details

This development application was **properly made** to the Gladstone Ports Corporation Limited on **17 December 2018**.

Application Number:	DA2018/12
Applicant Name:	Gladstone Ports Corporation Limited
Applicant Contact Details:	Anthea Bennett Gladstone Ports Corporation Limited PO BOX 259 GLADSTONE QLD 4680 bennetta@gpcl.com.au
Approvals Sought:	Operational works that is tidal works on SPL
Details of Proposed Development:	Removal of an existing storm water pipe and installation of a new storm water drainage outlet in the tidal area.
Location Street Address:	Newman Street BURNETT HEADS QLD 4670
Location Real Property Description:	Lot 276 on SP128643 and Lot 501 on SP279707
Land Owner:	Department of Natural Resources, Mines & Energy and Gladstone Ports Corporation
Present Zoning & Precinct	Strategic Port Land – Port Industry Strategic Port Land – Terminals/Wharves

2. Details Of Proposed Development

Stage 1 only - the Removal of an existing storm water pipe and installation of a new storm water drainage outlet in the tidal area.

3. Details Of Decision

This development application was **decided** on **12 February 2019**.

This development application is **approved in full with conditions**. These conditions are set out in Attachment 1 and are clearly identified to indicate whether the assessment manager or a concurrence agency imposed them.

4. Details Of Approval

This development approval is a **Development Permit** given for:

- a) Strategic Port Land – *Planning Regulation 2017* reference: Schedule 10, part 13 - Ports, division 5 - Strategic Port Land, subdivision 2, Table 1; and
- b) Operational Works that is Tidal Works – *Planning Regulation 2017* reference: Schedule 10, part 17 – Tidal Works or work in a coastal management district, division 3, Table 1, Item 1; and
Schedule 10, part 17 - Tidal Works or work in a coastal management district, division 3, Table 2, Item 1.

5. Conditions

This development approval is subject to the conditions in Attachment 1 - Part 1 and Part 2.

6. Further Development Permits

Please be advised that the following development permits are required to be obtained before the development can be carried out:

1. Not applicable

7. Properly made submissions

Not applicable – No part of the application required public notification.

8. Referral Agencies for the Application

The referral agencies for this application are:

For an application involving	Name of referral agency	Advice agency or concurrence agency	Address
Operational Works that is Tidal Works	Department of State Development, Manufacturing, Infrastructure and Planning	Concurrence	Wide Bay Burnett State Assessment Referral Agency (SARA) PO Box 979 Bundaberg Qld 4670 WBBSARA@dspd.mip.qld.gov.au

9. Approved Plans and Specifications –

Copies of the following plans, specifications or drawings are enclosed in **Attachment 2**:

Drawing/report title	Prepared by	Date	Reference no.	Version
Aspect of development: Operational Work that is Tidal Works and work on SPL				
Buss St Realignment and Drainage Stage 1				
Detailed Design – Locality Plan and Drawing Index	RMA Engineers	15/03/2018	C-G0101	C
Detailed Design – Existing Services Plan	RMA Engineers	15/03/2018	C-G0201	A
Detailed Design – Stormwater Catchment Plan	RMA Engineers	15/03/2018	C-D0101	A
Detailed Design – Stormwater Layout Plan	RMA Engineers	15/03/2018	C-D0201	B
Detailed Design – Stormwater Longitudinal Section -1	RMA Engineers	15/03/2018	C-D0301	B
Detailed Design – Stormwater Details -1	RMA Engineers	15/03/2018	C-D0402	B
Reinforcing Steel – Lap Lengths	DTMR	03/2018	1044	L
Pipe Culverts – Wingwalls, headwall and apron for pipe diameter 750 to 2400 – Drawing 1 of 2	DTMR	04/2017	1304	I
Pipe Culverts – Wingwalls, headwall and apron for pipe diameter 750 to 2400 – Drawing 2 of 2	DTMR	04/2017	1304	I

10. Currency Period for the Approval

This development approval will lapse at the end of the periods set out below:

- For Material Change of Use this approval lapses 6 years after this approval decision date – reference section 85 of the *Planning Act 2016*;
- For all other approvals excluding Reconfiguring a Lot, the approval lapses 2 years after this approval decision date – reference section 85 of the *Planning Act 2016*.

11. Rights of Appeal

The rights of applicants to appeal to a tribunal or the Planning and Environment Court against decisions about a development application are set out in chapter 6, part 1 of the *Planning Act 2016*. For particular applications, there may also be a right to make an application for a declaration by a tribunal (see chapter 6, part 2 of the *Planning Act 2016*).

Attachment 3 is an extract from the *Planning Act 2016* that sets down the applicant's appeal rights and the appeal rights of a submitter.

For further information please contact Judy Horsfall, Planning Officer, on 07 4976 1314 or via email horsfallj@gpcl.com.au or Sarah Hunter, Principal Planner, on 07 4976 1287 or via email hunters@gpcl.com.au.

Yours sincerely



Sarah Hunter
Principal Planner

12 February 2019

Cc: Bundaberg Regional Council
Wide Bay Burnett SARA

Enc. Attachment 1: Conditions of Approval
Part 1 – Conditions imposed by the assessment manager
Part 2 – Conditions required by the referral agency response
a) Department of State Development, Manufacturing, Infrastructure and
Planning, 5 February 2019

Attachment 2: Approved plans and specifications

Attachment 3: Extract of appeal provisions

ATTACHMENT 1: CONDITIONS OF APPROVAL

PART 1: ASSESSMENT MANAGER CONDITIONS

In general the development proposal is in compliance with the requirements of Gladstone Ports Corporation Limited (GPC). This development approval is subject to each of the following conditions which are stated by GPC, the assessment manager.

Part 1a: Approval sought under *Planning Act 2016* – Operational Works that is Tidal Works on Strategic Port Land

GENERAL

1. The proposed development must be carried out generally in accordance with the plans as lodged with the application except where modified by conditions of this permit.
2. Unless otherwise stated, all conditions must be completed prior to the commencement of the use.
3. Where additional “approval” is required under these conditions by GPC for drawings or documentation, the proponent must submit for review, amend to the satisfaction of, and obtain written acceptance from the Gladstone Ports Corporation. Only in this manner can compliance with the condition be achieved.
4. All other relevant regulatory approvals must be obtained before commencement of works or operation of the facility.
5. The proponent must inform GPC of completion of works within 14 days of practical completion and undertake a site inspection with GPC. The proponent must also certify that the development is constructed as per design and provide RPEQ certification that the development has been constructed generally in accordance with the approved plans.

ENGINEERING & PLANNING

6. Upon completion of the works, the proponent must supply GPC with RPEQ certified “As Constructed” plans in both hard copy (2 of) and electronic (CAD format) which illustrate all infrastructure and services installed on and adjacent to Port land associated with the activity.
7. Any site lighting used during construction should not impact on the visibility of Navigational Aids utilised for the primary shipping channels nor illuminate a landward glare beyond the site boundary. Lighting must be continually reviewed during construction and operations with respect to navigation and will be revised as required in response to negative impacts as they arise.

ENVIRONMENT

Management Plans

8. Prior to construction and operational phases of the works commencing on site, a Construction Environmental Management Plan (CEMP) specific to these works, are to be submitted to GPC for approval.

The activity must be undertaken in accordance with the approved CEMP that ensures:

- (a) environmental risks are identified, managed and continually assessed in relation to the activity (this includes construction, operations, and rehabilitation as applicable);
- (b) that staff are trained and aware of their obligations under the EMP;

- (c) that reviews of environmental performance are undertaken at least annually; and
- (d) any amendments to the EMP are to be submitted to GPC for review and approval.

Incident notification

9. Gladstone Ports Corporation Environment Hotline (07) 4976 1617 is to be notified of the occurrence of any:
- (a) release / spill of contaminants (e.g. fuels / chemicals / sewerage) greater than 250L to land;
 - (b) release / spill of contaminants (e.g. fuels / chemicals / sewerage) of any amount to water;
 - (c) any environmental complaints received by the holder of this approval; and
 - (d) non-compliance with conditions of this approval or any other environmental approval obtained in relation to the approved activity.

PART 2: REFERRAL AGENCY CONDITIONS

Referral Agency Name: Department of State Development, Manufacturing, Infrastructure and Planning



Department of
**State Development,
 Manufacturing,
 Infrastructure and Planning**

Our reference: 1812-8999 SRA
 Your reference: DA2018/12

5 February 2019

Port of Gladstone Ports Corporation Limited
 PO Box 259
 GLADSTONE QLD 4680
 hunters@gpcl.com.au

Attention: Sarah Hunter

Dear Ms Hunter

Referral agency response—with conditions

(Given under section 56 of the *Planning Act 2016*)

The development application described below was properly referred to the Department of State Development, Manufacturing, Infrastructure and Planning on 24 December 2018.

Applicant details

Applicant name:	Gladstone Ports Corporation Limited C/- Anthea Bennett
Applicant contact details:	40 Goondoon Street PO Box 259 GLADSTONE QLD 4680 bennetta@gpcl.com.au

Location details

Street address:	Buss Street, and 45 Wharf Drive BURNETT HEADS
Real property description:	Lot 276 on SP128643, and Lot 501 on SP279707
Local government area:	Bundaberg Regional Council

Application details

Development permit	Operational Work for Stormwater Drainage Outlet
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Referral triggers

The development application was referred to the department under the following provisions of the Planning Regulation 2017:

- 10.17.3.1.1 Tidal works or work in a coastal management district

- 10.17.3.2.1 Tidal works or work in a coastal management district

Conditions

Under section 56(1)(b)(i) of the *Planning Act 2016* (the Act), the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for decision to impose conditions

The department must provide reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Approved plans and specifications

The department requires that the plans and specifications set out below and enclosed must be attached to any development approval.

Drawing/report title	Prepared by	Date	Reference no.	Version/issue
Aspect of development: Operational Work				
Stormwater Layout Plan (as amended in red)	RMA Engineers	4 June 2018	C-D0201	B
Existing Services Plan	RMA Engineers	15 March 2018	C-G0201	A

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

For further information please contact Cavannah Deller, Planning Officer, on (07) 4331 5604 or via email WBBSARA@dsmip.qld.gov.au who will be pleased to assist.

Yours sincerely



Luke Lankowski
Manager, Planning

cc Gladstone Ports Corporation Limited, bennetta@gpcl.com.au

enc Attachment 1—Conditions to be imposed
Attachment 2—Reasons for decision to impose conditions
Approved plans and specifications

Attachment 1—Conditions to be imposed

No.	Conditions	Condition timing
Operational Work		
Schedule 10, Part 17, Division 3, Table 1, Item 1 – Tidal Works or Work in a Coastal Management District – The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of Department of Environment and Science to be the enforcement 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 stormwater outlet must be carried out generally in accordance with the following plans (as amended in red): <ul style="list-style-type: none"> • Stormwater Layout Plan, prepared by RMA Engineers, dated 4 June 2018, reference C-D0201, revision B; and • Existing Services Plan, prepared by RMA Engineers, dated 15 March 2018, reference C-G0201, revision A. 	For the duration of works
2.	For the proposed works, only use clean materials and ensure that the works do not cause contamination.	For the duration of the works
3.	Erosion and sediment control measures which are in accordance with Best Practice Erosion and Sediment Control (BPESC) Guidelines for Australia (International Erosion Control Association), are to be installed and maintained to prevent the release of sediment to tidal waters.	For the duration of the works
4.	<p>(a) In the event that the works cause disturbance or oxidation of acid sulfate soil, the affected soil must be treated and thereafter managed (until the affected soil has been neutralised or contained) in accordance with the current Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines, prepared by Department of Science, Information Technology and Innovation and the Arts, 2014.</p> <p>(b) Certification by an appropriately qualified person(s), confirming that the affected soil has been neutralised or contained, in accordance with (a) above is to be provide to palm@des.qld.gov.au or mailed to:</p> <p style="padding-left: 40px;">Department of Environment and Science Permit and License Management Implementation and Support Unit GPO Box 2454 BRISBANE QLD 4001</p> <p>Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to soil chemistry or acid sulfate soil management and can give authoritative assessment, advice and analysis in relation to acid sulfate soil management using the relevant protocol, standards, methods or literature.</p>	<p>(a) Upon disturbance or oxidation until the affected soil has been neutralised or contained.</p> <p>(b) At the time the soils have been neutralised or contained.</p>
5.	The entire existing stormwater outlet is to be removed and disposed of to an appropriately licensed facility.	Within three months of commencement of the demolition

Attachment 2—Reasons for decision to impose conditions

The reasons for this decision are:

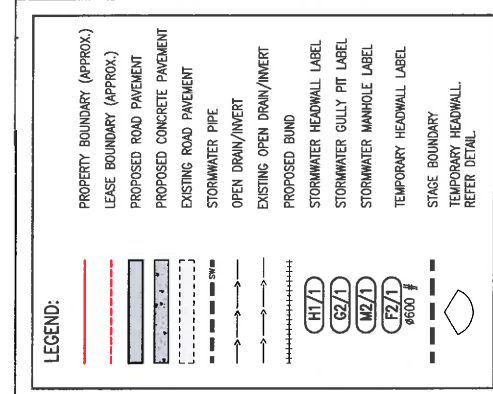
- To ensure the development is carried out generally in accordance with the plans of development submitted with the application.
- To ensure the development avoids or minimises adverse impacts on coastal resources and their values.
- To ensure any disturbance to acid sulfate soils is managed to prevent impacts to coastal environments.
- To ensure demolition of tidal work occurs in a timely fashion and does not adversely impact on coastal processes.

Decision

- The development is for operational work for a stormwater drainage outlet at the Port of Bundaberg, a State Development Area.
- The referral agency response was issued 5 February 2019.
- The referral agency requires conditions to attach to any development approval. The conditions ensure the development complies with State Code 8: Coastal Development and Tidal Works.

Relevant Material

- Development application common material
- State Development Assessment Provisions (SDAP) published by the Department of State Development, Manufacturing, Infrastructure and Planning
- Development Assessment Rules (DA Rules) published by the Department of State Development, Manufacturing, Infrastructure and Planning
- *Planning Act 2016*
- Planning Regulation 2017



* MINIMUM FINISHED FLOOR LEVEL IS BASED ON 300mm FREEBOARD FOR LOCAL STORMWATER RUNOFF. OTHER FLOOD LEVELS (SUCH AS RIVERINE FLOODING) HAVE NOT BEEN CALCULATED BY RMA BUT SHOULD BE CONSIDERED BY THE LAND OWNER IN CONSULTATION WITH THE LOCAL AUTHORITY BEFORE ADOPTING A FINISHED FLOOR LEVEL.

PRIVATE FIELD INLET, CONNECTION, BUND AND FIELD INLET TO COLLECT AND CONVEY Q₁₀ FOR LEASE AREA. REFER TEMPORARY HEADWALL DETAIL.

EXISTING SERVICES NOTES:

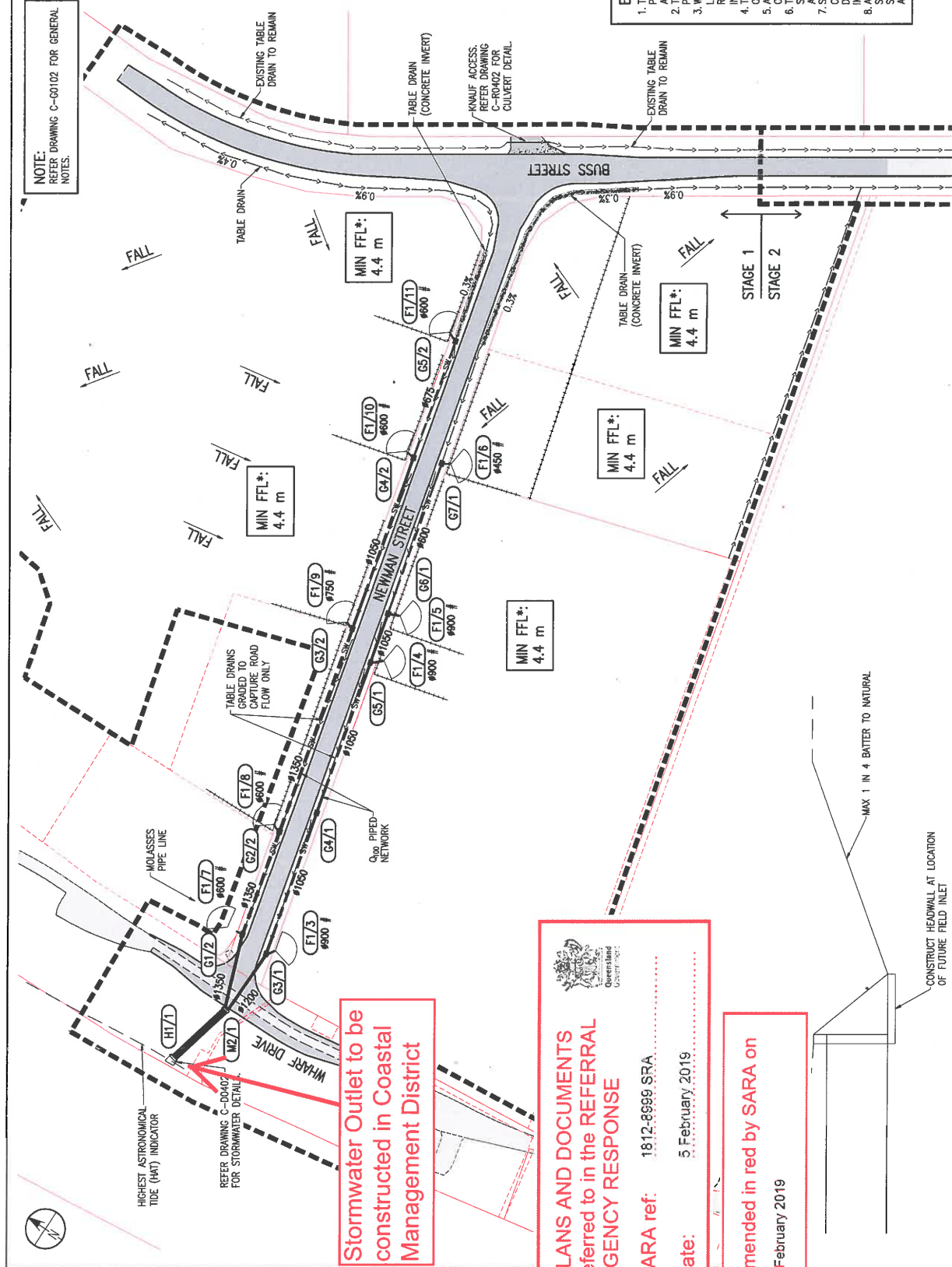
1. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
2. THE CONTRACTOR IS TO CONTACT DIA BEFORE YOU DIG ON 1100 WHILE ALL DUE CARE IS TAKEN BY RMA IN CONFIRMING THE LOCATION OF EXISTING SERVICES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SERVICE LOCATIONS. IN SOME INSTANCES SERVICE MAY BE OMITTED FROM RMA'S DRAWINGS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE LOCATING OF ALL SERVICES BY THE RELEVANT AUTHORITIES.
4. A REPRESENTATIVE FOR EACH SERVICE PROVIDER TO BE PRESENT ON SITE WHEN WORKING WITHIN 3.0M OF EACH EXISTING SERVICE.
5. THE CONTRACTOR IS TO CONFIRM THE LOCATION & LEVEL OF ALL SEWER AND DRAINAGE CONNECTION POINTS PRIOR TO COMMENCING CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
6. SHOULD ANY UNEXPECTED SERVICE CONNECTIONS BE IDENTIFIED ON DRAINAGE DRAWINGS THEN THE CERTIFYING ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
7. ANY WORKS REQUIRED TO OR NEAR AN AUTHORITIES SERVICES SHALL BE CARRIED OUT TO THE APPROVAL OF, UNDER THE SUPERVISION OF AND TO THE STANDARD REQUIRED BY THE AUTHORITY.

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



Est Ref No. 12386
DPC DRAWING No.
C-D0201
Sheet/Part No.
A1
REV. USE REF/ISSP No.
B

**PORT OF BUNDABERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
STORMWATER LAYOUT PLAN**



STORMWATER LAYOUT PLAN
SCALE 1:1000(A1)

TYPICAL TEMPORARY HEADWALL DETAIL
DO NOT SCALE

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
SARA ref: 1812-8699 SRA
Date: 5 February 2019
Amended in red by SARA on 5 February 2019

REV	DATE	DESCRIPTION	DESIGN	APPR	ENG. NO.	REFERENCE DRAWING TITLE
A	18/02/19	FOR APPROVAL	MAC	DTK	JWF	
B	18/02/19	OUTLET DETAILS	MAC	DTK	JWF	

FILE NAME	DESCRIPTION	BOOKS
G15-092	DETAIL & LEVEL SURVEY BY INSITE SAC	

DATE	DRAWN	CHECKED	DESIGNED	APPROVED
15/03/18	N. TRANTER	C. CHEEK	D. DUBANSKI	J. WARDLE
15/03/18	M. OLANCY			
15/03/18				

CD	DESIGN	APPR	ENG. NO.
MAC	DTK	JWF	
MAC	DTK	JWF	

ALL DIMENSIONS IN METRES UNLESS INDICATED OTHERWISE
* DIMENSIONS ON ORIGINAL DRAWING

GLADSTONE PORTS CORPORATION
VENDOR DRAWING
DRAWN: N. TRANTER 15/03/18
CHECKED: M. OLANCY 15/03/18
DESIGNED: D. DUBANSKI 15/03/18
APPROVED: J. WARDLE 15/03/18

THIS DRAWING REMAINS THE PROPERTY OF THE GLADSTONE PORTS CORPORATION AND MUST NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF THE GLADSTONE PORTS CORPORATION.

RMA Engineers
www.rmaeng.com.au
RMA Engineers
Jason Vargo
APCC 7788

PROPERTY DESCRIPTION:
 LOCAL AUTHORITY: BUNDABERG REGIONAL COUNCIL
 PROJECT NO: 1812-8989-SRA
 COUNTY: COOK

NOTE:
 REFER DRAWING C-60102 FOR GENERAL NOTES.

- LEGEND:**
- PROPERTY BOUNDARY (APPROX.)
 - LEASE BOUNDARY (APPROX.)
 - EXISTING ROAD PAVEMENT
 - EXISTING STORMWATER LINE
 - EXISTING SEWER LINE
 - EXISTING WATER MAIN
 - EXISTING TELECOM
 - EXISTING ELECTRICAL
 - POT HOLE LOCATION
 - EXISTING FENCE
 - STAGE BOUNDARY
 - NATURAL MINOR CONTOURS
 - NATURAL MAJOR CONTOURS

EXISTING SERVICES NOTE:
 SERVICES SHOWN HAVE BEEN PLOTTED FROM THE DETAILED SURVEY AND DIAL BEFORE YOU DIG INFORMATION. POT HOLLING HAS BEEN COMPLETED TO VERIFY SERVICE ALIGNMENT AND DEPTH OF SOME SERVICES. ALL SERVICE ALIGNMENTS ARE INDICATIVE EXCEPT WHERE POT HOLLING HAS BEEN UNDERTAKEN.

CONTOUR NOTE:
 INTERVALS BETWEEN CONTOURS - 0.1m
 CONTOURS ARE NATURAL SURFACE LEVELS.

EXISTING SERVICES NOTES:

1. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
2. PRIOR TO COMMENCING ANY CONSTRUCTION WORKS THE CONTRACTOR IS TO CONTACT DIAL BEFORE YOU DIG ON 1100 WHILE ALL DUE CARE IS TAKEN BY DIAL IN CONFIRMING THE LOCATION OF EXISTING SERVICES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SERVICE LOCATIONS. IN SOME INSTANCES SERVICE MAY BE OMITTED FROM RMA'S DRAWINGS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE LOCATING OF ALL SERVICES BY THE RELEVANT AUTHORITIES.
4. AN INVESTIGATIVE FOR EACH SERVICE PROVIDED TO BE PRESENT AT THE LOCATION OF THE SERVICE PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
5. THE CONTRACTOR IS TO CONFIRM THE LOCATION & LEVEL OF ALL SEWER AND DRAINAGE CONNECTION POINTS PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
6. SHOULD INVERT LEVELS OR LOCATION OF ANY SEWER OR DRAINAGE CONNECTION POINTS DIFFER TO THAT INDICATED ON THIS DRAWING THE CERTIFYING ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
7. ANY WORKS REQUIRED TO OR NEAR AN AUTHORITIES SERVICES SHALL BE CARRIED OUT TO THE APPROVAL OF UNDER THE SUPERVISION OF AND TO THE STANDARD REQUIRED BY THE AUTHORITY.

0 20 40 80 80m
 1:2000(A1) 1:4000(A3)
 17245

RMA Engineers
 RMA Engineers
 11 Vespa
 APECH 1719

Get Ref No: 12308
 DRAWING No: **C-G0201**
 A1 (REV) / PART No:
 REV. NO. REV. DATE

PORT OF BUNDABERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
EXISTING SERVICES PLAN

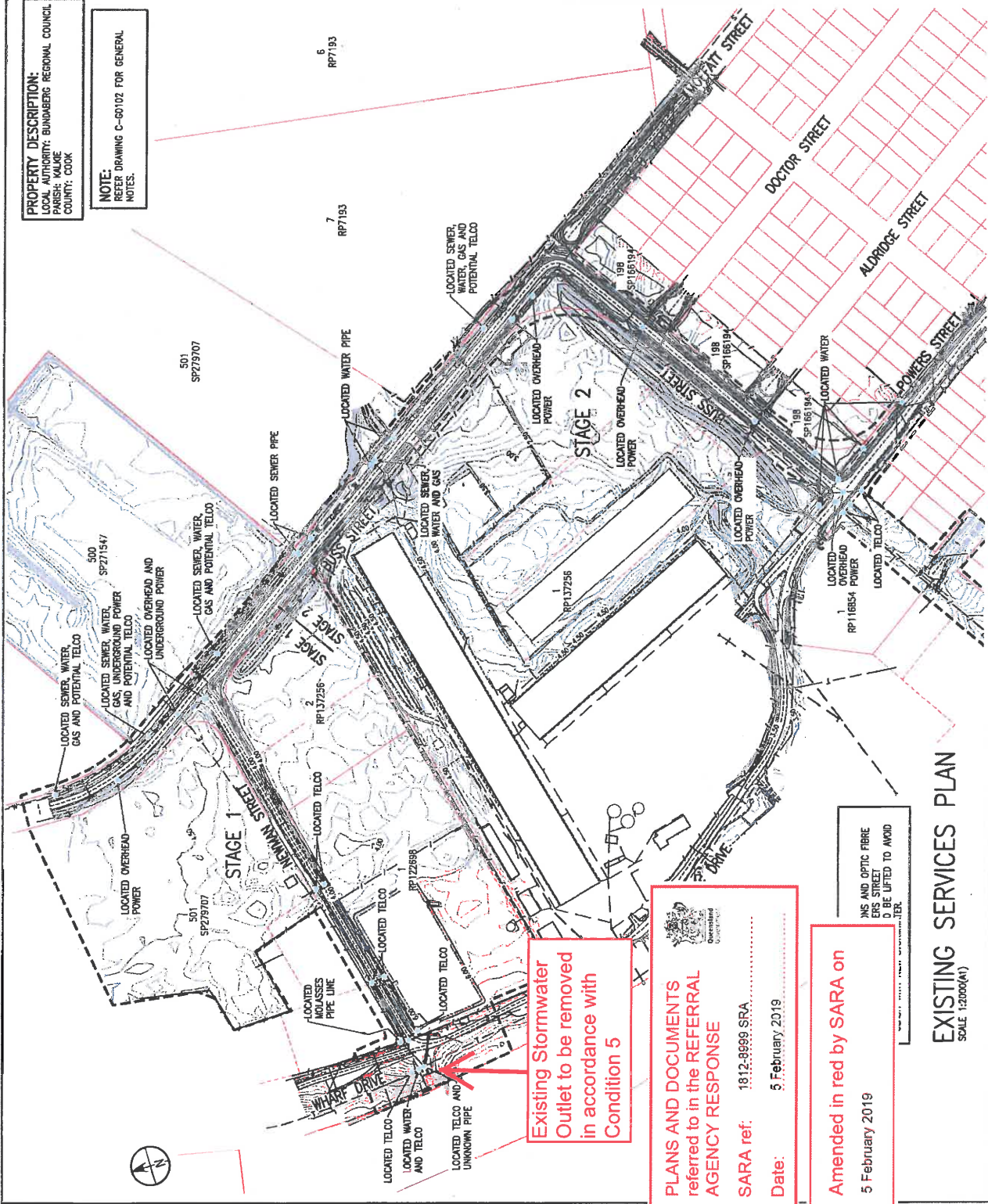
GLADSTONE PORTS CORPORATION
 VENDOR DRAWING

FILE NAME	DESCRIPTION	DATE	APPROVED
1812-8989	REVISION		
1812-8989	REVISION		
1812-8989	REVISION		
1812-8989	REVISION		
1812-8989	REVISION		

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REV. NO.	DATE	DESCRIPTION	BY	CHECKED	DATE	APPROVED
1	18/02/19	FOR APPROVAL				

EXISTING SERVICES PLAN
 SCALE 1:2000(A1)



Existing Stormwater Outlet to be removed in accordance with Condition 5

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
 SARA ref: 1812-8989-SRA
 Date: 5 February 2019

Amended in red by SARA on 5 February 2019

NIS AND OPTIC FIBRE CPS STREETS TO BE LIFTED TO AVOID INTERFERENCE



Department of
**State Development,
 Manufacturing,
 Infrastructure and Planning**

Department of State Development, Manufacturing, Infrastructure and Planning

Statement of reasons for application 1812-8999 SRA

(Given under section 56 of the *Planning Act 2016*)

Departmental role: Referral Agency

Applicant details

Applicant name: Gladstone Ports Corporation Limited
 C/- Anthea Bennett

Applicant contact details: 40 Goondoon Street
 PO Box 259
 GLADSTONE QLD 4680
 bennetta@gpcl.com.au

Location details

Street address: Buss Street, and 45 Wharf Drive BURNETT HEADS

Real property description: Lot 276 on SP128643, and Lot 501 on SP279707

Local government area: Bundaberg Regional Council

Development details

Development permit: Operational Work for Stormwater Drainage Outlet

Assessment matters

Aspect of development requiring code assessment	Applicable codes
1. Operational Work	State Development Assessment Provision, Version 2.4: <ul style="list-style-type: none"> • State Code 7: Maritime Safety; and • State Code 8: Coastal Development and Tidal Works

Reasons for the department's decision

The reasons for the decision are:

- The development does not impact the viable operation of aids to navigation.
- The development does not impact the safe operation of vessels in a navigable waterway.
- Subject to conditions, the development maintains coastal processes, and protects life, buildings and infrastructure from the impacts of coastal erosion.
- The development maintains appropriate use of, and access to and along, State coastal land.
- Subject to conditions the development maintains environmental values of receiving waters, and avoids the release of prescribed water contaminants to tidal waters.

Decision

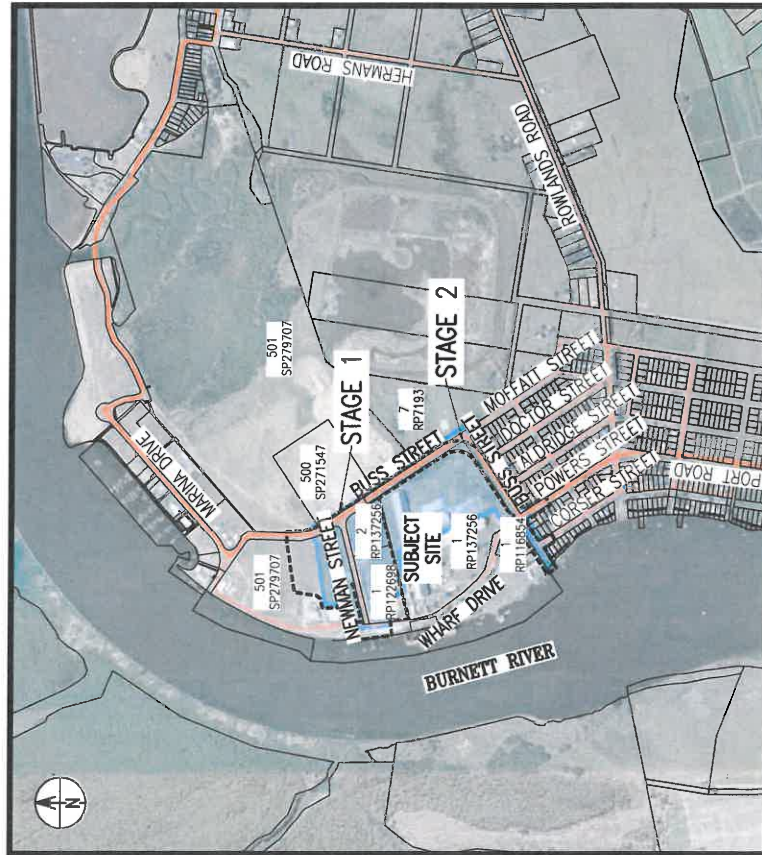
- The development is for operational work for a stormwater drainage outlet at the Port of Bundaberg, a State Development Area.
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- The referral agency requires conditions to attach to any development approval. The conditions ensure the development complies with State Code 8: Coastal Development and Tidal Works.

Relevant Material

- Development application common material
- State Development Assessment Provisions (SDAP) published by the Department of State Development, Manufacturing, Infrastructure and Planning
- Development Assessment Rules (DA Rules) published by the Department of State Development, Manufacturing, Infrastructure and Planning
- *Planning Act 2016*
- Planning Regulation 2017

ATTACHMENT 2: APPROVED PLANS AND SPECIFICATIONS

GLADSTONE PORTS CORPORATION PORT OF BUNDABERG, BUSS ST REALIGNMENT AND DRAINAGE STAGE 1



LOCALITY PLAN AND DRAWING INDEX
SCALE 1:10000(A1)

SHEET NUMBER	PLAN INDEX SHEET TITLE	REVISION
C-00101	LOCALITY PLAN AND DRAWING INDEX	C
C-00102	GENERAL NOTES	A
C-00201	EXISTING SERVICES PLAN	A
C-00201	TYPICAL ROAD CROSS SECTIONS	A
C-R0201	PAVEMENT DESIGN PLAN	A
C-R0301	NEWMAN STREET LAYOUT PLAN AND LONGITUDINAL SECTION	A
C-R0302	NEWMAN STREET CROSS SECTIONS - 1	A
C-R0303	NEWMAN STREET CROSS SECTIONS - 2	A
C-R0304	NEWMAN STREET CROSS SECTIONS - 3	A
C-R0305	BUSS STREET LAYOUT PLAN AND LONGITUDINAL SECTION	A
C-R0306	BUSS STREET CROSS SECTIONS - 1	A
C-R0307	BUSS STREET CROSS SECTIONS - 2	A
C-R0308	WHARF DRIVE LAYOUT, SIGNAGE AND LINEMARKING PLAN	A
C-R0309	WHARF DRIVE CROSS SECTIONS	A
C-R0401	INTERSECTION LAYOUT PLAN	A
C-R0402	CONCRETE DRAIN SETOUT PLAN	A
C-R0601	EROSION AND SEDIMENT CONTROL PLAN	A
C-00701	SIGNAGE AND LINEMARKING PLAN	A
C-00701	STORMWATER CATCHMENT PLAN	A
C-00201	STORMWATER LAYOUT PLAN	B
C-00301	STORMWATER LONGITUDINAL SECTION - 1	B
C-00302	STORMWATER LONGITUDINAL SECTION - 2	A
C-00303	STORMWATER LONGITUDINAL SECTION - 3	A
C-00401	STORMWATER DETAILS - 1	A
C-00402	STORMWATER DETAILS - 2	B
C-00601	STORMWATER CALCULATION TABLE	A

I.P.W.E.A.Q STANDARD DRAWINGS

SHEET NUMBER	SHEET TITLE
RS-056	DRIVEWAYS - RURAL DRIVEWAY
RS-065	CONCRETE PATHWAY CONSTRUCTION DETAIL
RS-170	PAVEMENT EXTENSION TRENCHING AND WIDENING
DS-010	STORMWATER ACCESS CHAMBER DETAIL - 1050 TO 2100 DIAMETER
DS-019	MANHOLE COVER (ROADWAY) 1050 TO 2100 DIA.
DS-020	MANHOLE COVER (NON-ROADWAY) 1050 TO 2100 DIA.
DS-021	MANHOLE COVER CONCRETE INELL (PEDESTRIAN TRAFFIC) 1050 TO 2100 DIA.
DS-030	EXCAVATION, BEDDING AND BACKFILLING OF STORMWATER DRAINAGE PIPES
DS-031	EXCAVATION, BEDDING AND BACKFILLING OF PRECAST BOX CULVERTS
DS-040	SEDIMENT CONTROL DEVICES - SEDIMENT FENCE - ENTRY/EXIT SEDIMENT TRAP
DS-041	SEDIMENT CONTROL DEVICES - KERB AND FIELD INLETS - CHECK DAMS & STRAW BALES
DS-050	DRAINAGE PITS - FIELD INLET - TYPE 1 AND TYPE 2

APPROVED

0 100 200 300 400m
1:10000(A1) 1:20000(A3)

RMA
Engineers
www.rmaeng.com.au

RMA Engineers
Jason Viorito
RPEF 7781

MAIN ROADS STANDARD DRAWINGS

SHEET NUMBER	SHEET TITLE
MR 1044	REINFORCING STEEL LAP LENGTHS
MR 1303	CONSTRUCTION OF RC WINGWALLS AND HEADWALLS
MR 1316	GENERAL ARRANGEMENT AND INSTALLATION OF PRECAST UNITS
MR 1318	CONSTRUCTION OF BASES WITH RECESSES AND APRONS
MR 1319	CONSTRUCTION OF UNREINFORCED WINGWALLS AND RC HEADWALLS
MR 1304	RC PIPE CULVERTS - CONSTRUCTION OF RC WINGWALLS & APRONS FOR PIPE DIA UP TO 2400 END TO PIPE CULVERTS
MR 1305	GENERAL ARRANGEMENT AND INSTALLATION OF WINGWALLS, HEADWALLS AND APRONS
MR 1306	CONSTRUCTION OF UNREINFORCED WINGWALLS, HEADWALLS AND APRONS
MR 1359	CULVERTS - INSTALLATION, BEDDING AND FILLING/BACKFILLING AGAINST/OVER CULVERTS

REV	DATE	DESCRIPTION	CHKD	DESIGN	APPR	DRG. NO.	REFERENCE DRAWING TITLE
A	16/02/18	FOR APPROVAL	MAC	DTK	JMY		
B	17/02/18	CHANGE TO ROAD LEASE PROPERTY DESCRIPTION	MAC	DTK	JMY		
C	15/03/18	UPDATED PLAN INDEX REVISIONS	MAC	DTK	JMY		

FILE NAME	DESCRIPTION	ROADS
6015-002	FINAL & LEVEL SURVEY BY INSITE ENG	

DATE	BY	DESCRIPTION
15/03/18	NUTRANT	DRAWN
15/03/18	MCILANCY	CHECK*
15/03/18	DUGONSKI	DESIGN
15/03/18	JWARDLE	APPROVE

EXT. REF. NO.	FORMING NO.
12386	C-60101

REV	DATE	BY	DESCRIPTION
A1			USER/PART NO.
B01			REV. DATE
C			REV. DATE

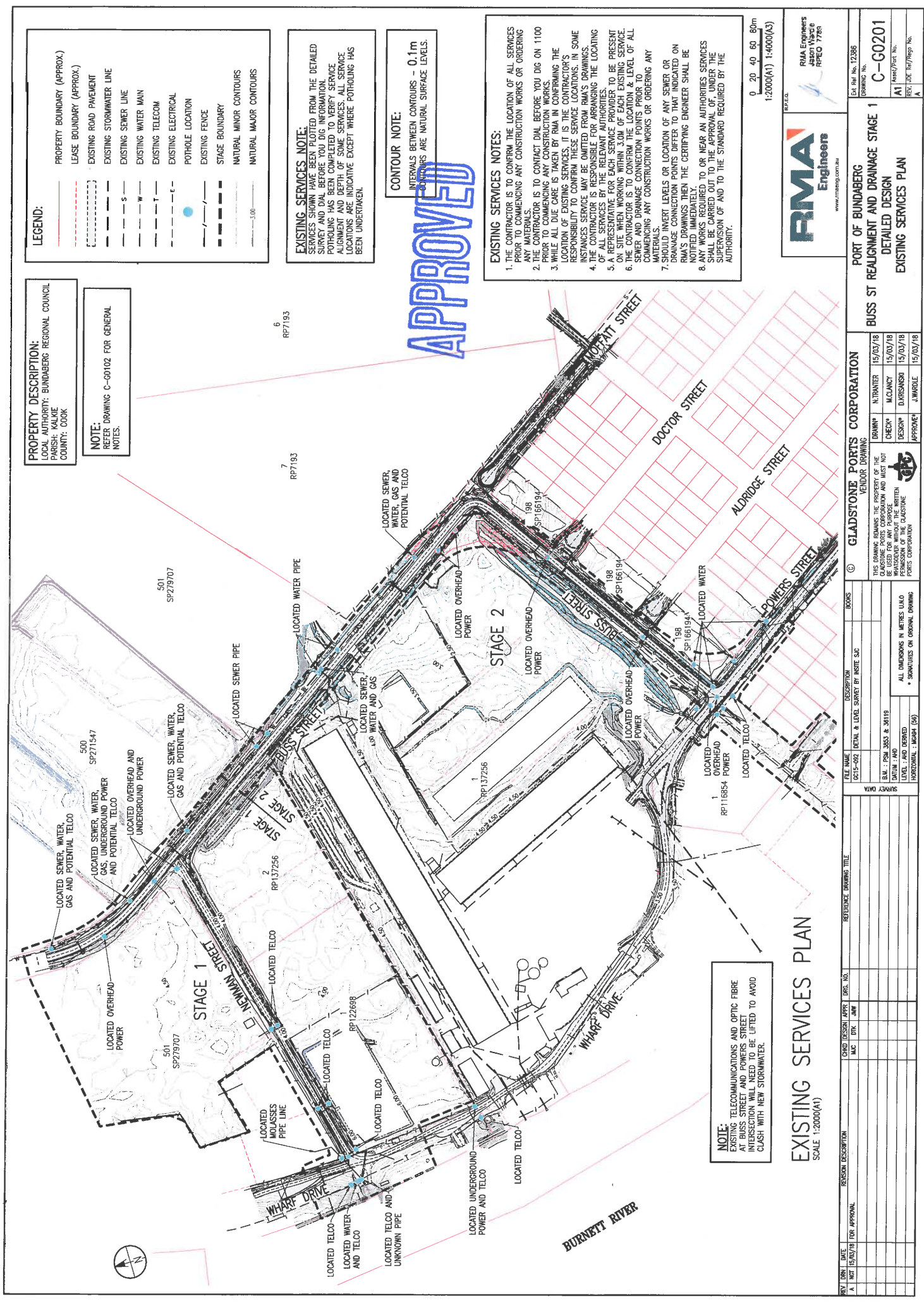
PORT OF BUNDABERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
LOCALITY PLAN AND DRAWING INDEX

GLADSTONE PORTS CORPORATION
VENDOR DRAWING

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BE REPRODUCED OR TRANSMITTED IN ANY FORM
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PERMISSION OF THE GLADSTONE
PORTS CORPORATION

ALL DIMENSIONS IN METRES UNLESS
OTHERWISE SPECIFIED

* DIMENSIONS ON ORIGINAL DRAWING



LEGEND:

---	PROPERTY BOUNDARY (APPROX.)
- - - -	LEASE BOUNDARY (APPROX.)
---	EXISTING ROAD PAVEMENT
---	EXISTING STORMWATER LINE
---	EXISTING SEWER LINE
---	EXISTING WATER MAIN
---	EXISTING TELECOM
---	EXISTING ELECTRICAL
●	POTHOLE LOCATION
---	EXISTING FENCE
---	STAGE BOUNDARY
---	NATURAL MINOR CONTOURS
---	NATURAL MAJOR CONTOURS

EXISTING SERVICES NOTE:
 SERVICES SHOWN HAVE BEEN PLOTTED FROM THE DETAILED SURVEY AND DIAL BEFORE YOU DIG INFORMATION. POTHOLING HAS BEEN COMPLETED TO VERIFY SERVICE ALIGNMENT AND DEPTH OF SOME SERVICES. ALL SERVICE LOCATIONS ARE INDICATIVE EXCEPT WHERE POTHOLING HAS BEEN UNDERTAKEN.

CONTOUR NOTE:
 INTERVALS BETWEEN CONTOURS - 0.1m
 CONTOURS ARE NATURAL SURFACE LEVELS.

APPROVED

EXISTING SERVICES NOTES:

1. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING MATERIALS.
2. THE CONTRACTOR IS TO CONTACT DIAL BEFORE YOU DIG ON 1100 PRIOR TO COMMENCING ANY CONSTRUCTION WORKS.
3. WHILE ALL DUE CARE IS TAKEN BY RMA IN CONFIRMING THE LOCATION OF EXISTING SERVICES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SERVICE LOCATIONS. IN SOME INSTANCES SERVICE MAY BE OMITTED FROM RMA'S DRAWINGS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE LOCATING OF ALL SERVICES BY THE RELEVANT AUTHORITIES.
5. A REPRESENTATIVE FOR EACH SERVICE PROVIDER TO BE PRESENT ON SITE WHEN WORKING WITHIN 3.0M OF EACH EXISTING SERVICE.
6. BEFORE ANY CONSTRUCTION WORKS PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
7. SHOULD INVERT LEVELS OR LOCATION OF ANY SEWER OR DRAINAGE CONNECTION POINTS DIFFER TO THAT INDICATED ON RMA'S DRAWINGS THEN THE CERTIFYING ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
8. ANY WORKS REQUIRED TO OR NEAR AN AUTHORITIES SERVICES SHALL BE CARRIED OUT TO THE APPROVAL OF, UNDER THE SUPERVISION OF AND TO THE STANDARD REQUIRED BY THE AUTHORITY.

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

RMA Engineers
 www.rmaeng.com.au
 RMA Engineers
 Jason Viscose
 RPEO 77861
 Ext. Ref. No. 12386
 DRAWING NO. C-G0201
 A1
 Date: 15/03/18
 Rev: 02 Ref/Issue No. 1

PROPERTY DESCRIPTION:
 LOCAL AUTHORITY: BUNDABERG REGIONAL COUNCIL
 PARISH: KALKIE
 COUNTY: COOK

NOTE:
 REFER DRAWING C-G0102 FOR GENERAL NOTES.

**PORT OF BUNDABERG
 BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
 DETAILED DESIGN
 EXISTING SERVICES PLAN**

GLADSTONE PORTS CORPORATION
 VENDOR DRAWING

DATE	15/03/18
DRAWN	N. TRANTER
CHECKED	M. CLANCY
DESIGN	D. BIRNSHAW
APPROVED	J. WARDLE

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FILE NAME	DESCRIPTION	BOOKS
G015-002	DETAILED & LEVEL SURVEY BY INSITE SAC	

SHEET DATA

S.M.:	PSM 3053 & 3018
AUTUMN / WINTER:	AND DRAINED
HORIZONTAL:	MASHA (56)

ALL DIMENSIONS IN METRES UNLESS OTHERWISE SPECIFIED
 * DIMENSIONS ON ORIGINAL DRAWING

NOTE:
 EXISTING TELECOMMUNICATIONS AND OPTIC FIBRE AT BUSS STREET AND POWERS STREET INTERSECTION WILL NEED TO BE LIFTED TO AVOID CLASH WITH NEW STORMWATER.

EXISTING SERVICES PLAN
 SCALE 1:2000(A1)

REV.	DATE	DESCRIPTION	CHD	DESIGN	APPR	DRG. NO.
A	15/03/18	FOR APPROVAL	MAC	DTK	JAW	

REFERENCE DRAWING TITLE

LEGEND:

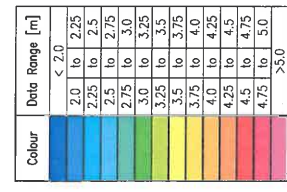
- PROPERTY BOUNDARY (APPROX.)
- LEASE BOUNDARY (APPROX.)
- CATCHMENT BOUNDARY
- FLOW DIRECTION
- CATCHMENT LABEL
- STAGE BOUNDARY
- NATURAL MINOR CONTOURS
- NATURAL MAJOR CONTOURS

CONTOUR NOTE:
 INTERVALS BETWEEN CONTOURS - 0.1m
 CONTOURS ARE NATURAL SURFACE LEVELS.

NOTE:
 REFER DRAWING C-60102 FOR GENERAL NOTES.

STORMWATER CATCHMENT TABLE			
CATCHMENT	AREA (ha)	T _e (mins)	FRACTION IMPERVIOUS (%)
P1	9.313	9 (to first structure)	90%
P2	8.273	13	90%
P3	6.765	13	90%
TOTAL CATCHMENT DISCHARGING TO THE EAST			90%

STORMWATER FLOOD DEPTH



NOTE:
 1. PLANS TO BE PLOTTED IN COLOUR TO DISTINGUISH FLOOD DEPTH RANGE.

APPROVED



Ext Ref No. 12386
 DRAWING No.
C-D0101
 A1 Issue/Rev. No.
 Rev. 01/02/18/18
 Rev. 02/02/18/18

PORT OF BUNDABERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
STORMWATER CATCHMENT PLAN

FILE NAME	DESCRIPTION	BOSS
C12-002	FINAL & LEVEL SURVEY BY INSTR. S.C.	

REV	DATE	BY	CHKD	DESCRIPTION
A	15/02/18	FOR APPROVAL		

REV	DATE	BY	CHKD	DESCRIPTION

REV	DATE	BY	CHKD	DESCRIPTION

REV	DATE	BY	CHKD	DESCRIPTION

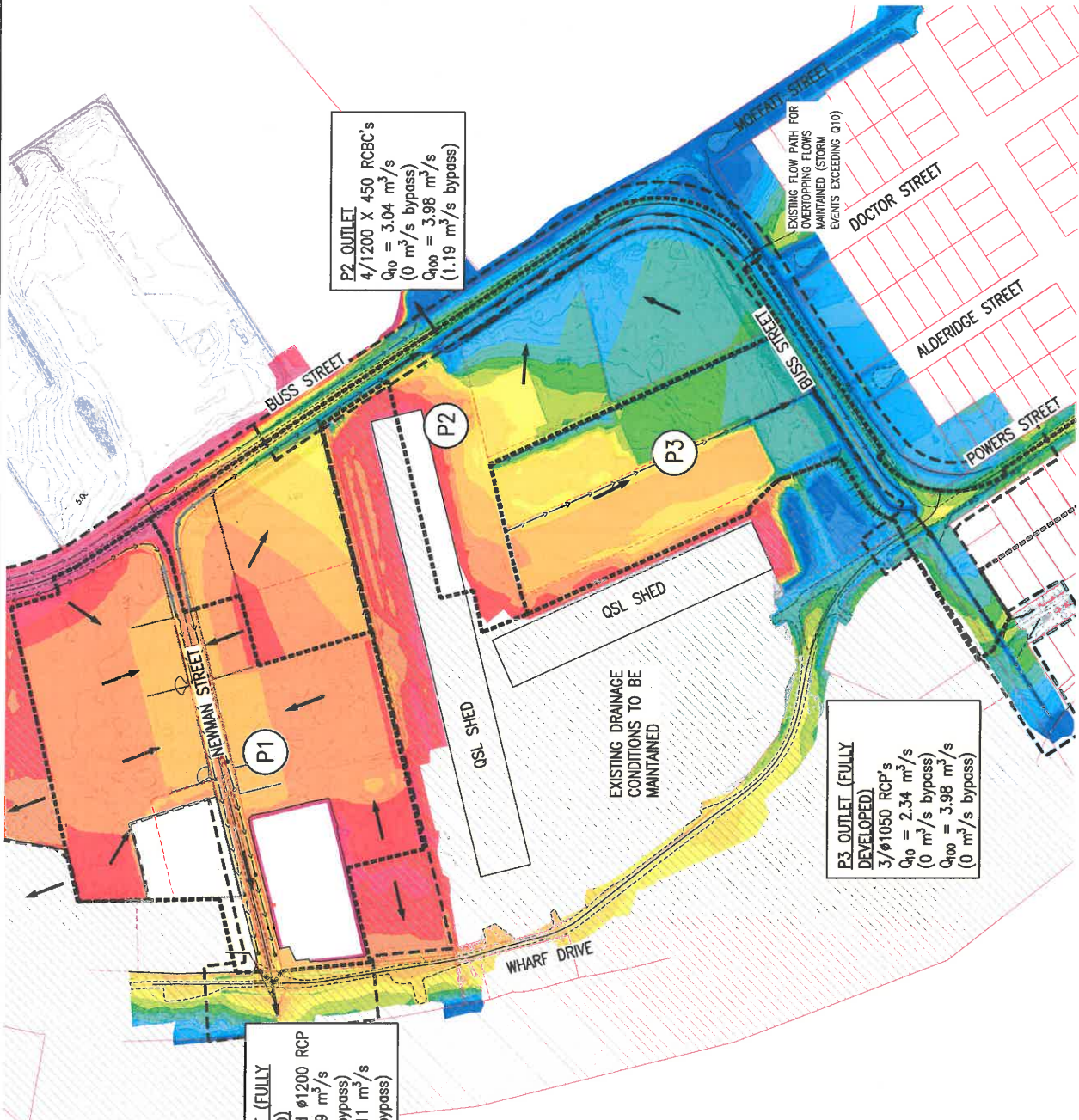
P2 OUTLET
 4/1200 X 450 RCBC's
 $Q_{10} = 3.04 \text{ m}^3/\text{s}$
 (0 m^3/s bypass)
 $Q_{100} = 3.98 \text{ m}^3/\text{s}$
 (1.19 m^3/s bypass)

P3 OUTLET (FULLY DEVELOPED)
 3/ø1050 RCP's
 $Q_{10} = 2.34 \text{ m}^3/\text{s}$
 (0 m^3/s bypass)
 $Q_{100} = 3.98 \text{ m}^3/\text{s}$
 (0 m^3/s bypass)

P1 OUTLET (FULLY DEVELOPED)
 ø1350 and ø1200 RCP
 $Q_{10} = 3.59 \text{ m}^3/\text{s}$
 (0 m^3/s bypass)
 $Q_{100} = 6.11 \text{ m}^3/\text{s}$
 (0 m^3/s bypass)

EXISTING DRAINAGE CONDITIONS TO BE MAINTAINED

EXISTING FLOW PATH FOR OVERTOPPING FLOWS MAINTAINED (STORM EVENTS EXCEEDING Q10)



STORMWATER CATCHMENT PLAN

SCALE 1:2000(A1)

ALL DIMENSIONS IN METRES UNLESS OTHERWISE SPECIFIED

* DIMENSIONS ON ORIGINAL DRAWING

GLADSTONE PORTS CORPORATION

GLADSTONE PORTS CORPORATION

GLADSTONE PORTS CORPORATION

GLADSTONE PORTS CORPORATION

GLADSTONE PORTS CORPORATION

LEGEND:

- PROPERTY BOUNDARY (APPROX.)
- LEASE BOUNDARY (APPROX.)
- PROPOSED ROAD PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- EXISTING ROAD PAVEMENT
- STORMWATER PIPE
- OPEN DRAIN/INVERT
- EXISTING OPEN DRAIN/INVERT
- PROPOSED BUND
- STORMWATER HEADWALL LABEL
- STORMWATER GULLY PIT LABEL
- STORMWATER MANHOLE LABEL
- TEMPORARY HEADWALL LABEL
- STAGE BOUNDARY
- TEMPORARY HEADWALL
- REFER DETAIL

(H1/1) (M2/1) (F2/1) #600 #
 (G2/1) (M2/1) (F2/1) #600 #
 (G2/1) (M2/1) (F2/1) #600 #

* MINIMUM FINISHED FLOOR LEVEL IS BASED ON 300mm FREEBOARD FOR LOCAL STORMWATER RUNOFF. OTHER FLOOR LEVELS (SUCH AS RIVERINE FLOODING) HAVE NOT BEEN CALCULATED BY RMA BUT SHOULD BE CONSULTED WITH THE LAND OWNER IN CONJUNCTION WITH THE LOCAL AUTHORITY BEFORE ADOPTING A FINISHED FLOOR LEVEL.

PRIVATE FIELD INLET, CONNECTION, BUND AND FIELD INLET TO COLLECT AND CONVEY Q₁₀₀ FOR LEASE AREA. REFER TEMPORARY HEADWALL DETAIL.

EXISTING SERVICES NOTES:

1. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS. IS TO CONTACT DIAL BEFORE YOU DIG ON 1100 AND TO COMMENCE ANY CONSTRUCTION WORKS.
2. PRIOR TO COMMENCING ANY CONSTRUCTION WORKS.
3. WHILE ALL DUE CARE IS TAKEN BY RMA IN CONFIRMING THE LOCATION OF EXISTING SERVICES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SERVICE LOCATIONS. IN SOME INSTANCES SERVICE MAY BE OMITTED FROM RMA'S DRAWINGS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE LOCATING OF ALL SERVICES BY THE RELEVANT AUTHORITIES.
5. A REPRESENTATIVE FOR EACH SERVICE PROVIDER TO BE PRESENT ON SITE WHEN WORKING WITHIN 3.0M OF EACH EXISTING SERVICE.
6. THE CONTRACTOR IS TO CONFIRM THE LOCATION & LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS.
7. SHOULD ANY SERVICES BE LOCATED AT ANY STAGE DRAINAGE CONNECTION POINTS DIFFER TO THAT INDICATED ON RMA'S DRAWINGS THEN THE CERTIFYING ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
8. ANY WORKS REQUIRED TO OR NEAR AN AUTHORITIES SERVICES SHALL BE CARRIED OUT TO THE APPROVAL OF, UNDER THE SUPERVISION OF AND TO THE STANDARD REQUIRED BY THE AUTHORITY.

0 10 20 30
1:1000(A1) 1:2000(A3)

RMA Engineers
www.rmaeng.com.au

RIA Engineers
15/03/18
APRO 7780

Est Ref No. 12386
IPC DRAWING No.
C-D0201
Rev Ref. 04/2/2018

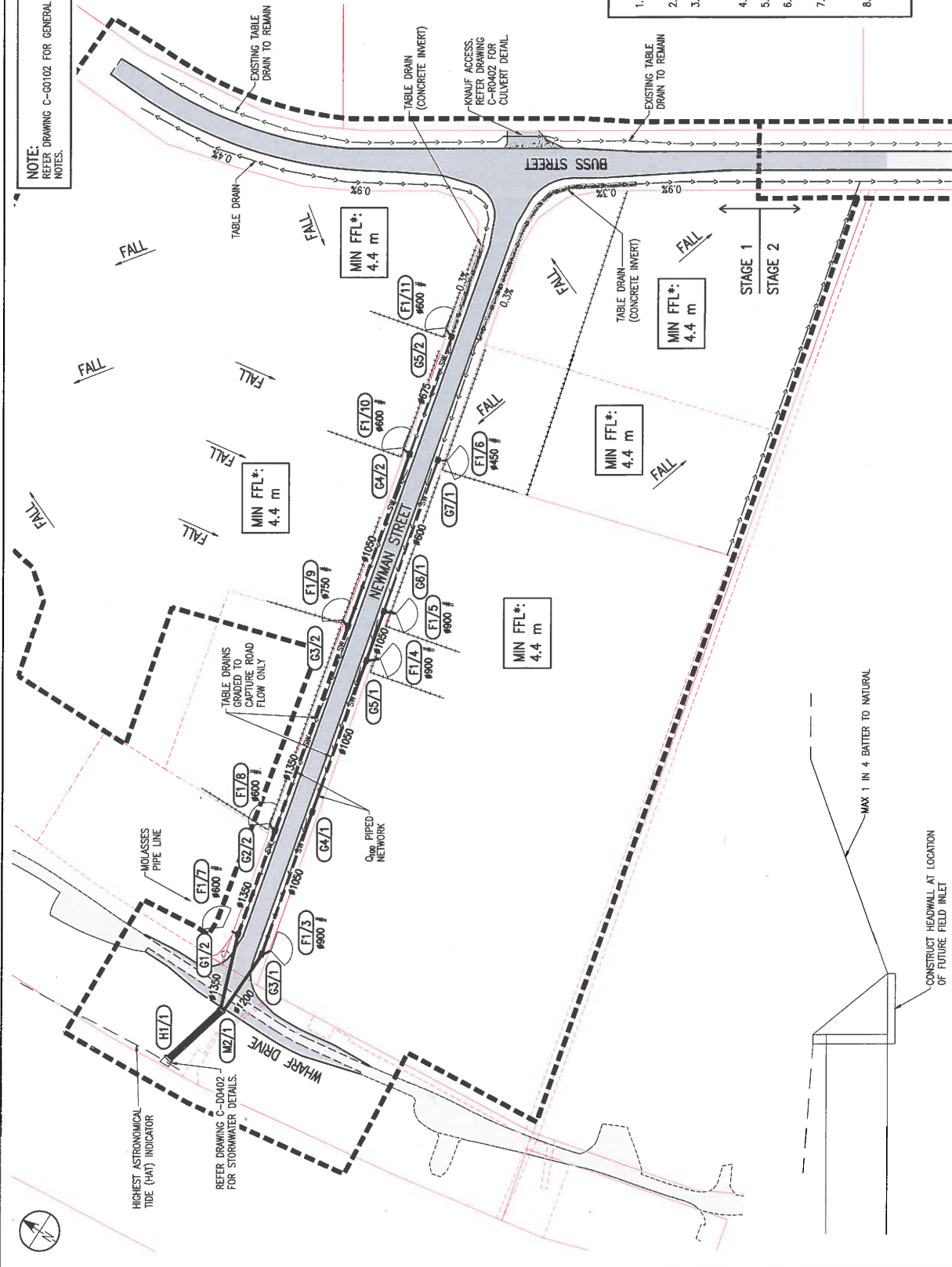
STORMWATER LAYOUT PLAN APPROVED

GLADSTONE PORTS CORPORATION
VENDOR DRAWING

PORT OF BUNDABERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
STORMWATER LAYOUT PLAN

DATE: 15/03/18
DRAWN: NUTRANTER
CHECK: M. JAWAY
DESIGN: D. SANSKI
APPROVE: J. WIMBLE

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NOTE:
REFER DRAWING C-00102 FOR GENERAL NOTES.

TYPICAL TEMPORARY HEADWALL DETAIL
DO NOT SCALE

REV	DATE	DESCRIPTION	DESIGN	CHKD	ISSN	APPR	DRG. NO.	REFERENCE DRAWING TITLE
A	15/03/18	FOR APPROVAL	MAC	DTK	JAW	JAW		
B	15/03/18	FOR OUTLET DETAILS	MAC	DTK	JAW	JAW		

FILE NAME	DESCRIPTION	BOOKS
C-015-002	DETAIL & LEVEL SURVEY BY INSITE SUR	

SCALE	DATE	BY	CHKD	ISSN	APPR
AS SHOWN	15/03/18	DTK	DTK	JAW	JAW

LEVEL	AND DERIVED	ALL DIMENSIONS IN METRES UNLESS INDICATED OTHERWISE
HORIZONTAL	MAD (50)	

LEGEND:

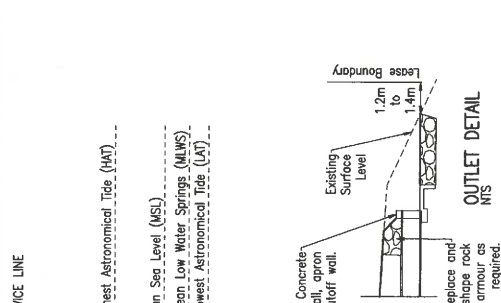
DESIGN SURFACE
EXISTING SURFACE
H.G.L.

NOTE:
REFER DRAWING C-60102 FOR GENERAL NOTES.

STORMWATER PIPE NOTE:
THE FOLLOWING PIPE PRODUCTS CAN BE USED FOR CONSTRUCTION OF STORMWATER DRAINAGE.
- ≥ 675: RCP CLASS (2) MINIMUM FLUSH JOINT PIPE WITH EXTERNAL RUBBER BAND.
- ≤ 600: RCP CLASS (2) MINIMUM PIPE SPIGOT & SOCKET PIPE WITH RUBBER RING JOINT.
- PIPE COVER TO STEEL REINFORCEMENT TO BE IN ACCORDANCE WITH AS 4088:2007.
- IN GOOD GROUND CONDITIONS FLUSH JOINT PIPE WITH RUBBER BAND MAY BE USED FOR ALL PIPE SIZES.
- FLOW VELOCITY EXCEEDS 2M/S SPIGOT & SOCKET PIPE WITH RUBBER RING JOINT SHALL BE USED.

EXISTING SERVICES NOTES:
1. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING ANY CONSTRUCTION WORKS OR ORDERING ANY MATERIALS.
2. THE CONTRACTOR IS TO CONTACT DAL BEFORE YOU DIG ON 1100 PRIOR TO COMMENCING ANY CONSTRUCTION WORKS.
3. WHILE ALL DUE CARE IS TAKEN BY RMA IN CONFIRMING THE LOCATION OF EXISTING SERVICES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SERVICES LOCATIONS IN SOME INSTANCES SERVICE MAY BE OMITTED FROM RMA'S DRAWINGS.
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7. SHOULD INVERT LEVELS OR LOCATION OF ANY SEWER OR DRAINAGE CONNECTION POINTS DIFFER TO THAT INDICATED ON RMA'S DRAWINGS THEN THE CERTIFYING ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
8. ANY WORKS REQUIRED TO OR NEAR AN OUTLET SERVICE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SUPERVISION OF AND TO THE STANDARD REQUIRED BY THE AUTHORITY.

FINISHED SURFACE LEVELS:
SURFACE LEVELS SHOWN ON THE DRAWING ARE REFERRED TO ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE MANHOLES IN ROAD ARE FINISHED FLUSH WITH DESIGN SURFACE LEVEL AND CROSSFALL. GULLY INLETS FINISH FLUSH WITH DESIGN ROAD PAVEMENT LEVELS AND MANHOLES OUTSIDE OF ROAD PAVEMENT TO FINISH 50MM ABOVE THE FINISHED SURFACE LEVELS.



STRUCTURE NAME	C7/1	G6/1	G5/1	G4/1	G3/1	M2/1	H1/1
STANDARD STRUCTURE/ INLET CAPACITY CHART*	FIELD INLET TYPE 1 900x900mm CHAMBER	FIELD INLET TYPE 1 900x900 GRATE 1200x1200mm CHAMBER	FIELD INLET TYPE 1 900x900 GRATE 1200x1200mm CHAMBER	FIELD INLET TYPE 1 900x900 GRATE 1200x900mm CHAMBER	FIELD INLET TYPE 1 900x900 GRATE 1500x1800mm CHAMBER	SPECIAL STRUCTURE 3600x900mm CHAMBER REFER DRAWING C-00401 FOR DETAILS	CAST INSITU HEADWALL REFER DRAWING C-00402 FOR DETAILS
*CONTRACTOR MAY SOURCE ALTERNATIVE EQUIVALENT STRUCTURES, SUBJECT TO THE APPROVAL OF THE SUPERVISING ENGINEER							
PIPE SIZE (mm)	675	1050	1050	1050	1050	1200	(4)675
PIPE CLASS	2	2	2	2	2	2	2
PIPE GRADE (%)	0.00%	0.10%	0.10%	0.10%	0.10%	0.10%	0.20%
PIPE SLOPE (1 in X)	1:300.0	1:1000.0	1:1000.0	1:1000.0	1:1000.0	1:996.8	1:300.0
FULL PIPE VELOCITY (m/s)	0.34	0.63	0.69	0.69	0.69	1.14	1.88
PART FULL VELOCITY (m/s)	0.34	1.06	1.06	1.13	1.14	1.24	1.88
DATUM RL	-8.0						
Q5 H.G.L. IN PIPE	2.651	2.635	2.576	2.477	2.345	2.225	1.933
Q5 W.S.E. IN STRUCTURE			0.546	0.866	0.864	1.289	2.695
PIPE FLOW (m³/s)			0.864	0.864	0.864	1.235	1.504
PIPE CAPACITY AT GRADE (m³/s)							
DEPTH TO INVERT	1.984	1.732	1.949	2.018	1.963	2.474	0.675
INVERT LEVEL OF PIPE/DRAIN	1.984	1.824	1.758	1.678	1.583	1.527	1.250
SURVEYED SURFACE LEVEL	3.885	4.029	4.030	4.096	4.075	4.177	2.603
DESIGN SURFACE LEVEL	3.715	3.702	3.706	3.696	3.545	4.001	1.925
SETOUT COORDINATES WHERE RELEVANT TESTING & WORKING SETOUT COORDINATES SHALL BE CROSS REFERENCED WITH PROPERTY BOUNDARY SETOUT DIMENSIONS.	E 437857.245	E 437779.823	E 437754.395	E 437676.772	E 437644.852	E 437699.550	E 437534.820
CHAINAGE	0.000	80.000	106.000	186.000	261.000	296.159	331.249
		80.000m	26.000m	80.000m	75.000m	35.159m	35.090m
						35.159m	

STORMWATER LONGITUDINAL SECTION -- 1

SCALE 1:1000(H); 1:100(V) (A)

APPROVED



Ext Ref No: 12386
DPC DRAWING No: C-D0301
Asst/Part No: A1
REV: 002 DPC Ref/Proj No: B

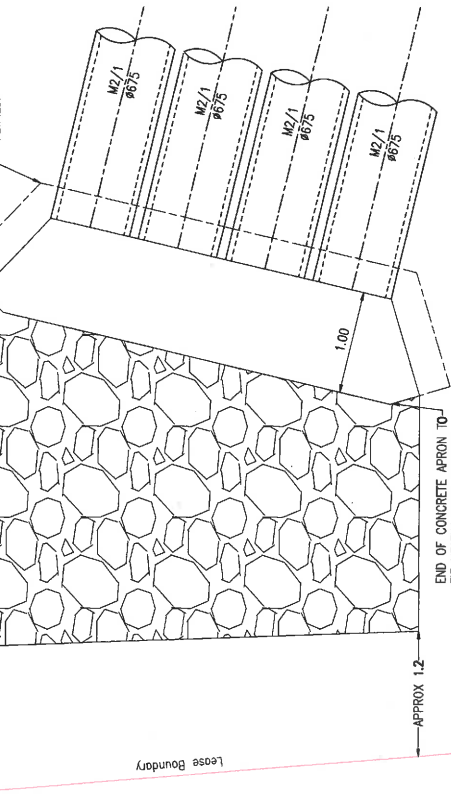
PORT OF BUNDBERG
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1
DETAILED DESIGN
STORMWATER LONGITUDINAL SECTION -- 1

NO.	DATE	BY	CHECKED	APPROVED
1	15/03/18	N. KRANTER	M. CLANCY	J. WARDLE
2	15/03/18	D. DRISCOLL		

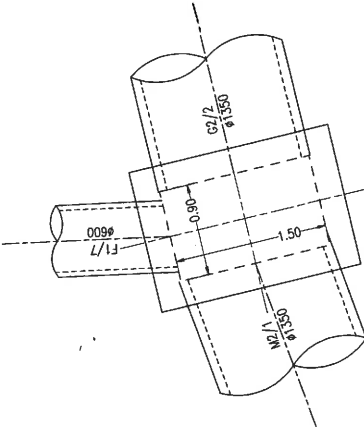
GLADSTONE PORTS CORPORATION
VENDOR DRAWING
DRAWN: N. KRANTER
CHECKED: M. CLANCY
DESIGN: D. DRISCOLL
APPROVE: J. WARDLE

REV	DATE	DESCRIPTION	DESIGNER	CHECKED	APPROVED
A	15/03/18	FOR APPROVAL			
B	15/03/18	OUTLET DETAILS			

APPROX 1.4
 REINFORCED CONCRETE APRON
 AND CUT OFF WALL
 REFER DIMR STANDARD DRAWING
 SD1304 AND SD1044 FOR
 DETAILS.

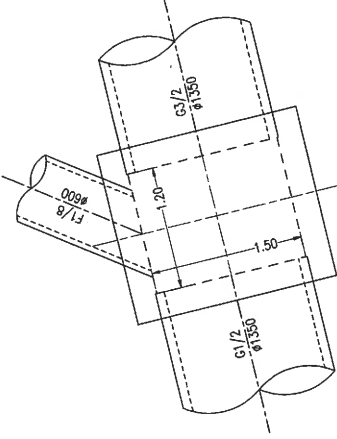


END OF CONCRETE APRON TO
 BE NEATLY IN TO EXISTING
 ROCK ARMOUR AT OUTLET.
H1/1 DETAIL
 SCALE 1:25 (A1)



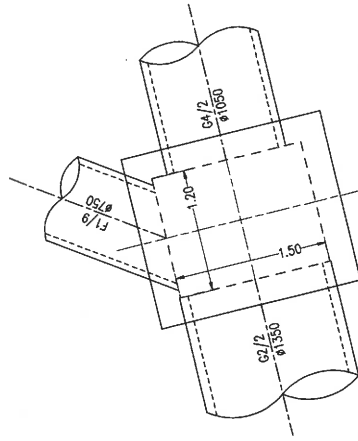
G1/2 - 1500 x 900 DETAIL
 SCALE 1:25 (A1)

WALL THICKNESS (mm)	250
BASE THICKNESS (mm)	150 with 75 min BEDDING
CONCRETE	SL92 REINFORCED 25MPa



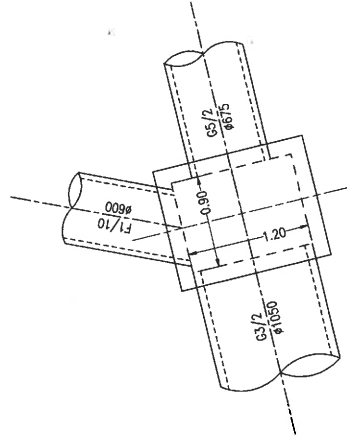
G2/2 - 1500 x 1200 DETAIL
 SCALE 1:25 (A1)

WALL THICKNESS (mm)	250
BASE THICKNESS (mm)	150 with 75 min BEDDING
CONCRETE	SL92 REINFORCED 25MPa



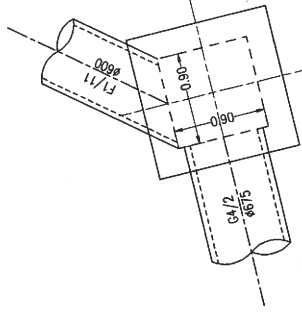
G3/2 - 1500 x 1200 DETAIL
 SCALE 1:25 (A1)

WALL THICKNESS (mm)	250
BASE THICKNESS (mm)	150 with 75 min BEDDING
CONCRETE	SL92 REINFORCED 25MPa



G4/2 - 1200 x 900 DETAIL
 SCALE 1:25 (A1)

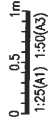
WALL THICKNESS (mm)	250
BASE THICKNESS (mm)	150 with 75 min BEDDING
CONCRETE	SL92 REINFORCED 25MPa



G5/2 - 900 x 900 DETAIL
 SCALE 1:25 (A1)

WALL THICKNESS (mm)	250
BASE THICKNESS (mm)	150 with 75 min BEDDING
CONCRETE	SL92 REINFORCED 25MPa

APPROVED



RMA Engineers
 Jason Wardle
 APECO 7788

REV	DATE	DESCRIPTION	CHD DESIGN APPR	DRG. NO.	REFERENCE DRAWING TITLE	
A	15/03/18	FOR APPROVAL	MAC	DTK	JMW	
B	15/03/18	OUTLET DETAILS	MAC	DTK	JMW	

FILE NAME	DESCRIPTION	BRGNS
0015-002	DETAIL & LEVEL SURVEY BY ANGLE SDC	

DRWING	DRWING	DATE
DRWING	N. TRANTER	15/03/18
CHECK	M. CLANCY	15/03/18
DESIGN	D. DRIBANSKI	15/03/18
APPROVE	J. WARDLE	15/03/18

SCALE	DATE
1:25 (A1)	15/03/18

ALL DIMENSIONS IN METRES UNLESS OTHERWISE SPECIFIED
* DIMENSIONS ON ORIGINAL DRAWING

DESCRIPTION	DATE
GLADSTONE PORTS CORPORATION	15/03/18
VENDOR DRAWING	

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GLADSTONE PORTS CORPORATION
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EXT. REF. NO.	DRG. DRAWING NO.	REV. NO.
12388	C-D0402	A1

PROJECT	DATE	REV. NO.
PORT OF BUNDABERG	15/03/18	B

PROJECT	DATE	REV. NO.
BUSS ST REALIGNMENT AND DRAINAGE STAGE 1	15/03/18	B

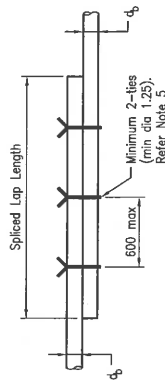
PROJECT	DATE	REV. NO.
DETAILED DESIGN	15/03/18	B

PROJECT	DATE	REV. NO.
STORMWATER DETAILS - 2	15/03/18	B

Minimum Lapped Splice Lengths for Reinforcing Bars ★

Exposure Classification	f'c	Deformed Bar Diameter								
		10	12	16	20	24	28	32	36	40
BT	32 MPa	450	550	800	1000	1250	1500	1800	2100	2400
	40 MPa	400	500	700	900	1100	1350	1600	1850	2150
BZ	50 MPa	400	500	650	800	1000	1200	1450	1700	1950
	50 MPa	400	500	650	800	1000	1200	1450	1700	1950

★ For top/horizontal bars with more than 300 of concrete below the above bars, the lap lengths in this table shall be multiplied by 1.3. Where laps are required but not shown on the drawings, they should be staggered and positioned away from points of maximum stress. Where more than 50% of reinforcement is spliced at points of maximum stress, lap lengths shown in the table above are to be multiplied by 1.3.



LAPPED SPLICE FOR REINFORCING BARS

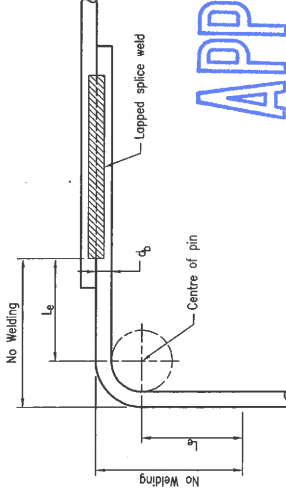
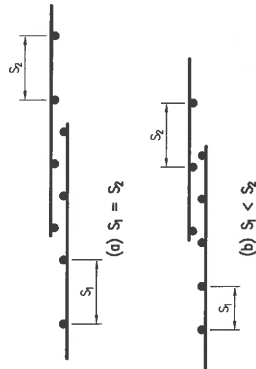
Bar Diameter	Extension 'e'			
e	250	300	400	400

Typical Lapped Splice Details for Helical Reinforcement in Columns

Helical reinforcement shall be spliced within its length by lapping the helix by one turn and bending the helix ends into the column core for an extension 'e'.

- NOTES:**
- SCOPE: This drawing is to detail lapped splices for reinforcing bars and welded mesh, and general reinforcing steel information. This Standard Drawing was developed in accordance with AS 5100.5. Lapped splice details shown do not apply to the following:
 - Structural elements built with slip form construction
 - Epoxy coated or galvanised bars, either before or after bending
 - Bands that are subsequently straightened or rebent
 - Bundled bars
 - Stainless steel reinforcement.
 Lapped splices for any of the above shall be project specific design in accordance with AS 5100.5.
 - REINFORCING STEEL shall be in accordance with MRTS71 and AS/NZS 4671. Deformed bars Grade D500N. Round bars Grade R250N. Deformed wire Grade D500L for welded mesh only. All reinforcing steel shall be ACRS certified.
 - Where lapped splices are required but not shown on the drawings, they shall be positioned away from points of maximum stress.
 - If bars of different diameters are lapped, the lap length shall be determined using the smaller diameter.
 - All lapped bars to be tied with 1.25 minimum diameter annealed wire at 600 maximum centres.
 - WELDING of reinforcement shall only be used where prior approval of the Project Administrator has been obtained and shall be carried out in accordance with MRTS71. Welding symbols to AS 1101.3. Welding of bar splices to AS/NZS 1554.3. All welds, except location tack welds, shall be SP category. Tack welding for location purposes to AS/NZS 1554.3. Welding shall not be carried out within L_s from any bent portion of the bar. Welding consumables shall be controlled hydrogen type: C49X to AS/NZS 14341-B or I49X to AS/NZS 650 17632-B.

LAPPED SPLICES FOR WELDED MESH



APPROVED

Dimension L _s ▲	
d _b	10 12 16 20 24 28 32 36 40
L _s	30 40 50 60 75 85 100 110 120

▲ Refer Note 6

NO WELDING REGION FOR LAPPED SPLICE

Department of Transport and Main Roads

REINFORCING STEEL

LAP LENGTHS

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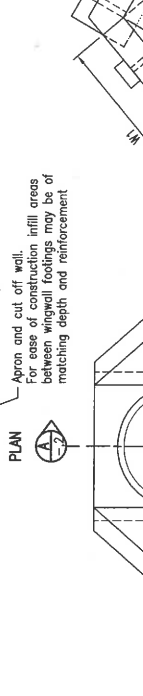
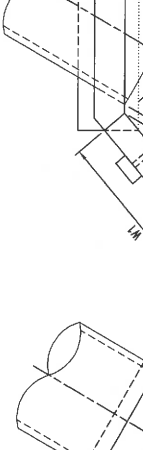
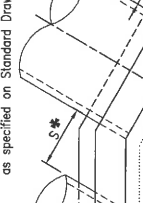
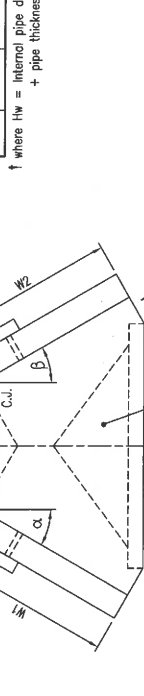
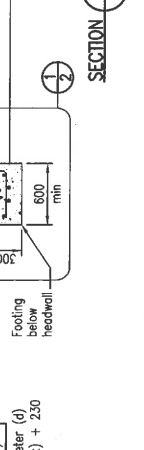
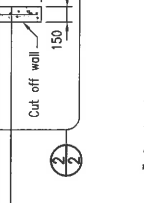
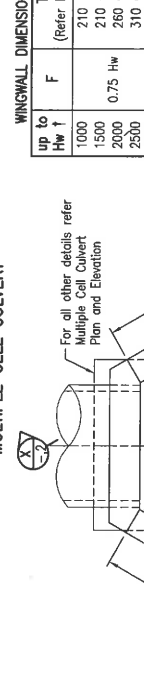
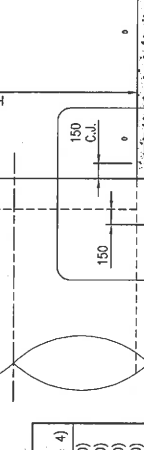
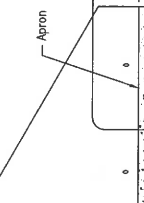
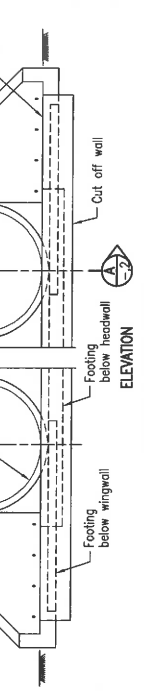
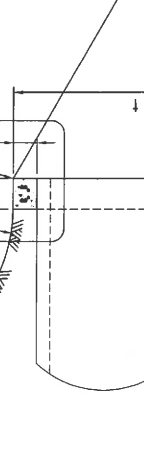
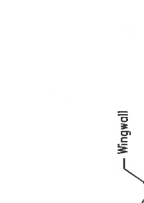
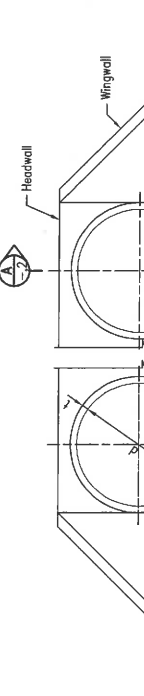
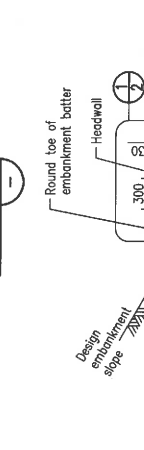
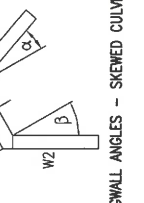
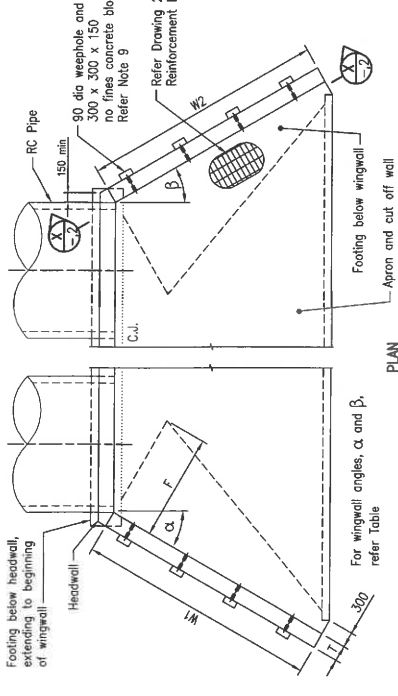
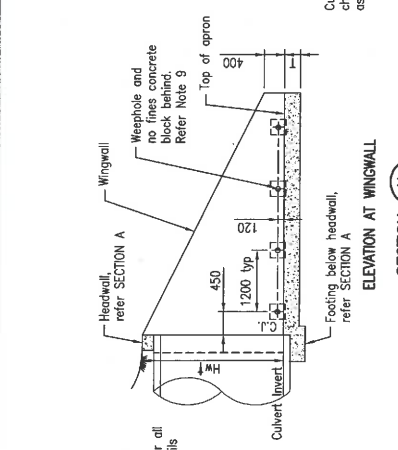
Standard Drawing No
1044

Date 3/18

Not to Scale

REFERENCED DOCUMENTS:
Departmental Standard Drawings:
1043 Reinforcing Steel – Standard Bar Shapes
Departmental Specifications:
MRTS71 Reinforcing Steel

Skew angle θ	Wingwall angle	
	α	β
0 - 10	30	30
11 - 20	25	30
21 - 30	20	30
31 - 45	15	30



NOTES:
 1. PIPE CULVERT END STRUCTURES to be in accordance with MRTS03.
 The purpose of this drawing is to detail wingwalls, headwall and apron for culverts with pipe diameter 750 to 2400.
 Refer Standard Drawing 1305 for details of headwall and apron for culverts with pipe diameter 375 to 675.
 Refer Standard Drawing 1359 for details of culvert installation and earthworks.
 2. PIPE DIAMETERS greater than 2400 require a special design.
 3. HEADWALL HEIGHT may be increased to meet standard formwork when pipes other than reinforced concrete are used.
 4. CONCRETE to be in accordance with MRTS70.
 Requirements for reinforced concrete are shown in table below.

Design life	For pipes less than or equal to 800 diameter AND soil cover less than 2500 mm	For pipes greater than 800 diameter OR soil cover greater than 2500 mm for all pipes
Minimum exposure classification	B1 to AS 3600	B2 to AS 5100
Minimum concrete class	S32/20	S40/20
Cover to reinforcement	40 cover to AS 3600	55 cover to AS 5100
Minimum concrete class and cover for exposure classification C	S50/20 with 65 cover to AS 3600	S50/20 with 70 cover to AS 5100

- ↑ Wingwall and wingwall footing thickness "T" shown in brackets in Sections, Details and Wingwall Dimensions Table on this drawing shall be used for exposure classification C.
5. REINFORCING STEEL to be used in conjunction with Standard Drawings 1043 and 1044. Reinforcing steel to be in accordance with AS/NZS 4671 and MRTS71.
 Mesh and Type D1 and D2 bars may be varied for the appropriate value of 'hw' used in the lower parts of the wing.
 Deformed bars Grade D500N.
 Round bars Grade R250N.
 Reinforcing mesh Grade D500L.
 All reinforcing steel to be ACRS certified.
6. TACK WELDING to reinforcement for location purposes to AS/NZS 1554.3. Welding consumables to be controlled hydrogen type: G48X to AS/NZS 150 14341-B or 149X to AS/NZS 150 17632-B unless shown otherwise.
7. WINGWALLS are to be built monolithically with headwall. However for culverts where $d \geq 1500$ or where wingwalls are used when the foundation bearing capacity < 150 kPa, the Engineer may direct that wingwalls be separated from headwalls by a bitumen coated joint.
- Wingwalls for skewed culverts with angle greater than 45 require a special design.
8. "T" is a constant thickness for wingwalls and footings based on maximum height 'hw'.
 WEEPHOLES shall be provided horizontally in wingwalls, with a no fines concrete block or approved equivalent at each weephole as a drainage filter.
 Location of weepholes to be determined ensuring cover requirements are met.
10. PROJECT-SPECIFIC INFORMATION TO BE SHOWN ON THE DRAWINGS:
 - Skew angle
 - W1 and W2 dimensions
 - Steel schedule
11. DIMENSIONS are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:
 Design Criteria for Bridges and Other Structures
 NDRA Design Guidelines

REFERENCED DOCUMENTS:
 Departmental Standard Drawings:
 1043 Reinforcing Steel - Standard Bar Shapes
 1044 Reinforcing Steel - Lap Lengths
 1305 Pipe Culverts - Headwall and Apron for Pipe Diameter 375 to 675
 1359 Culverts - Installation, Bedding and Filling/Backfilling Against/Over Culverts

Departmental Specifications:
 MRTS03 Drainage, Retaining Structures and Protective Treatments
 MRTS70 Concrete
 MRTS71 Reinforcing Steel



Department of Transport and Main Roads

PIPE CULVERTS

WINGWALLS, HEADWALL AND APRON FOR PIPE DIAMETER 750 TO 2400

DRAWING 1 OF 2

Standard Drawing No 1304

Date 4/17

Scale

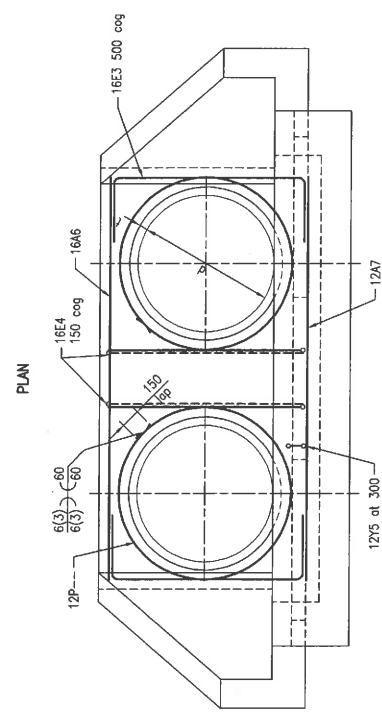
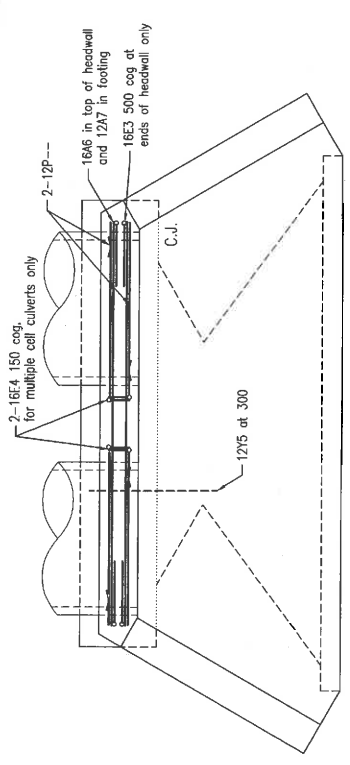
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PLAN - SKEWED MULTIPLE CULVERT

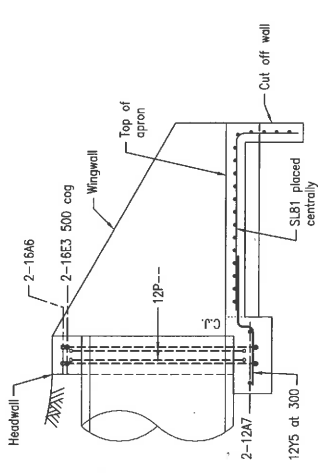
PLAN - SKEWED SINGLE CULVERT

ELEVATION SINGLE CELL CULVERT

APPROVED

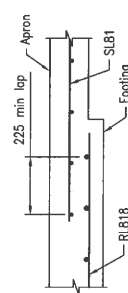
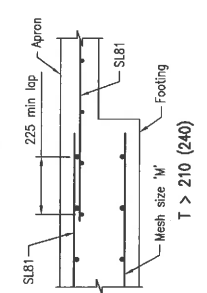


HEADWALL REINFORCEMENT



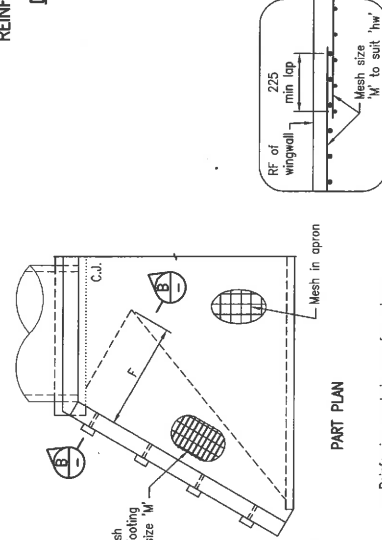
DETAIL 1 HEADWALL **DETAIL 2 APRON**

HEADWALL AND APRON REINFORCEMENT DETAILS

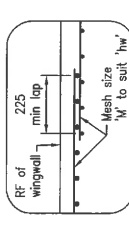


WINGWALL FOOTING TO APRON REINFORCEMENT DETAILS

DETAIL 3



PART PLAN

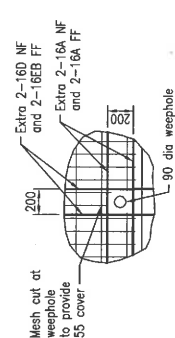


OVERLAP DETAIL

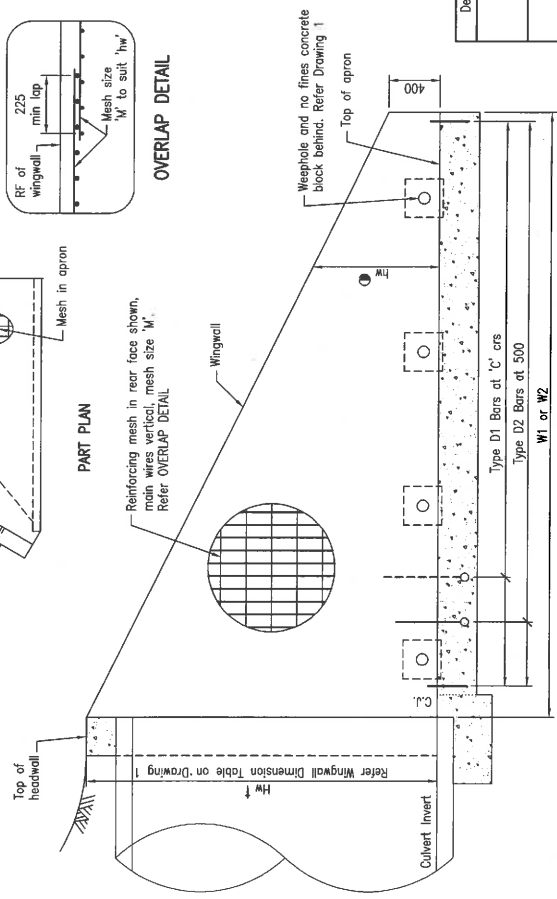
MINIMUM REINFORCEMENT REQUIREMENTS
(Refer Note 5)

hw	M	Type D1 Bars			Type D2 Bars		
		dia	A	B	C	E	
400 - 1000	RL818	12	550	400	200	450	
1000 - 1500	RL818	12	550	400	200	550	
1500 - 2000	RL1018	12	600	400	100	600	
2000 - 2500	RL1018	12	650	400	100	650	
2500 - 3000	RL1218	20	750	500	100	650	

hw = height of wingwall here hw varies from Hw at headwall to 400 at wingwall end

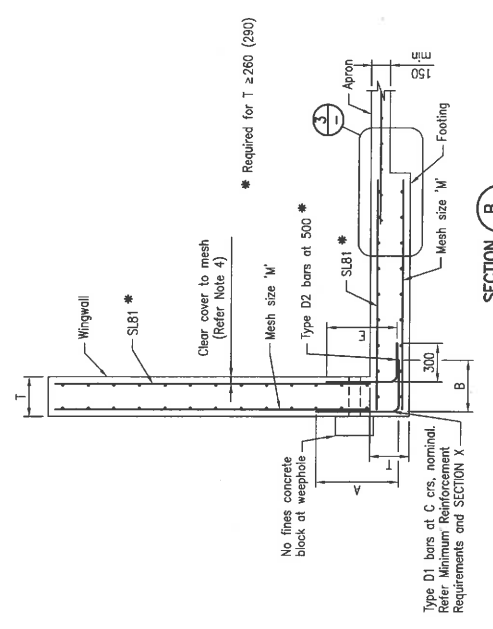


TYPICAL REINFORCEMENT AT WEEPHOLE



SECTION X

WINGWALL REINFORCEMENT



SECTION B

Type D1 bars at C crs, nominal. Refer Minimum Reinforcement Requirements and SECTION X

Department of Transport and Main Roads

PIPE CULVERTS

WINGWALLS, HEADWALL AND APRON FOR PIPE DIAMETER 750 TO 2400

Standard Drawing No **1304**

Not to Scale

Date 4/17

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ATTACHMENT 3: EXTRACT OF APPEAL PROVISIONS

(2) The person is taken to have engaged in the representative's conduct, unless the person proves the person could not have prevented the conduct by exercising reasonable diligence.

(3) In this section—

conduct means an act or omission.

representative means—

- (a) of a corporation—an executive officer, employee or agent of the corporation; or
- (b) of an individual—an employee or agent of the individual.

state of mind, of a person, includes the person's—

- (a) knowledge, intention, opinion, belief or purpose; and
- (b) reasons for the intention, opinion, belief or purpose.

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

(1) Schedule 1 states—

(a) matters that may be appealed to—

- (i) either a tribunal or the P&E Court; or
- (ii) only a tribunal; or
- (iii) only the P&E Court; and

(b) the person—

- (i) who may appeal a matter (the *appellant*); and
- (ii) who is a respondent in an appeal of the matter; and

- (iii) who is a co-respondent in an appeal of the matter;
and
 - (iv) who may elect to be a co-respondent in an appeal of the matter.
- (2) An appellant may start an appeal within the appeal period.
- (3) The *appeal period* is—
- (a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or
 - (b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or
 - (c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or
 - (d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or
 - (e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or
 - (f) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

Note—

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

- (4) Each respondent and co-respondent for an appeal may be heard in the appeal.
- (5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.

-
- (6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—
- (a) the adopted charge itself; or
 - (b) for a decision about an offset or refund—
 - (i) the establishment cost of trunk infrastructure identified in a LGIP; or
 - (ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

- (1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—
 - (a) is in the approved form; and
 - (b) succinctly states the grounds of the appeal.
- (2) The notice of appeal must be accompanied by the required fee.
- (3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—
 - (a) the respondent for the appeal; and
 - (b) each co-respondent for the appeal; and
 - (c) for an appeal about a development application under schedule 1, table 1, item 1—each principal submitter for the development application; and
 - (d) for an appeal about a change application under schedule 1, table 1, item 2—each principal submitter for the change application; and
 - (e) each person who may elect to become a co-respondent for the appeal, other than an eligible submitter who is not a principal submitter in an appeal under paragraph (c) or (d); and

- (f) for an appeal to the P&E Court—the chief executive; and
 - (g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.
- (4) The *service period* is—
- (a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or
 - (b) otherwise—10 business days after the appeal is started.
- (5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).
- (6) A person elects to be a co-respondent by filing a notice of election, in the approved form, within 10 business days after the notice of appeal is given to the person.
- (7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department’s website for this purpose.

231 Other appeals

- (1) Subject to this chapter, schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.
- (2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.
- (3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.
- (4) In this section—
decision includes—

-
- (a) conduct engaged in for the purpose of making a decision; and
 - (b) other conduct that relates to the making of a decision; and
 - (c) the making of a decision or the failure to make a decision; and
 - (d) a purported decision; and
 - (e) a deemed refusal.

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

- (a) is final and conclusive; and
- (b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and
- (c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

232 Rules of the P&E Court

- (1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.
- (2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.