

Our Ref U12017

sch4p4(6) Personal information



**Cardno
Ullman & Nolan**

Shaping the Future

23 October 2008

Cardno Ullman & Nolan Pty Ltd
ABN 36 103 205 170

The Project Director
Port of Airlie Project
Meridien Pty Ltd
GPO Box 2484
BEISBANE QLD 4001

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sch4p4(6) Personal information

Dear Sir,

**PORT OF AIRLIE PROJECT. ADEQUACY OF CONSTRUCTED WORKS
COMPRISING STAGES 1 TO 9**

As required by Condition 46 of the Development Approval Document IPDC00251205D32, the following confirmation is provided.

As demonstrated by

- observations made during my inspection visits and during inspection visits carried out by other Cardno Ullman & Nolan professional staff operating under my control,
- advice received from the Superintendent's site representative,
- advice received from the contractor, and
- the contractor's construction quality control documentation,

I can confirm that the works comprising Stages 1 to 9 inclusive as show on the Golding drawing no. 5393-201-1 Rev K (including all associated works), with the specific exceptions cited later in the letter,

- have been constructed in accordance with the approved drawings (as listed in the attachment) and the development conditions, and
- are structurally adequate for the anticipated usage, and
- comply with all relevant codes, including the EPA's operational policy "Building and engineering standards for tidal works".

The exceptions are the outstanding works tabulated on the next page, together with their anticipated completion dates.

Offices - Australia

Queensland
Brisbane
Cairns
Townsville
Mackay
Rockhampton
Bundaberg
Hervey Bay
Sunshine Coast
Toowoomba
Springfield
Gold Coast

New South Wales
Sydney
Newcastle
Gosford
Wollongong
Deniliquin

Canberra
Victoria
Melbourne
Bendigo
Dandenong

Western Australia
Perth
Kalgoorlie
Busselton
Northern Territory
Darwin



Belgium Brussels Indonesia Jakarta Kenya Nairobi New Zealand Auckland Christchurch Wellington
Papua New Guinea Port Moresby Sri Lanka Colombo United Arab Emirates Abu Dhabi United Kingdom London
United States of America Portland Washington Phoenix Sacramento Boise Las Vegas Charlotte

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OUTSTANDING WORKS AS AT 23 OCTOBER 2008-10-23

Stage No	Work Item	Not Completed	Est. Completion
Stage 1	Construct earth/rock wall along southern and eastern boundary of Lot 117.	Final 0.5m high lift of wall. Erosion protection.	31/01/2009
	Construct earth/rock wall along northern and eastern sides of Lot 103.	Minor realignment of 30m length of wall with boat ramp closure.	30/11/2008
Stage 3	Construct earthen bund to northern boundary of Lot 117 to form maintenance dredge area.	Final 0.5m high lift of bund. Erosion protection.	31/01/2009
Stage 5	Construct polyethylene curtains to control water flow.	Replaced with silt curtains.	
	Construct remainder of Lot 102.103 eastern earth/rock bund to western seawall.	Rock work in progress, 75% complete.	31/01/2009
Stage 6	Internal dredging of eastern marina.	Majority of mud excavated in the dry. Minor mud still to be dredged.	30/11/2008
Stage 7	Dredge entrance channel.	Work in progress, 95% complete.	30/10/2008
	Remove flow control curtains from Lot 117.	Not yet done.	30/11/2008
	Remove sheet piles H – M.	Not yet done.	28/02/2009
	Dredge 10m exclusion zone.	Not yet done.	31/03/2008
	Silt curtain to be erected for pile extraction.	Not yet done.	01/02/2009
Stage 9	Construct marina foreshore promenade.	Removed from Golding scope of work.	
	Construct concrete lined drain along Shute Harbour Road.	Work in progress, 75% complete.	07/11/2008
	Service installations, Roads 1, 2 & 4.	Work in progress, 60% complete.	27/11/2008
	Service installations, Roads 5, 6 & 7.	Work in progress, 35% complete.	28/02/2009

Please get back to me if you have any queries.

Yours faithfully,

sch4p4(6) Personal information

BSc.Eng(Hons), MIEAust, CPEng, NPER-3, RPEQ 1578
for **Cardno Ullman & Nolan**

encls: Schedule of approved drawings

C.C: sch4p4(6) Personal information

**PORT OF AIRLIE DEVELOPMENT
DEVELOPMENT APPROVAL DOCUMENT IPDC00251205D32
SCHEDULE OF APPROVED DRAWINGS**

Drawing	Description	Revision
SK01-1	Marina overall layout	E
SK01-2	Marina overall layout, lease area and entrance	E
SK02	Internal stormwater network	E
SK03	Stormwater drainage concept at esplanade	D
SK04	Construction phase drainage paths	D
SK05	Stormwater major flow path	D
SK06	Internal trunk water reticulation	E
SK07	Internal sewerage reticulation	E
SK08	Internal road network	E
SK09-1	Revelment wall location	F
SK09-2	Revetment wall coordinates	G
SK10	Marina sheet pile revetment wall	D
SK11	Sheet pile temporary revetment wall long section	D
SK12-1	Revetment walls, sheet 1 of 2	F
SK12-2	Revetment walls, sheet 2 of 2	F
SK13	Proposed development profiles	E
SK14	Road network – Typical sections	D
SK15	Proposed development profiles	F
SK16	Boat ramp profile	F
SK17	Western sea wall revetment walls	D
SK18-1	Marina entrance & maintenance area details, sheet 1 of 2	F
SK18-2	Marina entrance & maintenance area details, sheet 2 of 2	D
SK19	Potential acid sulphate soils disposal location	F
SK20	Finished surface levels	F
53932-201-1	Constructivity – revised – methodology program – WAB3	K
3041-AP-01	Plan of areas below high water mark	B
DBUND-01	Drainage / Construction access bund	0

Our Ref U12017

Contract (s) Personal information



25 May 2009

Cardno Ullman & Nolan Pty Ltd
ABN 36 103 205 170

The Project Director
Port of Airlie Project
Meridien Pty Ltd
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Attachment (6) Personal information

Dear

**PORT OF AIRLIE PROJECT. ADEQUACY OF CONSTRUCTED WORKS
COMPRISING STAGES 1 TO 9**

As required by Condition 46 of the Development Approval Document IPDC00251205D32, the following confirmation is provided.

As demonstrated by

- observations made during my inspection visits and during inspection visits carried out by other Cardno Ullman & Nolan staff operating under my control,
- advice received from the Superintendent's site representative,
- advice received from the contractor, and
- the contractor's construction quality control documentation,

I can confirm that the works comprising Stages 1 to 9 inclusive as shown on the Golding drawing no. 5393-201-1 Rev K (including all associated works), with the specific exceptions cited later in the letter,

- have been constructed in accordance with the approved drawings (as listed in the attachment) and the development conditions, and
- are structurally adequate for the anticipated usage, and
- comply with all relevant codes, including the EPA's operational policy "Building and engineering standards for tidal works".

The exceptions are the outstanding works tabulated on the next page, together with their anticipated completion dates.

Offices - Australia

Queensland
Brisbane
Cairns
Townsville
Mackay
Rockhampton
Bundaberg
Hervey Bay
Sunshine Coast
Toowoomba
Springfield
Gold Coast

New South Wales
Sydney
Newcastle
Gosford
Wollongong
Deniliquin

Canberra

Victoria
Melbourne
Bendigo
Dandenong

Western Australia

Perth
Kalgoorlie
Busselton

Northern Territory
Darwin



ANALYSIS OF THE
CONSTRUCTION OF THE
PORT OF AIRLIE PROJECT
2009



Belgium Brussels **Indonesia** Jakarta **Kenya** Nairobi **New Zealand** Auckland Christchurch Wellington
Papua New Guinea Port Moresby **Sri Lanka** Colombo **United Arab Emirates** Abu Dhabi **United Kingdom** London
United States of America Portland Washington Phoenix Sacramento Boise Las Vegas Charlotte

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OUTSTANDING WORKS AS AT 25 MAY 2009

Stage No	Work Item	Not Completed	Est. Completion
Stage 5	Construct polyethylene curtains to control water flow.	Replaced with silt curtains.	
Stage 6	Internal dredging of eastern marina.	Majority of mud excavated in the dry. Minor mud still to be dredged.	31/07/2009
Stage 7	Remove flow control curtains from Lot 117.	Not yet done.	31/07/2009
	Remove sheet piles H – M.	Not yet done.	31/07/2009
	Silt curtain to be erected for pile extraction.	Not yet done.	31/07/2009
Stage 9	Construct marina foreshore promenade.	Removed from Golding scope of work.	
	Service installations, Roads 1, 2 & 4.	Work in progress, 99% complete.	12/06/2009
	Service installations, Roads 5, 6 & 7.	Work in progress, 80% complete.	31/07/2009

Please get back to me if you have any queries.

Yours faithfully,

sch4p4(6) Personal information

BSc.Eng(Hons), MIEAust, CPEng, NPER-3, RPEQ 1578
 for **Cardno Ullman & Nolan**

encls: Schedule of approved drawings

C.C: sch4p4(6) Personal information

**PORT OF AIRLIE DEVELOPMENT
DEVELOPMENT APPROVAL DOCUMENT IPDC00251205D32
SCHEDULE OF APPROVED DRAWINGS**

Drawing	Description	Revision
SK01-1	Marina overall layout	E
SK01-2	Marina overall layout, lease area and entrance	E
SK02	Internal stormwater network	E
SK03	Stormwater drainage concept at esplanade	D
SK04	Construction phase drainage paths	D
SK05	Stormwater major flow path	D
SK06	Internal trunk water reticulation	E
SK07	Internal sewerage reticulation	E
SK08	Internal road network	E
SK09-1	Revetment wall location	F
SK09-2	Revetment wall coordinates	G
SK10	Marina sheet pile revetment wall	D
SK11	Sheet pile temporary revetment wall long section	D
SK12-1	Revetment walls, sheet 1 of 2	F
SK12-2	Revetment walls, sheet 2 of 2	F
SK13	Proposed development profiles	E
SK14	Road network – Typical sections	D
SK15	Proposed development profiles	F
SK16	Boat ramp profile	F
SK17	Western sea wall revetment walls	D
SK18-1	Marina entrance & maintenance area details, sheet 1 of 2	F
SK18-2	Marina entrance & maintenance area details, sheet 2 of 2	D
SK19	Potential acid sulphate soils disposal location	F
SK20	Finished surface levels	F
53932-201-1	Constructivity – revised – methodology program – WAB3	K
3041-AP-01	Plan of areas below high water mark	B
DBUND-01	Drainage / Construction access bund	0

Our Ref U12017

sch4p1(6) Personal information



14 October 2009

Cardno Ullman & Nolan Pty Ltd
ABN 36 103 205 170

The Project Director
Port of Airlie Project
Meridien Pty Ltd
GPO Box 2484
BEISBANE QLD 4001

Level 11 Green Square Nth Tower
515 St Paul's Terrace
Fortitude Valley Qld 4006
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Att: sch4p1(6) Personal information

sch4p1(6) Personal information

**PORT OF AIRLIE PROJECT. ADEQUACY OF CONSTRUCTED WORKS
COMPRISING STAGES 1 TO 9**

As required by Condition 46 of the Development Approval Document IPDC00251205D32, the following confirmation is provided.

As demonstrated by

- observations made during my inspection visits and during inspection visits carried out by other Cardno Ullman & Nolan staff operating under my control,
- advice received from the Superintendent's site representative,
- advice received from the contractor,
- the contractor's construction quality control documentation,
- as-constructed survey drawings received from the contractor,

I can confirm that the works comprising Stages 1 to 9 inclusive as shown on the Golding drawing no. 5393-201-1 Rev K (including all associated works), with the specific exceptions cited later in this letter,

- have been constructed in accordance with the approved drawings (as listed in the attachment) and the development conditions,
- are structurally adequate for the anticipated usage, and
- comply with all relevant codes, including the EPA's operational policy "Building and engineering standards for tidal works".

Further, I am able to confirm that, except as noted, the profile of the "beds and banks" (including rock revetments, sand beach, dredged areas and un-dredged areas) is within design tolerance.

The exceptions are tabulated on the next page, together with their anticipated completion dates.

Offices - Australia

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Mackay
Rockhampton
Bundaberg
I lervay Bay
Sunshine Coast
Toowoomba
Springfield
Gold Coast
New South Wales
Sydney
Newcastle
Gosford
Wollongong
Deniliquin

Canberra

Victoria
Melbourne
Bendigo
Dandenong

Western Australia

Perth
Kalgoorlie
Bussellon

Northern Territory
Darwin



Belgium Brussels **Indonesia** Jakarta **Kenya** Nairobi **New Zealand** Auckland Christchurch Wellington
Papua New Guinea Port Moresby **Sri Lanka** Colombo **United Arab Emirates** Abu Dhabi **United Kingdom** London
United States of America Portland Washington Phoenix Sacramento Boise Las Vegas Charlotte

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OUTSTANDING WORKS AS AT 6 OCTOBER 2009

Stage No	Work Item	Not Completed	Est. Completion
Stage 4	Construct Lot 101 northern (rock) bund (at head of beach).	Rock bund was constructed to design levels but there has been subsequent settlement of 100 – 300mm. Leave as is: buried rock bund is fit for purpose.	
Stage 5	Construct polyethylene curtains in Lot 117 to control water flow.	Replaced with silt curtains.	
Stage 6	Internal dredging of eastern marina.	Majority of mud excavated in the dry. Minor mud still to be dredged.	30/06/2010
Stage 7	Remove flow control curtains from Lot 117.	Not yet done.	31/07/2010
	Remove sheet piles H – M.	Not yet done.	31/07/2010
	Silt curtain to be erected for pile extraction.	Not yet done.	30/06/2010
Stage 9	Construct marina foreshore promenade.	Removed from Golding scope of work.	
Various stages	Construct rock revetment.	Rock revetments were constructed to design profiles but subsequent settlement requires small, isolated sections of revetment to be topped up to design level.	31/07/2010

Please get back to me if you have any queries.

Yours faithfully,

sch4p4(6) Personal information

BSc.Eng(Hons), MIEAust, CPEng, NPER-3, RPEQ 1578
 for **Cardno Ullman & Nolan Pty Ltd**

encls: Schedule of approved drawings

C.C: sch4p4(6) Personal information

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3041-AP-01	Plan of areas below high water mark	B
DBUND-01	Drainage / Construction access bund	0

Our Ref U12017 :PAJD

Contact (6) Personal information

Date 31 January 2011

The Project Director
Port of Airlie Project
Meridien Pty Ltd
GPO Box 2484
BRISBANE QLD 4011

Attention (6) Personal information

Dear (6) Personal information

Cardno (Qld) Pty Ltd
Trading as Cardno Ullman & Nolan
ABN 57 051 074 992

Level 11
515 St Paul's Terrace
Fortitude Valley QLD 4006
Australia

Locked Bag 4006
Fortitude Valley QLD 4006
Australia

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www.cardno.com.au

**PORT OF AIRLIE PROJECT. ADEQUACY OF CONSTRUCTED WORKS
COMPRISING STAGES 1 TO 9**

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Please get back to me if you have any queries.

Yours faithfully

sch4p4(6) Personal information

for **Cardno Ullman & Nolan**

Email: [sch4p4\(6\) Personal information@cardno.com.au](mailto:sch4p4(6) Personal information@cardno.com.au)

Enc: Schedule of approved drawings

sch4p4(6) Personal information

Published on DES Disclosure Log
RTI Act 2009

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DBUND-01	Drainage / Construction access bund	0