

Brisbane Office
Job Number: DL17/170
Ref No: 13000
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 581
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 581 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 581 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
581	6	5 th December 2017	104.5
581	10	19 th January 2018	101.5

Note: Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.

Fill constructed on Lot 581 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 581 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 3 and DL17/170 - 5
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13001
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 580
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 580 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 580 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
580	7	5 th December 2017	101.0
580	9	19 th January 2018	102.5

Note: Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.

Fill constructed on Lot 580 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 580 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 3 and DL17/170 - 5
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13002
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 501
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 501 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 501 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
501	5	1 st November 2017	100.0
<i>Note:</i> Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.			

Fill constructed on Lot 501 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 501 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 2
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13003
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 500
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 500 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 500 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
500	4	1 st November 2017	102.0
<i>Note:</i> Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.			

Fill constructed on Lot 500 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 500 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 2
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13004
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 499
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 499 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 499 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
499	2	25 th September 2017	96.0
<i>Note:</i> Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.			

Fill constructed on Lot 499 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 499 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 1
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13005
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 498
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 498 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report” Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 498 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
498	1	25 th September 2017	97.0
<i>Note:</i> Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.			

Fill constructed on Lot 498 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 498 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 1
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13006
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 497
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 497 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

Test performed on filling operations near Lot 497 are representative of the fill constructed on Lot 497. The closest tests to Lot 497 were performed on Lot 498 and Lot 496. A summary of tests representative of the fill constructed on Lot 497 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
498	1	25 th September 2017	97.0
496	3	1 st November 2017	102.0

Note: Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.

Fill constructed on Lot 497 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 497 can be termed as “Controlled Fill” in accordance with AS 2870-2011 “Residential Slabs and Footings”.

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 – 1 and DL17/170 – 2
Brochure: Important Information About Your Geotechnical Engineering Report

Brisbane Office
Job Number: DL17/170
Ref No: 13007
Author: R. Mitchell

12th February 2018

CCA Winslow Pty Ltd
1587 Ipswich Road
Rocklea, QLD 4106

ATTENTION: MR ANTHONY ROSARIO
Email: anthonyrosario@ccawinslow.com.au

Dear Sir,

**RE: LOT 496
LEVEL ONE COMPLIANCE REPORT FOR FILLING OPERATIONS
EDENS CROSSING, STAGE 3
MT JULLERAT DRIVE, REDBANK PLAINS**

Earthworks filling operations were constructed on Lot 496 at the above Development to form a working platform to support a future residential building.

Earthworks were constructed by CCA Winslow (The Client) between 9th August 2017 and 23rd January 2018.

This report should be read in conjunction with the following Morrison Geotechnic Report:

- *Ref. No. 12902 – DL17/170 – CCA Winslow – Edens Crossing, Stage 3 – Level One Report”
Dated 8th February 2018.*

The Brief from the Client was limited to:

- Level One Inspection of the placement and compaction of fill materials in accordance with AS3798 2007 – “Guidelines on Earthworks for Commercial and Residential Developments”;
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.
- Ipswich City Council Specifications.
- ETS Engineering Earthworks Layout Sheets, Job Code 17BNE-0003 Drawing No. C200, Revision A, dated, 20th April 2017.

Level One Inspections and Testing was carried out on the stripped ground surfaces and during the placement and compaction of fill materials. Field and laboratory testing included proof roll testing of the stripped surface, field density testing using the nuclear soil moisture density gauge and standard Compactions.

Compaction testing at the Edens Crossing, Stages 3 Development was carried out at a frequency of 1 test per 500m³ of placed and compacted fill as defined in AS3798 Table 8.1. Test locations were selected using Random Stratified methods. Compaction testing was carried out at frequencies representative of the fill volume as a mass. On this basis, compaction testing was not required on each individual Lot.

A summary of tests representative of the fill constructed on Lot 496 are presented in Table 1 below.

Table 1: Summary of Testing

Lot Number	Test Number	Date Tested	Density Ratio Achieved %
496	3	1 st November 2017	102.0
<i>Note:</i> Laboratory Standard Test Methods Used: AS1289.5.8.1, 5.7.1, 2.1.1.			

Fill constructed on Lot 496 has been observed to be placed and compacted in accordance with the Brief. The fill on Lot 496 can be termed as "Controlled Fill" in accordance with AS 2870-2011 "Residential Slabs and Footings".

This statement does not include any top soil, which may have been placed for use as Lot dressing or any other subsequent earthworks after 23rd January 2018.

If there are any queries concerning the above please do not hesitate to contact this office, or alternatively send to my email at: lmcdowall@morrisongeo.com.au

Yours faithfully,



L. McDOWALL

For and on behalf of

MORRISON GEOTECHNIC PTY LIMITED

Encl: Laboratory Test Report DL17/170 - 1
Brochure: Important Information About Your Geotechnical Engineering Report