MORRISON GEOTECHNIC

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Gold Coast Office
Job No: GL15/061
Ref No: 12097
Author: I. Masman

18th September 2015

Golding Contractors
58 Union Circuit
Yatala Qld 4207

ATTENTION: MR CAMERON MCCLURE
Email: cameron.mcclure@golding.com.au

Dear Sir,

RE: LEVEL ONE OBSERVATION AND TESTING COMPLIANCE REPORT FOR BULK EARTHWORKS FILL, GAINSBOROUGH GREENS – PRECINCT 5.1 STAGE 1B TO STAGE 7 – PIMPAMA.

1.0 Introduction

This report presents results of Level One Earthworks Inspections, Field Testing and associated Compaction Compliance testing carried out on earthworks fill placed and compacted to form Residential Allotments and subgrade embankments at Gainsborough Greens, Precinct 5.1, Stage 1B to 7, Pimpama (The Site).

The work was commissioned by Mr Cameron McClure representing Golding Contractors Pty Ltd (The Client).

The earthworks were carried out by The Client.

Earthworks operations at The Site were carried out intermittently between 5th April 2015 and 11th August 2015.

Our brief from the Client was limited to:

- Level One Supervision of the placement and compaction of fill materials in accordance with AS3798 2007 – "Guidelines on Earthworks for Commercial and Residential Developments"; Gold Coast City Council Project Specifications and KN Group Notes on Drawings.
- Relative Density Control Testing in accordance with AS1289 – Testing of Soils for Engineering Purposes and at frequencies required in AS3798 Table 8.1.

The KN Group Earthworks Layout Plan, Drawing Number A1-13-108-59B to A1-13-108-62B indicates where fill was to be placed and compacted at The Site. Fill areas as shown on the KN Group Earthworks Plan are considered to be a reasonable indication of the fill extremities and thickness with the following variations: -

- Approximately 4900m3 of unsuitable and or uncontrolled fill materials were identified. This material was removed, sorted to remove the unsuitable materials and replaced under Level One Conditions.
- The Hutch Surveys Plan is attached and presents the extents of the materials removed, treated and replaced.
- Excludes the park fill (Stage 7)

All other design requirements such as CBR and Quality of Materials, site classification, material assessments and slope stability appraisals were not included in the Brief and are therefore excluded from this Report.

Picture 1: Aerial View of the Site (Image Source: Nearmap.com Showing 23rd April 2015)

2.0 Methodology

Earthworks Inspection and Testing was carried out on the stripped and exposed ground surface and during the placement and compaction of fill materials forming the proposed residential allotments and subgrade embankments.

Field and laboratory testing included a walk over assessment of the existing ground condition, proof roll testing of the stripped surface, observation of filling and compaction activities and field density testing using a soil moisture density gauge and Dry Density compactions. All work was carried out in accordance with AS 3798 (Guidelines on Earthworks for Commercial and Residential Developments), AS1289 (Testing of Soils for Engineering Purposes) and KN Group Notes on Drawings.

2.1 Stripped Surface Assessment

The site had been cleared of all debris, trees and topsoil. Visible organic matter, uncompacted or loose soil, silty soil, unsuitable materials and any over wet areas were removed to expose a suitable natural foundation.

Any dams and sediment ponds that were to be filled in were dewatered, and any silts, clays, other deleterious materials and water affected soils were removed to a suitable material surface prior to placing fill.

A series of Test Pits were excavated over the site to identify the extent of existing uncontrolled fill and unsuitable materials. Identified unsuitable materials were removed from site. Uncontrolled fill materials were removed to expose natural soils and replaced under Level One Conditions.

The attached survey plan outlines the extent of the unsuitable / uncontrolled fill materials.

The materials exposed after stripping and clearing the site and which formed the fill foundation can be broadly summarised as:

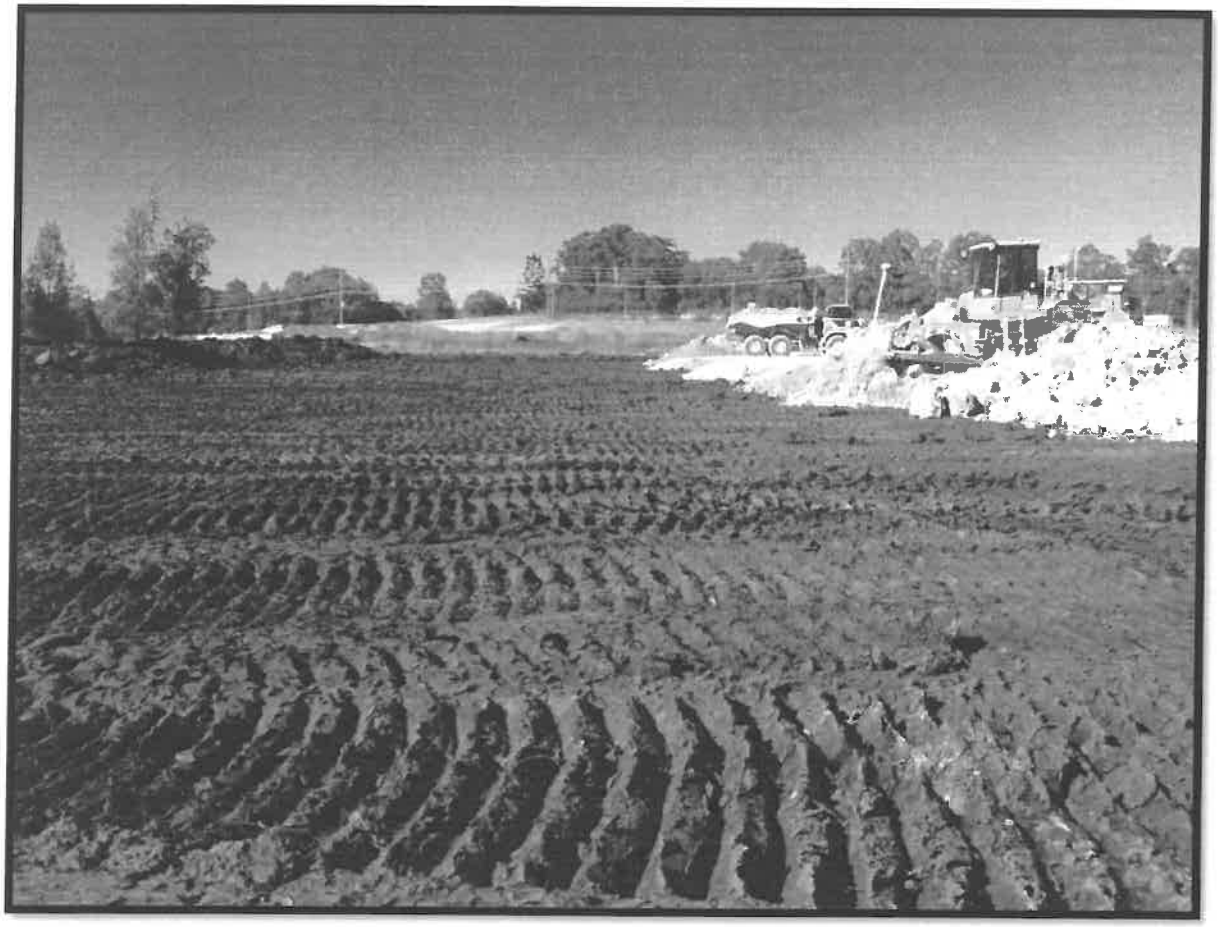
- Sandy Clay (CH), very stiff, high plasticity, dark brown, fine to medium grained sand, moist.

The stripped surface was proof rolled by The Client in the presence of our Geotechnicians using an articulated dump truck carrying out multiple passes. Areas where movements were observed beneath the wheels of the plant were removed to a suitable base or tyned; air dried to approximate optimum moisture content and recompacted. After the above treatments were carried out, the proof rolling process was repeated.

When no visible movement or vertical deflection was observed during proof roll testing, the stripped surface was assessed to be suitable for the placement of fill.

Slopes steeper than 1V : 8H were benched prior to filling and the filling was keyed into the slope during the filling process. The benching process removed rills and drainage channels from the existing slopes to improve the bond between placed fill and the natural sloping ground.

Picture 1: View of the Stripped Surface Prior to Placement of Fill



2.2 Filling Operations

Fill materials were sourced from onsite cuts and typically consisted of following:

- Sandy Clay (CI), medium plasticity, fine to medium grained sand, dark brown and moist.
- Sandy Clay (CI), medium plasticity, fine to coarse grained sand, yellow brown and moist
- Sandy Clay (CI), medium plasticity, fine to coarse grained sand, red brown and moist.

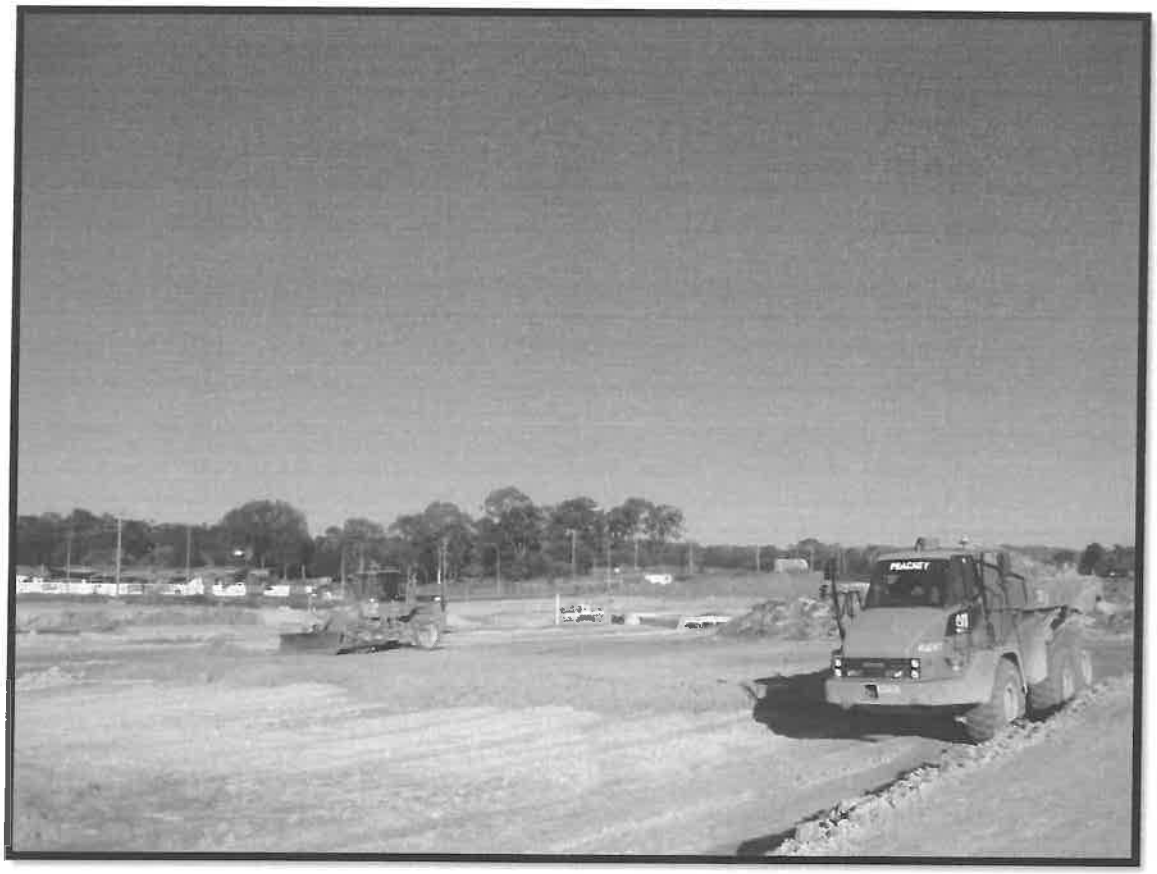
Placement and compaction of the fill materials was carried out using the following plant:

- D6 Dozer
- Water trucks
- Cat 815 Compactor
- Articulated Dump Trucks
- Excavators
- Pad Foot Roller

The fill was placed in thin layers no greater than 200mm loose, moisture conditioned at the fill source and during placement and thoroughly mixed to achieve moisture contents suitable for compaction. Materials containing excessive amounts of silts or deleterious materials such as sticks, rocks greater than 150mm in size or construction debris were sorted to remove the contaminants prior to placement, or rejected for use. Sloping areas requiring filling were benched and continually keyed into the slope prior to and during placement. Compaction of the fill was carried out using the above plant carrying out multiple passes.

Field density tests and laboratory compactions were carried out on the fill materials in accordance with Table 5.1 and 8.1 of AS3798 2007 (Guidelines on Earthworks for Commercial and Residential Developments) and tested to AS1289 test methods (Testing of Soils for Engineering Purposes). Testing achieved the required specification of 95% of the Hilf Density Ratio.

Picture 3: View of Filling Operations



3.0 Statement of Compliance

Our representatives observed the relevant earthworks operations including the stripped surface, fill placement and compaction operations and carried out field density tests and laboratory compaction tests in accordance with the required standard (AS3798, AS1289) and Specification.

It is confirmed that Level 1 Inspection and Testing has been carried out on the earthworks fill to form the Residential Allotments and Road Embankment Subgrades at the Site. . Based on the observations made by our Geotechnicians and the results of the field and laboratory tests, the placed and compacted fill at the above project has, as far as we have been able to assess, been constructed in general accordance with the intent of AS3798 and the Specifications.

The fill can be deemed to be 'controlled' in accordance with AS2870.

4.0 Exclusions

This statement excludes any park fill (Stage 7), and does not include any top soil, which may be placed for use as Lot dressing or any other subsequent earthworks after 11th August 2015.

Assessments of batter stability, material quality such as soaked CBR and site classifications are excluded from this commission. The stability of any fill batters in the long term must take account of the variable materials used for the construction of the fill platforms and all surface loads including traffic loads near the crest of any batters.

Our on-site attendance specifically excludes assessments of fill material quality and engineering properties that are outside the requirements of AS.3798 - 2007, including soil or fill reactivity and soaked CBR values. We note that the fill materials comprise clay soils, which may result in unfavourable site classifications for individual lots and low subgrade design strengths.

Footings and ground slabs for any residential structures constructed over natural soils or controlled fill should be designed to accommodate the characteristic ground surface movements and settlement potential. Assessments of these design parameters are beyond the scope of this Report.

Controlled fill (Level 1 Fill) provides an overview that the earthworks Specification has been met. There are sites where long term settlements of controlled fill can occur. Large total and differential settlements can be expected where fill has been placed over soft and compressible soils and where the thickness of controlled fill varies significantly.

In some cases, fill materials with a high silt content can deteriorate in wet weather conditions resulting in allowable bearing pressures less than 100 kPa.

5.0 Limitations

This Report has been prepared by Morrison Geotechnic Pty Ltd (**Morrison Geotechnic**), and may include contributions from Morrison Geotechnic's officers and employees, sub-contractors, sub-consultants or agents (**Contributors**).

This Report is for the sole benefit and use of Golding Contractors Pty Ltd (**Client**), its designers, clients and relevant statutory authorities for the sole purpose of providing geotechnical advice and recommendations in respect of the Gainsborough Greens, Precinct 5.1, Stage 1B to 7, Pimpama Development Earthworks **(Project)**. The Report is only intended to address those issues expressly described in the Brief/ Work Instructions in this Report.

This Report should not be used or relied upon for any other purpose without Morrison Geotechnic's prior written consent. Morrison Geotechnic and the Contributors do not accept any responsibility or liability in any way whatsoever for the use or reliance of this Report by anyone other than the **Client,** its designers, its clients and relevant statutory authorities or by anyone else for any purpose other than that for which it has been prepared.

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(a) released to any other party, whether in whole or in part (other than to the Client's officers, employees, advisers, designers, clients and relevant statutory authorities);

(b) Used or relied upon by any other party.

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The information (including technical information and information obtained through discussions) on which this report is based has been provided by the Client and third parties. Morrison Geotechnic and the Contributors:

(a) have relied upon and presumed the accuracy of this information;

(b) have not verified the accuracy or reliability of this information (other than as expressly stated in this Report);

(c) have not made any independent investigations or enquiries in respect of those matters of which it has no actual knowledge at the time of giving this Report to the Client; and

(d) Make no warranty or guarantee, expressed or implied, as to the accuracy or reliability of this information.

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(a) is not an environmental, contamination or hazardous materials assessment; may be invalid, incomplete or inaccurate (including errors in the scope of work, investigation methodology, observations, opinions and advice) where the information provided to Morrison Geotechnic was invalid, incomplete or inaccurate;

(b) Is limited to observations of those parts of the site described in Section 1.0.

No warranty or guarantee, whether express or implied, is made in respect of the geotechnical data, information, advice, opinions and recommendations present in this Report.

If further information becomes available, or additional assumptions need to be made, Morrison Geotechnic reserves its right to amend this Report.

If you have any queries regarding the above, please contact Mr Ian Masman at our Gold Coast office.

PP:
M. D. RILEY (RPEQ 5641)
For and on behalf of
MORRISON GEOTECHNIC PTY LIMITED

Attached: Site Plan showing Test Locations
Laboratory Test Results/Reports
Photo Gallery

APPENDIX 'A'

(Field Density Test Reports)

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.1/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	17/04/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	205865	205866	205867	205868
Test Number :			1	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	07/04/2015	07/04/2015	07/04/2015	07/04/2015
Date Tested :	07/04/2015	07/04/2015	07/04/2015	07/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	808	807		753
Sample Location :	STAGE 6 REFER SITE PLAN 0.7m BELOW FL	STAGE 6 REFER SITE PLAN 1.1m BELOW FL	STAGE 6 REFER SITE PLAN 1.5m BELOW FL	STAGE 6 REFER SITE PLAN 1.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.7	20.5	18.0	19.5
Hilf MDR Number :	205865	205866	205867	205868
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	99	99	100	101
Field Wet Density (t/m³) :	2.010	1.990	1.980	1.990
Optimum Moisture Content (%) :	19.9	20.8	18.0	19.3
Moisture Variation :	0.2	0.2	0.0	-0.1
Peak Converted Wet Density (t/m³) :	2.040	2.040	2.020	2.040
Hilf Density Ratio (%) :	**98.5**	**97.5**	**98.5**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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APPROVED SIGNATORY

S Taylor

GARY TAYLOR (Gold Coast) - WORKS SUPERVISOR
NATA Accreditation Number
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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.2/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	205877	205878	205879	
Test Number :			2	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	
Date Sampled :	08/04/2015	08/04/2015	08/04/2015	
Date Tested :	08/04/2015	08/04/2015	08/04/2015	
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	
Material Source :	ONSITE	ONSITE	ONSITE	
Lot Number :	703	704		
Sample Location :	STAGE 4 REFER SITE PLAN 1.8m BELOW FL	STAGE 4 REFER SITE PLAN 2m BELOW FL	STAGE 4 REFER SITE PLAN 2.4m BELOW FL	
Test Depth (mm) :	150	150	150	
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.5	19.0	18.7	
Hilf MDR Number :	205877	205878	205879	
Hilf MDR Method :	No	No	No	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	
Moisture Ratio (%) :	103.5	105.5	94	
Field Wet Density (t/m³) :	1.950	1.980	1.960	
Optimum Moisture Content (%) :	18.9	18.0	19.9	
Moisture Variation :	-0.6	-0.9	1.2	
Peak Converted Wet Density (t/m³) :	2.040	2.040	2.000	
Hilf Density Ratio (%) :	**96.0**	**97.0**	**98.0**	
Minimum Specification :	95	95	95	
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.3/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206043	206044	206045	206046
Test Number :		3		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	13/04/2015	13/04/2015	13/04/2015	13/04/2015
Date Tested :	13/04/2015	13/04/2015	13/04/2015	13/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	701		753	723
Sample Location :	REFER SITE PLAN 2.4m BELOW FL	REFER SITE PLAN 2m BELOW FL	REFER SITE PLAN 2m BELOW FL	REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.9	18.3	17.0	16.9
Hilf MDR Number :	206043	206044	206045	206046
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106.5	106	103.5	105
Field Wet Density (t/m³) :	2.050	2.030	2.050	2.040
Optimum Moisture Content (%) :	17.7	17.2	16.4	16.1
Moisture Variation :	-1.2	-1.1	-0.6	-0.8
Peak Converted Wet Density (t/m³) :	2.040	2.040	2.050	2.040
Hilf Density Ratio (%) :	**100.5**	**99.5**	**100.0**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.4/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	17/04/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA		Page 1 of 1

Sample Number :	206047	206048		
Test Number :	4			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	13/04/2015	13/04/2015		
Date Tested :	13/04/2015	13/04/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :		704		
Sample Location :	REFFER SITE PLAN 1.8m BELOW FL	REFER SITE PLAN 1.8m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.7	16.5		
Hilf MDR Number :	206047	206048		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	104	95		
Field Wet Density (t/m³) :	2.000	2.090		
Optimum Moisture Content (%) :	17.0	17.4		
Moisture Variation :	-0.7	0.9		
Peak Converted Wet Density (t/m³) :	2.030	2.020		
Hilf Density Ratio (%) :	**98.5**	**103.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.5/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206236	206237	206238	206239
Test Number :			11	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	18/04/2015	18/04/2015	18/04/2015	18/04/2015
Date Tested :	18/04/2015	18/04/2015	18/04/2015	18/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	695	702		723
Sample Location :	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	16.2	18.4	16.8	14.7
Hilf MDR Number :	206236	206237	206238	206239
Hilf MDR Method :				
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	107	107	106.5	104.5
Field Wet Density (t/m³) :	1.970	1.970	2.010	1.940
Optimum Moisture Content (%) :	15.1	17.2	15.7	14.1
Moisture Variation :	-1.0	-1.2	-1.1	-0.6
Peak Converted Wet Density (t/m³) :	2.080	2.060	2.040	2.040
Hilf Density Ratio (%) :	**95.0**	**95.5**	**98.5**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.6/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206240	206241	206242	206243
Test Number :		12		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	18/04/2015	18/04/2015	18/04/2015	18/04/2015
Date Tested :	18/04/2015	18/04/2015	18/04/2015	18/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	722		703	694
Sample Location :	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.0	15.7	10.3	14.1
Hilf MDR Number :	206240	206241	206242	206243
Hilf MDR Method :				
Compactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	94.5	94	91	92.5
Field Wet Density (t/m³) :	1.950	1.950	1.990	1.980
Optimum Moisture Content (%) :	19.1	16.7	11.3	15.3
Moisture Variation :	1.0	0.9	1.0	1.1
Peak Converted Wet Density (t/m³) :	2.020	2.030	2.050	2.040
Hilf Density Ratio (%) :	**96.5**	**96.0**	**97.0**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.7/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**		**Page 1 of 1**

Sample Number :	206125	206126	206127	206128
Test Number :			6	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	15/04/2015	15/04/2015	15/04/2015	15/04/2015
Date Tested :	15/04/2015	15/04/2015	15/04/2015	15/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ON SITE	ON SITE	ON SITE	ON SITE
Lot Number :	804	803		794
Sample Location :	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.6	17.0	13.8	15.7
Hilf MDR Number :	206125	206126	206127	206128
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	93.5	101	87.5	98
Field Wet Density (t/m³) :	2.030	2.020	2.060	2.080
Optimum Moisture Content (%) :	19.9	16.9	15.8	16.1
Moisture Variation :	1.3	-0.1	1.9	0.3
Peak Converted Wet Density (t/m³) :	2.020	2.040	2.040	2.060
Hilf Density Ratio (%) :	**101.0**	**99.5**	**101.0**	**100.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.8/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206129	206130		
Test Number :		7		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	15/04/2015	15/04/2015		
Date Tested :	15/04/2015	15/04/2015		
'aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ON SITE	ON SITE		
Lot Number :	793			
Sample Location :	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6	REFFER TO SITE PLAN 2.5m BELOW FL STAGE 6		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.3	12.6		
Hilf MDR Number :	206129	206130		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	103.5	93.5		
Field Wet Density (t/m³) :	2.040	2.040		
Optimum Moisture Content (%) :	19.6	13.5		
Moisture Variation :	-0.7	0.9		
Peak Converted Wet Density (t/m³) :	2.050	2.040		
Hilf Density Ratio (%) :	**99.5**	**100.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.9/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206228	206229	206230	206231
Test Number :			9	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	17/04/2015	17/04/2015	17/04/2015	17/04/2015
Date Tested :	17/04/2015	17/04/2015	17/04/2015	17/04/2015
'aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	698	699		726
Sample Location :	STAGE 3 & 4 REFER TO SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 1.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.8	16.2	15.7	18.7
Hilf MDR Number :	206228	206229	206230	206231
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	101.5	101.5	100	99
Field Wet Density (t/m³) :	2.020	2.010	2.010	1.980
Optimum Moisture Content (%) :	15.6	16.0	15.7	18.9
Moisture Variation :	-0.2	-0.2	0.0	0.2
Peak Converted Wet Density (t/m³) :	2.100	2.100	2.090	2.030
Hilf Density Ratio (%) :	**96.0**	**95.5**	**96.5**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.10/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206232	206233	206234	206235
Test Number :		10		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	17/04/2015	17/04/2015	17/04/2015	17/04/2015
Date Tested :	17/04/2015	17/04/2015	17/04/2015	17/04/2015
Material Type :	GENERAL FILL	ENERGEX XING	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	725		700	697
Sample Location :	STAGE 3 & 4 REFER TO SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER TO SITE PLAN 0.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.7	18.4	13.6	14.3
Hilf MDR Number :	206232	206233	206234	206235
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	101.5	105	91.5	95
Field Wet Density (t/m³) :	1.980	1.980	2.040	2.040
Optimum Moisture Content (%) :	17.4	17.6	14.9	15.1
Moisture Variation :	-0.2	-0.8	1.2	0.8
Peak Converted Wet Density (t/m³) :	2.060	2.040	2.050	2.050
Hilf Density Ratio (%) :	**96.0**	**97.5**	**99.5**	**99.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.11/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**24/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206198	206199	206200	206201
Test Number :			8	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	16/04/2015	16/04/2015	16/04/2015	16/04/2015
Date Tested :	16/04/2015	16/04/2015	16/04/2015	16/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ON SITE	ON SITE	ON SITE	ON SITE
Lot Number :	757	720		755
Sample Location :	REFER TO SITE PLAN 2.8m BELOW F/L STAGE 6	REFER TO SITE PLAN 2.8m BELOW F/L STAGE 4	REFER TO SITE PLAN 2.8m BELOW F/L STAGE 4	REFER TO SITE PLAN 2.6m BELOW F/L STAGE 6
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.1	19.3	18.8	23.4
Hilf MDR Number :	206198	206199	206200	206201
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	119.5	108.5	139	111
Field Wet Density (t/m³) :	2.000	2.000	2.040	2.010
Optimum Moisture Content (%) :	16.0	17.8	13.6	21.1
Moisture Variation :	-3.1	-1.5	-5.3	-2.2
Peak Converted Wet Density (t/m³) :	2.070	2.070	2.130	2.090
Hilf Density Ratio (%) :	**97.0**	**96.5**	**95.5**	**96.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.12/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	24/04/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	206202	206203		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	16/04/2015	16/04/2015		
Date Tested :	16/04/2015	16/04/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ON SITE	ON SITE		
Lot Number :	755			
Sample Location :	REFER TO SITE PLAN 2.6m BELOW F/L STAGE 6	REFER TO SITE PLAN 2.6m BELOW F/L STAGE 6		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	16.8	22.7		
Hilf MDR Number :	206202	206203		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	129	115		
Field Wet Density (t/m³) :	2.000	2.010		
Optimum Moisture Content (%) :	13.0	19.7		
Moisture Variation :	-3.9	-2.9		
Peak Converted Wet Density (t/m³) :	2.070	2.080		
Hilf Density Ratio (%) :	**96.5**	**97.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.13/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**24/04/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206073	206074	206075	206076
Test Number :				5
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	14/04/2015	14/04/2015	14/04/2015	14/04/2015
Date Tested :	14/04/2015	14/04/2015	14/04/2015	14/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	756	704	706	
Sample Location :	REFER SITE PLAN 2.7m BELOW FL STAGE 6	REFER SITE PLAN 2.7m BELOW FL STAGE 4	REFER SITE PLAN 2.7m BELOW FL STAGE 4	REFER SITE PLAN 2.9m BELOW FL STAGE 4
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.9	15.4	21.4	22.4
Hilf MDR Number :	206073	206074	206075	206076
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	101.5	101.5	98.5	103.5
Field Wet Density (t/m³) :	1.970	1.980	2.020	2.010
Optimum Moisture Content (%) :	21.5	15.2	21.7	21.7
Moisture Variation :	-0.4	-0.2	0.2	-0.7
Peak Converted Wet Density (t/m³) :	2.030	2.020	1.990	2.010
Hilf Density Ratio (%) :	**97.5**	**98.0**	**101.5**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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ABN 51 009 878 899
www.morrisongeo.com.au

Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.14/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	24/04/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	206077	206078		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	14/04/2015	14/04/2015		
Date Tested :	14/04/2015	14/04/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	724	701		
Sample Location :	REFER SITE PLAN 2.9m BELOW FL STAGE 4	REFER SITE PLAN 2.9m BELOW FL STAGE 4		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.2	16.1		
Hilf MDR Number :	206077	206078		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	101.5	98		
Field Wet Density (t/m³) :	1.980	1.990		
Optimum Moisture Content (%) :	15.0	16.5		
Moisture Variation :	-0.2	0.3		
Peak Converted Wet Density (t/m³) :	2.050	2.060		
Hilf Density Ratio (%) :	**96.5**	**96.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.15/1**
Job Number :	**GL15/061**	Report Date:	**28/04/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206342	206343	206344	206345
IL ɔ :	13			14
Lot No :		694	702	
Item No :	-	-	-	-
Date Sampled :	22/4/2015	22/4/2015	22/4/2015	22/4/2015
Date Tested :	22/4/2015	22/4/2015	22/4/2015	22/4/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 4 REFER SITE PLAN 1.4m BELOW FL	STAGE 4 REFER SITE PLAN 1.4m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.99**	**1.99**	**2.00**	**2.00**
Field Moisture Cont (%):	**17.9**	**19.0**	**19.4**	**16.7**
PC''D (t/m³) :	**2.02**	**2.01**	**2.02**	**2.02**
Moisture Variation (%):	**-0.1**	**-0.8**	**-0.6**	**0.0**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**98.5**	**99.0**	**99.0**	**99.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
206342	
206343	
206344	
206345	

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FORM NUMBER

REP AHNUC-1-2

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.16/1**
Job Number :	**GL15/061**	Report Date:	**28/04/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206346	206347	206348	206349
ID :				15
Lot No :	793	792	791	
Item No :	-	-	-	-
Date Sampled :	22/4/2015	22/4/2015	22/4/2015	22/4/2015
Date Tested :	22/4/2015	22/4/2015	22/4/2015	22/4/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 5 REFER SITE PLAN 2.4m BELOW FL	STAGE 5 REFER SITE PLAN 2.4m BELOW FL	STAGE 5 REFER SITE PLAN 2.2m BELOW FL	STAGE 5 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.99**	**1.99**	**2.04**	**2.03**
Field Moisture Cont (%):	**18.4**	**17.1**	**16.1**	**16.4**
PCWD (t/m³) :	**2.04**	**2.02**	**2.06**	**2.06**
Moisture Variation (%):	**-1.1**	**-0.2**	**-0.8**	**-1.1**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**97.0**	**98.5**	**99.0**	**98.5**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
206346	
206347	
206348	
206349	

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FORM NUMBER

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.17/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206396	206397	206398	206399
Test Number :			16	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	23/04/2015	23/04/2015	23/04/2015	23/04/2015
Date Tested :	23/04/2015	23/04/2015	23/04/2015	23/04/2015
'aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	688	709		716
Sample Location :	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 4 REFER SITE PLAN 1.6m BELOW FL	STAGE 4 REFER SITE PLAN 1.6m BELOW FL	STAGE 4 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.4	21.7	24.7	19.1
Hilf MDR Number :	206396	206397	206398	206399
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103.5	103	100.5	102.5
Field Wet Density (t/m³) :	1.970	2.020	2.000	2.030
Optimum Moisture Content (%) :	21.6	21.1	24.6	18.6
Moisture Variation :	-0.7	-0.6	-0.1	-0.5
Peak Converted Wet Density (t/m³) :	1.980	2.000	1.970	2.020
Hilf Density Ratio (%) :	**99.5**	**101.5**	**101.5**	**100.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.18/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206400	206401	206402	206403
Test Number :		17		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	23/04/2015	23/04/2015	23/04/2015	23/04/2015
Date Tested :	23/04/2015	23/04/2015	23/04/2015	23/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	715		710	687
Sample Location :	STAGE 4 REFER SITE PLAN 1.6m BELOW FL	STAGE 4 REFER SITE PLAN 1.6m BELOW FL	STAGE 4 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.3	17.5	21.7	22.1
Hilf MDR Number :	206400	206401	206402	206403
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103.5	102	110	117
Field Wet Density (t/m³) :	2.020	2.020	1.950	1.990
Optimum Moisture Content (%) :	16.7	17.2	19.8	18.9
Moisture Variation :	-0.6	-0.4	-1.9	-3.1
Peak Converted Wet Density (t/m³) :	2.050	2.020	2.050	2.040
Hilf Density Ratio (%) :	**98.0**	**100.0**	**95.0**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.19/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**05/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206448	206449	206450	206451
Test Number :	18			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	24/04/2015	24/04/2015	24/04/2015	24/04/2015
Date Tested :	24/04/2015	24/04/2015	24/04/2015	24/04/2015
'aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		790	789	788
Sample Location :	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.7	22.7	23.7	23.8
Hilf MDR Number :	206448	206449	206450	206451
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	104.5	103.5	103.5
Field Wet Density (t/m³) :	1.930	1.920	1.910	1.920
Optimum Moisture Content (%) :	22.1	21.7	22.9	23.0
Moisture Variation :	-0.6	-0.9	-0.7	-0.8
Peak Converted Wet Density (t/m³) :	1.960	2.000	1.970	1.980
Hilf Density Ratio (%) :	**98.5**	**96.0**	**97.0**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.20/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**05/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**		**Page 1 of 1**

Sample Number :	206452	206453	206454	206455
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	24/04/2015	24/04/2015	24/04/2015	24/04/2015
Date Tested :	24/04/2015	24/04/2015	24/04/2015	24/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	787	786	785	784
Sample Location :	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.9	17.2	24.9	20.4
Hilf MDR Number :	206452	206453	206454	206455
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	104.5	102.5	103.5
Field Wet Density (t/m³) :	1.970	1.970	1.960	1.970
Optimum Moisture Content (%) :	21.3	16.5	24.3	19.7
Moisture Variation :	-0.6	-0.7	-0.6	-0.7
Peak Converted Wet Density (t/m³) :	1.990	2.030	2.000	2.030
Hilf Density Ratio (%) :	**99.0**	**97.0**	**98.0**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.21/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206481	206482	206483	206484
Test Number :			19	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	27/04/2015	27/04/2015	27/04/2015	27/04/2015
Date Tested :	27/04/2015	27/04/2015	27/04/2015	27/04/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	706	707		716
Sample Location :	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 1.3m BELOW FL	STAGE 4 REFER SITE PLAN 1.3m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.0	21.9	20.9	20.8
Hilf MDR Number :	206481	206482	206483	206484
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	102.5	104	104
Field Wet Density (t/m³) :	1.950	1.950	1.950	1.940
Optimum Moisture Content (%) :	20.6	21.4	20.0	20.0
Moisture Variation :	-0.5	-0.5	-0.8	-0.7
Peak Converted Wet Density (t/m³) :	2.010	1.990	2.030	2.010
Hilf Density Ratio (%) :	**97.5**	**98.0**	**96.0**	**96.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.22/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206485	206486	206487	206488
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	27/04/2015	27/04/2015	27/04/2015	27/04/2015
Date Tested :	27/04/2015	27/04/2015	27/04/2015	27/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	716	709	691	690
Sample Location :	STAGE 4 REFER SITE PLAN 1.3m BELOW FL	STAGE 4 REFER SITE PLAN 1.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	12.9	14.8	26.3	27.4
Hilf MDR Number :	206485	206486	206487	206488
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	82	85.5	100.5	103
Field Wet Density (t/m³) :	1.960	1.940	1.930	1.950
Optimum Moisture Content (%) :	15.7	17.3	26.1	26.6
Moisture Variation :	2.8	2.5	-0.1	-0.7
Peak Converted Wet Density (t/m³) :	2.050	2.050	1.940	1.960
Hilf Density Ratio (%) :	**95.5**	**95.0**	**99.0**	**99.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.23/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206489	206490		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	27/04/2015	27/04/2015		
Date Tested :	27/04/2015	27/04/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	688	710		
Sample Location :	STAGE 4 REFER SITE PLAN 1.2m BELOW FL	STAGE 4 REFER SITE PLAN 1.2m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.2	14.8		
Hilf MDR Number :	206489	206490		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	89	91		
Field Wet Density (t/m³) :	1.930	1.920		
Optimum Moisture Content (%) :	17.0	16.3		
Moisture Variation :	1.8	1.5		
Peak Converted Wet Density (t/m³) :	2.040	2.010		
Hilf Density Ratio (%) :	**95.0**	**95.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.24/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206530	206531	206532	206533
Test Number :	20			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	28/04/2015	28/04/2015	28/04/2015	28/04/2015
Date Tested :	28/04/2015	28/04/2015	28/04/2015	28/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		773	772	771
Sample Location :	STAGE 5 REFER SITE PLAN 1.8m BELOW FL	STAGE 5 REFER SITE PLAN 1.8m BELOW FL	STAGE 5 REFER SITE PLAN 1.8m BELOW FL	STAGE 5 REFER SITE PLAN 1.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	16.4	15.6	16.3	13.6
Hilf MDR Number :	206530	206531	206532	206533
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
ield Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	86.5	87.5	86	84.5
Field Wet Density (t/m³) :	1.940	1.960	1.990	1.980
Optimum Moisture Content (%) :	18.9	17.8	19.0	16.1
Moisture Variation :	2.5	2.2	2.6	2.5
Peak Converted Wet Density (t/m³) :	1.970	2.000	2.000	1.960
Hilf Density Ratio (%) :	**98.5**	**97.5**	**99.0**	**100.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.25/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**		**Page 1 of 1**

Sample Number :	206534	206535	206536	206537
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	28/04/2015	28/04/2015	28/04/2015	28/04/2015
Date Tested :	28/04/2015	28/04/2015	28/04/2015	28/04/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	770	777	776	775
Sample Location :	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.8	15.9	21.2	21.8
Hilf MDR Number :	206534	206535	206536	206537
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	91	91.5	88	102
Field Wet Density (t/m³) :	2.010	1.990	2.000	1.980
Optimum Moisture Content (%) :	17.4	17.4	24.1	21.4
Moisture Variation :	1.6	1.5	2.8	-0.5
Peak Converted Wet Density (t/m³) :	2.010	2.020	1.930	2.000
Hilf Density Ratio (%) :	**100.0**	**99.0**	**103.5**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.26/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	08/05/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA		Page 1 of 1

Sample Number :	206538	206539		
Test Number :		21		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	28/04/2015	28/04/2015		
Date Tested :	28/04/2015	28/04/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	774			
Sample Location :	STAGE 5 REFER SITE PLAN 1.5m BELOW FL	STAGE 5 REFER SITE PLAN 1.5m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.6	23.2		
Hilf MDR Number :	206538	206539		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	89	105.5		
Field Wet Density (t/m³) :	1.960	1.960		
Optimum Moisture Content (%) :	24.3	22.0		
Moisture Variation :	2.5	-1.2		
Peak Converted Wet Density (t/m³) :	1.990	2.010		
Hilf Density Ratio (%) :	**98.5**	**97.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.27/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206613	206614	206615	206616
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	29/04/2015	29/04/2015	29/04/2015	29/04/2015
Date Tested :	29/04/2015	29/04/2015	29/04/2015	29/04/2015
'aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	796	795	794	792
Sample Location :	STAGE 6 REFER SITE PLAN 1.6m BELOW FL	STAGE 6 REFER SITE PLAN 1.6m BELOW FL	STAGE 6 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.0	21.4	22.0	21.1
Hilf MDR Number :	206613	206614	206615	206616
Hilf MDR Method :	No	No	No	No
'ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102.5	102	103.5	102
Field Wet Density (t/m³) :	1.970	1.960	1.930	1.920
Optimum Moisture Content (%) :	21.5	21.0	21.2	20.7
Moisture Variation :	-0.5	-0.4	-0.7	-0.4
Peak Converted Wet Density (t/m³) :	1.960	1.960	2.000	1.960
Hilf Density Ratio (%) :	**100.5**	**100.0**	**96.5**	**98.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.28/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**		**Page 1 of 1**

Sample Number :	206617	206618	206619	206620
Test Number :		22		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	29/04/2015	29/04/2015	29/04/2015	29/04/2015
Date Tested :	29/04/2015	29/04/2015	29/04/2015	29/04/2015
ɜterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	787		789	791
Sample Location :	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	24.8	23.3	23.8	23.7
Hilf MDR Number :	206617	206618	206619	206620
Hilf MDR Method :	No	No	No	No
ɪmpactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	109	103.5	103	103.5
Field Wet Density (t/m³) :	1.920	1.950	1.950	1.940
Optimum Moisture Content (%) :	22.8	22.5	23.2	23.0
Moisture Variation :	-1.9	-0.8	-0.6	-0.7
Peak Converted Wet Density (t/m³) :	1.980	1.950	1.960	1.960
Hilf Density Ratio (%) :	**97.0**	**99.5**	**99.5**	**99.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.29/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**12/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206710	206711	206712	206713
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	05/05/2015	05/05/2015	05/05/2015	05/05/2015
Date Tested :	05/05/2015	05/05/2015	05/05/2015	05/05/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	697	700	701	696
Sample Location :	STAGE 3 REFER SITE PLAN 0.5m BELOW FL	STAGE 3 REFER SITE PLAN 0.5m BELOW FL	STAGE 3 REFER SITE PLAN 0.5m BELOW FL	STAGE 3 REFER SITE PLAN 0.3m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.1	19.6	19.7	20.1
Hilf MDR Number :	206710	206711	206712	206713
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	102.5	109	104.5
Field Wet Density (t/m³) :	1.950	1.940	1.950	1.980
Optimum Moisture Content (%) :	18.6	19.1	18.1	19.3
Moisture Variation :	-0.6	-0.5	-1.7	-0.8
Peak Converted Wet Density (t/m³) :	2.000	2.040	2.040	2.000
Hilf Density Ratio (%) :	**97.5**	**95.0**	**95.5**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.30/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**12/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206714	206715		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	05/05/2015	05/05/2015		
Date Tested :	05/05/2015	05/05/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	702	695		
Sample Location :	STAGE 3 REFER SITE PLAN 0.3m BELOW FL	STAGE 3 REFER SITE PLAN 0.3m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.5	19.5		
Hilf MDR Number :	206714	206715		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	104.5	103.5		
Field Wet Density (t/m³) :	1.960	1.960		
Optimum Moisture Content (%) :	19.6	18.8		
Moisture Variation :	-0.8	-0.7		
Peak Converted Wet Density (t/m³) :	2.000	2.020		
Hilf Density Ratio (%) :	**98.5**	**97.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.31/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**12/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206716	206717	206718	206719
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	06/05/2015	06/05/2015	06/05/2015	06/05/2015
Date Tested :	06/05/2015	06/05/2015	06/05/2015	06/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	718	707	717	708
Sample Location :	STAGE 4 REFER SITE PLAN 0.8m BELOW FL	STAGE 4 REFER SITE PLAN 0.8m BELOW FL	STAGE 4 REFER SITE PLAN STAGE 4	STAGE 4 REFER SITE PLAN 0.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.7	20.7	21.7	23.8
Hilf MDR Number :	206716	206717	206718	206719
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	104.5	104	115.5
Field Wet Density (t/m³) :	1.970	1.970	1.960	1.970
Optimum Moisture Content (%) :	22.2	19.8	20.9	20.6
Moisture Variation :	-0.5	-0.8	-0.8	-3.1
Peak Converted Wet Density (t/m³) :	1.980	2.020	2.020	2.050
Hilf Density Ratio (%) :	**99.5**	**97.5**	**97.0**	**96.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.33/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206740	206741	206742	206743
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	07/05/2015	07/05/2015	07/05/2015	07/05/2015
Date Tested :	07/05/2015	07/05/2015	07/05/2015	07/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	801	802	803	804
Sample Location :	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.6	16.9	17.8	22.4
Hilf MDR Number :	206740	206741	206742	206743
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103.5	100	105	104
Field Wet Density (t/m³) :	1.980	1.990	1.980	1.960
Optimum Moisture Content (%) :	17.0	16.9	16.9	21.5
Moisture Variation :	-0.6	0.0	-0.8	-0.8
Peak Converted Wet Density (t/m³) :	2.040	2.020	2.090	2.020
Hilf Density Ratio (%) :	**97.5**	**98.5**	**95.0**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.34/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206744	206745	206746	206747
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	07/05/2015	07/05/2015	07/05/2015	07/05/2015
Date Tested :	07/05/2015	07/05/2015	07/05/2015	07/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	783	796	795	794
Sample Location :	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL	STAGE 6 REFER SITE PLAN 0.5m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.8	21.9	17.4	17.5
Hilf MDR Number :	206744	206745	206746	206747
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	105	104	105	106
Field Wet Density (t/m³) :	1.980	1.970	2.130	2.120
Optimum Moisture Content (%) :	20.8	21.0	16.6	16.5
Moisture Variation :	-0.9	-0.8	-0.8	-1.0
Peak Converted Wet Density (t/m³) :	2.010	2.010	2.130	2.100
Hilf Density Ratio (%) :	**98.0**	**98.0**	**100.5**	**101.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.35/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206854	206855	206856	206857
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	09/05/2015	09/05/2015	09/05/2015	09/05/2015
Date Tested :	09/05/2015	09/05/2015	09/05/2015	09/05/2015
:aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	721	720	719	718
Sample Location :	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.4	21.0	17.3	19.0
Hilf MDR Number :	206854	206855	206856	206857
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	107	104	103	102
Field Wet Density (t/m³) :	1.940	1.920	1.990	1.960
Optimum Moisture Content (%) :	19.1	20.2	16.8	18.6
Moisture Variation :	-1.3	-0.7	-0.5	-0.4
Peak Converted Wet Density (t/m³) :	2.010	1.990	2.010	2.010
Hilf Density Ratio (%) :	**96.5**	**96.5**	**99.0**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.36/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/05/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	206858	206859		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	09/05/2015	09/05/2015		
Date Tested :	09/05/2015	09/05/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	757	758		
Sample Location :	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.6	21.7		
Hilf MDR Number :	206858	206859		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	101	100.5		
Field Wet Density (t/m³) :	1.900	1.930		
Optimum Moisture Content (%) :	18.4	21.6		
Moisture Variation :	-0.2	-0.1		
Peak Converted Wet Density (t/m³) :	1.990	1.990		
Hilf Density Ratio (%) :	**95.5**	**97.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.37/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206839	206840	206841	206842
IL No :				
Lot No :	707	706	704	702
Item No :	-	-	-	-
Date Sampled :	8/5/2015	8/5/2015	8/5/2015	8/5/2015
Date Tested :	8/5/2015	8/5/2015	8/5/2015	8/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	REFER SITE PLAN 0.8m BELOW FL	REFER SITE PLAN 0.77m BELOW FL	REFER SITE PLAN 0.65m BELOW FL	REFER SITE PLAN 0.59m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.96**	**1.94**	**1.93**	**1.96**
Field Moisture Cont (%):	**20.9**	**18.1**	**18.1**	**22.2**
P D (t/m³) :	**1.99**	**2.02**	**2.01**	**2.00**
Moisture Variation (%):	**-1.1**	**0.8**	**0.0**	**-0.2**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**98.5**	**96.0**	**96.0**	**98.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
206839	
206840	
206841	
206842	

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.39/1
Job Number :	GL15/061	Report Date:	22/05/2015
Project :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number:	
Location :	SWAN ROAD , PIMPAMA	Test Method:	AS1289.5.8.1 & 5.7.1

Lab No :	206860	206861	206862	206863
IL .o :			23	
Lot No :	753	752		805
Item No :	-	-	-	-
Date Sampled :	11/5/2015	11/5/2015	11/5/2015	11/5/2015
Date Tested :	11/5/2015	11/5/2015	11/5/2015	11/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Max Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Field Wet Density (t/m³):	1.95	1.92	2.02	1.96
Field Moisture Cont (%):	21.7	20.9	18.5	18.8
P D (t/m³) :	2.01	1.99	2.03	1.98
Moisture Variation (%):	-0.9	-1.1	-0.2	-0.2
Compactive Effort :	Standard	Standard	Standard	Standard
Hilf Density Ratio (%) :	96.5	96.0	99.5	99.0
Min Hilf Dens Ratio (%)	95	95	95	95
Remarks:				

Lab Number:	Soil Description
206860	
206861	
206862	
206863	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.40/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206864	206865		
IL .o :		24		
Lot No :	804			
Item No :	-	-		
Date Sampled :	11/5/2015	11/5/2015		
Date Tested :	11/5/2015	11/5/2015		
Material Source :	ONSITE	ONSITE		
For Use As :	GENERAL FILL	GENERAL FILL		
Sample Location :	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL		
Test Depth (mm) :	**150**	**150**		
Max Size (mm) :	**19**	**19**		
Oversize Wet (%) :	**0**	**0**		
Field Wet Density (t/m³):	**1.91**	**1.92**		
Field Moisture Cont (%):	**19.0**	**18.4**		
P D (t/m³) :	**2.01**	**2.01**		
Moisture Variation (%):	**1.4**	**-0.8**		
Compactive Effort :	**Standard**	**Standard**		
Hilf Density Ratio (%) :	**95.0**	**95.5**		
Min Hilf Dens Ratio (%)	**95**	**95**		
Remarks:				

Lab Number:	Soil Description
206864	
206865	

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REP AHNUC-1-2

MORRISON GEOTECHNIC

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.41/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206939	206940	206941	206942
IL No :				
Lot No :	686	685	684	683
Item No :	-	-	-	-
Date Sampled :	12/5/2015	12/5/2015	12/5/2015	12/5/2015
Date Tested :	12/5/2015	12/5/2015	12/5/2015	12/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.95**	**1.98**	**1.94**	**1.94**
Field Moisture Cont (%):	**17.8**	**21.2**	**20.1**	**22.2**
P D (t/m³) :	**2.03**	**2.05**	**2.01**	**2.00**
Moisture Variation (%):	**0.3**	**-2.6**	**-2.4**	**0.0**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**96.0**	**96.5**	**96.5**	**97.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
206939	
206940	
206941	
206942	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.42/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	206943	206944	206945	206946
IL .o :				
Lot No :	710	709	687	688
Item No :	-	-	-	-
Date Sampled :	12/5/2015	12/5/2015	12/5/2015	12/5/2015
Date Tested :	12/5/2015	12/5/2015	12/5/2015	12/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL	STAGES 3 & 4 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.95**	**1.91**	**1.92**	**1.94**
Field Moisture Cont (%):	**19.4**	**23.8**	**22.1**	**17.9**
P´ 'D (t/m³) :	**1.97**	**1.96**	**1.93**	**2.01**
Moisture Variation (%):	**1.4**	**0.0**	**-2.1**	**1.5**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**98.5**	**98.0**	**99.0**	**96.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
206943	
206944	
206945	
206946	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.43/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207062	207063	207064	207065
IL No :	25			
Lot No :		764	712	713
Item No :	-	-	-	-
Date Sampled :	13/5/2015	13/5/2015	13/5/2015	13/5/2015
Date Tested :	13/5/2015	13/5/2015	13/5/2015	13/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 5 REFER SITE PLAN 2.5m BELOW FL	STAGE 5 REFER SITE PLAN 2.5m BELOW FL	STAGE 5 REFER SITE PLAN 2.5m BELOW FL	STAGE 4 REFER SITE PLAN 2.5m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.97**	**1.97**	**1.97**	**1.97**
Field Moisture Cont (%):	**24.0**	**24.5**	**24.2**	**22.5**
P D (t/m³) :	**1.98**	**2.00**	**2.01**	**2.03**
Moisture Variation (%):	**-1.6**	**-2.0**	**-3.3**	**-1.9**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**99.0**	**98.5**	**97.5**	**97.5**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207062	
207063	
207064	
207065	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.44/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207066	207067	207068	207069
IL .o :		26		
Lot No :	714		715	716
Item No :	-	-	-	-
Date Sampled :	13/5/2015	13/5/2015	13/5/2015	13/5/2015
Date Tested :	13/5/2015	13/5/2015	13/5/2015	13/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 4 REFER SITE PLAN 2.7m BELOW FL	STAGE 4 REFER SITE PLAN 2.7m BELOW FL	STAGE 4 REFER SITE PLAN 2.7m BELOW FL	STAGE 4 REFER SITE PLAN 2.7m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.97**	**1.96**	**1.91**	**1.94**
Field Moisture Cont (%):	**23.4**	**23.0**	**24.2**	**24.3**
P 'D (t/m³) :	**2.01**	**2.02**	**2.00**	**2.02**
Moisture Variation (%):	**-2.5**	**-2.7**	**-2.5**	**-2.4**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**98.5**	**97.0**	**95.0**	**96.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207066	
207067	
207068	
207069	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.45/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207109	207110	207111	207112
IL .o :	27	28	29	
Lot No :				804
Item No :	-	-	-	-
Date Sampled :	14/5/2015	14/5/2015	14/5/2015	14/5/2015
Date Tested :	14/5/2015	14/5/2015	14/5/2015	14/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN 0.2m BELOW FL	STAGE 6 REFER SITE PLAN 0.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.94**	**1.99**	**1.98**	**1.96**
Field Moisture Cont (%):	**19.6**	**21.2**	**19.9**	**18.4**
P 'D (t/m³) :	**2.02**	**2.01**	**2.02**	**2.04**
Moisture Variation (%):	**-0.2**	**-0.2**	**-0.4**	**-0.2**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**96.0**	**98.5**	**98.0**	**96.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207109	
207110	
207111	
207112	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.46/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207113	207114	207115	207116
IL .o :				
Lot No :	805	806	807	808
Item No :	-	-	-	-
Date Sampled :	14/5/2015	14/5/2015	14/5/2015	14/5/2015
Date Tested :	14/5/2015	14/5/2015	14/5/2015	14/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 6 REFER SITE PLAN 0.2m BELOW FL	STAGE 6 REFER SITE PLAN 0.2m BELOW FL	STAGE 6 REFER SITE PLAN 0.2m BELOW FL	STAGE 6 REFER SITE PLAN 0.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.96**	**1.95**	**1.94**	**1.95**
Field Moisture Cont (%):	**18.7**	**18.5**	**15.1**	**16.2**
P D (t/m³) :	**2.04**	**2.05**	**2.03**	**2.05**
Moisture Variation (%):	**-0.3**	**-0.6**	**0.7**	**0.3**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**96.5**	**95.0**	**96.0**	**95.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207113	
207114	
207115	
207116	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.47/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207158	207159	207160	207161
IL .o :	30	31	-	-
Lot No :			709	710
Item No :	-	-	-	-
Date Sampled :	15/5/2015	15/5/2015	15/5/2015	15/5/2015
Date Tested :	15/5/2015	15/5/2015	15/5/2015	15/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.99**	**2.00**	**2.00**	**1.96**
Field Moisture Cont (%):	**19.8**	**20.2**	**20.2**	**21.5**
P 'D (t/m³) :	**2.00**	**2.02**	**2.02**	**2.00**
Moisture Variation (%):	**0.1**	**-0.5**	**-0.9**	**0.1**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**99.5**	**99.0**	**99.0**	**98.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207158	
207159	
207160	
207161	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.48/1**
Job Number :	**GL15/061**	Report Date:	**22/05/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207162	207163	207164	207165
IL .o :	-	-	-	-
Lot No :	688	687	684	685
Item No :	-	-	-	-
Date Sampled :	15/5/2015	15/5/2015	15/5/2015	15/5/2015
Date Tested :	15/5/2015	15/5/2015	15/5/2015	15/5/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL	REFER SITE PLAN 2.5m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.98**	**1.96**	**2.00**	**2.01**
Field Moisture Cont (%):	**21.6**	**21.3**	**19.4**	**19.3**
P 'D (t/m³) :	**2.00**	**2.00**	**1.99**	**1.98**
Moisture Variation (%):	**-0.1**	**0.1**	**0.0**	**0.4**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**99.0**	**98.5**	**100.5**	**101.5**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207162	
207163	
207164	
207165	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.49/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207773	207774	207775	207776
Test Number :	49			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	30/05/2015	30/05/2015	30/05/2015	30/05/2015
Date Tested :	30/05/2015	30/05/2015	30/05/2015	30/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		779	768	769
Sample Location :	STAGE 5 REFER SITE PLAN 1.4m BELOW FL	STAGE 5 REFER SITE PLAN 1.4m BELOW FL	STAGE 5 REFER SITE PLAN 1.4m BELOW FL	STAGE 5 REFER SITE PLAN 1.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	4	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :		2.535		
Field Moisture Content (%) :	21.2	19.4	21.0	19.8
Hilf MDR Number :	207773	207774	207775	207776
Hilf MDR Method :	No	No	No	No
mpactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	106	107	104
Field Wet Density (t/m³) :	1.980	1.980	2.050	2.060
Optimum Moisture Content (%) :	20.6	18.3	19.6	19.1
Moisture Variation :	-0.6	-1.1	-1.3	-0.7
Peak Converted Wet Density (t/m³) :	1.980	2.020	1.980	2.040
Hilf Density Ratio (%) :	**100.0**	**98.0**	**103.5**	**101.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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IAN MASMAN (Gold Coast) - GOLD COAST MANAGER
NATA Accreditation Number
1169

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Unit 1, 5 Brendan Drive (PO Box 2011), Nerang Q 4211 **P** (07) 5596 1599 **F** (07) 5527 2027
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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.50/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207777	207778		
Test Number :		50		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	30/05/2015	30/05/2015		
Date Tested :	30/05/2015	30/05/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	770			
Sample Location :	STAGE 5 REFER SITE PLAN 1.4m BELOW FL	STAGE 5 REFER SITE PLAN 1.4m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	4	4		
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.500	2.500		
Field Moisture Content (%) :	18.8	19.2		
Hilf MDR Number :	207777	207778		
Hilf MDR Method :	No	No		
mpactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	104	104		
Field Wet Density (t/m³) :	2.050	2.060		
Optimum Moisture Content (%) :	18.1	18.5		
Moisture Variation :	-0.7	-0.7		
Peak Converted Wet Density (t/m³) :	2.040	2.040		
Hilf Density Ratio (%) :	**100.5**	**100.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.51/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207204	207205	207206	207207
Test Number :	32	33	34	35
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	16/05/2015	16/05/2015	16/05/2015	16/05/2015
Date Tested :	18/05/2015	18/05/2015	18/05/2015	18/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER SITE PLAN 1.3m BELOW FL	REFER SITE PLAN 1.3m BELOW FL	REFER SITE PLAN 1.3m BELOW FL	REFER SITE PLAN 1.3m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.5	22.7	22.7	17.6
Hilf MDR Number :	207204	207205	207206	207207
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	112.5	103	106	86.5
Field Wet Density (t/m³) :	1.950	1.960	1.980	1.990
Optimum Moisture Content (%) :	20.0	22.0	21.4	20.3
Moisture Variation :	-2.4	-0.7	-1.2	2.6
Peak Converted Wet Density (t/m³) :	2.010	2.000	2.000	1.950
Hilf Density Ratio (%) :	**97.0**	**98.0**	**99.0**	**101.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.52/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207208	207209		
Test Number :	36	37		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	16/05/2015	16/05/2015		
Date Tested :	18/05/2015	18/05/2015		
aterial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER SITE PLAN 1.3m BELOW FL	REFER SITE PLAN 1.3m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.8	16.2		
Hilf MDR Number :	207208	207209		
Hilf MDR Method :	No	No		
ompactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	86.5	88.5		
Field Wet Density (t/m³) :	1.980	1.990		
Optimum Moisture Content (%) :	17.1	18.3		
Moisture Variation :	2.3	2.1		
Peak Converted Wet Density (t/m³) :	1.980	1.980		
Hilf Density Ratio (%) :	**100.0**	**100.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.53/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207314	207315	207316	207317
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	20/05/2015	20/05/2015	20/05/2015	20/05/2015
Date Tested :	20/05/2015	20/05/2015	20/05/2015	20/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	782	781	780	767
Sample Location :	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.5	16.2	16.4	20.5
Hilf MDR Number :	207314	207315	207316	207317
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	107	111	108.5	108.5
Field Wet Density (t/m³) :	2.060	2.070	2.050	1.940
Optimum Moisture Content (%) :	14.5	14.6	15.1	18.9
Moisture Variation :	-1.0	-1.6	-1.3	-1.6
Peak Converted Wet Density (t/m³) :	2.100	2.120	2.100	1.980
Hilf Density Ratio (%) :	**98.5**	**97.5**	**97.5**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.54/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207318	207319		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	20/05/2015	20/05/2015		
Date Tested :	20/05/2015	20/05/2015		
.terial Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	766	765		
Sample Location :	STAGE 5 REFER SITE PLAN 2m BELOW FL	STAGE 5 REFER SITE PLAN 2m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.7	20.5		
Hilf MDR Number :	207318	207319		
Hilf MDR Method :	No	No		
...mpactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	106	104		
Field Wet Density (t/m³) :	1.940	1.950		
Optimum Moisture Content (%) :	18.6	19.7		
Moisture Variation :	-1.1	-0.8		
Peak Converted Wet Density (t/m³) :	2.010	2.000		
Hilf Density Ratio (%) :	**96.5**	**97.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.55/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207362	207363	207364	207365
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	21/05/2015	21/05/2015	21/05/2015	21/05/2015
Date Tested :	21/05/2015	21/05/2015	21/05/2015	21/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	688	687	685	686
Sample Location :	STAGE 3 REFER SITE PLAN 2m BELOW FL	STAGE 3 REFER SITE PLAN 2m BELOW FL	STAGE 3 REFER SITE PLAN 2m BELOW FL	STAGE 3 REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.1	18.3	18.4	20.5
Hilf MDR Number :	207362	207363	207364	207365
Hilf MDR Method :	No	No	No	No
mpactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	104.5	104.5	104	103
Field Wet Density (t/m³) :	2.000	2.000	1.990	1.960
Optimum Moisture Content (%) :	17.3	17.6	17.7	19.9
Moisture Variation :	-0.8	-0.7	-0.7	-0.6
Peak Converted Wet Density (t/m³) :	2.100	2.090	2.090	2.040
Hilf Density Ratio (%) :	**95.5**	**96.0**	**95.0**	**96.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.56/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207366	207367	207368	207369
Test Number :				38
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	21/05/2015	21/05/2015	21/05/2015	21/05/2015
Date Tested :	21/05/2015	21/05/2015	21/05/2015	21/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	683	710	709	
Sample Location :	STAGE 4 REFER SITE PLAN 2m BELOW FL	STAGE 4 REFER SITE PLAN 2m BELOW FL	STAGE 4 REFER SITE PLAN 2m BELOW FL	STAGE 4 REFER SITE PLAN 2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.5	16.5	20.8	15.9
Hilf MDR Number :	207366	207367	207368	207369
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	105	101.5	105
Field Wet Density (t/m³) :	1.960	1.950	1.990	1.990
Optimum Moisture Content (%) :	20.9	15.8	20.5	15.2
Moisture Variation :	-0.6	-0.7	-0.3	-0.7
Peak Converted Wet Density (t/m³) :	2.020	2.050	2.080	2.090
Hilf Density Ratio (%) :	**97.0**	**95.0**	**95.5**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.57/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207456	207457	207458	207459
Test Number :	39		40	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	22/05/2015	22/05/2015	22/05/2015	22/05/2015
Date Tested :	22/05/2015	22/05/2015	22/05/2015	22/05/2015
ıterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		807		808
Sample Location :	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.6	16.1	15.3	21.5
Hilf MDR Number :	207456	207457	207458	207459
Hilf MDR Method :	No	No	No	No
npactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	99	99	98.5	113
Field Wet Density (t/m³) :	1.980	1.990	1.960	1.980
Optimum Moisture Content (%) :	15.7	16.3	15.6	19.0
Moisture Variation :	0.1	0.2	0.2	-2.5
Peak Converted Wet Density (t/m³) :	2.070	2.070	2.060	2.060
Hilf Density Ratio (%) :	**95.5**	**96.0**	**95.0**	**96.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.58/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207460	207461	207462	207463
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	22/05/2015	22/05/2015	22/05/2015	22/05/2015
Date Tested :	22/05/2015	22/05/2015	22/05/2015	22/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	823	824	825	809
Sample Location :	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL	STAGE 6 REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.3	21.3	19.6	19.6
Hilf MDR Number :	207460	207461	207462	207463
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	112.5	112	112.5	112
Field Wet Density (t/m³) :	1.990	1.970	1.980	1.980
Optimum Moisture Content (%) :	19.8	19.0	17.4	17.5
Moisture Variation :	-2.4	-2.3	-2.0	-2.0
Peak Converted Wet Density (t/m³) :	2.060	2.060	2.070	2.070
Hilf Density Ratio (%) :	**96.5**	**96.0**	**95.5**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.59/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207489	207490	207491	207492
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	25/05/2015	25/05/2015	25/05/2015	25/05/2015
Date Tested :	25/05/2015	25/05/2015	25/05/2015	25/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	688	687	710	709
Sample Location :	STAGE 3 REFER SITE PLAN 2.6m BELOW FL	STAGE 3 REFER SITE PLAN 2.6m BELOW FL	STAGE 3 REFER SITE PLAN 2.6m BELOW FL	STAGE 3 REFER SITE PLAN 2.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.2	20.6	20.7	21.0
Hilf MDR Number :	207489	207490	207491	207492
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	102.5	102.5	101.5
Field Wet Density (t/m³) :	1.940	1.940	1.940	1.910
Optimum Moisture Content (%) :	19.8	20.1	20.2	20.7
Moisture Variation :	-0.3	-0.5	-0.5	-0.4
Peak Converted Wet Density (t/m³) :	2.040	2.040	2.040	2.010
Hilf Density Ratio (%) :	**95.5**	**95.0**	**95.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.61/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207541	207542	207543	207544
Test Number :		41		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Date Tested :	26/05/2015	26/05/2015	26/05/2015	26/05/2015
ıterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	692		691	690
Sample Location :	STAGE 3 REFER SITE PLAN 1.3m BELOW FL	STAGE 3 REFER SITE PLAN 1.3m BELOW FL	STAGE 3 REFER SITE PLAN 1.3m BELOW FL	STAGE 3 REFER SITE PLAN 2.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.3	17.3	17.7	17.1
Hilf MDR Number :	207541	207542	207542	207544
Hilf MDR Method :	No	No	No	No
mpactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102.5	102.5	103	104.5
Field Wet Density (t/m³) :	2.000	1.990	2.000	1.990
Optimum Moisture Content (%) :	16.9	16.8	17.2	16.4
Moisture Variation :	-0.5	-0.5	-0.5	-0.7
Peak Converted Wet Density (t/m³) :	2.080	2.080	2.080	2.080
Hilf Density Ratio (%) :	**96.0**	**96.0**	**96.0**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.62/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207545	207546	207547	207548
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Date Tested :	26/05/2015	26/05/2015	26/05/2015	26/05/2015
,aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	689	708	721	722
Sample Location :	STAGE 3 REFER SITE PLAN 2.6m BELOW FL	STAGE 3 REFER SITE PLAN 2.6m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL	STAGE 4 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.1	18.3	16.0	16.5
Hilf MDR Number :	207545	207546	207547	207548
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	99	99	97.5
Field Wet Density (t/m³) :	1.960	1.930	1.960	1.970
Optimum Moisture Content (%) :	17.8	18.5	16.2	16.9
Moisture Variation :	-0.3	0.2	0.2	0.3
Peak Converted Wet Density (t/m³) :	2.050	2.020	2.050	2.020
Hilf Density Ratio (%) :	**95.5**	**95.5**	**96.0**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.63/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207618	207619	207620	207621
Test Number :			42	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	27/05/2015	27/05/2015	27/05/2015	27/05/2015
Date Tested :	27/05/2015	27/05/2015	27/05/2015	27/05/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	704	693		705
Sample Location :	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.6	21.9	21.2	15.7
Hilf MDR Number :	207618	207619	207620	207621
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106	103	102.5	93
Field Wet Density (t/m³) :	1.970	1.960	1.950	1.960
Optimum Moisture Content (%) :	20.4	21.2	20.7	16.8
Moisture Variation :	-1.2	-0.6	-0.5	1.1
Peak Converted Wet Density (t/m³) :	2.040	2.010	2.020	2.040
Hilf Density Ratio (%) :	**97.0**	**97.5**	**97.0**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.64/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**04/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207622	207623	207624	207625
Test Number :				43
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	27/05/2015	27/05/2015	27/05/2015	27/05/2015
Date Tested :	27/05/2015	27/05/2015	27/05/2015	27/05/2015
.aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	692	702	695	
Sample Location :	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL	STAGE 3 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.6	15.6	19.8	19.2
Hilf MDR Number :	207622	207623	207624	207625
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	92.5	97	103	102
Field Wet Density (t/m³) :	1.930	1.920	2.000	2.010
Optimum Moisture Content (%) :	16.8	16.1	19.2	18.8
Moisture Variation :	1.2	0.5	-0.6	-0.4
Peak Converted Wet Density (t/m³) :	2.060	2.040	2.020	2.020
Hilf Density Ratio (%) :	**93.5**	**94.0**	**99.0**	**99.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.65/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207881	207882	207883	207884
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Date Tested :	02/06/2015	02/06/2015	02/06/2015	02/06/2015
.aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	793	792	794	796
Sample Location :	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.2	23.0	13.9	21.4
Hilf MDR Number :	207881	207882	207883	207884
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	92	92	90	102.5
Field Wet Density (t/m³) :	2.010	2.010	2.000	2.040
Optimum Moisture Content (%) :	15.5	24.9	15.4	20.9
Moisture Variation :	1.2	1.8	1.6	-0.5
Peak Converted Wet Density (t/m³) :	2.080	2.070	2.060	1.950
Hilf Density Ratio (%) :	**96.5**	**97.5**	**97.0**	**105.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.66/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207885	207886	207887	207888
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	02/06/2015	02/06/2015	02/06/2015	02/06/2015
Date Tested :	02/06/2015	02/06/2015	02/06/2015	02/06/2015
laterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	785	784	783	795
Sample Location :	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL	STAGE 6 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.2	22.3	15.5	16.7
Hilf MDR Number :	207885	207886	207887	207888
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	99.5	102	94	100.5
Field Wet Density (t/m³) :	2.050	2.050	2.070	2.070
Optimum Moisture Content (%) :	22.3	21.8	16.5	16.6
Moisture Variation :	0.1	-0.5	1.0	-0.1
Peak Converted Wet Density (t/m³) :	1.940	1.950	2.040	2.000
Hilf Density Ratio (%) :	**105.5**	**105.5**	**101.5**	**103.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.67/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207817	207818	207819	207820
Test Number :	51			52
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	01/06/2015	01/06/2015	01/06/2015	01/06/2015
Date Tested :	01/06/2015	01/06/2015	01/06/2015	01/06/2015
.aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		686	685	
Sample Location :	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.7	21.8	21.6	23.5
Hilf MDR Number :	207817	207818	207819	207820
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	114.5	114.5	114.5	98.5
Field Wet Density (t/m³) :	1.970	1.990	1.970	2.050
Optimum Moisture Content (%) :	18.1	19.0	18.9	23.8
Moisture Variation :	-2.6	-2.7	-2.6	0.4
Peak Converted Wet Density (t/m³) :	2.070	2.080	2.080	1.970
Hilf Density Ratio (%) :	**95.0**	**95.5**	**95.0**	**104.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.68/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207821	207822	207823	207824
Test Number :				53
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	01/06/2015	01/06/2015	01/06/2015	01/06/2015
Date Tested :	01/06/2015	01/06/2015	01/06/2015	01/06/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	773	774	776	
Sample Location :	STAGE 5 REFER SITE PLAN 0.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.4m BELOW FL	STAGE 5 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.9	23.9	19.0	19.2
Hilf MDR Number :	207821	207822	207823	207824
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	114	110	117.5	112.5
Field Wet Density (t/m³) :	2.040	2.040	1.990	1.990
Optimum Moisture Content (%) :	20.1	21.7	16.2	17.1
Moisture Variation :	-2.8	-2.2	-2.9	-2.1
Peak Converted Wet Density (t/m³) :	2.010	2.000	2.060	2.060
Hilf Density Ratio (%) :	**102.0**	**102.5**	**96.5**	**96.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.69/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207747	207748	207749	207750
Test Number :		45	46	47
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Date Tested :	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	772			
Sample Location :	STAGE 5 REFER SITE PLAN 1.2m BELOW FL	STAGE 5 REFER SITE PLAN 1.2m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.5	18.0	18.3	11.8
Hilf MDR Number :	207747	207748	207749	207750
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102.5	103	103.5	97
Field Wet Density (t/m³) :	2.010	2.020	2.010	1.990
Optimum Moisture Content (%) :	18.0	17.5	17.7	12.2
Moisture Variation :	-0.5	-0.5	-0.6	0.3
Peak Converted Wet Density (t/m³) :	2.060	2.060	2.070	2.090
Hilf Density Ratio (%) :	**97.5**	**98.0**	**97.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.70/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207751	207752	207753	207754
Test Number :	48			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Date Tested :	29/05/2015	29/05/2015	29/05/2015	29/05/2015
aterial Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		711	712	713
Sample Location :	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.6m BELOW FL	STAGE 5 REFER SITE PLAN 1.8m BELOW FL	STAGE 15 REFER SITE PLAN 1.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	11.9	11.5	14.4	14.1
Hilf MDR Number :	207751	207752	207753	207754
Hilf MDR Method :	No	No	No	No
ompactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	87.5	88	97	98.5
Field Wet Density (t/m³) :	1.990	1.990	1.970	1.990
Optimum Moisture Content (%) :	13.6	13.1	14.8	14.3
Moisture Variation :	1.7	1.6	0.5	0.2
Peak Converted Wet Density (t/m³) :	2.100	2.090	2.060	2.100
Hilf Density Ratio (%) :	**95.0**	**95.0**	**95.5**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.71/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207698	207699	207700	207701
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	25/05/2015	25/05/2015	25/05/2015	25/05/2015
Date Tested :	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	780	779	778	777
Sample Location :	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.6	19.3	18.5	20.1
Hilf MDR Number :	207698	207699	207700	207701
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102.5	101	101.5	101
Field Wet Density (t/m³) :	2.000	1.990	2.000	2.010
Optimum Moisture Content (%) :	18.1	19.2	18.2	19.9
Moisture Variation :	-0.5	-0.1	-0.2	-0.2
Peak Converted Wet Density (t/m³) :	2.040	2.030	2.040	2.040
Hilf Density Ratio (%) :	**98.0**	**98.5**	**98.0**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.72/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**10/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	207702	207703	207704	207705
Test Number :				44
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	25/05/2015	25/05/2015	25/05/2015	25/05/2015
Date Tested :	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	776	775	774	
Sample Location :	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL	STAGE 5 REFER SITE PLAN 1.3m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.9	17.7	16.0	19.6
Hilf MDR Number :	207702	207703	207704	207705
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102.5	101	100	97.5
Field Wet Density (t/m³) :	2.010	2.010	1.990	1.990
Optimum Moisture Content (%) :	21.4	17.6	16.0	20.1
Moisture Variation :	-0.5	-0.1	0.0	0.5
Peak Converted Wet Density (t/m³) :	2.050	2.060	2.070	2.090
Hilf Density Ratio (%) :	**98.5**	**97.5**	**96.5**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.73/1**
Job Number :	**GL15/061**	Report Date:	**11/06/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207970	207971	207972	207973
ID No :				
Lot No :	692	693	705	704
Item No :	-	-	-	-
Date Sampled :	4/6/2015	4/6/2015	4/6/2015	4/6/2015
Date Tested :	4/6/2015	4/6/2015	4/6/2015	4/6/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	REFER SITE PLAN FINISH LEVEL STAGE 3	REFER SITE PLAN FINISH LEVEL STAGE 3	REFER SITE PLAN FINISH LEVEL STAGE 3	REFER SITE PLAN FINISH LEVEL STAGE 3
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**3.7**	**3.8**
Field Wet Density (t/m³):	**2.01**	**2.01**	**2.01**	**2.04**
Field Moisture Cont (%):	**15.7**	**16.4**	**16.4**	**15.9**
P D (t/m³) :	**2.05**	**2.05**	**2.07***	**2.07***
Moisture Variation (%):	**-0.3**	**-0.2**	**-0.2***	**-0.2***
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**97.5**	**98.0**	**96.5**	**99.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207970	
207971	
207972	
207973	

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FORM NUMBER

REP AHNUC-1-2

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.74/1**
Job Number :	**GL15/061**	Report Date:	**11/06/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

Lab No :	207974	207975	207976	207977
ID No :	188		186	
Lot No :		685		709
Item No :	-	-	-	-
Date Sampled :	4/6/2015	4/6/2015	4/6/2015	4/6/2015
Date Tested :	4/6/2015	4/6/2015	4/6/2015	4/6/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	REFER SITE PLAN 0.4m BELOW FL STAGE 3	REFER SITE PLAN 0.4m BELOW FL STAGE 3	REFER SITE PLAN 0.6m BELOW FL STAGE 3	REFER SITE PLAN 0.6m BELOW FL STAGE 3
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**4.3**	**0**	**0**
Field Wet Density (t/m³):	**2.00**	**2.01**	**2.00**	**1.99**
Field Moisture Cont (%):	**16.8**	**18.2**	**17.6**	**17.9**
P D (t/m³) :	**2.05**	**2.07***	**2.05**	**2.05**
Moisture Variation (%):	**0.2**	**0.3***	**0.2**	**0.2**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**98.0**	**97.0**	**98.0**	**97.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207974	
207975	
207976	
207977	

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REP AHNUC-1-2

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.75/1**
Job Number :	**GL15/061**	Report Date:	**11/06/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

La lo :	207978	207979		
ID No :	56	57		
Lot No :				
Item No :	-	-		
Date Sampled :	4/6/2015	4/6/2015		
Date Tested :	4/6/2015	4/6/2015		
Material Source :	ONSITE	ONSITE		
For Use As :	GENERAL FILL	GENERAL FILL		
Sample Location :	RETEST OF #207622	RETEST OF #207623		
Test Depth (mm) :	**150**	**150**		
Max Size (mm) :	**19**	**19**		
Oversize Wet (%) :	**2.7**	**0**		
Field Wet Density (t/m³):	**1.98**	**1.98**		
Field Moisture Cont (%):	**17.8**	**17.9**		
PC) (t/m³) :	**2.08***	**2.05**		
Moisture Variation (%):	**-0.3***	**-0.5**		
Compactive Effort :	**Standard**	**Standard**		
Hilf Density Ratio (%) :	**95.5**	**96.5**		
Min Hilf Dens Ratio (%)	**95**	**95**		
Remarks:				

*** - Denotes adjusted for oversize**

Lab Number:	Soil Description
207978	
207979	

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FORM NUMBER

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.76/1**
Job Number :	**GL15/061**	Report Date:	**11/06/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

La `lo :	207915	207916	207917	207918
ID No :	54	55		
Lot No :			683	684
Item No :	-	-	-	-
Date Sampled :	3/6/2015	3/6/2015	3/6/2015	3/6/2015
Date Tested :	3/6/2015	3/6/2015	3/6/2015	3/6/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 3 & 4 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 1.2m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**1.99**	**1.96**	**2.00**	**2.01**
Field Moisture Cont (%):	**17.1**	**16.8**	**16.3**	**15.1**
PC `J (t/m³) :	**2.04**	**2.06**	**2.06**	**2.04**
Moisture Variation (%):	**0.0**	**0.1**	**-0.1**	**0.9**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**97.5**	**95.0**	**97.5**	**98.5**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207915	
207916	
207917	
207918	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.77/1**
Job Number :	**GL15/061**	Report Date:	**11/06/2015**
Project :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number:	
Location :	**SWAN ROAD , PIMPAMA**	Test Method:	**AS1289.5.8.1 & 5.7.1**

La lo :	207919	207920	207921	207922
ID No :	182		191	184
Lot No :		686		
Item No :	-	-	-	-
Date Sampled :	3/6/2015	3/6/2015	3/6/2015	3/6/2015
Date Tested :	3/6/2015	3/6/2015	3/6/2015	3/6/2015
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
For Use As :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Sample Location :	STAGE 3 & 4 REFER SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 0.8m BELOW FL	STAGE 3 & 4 REFER SITE PLAN 0.8m BELOW FL
Test Depth (mm) :	**150**	**150**	**150**	**150**
Max Size (mm) :	**19**	**19**	**19**	**19**
Oversize Wet (%) :	**0**	**0**	**0**	**0**
Field Wet Density (t/m³):	**2.02**	**2.01**	**2.06**	**2.03**
Field Moisture Cont (%):	**15.0**	**11.2**	**12.7**	**13.0**
PC ɔ (t/m³) :	**2.05**	**2.04**	**2.06**	**2.05**
Moisture Variation (%):	**1.5**	**1.6**	**-0.1**	**1.0**
Compactive Effort :	**Standard**	**Standard**	**Standard**	**Standard**
Hilf Density Ratio (%) :	**99.0**	**98.5**	**100.0**	**99.0**
Min Hilf Dens Ratio (%)	**95**	**95**	**95**	**95**
Remarks:				

Lab Number:	Soil Description
207919	
207920	
207921	
207922	

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.78/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208130	208131	208132	208133
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date Tested :	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	775	772	774	773
Sample Location :	STAGE 5 REFER SITE PLAN 0.2m BELOW FL	STAGE 5 REFER SITE PLAN 0.2m BELOW FL	STAGE 5 REFER SITE PLAN 0.2m BELOW FL	STAGE 5 REFER SITE PLAN 0.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.1	19.1	19.5	18.8
Hilf MDR Number :	208130	208131	208132	208133
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	99.5	101.5	99	99.5
Field Wet Density (t/m³) :	1.990	2.000	2.000	1.970
Optimum Moisture Content (%) :	19.2	18.8	19.6	18.9
Moisture Variation :	0.1	-0.4	0.1	0.1
Peak Converted Wet Density (t/m³) :	2.000	2.000	1.980	2.000
Hilf Density Ratio (%) :	**99.5**	**100.5**	**101.5**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.79/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208134	208135	208136	208137
Test Number :	60	61		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Date Tested :	09/06/2015	09/06/2015	09/06/2015	09/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :			763	762
Sample Location :	STAGE 5 REFER SITE PLAN 0.5m BELOW FL	STAGE 5 REFER SITE PLAN 0.5m BELOW FL	STAGE 5 REFER SITE PLAN 0.5m BELOW FL	STAGE 5 REFER SITE PLAN 0.5m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.7	17.8	14.0	14.2
Hilf MDR Number :	208134	208135	208136	208137
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	100.5	99	92.5	90.5
Field Wet Density (t/m³) :	1.980	2.000	1.980	1.980
Optimum Moisture Content (%) :	18.6	18.0	15.1	15.6
Moisture Variation :	-0.1	0.2	1.1	1.5
Peak Converted Wet Density (t/m³) :	2.000	2.010	2.030	2.070
Hilf Density Ratio (%) :	**99.0**	**99.5**	**97.5**	**96.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.80/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208018	208019	208020	208021
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	05/06/2015	05/06/2015	05/06/2015	05/06/2015
Date Tested :	05/06/2015	05/06/2015	05/06/2015	05/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	705	706	692	691
Sample Location :	STAGE 3 REFER SITE PLAN FINISHED LEVEL	STAGE 3 REFER SITE PLAN FINISHED LEVEL	STAGE 3 REFER SITE PLAN 0.4m BELOW FL	STAGE 3 REFER SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	21.0	19.1	21.4	15.2
Hilf MDR Number :	208018	208019	208020	208021
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	105.5	105	91.5	89
Field Wet Density (t/m³) :	1.990	2.000	1.990	2.000
Optimum Moisture Content (%) :	19.9	18.2	23.4	17.1
Moisture Variation :	-1.1	-1.0	1.9	1.8
Peak Converted Wet Density (t/m³) :	2.020	1.980	1.920	2.040
Hilf Density Ratio (%) :	**98.5**	**100.5**	**103.5**	**98.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.81/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208022	208023	208024	208025
Test Number :			58	59
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	05/06/2015	05/06/2015	05/06/2015	05/06/2015
Date Tested :	05/06/2015	05/06/2015	05/06/2015	05/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	690	689		
Sample Location :	STAGE 3 REFER SITE PLAN 0.4m BELOW FL	STAGE 3 REFER SITE PLAN 0.4m BELOW FL	STAGE 3 REFER SITE PLAN 0.6m BELOW FL	STAGE 3 REFER SITE PLAN 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	13.9	15.1	22.9	22.6
Hilf MDR Number :	208022	208023	208024	208025
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	98.5	93	105	104
Field Wet Density (t/m³) :	1.980	2.000	1.960	1.980
Optimum Moisture Content (%) :	14.1	16.3	21.8	21.8
Moisture Variation :	0.2	1.1	-1.1	-0.8
Peak Converted Wet Density (t/m³) :	2.040	2.030	2.020	1.980
Hilf Density Ratio (%) :	**97.0**	**98.5**	**97.5**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.82/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208205	208206	208207	208208
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	11/06/2015	11/06/2015	11/06/2015	11/06/2015
Date Tested :	11/06/2015	11/06/2015	11/06/2015	11/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	780	767	779	768
Sample Location :	STAGE 5 REFER SITE PLAN 0.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.8m BELOW FL	STAGE 5 REFER SITE PLAN 0.8m BELOW FL
Test Depth (mm) :				
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.3	17.6	17.6	16.0
Hilf MDR Number :	208205	208206	208207	208208
Hilf MDR Method :				
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	105	104	105.5	91.5
Field Wet Density (t/m³) :	1.980	1.970	1.980	2.000
Optimum Moisture Content (%) :	16.5	16.9	16.7	17.5
Moisture Variation :	-0.8	-0.7	-0.9	1.5
Peak Converted Wet Density (t/m³) :	2.080	2.040	2.070	2.060
Hilf Density Ratio (%) :	**95.0**	**97.0**	**95.5**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.83/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**15/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208209	208210	208211	208212
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	11/06/2015	11/06/2015	11/06/2015	11/06/2015
Date Tested :	11/06/2015	11/06/2015	11/06/2015	11/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	778	769	777	770
Sample Location :	STAGE 5 REFER SITE PLAN 0.6m BELOW FL	STAGE 5 REFER SITE PLAN 0.6m BELOW FL	STAGE 5 REFER SITE PLAN 0.6m BELOW FL	STAGE 5 REFER SITE PLAN 0.6m BELOW FL
Test Depth (mm) :				
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.7	14.9	19.2	18.2
Hilf MDR Number :	208209	208210	208211	208212
Hilf MDR Method :				
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	92.5	101	96	94.5
Field Wet Density (t/m³) :	1.980	2.000	2.010	2.000
Optimum Moisture Content (%) :	15.9	14.8	20.0	19.2
Moisture Variation :	1.1	-0.1	0.7	1.0
Peak Converted Wet Density (t/m³) :	2.090	2.110	2.040	2.050
Hilf Density Ratio (%) :	**95.0**	**95.0**	**98.5**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.84/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**16/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208177	208178	208179	208180
Test Number :		62	63	192
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Date Tested :	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	715			
Sample Location :	STAGE 4 REFER SITE PLAN 0.3m BELOW FL	STAGE 4 REFER SITE PLAN 0.3m BELOW FL	STAGE 4 REFER SITE PLAN 0.3m BELOW FL	STAGE 4 REFER SITE PLAN 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	16.7	12.2	12.0	10.9
Hilf MDR Number :	208177	208178	208179	208180
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	85	84	82	70.5
Field Wet Density (t/m³) :	1.980	2.000	1.990	1.960
Optimum Moisture Content (%) :	19.6	14.5	14.6	15.5
Moisture Variation :	2.8	2.4	2.6	4.5
Peak Converted Wet Density (t/m³) :	1.990	1.990	2.010	1.970
Hilf Density Ratio (%) :	**99.5**	**100.5**	**99.0**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.85/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**16/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208181	208182	208183	208184
Test Number :				183
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Date Tested :	10/06/2015	10/06/2015	10/06/2015	10/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	683	710	687	
Sample Location :	STAGE 4 REFER SITE PLAN 0.6m BELOW FL	STAGE 4 REFER SITE PLAN 0.6m BELOW FL	STAGE 3 REFER SITE PLAN 1m BELOW FL	STAGE 3 REFER SITE PLAN 1m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	11.8	11.8	12.2	12.0
Hilf MDR Number :	208181	208182	208183	208184
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	90.5	75	74.5	75.5
Field Wet Density (t/m³) :	1.990	2.010	1.960	1.950
Optimum Moisture Content (%) :	13.1	15.8	16.4	15.9
Moisture Variation :	1.3	3.9	4.2	3.9
Peak Converted Wet Density (t/m³) :	1.950	1.940	1.970	1.970
Hilf Density Ratio (%) :	**102.0**	**103.5**	**99.5**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.86/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208260	208261	208262	208263
Test Number :	64	65	66	67
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Date Tested :	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN 2.4m BELOW FL	STAGE 1B REFER SITE PLAN 2.4m BELOW FL	STAGE 1B REFER SITE PLAN 2.4m BELOW FL	STAGE 1B REFER SITE PLAN 2.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.9	14.8	14.8	18.1
Hilf MDR Number :	208260	208261	208262	208263
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	84	86	87	105.5
Field Wet Density (t/m³) :	1.980	1.970	1.990	2.020
Optimum Moisture Content (%) :	17.7	17.2	17.0	17.2
Moisture Variation :	2.9	2.4	2.2	-0.9
Peak Converted Wet Density (t/m³) :	1.960	1.980	1.950	2.100
Hilf Density Ratio (%) :	**101.0**	**99.5**	**102.0**	**96.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.87/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208264	208265	208266	208267
Test Number :	68	69	70	71
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Date Tested :	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN 2.2m BELOW FL	STAGE 1B REFER SITE PLAN 2.2m BELOW FL	STAGE 1B REFER SITE PLAN 2.2m BELOW FL	STAGE 1B REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.9	18.7	13.5	13.1
Hilf MDR Number :	208264	208265	208266	208267
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106.5	105.5	105.5	91
Field Wet Density (t/m³) :	2.030	2.010	2.050	2.050
Optimum Moisture Content (%) :	16.8	17.7	12.8	14.4
Moisture Variation :	-1.0	-0.9	-0.7	1.2
Peak Converted Wet Density (t/m³) :	2.080	2.080	2.100	2.080
Hilf Density Ratio (%) :	**97.0**	**97.0**	**97.5**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.88/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208278	208279	208280	208281
Test Number :	72	73	74	75
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Date Tested :	13/06/2015	13/06/2015	13/06/2015	13/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN 1.8m BELOW FL	STAGE 1B REFER SITE PLAN 1.8m BELOW FL	STAGE 1B REFER SITE PLAN 1.8m BELOW FL	STAGE 1B REFER SITE PLAN 1.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	11.0	11.5	11.3	10.4
Hilf MDR Number :	208278	208279	208280	208281
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	98	100.5	91.5	97
Field Wet Density (t/m³) :	2.050	2.050	2.090	2.010
Optimum Moisture Content (%) :	11.2	11.5	12.4	10.7
Moisture Variation :	0.2	0.0	1.1	0.3
Peak Converted Wet Density (t/m³) :	2.150	2.160	2.150	2.060
Hilf Density Ratio (%) :	**95.5**	**95.0**	**97.0**	**97.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.89/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208282	208283		
Test Number :	76	77		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	12/06/2015	12/06/2015		
Date Tested :	13/06/2015	13/06/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN 1.4m BELOW FL	STAGE 1B REFER SITE PLAN 1.4m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	10.4	11.0		
Hilf MDR Number :	208282	208283		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	86.5	82.5		
Field Wet Density (t/m³) :	2.020	2.020		
Optimum Moisture Content (%) :	12.0	13.3		
Moisture Variation :	1.7	2.4		
Peak Converted Wet Density (t/m³) :	2.050	2.000		
Hilf Density Ratio (%) :	**98.5**	**101.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.90/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**29/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208442	208443	208444	208445
Test Number :	78	79	80	81
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	23/06/2015	23/06/2015	23/06/2015	23/06/2015
Date Tested :	23/06/2015	23/06/2015	23/06/2015	23/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN 0.5m BELOW FL	STAGE 1B REFER SITE PLAN 0.5m BELOW FL	STAGE 1B REFER SITE PLAN 0.5m BELOW FL	STAGE 1B REFER SITE PLAN 0.5m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	10	0	12	0
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.500		2.457	
Field Moisture Content (%) :	14.7	15.3	15.6	19.0
Hilf MDR Number :	208442	208443	208444	208445
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	100.5	102.5	104	118.5
Field Wet Density (t/m³) :	2.090	2.090	2.070	2.050
Optimum Moisture Content (%) :	14.6	14.9	15.0	16.0
Moisture Variation :	-0.1	-0.3	-0.6	-2.9
Peak Converted Wet Density (t/m³) :	2.200	2.170	2.180	2.160
Hilf Density Ratio (%) :	**95.0**	**96.0**	**95.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.91/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**29/06/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208446	208447	208448	208449
Test Number :	82	83	84	85
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	23/06/2015	23/06/2015	23/06/2015	23/06/2015
Date Tested :	23/06/2015	23/06/2015	23/06/2015	23/06/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 1B REFER SITE PLAN FINISHED LEVEL	STAGE 1B REFER SITE PLAN FINISHED LEVEL	STAGE 1B REFER SITE PLAN FINISHED LEVEL	STAGE 1B REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	2	0
Oversize Dry (%) :				
Oversize Density (t/m³) :			2.477	
Field Moisture Content (%) :	14.6	14.4	13.7	12.7
Hilf MDR Number :	208446	208447	208448	208449
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	122	123.5	104.5	118
Field Wet Density (t/m³) :	2.070	2.040	2.070	2.070
Optimum Moisture Content (%) :	12.0	11.7	13.1	10.8
Moisture Variation :	-2.7	-2.8	-0.6	-2.0
Peak Converted Wet Density (t/m³) :	2.160	2.150	2.160	2.180
Hilf Density Ratio (%) :	**96.0**	**95.0**	**96.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.92/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location: .	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208816	208817	208818	208819
Test Number :	86	87	88	89
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	06/07/2015	06/07/2015	06/07/2015	06/07/2015
Date Tested :	06/07/2015	06/07/2015	06/07/2015	06/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	20.5	20.3	19.9	20.2
Hilf MDR Number :	208816	208817	208818	208819
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :				
Moisture Ratio (%) :	105	105.5	106	105.5
Field Wet Density (t/m³) :	2.020	2.040	2.060	2.040
Optimum Moisture Content (%) :	19.6	19.2	18.8	19.1
Moisture Variation :	-0.9	-1.0	-1.1	-1.1
Peak Converted Wet Density (t/m³) :	2.030	2.060	2.050	2.020
Hilf Density Ratio (%) :	**99.5**	**99.0**	**100.0**	**101.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.93/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**08/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208820	208821		
Test Number :	90	91		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	06/07/2015	06/07/2015		
Date Tested :	06/07/2015	06/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.9	20.3		
Hilf MDR Number :	208820	208821		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :				
Moisture Ratio (%) :	106	104.5		
Field Wet Density (t/m³) :	2.030	2.040		
Optimum Moisture Content (%) :	18.8	19.5		
Moisture Variation :	-1.1	-0.8		
Peak Converted Wet Density (t/m³) :	2.040	2.030		
Hilf Density Ratio (%) :	**99.0**	**100.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.94/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208906	208907	208908	208909
Test Number :	92	93	94	95
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	07/07/2015	07/07/2015	07/07/2015	07/07/2015
Date Tested :	07/07/2015	07/07/2015	07/07/2015	07/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	1	0	2
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.579	2.500		2.554
Field Moisture Content (%) :	11.7	10.7	10.8	11.8
Hilf MDR Number :	208906	208907	208908	208909
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	86	111.5	83.5	86.5
Field Wet Density (t/m³) :	2.040	2.050	2.060	2.020
Optimum Moisture Content (%) :	13.6	9.6	13.0	13.7
Moisture Variation :	1.9	-1.2	2.1	1.9
Peak Converted Wet Density (t/m³) :	2.060	2.100	2.070	2.100
Hilf Density Ratio (%) :	**99.0**	**97.5**	**99.5**	**96.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.95/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208910	208911		
Test Number :	96	97		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	07/07/2015	07/07/2015		
Date Tested :	07/07/2015	07/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	2	2		
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.550	2.509		
Field Moisture Content (%) :	11.5	11.5		
Hilf MDR Number :	208910	208911		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	83	84.5		
Field Wet Density (t/m³) :	1.990	2.020		
Optimum Moisture Content (%) :	13.9	13.6		
Moisture Variation :	2.3	2.1		
Peak Converted Wet Density (t/m³) :	2.070	2.100		
Hilf Density Ratio (%) :	**96.0**	**96.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.96/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208998	208999	209000	209001
Test Number :	104	105	106	107
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	09/07/2015	09/07/2015	09/07/2015	09/07/2015
Date Tested :	09/07/2015	09/07/2015	09/07/2015	09/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	4	6	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.517	2.540		
Field Moisture Content (%) :	13.1	13.9	14.1	13.9
Hilf MDR Number :	208998	208999	209000	209001
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	90	89.5	91	106.5
Field Wet Density (t/m³) :	2.040	2.030	2.030	2.020
Optimum Moisture Content (%) :	14.6	15.5	15.5	13.1
Moisture Variation :	1.5	1.6	1.4	-0.8
Peak Converted Wet Density (t/m³) :	2.090	2.080	2.080	2.110
Hilf Density Ratio (%) :	**97.5**	**97.5**	**97.5**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.97/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209002	209003	209004	209005
Test Number :	108	109	110	111
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	09/07/2015	09/07/2015	09/07/2015	09/07/2015
Date Tested :	09/07/2015	09/07/2015	09/07/2015	09/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	4	6
Oversize Dry (%) :				
Oversize Density (t/m³) :			2.530	2.509
Field Moisture Content (%) :	13.1	12.3	12.9	14.7
Hilf MDR Number :	209002	209003	209004	209005
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	89	92.5	90.5	104
Field Wet Density (t/m³) :	1.990	1.980	2.060	2.070
Optimum Moisture Content (%) :	14.7	13.3	14.2	14.1
Moisture Variation :	1.6	1.0	1.3	-0.6
Peak Converted Wet Density (t/m³) :	2.090	2.080	2.100	2.140
Hilf Density Ratio (%) :	**95.0**	**95.0**	**98.0**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.98/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209046	209047	209048	209049
Test Number :	112	113	114	115
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	10/07/2015	10/07/2015	10/07/2015	10/07/2015
Date Tested :	10/07/2015	10/07/2015	10/07/2015	10/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	4	6	6	4
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.547	2.491	2.510	2.540
Field Moisture Content (%) :	10.5	10.8	10.7	11.0
Hilf MDR Number :	209046	209047	209048	209049
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	75.5	81	76.5	82.5
Field Wet Density (t/m³) :	2.080	2.090	2.070	2.060
Optimum Moisture Content (%) :	13.9	13.4	14.0	13.3
Moisture Variation :	3.4	2.6	3.3	2.4
Peak Converted Wet Density (t/m³) :	2.070	2.100	2.080	2.060
Hilf Density Ratio (%) :	**100.5**	**99.0**	**100.0**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.99/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209050	209051	209052	209053
Test Number :	116	117	118	119
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	10/07/2015	10/07/2015	10/07/2015	10/07/2015
Date Tested :	10/07/2015	10/07/2015	10/07/2015	10/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	6	4	7	8
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.500	2.513	2.528	2.538
Field Moisture Content (%) :	11.0	10.7	13.1	12.4
Hilf MDR Number :	209050	209051	209052	209053
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	80	83.5	87	91
Field Wet Density (t/m³) :	2.060	2.050	2.130	2.120
Optimum Moisture Content (%) :	13.7	12.8	15.1	13.6
Moisture Variation :	2.7	2.1	1.9	1.2
Peak Converted Wet Density (t/m³) :	2.070	2.050	2.100	2.140
Hilf Density Ratio (%) :	**99.5**	**99.5**	**101.5**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.100/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	14/07/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA		Page 1 of 1

Sample Number :	208953	208954	208955	208956
Test Number :	98	99	100	101
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	08/07/2015	08/07/2015	08/07/2015	08/07/2015
Date Tested :	08/07/2015	08/07/2015	08/07/2015	08/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 0.8m BELOW FL	STAGE 2 REFER SITE PLAN 0.8m BELOW FL	STAGE 2 REFER SITE PLAN 0.8m BELOW FL	STAGE 2 REFER SITE PLAN 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.7	16.1	15.3	16.4
Hilf MDR Number :	208953	208954	208955	208956
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106	108	108.5	107
Field Wet Density (t/m³) :	2.060	2.060	2.070	2.030
Optimum Moisture Content (%) :	13.9	14.9	14.1	15.3
Moisture Variation :	-0.8	-1.2	-1.2	-1.0
Peak Converted Wet Density (t/m³) :	2.080	2.120	2.120	2.140
Hilf Density Ratio (%) :	**99.0**	**97.5**	**98.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.101/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	208957	208958		
Test Number :	102	103		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	08/07/2015	08/07/2015		
Date Tested :	08/07/2015	08/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 0.6m BELOW FL	STAGE 2 REFER SITE PLAN 0.6m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.4	14.7		
Hilf MDR Number :	208957	208958		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	107	107.5		
Field Wet Density (t/m³) :	2.050	2.030		
Optimum Moisture Content (%) :	14.4	13.7		
Moisture Variation :	-1.0	-1.0		
Peak Converted Wet Density (t/m³) :	2.150	2.140		
Hilf Density Ratio (%) :	**95.5**	**95.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.102/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**20/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209121	209122	209123	209124
Test Number :		187	126	127
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	13/07/2015	13/07/2015	13/07/2015	13/07/2015
Date Tested :	13/07/2015	13/07/2015	13/07/2015	13/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	687			
Sample Location :	STAGE 3 REFER SITE PLAN 2.2m BELOW FL	STAGE 3 REFER SITE PLAN 2.2m BELOW FL	STAGE 3 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	18	19	14	6
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.479	2.518	2.555	2.525
Field Moisture Content (%) :	14.2	13.4	13.0	11.6
Hilf MDR Number :	209121	209122	209123	209124
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	86	85.5	84.5	82.5
Field Wet Density (t/m³) :	2.090	2.040	2.060	1.990
Optimum Moisture Content (%) :	16.5	15.7	15.4	14.1
Moisture Variation :	2.3	2.3	2.3	2.5
Peak Converted Wet Density (t/m³) :	2.100	2.100	2.110	2.080
Hilf Density Ratio (%) :	**99.5**	**97.5**	**97.5**	**96.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.103/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**20/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209058	209059	209060	209061
Test Number :	120	121	122	123
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	11/07/2015	11/07/2015	11/07/2015	11/07/2015
Date Tested :	11/07/2015	11/07/2015	11/07/2015	11/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	4
Oversize Dry (%) :				
Oversize Density (t/m³) :				2.527
Field Moisture Content (%) :	20.5	18.5	21.4	16.1
Hilf MDR Number :	209058	209059	209060	209061
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	104	90	94	92.5
Field Wet Density (t/m³) :	1.990	2.040	2.020	2.040
Optimum Moisture Content (%) :	19.7	20.5	22.8	17.4
Moisture Variation :	-0.7	1.9	1.3	1.3
Peak Converted Wet Density (t/m³) :	2.020	1.990	1.980	2.040
Hilf Density Ratio (%) :	**98.5**	**102.0**	**102.0**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.104/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**20/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209062	209063		
Test Number :	124	125		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	11/07/2015	11/07/2015		
Date Tested :	11/07/2015	11/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	4	4		
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.528	2.500		
Field Moisture Content (%) :	10.7	14.2		
Hilf MDR Number :	209062	209063		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	89	106		
Field Wet Density (t/m³) :	2.040	2.030		
Optimum Moisture Content (%) :	12.0	13.4		
Moisture Variation :	1.4	-0.8		
Peak Converted Wet Density (t/m³) :	2.040	2.080		
Hilf Density Ratio (%) :	**100.0**	**98.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.105/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	20/07/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	209125	209126	209127	209128
Test Number :	128	129	130	131
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	13/07/2015	13/07/2015	13/07/2015	13/07/2015
Date Tested :	13/07/2015	13/07/2015	13/07/2015	13/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL	STAGE 2 REFER SITE PLAN 2.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	10	6	8	0
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.500	2.528	2.545	
Field Moisture Content (%) :	11.5	11.2	15.1	14.5
Hilf MDR Number :	209125	209126	209127	209128
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	79.5	79	101.5	93.5
Field Wet Density (t/m³) :	2.080	2.030	2.090	2.050
Optimum Moisture Content (%) :	14.5	14.2	14.9	15.5
Moisture Variation :	3.0	3.0	-0.2	1.0
Peak Converted Wet Density (t/m³) :	2.080	2.050	2.090	2.040
Hilf Density Ratio (%) :	**100.0**	**98.5**	**99.5**	**100.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.106/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209185	209186	209187	209188
Test Number :	190			132
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	14/07/2015	14/07/2015	14/07/2015	14/07/2015
Date Tested :	14/07/2015	14/07/2015	14/07/2015	14/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		685	686	
Sample Location :	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 3 REFER SITE PLAN 1.8m BELOW FL	STAGE 3 REFER SITE PLAN 1.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	26.1	26.6	26.4	18.0
Hilf MDR Number :	209185	209186	209187	209188
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	108.5	114	102.5	100.5
Field Wet Density (t/m³) :	1.980	1.980	1.980	1.990
Optimum Moisture Content (%) :	24.0	23.4	25.8	17.9
Moisture Variation :	-1.9	-3.2	-0.6	-0.1
Peak Converted Wet Density (t/m³) :	1.980	2.000	1.940	1.970
Hilf Density Ratio (%) :	**99.5**	**99.5**	**102.0**	**101.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.107/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209189	209190	209191	209192
Test Number :	133	134	135	136
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	14/07/2015	14/07/2015	14/07/2015	14/07/2015
Date Tested :	14/07/2015	14/07/2015	14/07/2015	14/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL	STAGE 2 REFER SITE PLAN 1.8m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.7	17.9	17.1	18.0
Hilf MDR Number :	209189	209190	209191	209192
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	92	98	93.5	91.5
Field Wet Density (t/m³) :	1.980	2.030	2.000	1.980
Optimum Moisture Content (%) :	19.2	18.2	18.3	19.6
Moisture Variation :	1.5	0.4	1.2	1.6
Peak Converted Wet Density (t/m³) :	1.980	1.980	1.960	1.950
Hilf Density Ratio (%) :	**100.0**	**102.5**	**102.0**	**102.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.108/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209303	209304	209305	209306
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	17/07/2015	17/07/2015	17/07/2015	17/07/2015
Date Tested :	17/07/2015	17/07/2015	17/07/2015	17/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	779	768	778	769
Sample Location :	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	4	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.527			
Field Moisture Content (%) :	13.8	14.8	14.4	19.2
Hilf MDR Number :	209303	209304	209305	209306
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	86	88	86.5	106
Field Wet Density (t/m³) :	2.000	2.020	2.010	2.040
Optimum Moisture Content (%) :	16.0	16.8	16.7	18.1
Moisture Variation :	2.1	1.9	2.3	-1.1
Peak Converted Wet Density (t/m³) :	2.040	2.030	2.010	2.030
Hilf Density Ratio (%) :	**98.0**	**99.5**	**100.0**	**100.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.109/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209307	209308	209309	209310
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	17/07/2015	17/07/2015	17/07/2015	17/07/2015
Date Tested :	17/07/2015	17/07/2015	17/07/2015	17/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	770	771	772	773
Sample Location :	STAGE 5 REFER SITE PLAN 0.4m BELOW FL	STAGE 5 REFER SITE PLAN 0.4m BELOW FL	STAGE 5 REFER SITE PLAN 0.4m BELOW FL	REFER TO SITE PLAN STAGE 5 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.5	19.6	21.5	20.4
Hilf MDR Number :	209307	209308	209309	209310
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106.5	107	103.5	102
Field Wet Density (t/m³) :	2.080	2.060	2.030	2.030
Optimum Moisture Content (%) :	18.3	18.3	20.7	20.0
Moisture Variation :	-1.2	-1.3	-0.7	-0.4
Peak Converted Wet Density (t/m³) :	2.040	2.020	1.950	1.950
Hilf Density Ratio (%) :	**102.0**	**102.0**	**104.0**	**104.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.110/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209214	209215	209216	209217
Test Number :			137	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	15/07/2015	15/07/2015	15/07/2015	15/07/2015
Date Tested :	15/07/2015	15/07/2015	15/07/2015	15/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ON SITE	ON SITE	ON SITE	ON SITE
Lot Number :		804		793
Sample Location :	REFFER TO SITE PLAN STAGE 5 & 6 0.5m BELOW F/L	REFFER TO SITE PLAN STAGE 5 & 6 0.5m BELOW F/L	REFFER TO SITE PLAN STAGE 5 & 6 0.5m BELOW F/L	REFFER TO SITE PLAN STAGE 5 & 6 0.5m BELOW F/L
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	3	0
Oversize Dry (%) :				
Oversize Density (t/m³) :			2.521	
Field Moisture Content (%) :	15.4	12.7	16.6	19.8
Hilf MDR Number :	209214	209215	209216	209217
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	87.5	90	91	105.5
Field Wet Density (t/m³) :	2.020	2.040	2.030	2.040
Optimum Moisture Content (%) :	17.6	14.1	18.3	18.8
Moisture Variation :	2.2	1.4	1.6	-0.9
Peak Converted Wet Density (t/m³) :	1.980	1.960	1.990	2.040
Hilf Density Ratio (%) :	**102.0**	**103.5**	**102.0**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.111/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**21/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209218	209219	209220	209221
Test Number :				138
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	15/07/2015	15/07/2015	15/07/2015	15/07/2015
Date Tested :	15/07/2015	15/07/2015	15/07/2015	15/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ON SITE	ON SITE	ON SITE	ON SITE
Lot Number :	792	794	795	
Sample Location :	REFFER TO SITE PLAN STAGE 5 & 6 FINISH LEVEL	REFFER TO SITE PLAN STAGE 5 & 6 FINISH LEVEL	REFFER TO SITE PLAN STAGE 5 & 6 FINISH LEVEL	REFFER TO SITE PLAN STAGE 5 & 6 FINISH LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.7	19.3	18.0	17.9
Hilf MDR Number :	209218	209219	209220	209221
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	104.5	105	102	105
Field Wet Density (t/m³) :	2.030	2.050	1.970	1.990
Optimum Moisture Content (%) :	18.8	18.4	17.7	17.0
Moisture Variation :	-0.8	-0.9	-0.4	-0.8
Peak Converted Wet Density (t/m³) :	2.050	2.050	1.990	2.000
Hilf Density Ratio (%) :	**99.0**	**100.0**	**99.0**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.112/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209258	209259	209260	209261
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	16/07/2015	16/07/2015	16/07/2015	16/07/2015
Date Tested :	16/07/2015	16/07/2015	16/07/2015	16/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ON SITE	ON SITE
Lot Number :	709	710	683	684
Sample Location :	REFER TO SITE PLAN STAGE 3 1.6m BELOW FL	REFER TO SITE PLAN STAGE 3 1.6m BELOW FL	REFER TO SITE PLAN STAGE 3 1.6m BELOW FL	REFER TO SITE PLAN STAGE 3 1.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	23.2	23.5	22.7	12.6
Hilf MDR Number :	209258	209259	209260	209261
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	101	111.5	111	87.5
Field Wet Density (t/m³) :	1.990	1.990	2.020	2.100
Optimum Moisture Content (%) :	22.9	21.1	20.4	14.4
Moisture Variation :	-0.2	-2.3	-2.1	1.8
Peak Converted Wet Density (t/m³) :	2.010	2.060	2.060	2.090
Hilf Density Ratio (%) :	**99.0**	**96.5**	**98.0**	**100.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15/061.113/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209318	209319	209320	209321
Test Number :			189	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	18/07/2015	18/07/2015	18/07/2015	18/07/2015
ate Tested :	18/07/2015	18/07/2015	18/07/2015	18/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	710	683		685
Sample Location :	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 REFER SITE PLAN 1.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.1	15.7	24.6	16.0
Hilf MDR Number :	209318	209319	209320	209321
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	102.5	101	103
Field Wet Density (t/m³) :	2.060	2.050	2.050	2.020
Optimum Moisture Content (%) :	17.8	15.3	24.4	15.6
Moisture Variation :	-0.3	-0.3	-0.2	-0.5
Peak Converted Wet Density (t/m³) :	2.070	2.100	2.090	2.090
Hilf Density Ratio (%) :	**99.5**	**98.0**	**98.0**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.113/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209262	209263	209264	209265
Test Number :	139		140	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	16/07/2015	16/07/2015	16/07/2015	16/07/2015
Date Tested :	16/07/2015	16/07/2015	16/07/2015	16/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ON SITE
Lot Number :		714		713
Sample Location :	REFER TO SITE PLAN STAGE 4 2.0m BELOW FL	REFER TO SITE PLAN STAGE 4 2.0m BELOW FL	REFER TO SITE PLAN STAGE 4 2.0m BELOW FL	REFFER TO SITE PLAN STAGE 4 2.0m BELOW F/L
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	13.7	13.2	11.4	11.4
Hilf MDR Number :	209262	209263	209264	209265
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	94.5	97	82.5	85.5
Field Wet Density (t/m³) :	2.070	2.100	2.050	2.040
Optimum Moisture Content (%) :	14.5	13.6	13.8	13.4
Moisture Variation :	0.8	0.3	2.4	2.0
Peak Converted Wet Density (t/m³) :	2.090	2.070	2.070	2.070
Hilf Density Ratio (%) :	**99.0**	**101.0**	**99.0**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15/061.114/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209322	209323		
Test Number :	185			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	18/07/2015	18/07/2015		
Date Tested :	18/07/2015	18/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :		686		
Sample Location :	STAGE 3 REFER SITE PLAN 1.2m BELOW FL	STAGE 3 REFER SITE PLAN 1.2m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	19.5	14.9		
Hilf MDR Number :	209322	209323		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1	AS1289.5.8.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	101.5	102		
Field Wet Density (t/m³) :	2.030	2.040		
Optimum Moisture Content (%) :	19.2	14.6		
Moisture Variation :	-0.2	-0.2		
Peak Converted Wet Density (t/m³) :	2.080	2.090		
Hilf Density Ratio (%) :	**97.5**	**97.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15/061.115/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209334	209335	209336	209337
Test Number :				141
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	20/07/2015	20/07/2015	20/07/2015	20/07/2015
Date Tested :	20/07/2015	20/07/2015	20/07/2015	20/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	796	795	794	
Sample Location :	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :		-		
Oversize Density (t/m³) :				
Field Moisture Content (%) :	22.6	23.1	18.4	13.1
Hilf MDR Number :	209334	209335	209336	209337
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	84.5	103	93	103
Field Wet Density (t/m³) :	2.010	2.020	2.020	2.030
Optimum Moisture Content (%) :	26.7	22.5	19.8	12.7
Moisture Variation :	3.6	-0.6	1.4	-0.5
Peak Converted Wet Density (t/m³) :	2.060	1.960	1.980	2.040
Hilf Density Ratio (%) :	**97.5**	**103.0**	**102.0**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15/061.116/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**23/07/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209338	209339	209340	209341
Test Number :	142			
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	20/07/2015	20/07/2015	20/07/2015	20/07/2015
Date Tested :	20/07/2015	20/07/2015	20/07/2015	20/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :		760	761	762
Sample Location :	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL	STAGE 5 REFER SITE PLAN FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.1	13.7	14.5	14.3
Hilf MDR Number :	209338	209339	209340	209341
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1	AS1289.5.8.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	85.5	91	92	88
Field Wet Density (t/m³) :	2.020	2.020	2.040	2.030
Optimum Moisture Content (%) :	16.5	15.1	15.8	16.3
Moisture Variation :	2.4	1.4	1.3	1.9
Peak Converted Wet Density (t/m³) :	2.010	2.020	2.030	1.990
Hilf Density Ratio (%) :	**100.0**	**100.0**	**100.5**	**102.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.117/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**03/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209520	209521	209522	209523
Test Number :	143	144	145	146
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	29/07/2015	29/07/2015	29/07/2015	29/07/2015
Date Tested :	29/07/2015	29/07/2015	29/07/2015	29/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN FINISHED LEVEL	REFER TO SITE PLAN FINISHED LEVEL	REFER TO SITE PLAN 0.4m BELOW FL	REFER TO SITE PLAN 0.4m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	10	5
Oversize Dry (%) :				
Oversize Density (t/m³) :			2.491	2.500
Field Moisture Content (%) :	15.8	16.7	11.2	11.7
Hilf MDR Number :	209520	209521	209522	209523
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	106	106.5	80	76
Field Wet Density (t/m³) :	2.010	2.020	2.020	2.030
Optimum Moisture Content (%) :	14.9	15.7	14.0	15.4
Moisture Variation :	-0.9	-1.0	2.8	3.6
Peak Converted Wet Density (t/m³) :	2.100	2.120	2.090	2.050
Hilf Density Ratio (%) :	**95.5**	**95.5**	**96.5**	**99.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.118/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	03/08/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	209524	209525		
Test Number :	147	148		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	29/07/2015	29/07/2015		
Date Tested :	29/07/2015	29/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN 0.4m BELOW FL	REFER TO SITE PLAN 0.4m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	3	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.483			
Field Moisture Content (%) :	13.2	13.9		
Hilf MDR Number :	209524	209525		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	101.5	88.5		
Field Wet Density (t/m³) :	1.960	1.980		
Optimum Moisture Content (%) :	13.0	15.7		
Moisture Variation :	-0.2	1.8		
Peak Converted Wet Density (t/m³) :	2.000	2.010		
Hilf Density Ratio (%) :	**98.0**	**98.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.119/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**11/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209596	209597	209598	209599
Test Number :	149	150	151	152
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	30/07/2015	30/07/2015	30/07/2015	30/07/2015
Date Tested :	30/07/2015	30/07/2015	30/07/2015	30/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.5	15.0	15.0	13.4
Hilf MDR Number :	209596	209597	209598	209599
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	89.5	101.5	90.5	97
Field Wet Density (t/m³) :	2.060	2.050	2.040	2.000
Optimum Moisture Content (%) :	17.4	14.8	16.5	13.8
Moisture Variation :	1.8	-0.2	1.5	0.5
Peak Converted Wet Density (t/m³) :	2.040	2.060	2.060	2.110
Hilf Density Ratio (%) :	**101.0**	**99.5**	**99.0**	**95.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.120/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**11/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209600	209601		
Test Number :	153	154		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	30/07/2015	30/07/2015		
Date Tested :	30/07/2015	30/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	13.1	13.2		
Hilf MDR Number :	209600	209601		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	90.5	97		
Field Wet Density (t/m³) :	2.010	2.000		
Optimum Moisture Content (%) :	14.5	13.6		
Moisture Variation :	1.4	0.5		
Peak Converted Wet Density (t/m³) :	2.080	2.110		
Hilf Density Ratio (%) :	**96.5**	**95.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.121/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**11/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209672	209673	209674	209675
Test Number :	155	156	157	158
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	31/07/2015	31/07/2015	31/07/2015	31/07/2015
Date Tested :	31/07/2015	31/07/2015	31/07/2015	31/07/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.8	16.1	15.6	13.5
Hilf MDR Number :	209672	209673	209674	209675
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	95.5	98.5	97	89
Field Wet Density (t/m³) :	2.070	2.090	2.070	1.990
Optimum Moisture Content (%) :	16.6	16.4	16.1	15.2
Moisture Variation :	0.8	0.2	0.5	1.7
Peak Converted Wet Density (t/m³) :	2.040	2.060	2.040	2.050
Hilf Density Ratio (%) :	**101.5**	**101.5**	**101.5**	**97.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.122/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**11/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209676	209677		
Test Number :	159	160		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	31/07/2015	31/07/2015		
Date Tested :	31/07/2015	31/07/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL	REFER TO SITE PLAN STAGE 2 FINISHED LEVEL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	13.7	13.8		
Hilf MDR Number :	209676	209677		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	91	92.5		
Field Wet Density (t/m³) :	1.980	2.010		
Optimum Moisture Content (%) :	15.1	14.9		
Moisture Variation :	1.4	1.1		
Peak Converted Wet Density (t/m³) :	2.050	2.050		
Hilf Density Ratio (%) :	**96.5**	**98.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.123/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**12/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209737	209738	209739	209740
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	04/08/2015	04/08/2015	04/08/2015	04/08/2015
Date Tested :	04/08/2015	04/08/2015	04/08/2015	04/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	709	710	683	684
Sample Location :	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.9	14.9	16.2	12.2
Hilf MDR Number :	209737	209738	209739	209740
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	102	98.5	103.5	83.5
Field Wet Density (t/m³) :	2.010	2.000	2.000	2.050
Optimum Moisture Content (%) :	14.6	15.2	15.7	14.6
Moisture Variation :	-0.3	0.2	-0.6	2.5
Peak Converted Wet Density (t/m³) :	2.050	2.050	2.030	1.990
Hilf Density Ratio (%) :	**98.5**	**98.0**	**98.5**	**103.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.124/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**12/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209741	209742		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	04/08/2015	04/08/2015		
Date Tested :	04/08/2015	04/08/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	688	687		
Sample Location :	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL	REFER TO SITE PLAN STAGE 3 FINISHED LEVEL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	5	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :	2.508			
Field Moisture Content (%) :	12.5	12.5		
Hilf MDR Number :	209741	209742		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	100	90.5		
Field Wet Density (t/m³) :	2.030	2.060		
Optimum Moisture Content (%) :	12.5	13.8		
Moisture Variation :	0.0	1.4		
Peak Converted Wet Density (t/m³) :	2.030	2.030		
Hilf Density Ratio (%) :	**100.5**	**101.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.125/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	210016	210017	210018	210019
Test Number :	170	171	172	173
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	07/08/2015	07/08/2015	07/08/2015	07/08/2015
Date Tested :	07/08/2015	07/08/2015	07/08/2015	07/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.3m BELOW FL	REFER TO SITE PLAN STAGE 2 0.3m BELOW FL	REFER TO SITE PLAN STAGE 2 0.3m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	11.6	11.8	11.8	14.5
Hilf MDR Number :	210016	210017	210018	210019
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	83	85.5	86	91
Field Wet Density (t/m³) :	1.990	2.080	2.080	1.990
Optimum Moisture Content (%) :	14.0	13.8	13.7	16.0
Moisture Variation :	2.3	2.0	1.9	1.5
Peak Converted Wet Density (t/m³) :	2.050	2.030	2.070	1.960
Hilf Density Ratio (%) :	**97.0**	**102.5**	**100.5**	**102.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.126/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**14/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	210020	210021		
Test Number :	174	175		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	07/08/2015	07/08/2015		
Date Tested :	07/08/2015	07/08/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL	REFER TO SITE PLAN STAGE 2 0.6m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	13.1	16.7		
Hilf MDR Number :	210020	210021		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	100.5	87		
Field Wet Density (t/m³) :	2.020	2.010		
Optimum Moisture Content (%) :	13.1	19.2		
Moisture Variation :	0.0	2.4		
Peak Converted Wet Density (t/m³) :	1.960	1.960		
Hilf Density Ratio (%) :	**103.0**	**102.5**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.127/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	210091	210092	210093	210094
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	10/08/2015	10/08/2015	10/08/2015	10/08/2015
Date Tested :	10/08/2015	10/08/2015	10/08/2015	10/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :	782	765	781	766
Sample Location :	REFER TO SITE PLAN STAGE 5 FINISHED LEVEL	REFER TO SITE PLAN STAGE 5 FINISHED LEVEL	REFER TO SITE PLAN STAGE 5 FINISHED LEVEL	REFER TO SITE PLAN STAGE 5 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	15.3	13.5	16.1	13.5
Hilf MDR Number :	210091	210092	210093	210094
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	91	92.5	98	96.5
Field Wet Density (t/m³) :	2.060	2.040	2.050	2.060
Optimum Moisture Content (%) :	16.8	14.6	16.4	14.0
Moisture Variation :	1.5	1.0	0.3	0.6
Peak Converted Wet Density (t/m³) :	2.000	2.020	2.010	2.030
Hilf Density Ratio (%) :	**102.5**	**100.5**	**102.0**	**101.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	GOLDING CONTRACTORS	Report Number:	GL15-061.128/1
Address :	Po Box 65, Arundel BC, QLD, 4214	Report Date :	17/08/2015
Project Name :	GAINSBOROUGH GREENS - PRECINCT 5.1	Order Number :	
Project Number :	GL15/061	Test Method :	AS1289.5.7.1
Location:	SWAN ROAD , PIMPAMA	Page 1 of 1	

Sample Number :	210028	210029	210030	210031
Test Number :	176	177	178	179
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	08/08/2015	08/08/2015	08/08/2015	08/08/2015
Date Tested :	08/08/2015	08/08/2015	08/08/2015	08/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	6	4	0
Oversize Dry (%) :				
Oversize Density (t/m³) :		2.490	2.509	
Field Moisture Content (%) :	17.7	18.7	17.9	21.1
Hilf MDR Number :	210028	210029	210030	210031
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103.5	91	101.5	104
Field Wet Density (t/m³) :	2.100	2.090	2.110	2.000
Optimum Moisture Content (%) :	17.1	20.6	17.7	20.3
Moisture Variation :	-0.6	1.8	-0.2	-0.8
Peak Converted Wet Density (t/m³) :	2.020	2.080	2.020	2.030
Hilf Density Ratio (%) :	**104.0**	**100.5**	**104.5**	**98.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.129/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**		**Page 1 of 1**

Sample Number :	210032	210033		
Test Number :	180	181		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	08/08/2015	08/08/2015		
Date Tested :	08/08/2015	08/08/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL	REFER TO SITE PLAN STAGE 2 0.2m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.1	16.9		
Hilf MDR Number :	210032	210033		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	103	105		
Field Wet Density (t/m³) :	2.040	2.010		
Optimum Moisture Content (%) :	17.6	16.1		
Moisture Variation :	-0.5	-0.8		
Peak Converted Wet Density (t/m³) :	2.050	2.020		
Hilf Density Ratio (%) :	**99.5**	**100.0**		
Minimum Specification :	100	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.130/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209822	209823	209824	209825
Test Number :	161	162	163	
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	05/08/2015	05/08/2015	05/08/2015	05/08/2015
Date Tested :	05/08/2015	05/08/2015	05/08/2015	05/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				763
Sample Location :	REFER TO SITE PLAN STAGE 2 0.4m BELOW FL	REFER TO SITE PLAN STAGE 2 0.4m BELOW FL	REFER TO SITE PLAN STAGE 2 0.4m BELOW FL	REFER TO SITE PLAN STAGE 4 FINISHED LEVEL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	18.9	19.4	19.5	15.3
Hilf MDR Number :	209822	209823	209824	209825
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Moisture Ratio (%) :	103	105.5	104.5	85.5
Field Wet Density (t/m³) :	2.000	2.000	2.010	2.030
Optimum Moisture Content (%) :	18.3	18.4	18.6	17.9
Moisture Variation :	-0.6	-0.9	-0.8	2.5
Peak Converted Wet Density (t/m³) :	2.040	2.040	2.030	1.930
Hilf Density Ratio (%) :	**98.5**	**98.5**	**99.0**	**105.0**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

APPROVED SIGNATORY

IAN MASMAN (Gold Coast) - GOLD COAST MANAGER
NATA Accreditation Number
1169

MORRISON GEOTECHNIC

Brisbane | Gold Coast | Brendale | Maroochydore
Unit 1, 5 Brendan Drive (PO Box 2011), Nerang Q 4211 P (07) 5596 1599 F (07) 5527 2027
ABN 51 009 878 899
www.morrisongeo.com.au

Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.131/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209826	209827		
Test Number :				
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	05/08/2015	05/08/2015		
Date Tested :	05/08/2015	05/08/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :	764	711		
Sample Location :	REFER TO SITE PLAN STAGE 4 FINISHED LEVEL	REFER TO SITE PLAN STAGE 4 FINISHED LEVEL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	14.5	16.6		
Hilf MDR Number :	209826	209827		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS 1289.2.1.1	AS 1289.2.1.1		
Moisture Ratio (%) :	94	86		
Field Wet Density (t/m³) :	2.030	2.050		
Optimum Moisture Content (%) :	15.4	19.3		
Moisture Variation :	0.9	2.6		
Peak Converted Wet Density (t/m³) :	1.950	2.010		
Hilf Density Ratio (%) :	**104.0**	**102.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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ABN 51 009 878 899
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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.132/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209903	209904	209905	209906
Test Number :	164	165	166	167
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4
Date Sampled :	06/08/2015	06/08/2015	06/08/2015	06/08/2015
Date Tested :	06/08/2015	06/08/2015	06/08/2015	06/08/2015
Material Type :	GENERAL FILL	GENERAL FILL	GENERAL FILL	GENERAL FILL
Material Source :	ONSITE	ONSITE	ONSITE	ONSITE
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 1m BELOW FL	REFER TO SITE PLAN STAGE 2 1m BELOW FL	REFER TO SITE PLAN STAGE 2 1m BELOW FL	REFER TO SITE PLAN STAGE 2 1m BELOW FL
Test Depth (mm) :	150	150	150	150
Layer Depth (mm) :				
Maximum Size (mm) :	19	19	19	19
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	17.9	18.2	18.3	12.2
Hilf MDR Number :	209903	209904	209905	209906
Hilf MDR Method :	No	No	No	No
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :				
Moisture Ratio (%) :	101.5	101	101	89
Field Wet Density (t/m³) :	2.010	2.010	2.010	1.990
Optimum Moisture Content (%) :	17.7	18.1	18.1	13.7
Moisture Variation :	-0.2	-0.1	-0.2	1.6
Peak Converted Wet Density (t/m³) :	2.030	2.030	2.030	2.080
Hilf Density Ratio (%) :	**99.0**	**99.0**	**99.0**	**95.5**
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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ABN 51 009 878 899
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Hilf Density Ratio Report

Client :	**GOLDING CONTRACTORS**	Report Number:	**GL15-061.133/1**
Address :	**Po Box 65, Arundel BC, QLD, 4214**	Report Date :	**17/08/2015**
Project Name :	**GAINSBOROUGH GREENS - PRECINCT 5.1**	Order Number :	
Project Number :	**GL15/061**	Test Method :	**AS1289.5.7.1**
Location:	**SWAN ROAD , PIMPAMA**	**Page 1 of 1**	

Sample Number :	209907	209908		
Test Number :	168	169		
Sampling Method :	AS1289.1.2.1 CL. 6.4	AS1289.1.2.1 CL. 6.4		
Date Sampled :	06/08/2015	06/08/2015		
Date Tested :	06/08/2015	06/08/2015		
Material Type :	GENERAL FILL	GENERAL FILL		
Material Source :	ONSITE	ONSITE		
Lot Number :				
Sample Location :	REFER TO SITE PLAN STAGE 2 1m BELOW FL	REFER TO SITE PLAN STAGE 2 1m BELOW FL		
Test Depth (mm) :	150	150		
Layer Depth (mm) :				
Maximum Size (mm) :	19	19		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m³) :				
Field Moisture Content (%) :	12.3	12.0		
Hilf MDR Number :	209907	209908		
Hilf MDR Method :	No	No		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :				
Moisture Ratio (%) :	86.5	90.5		
Field Wet Density (t/m³) :	2.030	2.010		
Optimum Moisture Content (%) :	14.2	13.2		
Moisture Variation :	1.9	1.2		
Peak Converted Wet Density (t/m³) :	2.100	2.080		
Hilf Density Ratio (%) :	**96.5**	**97.0**		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			

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APPENDIX 'B'

(Photo Gallery)


IMG_1248


IMG_1249


IMG_1250


IMG_1251


IMG_3522


IMG_3523


IMG_3525


IMG_3527


IMG_3528


IMG_3529


IMG_3530


IMG_3563


IMG_3564


IMG_3565


IMG_3566


IMG_3579


IMG_3818


IMG_3819


IMG_3820


IMG_3821


IMG_3822


IMG_3823


IMG_4584


IMG_4585


IMG_4586


SDC13662


SDC13663


SDC13664


SDC13666


SDC13673


SDC13675


SDC13676


SDC13677


SDC13678


SDC13680


SDC13681


SDC13682


SDC13683


SDC13684


SDC13698


SDC13699


SDC13700


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SDC13745


SDC13746


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SDC13799


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VP_20150622_07_24_39_Prc


NP_20150622_07_25_07_Prc


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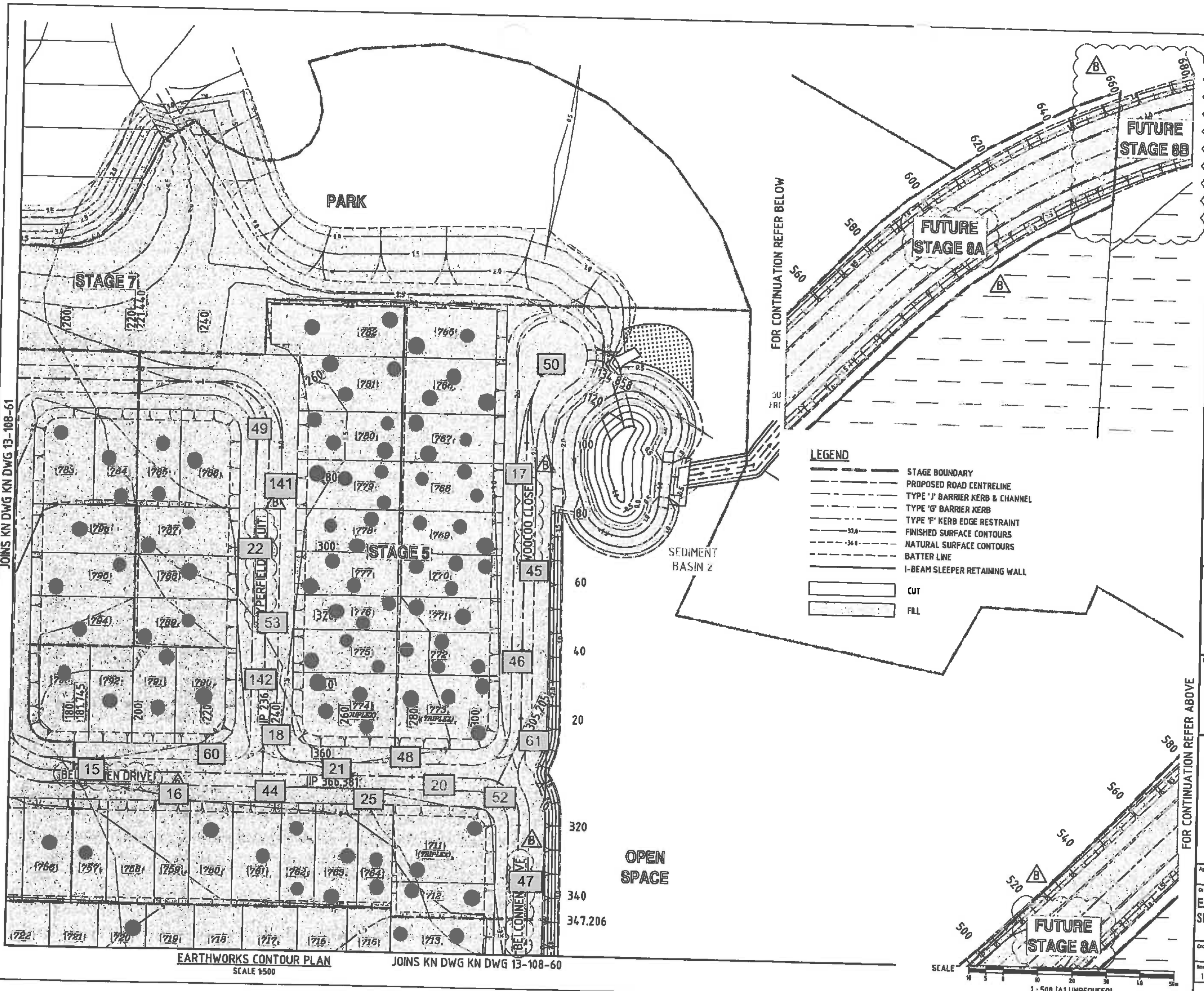
NP_20150622_07_28_47_Pr

APPENDIX 'C'

(Site Plan)



DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

REVISIONS

No	Description	Date	By
A	COUNCIL APPROVAL	JUN 14	GBG
B	ROAD NAMES & STAGING AMENDED	AUG 14	ES

Associated Consultants

VDM CONSULTING

LANDPARTNERS

Form landscape architects

DesignFlow

Client

mirvac

Project

GAINSBOROUGH GREENS
PRECINCT 5.1
STAGE 1B TO STAGE 7

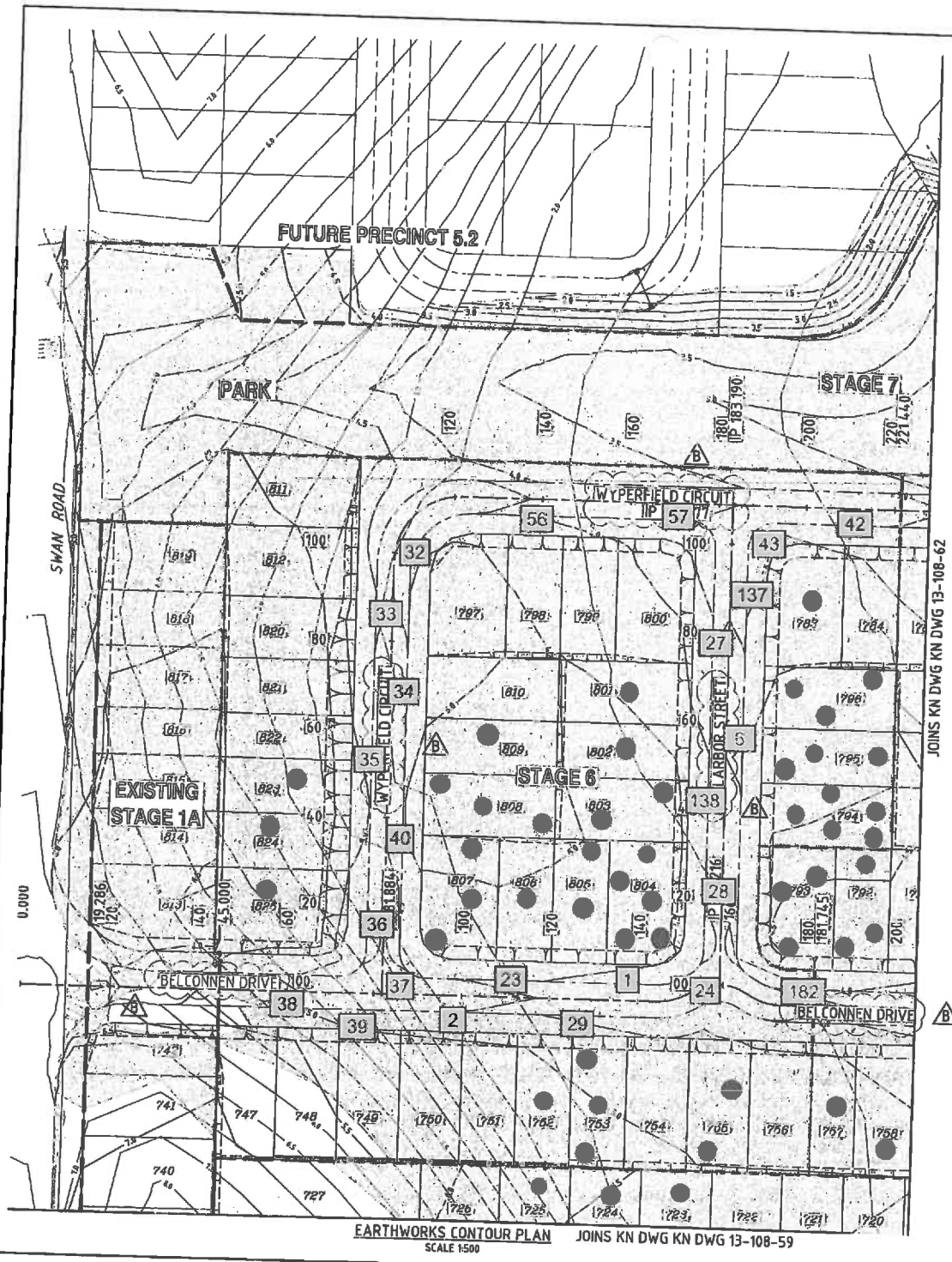
KN GROUP PTY LTD
CONSULTING ENGINEERS

LEVEL 2 - 71 GREY STREET
SOUTH BRISBANE
QUEENSLAND 4101
PHONE 07 3017 1900
FAX 07 3017 1911
EMAIL kng@knpl.com.au
ABN 35 112 053 611

Approved Director - RPEQ
18.8.14

Drawing title
EARTHWORKS CONTOUR PLAN
SHEET 4 OF 4

Drawn	Designed	Checked	Date
ES	CH	GBG	JUN 14
Scale 1:500			Sheet 62 of 137
A1	Drawing No 13-108-62		Revision B



LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- TYPE 'J' BARRIER KERB & CHANNEL
- TYPE 'G' BARRIER KERB
- TYPE 'F' KERB EDGE RESTRAINT
- 37.8 FINISHED SURFACE CONTOURS
- 36.0 NATURAL SURFACE CONTOURS
- BATTER LINE
- I-BEAM SLEEPER RETAINING WALL
- CUT
- FILL

SCALE 1:500 (A1 UNREDUCED)

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REVISIONS

No	Description	Date	By
A	COUNCIL APPROVAL	JUN 14	GBG
B	ROAD NAMES AMENDED	AUG 14	ES

Associated Consultants: VDM CONSULTING, LANDPARTNERS, Form landscape architects, DesignFlow

Client: mirvac

Project: GAINSBOROUGH GREENS
PRECINCT 5.1
STAGE 1B TO STAGE 7

KN GROUP PTY LTD CONSULTING ENGINEERS
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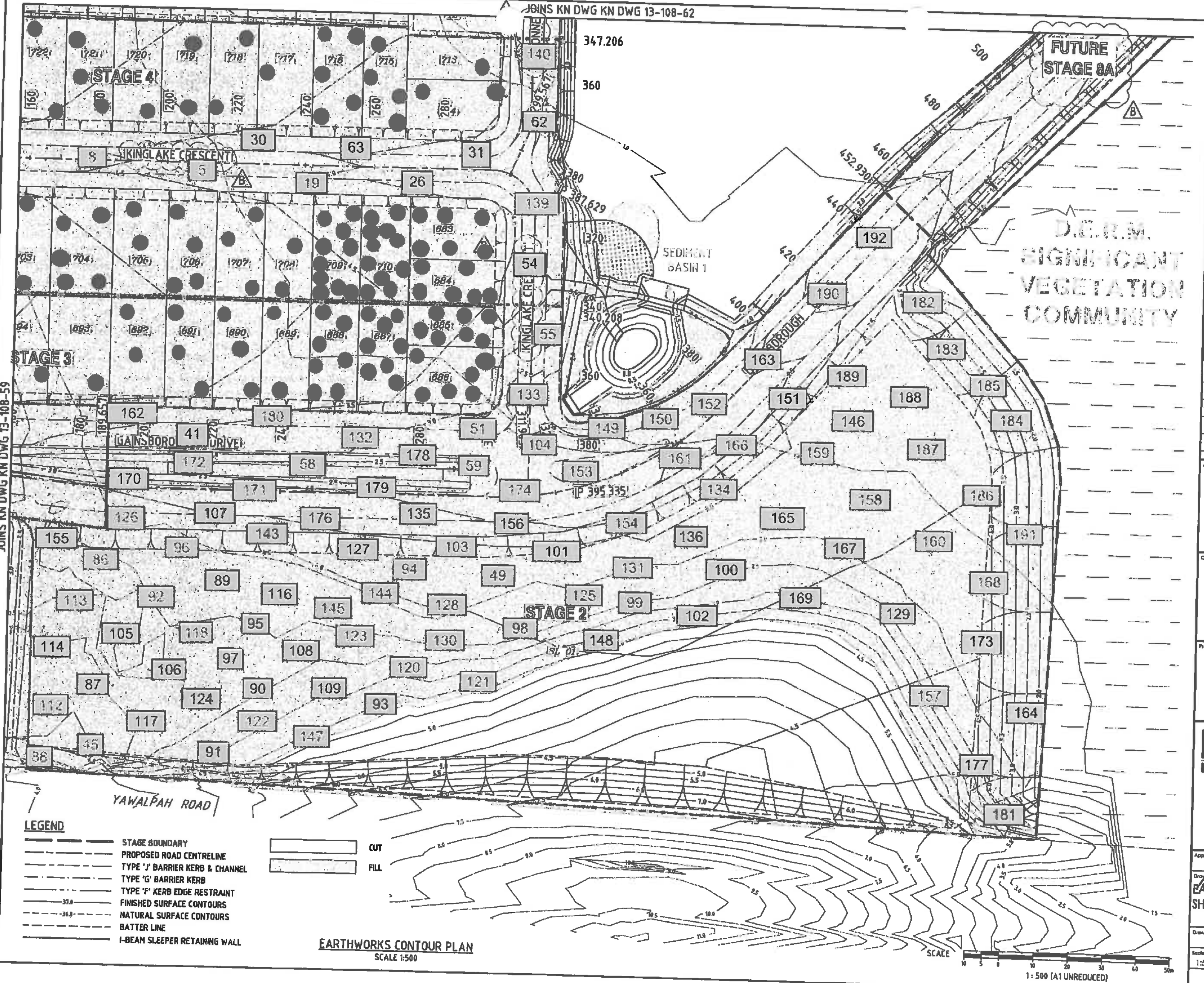
ABN 35 112 033 611

Approved [illegible] 15.8.14

Drawing: EARTHWORKS CONTOUR PLAN
SHEET 3 OF 4

Drawn	Designed	Checked	Date
ES	CH	GBG	JUN 14
Scale: 1:500			Sheet: 61 of 137
A1	Drawing No: 13-108-61		Revision: B



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REVISIONS

No	Description	Date	By
A	COUNCIL APPROVAL	JUN 14	GBG
B	ROAD NAMES & STAGING AMENDED	AUG 14	ES

Associated Consultants

VDM CONSULTING

LANDPARTNERS

Form landscape architects

DesignFlow

Client

mirvac

Project

GAINSBOROUGH GREENS
PRECINCT 5.1
STAGE 1B TO STAGE 7

KN GROUP PTY LTD

LEVEL 2 - 71 GREY STREET
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Approved Director - RPEQ
18.6.14

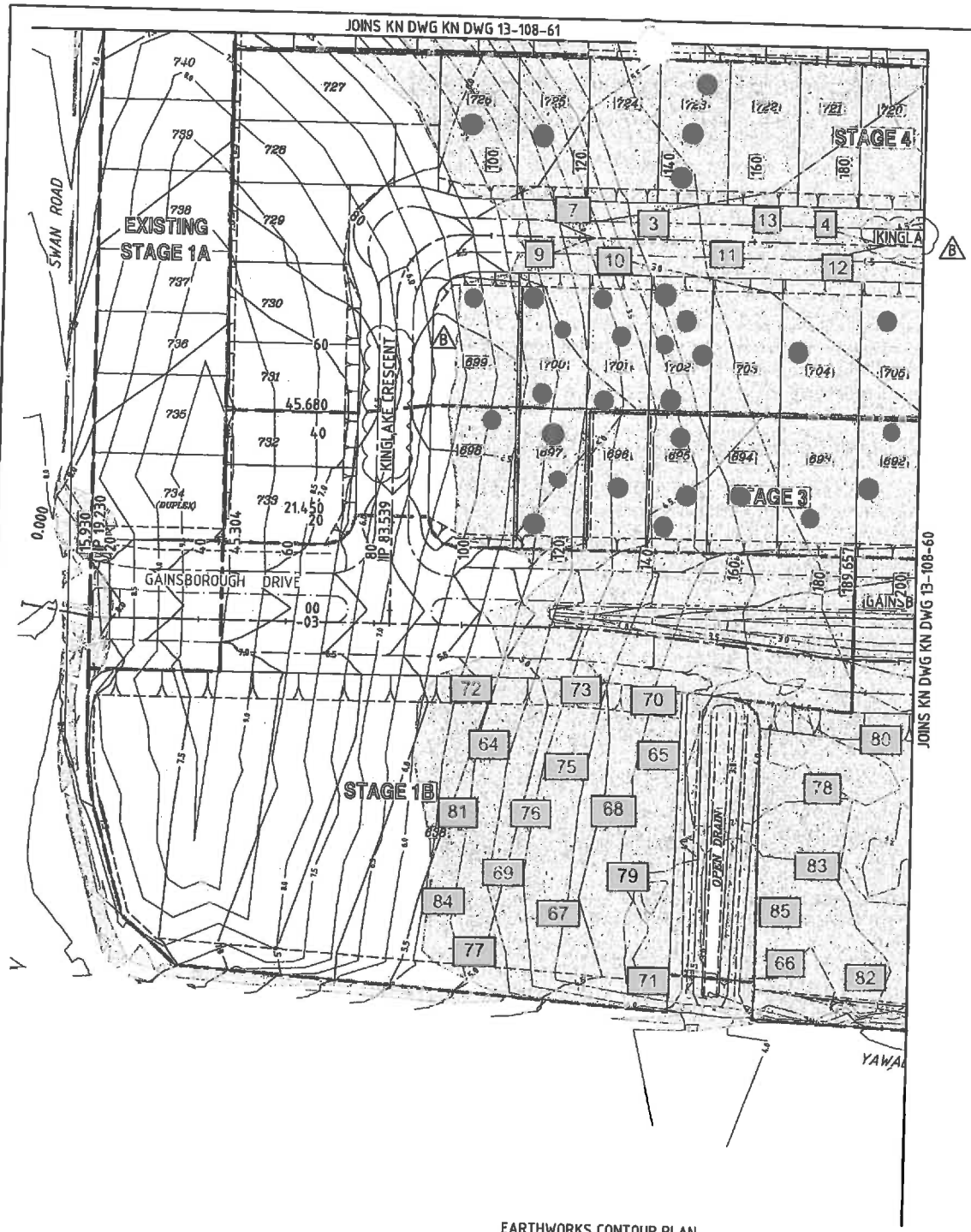
Drawing title

EARTHWORKS CONTOUR PLAN
SHEET 2 OF 4

Drawn	Designed	Checked	Date
ES	CH	GBG	JUN 14

Scale	Sheet
1:500	60 of 137

	Drawing No	Revision
A1	13-108-60	B



EARTHWORKS CONTOUR PLAN
SCALE 1:500

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- TYPE 'J' BARRIER KERB & CHANNEL
- TYPE 'G' BARRIER KERB
- TYPE 'F' KERB EDGE RESTRAINT
- FINISHED SURFACE CONTOURS
- NATURAL SURFACE CONTOURS
- BATTER LINE
- I-BEAM SLEEPER RETAINING WALL
- CUT
- FILL

SCALE
1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
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NORTH

REVISIONS

No	Description	Date	By
A	COUNCIL APPROVAL	JUN 14	GBG
B	ROAD NAMES ALTERED	AUG 14	BS

Associated Consultants

VDM CONSULTING
LANDPARTNERS
Form
DesignFlow

Client

mirvac

Project

GAINSBOROUGH GREENS
PRECINCT 5.1
STAGE 1B TO STAGE 7

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ABN 55 112 053 611

Approved Director

Drawing Title

EARTHWORKS CONTOUR PLAN
SHEET 1 OF 4

Drawn	Designed	Checked	Date
ES	CH	GBG	JUN 14

Scale	Sheet
1:500	59 of 137

Paper	Drawing No	Revision
A1	13-108-59	B