



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R001  
 Date Issued 13/09/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	06/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 3</b>	Layer thickness	150 mm	Time:	10:38:34
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No	1	2	3	4	5	6
Location	Peak Road		Inspiration Way		Ambition Drive	
Chainage	120	160	190	230	760	710
Offset	1.8 east of kerb	1.8 west of kerb	1.8 east of kerb	1.8 west of kerb	1.8 north of kerb	1.8 south of kerb
Approximate depth from F.S.L.	m					
Measurement depth	mm					
Field wet density	t/m <sup>3</sup>					
Field dry density	t/m <sup>3</sup>					
Field moisture content	%					

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 203HWCF)

Date of assignment	26/08/16
Material source and location	20mm Class 3 - Hanson, Wollert
Compactive effort	MODIFIED
Maximum Dry Density	t/m <sup>3</sup> 2.28
Optimum Moisture Content	%

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	-	-	-	-	-	-
Percent of oversize material	dry	-	-	-	-	-	-
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-	-	-	-	-
Adjusted Optimum Moisture Content	%	-	-	-	-	-	-

<b>Moisture Variation From Optimum Moisture Content</b>	1.5%	2.0%	0.5%	0.5%	2.0%	1.0%
	dry	dry	dry	dry	dry	dry

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	83.0	74.5	93.5	96.0	74.5	86.5
---	---	------	------	------	------	------	------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	<b>100.0</b>	<b>100.0</b>	<b>98.0</b>	<b>98.5</b>	<b>99.0</b>	<b>99.5</b>
--	---	--------------	--------------	-------------	-------------	-------------	-------------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R002  
 Date Issued 13/09/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	06/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 3</b>	Layer thickness	150 mm	Time:	11:06:04
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No	7	8	9	10	11	12
Location	Ambition Drive				Breeze Way	
Chainage	660	610	560	510	350	300
Offset	1.8	1.8	1.8	1.8	1.8	1.8
	south of kerb	north of kerb	north of kerb	west of kerb	east of kerb	west of kerb
Approximate depth from F.S.L.	m					
Measurement depth	mm					
Field wet density	t/m <sup>3</sup>					
Field dry density	t/m <sup>3</sup>					
Field moisture content	%					

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 203HWCF)

Date of assignment	26/08/16
Material source and location	20mm Class 3 - Hanson, Wollert
Compactive effort	MODIFIED
Maximum Dry Density	t/m <sup>3</sup> 2.28
Optimum Moisture Content	%

Test procedure AS 1289.5.4.1

Test No	7	8	9	10	11	12
Oversize rock retained on sieve	mm					
Percent of oversize material	wet					
Percent of oversize material	dry					
Adjusted Maximum Dry Density	t/m <sup>3</sup>					
Adjusted Optimum Moisture Content	%					

<b>Moisture Variation From Optimum Moisture Content</b>	0.5%	0.0%	0.5%	0.0%	1.5%	1.5%
	dry	dry	dry	dry	dry	dry

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	95.0	97.0	96.0	99.5	81.0	84.0
---	---	------	------	------	------	------	------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	<b>98.5</b>	<b>100.0</b>	<b>98.5</b>	<b>98.5</b>	<b>100.5</b>	<b>99.0</b>
--	---	-------------	--------------	-------------	-------------	--------------	-------------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

### CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R003  
 Date Issued 13/09/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	12/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 3</b>	Layer thickness	150 mm	Time:	08:44:36
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No	13	14	15	16	17	18
Location	Ambition Drive			Vogue Street		Amira Road
Chainage	460	410	360	80	30	220
Offset	1.8	1.8	1.8	1.8	1.8	1.8
	east	west	east	south	north	east
	of kerb	of kerb	of kerb	of kerb	of kerb	of kerb
Approximate depth from F.S.L.	m					
Measurement depth	mm	125	125	125	125	125
Field wet density	t/m <sup>3</sup>	2.51	2.48	2.47	2.50	2.44
Field dry density	t/m <sup>3</sup>	2.31	2.30	2.30	2.32	2.28
Field moisture content	%	8.5	8.0	7.5	8.0	7.5

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 203HWCF)

Date of assignment	26/08/16
Material source and location	20mm Class 3 - Hanson, Wollert
Compactive effort	MODIFIED
Maximum Dry Density	t/m <sup>3</sup> 2.28
Optimum Moisture Content	%

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	-	-	-	-	-	-
Percent of oversize material	dry	-	-	-	-	-	-
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-	-	-	-	-
Adjusted Optimum Moisture Content	%	-	-	-	-	-	-

<b>Moisture Variation From Optimum Moisture Content</b>	0.5%	0.0%	0.5%	0.0%	1.0%	0.5%
	wet	wet	dry	wet	dry	dry

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	109.0	101.0	94.5	100.5	87.5	94.5
---	---	-------	-------	------	-------	------	------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	<b>101.0</b>	<b>100.5</b>	<b>100.5</b>	<b>101.5</b>	<b>100.0</b>	<b>100.0</b>
--	---	--------------	--------------	--------------	--------------	--------------	--------------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
Report No 16420/R004  
Date Issued 13/09/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	12/09/16
Location	GREENVALE	Checked by	JHF

Feature	CLASS 3	Layer thickness	150 mm	Time:	09:28:02
---------	---------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No		19	20				
Location		Breeze Way					
Chainage		200	250				
Offset		1.8	1.8				
		east	west				
		of kerb	of kerb				
Approximate depth from F.S.L.	m						
Measurement depth	mm	125	125				
Field wet density	t/m <sup>3</sup>	2.45	2.42				
Field dry density	t/m <sup>3</sup>	2.24	2.24				
Field moisture content	%	9.0	7.5				

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 203HWCF)

Date of assignment		26/08/16					
Material source and location		20mm Class 3 - Hanson, Wollert					
Compactive effort		MODIFIED					
Maximum Dry Density	t/m <sup>3</sup>	2.28					
Optimum Moisture Content	%	8.0					

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0				
Percent of oversize material	wet	-	-				
Percent of oversize material	dry	-	-				
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-				
Adjusted Optimum Moisture Content	%	-	-				

Moisture Variation From Optimum Moisture Content		1.0%	0.0%				
		wet	dry				

Moisture Ratio (R <sub>m</sub> )	%	115.0	97.5				
----------------------------------	---	-------	------	--	--	--	--

Density Ratio (R <sub>D</sub> )	%	98.0	98.5				
---------------------------------	---	------	------	--	--	--	--



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R005  
 Date Issued 05/10/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	28/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 2</b>	Layer thickness	130 mm	Time:	10:06:18
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No	21	22	23	24	25	26
Location	Peak Road		Inspiration Way	Ambition Drive		
Chainage	120	160	210	760	710	610
Offset	1.8	1.8	1.8	1.8	1.8	1.8
	east of kerb	west of kerb	east of kerb	south of kerb	north of kerb	south of kerb
Approximate depth from F.S.L.	m					
Measurement depth	mm	100	100	100	100	100
Field wet density	t/m <sup>3</sup>	2.40	2.38	2.40	2.38	2.39
Field dry density	t/m <sup>3</sup>	2.24	2.22	2.24	2.23	2.22
Field moisture content	%	7.0	7.0	7.0	6.5	7.0

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 202AFAG)

Date of assignment	04/10/16
Material source and location	20mm Class 2 - Alex Fraser, Laverton
Compactive effort	MODIFIED
Maximum Dry Density	t/m <sup>3</sup> 2.27
Optimum Moisture Content	%

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	-	-	-	-	-	-
Percent of oversize material	dry	-	-	-	-	-	-
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-	-	-	-	-
Adjusted Optimum Moisture Content	%	-	-	-	-	-	-

<b>Moisture Variation From Optimum Moisture Content</b>	1.0%	0.5%	0.5%	1.0%	0.5%	1.0%
	dry	dry	dry	dry	dry	dry

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	88.5	93.5	91.0	86.5	92.5	86.5
---	---	------	------	------	------	------	------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	<b>99.0</b>	<b>98.0</b>	<b>98.5</b>	<b>98.5</b>	<b>98.0</b>	<b>99.0</b>
--	---	-------------	-------------	-------------	-------------	-------------	-------------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R006  
 Date Issued 05/10/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	28/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 2</b>	Layer thickness	130 mm	Time:	10:46:40
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No		27	28	29	30	31	32
Location		Ambition Drive	Breeze Way				Amira Road
	Chainage	610	350	300	250	200	220
	Offset	1.8	1.8	1.8	1.8	1.8	1.8
		north of kerb	east of kerb	west of kerb	east of kerb	west of kerb	east of kerb
Approximate depth from F.S.L.	m						
Measurement depth	mm	100	100	100	100	100	100
Field wet density	t/m <sup>3</sup>	2.42	2.37	2.40	2.40	2.42	2.44
Field dry density	t/m <sup>3</sup>	2.28	2.22	2.24	2.23	2.24	2.26
Field moisture content	%	6.5	6.5	7.5	7.5	8.0	7.5

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 202AFAG)

Date of assignment		04/10/16
Material source and location		20mm Class 2 - Alex Fraser, Laverton
Compactive effort		MODIFIED
Maximum Dry Density	t/m <sup>3</sup>	2.27
Optimum Moisture Content	%	8.0

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	-	-	-	-	-	-
Percent of oversize material	dry	-	-	-	-	-	-
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-	-	-	-	-
Adjusted Optimum Moisture Content	%	-	-	-	-	-	-

<b>Moisture Variation From Optimum Moisture Content</b>		1.5% dry	1.0% dry	0.5% dry	0.0% dry	0.5% wet	0.0% wet
---	--	-------------	-------------	-------------	-------------	-------------	-------------

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	79.5	86.0	96.5	97.0	105.5	100.5
---	---	------	------	------	------	-------	-------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	100.5	98.0	98.5	98.0	99.0	100.0
--	---	-------	------	------	------	------	-------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 16420  
 Report No 16420/R007  
 Date Issued 05/10/16

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASPECT - STAGE 8	Date tested	28/09/16
Location	GREENVALE	Checked by	JHF

<b>Feature</b>	<b>CLASS 2</b>	Layer thickness	130 mm	Time:	11:10:03
----------------	----------------	-----------------	--------	-------	----------

AS 12892.1.1 & 5.8.1

Test No	33	34	35	36	37	38
Location	Vogue Street		Ambition Drive			
Chainage	80	30	560	510	460	410
Offset	1.8	1.8	1.8	1.8	1.8	1.8
	north of kerb	south of kerb	east of kerb	west of kerb	east of kerb	west of kerb
Approximate depth from F.S.L.	m					
Measurement depth	mm	100	100	100	100	100
Field wet density	t/m <sup>3</sup>	2.38	2.40	2.41	2.46	2.44
Field dry density	t/m <sup>3</sup>	2.22	2.24	2.22	2.27	2.26
Field moisture content	%	7.0	7.5	8.0	8.0	8.0

Laboratory Compaction AS 1289.5.2.1 & 5.4.2 Assigned Values (See Report No 202AFAG)

Date of assignment	04/10/16
Material source and location	20mm Class 2 - Alex Fraser, Laverton
Compactive effort	MODIFIED
Maximum Dry Density	t/m <sup>3</sup> 2.27
Optimum Moisture Content	%

Test procedure AS 1289.5.4.1

Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	-	-	-	-	-	-
Percent of oversize material	dry	-	-	-	-	-	-
Adjusted Maximum Dry Density	t/m <sup>3</sup>	-	-	-	-	-	-
Adjusted Optimum Moisture Content	%	-	-	-	-	-	-

<b>Moisture Variation From Optimum Moisture Content</b>	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%
	dry	dry	wet	wet	wet	wet

<b>Moisture Ratio ( R<sub>m</sub> )</b>	%	89.5	95.0	108.0	106.0	103.5	105.5
---	---	------	------	-------	-------	-------	-------

<b>Density Ratio ( R<sub>D</sub> )</b>	%	<b>98.0</b>	<b>98.5</b>	<b>98.0</b>	<b>100.0</b>	<b>99.5</b>	<b>99.5</b>
--	---	-------------	-------------	-------------	--------------	-------------	-------------



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry