



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
PO Box 678 Croydon Vic 3136
Telephone: 9723 0744 Facsimile: 9723 0799

5th February 2021

Our Reference: 20184:NB874

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
SMITHS LANE – STAGE 9 (CLYDE NORTH)**

Please find attached our Report No's 20184/R001 to 20184/R010 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density testing commenced in March 2020 and was completed in May 2020.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a faint, illegible printed name.

Nick Brock

FIGURE 1 (2 of 2)

FOR CONTINUATION SEE SHEET 1101438-09-010



LEGEND - FUNCTIONAL LAYOUT PLAN

- ELECTRICITY (UNDERGROUND)
- OPTIC FIBRE
- TELECOMMUNICATION
- GAS
- WATER
- RECYCLED WATER
- STORMWATER DRAIN, PIT & PROPERTY INLET
- MELBOURNE WATER DRAIN & PIT
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- TACTILE PAVERS (INDICATIVE ONLY)
- TACTILE ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING TELECOMMUNICATION
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING ZERO LOT LINES
- PAVEMENT TREATMENT
- DIRECTION OF FLOW
- ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, 'NO ROAD' SIGN & BARRIER
- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- RIDGE LINE
- RETAINING WALL
- TREE PROTECTION ZONE (TPZ)

Approximate field density test location

SERVICE OFFSET TABLE

| Location | Gas | | ND - Water | | Water | | Electricity | | Telecommunication | | Sewer | |
|------------------------|------|------------|------------|------------|-------|------------|-------------|------------|-------------------|------------|-------|------------|
| | Side | Offset (m) | Side | Offset (m) | Side | Offset (m) | Side | Offset (m) | Side | Offset (m) | Side | Offset (m) |
| BURNBANK PARADE | S | 2.25 | S | 2.70 | S | 3.20 | N | 2.70 | N | 1.95 | S | 1.00 |
| GENERATION DRIVE | W | 2.25 | W | 2.70 | W | 3.20 | E | 2.60 | E | 1.85 | - | - |
| CARRANDALE DRIVE (N-S) | E | 2.25 | E | 2.70 | E | 3.20 | W | 2.60 | W | 1.85 | EW | - |
| CARRANDALE DRIVE (E-W) | N | 2.25 | N | 2.70 | N | 3.20 | S | 2.60 | S | 1.85 | N | 1.00 |
| KOENIG STREET | E | 2.25 | E | 2.70 | E | 3.20 | W | 1.95 | W | 2.70 | E | 1.00 |
| SPIKE WAY | N | 2.25 | N | 2.70 | N | 3.20 | S | 2.60 | S | 1.85 | N/S | 1.00 |
| HANDSOME AVENUE | S | 2.25 | S | 2.70 | S | 3.20 | N | 2.60 | N | 1.85 | S | 1.00 |
| SPECTRUM CIRCUIT | E | 2.25 | E | 2.70 | E | 3.20 | W | 2.60 | W | 1.85 | E | 1.00 |

ROAD LAYOUT TABLE

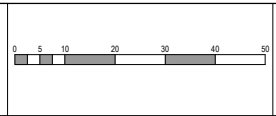
| ROAD NAME | RESERVE WIDTH (m) | ROAD WIDTH (m) | | | VERGE WIDTH (m) | |
|-----------------|-------------------|----------------|--------------|--------------|-----------------|-------------|
| | | LIP to LIP | INV to INV | BACK to BACK | NORTHWEST | SOUTHEAST |
| BURNBANK PARADE | 25.00 | 6.40 (10.30) | 7.30 (11.20) | 7.60 (11.50) | 10.70 (8.75) | 6.70 (4.75) |
| ROAD 31 | 20.00 | 6.40 | 7.30 | 7.60 | 4.50 | 6.20 |
| HEIFER ROAD | 20.00 | 6.40 | 7.30 | 7.60 | 8.20 | 4.50 |
| | 16.00 | 6.40 | 7.30 | 7.60 | 4.50 | 4.20 |
| | 13.00 | 6.40 | 7.30 | 7.60 | 4.20 | 1.50 |
| KOENIG STREET | 20.00 | 6.40 | 7.30 | 7.60 | 8.20 | 4.50 |
| SPIKE WAY | 16.00 | 6.40 | 7.30 | 7.60 | 4.50 | 4.20 |
| HANDSOME AVENUE | 16.00 | 6.40 | 7.30 | 7.60 | 4.20 | 4.50 |
| ROAD 14 | 16.00 | 6.40 | 7.30 | 7.60 | 4.20 | 4.50 |

THE FINISHED SURFACE LEVELS, EXTENT OF FILL SHOWN ON THIS PLAN ARE PRELIMINARY ONLY, AND SHALL NOT BE FINALISED UNTIL CITY OF CASEY HAVE APPROVED THE PLANS FOR CONSTRUCTION

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works. **DIAL 1100 BEFORE YOU DIG**
www.1100.com.au

PRELIMINARY PRINT
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Designed by: C. THAO LE
Drawn by: N. TABUENA
Approved by: L. MURRAY
PS Number: PS837143K



Project Details: SMITHS LANE STAGE 05 CITY OF CASEY
Drawing Title: LAYOUT PLAN (SHEET 2 OF 2)

Sheet 05 of 27
Scale: 1:500 @ A1
Project Ref: 1101438 Stage No: 09 Drawing No: 011 Rev: PO



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R001
 Date Issued 27/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 31/03/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|----------------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 13:30 |
|----------------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 1 | 2 | 3 | 4 | 5 | 6 |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 |
| Approximate depth below FSL | | | | | | |
| Measurement depth <i>mm</i> | 175 | 175 | 175 | 175 | 175 | 175 |
| Field wet density <i>t/m³</i> | 2.01 | 2.06 | 2.09 | 2.05 | 2.02 | 2.03 |
| Field moisture content <i>%</i> | 12.5 | 13.4 | 12.8 | 13.8 | 14.1 | 17.8 |

Test procedure AS 1289.5.7.1

| Test No | 1 | 2 | 3 | 4 | 5 | 6 |
|--|----------|------|------|------|------|------|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve <i>mm</i> | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Percent of oversize material <i>wet</i> | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Converted Wet Density <i>t/m³</i> | 2.05 | 2.10 | 2.12 | 2.08 | 2.05 | 2.06 |
| Adjusted Peak Converted Wet Density <i>t/m³</i> | - | - | - | - | - | - |
| Optimum Moisture Content <i>%</i> | 15.0 | 15.5 | 15.0 | 16.0 | 16.5 | 20.0 |

| | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| Moisture Variation From Optimum Moisture Content | 2.0% dry | 2.0% dry | 2.0% dry | 2.0% dry | 2.0% dry | 2.0% dry |
|--|----------|----------|----------|----------|----------|----------|

| | | | | | | | |
|--|----------|-------------|-------------|-------------|-------------|-------------|-------------|
| Density Ratio (R_{HD}) | % | 98.0 | 98.0 | 99.0 | 98.5 | 98.5 | 98.5 |
|--|----------|-------------|-------------|-------------|-------------|-------------|-------------|

Material description

| |
|--------------------|
| No 1 - 6 Clay Fill |
|--------------------|

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R002
 Date Issued 07/05/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 01/04/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 10:30 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | 175 | 175 |
| Field wet density | t/m ³ | 2.09 | 2.10 | 2.10 | 2.09 | 2.13 |
| Field moisture content | % | 12.8 | 13.1 | 12.7 | 12.8 | 12.9 |

Test procedure AS 1289.5.7.1

| Test No | 7 | 8 | 9 | 10 | 11 | 12 |
|-------------------------------------|------------------|------|------|------|------|------|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Percent of oversize material | wet | 0 | 0 | 0 | 0 | 0 |
| Peak Converted Wet Density | t/m ³ | 2.06 | 2.09 | 2.08 | 2.14 | 2.16 |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 14.0 | 13.5 | 13.5 | 12.5 | 13.0 |

| | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| Moisture Variation From Optimum Moisture Content | 1.5% dry | 0.5% dry | 1.0% dry | 0.5% wet | 0.5% dry | 0.5% wet |
|--|----------|----------|----------|----------|----------|----------|

| | | | | | | | |
|-----------------------------------|---|-------|-------|-------|------|------|-------|
| Density Ratio (R _{HD}) | % | 101.5 | 100.5 | 101.0 | 97.5 | 98.5 | 100.5 |
|-----------------------------------|---|-------|-------|-------|------|------|-------|

Material description

| |
|---------------------|
| No 7 - 12 Clay Fill |
|---------------------|

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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R003
 Date Issued 30/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 14/04/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | | |
|---------|------------|-----------------|--------|-------|-------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: | 11:00 |
|---------|------------|-----------------|--------|-------|-------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 13 | 14 | 15 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 2.00 | 2.05 | 2.05 | - | - |
| Field moisture content | % | 13.4 | 11.4 | 15.5 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 13 | 14 | 15 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.04 | 2.09 | 2.07 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 11.0 | 9.0 | 13.0 | - | - |

| | | | | | | |
|--|----------|----------|----------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 2.5% wet | 2.5% wet | 2.5% wet | - | - | - |
|--|----------|----------|----------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 98.0 | 98.5 | 99.0 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 13 - 15 Clay Fill |
|----------------------|

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COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R004
 Date Issued 30/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 15/04/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 11:30 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 16 | 17 | 18 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 2.07 | 2.04 | 2.06 | - | - |
| Field moisture content | % | 12.3 | 15.6 | 15.0 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 16 | 17 | 18 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.11 | 2.07 | 2.09 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 10.0 | 13.5 | 12.5 | - | - |

| | | | | | | |
|--|----------|----------|----------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 2.5% wet | 2.5% wet | 2.5% wet | - | - | - |
|--|----------|----------|----------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 98.5 | 98.5 | 98.5 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 16 - 18 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R005
 Date Issued 30/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 22/04/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 14:00 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 19 | 20 | 21 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 1.98 | 2.11 | 2.14 | - | - |
| Field moisture content | % | 15.2 | 15.1 | 18.1 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 19 | 20 | 21 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.02 | 2.15 | 2.15 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 13.5 | 13.5 | 16.0 | - | - |

| | | | | | | |
|--|----------|----------|----------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 2.0% wet | 2.0% wet | 2.5% wet | - | - | - |
|--|----------|----------|----------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 98.0 | 98.5 | 99.5 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 19 - 21 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R006
 Date Issued 30/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 23/04/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 11:00 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 22 | 23 | 24 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 2.00 | 2.02 | 2.03 | - | - |
| Field moisture content | % | 15.7 | 18.9 | 16.8 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 22 | 23 | 24 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.03 | 2.05 | 2.06 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 13.5 | 16.5 | 14.5 | - | - |

| | | | | | | |
|--|----------|----------|----------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 2.5% wet | 2.5% wet | 2.5% wet | - | - | - |
|--|----------|----------|----------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 98.5 | 98.5 | 98.5 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 22 - 24 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 20184
Report No 20184/R007
Date Issued 18/08/2020

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 18/05/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | | |
|---------|------------|-----------------|--------|-------|-------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: | 14:00 |
|---------|------------|-----------------|--------|-------|-------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 25 | 26 | 27 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 2.02 | 1.99 | 1.98 | - | - |
| Field moisture content | % | 20.1 | 19.8 | 18.0 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 25 | 26 | 27 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.05 | 2.03 | 2.01 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 22.0 | 22.5 | 20.5 | - | - |

| | | | | | | |
|--|----------|----------|----------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 2.0% dry | 2.5% dry | 2.5% dry | - | - | - |
|--|----------|----------|----------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 98.5 | 98.0 | 98.5 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 25 - 27 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R008
 Date Issued 04/02/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 19/05/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | | |
|---------|------------|-----------------|--------|-------|-------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: | 09:00 |
|---------|------------|-----------------|--------|-------|-------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 28 | 29 | 30 | 31 | 32 | 33 |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | 175 | 175 |
| Field wet density | t/m ³ | 2.05 | 2.02 | 2.00 | 2.01 | 1.98 |
| Field moisture content | % | 14.7 | 16.6 | 17.7 | 18.1 | 15.8 |

Test procedure AS 1289.5.7.1

| Test No | 28 | 29 | 30 | 31 | 32 | 33 |
|-------------------------------------|------------------|------|------|------|------|------|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Percent of oversize material | wet | 0 | 0 | 0 | 0 | 0 |
| Peak Converted Wet Density | t/m ³ | 2.16 | 2.07 | 2.05 | 2.05 | 2.03 |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 17.0 | 19.0 | 19.0 | 20.0 | 18.0 |

| | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| Moisture Variation From Optimum Moisture Content | 2.5% dry | 2.5% dry | 1.5% dry | 2.0% dry | 2.0% dry | 1.5% dry |
|--|----------|----------|----------|----------|----------|----------|

| | | | | | | | |
|-----------------------------------|---|------|------|------|------|------|------|
| Density Ratio (R _{HD}) | % | 95.0 | 97.5 | 98.0 | 98.0 | 97.5 | 97.5 |
|-----------------------------------|---|------|------|------|------|------|------|

Material description

| |
|----------------------|
| No 28 - 33 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R009
 Date Issued 04/02/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 20/05/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 10:00 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 34 | 35 | 36 | 37 | - | - |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|------|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | 175 | - |
| Field wet density | t/m ³ | 2.00 | 1.96 | 2.09 | 2.10 | - |
| Field moisture content | % | 16.5 | 18.4 | 13.3 | 11.0 | - |

Test procedure AS 1289.5.7.1

| Test No | 34 | 35 | 36 | 37 | - | - |
|-------------------------------------|------------------|------|------|------|------|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | 19.0 | - |
| Percent of oversize material | wet | 0 | 0 | 0 | 0 | - |
| Peak Converted Wet Density | t/m ³ | 2.07 | 2.07 | 2.08 | 2.10 | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 14.0 | 16.0 | 15.5 | 13.5 | - |

| | | | | | | |
|--|----------|----------|----------|----------|---|---|
| Moisture Variation From Optimum Moisture Content | 2.5% wet | 2.5% wet | 2.0% dry | 2.5% dry | - | - |
|--|----------|----------|----------|----------|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|-------|-------|---|
| Density Ratio (R _{HD}) | % | 96.5 | 95.0 | 100.5 | 100.0 | - |
|-----------------------------------|---|------|------|-------|-------|---|

Material description

| |
|----------------------|
| No 34 - 37 Clay Fill |
|----------------------|

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20184
 Report No 20184/R010
 Date Issued 04/02/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | SB |
| Project | SMITHS LANE - STAGE 9 | Date tested | 21/05/20 |
| Location | CLYDE NORTH | Checked by | JHF |

| | | | | |
|---------|------------|-----------------|--------|-------------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: 10:30 |
|---------|------------|-----------------|--------|-------------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 38 | 39 | 40 | - | - | - |
|-----------------------------|-------------------|-------------------|-------------------|------|---|---|
| Location | REFER TO FIGURE 1 | REFER TO FIGURE 1 | REFER TO FIGURE 1 | | | |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 175 | 175 | 175 | - | - |
| Field wet density | t/m ³ | 2.09 | 2.09 | 2.14 | - | - |
| Field moisture content | % | 14.0 | 12.7 | 11.8 | - | - |

Test procedure AS 1289.5.7.1

| Test No | 38 | 39 | 40 | - | - | - |
|-------------------------------------|------------------|------|------|------|---|---|
| Compactive effort | Standard | | | | | |
| Oversize rock retained on sieve | mm | 19.0 | 19.0 | 19.0 | - | - |
| Percent of oversize material | wet | 0 | 0 | 0 | - | - |
| Peak Converted Wet Density | t/m ³ | 2.16 | 2.16 | 2.22 | - | - |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 14.0 | 12.5 | 12.0 | - | - |

| | | | | | | |
|--|------|------|------|---|---|---|
| Moisture Variation From Optimum Moisture Content | 0.0% | 0.0% | 0.0% | - | - | - |
|--|------|------|------|---|---|---|

| | | | | | | |
|-----------------------------------|---|------|------|------|---|---|
| Density Ratio (R _{HD}) | % | 97.0 | 97.0 | 96.5 | - | - |
|-----------------------------------|---|------|------|------|---|---|

Material description

| |
|----------------------|
| No 38 - 40 Clay Fill |
|----------------------|

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Accreditation No 9909

Approved Signatory : Justin Fry