



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

12th January 2023

Our Reference: 22766:NB1432

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ASPIRE – STAGE 37 (PLUMPTON)

Please find attached our Report No's 22766/R001 and 22766/R002 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 was performed in November 2022.

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).

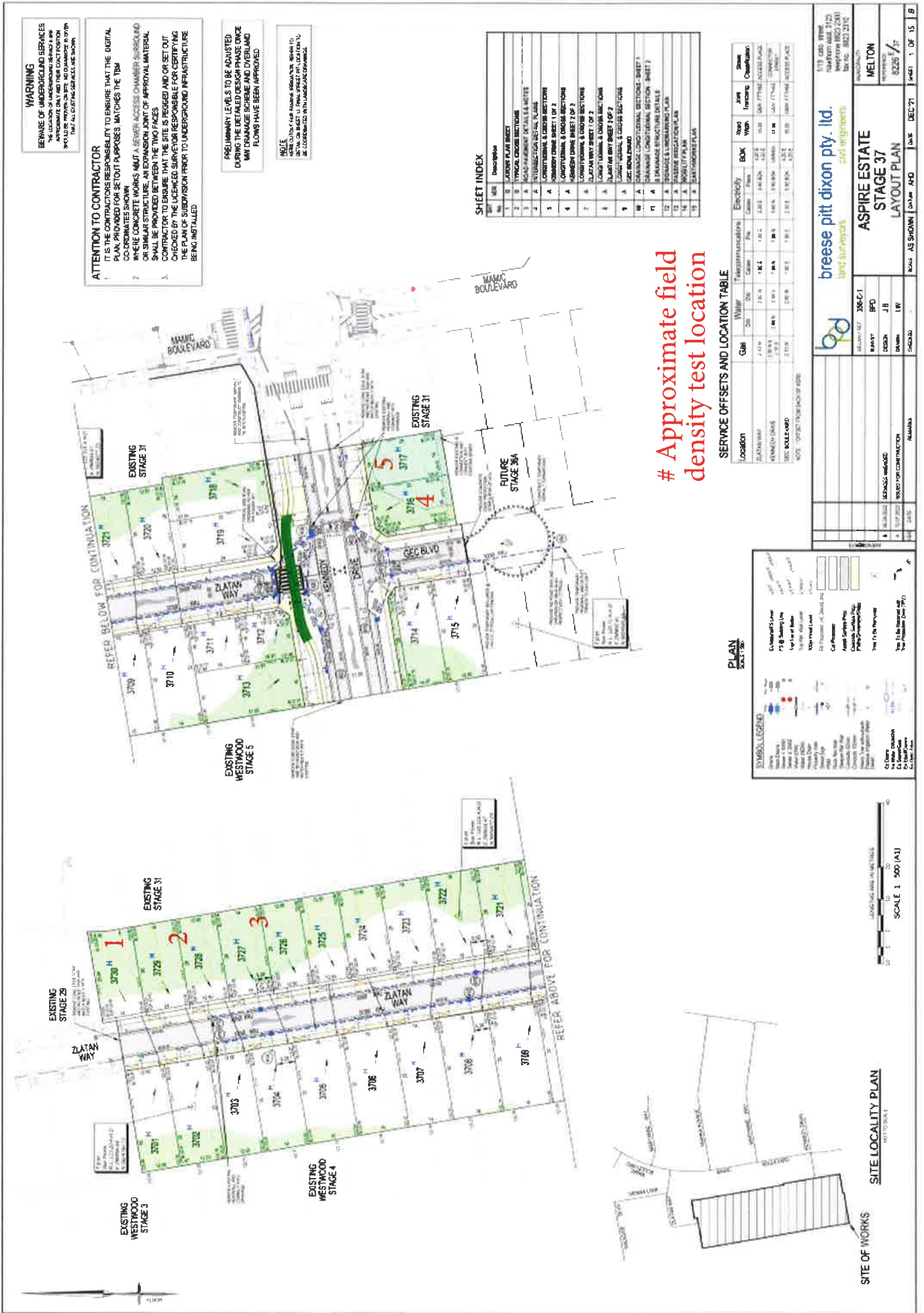
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

FIGURE 1





COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 22766
Report No 22766/R001
Date Issued 24/11/2022

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 11/11/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|------------|-----------------|--------|-------|-------|
| Feature | EARTHWORKS | Layer thickness | 200 mm | Time: | 11:42 |
|---------|------------|-----------------|--------|-------|-------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 1 | 2 | 3 | 4 | 5 | - |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| Location | 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 | 2.07 | 2.01 | 2.02 | 1.85 | 1.84 |
| Field moisture content | % | 24.6 | 25.2 | 24.7 | 25.7 | 26.3 |

Test procedure AS 1289.5.7.1

| Test No | 1 | 2 | 3 | 4 | 5 | - |
|-------------------------------------|------------------|------|------|------|------|------|
| 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 | 2.03 | 2.03 | 1.90 | 1.91 |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 26.5 | 27.0 | 27.0 | 28.5 | 29.0 |

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

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

| | | | | | | | |
|----------------------------------|---|-------|------|------|------|------|---|
| Density Ratio (R _{HD}) | % | 101.0 | 99.0 | 99.5 | 97.5 | 96.5 | - |
|----------------------------------|---|-------|------|------|------|------|---|

Material description

| |
|--------------------|
| No 1 - 5 Clay Fill |
|--------------------|

AVRLOT HILF V1.10 MAR 13



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ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 22765
Report No 22765/R001
Date Issued 08/11/2022

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 08/11/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|--------------------|-----------------|--------|-------|----------|
| Feature | CONSTRUCTION LAYER | Layer thickness | 150 mm | Time: | 11:06:17 |
|---------|--------------------|-----------------|--------|-------|----------|

| AS 12892.1.1 & 5.8.1 | | | | | | | |
|---|----------------------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|--|
| Test No | 1 | 2 | 3 | 4 | 5 | 6 | |
| Location | Zlatan Way | | | Kennedy Drive (E) | Kennedy Drive (W) | Gec Boulevard | |
| Chainage | 180 | 230 | 280 | 660 | 660 | 30 | |
| Offset | 1.8 east of kerb | 1.8 west of kerb | 1.8 east of kerb | 1.8 north of kerb | 1.8 south of kerb | 1.8 east of kerb | |
| Approximate depth from F.S.L. | | | | | | | |
| Measurement depth | 125 | 125 | 125 | 125 | 125 | 125 | |
| Field wet density | 2.29 | 2.31 | 2.30 | 2.31 | 2.31 | 2.31 | |
| Field dry density | 2.05 | 2.07 | 2.06 | 2.06 | 2.07 | 2.06 | |
| Field moisture content | 11.5 | 11.5 | 11.5 | 12.0 | 11.5 | 12.0 | |
| <i>Laboratory Compaction AS 1289.5.1.1 & 5.4.2 Assigned Values (See Report No 40SMWVDP)</i> | | | | | | | |
| Date of assignment | 03/10/2022 | | | | | | |
| Material source and location | 40mm Capping - MVQ, Wyndham Vale | | | | | | |
| Compactive effort | STANDARD | | | | | | |
| Maximum Dry Density | 2.05 | | | | | | |
| Optimum Moisture Content | 12.5 | | | | | | |
| <i>Test procedure AS 1289.5.4.1</i> | | | | | | | |
| Oversize rock retained on sieve | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | |
| Percent of oversize material | - | - | - | - | - | - | |
| Adjusted Maximum Dry Density | - | - | - | - | - | - | |
| Adjusted Optimum Moisture Content | - | - | - | - | - | - | |
| Moisture Variation From Optimum Moisture Content | 1.0% dry | 1.0% dry | 1.0% dry | 0.5% dry | 1.0% dry | 0.5% dry | |
| Moisture Ratio (R_m) | 93.0 | 92.5 | 93.0 | 96.5 | 93.0 | 97.0 | |
| <i>density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer</i> | | | | | | | |
| Density Ratio (R_D) | 100.0 | 100.5 | 100.0 | 100.0 | 101.0 | 100.0 | |

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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 22765
Report No 22765/R002
Date Issued 02/12/2022

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 29/11/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|---------|-----------------|--------|-------|-------|
| Feature | CAPPING | Layer thickness | 150 mm | Time: | 11:02 |
|---------|---------|-----------------|--------|-------|-------|

Test procedure AS 1289.2.1.1 & 5.8.1

| Test No | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------|------------------|--------------|--------------|-------------------|-------------------|---------------|
| Location | Zlatan Way | | | Kennedy Drive (E) | Kennedy Drive (W) | Gec Boulevard |
| | 180 | 230 | 280 | 660 | 660 | 30 |
| | 1.8 | 1.8 | 1.8 | 1.1 | 1.1 | 1.8 |
| | east of kerb | west of kerb | east of kerb | north of kerb | south of kerb | east of kerb |
| Approximate depth below FSL | | | | | | |
| Measurement depth | mm | 125 | 125 | 125 | 125 | 125 |
| Field wet density | t/m ³ | 2.01 | 1.98 | 1.98 | 1.96 | 1.97 |
| Field moisture content | % | 25.0 | 27.4 | 27.1 | 27.8 | 28.5 |

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 | 1.98 | 1.97 | 1.96 | 1.96 | 1.95 |
| Adjusted Peak Converted Wet Density | t/m ³ | - | - | - | - | - |
| Optimum Moisture Content | % | 25.5 | 28.0 | 28.0 | 29.0 | 28.5 |

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

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

| | | | | | | | |
|-----------------------------------|---|-------|-------|-------|-------|-------|-------|
| Density Ratio (R _{HD}) | % | 101.5 | 100.5 | 101.0 | 100.0 | 100.5 | 101.0 |
|-----------------------------------|---|-------|-------|-------|-------|-------|-------|

Material description

No 7 - 12 40mm Type A - Masalkvoski Quarries

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COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 22765
Report No 22765/R003
Date Issued 12/12/2022

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 12/12/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|---------|-----------------|--------|-------|----------|
| Feature | CLASS 3 | Layer thickness | 100 mm | Time: | 13:47:16 |
|---------|---------|-----------------|--------|-------|----------|

AS 12892.1.1 & 5.8.1

| Test No | | 13 | 14 | 15 | | | |
|-------------------------------|------------------|--------------|--------------|---------------|--|--|--|
| Location | | Zlatan Way | | Gec Boulevard | | | |
| Chainage | | 200 | 250 | 30 | | | |
| Offset | | 1.8 | 1.8 | 1.8 | | | |
| | | east of kerb | west of kerb | east of kerb | | | |
| Approximate depth from F.S.L. | m | | | | | | |
| Measurement depth | mm | 75 | 75 | 75 | | | |
| Field wet density | t/m ³ | 2.42 | 2.43 | 2.44 | | | |
| Field dry density | t/m ³ | 2.25 | 2.25 | 2.26 | | | |
| Field moisture content | % | 8.0 | 8.0 | 7.5 | | | |

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

| | | |
|------------------------------|------------------|----------------------------------|
| Date of assignment | | 24/11/2022 |
| Material source and location | | 20mm Class 3 - MVQ, Wyndham Vale |
| Compactive effort | | MODIFIED |
| Maximum Dry Density | t/m ³ | 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 | | | |
| Percent of oversize material | wet | - | - | - | | | |
| Percent of oversize material | dry | - | - | - | | | |
| Adjusted Maximum Dry Density | t/m ³ | - | - | - | | | |
| Adjusted Optimum Moisture Content | % | - | - | - | | | |

| | | | | | | | |
|--|--|----------|----------|----------|--|--|--|
| Moisture Variation From Optimum Moisture Content | | 0.5% dry | 0.0% dry | 0.5% dry | | | |
|--|--|----------|----------|----------|--|--|--|

| | | | | | | | |
|----------------------------------|---|------|------|------|--|--|--|
| Moisture Ratio (R _m) | % | 96.0 | 98.5 | 92.5 | | | |
|----------------------------------|---|------|------|------|--|--|--|

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

| | | | | | | | |
|---------------------------------|---|------|------|------|--|--|--|
| Density Ratio (R _D) | % | 99.0 | 99.0 | 99.5 | | | |
|---------------------------------|---|------|------|------|--|--|--|

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COMPACTION ASSESSMENT

Job No 22765
 Report No 22765/R004
 Date Issued 12/12/2022

CIVIL GEOTECHNICAL SERVICES
 6 - 8 Rose Avenue, Croydon, Vic 3136

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 12/12/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|---------|-----------------|--------|-------|----------|
| Feature | CLASS 2 | Layer thickness | 100 mm | Time: | 14:23:32 |
|---------|---------|-----------------|--------|-------|----------|

AS 12892.1.1 & 5.8.1

| Test No | | 16 | 17 | 18 | | | |
|-------------------------------|------------------|---------------|---------------|---------------|--|--|--|
| Location | | Kennedy Drive | | | | | |
| | Chainage | 630 | 660 | 690 | | | |
| | Offset | 1.1 | 1.0 | 1.0 | | | |
| | | north of kerb | south of kerb | north of kerb | | | |
| Approximate depth from F.S.L. | m | | | | | | |
| Measurement depth | mm | 75 | 75 | 75 | | | |
| Field wet density | t/m ³ | 2.47 | 2.47 | 2.45 | | | |
| Field dry density | t/m ³ | 2.30 | 2.31 | 2.29 | | | |
| Field moisture content | % | 7.0 | 7.0 | 7.0 | | | |

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

| | | | | | | | |
|------------------------------|------------------|----------------------------------|--|--|--|--|--|
| Date of assignment | | 01/12/2022 | | | | | |
| Material source and location | | 20mm Class 2 - MVQ, Wyndham Vale | | | | | |
| Compactive effort | | MODIFIED | | | | | |
| Maximum Dry Density | t/m ³ | 2.29 | | | | | |
| Optimum Moisture Content | % | 7.5 | | | | | |

Test procedure AS 1289.5.4.1

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

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

| | | | | | | | |
|----------------------------------|---|------|------|------|--|--|--|
| Moisture Ratio (R _m) | % | 92.0 | 92.0 | 90.0 | | | |
|----------------------------------|---|------|------|------|--|--|--|

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

| | | | | | | | |
|---------------------------------|---|-------|-------|-------|--|--|--|
| Density Ratio (R _D) | % | 100.5 | 101.0 | 100.0 | | | |
|---------------------------------|---|-------|-------|-------|--|--|--|

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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon, Vic 3136

Job No 22765
Report No 22765/R005
Date Issued 19/12/2022

| | | | |
|----------|--|-------------|----------|
| Client | WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) | Tested by | AM |
| Project | ASPIRE - STAGE 37 | Date tested | 19/12/22 |
| Location | PLUMPTON | Checked by | JHF |

| | | | | | |
|---------|---------|-----------------|--------|-------|----------|
| Feature | CLASS 2 | Layer thickness | 140 mm | Time: | 14:15:05 |
|---------|---------|-----------------|--------|-------|----------|

AS 12892.1.1 & 5.8.1

| Test No | 19 | 20 | 21 | | | |
|-------------------------------|------------------------|------------------------|------------------------|------|--|--|
| Location | Zlatan Way | | Gec Boulevard | | | |
| Chainage | 200 | 250 | 30 | | | |
| Offset | 1.8 east of kerb | 1.8 west of kerb | 1.8 east of kerb | | | |
| Approximate depth from F.S.L. | m | | | | | |
| Measurement depth | mm | 125 | 125 | 125 | | |
| Field wet density | t/m ³ | 2.45 | 2.45 | 2.48 | | |
| Field dry density | t/m ³ | 2.30 | 2.30 | 2.31 | | |
| Field moisture content | % | 6.5 | 6.5 | 7.5 | | |

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

| | |
|------------------------------|----------------------------------|
| Date of assignment | 01/12/2022 |
| Material source and location | 20mm Class 2 - MVQ, Wyndham Vale |
| Compactive effort | MODIFIED |
| Maximum Dry Density | t/m ³ 2.29 |
| Optimum Moisture Content | % |

Test procedure AS 1289.5.4.1

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

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

| | | | | | | |
|----------------------------------|---|------|------|------|--|--|
| Moisture Ratio (R _m) | % | 85.0 | 86.0 | 94.0 | | |
|----------------------------------|---|------|------|------|--|--|

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

| | | | | | | |
|---------------------------------|---|-------|-------|-------|--|--|
| Density Ratio (R _D) | % | 100.5 | 100.5 | 101.0 | | |
|---------------------------------|---|-------|-------|-------|--|--|

A581ASSIGNED V1.13 MAR 13



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Approved Signatory : Justin Fry