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| **Civil - Access Track** |
| **Inspection and Test Plan - ITP** |

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| **SECTION 1 - GENERAL** | | | | | |
| **Client:** | **Asset** | | | **ITP Template No.:** | **Revision:** |
| Fluence | LV BESS | | | ZX118-ITP-7020-1 | 0 |
| **Project Name:** | **Area** | | | **Prepared By:** | **Prepared Date:** |
| Latrobe Valley BESS | Access Track | | | L.Blazevic | 11/01/2024 |
| **Project Number:** | **Discipline** | **Component** | **Location/Chainage** | **Approved By:** | **Approved Date:** |
| ZX118 | Civil | Access Track | - | R.Burke | 11/01/2024 |

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| **SECTION 2 - CLOSE OUT SIGNATURE (ZENVIRON ONLY)** | | | |
| **Name:** | **Position:** | **Signature:** | **Date:** |
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| **Comments:** | | | |
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| **SECTION 3 - LEGEND** | |
| **Term** | **Description** |
| **REVIEW** | An Activity which is verified by examination of documentary evidence that inspection/tests have been satisfactorily conducted |
| **WITNESS** | Activity is to be witnessed by Zenviron | Advance notification mandatory | Activity can proceed once the minimum notification period has elapsed |
| **HOLD POINT** | Activity is to be witnessed by Zenviron | Advance notification mandatory | Hold point can only be waivered formally in writing |

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| **SECTION 4 - PRELIMINARY** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 4.1 | Design drawings, project specifications. | Design drawing revision status issued for construction,  Project Specification and current controlled  model issued. | Documents controlled through document management system. | N/A | WITNESS |  |  |  |  |
| 4.2 | Survey and Setout. | ZX118-REP-0173 Civil Specification Report Survey and inspection of Control Points. | Control point survey.  Visual inspection of control point/s. Survey equipment spot checked for calibration. | N/A | WITNESS |  |  |  |  |

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| **SECTION 5 - MATERIAL APPROVALS** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |

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| 5.1 | Subgrade Material Conformance  - Import Fill | Verify conformance of material to:  ZX118-REP-0173 Civil Specification Report As per ZX118-DWG-3702 Typical Access Track Details  As outlined in AS 1289 | ZX118-REP-0173 Civil Specification Report Testing as per AS 1289.5.1  Designer Approval prior to placement Low Reactivity  Granular CBR>15% | NATA Test Reports | REVIEW |  |  |  |  |
| 5.2 | Base Course Material Conformance | Verify conformance of material to:  ZX118-REP-0173 Civil Specification Report, Austroads Guide to Pavement Design - Part 4A,  and  ZX118-DWG-3702 Typical Access Track Details | ZX118-REP-0173 Civil Specification Report; Testing as per AS 1289.5.1   * Particle Size Distribution - in line with Class 3 according to Austroads Guide to Pavement Design - Part 4A   - CBR >45%   * Atterberg Limits targeting PI 9% +/-2% OMC * Wet/Dry Strength Variation ≥50kN | NATA Test Reports | REVIEW |  |  |  |  |
| 5.3 | Drainage Backfill | Verify conformance of pipe bedding and backfill material to:  ZX118-REP-0173 Civil Specification Report and  ZX118-DWG-3703 Typical Stormwater Details | ZX118-REP-0173 Civil Specification Report Design Drawings   * Bedding - Evenly graded Class 2 FCR with 20mm nominal size or other designer approved material * Backfill - Class 3 FCR with 30mm nominal sizing or other design approved material | NATA Test Reports | REVIEW |  |  |  |  |
| 5.4 | Drainage Elements | Verify conformance of pipes and headwall to:  ZX118-REP-0173 Civil Specification Report | ZX118-REP-0173 Civil Specification Report RCP compliance to AS/NZS 4058 and/or polypropylene to AS/NZS 5065 | Material Data Sheets | REVIEW |  |  |  |  |

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| **SECTION 6 - CONSTRUCTION PROCESS - ACCESS TRACK STRIP SOIL** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 6.1 | Clear and Grub | Verify area has been cleared and grubbed. | Area cleared of all refuse, artificial and deleterious materials.  Consult with landowner prior to removing any fencing or gates  Ensure CEMP is adhered too | N/A | WITNESS |  |  |  |  |
| 6.2 | Topsoil Stripping | Confirm top soil removed and stockpiled adeqautely | Strip topsoil to a depth required to remove all topsoil from the footprint area  Ensure the area is self draining Ensure CEMP is adhered to.  Temporary ERSED controls in place as required | N/A | WITNESS |  |  |  |  |

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| **SECTION 7 - CONSTRUCTION PROCESS - SUBGRADE AND CONDITIONING** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 7.1 | Earthworks Foundation | Earthworks on subgrade treatment to be in line with methodologies outlined in:  ZX118-REP-0173 Civil Specification Report, ZX118-DWG-3702 Typical Access Track Details, and  ZX118-DWG-3701 General Notes | Test results on founding layer compliant to ZX118-REP-0173 Civil Specification Report   * Proof Roll using fully loaded 10000L water truck or other approved vehicle * DCP - 1 test per 50lm | ZX118-ITR-7209 - Proof Roll Inspection DCP Field Results / NATA Test Report ZX118-ITR-7210 (Where applicable) - including Location plan of soft, wet or unsuitable  material including replacement  methodology. | HOLD POINT |  |  |  |  |

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| 7.2 | Structural Fill/ Rock Fill Embankment (Where Required) | Earthworks on structural fill/ rock fill embankments to be in line with methodologies outlined in:  ZX118-REP-0173 Civil Specification Report, ZX118-DWG-3702 Typical Access Track Details,  ZX118-DWG-3701 General Notes and  AS 1289 | Test results and/ or proof roll records obtained for the fill layers compliant to ZX118-REP-0173 Civil Specification Report   * Compaction to 98% SMDD at ±2% OMC * Frequency of 1 test every 300m and every second layer within 1000mm of finished subgrade level | NATA Test Report (Where Required) ZX118-ITR-7209 - Proof Roll Inspection | HOLD POINT |  |  |  |  |
| 7.3 | Rock Subgrade (Where Required) | Rock Subgrade compromising of reasonable strength rock to be in line with methodologies outlined in:  ZX118-REP-0173 Civil Specification Report | Proof roll records obtained  - Fully loaded 10000L water truck or other approved vehicle | ZX118-ITR-7209 - Proof Roll Inspection If applicable Include; Location plan of soft, wet or unsuitable materialand the applied  replacement methodology. | HOLD POINT |  |  |  |  |
| 7.4 | Finished Subgrade | Test results obtained for the finished subgrade layer compliant to:  ZX118-REP-0173 Civil Specification Report, ZX118-DWG-3702 Typical Access Track, Details,  ZX118-DWG-3701 General Notes, and AS 1289 | Test results and proof roll records obtained for the finished layer compliant to ZX118- REP-0173 Civil Specification Report   * Compaction to 98% SMDD at ±2% OMC * Frequency of 1 test every 300lm * Proof Roll using fully loaded 10000L water truck or other approved vehicle | NATA Test Report  ZX118-ITR-7209 - Proof Roll Inspection | HOLD POINT |  |  |  |  |

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| **SECTION 8 - CONSTRUCTION PROCESS - ACCESS TRACK BASE COURSE PLACEMENT** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 8.1 | Base Course Pavement Placement | Material placement compliance test results in accordance with:  ZX118-REP-0173 Civil Specification Report, ZX118-DWG-3702 Typical Access Track Details, and  AS1289 | Material placement compliance test results in accordance with:  ZX118-REP-0173 Civil Specification Report   * Compaction to 98% SMDD at ±2% OMC * Frequency of 1 test every 300lm * Proof roll using fully loaded 10000L water truck or other approved vehicle | NATA Test Report  ZX118-ITR-7209 - Proof Roll Inspection | HOLD POINT |  |  |  |  |

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| **SECTION 9 - CONSTRUCTION PROCESS - LONGITUDINAL DRAINAGE** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 9.1 | Excavation | Ponding monitered and made free draining | Visual Inspection | N/A | WITNESS |  |  |  |  |
| 9.2 | Erosion Controls | Erosion controls in line with:  ZX118-REP-0173 Civil Specification Report and  ZX118-DWG-3717 Erosion & Sediment controls | Visual Inspection | N/A | WITNESS |  |  |  |  |

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| **SECTION 10 - CONSTRUCTION PROCESS - CULVERTS** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 10.1 | Culvert Foundation | Floor of excavation is sound and no presence of soft or under yeilding material | Visual Inspection | If applicable Include; Location plan of soft, wet or unsuitable materialand the applied replacement methodology. | WITNESS |  |  |  |  |

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| 10.2 | Bedding | Placed via hand ramming to a minimum 100mm compacted thickness | Visual Inspection | N/A | HOLD POINT |  |  |  |  |
| 10.2 | Pipe Placement | Location to be confirmed on-site.  Grade and RL as per Design requirements | Visual Inspection  Confirm pipe flows in the correct direction, barrel of the pipe is laying evenly on the full length of the bedding material and all  sockets face upstream | N/A | HOLD POINT |  |  |  |  |
| 10.3 | Haunching and Backfill | Earthworks on backfill to be in line with methodologies outlined in:  ZX118-REP-0173 Civil Specification Report and  ZX118-DWG-3703 Typical Stormwater Details | ZX118-REP-0173 Civil Specification Report ZX118-DWG-3703 Typical Stormwater Details   * Compaction & Density 98% SMDD at ±3% OMC * 1 test per drainage line | NATA Test Report | HOLD POINT |  |  |  |  |
| 10.4 | Erosion Controls - Rock Armouring | Permananet ERSED Controls in place in line with ZX118-DWG-3717 Erosion & Sediment controls | Visual Inspection of scour protection for compliance to:  ZX118-REP-0173 Civil Specification Report | ZX118-ITR-7217 Culvert Installation Checklist | WITNESS |  |  |  |  |

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| **SECTION 11 - COMPLETION AND HANDOVER** | | | | | | | | | |
| **ITEM** | **ACTIVITY/ TASK DESCRIPTION** | **INSPECTION POINT (QUALITY CONTROL ACTIVITY)** | **ACCEPTANCE CRITERIA** | **VERIFYING DOCUMENT** | **SUPERVISION TYPE** | **RECEIVED AND ANALYSED BY: ZENVIRON** | | | |
| **NAME** | **SIGNED** | **DATE** | **COMMENTS** |
| 11.1 | Redline markup of Construction Drawings | Redline markup of relevent Construction Drawings in Master Drawing Folder | In line with:  ZX118-REP-0173 Civil Specification Report | Redline Markup in Master Drawing Folder | N/A |  |  |  |  |
| 11.2 | Generate Punch List | Subcontractor walk-down inspection | Generate specific area/scope Punch List and transfer the open items to the Punch List  Master Register | BMS-FRM-1033 Punch List Sheet record | N/A |  |  |  |  |