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| --- | --- | --- | --- |
| Lot No: | Lot Details: | Lot size/Quantity: | Date: |

| **Item**  **No.** | **Task/Activity Description** | | **Inspection/Test** | | | | | | | **HP/ WP/ AP/ IP/ TP/ SCP** | **Responsibility**  Site Engineer  Principal’s Representative  Surveyor  Foreman | **Checked by:** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Frequency** | | **Acceptance Criteria** | **Reference Documents** | **Inspection/ Test Method** | | **Record of conformity** | **Subcontractor** | | **Principal’s Rep.** | | **FH E** | | **Date** | | |
| **1.0** | **Preliminary Works** | | | | | | | | | | | | | | | | | | | |
| 1.1 | Check for Correct Documentation | Prior to commencing activity | | Ensure that all employees and subcontractors are: - using the correct and complete set of drawings  - all drawings are the latest revision | | Drawings / Aconex Register | | Verify | Drawings and drawing registers | **HP\*** | Site Engineer |  | |  |  | | | |  | |
| 1.2 | Implementation of all measures and controls | Prior to commencing activity | | All necessary measures and controls being implemented, that is PSP, EMP, TMP, SWMS & WP | | PSP, EMP, TMP, JSEA, SWMS, WP | | Visual Inspection | This ITP signed | **HP\*** | Site Engineer |  | |  |  | | | |  | |
| 1.3 | Definition of the work Area & Survey check | Prior to commencing activity | | Work area has been cleared and surveyed (marked on site). Work area to be clearly defined as per For Construction drawings prior to trenching and install. | | IFC Drawings  12554937-E014 to E028 | | Verify | This ITP Signed & Sub-contractor ITC | SCP | Site Engineer / Site Supervisor |  | |  |  | | | |  | |
| 1.4 | Excavation Works | Prior to commencing activity | | Location of services to be found and marked on the ground within the works;  Obtain excavation permit from APAM prior to any excavation works.  Services located within the works area to be exposed/proven, recorded as survey data and also on a service plan which is to be attached to the Excavation Permit. | | APAM- DBYD Job:32711991 Seq:215891341  FH Permit  Appendix K- Technical Specifications  Cl.3.9.3 | | Verify | Melbourne Airport Excavation Permit | **HP\*** | Site Engineer / Surveyor |  | |  |  | | | |  | |
| 1.5 | Native Grass Protection | Prior to commencing activity | | Native grass protection installed. As per native grass model, 8m wide corridor delineated by bollards/ fencing. | | Relevant Native Grass Permit | | Visual Inspection | This ITP signed | IP | Site Engineer/Site Supervisor |  | |  |  | | | |  | |
| 1.6 | Service Locating/Proving | Prior to commencing Excavation Works | | Location of services to be found and marked on the ground within the works;  Obtain excavation permit from APAM prior to any demolition works.  Services located within the works area to be exposed/proven, recorded as survey data and also on a service plan which is to be attached to the Excavation Permit. | | APAM- DBYD Job:32711991 Seq:215891341  FH Permit  Appendix K- Technical Specifications  Cl.3.9.3 | | Verify | Melbourne Airport Excavation Permit | **HP\*** | Site Engineer / Surveyor |  | |  |  | | | |  | |
|  | Native Grass Protection | Prior to commencing activity | | Native grass protection installed. As per native grass model, 8m wide corridor delineated by bollards/ fencing. | | Relevant Native Grass Permit | | Visual Inspection | This ITP signed | IP | Site Engineer/Site Supervisor |  | |  |  | | | |  | |
| **2.0** | **Supply of Materials** | | | | | | | | | | | | | | | | | | | |
| 2.1 | Materials & source Approval | Pre-commencement | | Provide full details of pit types to the Contract administrator including, but not limited to:   * Manufacturer * Model Number * External Dimensions * Internal Dimensions * Maximum number of penetrations of each conduit size for each pit wall * Depth of penetrations * Label recess dimensions * SIT tray details/ installation details * Installation requirements * Lid details including   + Model Number   + Dimensions   + Materials   + Lifting points / mechanism   + Load rating   + Removal tools | | Appendix K- Technical Specifications  - Section  2.7 | | Verify | Aconex correspondence Reference Approval | **AP** | Site Engineer and Principal’s Representative |  | |  |  | | | |  | |
| **3.0** | **Excavation** | | | | | | | | | | | | | | | | | | | |
| 3.1 | Excavation Obstruction | Each lot | | Any rock found to impose significantly on excavations (i.e. rock that cannot be excavated by means of a Rock Saw, Caterpillar D7 with single tyne ripper or similar suitably equipped machine) must be brought to the attention of the Contract Administrator  Cable pits must be relocated as necessary to avoid significant areas of rock that cannot be excavated. Provide details of proposed pit relocations to the Contract Administrator for approval. | | Appendix K- Technical Specifications)  3.9.7  AGL Conduit Install ITC | Visual Inspection | | This ITP signed | **HP** | Site Engineer / Foreman/  **Principal’s Representative** |  | |  |  | | | |  | |
| 3.2 | Confirm Ground | Each Lot | | Pits shall be constructed on firm subgrade as per methods listed in item 3.3, in accordance with manufacturer’s instructions | | IFC Drawings  Manufacturer installation guide | Verify | | This ITP signed | HP\* | Site Engineer / Foreman/ |  | |  |  | | | |  | |
| 3.3 | Blinding | Each Lot | | Blinding to be installed in either of the following methods:   * 50mm 20Mpa Concrete * 100mm Class 2 Wet Mix Crushed Rock – Compacted to refusal using handheld mechanical aid (DPU / Wacker Plate).   Installed blinding layer is to be stable and level to ensure the precast pit is vertical | | IFC Drawings  Manufacturer installation guide | Verify | | This ITP signed | IP | Site Engineer |  | |  |  | | | |  | |
| **4.0** | **Precast Pit Fabrication & Delivery** | | | | | | | | | | | | | | | | | | | |
| 4.1 | Pit Delivery | Each Lot | | Ensure each pit component is inspected upon arrival ensuring:   * Dimensions are as shown on manufacturer drawings * All blockouts in correct positions and to dimensions. * No damage to any pit component to the satisfaction of Site Engineer   No modifications to the pits are to be made without written approval from manufacturer.  Conduit entries to be drilled on site, with defined area defined by pit manufacturer. | | Appendix K- Technical Specifications | Visual Inspection | | This ITP Signed | HP\* | Site Engineer |  | |  |  | | | |  | |
| **5.0** | **Pit Installation** | | | | | | | | | | | | | | | | | | | |
| 5.1 | Positioning Pit Components | Each Lot | | Pits must be constructed at the locations shown on the drawings. | | IFC Drawings | Verify | | This ITP Signed | HP\* | Surveyor |  |  | | | |  | |  | |
| 5.2 | Construction / Levels | Each Lot | | Install new pits as shown on drawings such that its collar and lid is level and at the same level as the finished adjacent surface. | | Appendix K- Technical Specifications  - Section  3.8 | Verify | | This ITP Signed | HP\* | Site Engineer |  |  | | | |  | |  | |
| 5.3 | Pit Entries | Each Lot | | Seal buried entries to all pits with a waterproof compound where necessary to prevent the ingress of soil and mud after backfill. Seal spare pit entries immediately after installation with a temporary cap. | | Appendix K- Technical Specifications  - Section 3.8 | Verify | | This ITP Signed | HP\* | Site Engineer / Site Supervisor |  |  | | | |  | |  | |
| 5.4 | Bedding & Backfilling | Each lot | | In trenches, the lower layers to the level of 300 mm above the top of the conduits must be carefully bedded and consolidated at the appropriate moisture content under, around and on top of the conduits to not less than 90% MDD in accordance with test No. 5.1.1 of Australian Standard 1289 in the case of cohesive material, and not less than 70% of the density index in accordance with test No. E6.1 of Australian Standard 1289 in the case of cohesionless material.  If the excavated soil is not compactible material free of rocks or will not pass through a 25 mm sieve then:  - The bottom of the trench must comprise a bed of 50 mm of sand placed before the first enclosure or cable is laid; and  - A layer of sand must be placed to cover the conduit with 75 mm of sand before backfilling  Compaction Testing under roads must be carried out at a rate of not less than:  – Bedding: 1 test per 25 m of backfill laid  – Backfill: 1 test per 25 m of backfill laid per 0.5 m of backfill depth  – Subgrade: 1 test per 25 m of backfill laid – Base: 1 test per 25 m of backfill laid | | Appendix K- Technical Specifications)  3.9.9  AGL Conduit Install ITC | Verify | | Test Report and  This ITP Signed | TP/IP | Site Engineer / Foreman |  |  | | | |  | |  | |
| 5.5 | Pit Fit out | Each Lot | | Ensure that all installation requirements are as detailed in drawings including:   * Pit ID plate & label * Conduit directions markers * Earth Bar * SIT tray | | IFC Drawings 12554937-E045 & E050 | Verify | | This ITP Signed |  | Site Engineer |  |  | | | |  | |  | |
| 5.5 | Lid Encasement Slab Installation | Each Lot | | Seal Pit Wall and Lid encasement slab using mastic type sealant ensuring no gaps remain.  Any encasement slab on a slope is to be checked by the surveyor and achieved using packers and infilled using non-shrink grout. | | Manufacturer Guide | Visual Inspection | | This ITP Signed | IP | Site Engineer |  |  | | | |  | |  | |
| 5.6 | Earth Pit Installation | Each Lot | | Install earth pit next to AGL pit as shown in IFC drawing. | | IFC Drawing 12554937-E050 | Visual Inspection | | This ITP Signed | IP | Site Engineer |  |  | | | |  | |  | |
| **6.0** | **Post Installation** | | | | | | | | | | | | | | | | | | | |
| 6.1 | As-built Documentation | Prior to Practical Completion | | Record the location of all new pits, as well as any existing pits utilised by the works. Prior to backfilling accurately record the location of routes of underground cables. | | Appendix K- Technical Specifications  3.18 | Verify | | As-built Survey Report | SCP | Site Engineer |  |  | | | |  | |  | |
| **Final Inspection** The signature below verifies that this ITP has been completed in accordance with the Fulton Hogan’s Quality system Procedures and verifies lot compliance with specifications.  **Print Name: Position: Signature: Date: / /** | | | | | | | | | | | | | | | | | | | |

**Legend:**

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| **HP** | Hold Point | Work shall not proceed past the HP until released by the Principal’s Representative | **IP** | Inspection point | Formal Inspection to be done and recorded |
| **HP\*** | Fulton Hogan Hold Point | Work shall not proceed past the HP\* until released by Fulton Hogan | **TP** | Test Point | Product compliance test to be undertaken and recorded/reported |
| **WP** | Witness Point | An inspection which must be witnessed by the Principal’s Representative | **SCP** | Survey conformance point | A qualified surveyor to check product/section/structure and report |
| **AP** | Approval Point | Written or verbal approval given by the Principal’s Representative |  |  | |

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| **Notes** |  |  |  |  |