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| Tp Justin  Lot No: | Lot Details: | Lot size/Quantity: | Date: |

| **Item**  **No.** | **Task/Activity Description** | **Inspection/Test** | | | | | **HP/ WP/ AP/ IP/ TP/ SCP** | **Responsibility**  Site Engineer  Superintendent  Surveyor  Foreman | **Checked by:** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Frequency** | **Acceptance Criteria** | **Reference Documents** | **Inspection/ Test Method** | **Record of conformity** | **Subcontractor** | **Principal’s Rep.** | **FH** | **Date** | |
| **1.0** | **Preliminary Works** | | | | | | | | | | | | |
| 1.1 | Check for correct documentation | Prior to commencing any activity | Ensure that all employees and subcontractors are using the latest and complete set of drawings | IFC Drawings  Appendix K- AGL Specification | Verify | Drawings | **IP** | Site Engineer/Subcontractor Representative |  |  |  |  | |
| 1.2 | Implementation of all measures and controls | Prior to commencing any activities | All necessary measures and controls are being implemented, that is PSP, EMP, TMP, SWMS & WP. | PSP, EMP, TMP, JSEA, SWMS, WP | Verify | Site and Office Inspection | **HP\*** | Site Engineer / Site Supervisor |  |  |  |  | |
| 1.3 | Material/Equipment Approvals and Certification | Prior to Start | All materials shall be proven to meet contractual requirements prior to acceptance.   * **Light Bases:** The inset light bases must be compliant with the mechanical requirements for load and flange torque tests as detailed in FAA AC 150/5345- 42J for Type L-868 Class 1A light bases. * **Secondary cable entry:** The cable entry must be arranged to provide side entry of both secondary and earth cables through the base (for termination to FAA style connecting socket and tail within the light base). A separate entry must be provided for each cable. * **Earth connection:** Bases must be equipped with earth cable connections, supplied with proprietary stainless steel screws. * **Fixing stud:** The shallow bases must incorporate stainless steel fixing studs cast or screwed into stainless steel thread inserts e.g. “helicoil”. The studs must include self-locking nuts and/or “vibration proof” washers. * **Anti-rotation pins:** The shallow base must incorporate stainless steel anti rotation pins or other fixtures to prevent rotation of the light top assembly. * **Light canisters:** Canisters must meet the requirements of the FAA AC 150/5345 – 42J for Type L-868 Class 1A light bases. | Appendix K- AGL Specification  Section 2.3.3  Section 2.4  Section 2.5 | Verify | Datasheet/ Material Submission | **HP\*** | Site Engineer |  |  |  |  | |
| 1.4 | Luminaire Foundation Installation | Each Lot | Installed and Backfilled in accordance to drawings. | IFC Drawings 12554937-E031 to 12554937-E038 | Verify | This ITP Signed & Aconex Reference of ITP submission for Foundation Install | IP | Site Engineer |  |  |  |  | |
| **2.0** | **Installation of AGL Luminaires** | | | | | | | | | | | | |
| 2.1 | Setting out of Airfield Luminaires | Each Lot | Surveyor to confirm location of AGL with IFC drawings and confirm alignment of luminaires.  Existing lights shall be reinstated following the overlay works in their existing location and at their existing orientation utilising the survey data captured prior to their removal before the overlay works commencing. | IFC Drawings  12554937-E031 to  12554937-E037  Appendix K- AGL Specification  Section 2.16.1 | **Verify** | **SCP** | **IP** | Site Engineer / Surveyor |  |  |  |  | |
| 2.2 | Coring | Each Light | The core position must be accurately surveyed and marked before commencement of the core cutting process  The core centre must not be removed until immediately prior to installation of the inset light unit base. The core centre must be removed avoiding damage to the surrounding pavement.  As required, Core asphalt to depth as per subcontractor ITC for relevant Method.  Ensure conduits are cleaned after coring of light base and conduit coupling and connections are intact. | IFC Drawings  12554937-E031 to  12554937-E037  Appendix K- AGL Specification  Section 3.16.3 | **Verify** | This ITP Signed & Sub-contractor ITC | **IP** | Site Engineer / Site Supervisor |  |  |  |  | |
| 2.3 | Installation of Inset light | Each light | A jig must be used to install, locate and level the inset light unit base in position in the core hole and maintain the base in position during the curing of the epoxy grout.  Ensure correct light is installed in correct position as per the IFC drawings, this ITP and ITC | IFC Drawings  12554937-E031 to  12554937-E037  Appendix K- AGL Specification  Section 3.16.3 | **Verify** | This ITP Signed & Sub-contractor ITC | **IP** | Site Engineer / Site Supervisor |  |  |  |  | |
| 2.4 | Installation of light top assembly | Each light | Base to be cleaned of all materials by vacuum process.  Light tops to be installed as detailed on the drawings. Connect the 2 pin FAA style plug and socket as appropriate to connect the secondary conductors.  Nuts and screws must be tightened to the torque to 40N.m prior to returning a pavement area back into service. Measure and record the applied torque for each light.  Records of torque applied to be submitted to Contract Administrator for each installed light prior to returning a pavement area back into service. | IFC Drawings  12554937-E031 to  12554937-E037  Appendix K- AGL Specification  Section 3.16.4 | **Verify** | This ITP Signed & Sub-contractor ITC with records of torque applied | **HP** | Contract Administrator/Site Engineer |  |  |  |  | |
| 2.5 | Gap between the light base and pavement | Each Light | Gap between light base and pavement to be as per IFC drawings i.e. For Method 3 lights, ensure gap between new light base and pavement not less than 7mm and not more than 19mm (Aconex BecaCPL-CONTIN-000077). | IFC Drawings  12554937-E031 to  12554937-E037 | **Verify** | This ITP Signed & Sub-contractor ITC | **IP** | Site Engineer / Site Supervisor |  |  |  |  | |
| 2.6 | Grouting | Each Light | The light fitting bases must be fixed using Masterflow 618 epoxy grout or approved equivalent.  The inset light unit base must be maintained properly orientated and level, as specified, throughout the epoxy curing process.  Before opening the work area to traffic the Manufacturer’s recommended epoxy curing time must be allowed. | Appendix K- AGL Specification  Section 3.16.3 | **Verify** | This ITP Signed & Sub-contractor ITC | **IP** | Site Engineer / Site Supervisor |  |  |  |  | |
| 2.7 | Recess Sealing | Each light | The final level of the epoxy is a minimum 10 mm below the level of the pavement.  Seal top of recess around light base with Dowsil 888 in concrete  Sealant in asphalt as detailed in IFC Drawing | IFC Drawings  12554937-E033 | **Verify** | This Signed ITP / ITC/As-Built Documentation | **IP** | Site Engineer / Site Supervisor |  |  |  |  | |
| 2.8 | Installation of secondary and Earthing Cable | Each Light | Each fitting shall have earthing cable provided   * Earthing to be 6mm2 single core green/yellow PVC cable. * Twin secondary cable to be 4mm2 each. | - | **Verify** | This Signed ITP  & Sub-contractor ITC | **IP** | Site Engineer |  |  |  |  | |
| 2.9 | Series Isolation transformer | Each Light | Each luminaire / fitting shall be connected to a series isolation transformer in closest SIT duct pit/ junction can. | IFC Drawings  12554937-E031 to  12554937-E037 | **Verify** | This Signed ITP  & Sub-contractor ITC | **IP** | Site Engineer |  |  |  |  | |
| 2.10 | Luminaire Circuit | Each Light | Each luminaire fitting shall be installed on the appropriate circuit as specified in the construction drawings. | IFC Drawings  12554937-E031 to  12554937-E037 | **Verify** | This Signed ITP / As-Built Documentation | **IP** | Site Engineer |  |  |  |  | |
| **3.0** | **Post Construction** | | | | | | | | | | | | |
| 3.1 | Equipment Survey | Each Light | Accurately survey the location of airfield lighting equipment. The survey plan, endorsed by a registered surveyor,  must identify the location of all installed equipment in relation to permanent site features and other underground  Services. The survey must also capture all installation details such as the orientation and rotation of visual aids,  colour pattern, constructed foundations, etc. | Appendix K- AGL Specification  Section 3.4 | **Verify** | This Signed ITP  & Sub-contractor ITC | **IP** | Site Engineer |  |  |  |  | |
| 3.2 | As-Built | Each Lot | Submission of surveyed luminaire position to superintendent prior to practical completion  The final installed orientation of the centre line of the output beam of the inset light unit must be within plus or minus 0.5 degree of the designed orientation.  Light bases must be installed such that the light is installed within 0.25 degrees of level. | Specifications Section 3.16.2 | **Verify** | **SCP** | **IP** | 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 Superintendent | **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 Superintendent | **SCP** | Survey conformance point | A qualified surveyor to check product/section/structure and report |
| **AP** | Approval Point | Written or verbal approval given by the Superintendent |  |  | |

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| **Notes** |  |  |  |  |