**Inspection and test plan – Installation of Precast elements**

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| **Project no.** | | CC-0374 | **Project name** | Pakenham Roads Upgrade | | **Date** | 08/01/2024 | **Approved by** | | Damian Hagebols |
| **ITP no.** | 1630-P200-SYM-QAC-ITP-0028 | | **Revision date** | 08/01/2024 | **Plant and equipment used** | | | |  | |
| **Lot no.** |  | | **Location (chainages, detailed description or marked up plan)** | | | | | |  | |

Attach Dockets, Certificates and QA Documents to ITP

|  |  |  |  |  | **Verification of acceptance by** | | | | | **Remarks/record (eg. Test frequency reports, certificates, checklist etc)** |
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|  |  |  |  |  | **Symal** | | | **Superintendent** | |
| **Item no.** | **Activity** | **Ref docs** | **Acceptance criteria** | **Freq** | **Key** | **Resp** | **Initial/ date** | **Key** | **Sign/ date** |
| **1.0 Pre-start activities** | | | | | | | | | | |
| **1.1** | Survey & Set out | IFC drawings | Limits of work areas / chainage / landing points clearly marked out | Prior to start of works | **R** | SE |  |  |  |  |
| **1.2** | Working Platform (as required) | Geotechnical Recommendations | Working platform prepared in accordance with Geotechnical recommendation | Prior to start of works | **R** | SE |  |  |  |  |
| **1.3** | Completed lift Study / Approved lift plan / Critical lift plan | VR 620.07 | Lift study / plan to be prepared and approved by 3rd party engineer with relevant state requirements. Min 5 years’ experience | Prior to start of works | **R** | SE |  |  |  |  |
| **1.4** | Approved Temp works | Design Recommendations | Temp works used in accordance with temp works IFC design | Prior to start of works | **R** | SE |  |  |  |  |
| **2.0 Element delivery** | | | | | | | | | | |
| **2.1** | Birth certificates | Vic roads  620.09 | All manufactured precast concreate shall be traced from the completion of manufacture to the final location by a unique identification number. Precast elements to be supplied with a birth certificate matching to the ID number of the element to ensure traceability. | Each lot | **R** | SE |  |  |  |  |
| **2.2** | On-site inspection |  | Precast elements are clean and free from defects. Date od manufacture & unique ID numbers marked on units. Units transported after 7 days from casting. Visual inspection for signs of defects/damages during transport. | Prior to unloading | **I** | SE |  |  |  |  |
| **3.0 Installation of precast element** | | | | | | | | | | |
| **3.1** | Handling of precast elements | VR 620.07 | Handling of precast elements via designed lifting locations with appropriate lugs/clutches | Each unit | I | SE |  |  |  |  |
| **3.2** | Erection of Beams and other Precast Units on recently poured underlying concrete members | VR 610.27 | Prestressed and reinforced concrete beams and other concrete members shall not be erected and landed until the specified 28 day concrete compressive strength for piers, abutment, deck or pile caps has been achieved. And not before 14 days after casting or as required by the relevant design package. Beams shall not be placed until at least seven days after the pedestals have been cast. Any relaxations from the above requires approved RFI from designers as well as consultation with MRPV to proceed. | Each unit | R | SE |  |  |  |  |
| **3.3** | Lifting of Precast Element into Place | VR 620.07 | Precast elements placed in accordance with drawings and survey set‐out points. Lifting clutches approved for use | Each unit | R | SE |  |  |  |  |
| **3.4** | Propping / Bracing of Precast  Element | Design  Recommendation | Propping used in accordance with design recommendation and manufacturers specification – not to be removed till element cast in place with stich pour | Each unit | I | SE |  |  |  |  |
| **3.5** | Secure Precast element against  slipping | Design  Recommendation  P | Precast element secured against slipping as per design recommendation – not to be removed till element cast in place with stich pour | Each unit | I | SE |  |  |  |  |
| **3.6** | Grout Infill ﴾where required﴿ | Design  Recommendation,  VR 610.33 | Grouting placed in accordance with design recommendation; not to be conducted till element secured in place with stich pour, and sealed against leakage. · grout used to be approved & appropriate for use. · test cubes taken in accordance with VR spec | Each unit | R | SE |  |  |  |  |
| **4.0 Work Lot Close Out** | | | | | | | | | | |
| **5.1** | Survey As-built |  | As‐built survey is within tolerance when compared to design specifications. IFC marked up with  redlines | Each lot | R | SE |  |  |  |  |
| **5.2** | Concrete Patch Repairs ﴾as required﴿ | Design  Recommendation,  VR 610.31 | Minor imperfections not conforming to the class of surface finish to be repaired | Each lot | I | SE |  |  |  |  |
| **5.3** | Final Inspection with Subcontractor |  | Works completed in accordance with approved drawings and any relevant specifications | Each lot | I | SE |  |  |  | Completed Checklist (if applicable) and reports and other compliance records attached. |
| **5.4** | Product Non-Conformance | QMP | All Product Non-Conformance(s) recorded and closed (if applicable) | Each lot | R | SE |  |  |  | NCR reports |

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| **Works complete (signer SE)** | |  | | | **Date works complete** | |  | | | |
| **Lot conforms (signer PE)** |  | | **Date lot closed** |  | | **NCR/s no. raised** | |  | **Date NCR closed for this lot** |  |

**Responsibility (Resp.) Key**: **PM**-Project Manager, **PE**-Project Engineer, **SE**- Site Engineer, **CS**-Civil Superintendent, **SS**-Site Supervisor, S**V**-Surveyor, **CR**-Client Representative

**NA –** Nominated Authority **SEST**- Symal Environmental Sustainability Team

**Inspection Key: W –** Witness, **H –** Hold Point, **S –** Surveillance, **R –** Review Point, **I –** Inspection Point