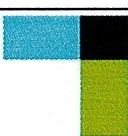
SHEQ·04·05·0034 ITP004· 39028.V004 Rev A· Homai Level Crossing Balustrade Installation



**Downer**

INSPECTION AND TEST PLAN

PFS Engineering Lid

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# Inspection & Test Plan Description:

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Downer

ITP for site balustrade installation - Homai pedestrian bridge

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| Downer- Homai pedestrian bridge |  |  | Location: Hamilton |  |  | ITP Doc No; ITP-004-39028.VO04 |
| Customer: Downer |  |  | Customer Job Reference: 746-24-847-AC | |  | Revision: *A* |
| Prepared by: Bashir Heidarian |  |  | PFS Job Reference 39028.V004 |  |  |  |
| Date: 12/12/2024 |  |  | Review by: Regan Hose |  |  |  |
| Construction Category | CC3 | Service Category | Date: 12/12/2024  SC2 | Fabrication Category FC1 | Weld Category SP | *Tolerance Class 2* |

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| Seq | Task/ QA Activity | Specification Standard | Acceptance Criteria | Certify Doc *I* Ref | **PFS**  Engineering | **Sign** | C | Subcontracted scope | **Sign** | C | Downer | **algn** | **C** | Remark |
| Engineering | | | | | | | | | | | | | | |
| 1 | Inspection and Test Plan Reviewed and Approved by Customer | Project Structure Specification C0702 Rev. 01  IFC structure OWG | Inspection and Test plan shall be submitted to the Engineer  *for* review and approval before fabrication is commenced. | IFC DWGs | PM/PE | lnltlal: l\\  Sig | s |  |  |  | Downer | Initial:  Digitally signed by Nas Matar  Nas DN: cn=Nas Matar gn=Nas Matar c=NZ  SigMnat : Zealand o=T&I  New Zealand l=NZ New  ou=Downer [e=nas.matar@downer.c](mailto:e%3Dnas.matar@downer.c) o.nz  ar Reason: I have  reviewed this document  Location:  Date: 2025-02-21  11:28+13:00 | H |  |
| Good Receipt on site | | | | | | | | | | | | | | |
| 2 | Inspection upon receipt at site | Project Structure Specification C0702 Rev. 01  IFC structure OWG | The material receipt at site need to be visually inspected for quantity and make sure no damage occurred during transport | IFC DWG | PM/PE | Initial: Sign: | V |  |  |  | Downer | Initial:  Digitally signed by Nas Matar  Nas DN: cn=Nas Matar gn=Nas Matar c=NZ  New Zealand l=NZ New  Sign: Reason: I have  Zealand o=T&I  Mat ou=Downer  [e=nas.matar@downer.c](mailto:e%3Dnas.matar@downer.c)  o.nz  ar reviewed this document  Location:  Date: 2025-02-21  11:28+13:00 | R |  |
| Installation of Studs | | | | | | | | | | | | | | |
| 3 | Installation of Templates to identify the Hole locations | Site installation methodology Project Structure Specification C0702 Rev. 01  IFC structure DWG | Anchors Hole locations should be in complied with IFC Drawing | IFC Drawing | Team Leader | Initial: *ii' /'*  Slgn:1 | .\_o |  |  |  |  |  |  |  |
| 4 | Drilling the holes based in concrete | Project Structure Specification C0702 Rev. 01 | Studs' Holes location should be in compliance with IFC  Drawing  22 mm Hole Diameter for M20 Studs Hole depth >210 mm | IFC Drawing  Hilti HIT-RE 500 V4 Technical Data sheet | Team Leader | lnitlal:/11/'  •  **Slgn,Y** | D |  |  |  |  |  |  |  |
| 5 | Blow out all holes | Site installation methodology Project Structure Specification C0702 Rev. 01  IFC structure DWG | Blow out all hole to make sure all holes are free from dust | IFC Drawing  Hilli HIT-RE 500 V4 Technical Data sheet | Team Leader | **lnitial:"'1/'**  Sign:¥ | K |  |  |  |  |  |  |  |
| 6 | Chemical Anchoring | Site installation methodology Project Structure Specification C0702 Rev. 01  IFC structure OWG | Epoxy Studs using Hilti HIT-RE 500 V4  Make sure minimum 210 mm the embedment to achive Wait for epoxy to cure | IFC Drawing  Hilti HIT-RE 500 V4 Technical Data sheet | Team Leader | Initial  Sign: |  |  |  |  |  |  |  |  |

SHEQ-04-05-0034 ITP004- 39028.V004 Rev A- Hamai level Crossing Balustrade Installation

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| Seq | Task/ QA Activity | Spectticatlon Standard | Acceptance Criteria | Certffy Doc/ Ref | **PFS**  Engineering | **Sign** | C | Subcontracted  scope | Sign | C | Downer | elgn | C | Remark |
| 7 | Land Base plates on studs level base plates with Jacking nuts | Project Structure Specification C0702 Rev. 01 | Make sure the base plates are leveled and confirm their elevation | IFC Drawing | Team Leader | lnlUal:/J?J)  **Slgn:14"r** | V,D |  |  |  |  |  |  |  |
| 8 | Final alignment  Bolt wide flange beams to base plate | Site installation methodology Project Structure Specification C0702 Rev. 01  IFC structure DWG Standard operation procedure for steel structure bolt tightening SHEQ-01-02-0038 | Verify that the structural component are aligned based on IFC Drawing  Bolts to be Installed and snug tightened | IFC Drawing | Team Leader | lnitial: p  **Slgn:J#r** | **H** |  |  |  |  |  |  |  |
| **9** | Installation of Dura wall panels and cam covers | Site installation methodology Project Structure Specification C0702 Rev. 01  IFC structure DWG | Carefully position wall panels" and cam covers according to the approved drawings. | IFC DWGs | Team Leader | Initial:  **Sign:)I'/** | D |  |  |  |  |  |  |  |
| Assembly -Lightning and Conduit Bracket | | | | | | | | | | | | | | |
| 10 | Holing | Project Structure Specification C07 Rev. 01  IFC structure DWG  SHEQ-01-02-0040 | Manual holing shall be performed on GRP material. | IFC DWGs | Team Leader | lnitial:/t'I?  Sign: | \_. D |  |  |  |  |  |  |  |
| **11** | Dimension check | IFC DWG | Compliance with IFC DWGs |  | Team Leader | **lnitial:/Z1p**  Sign:¥  ***p*** | D |  |  |  |  |  |  |  |
| 12 | Visual inspection of Fasteners | IFC Drawing | All fasteners (bolts, nuts, washers) are to be in compliance with the Project requirement (Grade, Size and Length) | IFC Drawing | Team Leader | **lnltlal:,/?1**  **Sign:p1\_pC** | **V** |  |  |  |  |  |  |  |
| 13 | Snug tightening of fastener to fasten the brackets to the GRP material | Standard operation procedure for steel structure bolt lightening SHEQ-01-02-0038 | 100% of fixings securing brackets to be inspected for snug tight condition and marked with coloured paint pen to confirm fixing condtion has been checked and verified. |  | Team Leader | Initial:  Sign: |  |  |  |  |  |  |  |  |
| 14 | Assembly of the angles between bracke!s | Project Structure Specification C07 Rev. 01  IFC structure DWG | The angles to be assembled between bracket with fasteners | IFC DWGs | Team Leader | Initial Sign | *V*  **V/D** |  |  |  |  |  |  |  |
| **15** | Snug tightening of fastener to fasten angles to the brackets | Standard operation procedure for steel structure bolt tightening SHE0-01-02-0038 | 100% of fixings securing brackets and angles to be inspected for snug tight condition and marked with coloured paint pen to confirm fixing condtion has been checked and verified |  | Team Leader | **lnit1a1,/?J/t:7**  Sign: | **v** |  |  |  |  |  |  |  |
| 16 | Final Inspection | IFC Drawings, AS/NZS 1554.1:2014 Category SP | Visual and Dimensional inspections completed by PFS Project Manager to confirm manufactured items have been manufactured to acceptable standard & tolerance and approved to progress to protective coatings.  >Confim1ation that dimensional inspections have been completed in line with SHEQ-01-02-0035 Product Inspection Procedure  >Confirmation that required quantity and type's of NOE has  been completed and any identified defects have been remediated | IFC OWGs | Site project Manager | Initial: I?.\.\  **Sig** | **RA** |  |  |  |  |  |  |  |
| Quality Review | | | | | | | | | | | | | | |

SHEQ-04-05-0034 ITP004- 39028.VO04 Rev A- Hamai level Crossing Balustrade Installation

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| Seq | **Task/ QA Activity** | **Specification Standard** | **Acceptance Criteria** | **Certify Doc *I* Ref** | **PFS**  **Engineering** | | **Sign** | **C** | **Subcontracted, scope,** | **Sign** | **C** | **Downer** | **sign** | **C** | **Remark** |
| 17 | Compile, review and submit documentation | Project Structure Specification C07 Rev. 01  IFC structure DWG | Documentation and reports to support installation of steel structure items  compiled into PFS Manufactures Data Report | PFS Manufactures Data Report | **Site project Manager** | | **Initial: R\\**  Sig | **s** |  | '  ' |  | **Downer** | **Initial:**  **Sign:** Digitally signed by Nas Matar  Nas DN: cn=Nas Matar gn=Nas Matar c=NZ  New Zealand l=NZ New Zealand o=T&I  Mat ou=Downer  e=nas.matar@downer.  co.nz  Reason: I have  ar reviewed this document | **RA** |  |
|  |  |  |  |  |  | |  |  |  |  | Date: 2025-02-21  11:27+13:00 |  |
| PFS Revision Record: 39028.VO04-ITP-004-39028.VO04 RevA | | | | | | | | | | | | | | | |
|  | Approved by [Engineer/Client] | | Name· | Date: | Sign:Nas  Mat  ar | Digitally signed by Nas Matar  DN: cn=Nas Matar gn=Nas Matar c=NZ New Zealand l=NZ New Zealand o=T&I ou=Downer [e=nas.matar@downer.c](mailto:e%3Dnas.matar@downer.c) o.nz  Reason: I have reviewed this document Location:  Date: 2025-02-21  11:28+13:00 |  |  |  |  | | | | | |
| Issued for Construction | | Name: °""""" **Ut.se...** | Date **12/11/ *;).f.1*** | Sign: ***rt..11'1-.A*** | | | | |

Comments{Notes: