**Project Name:**

**Inspection & Test Plan**

**(ITP)**

**MCC Foundation – Concrete Works**

**Document Identification No.:**

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| **Rev.** | **Date** | **Description / Status** | **Prepared by** | **Verified by** | **Approved by** |



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| **ITEM No.** | **DESCRIPTION** | **REFFERENCE DOCUMENT** **(PROCEDURE / SPECIFICATION)** | **ACCEPTANCE****CRITERIA** | **TEST** | **RESPONSIBLE** | **SIGNATURES** | **RECORDS REQUIRED** |
| **METHOD** | **FREQUENCY** | **CONTRACTOR** | **CLIENT** |
| **Intervention** | **DATE** | **SIGN** | **Intervention** | **DATE** | **SIGN** |  |
| **1** | **PRIOR TO CONSTRUCTION** |
| 1.1 | Detailed design drawing(s) reviewed and approved for construction | Drg XXXXXX. | Verified for construction drawing (latest version) | Review | Prior to works | Site Agent / Sub-agent | H |  |  | M |  |  | Copy of verified for construction drawing |
| 1.2 | RAMS agreed with Client | Doc XXXXX | WI-402949-GEL-0010 \ WI 1110 | Review | Prior to works | Site Agent / Site Manager | H |  |  | A |  |  | Copy of approved RAMS |
| 1.3 | Permit to Work or Access / Transfer Certificate obtained from Client | WI-402949-GEL-0010 \ WI 205 \ b | WI-402949-GEL-0010 \ WI 205 \ b | Review | Prior to works | Site Agent & PM | H |  |  | A |  |  | Copy or Permit to Work or Access / Transfer Certificate |
| 1.4 | Ready-mix concrete supplier approved by Client | BS EN 8500-2 | CESWI 7 \ 2.22 Concrete ready-mix \ 1. | Review | Prior to works | Site Agent / Site Manager | H |  |  | A |  |  | Copy of valid UKAS accreditation certificates for product conformity from concrete producer. |
| 1.5 | Structural concrete mix design(s) approval | BS EN 206-1, BS 8500-1 | 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 5.4 Concrete | Review | Prior to works | Site Agent / Site Manager | H |  |  | A |  |  | Copy of concrete mix design certificate(s) from concrete producer & evidence of approval. |
| 1.6 | Initial testing of approved structural concrete (by concrete producer).[\*N/A in case of a prescribed concrete or a standardized prescribed concrete] | CESWI 7 \ Section 4 \ 4.2 Initial testing | BS EN 206-1: 2000 Clause 9.5, Clause 10 and Annex A | Compressive strength of concrete and consistence of concrete  | For each classification of structural concrete | Concrete producer /Site Agent / Site Manager | H |  |  | R |  |  | Test certificates to be provided by the concrete producer.Contractor is responsible for gathering required records. |
| 1.7 | Steel reinforcement supplier approval | CESWI 7 \ 2.120 Steel Reinforcement | CESWI 7 \ 2.120 Steel Reinforcement | Review | Prior to works | Site Agent / Site Manager | H |  |  | A |  |  | Copy of valid certificates of approval for the manufacture and/or fabrication of steel reinforcement (CARES or equivalent) from reinforcement supplier. |
| **2** | **DURING CONSTRUCTION** |
| 2.1 | Excavation to correct line and level  | Drg XXXXXX | Compliance with IFC (Issued for Construction) drawing(s) | Site check / visual | 100% | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.2 | Testing on the formation level underside of foundation (to identify any deformation or soft spots within footprint of the foundation) | 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.11 Formation inspection | - >40kPa for cohesive material;- SPT’N’>15 for granular material;  | Hand vane test for cohesive soils;DCP test (Dynamic Cone Penetrometer). | At a minimum of 5 m spacing along the footprint of the foundation | A suitably qualified person (Engineering Geologist / Geotechnical Engineer) | H |  |  | W |  |  | Field inspection checklist /3rd party certificate & Record of test results. |
| 2.3 | Type 1 sub-base layer compacted until refusal at correct level and thickness | - Doc XXXXXX - Drg XXXXXX- CESWI 7 \ 2.55 Granular sub-base material. | - compliance with relevant drawing(s);- material as per BS410-1 and BS 410-2. | 1.site check / visual;2. determination of particle size distribution as per BS EN 933-1. | Prior to concrete pour | 1. Site Agent / Site Manager2.Material supplier | H |  |  | M |  |  | 1. Field inspection checklist. Photographic evidence.2.PSD certificate (Particle Size Distribution) from material supplier. |
| 2.4 | Concrete blinding poured at correct level and thickness | - Drg XXXXXX | compliance with relevant drawing(s) | Site check / visual | Prior to concrete pour | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.5 | Formwork at correct height, cover, alignment and sufficiently rigid and tight. | - Drg XXXXXX | - compliance with relevant drawing(s);- CESWI 7 \ 4.10 Construction of formwork;- BS 5975. | Site check / visual | Prior to concrete pour | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.6 | Ducting and structural voids positioned correctly  | - Drg XXXXXX | - compliance with relevant drawing(s);- CESWI 7 \ 4.10 Construction of formwork;- BS 5975. | Site check / visual | Prior to concrete pour | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.7 | Steel reinforcement fabrications and shapes as per specifications  | - Drg XXXXXX | - compliance with relevant structural drawing(s);- CESWI 7 \ 2.120 Steel reinforcement;- BS 8666. | Dimension inspection / visual | 100% | Site Manager | H |  |  | M |  |  | Field inspection checklist. Bending Schedule. Delivery ticket, Declaration of Performance (DOP) / CE marking from manufacturer. Photographic evidence. |
| 2.8 | Fixing of steel reinforcement | - Drg XXXXXX | - compliance with relevant structural drawing(s);- CESWI 7 \ 4.15 Fixing of reinforcement;- BS 7973-2. | Dimension inspection / visual | 100% | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.9 | Concrete cover to reinforcement  | - Drg XXXXXX | - compliance with relevant drawing(s);- 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.1 Concrete cover tolerance. | Dimension inspection / visual | 100% | Site Manager | H |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.8 | Concrete slump test and cubes sampled -performed at concrete receipt on site prior to pour (on structural concrete only). | - CESWI 7 \ 2.20.5 Concrete-General;- CESWI 7 \ 2.22 Concrete Ready-Mix;- CESWI 7 \ 4.3 Identity Testing;- CESWI 7 \ 4.6 Concreting in cold weather;- CESWI 7 \ 4.9 Records of Concreting. | BS 8500-1;BS EN 206-1;BS EN 12350-1;BS EN 12350-2;BS EN 12390-2;BS EN 12390-3;BS EN 12390-7. | Concrete slump test;Concrete cube compression test. | 1 sample every 50m³ poured; 1 slump test / sample;1 sample = 3 no. cubes tested @ 28days | Site Manager | H |  |  | W |  |  | Concrete delivery tickets. Certificates of concrete sampling & cube manufacturing. Concrete pour record. Concrete cube test certificates (from lab.) |
| 2.9 | Removal of formwork.Concrete curing and protection. | - Drg XXXXXX- CESWI 7 \ 4.6 Concreting in cold weather;- CESWI 7 \ 4.8 Curing;- CESWI 7 \ 4.12 Striking of Formwork;- 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.2 Concrete curing period; | - compliance with relevant drawing(s);- CESWI 7 \ 4.6 Concreting in cold weather;- CESWI 7 \ 4.8 Curing;- CESWI 7 \ 4.12 Striking of Formwork;- 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.2 Concrete curing period; | Dimension inspection. Visual inspection. | 100% | Site Manager | W |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| 2.10 | Concrete structure surface finish acceptable | - Drg XXXXXX- CESWI 7 \ 4.21 Surface Finishes Produced Without Formwork;- CESWI 7 \ 4.22 Surface Finishes Produced with Formwork;- CESWI 7 \ 4.25 Tolerance for Concrete Surfaces;- 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.6 Exposed Edges. | - compliance with relevant drawing(s);- CESWI 7 \ 4.21 Surface Finishes Produced Without Formwork;- CESWI 7 \ 4.22 Surface Finishes Produced with Formwork;- CESWI 7 \ 4.25 Tolerance for Concrete Surfaces;- 5000004730-WW-DOC-00-19-0007 rev.0A/20.09.2019 \ 6.6 Exposed Edges. | Dimension inspection. Visual inspection. | 100% | Site Manager | W |  |  | M |  |  | Field inspection checklist. Photographic evidence. |
| **3** | **POST CONSTRUCTION** |
| 3.1 | AS-BUILT drawings completed and submitted to client |  - WI-402949-GEL-0010 \ WI 405 Completion definition;- 5000004730-WW-DOC-00-19-0005 rev.0B/17.09.2019 \ 6.2 Information for the H&S File. | N/A | N/A | 100% | Designer.Site Agent/Site Manager | H |  |  | R |  |  | AS-BUILT Drawings |
| 3.2 | File all records to the Quality Folder on CDE | - Project PQP;- Quality management systems. | N/A | N/A | 100% | Site Agent/Site Manager | **D** |  |  | **-** |  |  | All documents required by this ITP including signed-off ITP. |
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| Note: Specify the type of intervention by putting one of the following letters in the ***Intervention*** column spaces: |
| **D** = To do | **H** = Hold point | **A** = Approval  | **R** = Review  | **W** = Witness | **M** = Monitor |

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| **ITP Completion Sign Off** |
| **Site Agent / Manager (on behalf of Contractor)** | **Project Manager (on behalf of Client)** |
| **Name:**  | **Name:**  |
| **Signature:** | **Signature:** |
| **Date:** | **Date:** |