| **Item No.** | **Item** | **Activity TASK** | **Acceptance Criteria** | **FREQUENCY** | **CERTIFYING DOCUMENTATION, RECORD OR CHECKSHEET** | **VERIFICATION SIGN OFFS** | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **INTERNAL VERIFICATION AUTHORITY OR RESPONSIBILITY** | **CRITICAL HOLD POINT**  **AUTHORITY** |
| **1** | **Site Preparation** | Site Clearance | Visual Inspection | Prior to excavation | As per Engineer’s acceptance | W | W |
| **1.1** | **Concrete Pipes and Pre-cast Structures** | Delivery of Pipes and Pre-cast structures | Visual Inspection – as per WSP T-WES00012 Section 2.3 pg. no. 262 | Upon delivery on site | Delivery Dockets | R | W |
| **1.2** | **Fill Material** | 65/40 Drainage metal | Clean and washed as per the drawings | Upon delivery on site | Delivery Dockets | R | W |
| **2** | **Initial Set Out** | Setting out M/H locations and Trench Alignment | As per approved IFC drawings and design model provided | Prior to trench excavations | As per Engineer’s acceptance | H | W |
| **3** | **Excavation** | Excavation | Visual Inspection – As per T-WES 00011 section 3.2.4 pg. no. 251 | During and after excavation works | Checksheet | H | W |
| **3.1** | **Geotextile** | Bidim A29 or equivalent | As per drawings and specification | During and after excavation works | Checksheet | H | W |
| **3.2** | **Pipe General Bedding** | Place Approved bedding, WDC EES Sheet 31 | Visual Inspection | Prior to pipe laying | Checksheet | W | W |
| **3.3** | **Pipe Laying** | Laying and Jointing of the pipes | Visual Inspection - Lay and joint pipes in accordance with the manufacturer’s recommendations and | During and upon completion of laying | Checksheet, As-Built information – Invert level | H | W |
| **3.4** | **Slotted pipe** | Laying and jointing of the pipe | Slotts as specified in the IFC drawings | During and upon completion of laying | Checksheet, As-Built information – Invert level | H | W |
| **3.5** | **Pipe Embedment** | 65/40 Drainage metal | Bulk filled – 38% voids by volume | Upon completion of backfilling | Checksheet | H | W |
| **4** | **Subsoil Drain** | Installation | 110mm slotted novacoil installed on top of granular storage | Prior to installation of subsoil drain | QF 007 Checksheet | R | R |
| **4.1** | **Trench Fill** | Agreed or approved material | 300mm cover | Upon completion of the backfilling | Checksheet | H | W |
| **5** | **Manhole and Sump Construction** | Pre-cast Manhole base and Standard Sump | Visual Inspection | Prior installation of Manhole/cesspit Base | Checksheet | R | W |
| **5.1** | **Manhole and Sump Construction** | Manhole risers and components | As per IFC drawing and design model | During and after installation | Checksheet | R | W |
| **5.2** | **Manhole and Sump Construction** | Standard sump 450x450x1200mm pcc, AS 3996 E400 grate and frame | As per IFC drawings and specification | For each Standard sump installation | Checksheet | R | W |
| **6** | **Enviropod filter** | Install approved enviropod filters in sump | As per IFC drawings and specification | For each Standard sump installation | Checksheet | R | W |
| **7** | **Geotextile** | Placing Bidim fabric around drainage aggregate | As per IF drawings and specification | Prior to backfilling | Checksheet | R | R |
| **8** | **As Built & Final Design Documentation** | Supply As-built Plans | Engineer to review and accept as-built Drawings | For all completed works | Engineer’s acceptance of as-built drawings | H | H |

# INSPECTION & TEST PLAN (ITP)

The ITP defines the required inspections during various stages of fabrication, construction and installation work. It is also a method of communicating these requirements to those doing the work and a verifying record that they have been carried out.

The ITP defines 2 different levels of inspection according to the following criteria:

* **Internal Verification:** This inspection or verification activity is required internally by United Civil. A Designated Internal Authority- Project Manager, Supervisor, Foreman or other authorised person is determined for the given inspection point or verification activity. Where a signature required verification is notified by signing the designated check sheet.
* **Critical Hold Points:** These are ONLY inspections required by the contract. It requires the Foreman/ Supervisor or Subcontractors Representative to notify the United Civil Project Manager that the hold point stage of inspection has been reached. Fabrication shall not proceed past this point unless the inspection has been carried out or approval to proceed is given in writing & signed by the Engineer’s Representative.

The Engineer’s Representative shall sign the Check sheet.

A Contract Hold Point is a contractual requirement. Where the Engineer’s Rep has not signed or for whatever reason cannot sign the Hold Point off the Project Manager must signify verification by the Engineer by other means such email sign off or other formal correspondence and note as such on the ITP.