**WATER INFILTRATION GALLERY CONSTRUCTION QUALITY SPECIFICATIONS**

**1. Excavation Depths and Precautionary Measures:**

To avoid collapse of the perimeter wall on the workers expanded perimeterexcavate length breadth and depth of 6 m x6mx6m, remove all the earth materials on site, and clean evacuated space before installation of 4 feet culvert rings in layers

- Taking precautionary measures to avoid wall collapse and to maintain the safety of workers and the integrity of the excavation site.

**2. Pipe Sizes and Quality Specifications:**

- The specified pipe sizes on the BoQ for the screens and the riser pipes as well as for the reticulations should be adhered to in the construction, considering the anticipated flow rates and project requirements.6 inches diameter casing pipe for the screen. And 11/4 Indian white tiger pipers pipes as risers and reticulation pipes.

**3. Filter Media to be Used:**

- Detail the type and characteristics of the filter media to be used in the infiltration gallery to facilitate water filtration and infiltration. 2, 3, and 4mm riverside sand and gravels to support the porosity and permeability of the filter media.

**4. Pipe Material Diameter and Thickness:**

The pipes to be used should be 4 no. Panar type of 6 inches 15 bar and 3 meters for screen and 11/4 inches tiger of 3meter length for the riser pipes and reticulation.

- Ensure that the pipe material is corrosion-resistant, leak-free, and suitable for long-term use.

**5. Geophysical Survey Report:**

- Refer to the geophysical survey report to assess the subsurface conditions and identify potential obstacles or hazards that may impact the construction of the infiltration gallery.

- Use the survey findings to inform the design and construction process.

**6. Water Quality Test Report from Approved Lab:**

- Refer to the water quality testing result test from the approved laboratory, attached to also improve health and safety plans for the surrounding and gallery contamination prevention prevention. and to develop a water screening plan. from an to ensure that the infiltrated water meets regulatory standards and is safe for the intended use.

- Include parameters for testing such as pH, turbidity, dissolved oxygen, and contaminants.

**7. Floodplain Zones:**

- Consider floodplain zones in the vicinity of the construction site and incorporate measures to mitigate flood risks and protect the infiltration gallery from potential inundation. Refer to grouting details in the BoQ.

- Adhere to local regulations and floodplain management guidelines.

**8. Geo-textile or Geo-grid Reinforcements:**

- Introduce the use of geotextile or geogrid reinforcements to enhance the stability and performance of the infiltration gallery.

- Include details on the type, placement, and installation requirements of the reinforcements.

It is advisable to consult and implement in line with experts in water management and civil engineering to tailor the specifications to the specific project location needs.