

Subject: Engineering, Procurement and Construction (EPC) Contract for Renovation and Modernization of Existing Navigational Lock at Farakka, West Bengal

Reference: IN-IWAI-425101-CW-RFB

CPP Portal Tender no: 2024_IWAWB_810983_1

Response to pre-bid queries

Sr. No	Description	As per tender	Bidder's Query	Employer's Response
1	Bore hole data	General	<p>Bidder requests the employer to provide the bore hole data (geo technical investigation report) for</p> <p>a. Upstream / downstream slope protection area b. Residential building area / new building area c. Existing Main lock area</p>	<p>Tender conditions prevail.</p> <p>The DPR available on IWAI website & bore hole data is available in the DPR.</p>
2	Volume II, 2.3 HYDRO MECHANICAL, 2.3.11 Material, Page No 82	Lock gate envelope plating and primary Structural members: Ship building quality steel (IS:3039) - Secondary structural members: Hot Rolled Medium & High Tensile Structural Steel (IS:2062)	it is foreseen that design the gate using IS 3039 having a yield stress of 235 MPa is not feasible to meet the performance criteria specified. We shall be allowed to use IS 2062 E350 B0 Grade in line with New navigational lock criteria. Please confirm.	Tender conditions prevail. This is as per the DPR.
3	Volume II, 3.6 FIELD SURVEYS AND INVESTIGATIONS,	The Mathematical/Physical model studies for the whole structure to access the filling/emptying time of the lock chamber, sedimentation in the hydraulic system, check for air entrapment in the hydraulic system, waves, currents and turbulence generation in the lock chamber. The speed of the flow inside	This is not applicable for Renovation and Modernization of Existing Navigational Lock project.	Tender conditions prevail. Since the New Navigational Lock is operational, the said

	3.6.5 Model Studies, Page No 107	the culverts, head losses and cavitation, particularly in bends and inter-independent interaction of various elements such as, speed of the opening of the valves with the locking duration, mooring forces, shall be made during detailed designs and modification to structures, if required, shall be done by the contractor. Post Construction Survey		model study is required.																																			
4	Vol-2, 2.3.4 Range of Differential Water Levels, Page No 79	<p>All the gates should be designed for the differential water head as given below:</p> <table border="1"> <thead> <tr> <th colspan="3">Static Condition</th> </tr> </thead> <tbody> <tr> <td rowspan="2">U/S Gates</td> <td>U/S Water Column</td> <td>10.755 m</td> </tr> <tr> <td>Lock Water Column</td> <td>2.743 m</td> </tr> <tr> <td rowspan="2">D/S Gates</td> <td>Lock Water Column</td> <td>8.835 m</td> </tr> <tr> <td>D/S Water Column</td> <td>2.743 m</td> </tr> <tr> <th colspan="3">Operating Condition</th> </tr> <tr> <td rowspan="2">U/S Gates</td> <td>U/S Water Column</td> <td>8.835 m</td> </tr> <tr> <td>Lock Water Column</td> <td>2.743 m</td> </tr> <tr> <td rowspan="2">D/S Gates</td> <td>Lock Water Column</td> <td>8.835 m</td> </tr> <tr> <td>D/S Water Column</td> <td>2.743 m</td> </tr> <tr> <th colspan="3">Maintenance Condition</th> </tr> <tr> <td>U/S Gates</td> <td>U/S Water Column</td> <td>7.025 m</td> </tr> <tr> <td>D/S Gates</td> <td>Lock Water Column</td> <td>5.955 m</td> </tr> </tbody> </table>	Static Condition			U/S Gates	U/S Water Column	10.755 m	Lock Water Column	2.743 m	D/S Gates	Lock Water Column	8.835 m	D/S Water Column	2.743 m	Operating Condition			U/S Gates	U/S Water Column	8.835 m	Lock Water Column	2.743 m	D/S Gates	Lock Water Column	8.835 m	D/S Water Column	2.743 m	Maintenance Condition			U/S Gates	U/S Water Column	7.025 m	D/S Gates	Lock Water Column	5.955 m	<p>Bidder presume that U/S gate shall be designed for 7.025 m differential water head, similarly D/S gate shall be designed for 5.95 m differential water head.</p> <p>In the earlier tender pre bid clarification, the same point was confirmed "YES" Owner shall reconfirm bidder understanding</p>	<p>Mitre gates are to be designed for extreme conditions which may be ascertained as per design duly considering the differential pressure range mentioned for different operating condition in clause 2.3.4.</p> <p>Tender conditions prevail.</p>
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5	Vol-2, 2.3.5 Load considered for Structural Design, Page No 79	All loads due to dead weight and frictional forces. Mitre gate shall be designed for accidental impact load of 3000 DWT. Caisson gate shall be designed for the U/S hydrostatic head	<p>Accidental impact load on wall applied to verify the integrity of the wall structure.</p> <p>-From the structural analysis it is inferred that the existing lock wall are failing to meet the design requirements of ship impact load on mitre gate.</p> <p>-Kindly advise.</p>	<p>The tender conditions prevail.</p> <p>The Mitre gate shall be designed to bear the design impact load during the life span & have the thickness to fit within the recess space provided in the existing structure.</p>																																			