



CENTRAL WATER AND POWER RESEARCH STATION

DESK STUDIES FOR DESIGN OF COASTAL PROTECTION WORKS AT HAJI ALI DARGAH, WORLI AND GEETANAGAR, MUMBAI.



STUDY OVERVIEW

The project involves a design of coastal protection works at Haji Ali Dargah, Worli and Geetanagar, Mumbai, Maharashtra. The length of proposed coastal protection works at Haji Ali Dargah and Geetanagar is 207 m and 225 m respectively.

APPROACH

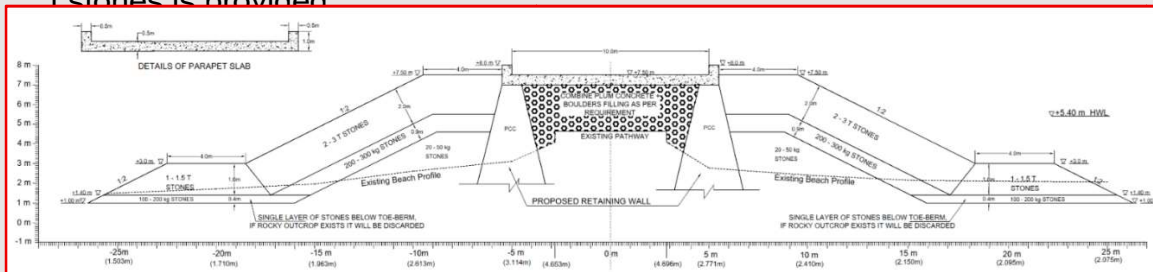
- Desk studies were conducted to evolve a design cross-section for the coastal protection works based on the data such as beach profiles, tides, waves and the existing site conditions.
- The Design Water Level (DWL) of +5.40 m including storm surge of 1 m above the Mean High Water Spring (MHWS) of +4.4 m is considered for the design of coastal protection work at the respective sites of Haji Ali Dargah & Geetanagar.
- The maximum breaking wave heights of 2.40 m & 2.30 m at DWL in front of the structures are considered for the design purpose at the proposed sites of Haji Ali Dargah & Geetanagar respectively.

IMPACT/SIGNIFICANCE /OUTCOME

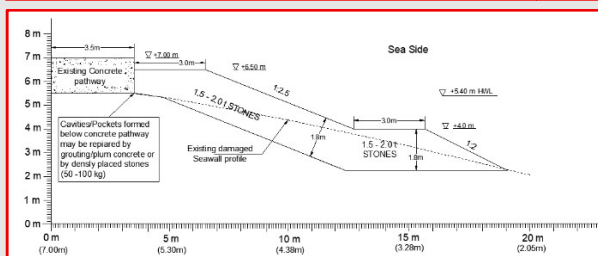
The project aims at protecting the pathway to Haji Ali Dargah and restoration of coastal protection works at Geetanagar, Mumbai.

KEY FINDINGS

- The design of coastal protection works in the form of seawall with 2.0 to 3.0 t stones on 1:2 slope in the armour and 4.0 wide toe berm with 1.0 to 1.5 t stones is evolved at Haji Ali Dargah.
- At Geetanagar, two alternatives i.e. (I) 1.5 to 2.0 t stones on 1:2.5 slope in the armour layer and (II) 2.0 t tetrapods on 1:2 slope in the armour layer and the 3.0 m wide toe berm consisting of 1.5 to 2.0 t stones is provided.



Proposed protection to pathway at Haji Ali Dargah, Worli, Mumbai



Two alternative solutions at Geetanagar, Mumbai, Maharashtra.

