

**Technical Notes:**

Structural elements are calculated and designed with following characteristics:

**Foundation:** Foundations are designed with:

- Concrete C-25/30 ( $f_{ck}=25000\text{kN/m}^2$ ) with safety factor  $\gamma_c=1.5$
- Reinforcement S460A ( $f_{yk}=460\text{N/mm}^2$ ) with safety factor  $\gamma_s=1.15$

**Concrete Walls & Columns:** All walls & columns are designed with:

- Concrete C-25/30 ( $f_{ck}=25000\text{kN/m}^2$ ) with safety factor  $\gamma_c=1.5$
- Reinforcement S460A ( $f_{yk}=460\text{N/mm}^2$ ) with safety factor  $\gamma_s=1.15$

**Concrete Beams:** Beams are designed with:

- Concrete C-25/30 ( $f_{ck}=25000\text{kN/m}^2$ ) with safety factor  $\gamma_c=1.5$
- Reinforcement S460A ( $f_{yk}=460\text{N/mm}^2$ ) with safety factor  $\gamma_s=1.15$



**Concrete Slab:** Slabs are designed with:


- Concrete C-25/30 ( $f_{ck}=25000\text{kN/m}^2$ ) with safety factor  $\gamma_c=1.5$
- Reinforcement S460A ( $f_{yk}=460\text{N/mm}^2$ ) with safety factor  $\gamma_s=1.15$

**GUIDELINES**

Beam: HEA200, Column HEA200  
EndPlate  
Dimensions 400x400 mm  
Thicknss 2x210 mm  
Steel type Fe430  
Bolts  
Diameter Ø20 mm  
Class Bolt 5.6  
Hole tolerance 0.1 mm  
Welding  
Minimum Thickness 19 mm

Unless otherwise prescribed,  
all weldings in joints shall  
be full penetration or double  
fillet, wide not less than  
the thickness of the members  
being connected.

		<b>Water Solutions Pvt Ltd</b> 1st Floor, Ma.Fas eri, Ameenee Magu, Male' 20205, Republic of Maldives Tel: +960 334 1643 / +960 330 1643 Fax: +960 333 1643 Email: info@water-solutions.biz				<b>Kocks Consult GmbH</b> Stegemannstr. 32 - 38 D-56068 Koblenz Tel: +49 261 1302-0 Fax: +49 261 1302-400 Email: info@kocks-ing.de	
	Name						
Designed	Qinami				April 2018		
Drafted	Qinami				April 2018		
Checked					April 2018		
Project No.	213 - 68524						

Client		<b>Ministry of Environment and Energy</b>			
Project Title	Consultancy Services for Feasibility Study for an Integrated Solid Waste Management System for Zone III (including Greater Malé) and Preparation of Engineering Design of the Regional Waste Management Facility at Thilafushi				
Design phase	Detailed Design Harbour Rehabilitation				
Contents	Vehicle shed - Side Frame				
Scale	1 : 10				
Drawing No.	5.2.4	Paper	A3		