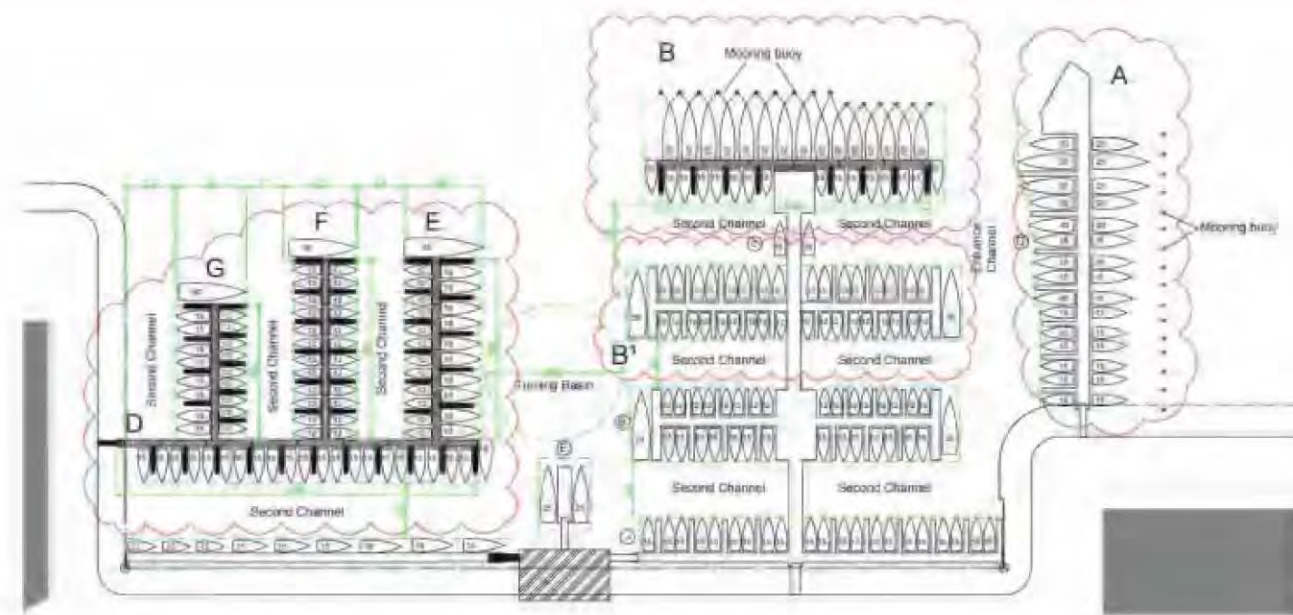


STANDARD

DESIGN STANDARD

Our design philosophy is based on current international standards, which consider marina sites environmental conditions. Such as:

- [AS 3962-2020 Austrian Guidelines for design of marinas]
- [British Marine Federation. A Code of Practice for the Design, Construction of Coastal and Inland Marinas and Yacht Harbors]
- [UFC 4-152-07 Design: Small Craft Berthing Facilities]
- [ASCE Manuals and Reports on Engineering Practice Pool test No.50]



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

KEY TECH

CALCULATION PROCEDURE

ANLAN WATERFRONT has developed full-set of engineering calculations considering important parameters, such as:

- Wave
- Wind
- Tide
- Current
- Boat impact.

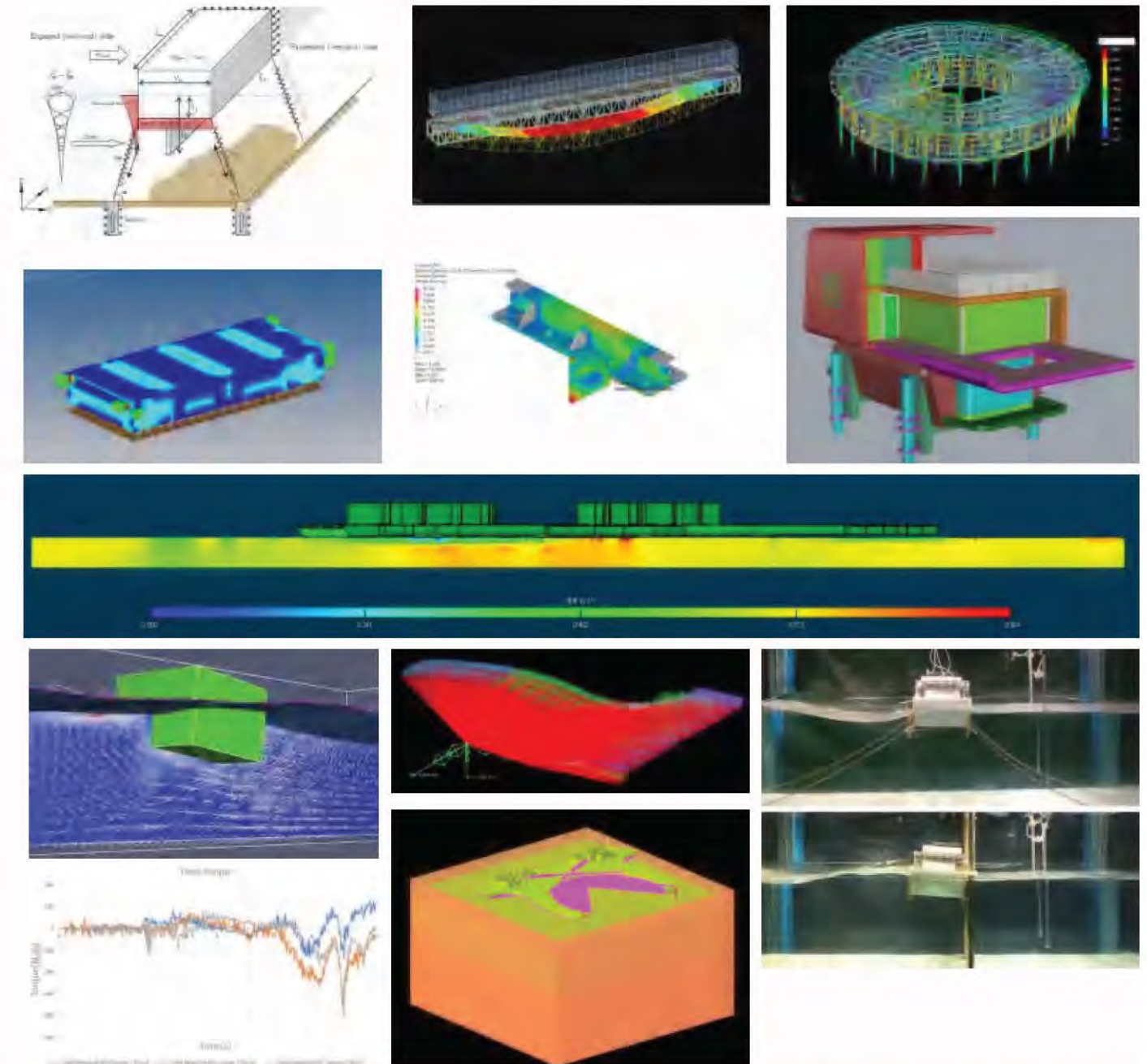
It includes:

- Out-force calculation
- Structure/Pontoon performance calculation;
- Fixing method calculation;
- Connection calculation.

FOR CHALLENGING PROJECT

For some challenging project, we will also do:

- Dynamic simulation
- Real mold Pool test.



Corrosion Humidity Wind Wave Tide Depth Erosion Temperature Lifetime Maintenance

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

MAIN PARTS-GANGWAY



WENZHOU, CHINA 30M*2M

- Gangways use marina grade aluminum alloy materials, such as 6061-T6 or 7075-T6.
- According to the gangway dimension and load requirement. We will specially design and customize the main beam for each project. After MIG welding and quality check, we will transport it to the site.
- The surface decking material could be selected from composite, natural hard-wood, natural soft-wood etc..
- Usually, the gangway one end is hanging on the bank, another end is landing by nylon-roller scroll wheels.



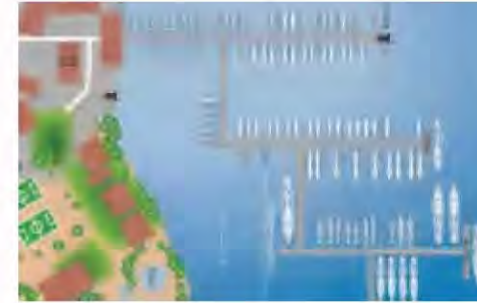
NAME	WIDTH (m)	LENGTH(m)	CAPACITY(N/m ²)
GANGWAY	1.2	6.0-12.0	2500-4000
	1.5	8.0-16.0	3000-4000
	2.0	9.0-24.0	3000-4000
	2.5	10.0-26.0	3000-4000
	3.0	12.0-30.0	3500-4500
	4.0	12.0-36.0	3500-4500

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

MAIN PARTS-ALUMINUM STRUCTURE PONTOON



ZHENJIANG MARINA, CHINA, ALU PONTOON



- Aluminum alloy structure pontoons are made from 6061-T6 or 6082-T6 marine-quality aluminum. All bolts and nuts use SS316 stainless steel.
- The sizes of these components depends on the berthing forces and wave stresses.
- The Pontoon frame consists of 2 edge profiles connected to each other by crossbars and diagonals. All accessories can be attached or slid into positions.

NAME	WIDTH (m)	LENGTH(m)	CAPACITY(N/m ²)
ALU PONTOON	1.2	6.0-12.0	1200-1400
	1.5	6.0-12.0	1400-1600
	2.0	6.0-12.0	1600-2000
	2.5	6.0-12.0	2000-2500
	3.0	6.0-12.0	2500-3000
	3.5	6.0-12.0	3500-4000

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

MAIN PARTS-CONCRETE PONTOON



SANYA MARINA, CHINA, CONCRETE WITH ALU PONTOON












- The concrete pontoon incorporates the latest know-how of pontoon technology and is widely used in small and large terminals. Module widths from 2400mm to 6000mm and lengths from 4000mm to 20000mm.
- Those concrete pontoons are connected by flexible rubber bolt joints. A range of optional accessories can be incorporated to customize each specified system, which include different kinds of decking, cable ducts and service conduits.
- All concrete pontoons are of robust construction, with a 50-year design lifespan.

NAME	WIDTH (m)	LENGTH(m)	CAPACITY(N/m ²)
CONCRETE PONTOON	2.4	6.0-12.0	5500-6000
	3.0	8.0-12.0	5500-6000
	3.5	8.0-16.0	6000-6500
	4.0	10.0-16.0	6000-6500
	5.0	16.0-20.0	6500-7000
	6.0	16.0-20.0	6500-7000











[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

MAIN PARTS-FIXING METHOED

PILE (Shallow Water)		ANCHOR (Deep Water)		OTHERS	
<p>PILE: transfer the out force from floating structure to seabed.</p> <ul style="list-style-type: none"> • Steel Pile, Or PHC pile; • Día 275 to 800mm. 		<p>ANCHOR CHAIN: Deep water $\geq 6m$, Or difficult to piling. transfer the force to anchor block.</p>		<p>H BEAM: Close to the quay wall or coast. By channel to make floating structure move with water.</p>	
<p>PILE GUIDE: Usually Alu structure, let the floating structure move with tide while keep the location</p>		<p>ANCHOR Catch the seabed, usually use concrete block, some also use cast steel.</p>		<p>STRUT: Close to the quay wall or coast. By beam to support the marina</p>	
<p>PILE CAP: Stainless steel or PE type Cover the pile top</p>		<p>WINCH: SS steel material, Rolling the cable, keep the tension, suitable for lake or river;</p>			
		<p>SEAFLEX: Composite Rubber, Use flex to keep the chain always tension, suitable for tide area.</p>			

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ACCESSORIES

DECK		FENDER		BOLLARD	
<p>WPC: Made by wood powder, plastic and additives.</p> <ul style="list-style-type: none"> • Hollow type, • Solid type, • Co-extrusion type. 		<p>Light weight fender: Rubber with EPDM; Power absorbing structure design. More than 100 mold, Color, type and material customized.</p>		<p>Light Weight cleat: Cast stainless steel or aluminum alloy; mooring capacity from 500kg-5000kg</p>	
<p>HARD WOOD: Belau (Bangkirai) is a weather-resistant tropical hardwood Thick suggest 23-30mm</p>		<p>Heavy duty fender: Rubber; Big size and thickness reduce the power. Various from 100*100 to 300*300</p>		<p>Heavy duty Bollard: Cast stainless steel or aluminum alloy; mooring capacity from 3000kg-10000kg</p>	
<p>ANTICORROSION PINE WOOD: After anti-corrosion treatment, it will be weather-resistant Thick suggest 23-30mm</p>		<p>Customized type: Rubber with others;</p> <ul style="list-style-type: none"> • Extrusion type • Molding type <p>Customized the price, size, structure, color and application.</p>		<p>Customized type: Cast stainless steel or aluminum alloy; Size, power, connection can be customized.</p>	
<p>ALU-PP DECK: ALU bar inside stronger deck, non-slip surface.</p> <ul style="list-style-type: none"> • 1137*615*25mm; • 1422*615*25mm. 					

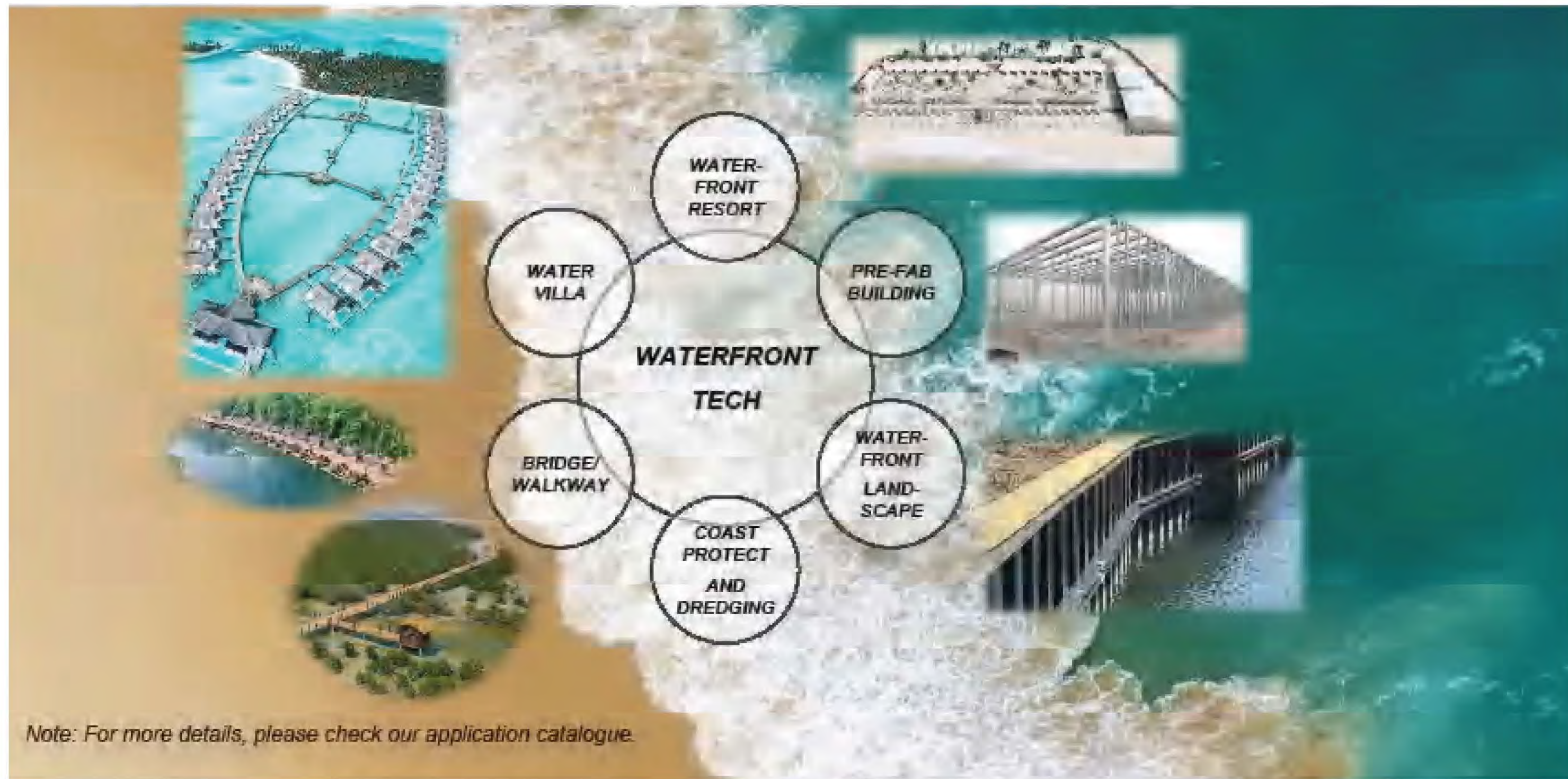
[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

BUSINESS SCOPE-FLOATING TECH



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

BUSINESS SCOPE-WATERFRONT TECH



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

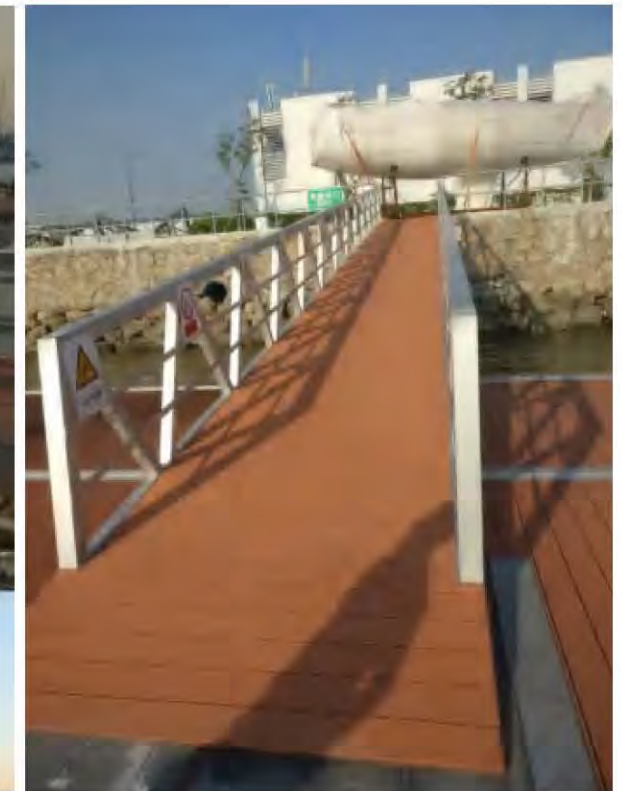
ALU MARINA- SHENZHEN AIRPORT MARINA

FACTS:

- Scope: Design, Manufacture and Build
- Products: Aluminum pontoons, 176berth
- Location: Shenzhen, China
- Complete: 2017
- Clients: Shenzhen Airport

CHALLENGE:

- Current flow speed very high;
- Use PHC pile, difficult piling;



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

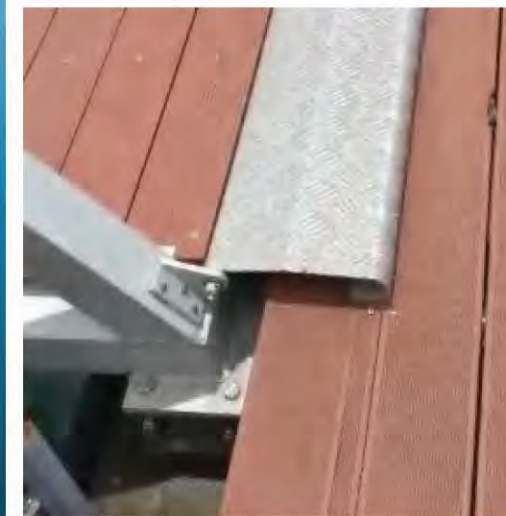
ALU MARINA- HUIZHOU JINRONGJIE MARINA

FACTS:

- Scope: Design, Manufacture and Build
- Products: Aluminum pontoons, 176berth
- Location: Shenzhen, China
- Complete: 2017
- Clients: Shenzhen Airport

CHALLENGE:

- Current flow speed very high;
- Use PHC pile, difficult piling;



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

Concrete Marina-Shenzhen Sea Sport Foundation & Nautical Sports School

FACTS:

- Scope: Design, Manufacture
- Products: Concrete Pontoon+ Aluminum pontoons, 300 berth
- Location: Shenzhen, China.
- Complete: 2013
- Clients: Shenzhen Gov

CHALLENGE:

- Seaflex anchoring;
- Long concrete main pontoon;



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU MARINA-WANDA TOWN MARINA

FACTS:

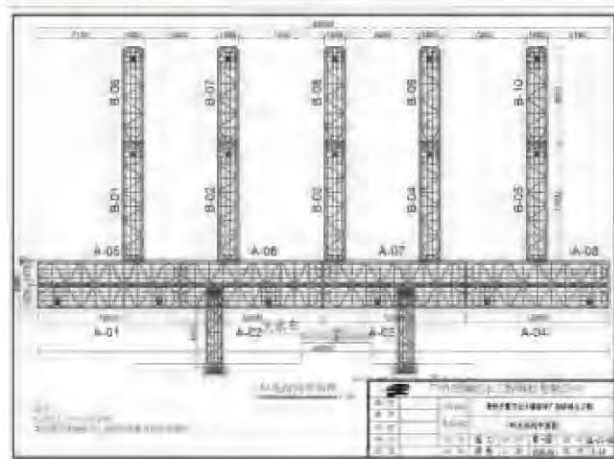
- Scope: Design, Manufacture and Build
- Products: Aluminum Marina
- Location: Danzhai, Guizhou, China.
- Complete: 2018
- Clients: Wanda Group

CHALLENGE:

- Piling in the lake without heavy machine
- Long finger

Performance:

- Five years without maintenance
- Service about 2.0million tourism
- Used as a sports training area



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

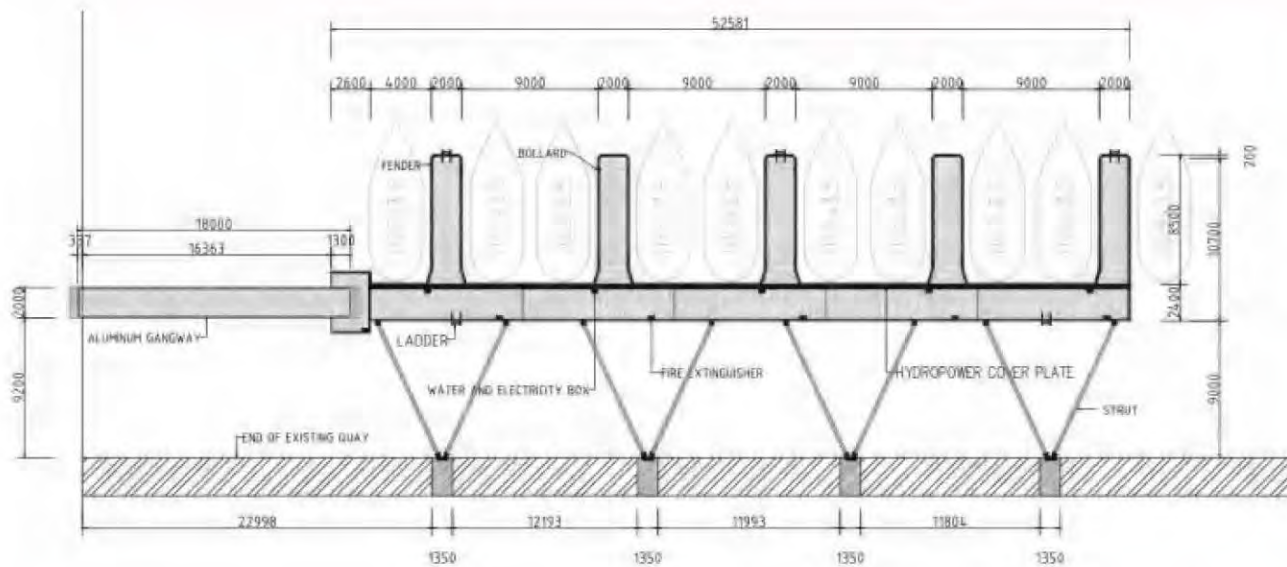
ALU MARINA-SOMALIA MOGADISHU UN PIER- WILD WAVES

FACTS:

- Scope: Design, Manufacture and Build
- Products: Aluminum Pontoons
- Location: Mogadishu, Somalia,
- Complete: 2022
- Clients: UNOPS with API

Challenge:

- 1.5m wave from container ship;
- Deep water;
- Half exposed to open sea.



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU FLOATING JETTY-KENYA MOMBASA TOURISM FLOATING JETTY

FACTS:

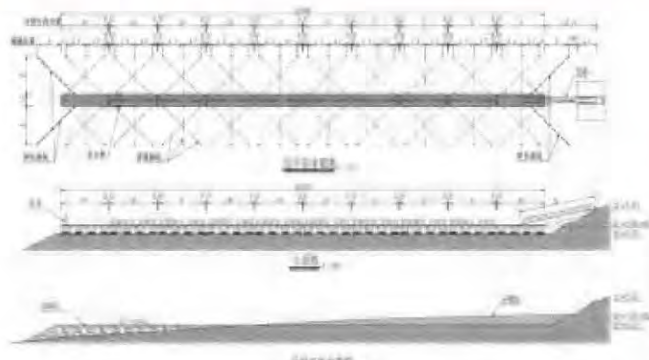
- Scope: Design, Manufacture and Build
- Products: Aluminum Walkway, 100M*2.2M
- Location: Mombasa, Kenya.
- Complete: 2017
- Clients: UNOPS WITH API

CHALLENGE:

- Deep into sea
- Need concrete floater
- Can not do piling

Performance:

- Service around 20k tourism board at anytime, without waiting the tide
- No need maintenance.



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ART ALU FLOATING PLATFORM- SHIMAO BIHAI LAKE-NEW MOON

FACTS:

- Scope: Design, Manufacture and Build
- Products: Aluminum Art Floating Platform
- Location: Jiangmen, China.
- Complete: 2020
- Clients: Shi Mao Group

CHALLENGE:

- Moon Shape;
- Difficult to balance the level;
- Art surface and feeling treatment

Performance:

- Become a landmark
- Help the group sell villa
- Multifunction
- No maintenance, freeboard $\pm 10\text{mm}$



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ART ALU FLOATING PLATFORM- SHIMAO QIYUN

FACTS:

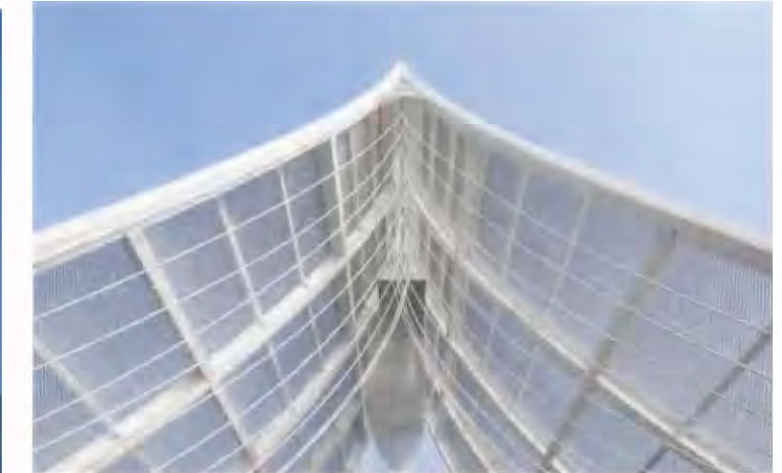
- Scope: Design, Manufacture and Build
- Products: Aluminum Art Floating Platform
- Location: Tianjin, China.
- Complete: 2020
- Clients: Shi Mao Group

CHALLENGE:

- High Structure;
- Keep gravity center;
- Art surface and feeling treatment

Performance:

- Become a landmark
- Help the group sell villa
- Multifunction



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

FLOATING SWIMMING POOL –HUIZHOU FULI BAY

FACTS:

- Scope: Design, Manufacture and Build
- Products: Plastic Floater
- Location: Huizhou, China
- Complete: 2016
- Clients: Fuli Group

Challenge:

- Mud area;
- Tide Variation Big



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

FLOATING FISH POOL AND PLATFORM-XIHAI YAOCHI BAY

FACTS:

- Scope: Design, Manufacture and Build
- Products: Galvanized steel with foam
14000sqm
- Location: Jiangxi, China
- Complete: 2021
- Clients: Lushan XiHai Gav

Challenge:

- Big Size Platform;
- Tide Variation Big



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU FLOATING BRIDGE WITH BOAT HOUSE-Qingyuan Baojing Lake

FACTS:

- Scope: Design, Manufacture and Build
- Products: Aluminum Floating Bridge + Boat house
- Location: Qingyuan, China.
- Complete: 2021
- Clients: Private Group

CHALLENGE:

- Curved Alu Floating Bridge
- Boat house with wood decoration
- Big wind

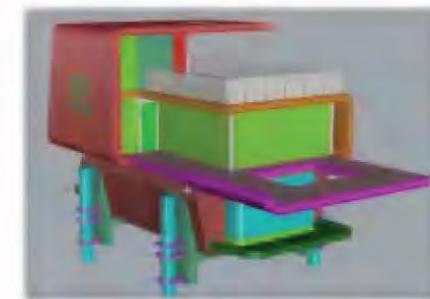
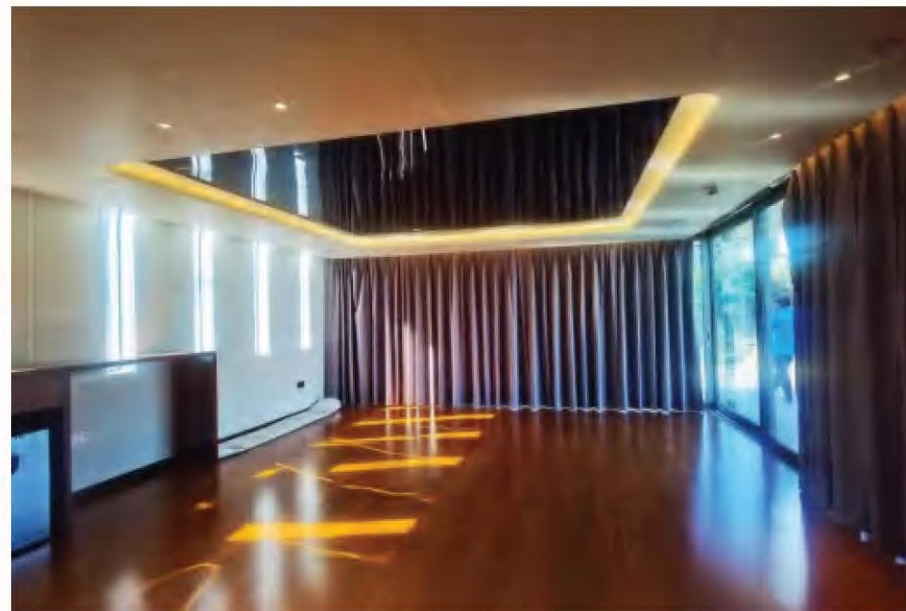
Performance:

- Not only a boathouse, also help the hotel become to a net popular destination
- Invest come back around 2 year..



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU FLOATING BOAT HOUSE—SEA HORSE



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ART ALU FLOATING BRIDGE- SHIMAO BIHAI LAKE-CLOUD BRIDGE

FACTS:

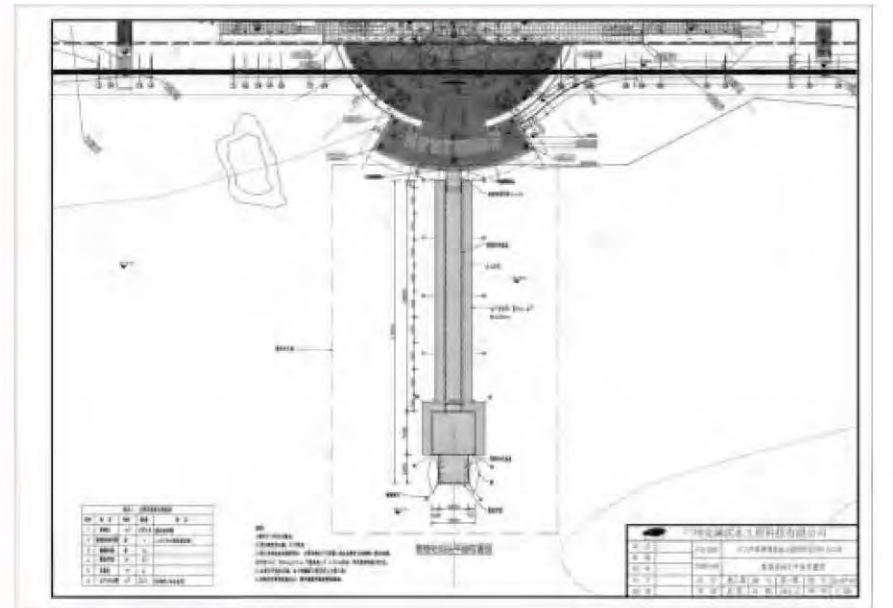
- Scope: Design, Manufacture and Build
- Products: Aluminum Art Floating Bridge
- Location: Jiangmen, China.
- Complete: 2020
- Clients: Shi Mao Group

CHALLENGE:

- Safety FRP net under sea water;
- Deep mud, around 10m;
- Art surface and feeling treatment

Performance:

- Become a landmark
- Help the group sell villa
- Multifunction
- No maintenance



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

WATERFRONT RESORT-GULF ADVENTURE-IN DESERT SEASIDE

FACTS:

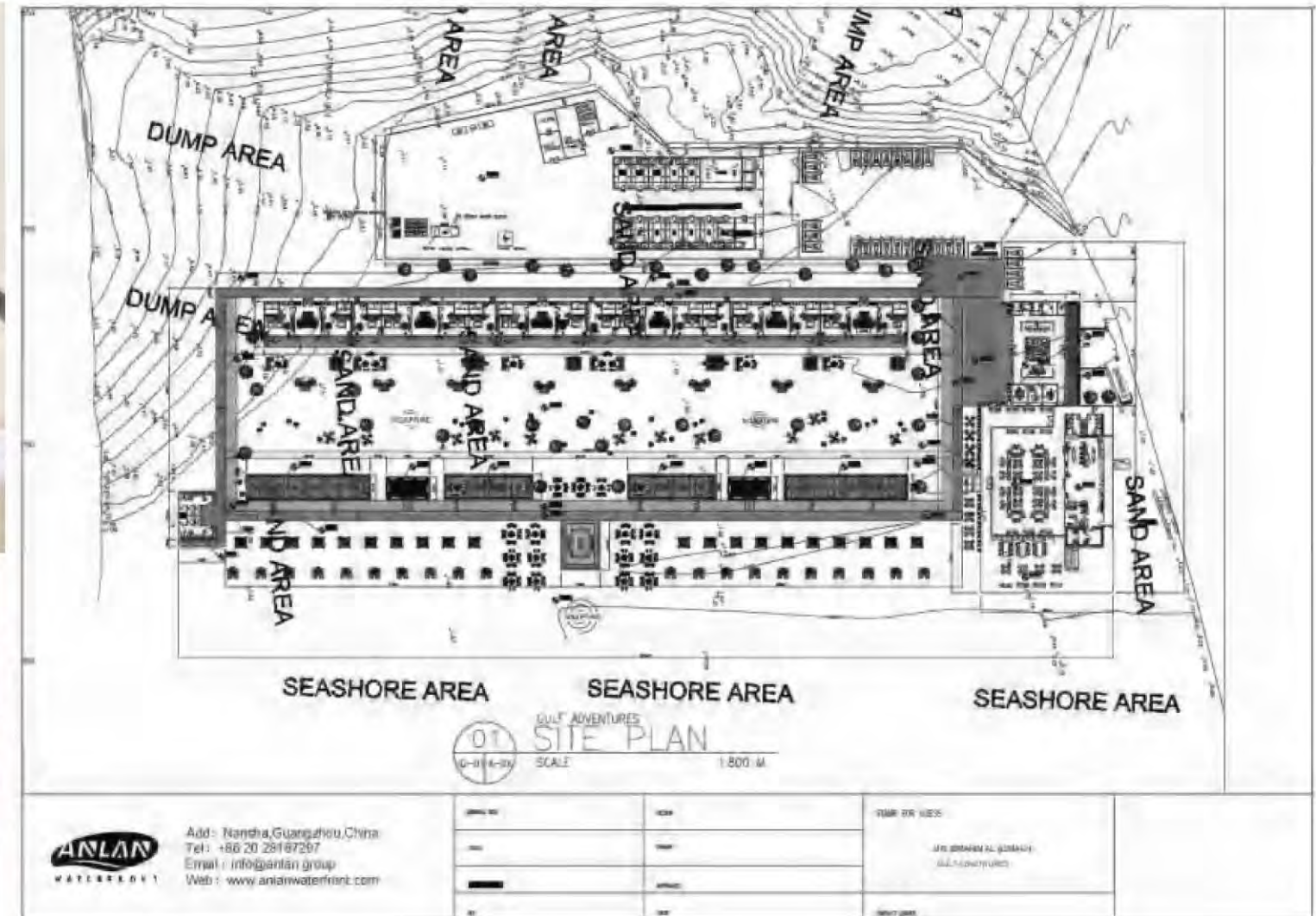
- Scope: Turkey Project
- MAIN: Land area 23000SQM, Construction area 9500sqm, Building area 4200sqm; Independent power, desalination, and sewage treatment system; with furniture and walkway.
- Location: Sealine Desert-Qatar
- Complete: Undergoing
- Clients: Regency-SHK

Challenge:

- 10KM into the desert, no road;
- High tide flood road everyday two times;
- Stronger wind with sandstorm and very hot;
- Seaside, very big challenge to materials;
- Fuel, water, food and manpower supply difficult;
- Materials damage rate very high.

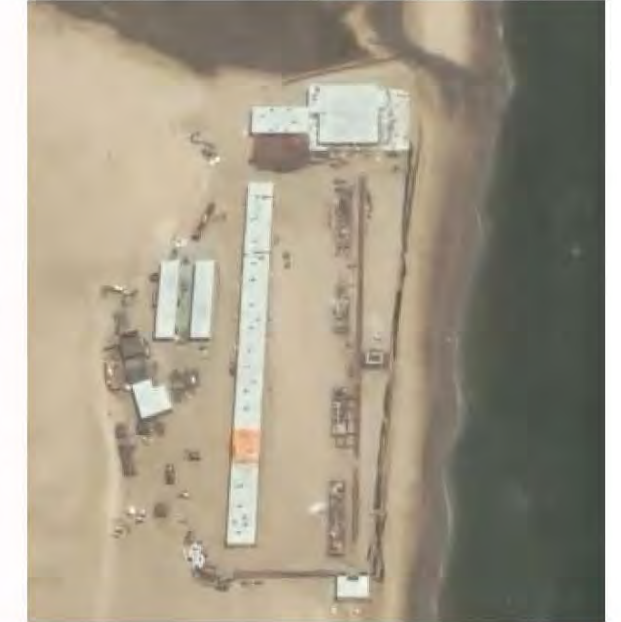
Performance:

- Use light weight anti-corrosion materials;
- Prefab tech save cost while keep quality;
- Fast build, around 8 month;
- No corrosion, no need maintenance;
- No damage, no pollution to the environment;
- Becoming a famous tourism destination



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

WATFRFRONT RESORT-GULF ADVENTURE-IN DESERT SEASIDE



SITE PICTURES



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU WALKWAY-QATAR AL-KHOR PURPLE ISLAND WALKWAY

FACTS:

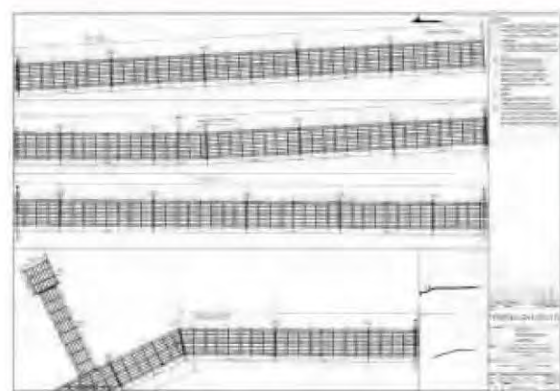
- Scope: Design, Manufacture and Build
- Products: Alu Walkway (550M*3.3M, Run gulf car)+ WPC Bird Observation house
- Location: Al-Khor, Qatar
- Complete: 2019
- Clients: SHK

Challenge:

- Fast building, within 4 month;
- In mangrove, difficult to installation;
- Heavy corrosion, challenge to materials;
- Environment requirement high standard

Performance:

- Service about 1 million tourism;
- No corrosion, almost no need maintenance;
- No damage, no pollution to the environment;
- Becoming a famous tourism destination



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

ALU Walkway-Private Marine- High load capacity

FACTS:

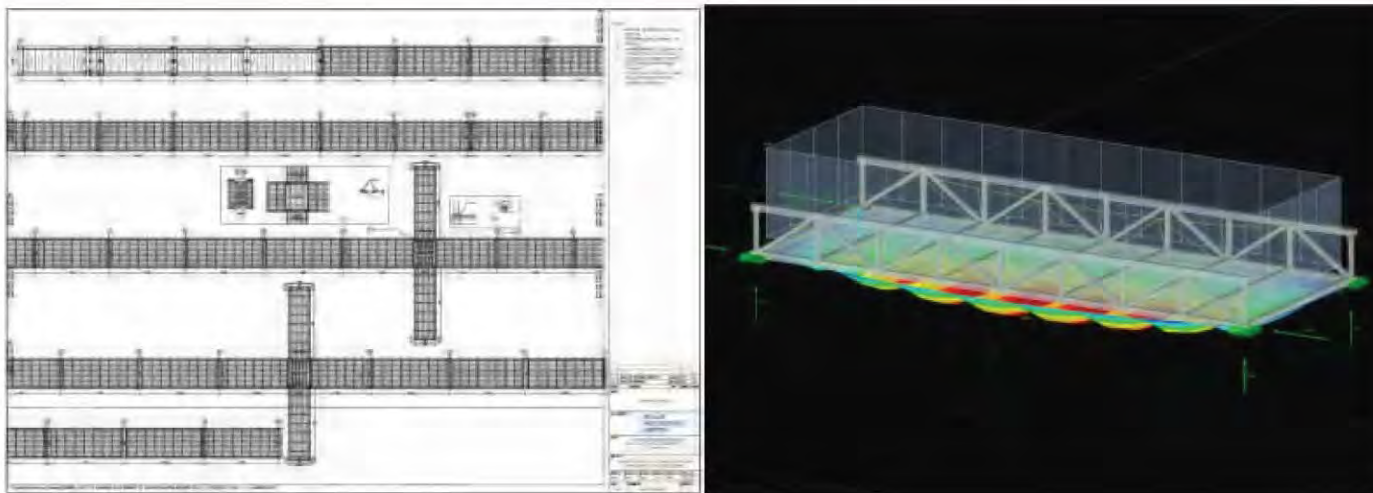
- Scope: Design, Manufacture and Build
- Products: Aluminum Walkway, 430M*4.6M
- Location: Al-Khor, Qatar.
- Complete: 2019
- Clients: SHK

CHALLENGE:

- Big width and big span
- WPC deck high standard
- Limit time

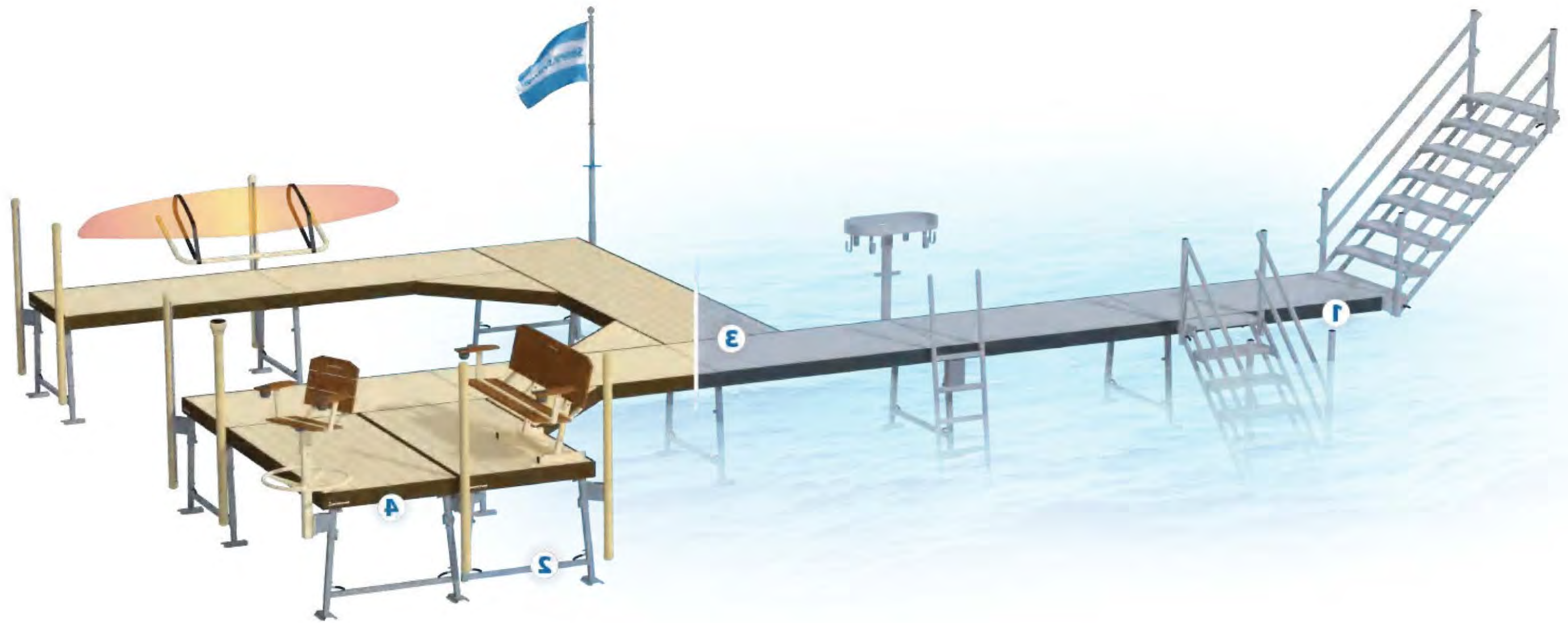
Performance:

- Can run 4.6 tons R-R
- Under heavy load, 4 years no maintenance;
- Fast Build



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

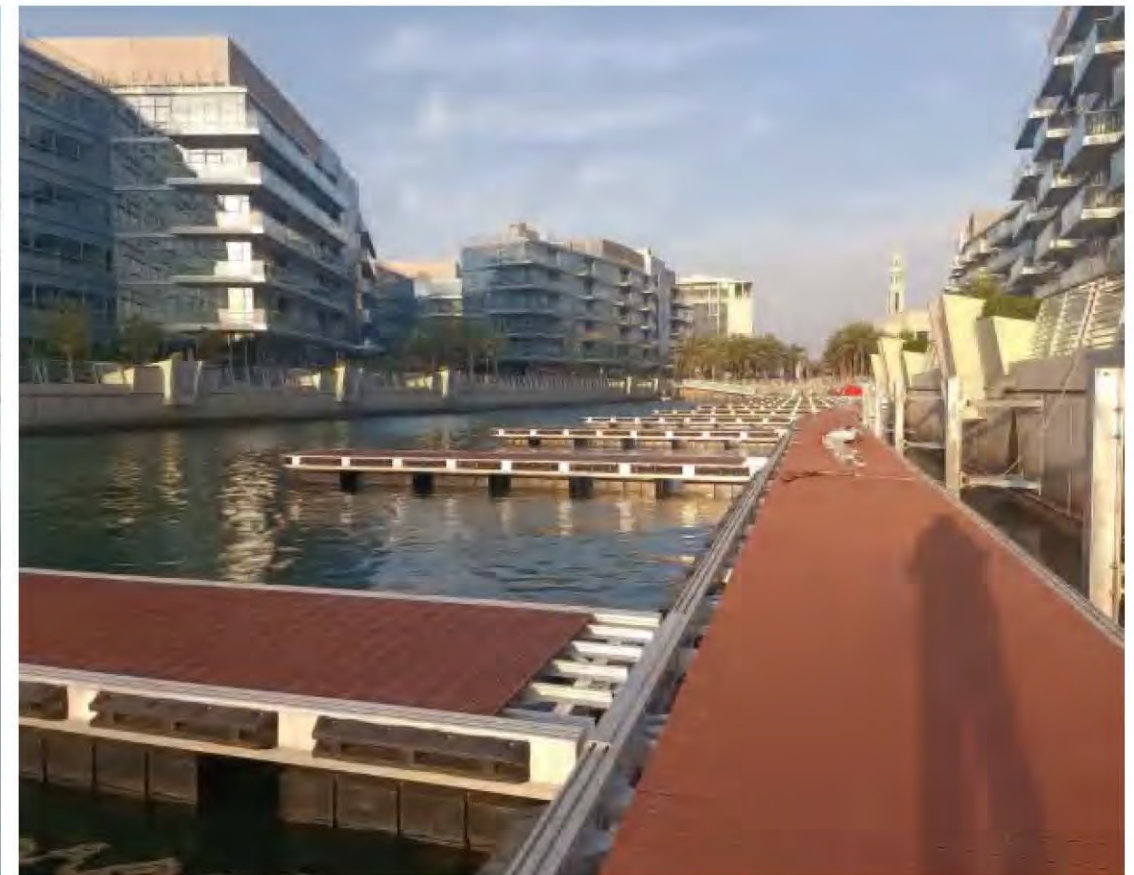
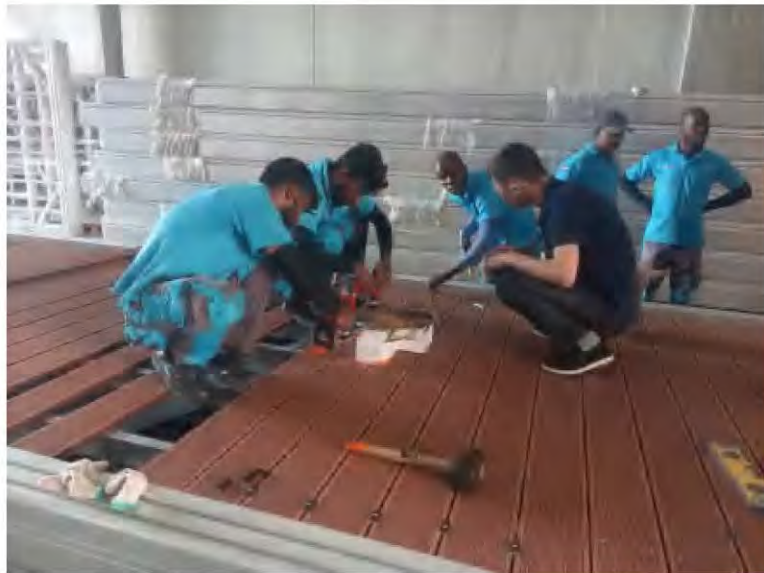
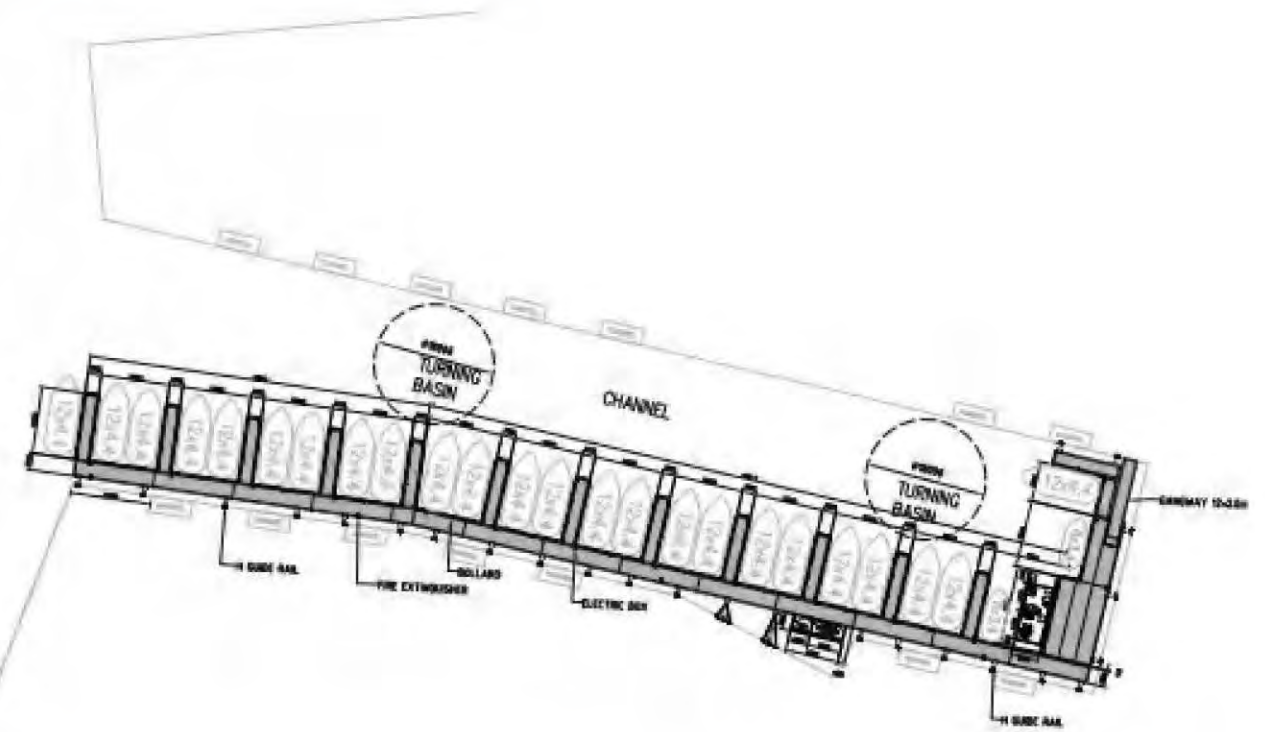
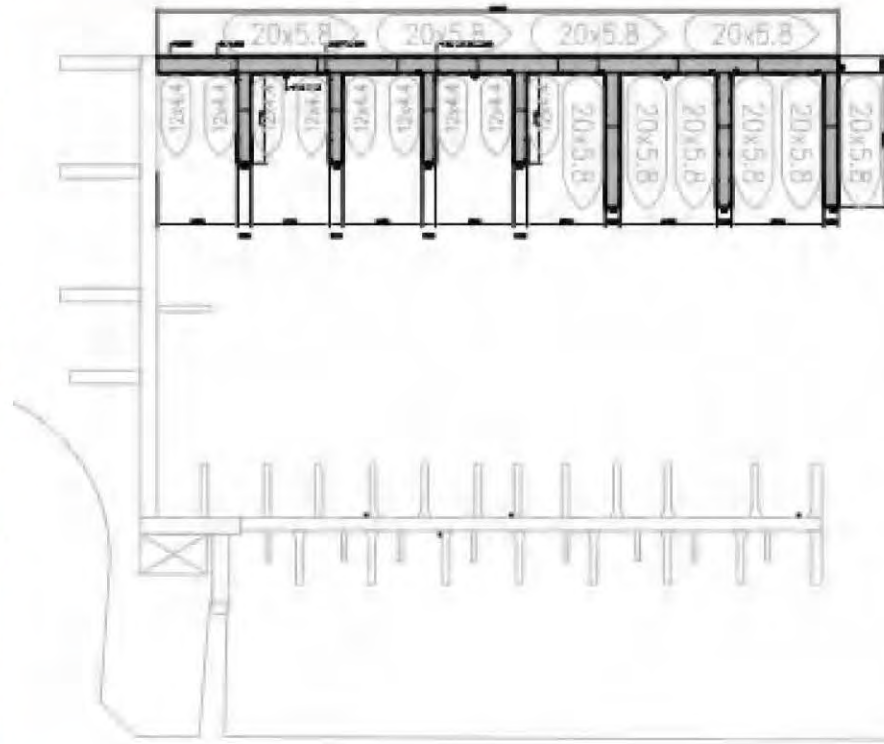
Dock Accessory for US Dealer



Boat Lift for US Dealer



Marina for Abu Dhabi Customers



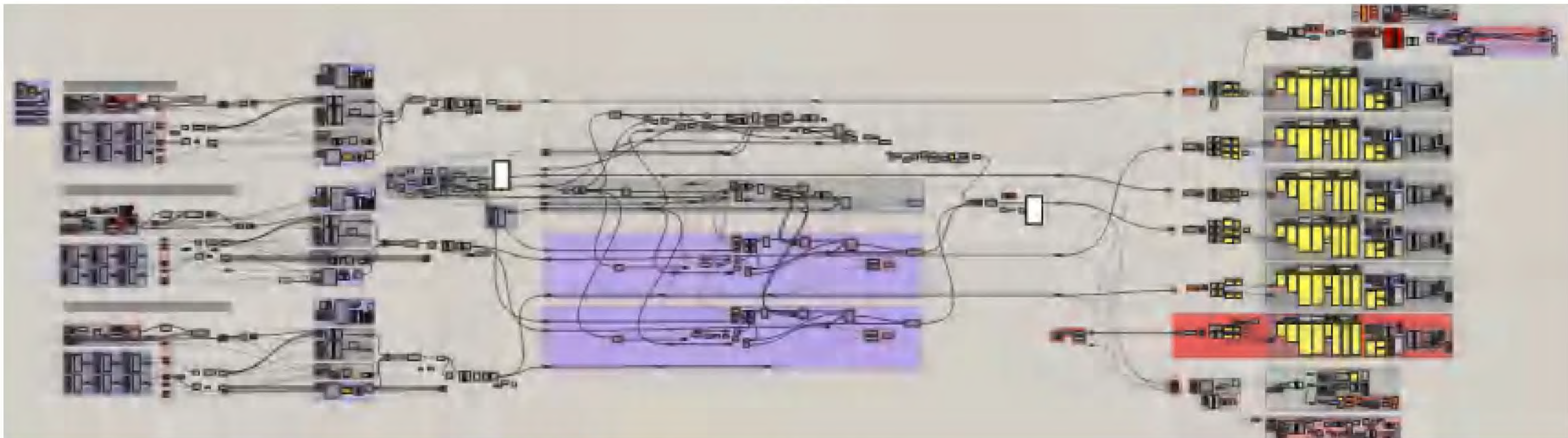
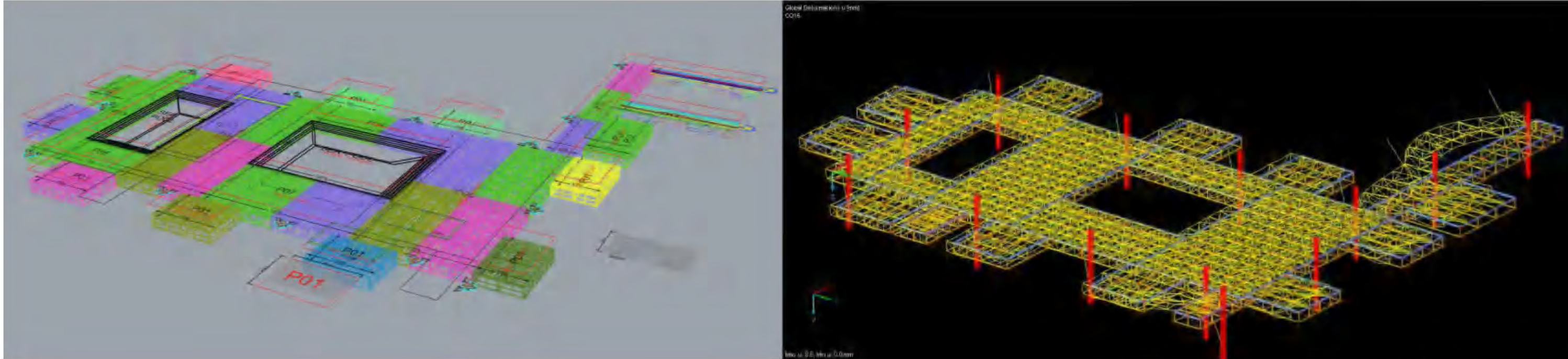
Sea Pool

Scope: Design, Manufacture and Build, Optimize structures using parametric software

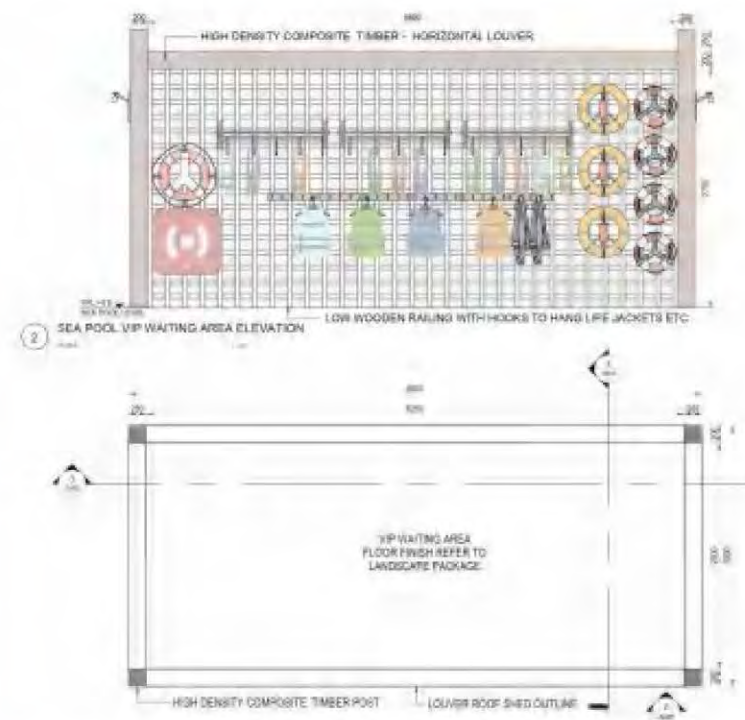
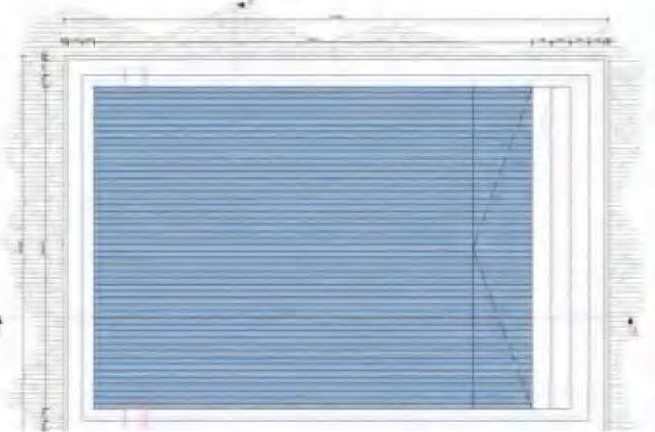
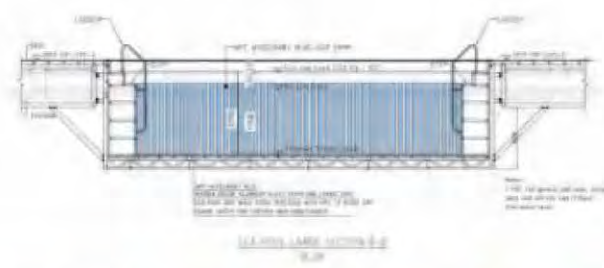
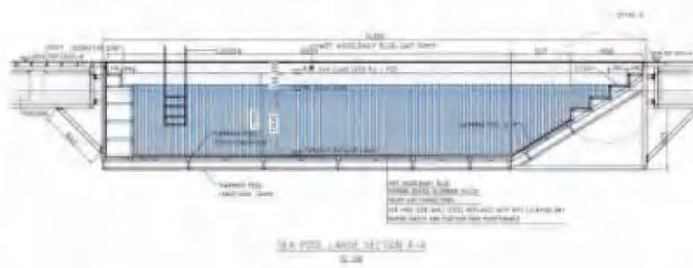
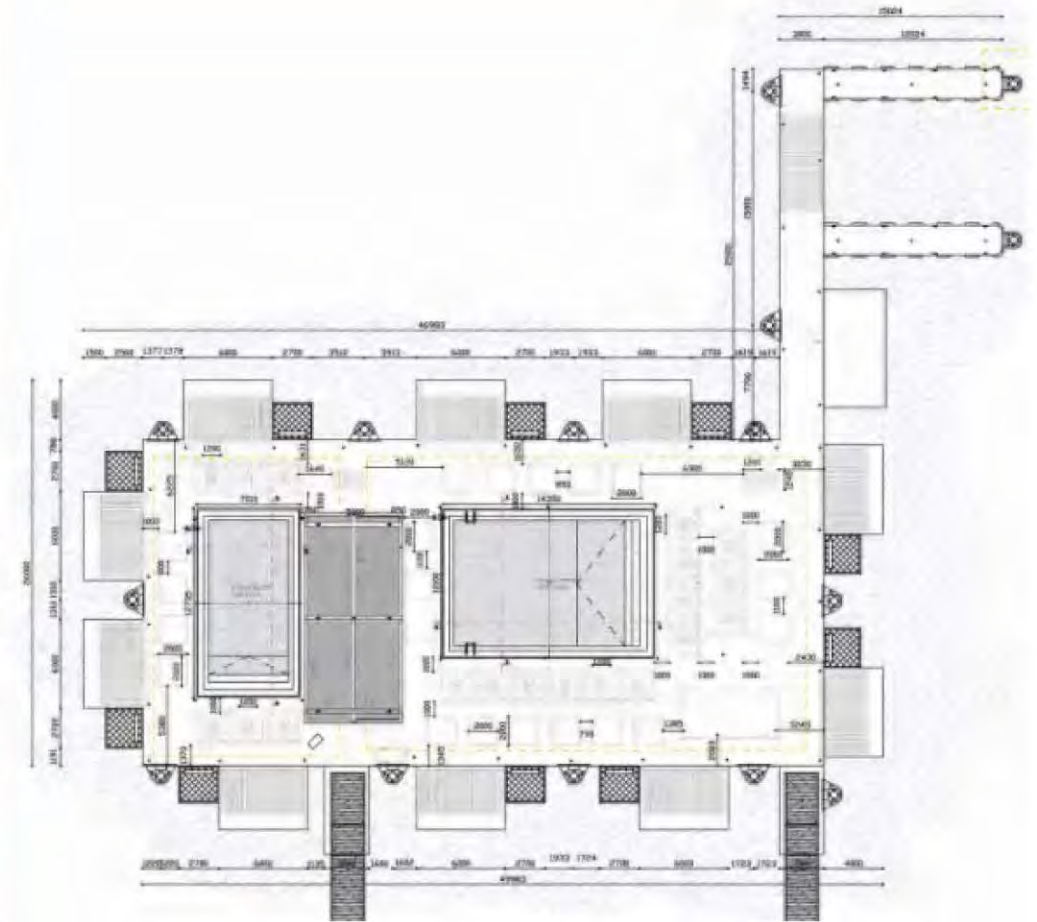
Location: Huizhou, China

Complete: 2023

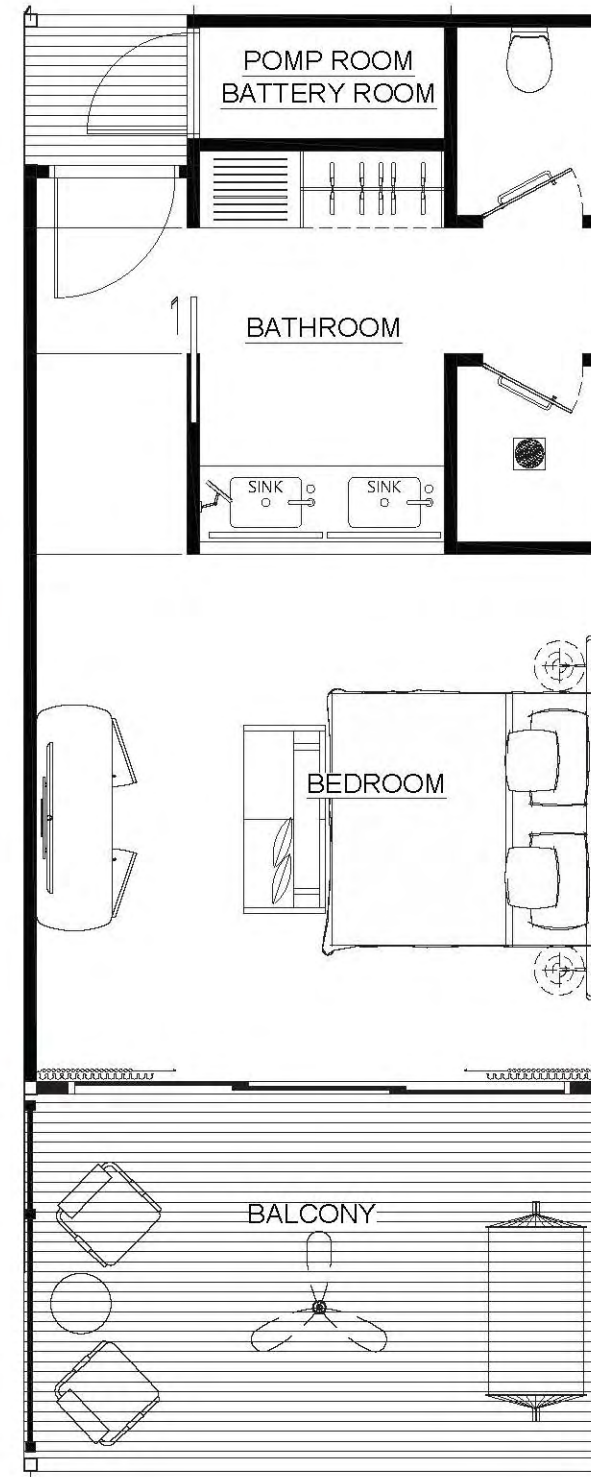
Clients: Qatar



Sea Pool

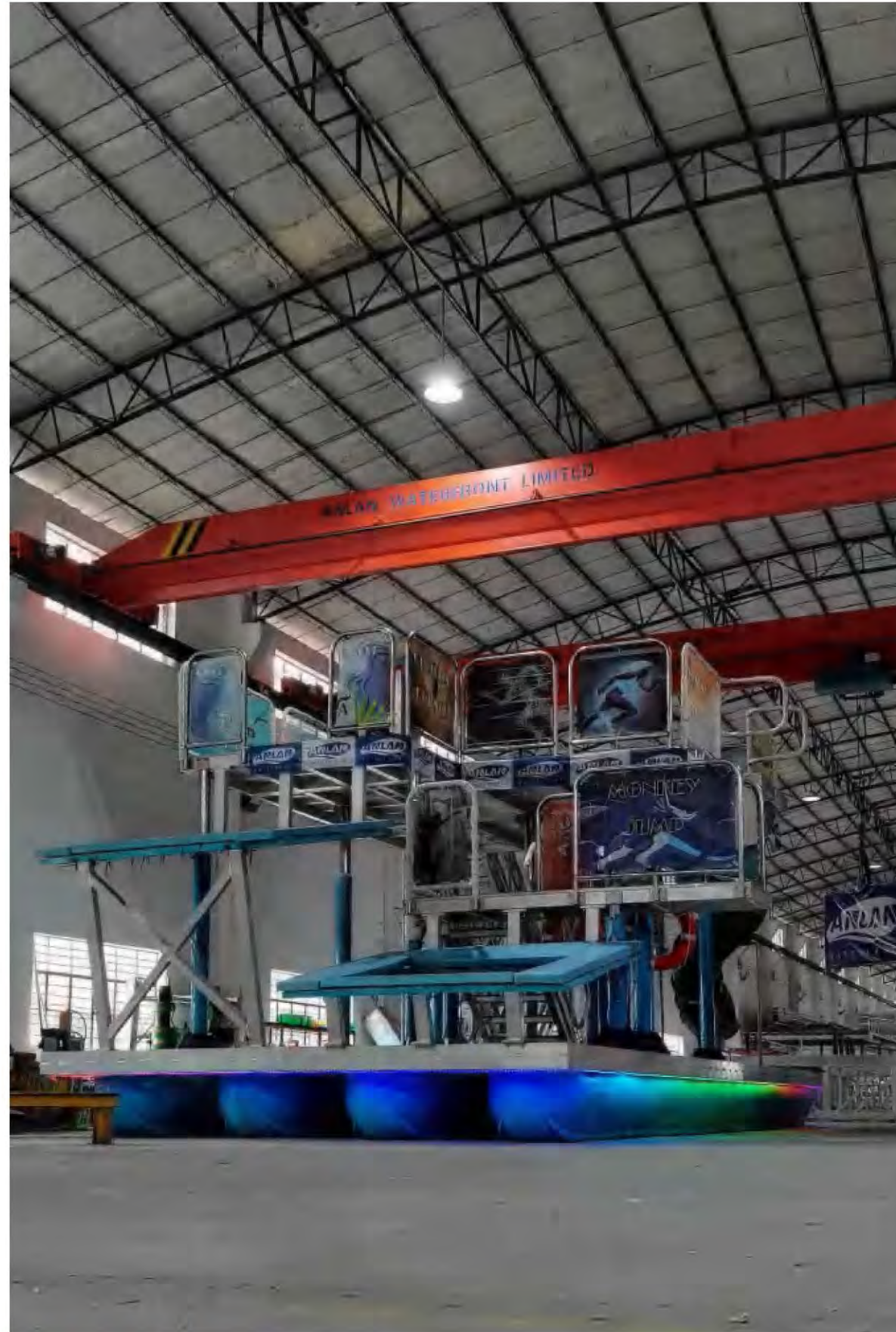


Fixed Boathouse in Marina, 25 units in Indonesia

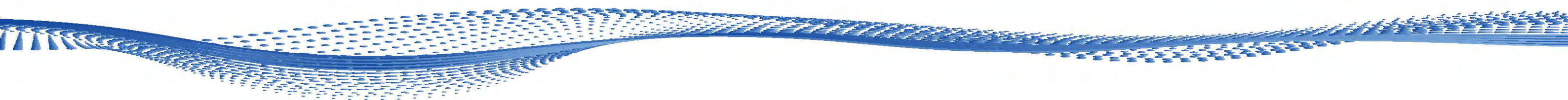
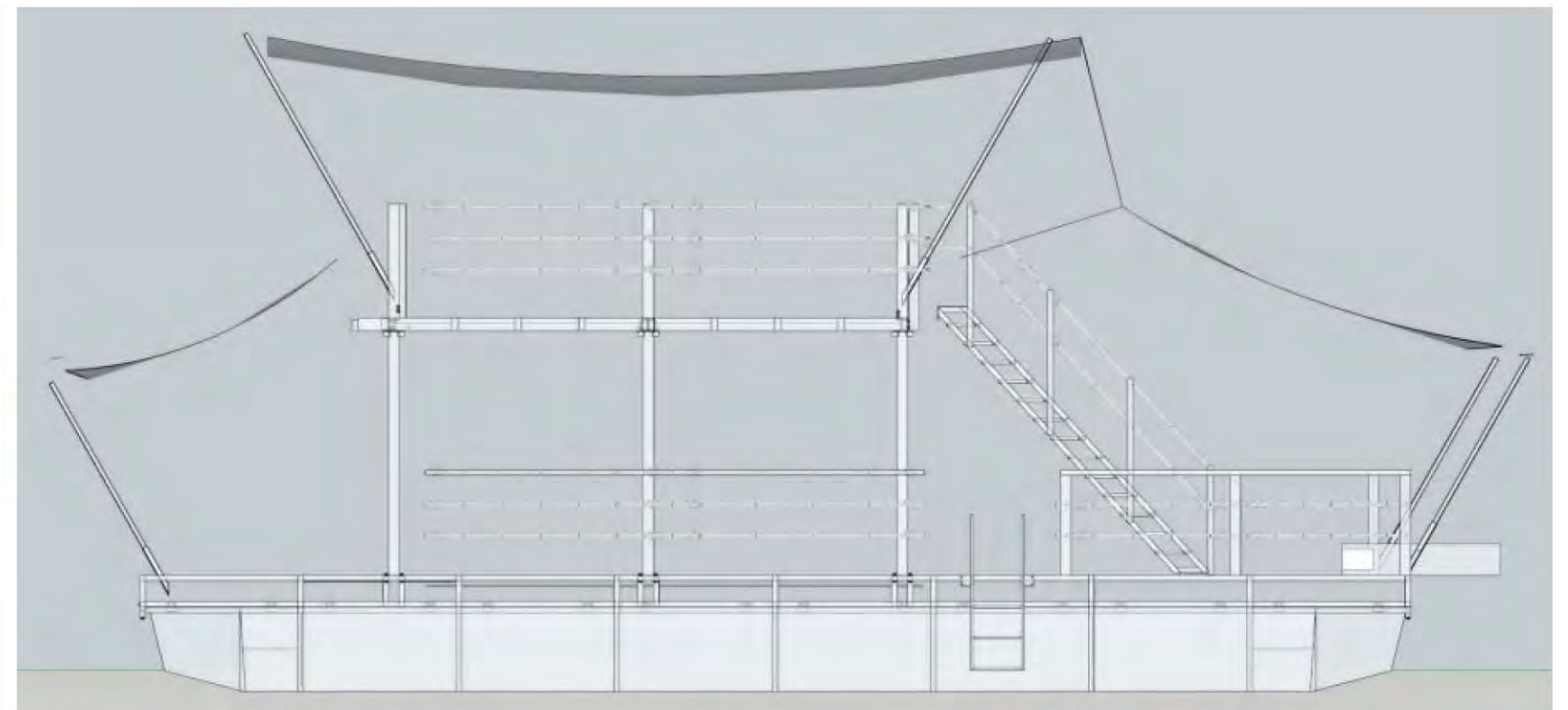
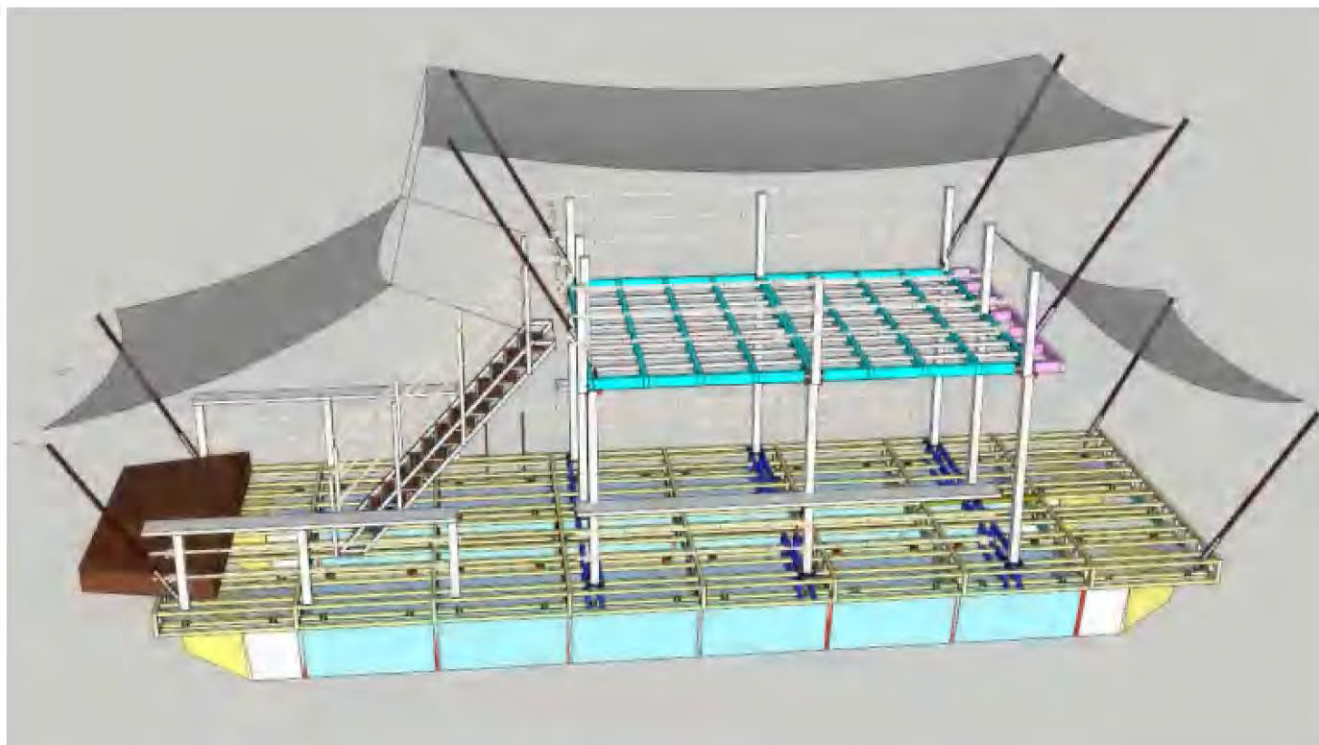
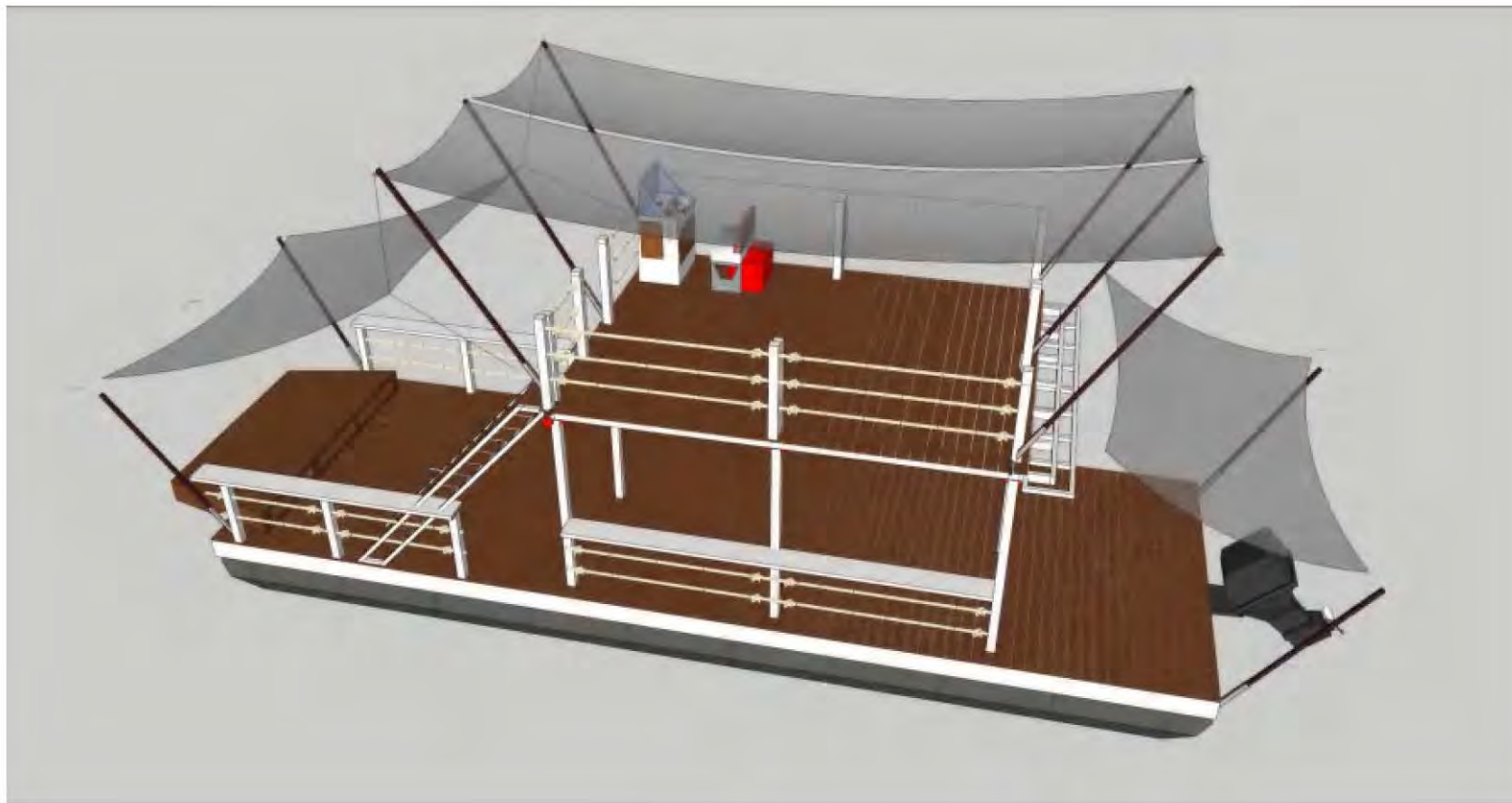


[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

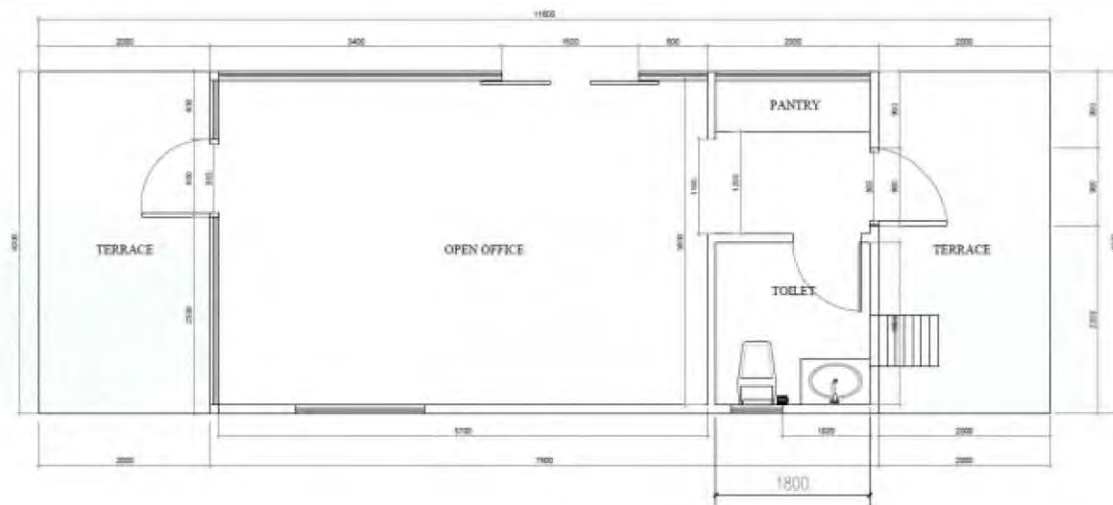
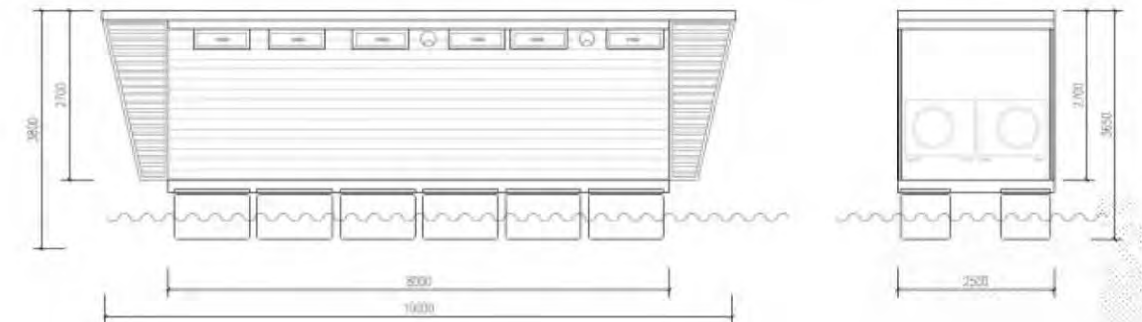
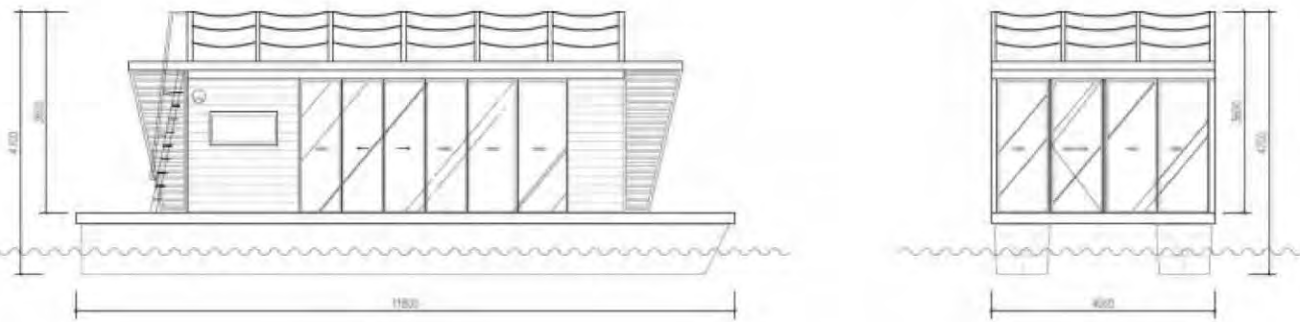
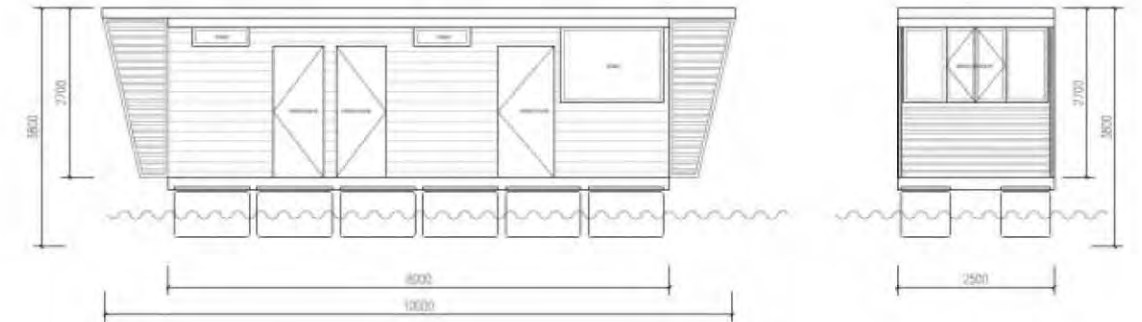
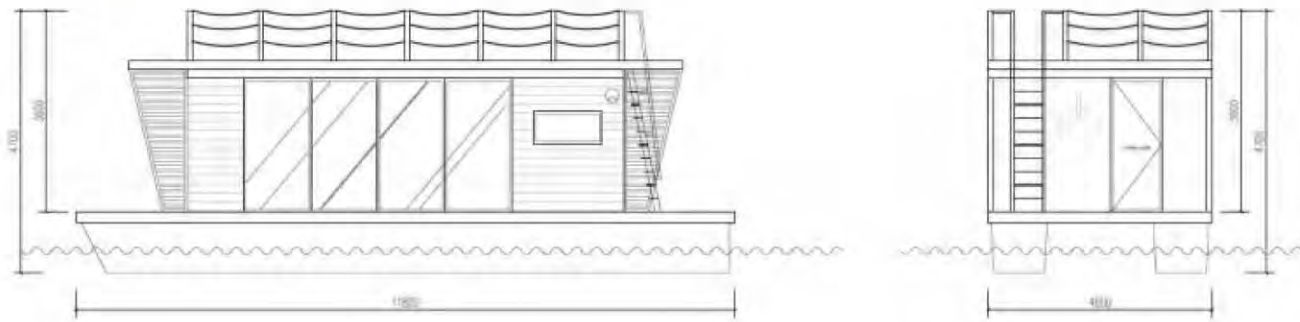
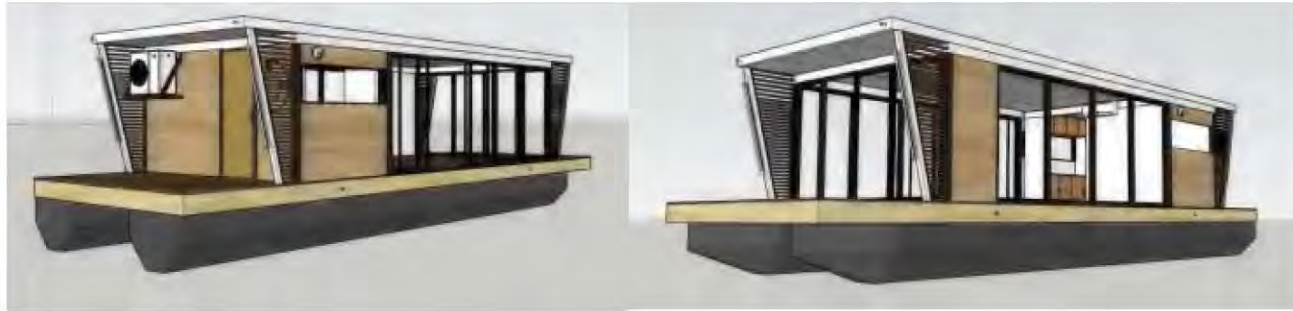
Jungle Boat Processing and assembly



BoatHouse for Abu Kuwait customers



BoatHouse for Abu Dhabi customers



OFFICE



SERVICE BLOCK

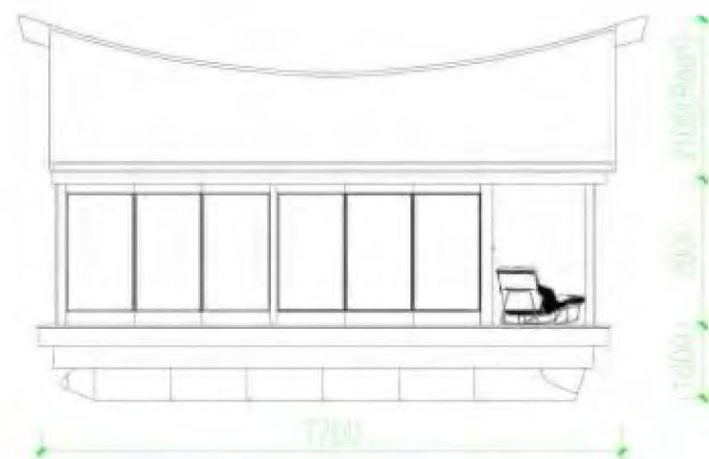
BoatHouse for Abu Dhabi customers



General Proposal



Front Elevation 1:100



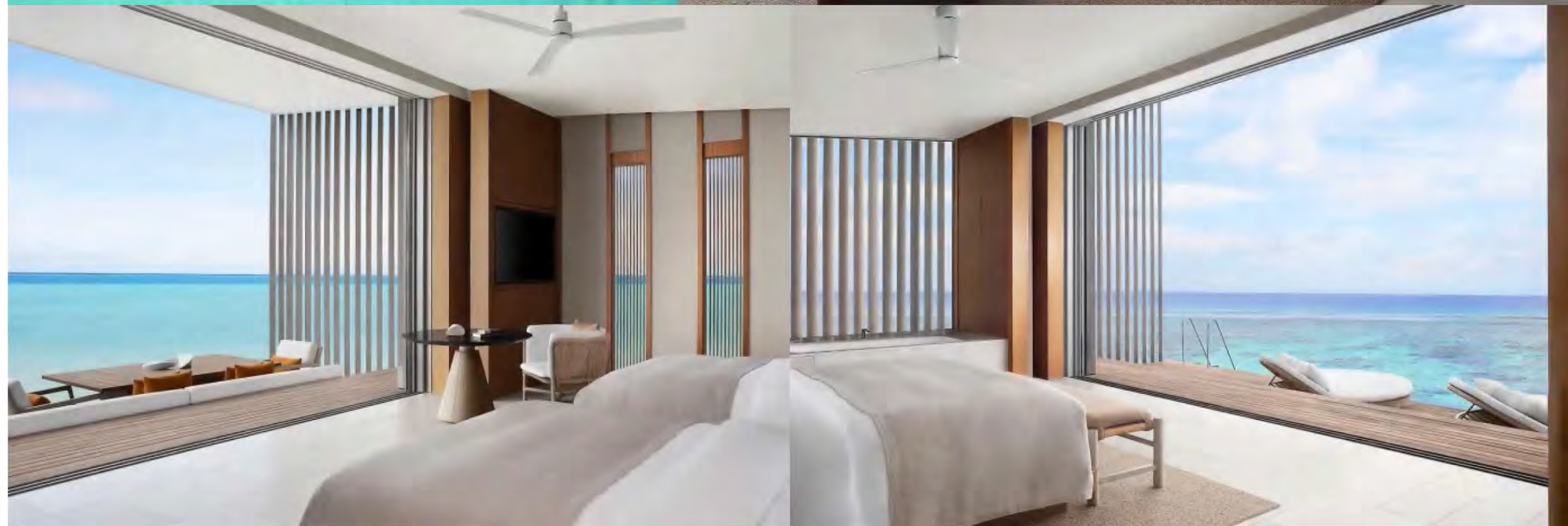
Right Elevation 1:100



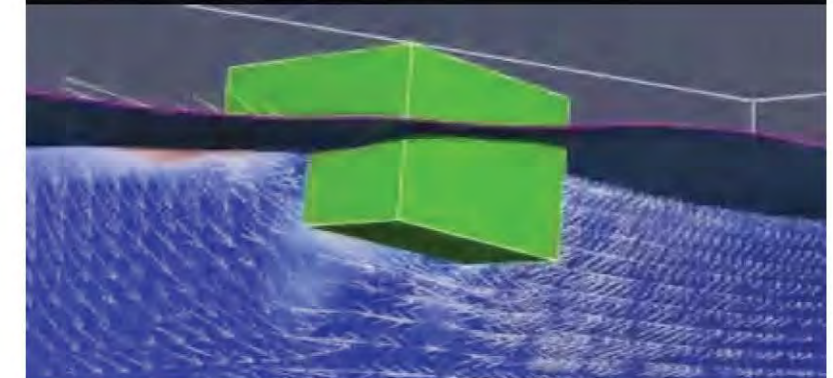
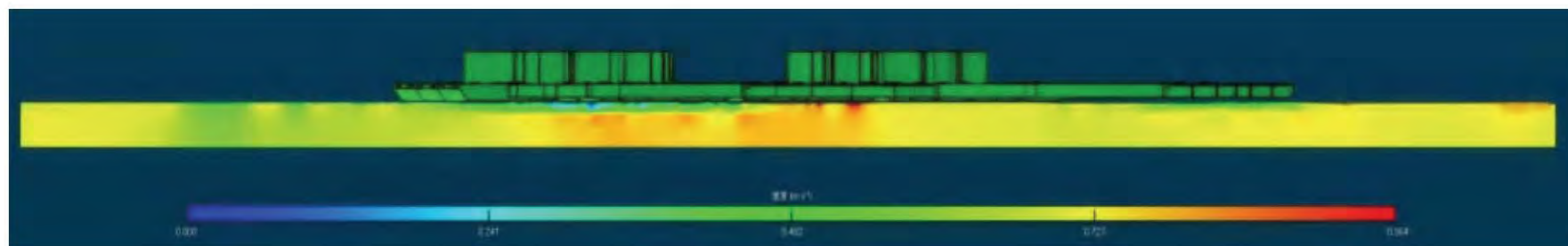
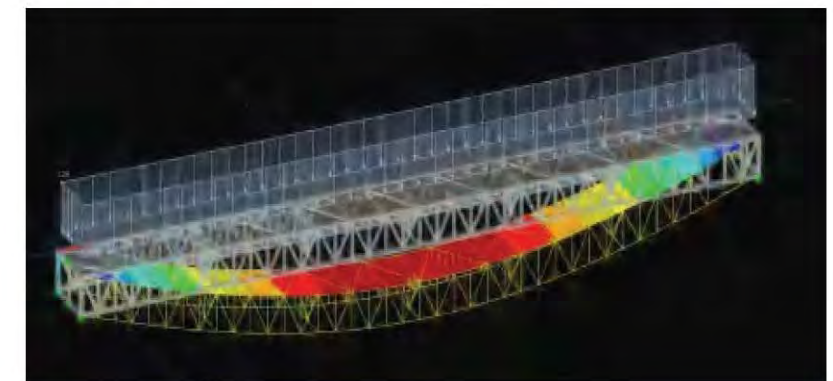
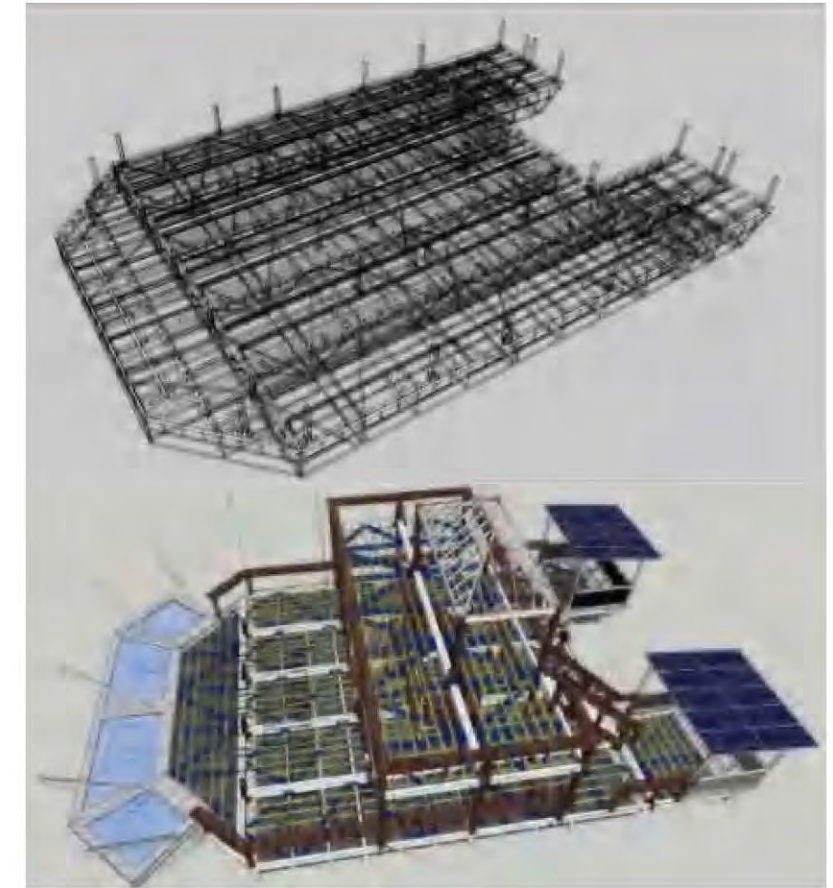
Left Elevation 1:100

Back Elevation 1:100

Villa for Abu Maldives customers

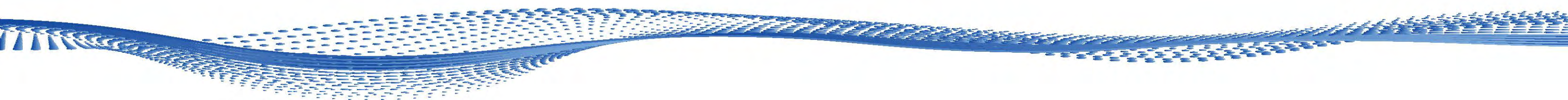


Cloud Fiji 9 for Bahamas Client

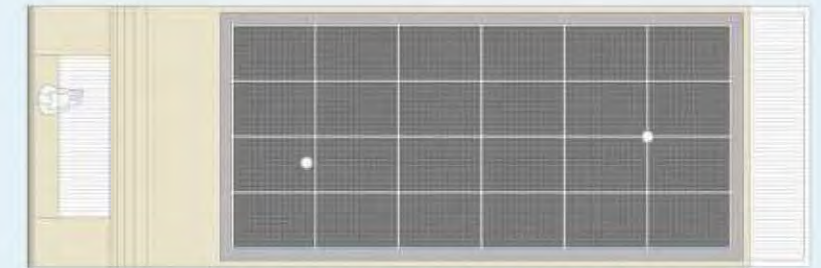


[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

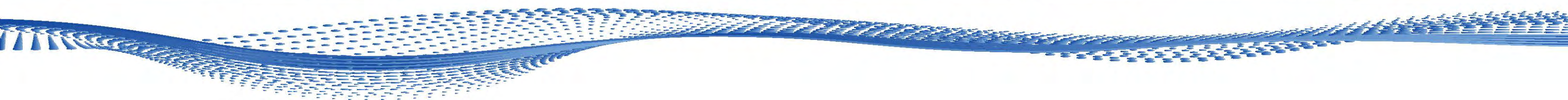
Cloud Fiji 9 Processing and assembly



Other Cases



Other Cases



Other Cases



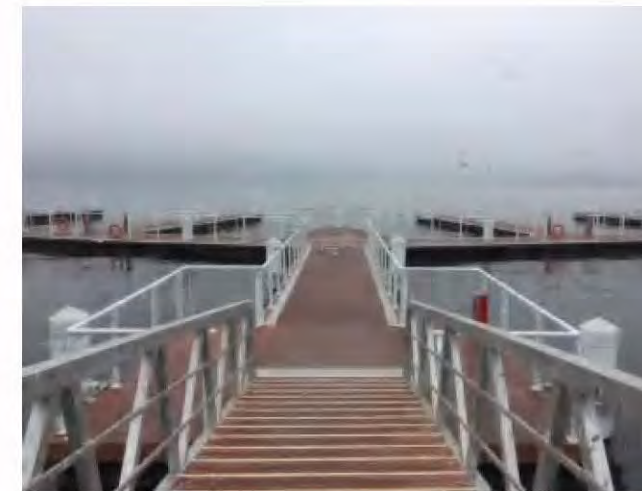
TAIGU MARINA, GUANGZHOU, CHINA
SCOPE: D-M-B YEAR: 2012



SPORTS KAYAK PONTOON, YUXI, CHINA
SCOPE: D-M-B YEAR: 2021

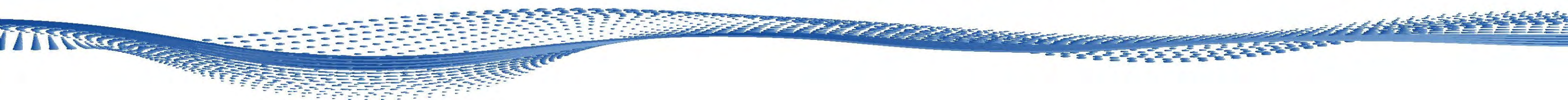


CRUISER MARINA, LANGCHONG, CHINA
SCOPE: D-M-B YEAR: 2016



DIANCHI MARINA, KUNMING, CHINA
SCOPE: D-M-B YEAR: 2018

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]



Other Cases



ALU LANDING PONTOON, KUNMING, CHINA
SCOPE: D-M-B YEAR: 2020



LIFT-TYPE ALU LANDING PONTOON, AL-KHOR, QATAR
SCOPE: D-M-B YEAR: 2019



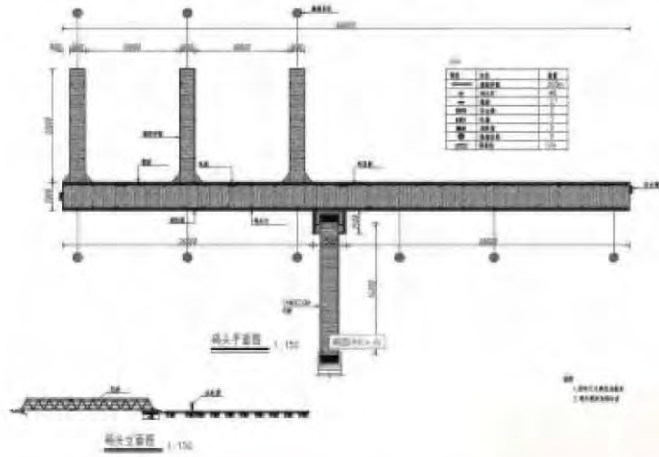
HIGH WATER LEVEL CHANGE LANDING PONTOON, LECHANG, CHINA
SCOPE: D-M-B YEAR: 2018



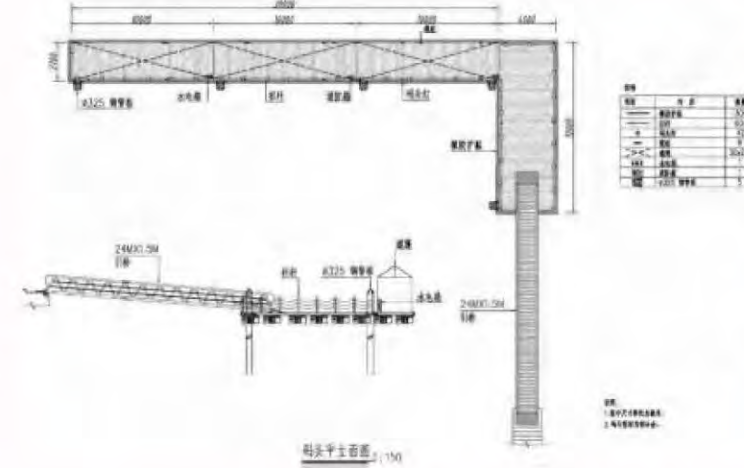
ALU MARINA GATE, DOHA, QATAR
SCOPE: D-M-B YEAR: 2019

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

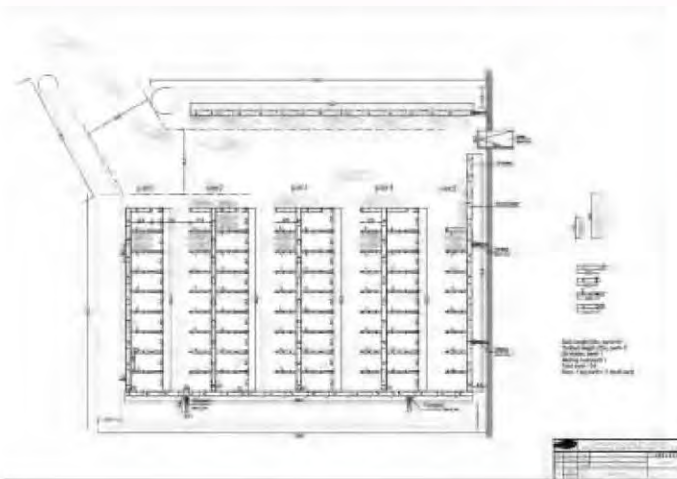
Other Cases



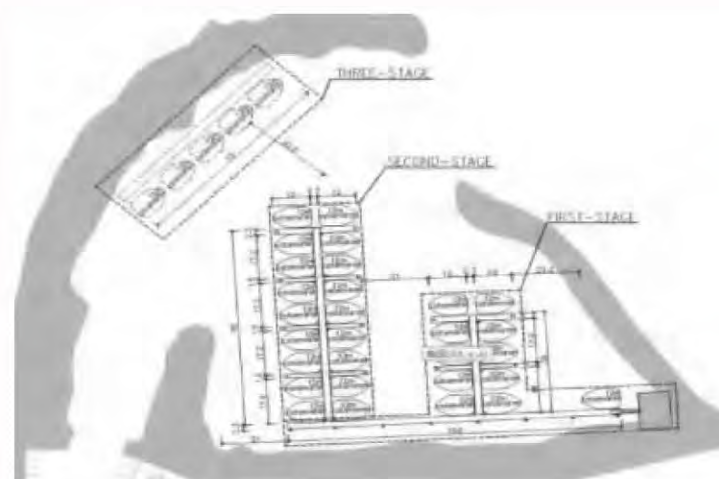
ALU MARINA, PORT SUDAN, SUDAN
SCOPE: D-M YEAR: 2017



ALU LANDING PONTOON, KATUMU, SUDAN
SCOPE: D-M YEAR: 2017



MARINA, QUITO, ECUADOR
SCOPE: DESIGN YEAR: 2016



MARINA, Walvis Bay Namibia,
SCOPE: DESIGN YEAR: 2016



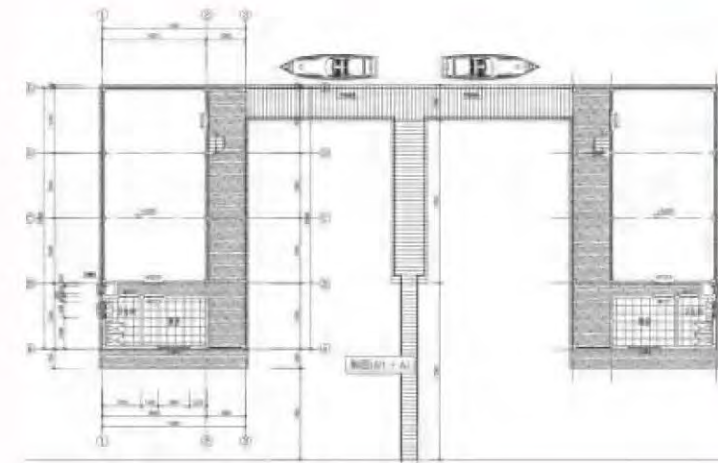
ALU MARINA, ZHUHAI, CHINA
SCOPE: D-M-B YEAR: 2016

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

Other Cases



ALU PONTOON, JIANGMEN, CHINA
SCOPE: D-M-B YEAR: 2020



FLOATING VILLA, KHATROUM, SUDAN
SCOPE: DEDIGN YEAR: 2017



FLOATING BRIDGE AND DOCKS, YANAN, CHINA
SCOPE: D-M-B YEAR: 2021



SEALINE RESTAURANT, QATAR
SCOPE: D-M-B YEAR: 2022



[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

Other Cases



WATERFRONT RESORT, AL-KHOR, QATAR
SCOPE: D-M-B YEAR: UNDERGOING



FLOATING ART PLATFORM, JIANGMEN, CHINA
SCOPE: D-M-B YEAR: 2022



FLOATING HOTEL, CHONGQING, CHINA
SCOPE: D-M-B YEAR: 2017



FLOATING VILLA, XIAMEN, CHINA
SCOPE: D-M-B YEAR: 2021

[Marina Facilities] [Dock & Boat lift] [Floating Bridge & Platform] [Boat House] [Waterfront Resort] [Water Villa]

