

# MARINE COASTAL and PORT ENGINEERING

Steel Pipe Pile  
Ø40" t=16mm

SECTION B-B  
Scale 1:100

SK-201  
KK-2  
100 +2.50  
600 1400 2000 +0.50  
Service Channel





# ENGINEERING and CONSULTING SERVICES

## ■ Investigation phase

- Geotechnical investigations
- Bathymetry and topography
- Hydrographic surveys
- Condition surveys

## ■ Feasibility phase

- Master planning
- Feasibility studies
- Site selection and layout studies
- Assessment of design data
- Cost estimation
- Environmental assessment

## ■ Design basis

- Numerical modeling
- Geotechnical design
- Civil design
- Structural design
- FEED and detailed design

## ■ Tender phase

- Development of tender design
- Tender documents
- Contract documents
- Site selection and layout studies
- Assessment of design data
- Cost estimation

## ■ Construction phase

- Site supervision
- Progress control
- Claim management



# ARTI PROJE : MARINE ENGINEERING and CONSULTING

Based on our high-grade competency within the field of marine structural engineering, we provide our clients with solutions which not only offer coherence across the entire project life-span, but which also add value for the investor and end-user.

Private sector investments account for 70 percent of our projects, ranging from power plants and underwater pipeline projects being carried out by international energy giants, to the development of marine terminals for multi-national companies active in industrial sectors.

On the tourism side, we are active in the development of marina and waterfront projects for private investors, in addition to the highly sought after beach and coast restoration of holiday resorts and venues, increasing the attractiveness and value of the facility itself. As ARTI Proje, we are also involved in large scale public sector projects, primarily through our collaboration with EPC contractors.

Celebrating a milestone 25th anniversary in 2020, we as ARTI Proje are equipped with a vast scope of experience, and have accordingly developed our own strong business culture of understanding, allowing us to predict and respond to investor needs and priorities in highly challenging engineering projects.

We are not only committed to delivering quality results for client needs, but to taking this to the next level and challenging sector boundaries to set new benchmarks through the development of unique engineering solutions and design. Based on this approach, ARTI Proje is today recognized as a reliable and technically sound solution provider with high-quality standards, making our Company a preferred business partner in its field.

Our clientele also includes another very special group in the global sector; international consulting companies. We provide services to these primarily European groups, either as a sub-consultant or project partner, by sharing our design and construction experience within our region covering Turkey, Cyprus, the Middle East, Eastern Europe, North Africa, the Russian Black Sea coast and the Caspian Sea.



# MARINAS and SMALL CRAFT HARBOURS

The planning, development and design of marinas and small craft harbours are one of the strongest areas of expertise at ARTI Proje. For marina investors, we provide services starting from initial site surveys to preliminary and detailed design, tender documentation and operational assistance.

In marina development projects, we carry out;

- feasibility studies, financial evaluation and boat-mix studies
- layout planning, field surveys, numerical modelling specifically for wave disturbance
- design of the entire range of quay walls and piers, including blockwork concrete, pipe piled, sheetpile or caisson types
- design of breakwater - rock or concrete armored
- design of pontoons, walkways, slipways, travel lift piers, technical areas, maintenance yards and all relevant mechanical and electrical utilities.

Our marina planning team is experienced in the development of marinas and berthing areas for mega and super-yachts, both of which have extremely demanding requirements compared to conventional marinas.





## WATERFRONT DEVELOPMENTS

Our waterfront project experience includes the development of municipal coasts as well as the design of edge structures and reclamation in privately invested projects such as resorts, holiday villages and similar. In such projects, we effectively work with master planners and architects to develop the best structural designs that fit with the aesthetics and recreational use purposes of the area.

In designing lagoons and residential canal systems, we employ numerical models to assess the environmental conditions and address water quality issues.

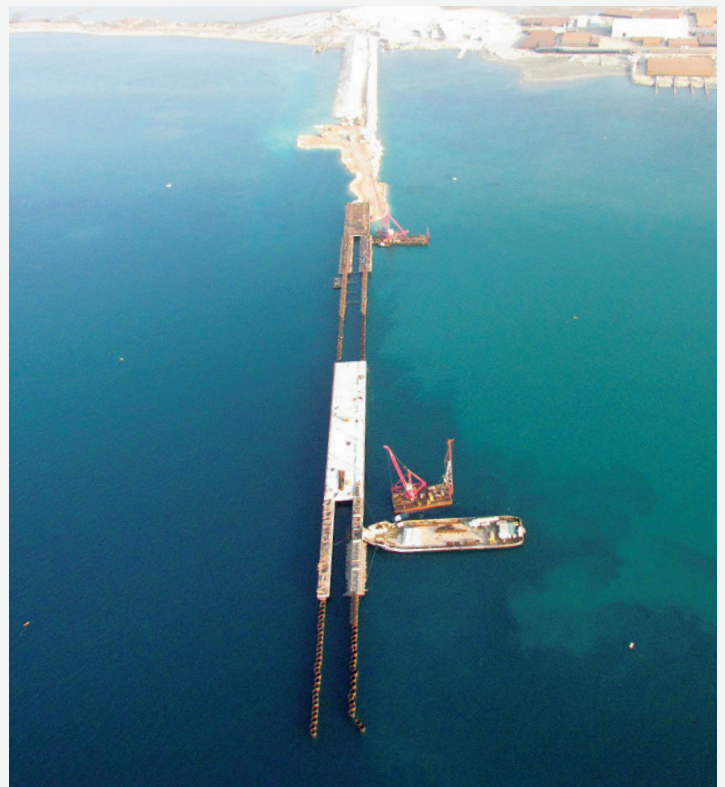
We provide engineering services in reclamation projects where ground improvement and serviceability level structure performance issues are major concerns. Our experience further extends into artificially nourished beaches and coasts.



## MARINE TERMINALS

ARTI Proje offers expert structural design services relating to oil, gas and bulk cargo marine terminals. This includes layout planning of berthing and loading facilities, piled jetties and wharves, access trestle, pipe racks and more.

Our broad experience in designing high risk marine structures in severe seismic zones distinguishes our engineering team in performance based design in accordance with latest international codes including BS, Eurocode and ASCE.





## NUMERICAL MODELLING

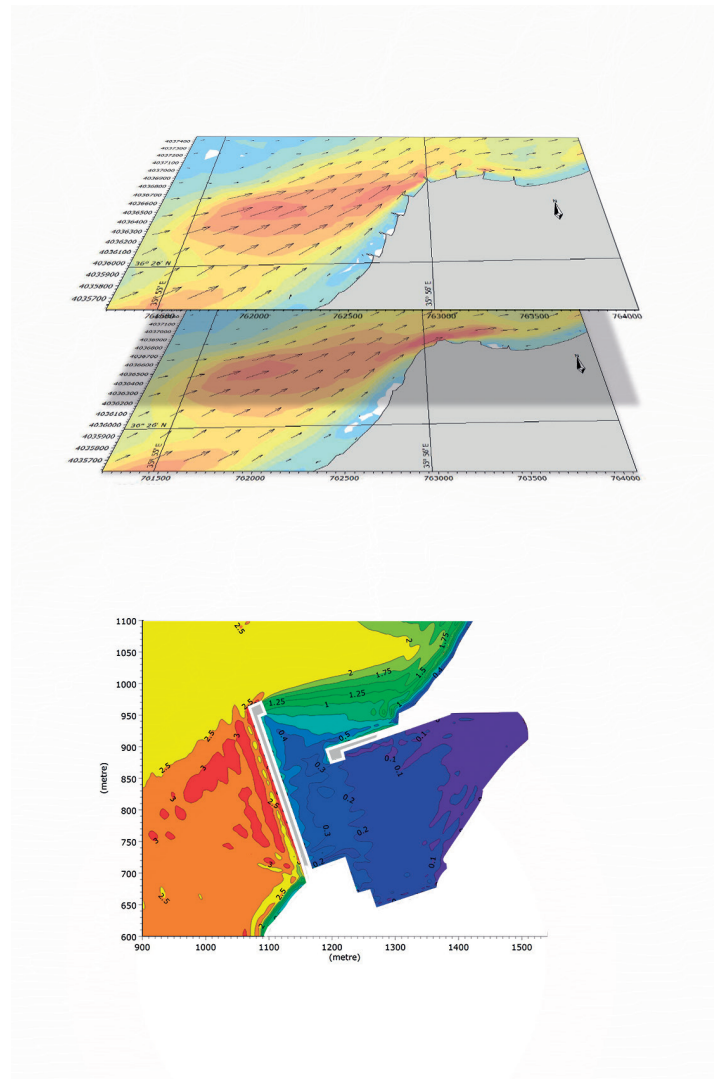
Our expert modelling team uses numerical models to simulate various aspects of coastal environment.

We often carry out wave modelling in;

- selecting design waves for marine structures,
- hydrodynamic modelling of currents,
- sand transport modelling to evaluate coastline change and beach reclamation analysis,
- wave disturbance modelling in harbors and marinas,
- thermal dispersion modelling in outfall systems.

We use our models in simulating offshore wave conditions to determine the regional wave climate as well as at nearshore areas to determine the wave impact on the coastal structures. Our main marine engineering modelling software is MIKE21 developed by DHI Water and Environment.

In addition to modelling of water environment, we use numerical models (such as PLAXIS, LPILE, APILE, GEO5 and SAP2000) in geotechnical and structural engineering studies.



## WATER INTAKES and OUTFALLS

ARTI Proje's engineering team specialises in the design of underwater pipelines. We provide expert engineering services for both municipal and industrial marine discharges, including on-bottom stability of pipelines, re-circulation studies, intake and outfall structures design and pipe hydraulics. We have completed various projects with HDPE and GRP pipes with diameters up to 3.5 meters.





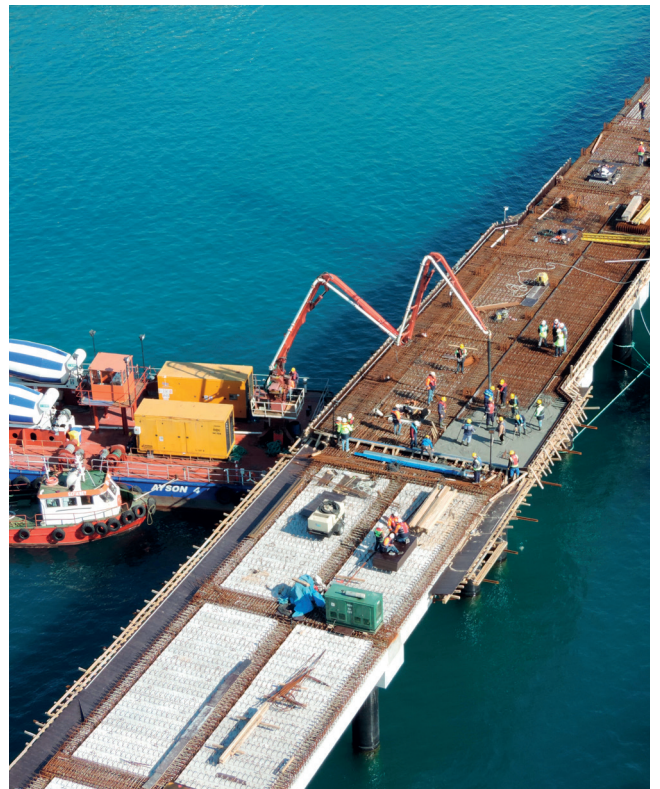


## PORTS and HARBOURS

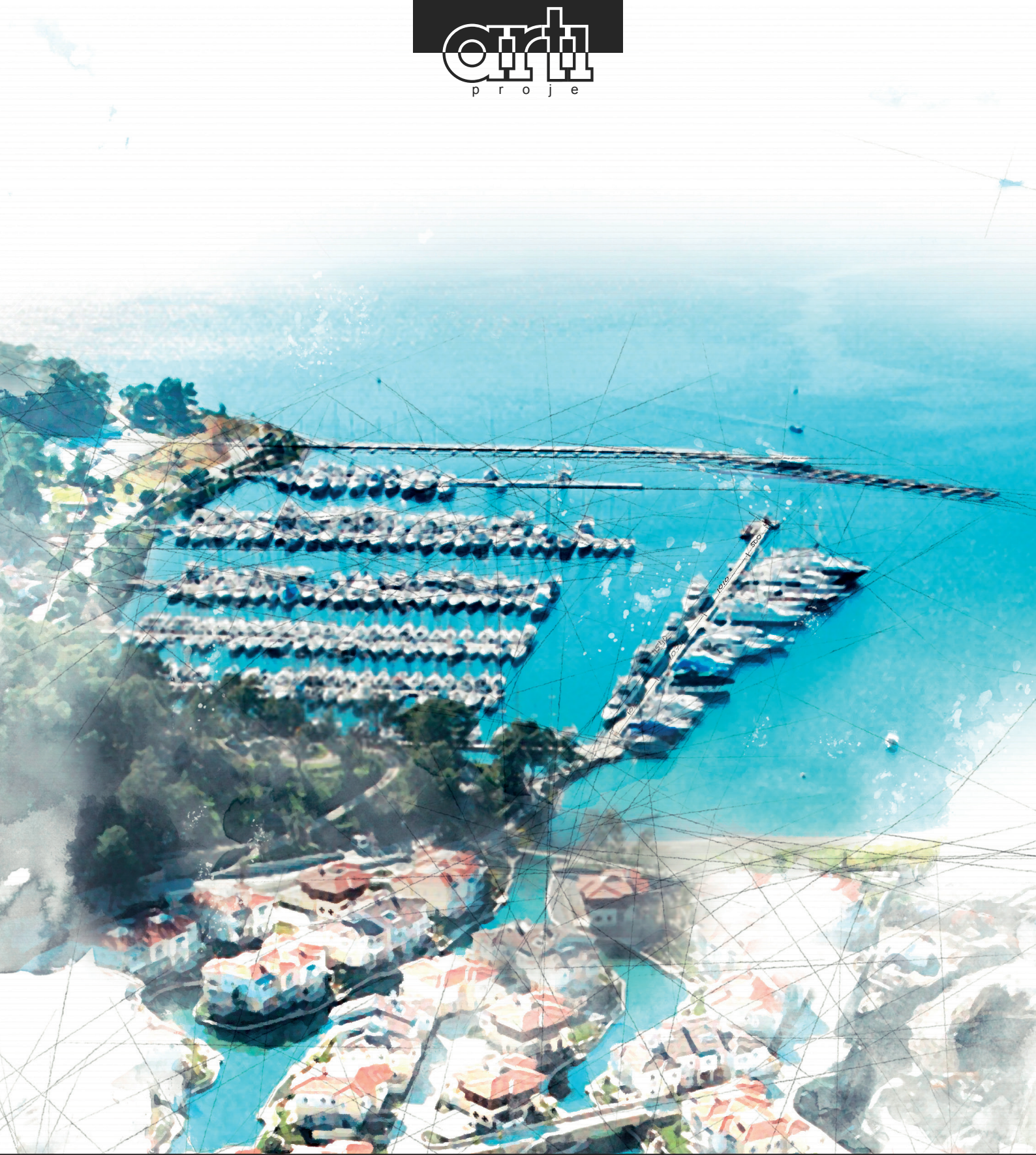
In the ports and harbours sector, we provide design services for all sorts of berthing structures. We have completed numerous port projects including container, bulk, liquid, ferry and cruise terminal. In most of these projects we have worked with port owners and operators as well as EPC contractors.

Our engineering team is experienced in the design of a wide range of port structures such as piled relieving platforms, sheetpile or combi-walls, blockwork quaywalls. We carry out detailed analysis of seismic behaviour of the structures to determine performance levels under serviceability and ultimate load conditions.

Breakwaters are normally the most critical structure of harbours planned in wave exposed areas. In addition to their overall construction costs, the availability of materials and constructability are always the biggest concerns in management of such projects. ARTI Proje has completed several breakwater projects with rock, tetrapods, accropodes and xblock armour layer units. In addition to these rock core breakwaters, we have also carried out many designs with caisson type breakwaters. We collaborate with international laboratories to conduct physical model tests whenever required for verification of the design.







## ISTANBUL

Altunizade Mah. Ord. Prof. Dr.  
Fahrettin Kerim Gökay  
Caddesi. Denizcilik İş Merkezi,  
2B Blok No:18 Kat:3 34662  
Üsküdar, İstanbul

## LONDON

Branch Office

## DUBAI

2109 Smart Heights,  
Barsha Heights, Dubai, UAE



f t in /artiproje

[www.artiproje.com](http://www.artiproje.com)