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# SUMMARY OF PROJECT DOCUMENTATION

Project No:

05-07-2022

PUB. INST. AUTHORITY OF OSIJEK Investor: OIB: (78159614650) Šetalište kardinala F. Šepera 6, 31 000 Osijek PONTOON TERMINAL ON THE DRAVA RIVER IN BELIŠĆE Construction name:

Planner:

Dani Smojver, mag.ing.aedif.

Date of production:

July 2022



Prekogranična regija- gdje rijeke spajaju, a ne razdvajaju



### 1. Introduction

By the request of the client, the Public Institution Port Authority of Osijek, a project for anchoring a pontoon passenger terminal on the Drava River in the Bistrinci area was generated (as a part of the development of the Drava Bistrinci rest area).

This anchor system project is created within the project <u>VICINaD and Interreg V-A Cooperation Program</u> between Hungary and Croatia 2014 - 2020.

The exact location of the intervention in the area is the right bank of the Drava River at rkm 56+520 in the Bistrinci area (city of Belišće). The size of the scope of the intervention is  $2020 \text{ m}^2$ .

The terminal is designed in such a way so as to enable a simple and secure mooring and the boarding and departure of passengers or tourist boats, as well as the mooring of a smaller number of boats. The terminal will also allow the mooring of the other vessels, such as official vessels of the Republic of Croatia, official vessels of the City, Municipality and/or County.

Considering the configuration of the coast and the Drava River, and taking into account the dimensions of the vessel, the maximum number of berths for boats / vessels is foreseen in the following way:

- minimum 1 vessel for tourist-excursion purposes up to 20.0 m long,
- minimum 2 vessels of category IV (length 8,0 m 10,0 m),
- minimum 3 vessels of category II (length 5,0 m 6,0 m).

#### 2. <u>Technical description</u>

#### Pontoon terminal

Longitudinal pontoons will be situated along the right bank of the Drava River with transverse smaller pontoons (fingers) on the right side of the longitudinal pontoons (seen from the shore) which will form moorings for boats. Smaller pontoons (fingers) will form a 90° angle with the main longitudinal pontoons. Dock anchoring is done with steel pillars. Installation is planned as following:

- 4 pontoons for mooring ships
- 2 fingers
- dams to prevent debris collection
- 1 access bridge

Pontoon terminal will contain 4 (A,B,C,D) pontoons for mooring ships. Pontoons are floating and derived from continuous pontoons.

#### Main features of the pontoons:

- Pontoon "A" for the mooring of vessels contains two parts. Part "A1" with rectangular ground plan dimensions approx. 12.00 m x 3.00 m which is placed perpendicular to the existing shore, which will in addition to its primary tasks, also serve for the mooring of the finger (dimensions approx. 6.00 m x 0.75 m) and ensure communication between the terminal and the shore using the access bridge. Part "A2" is shaped like a right triangle with dimensions of approx. 12.00 m x 6.30 m and is placed next to the "A1" part, and in addition to its primary tasks, it will serve as a warehouse and space on the pontoon for passengers and luggage reception,
- Pontoon "B" for the mooring of vessels with ground plan dimensions of approx. 12.00 m x 2.50 m is situated in parallel to the existing shore and serves as a finger,
- Pontoon "C" for the mooring of vessels with ground plan dimensions of 11.80 m x 2.70 m, is placed at an angle of 62 ° in relation to pontoon "A", and is situated between pontoons "A", "B" and "D".
- Pontoon "D" for the mooring of vessels with ground plan dimensions of 19.70 m x 2.50 m is placed in parallel to the existing shore and will be used for the mooring of passenger vessels.

The chosen width of the terminal, i.e., the longitudinal pontoons, is 2.7 m. The height of the pontoon overhang is approx. 0.5 m above the calm level. Fingers must be at least 0.70 m wide and at least 6.0 m long.

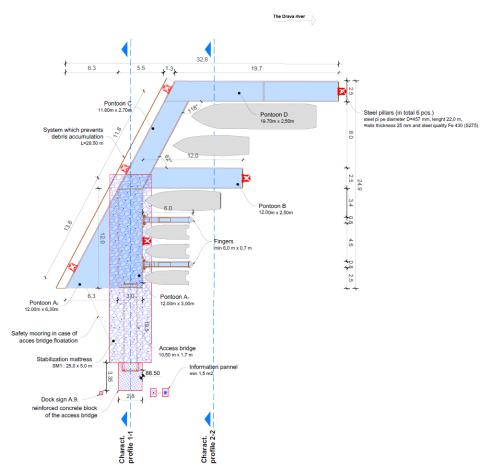


Image 1. Ground plan of the Belišće passenger terminal

The floating dock anchoring system contains a series of steel columns nailed into the ground (6 pieces in total) with characteristics D=457mm t=25mm, L=22m. The aim of the system is to fix the dock horizontally and at the same time enable vertical movements of the pontoon during water level oscillations. The docks are attached to the pillars with a sliding connection via clamp, and they will be able to move only in the vertical direction along the pillars.

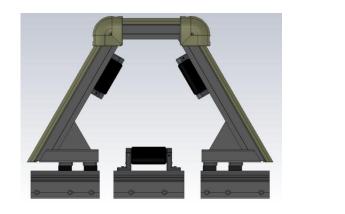




Image 2. Fixing the pontoon terminal with steel piles

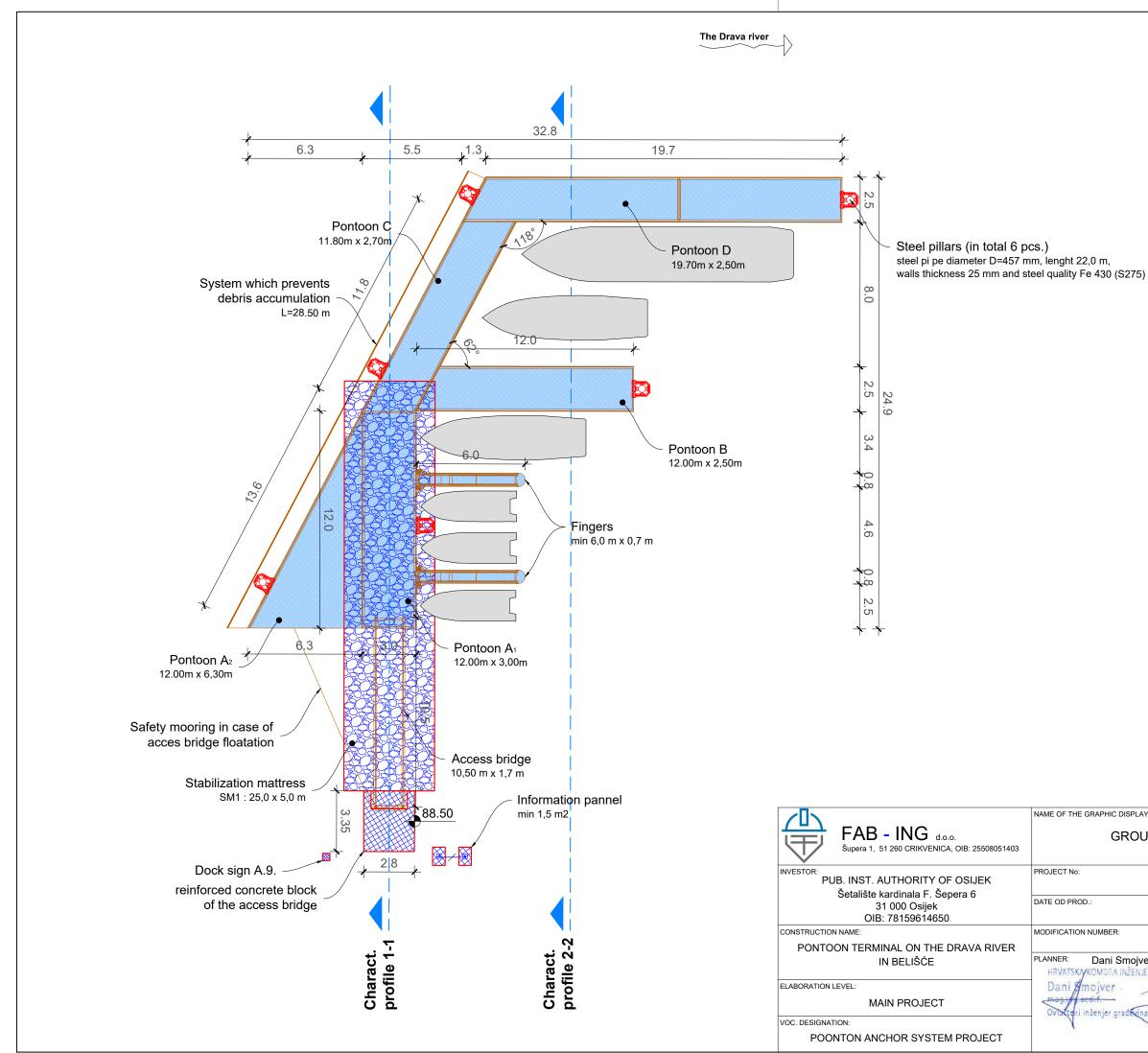
### PILES FOUNDATION

Foundation of steel piles (quality of steel is Fe 430 (S275)) for pontoon anchoring (characteristics D=457mm t=25mm, L=22m) for fixing docks is conducted by nailing them into the Drava riverbed up to an elevation of approx. 69.35 mn.m.

Allowed deviation from the ideal position after installation is +/- 2.0 cm, and the deviation from the vertical is max. 2%.



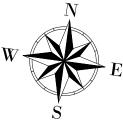
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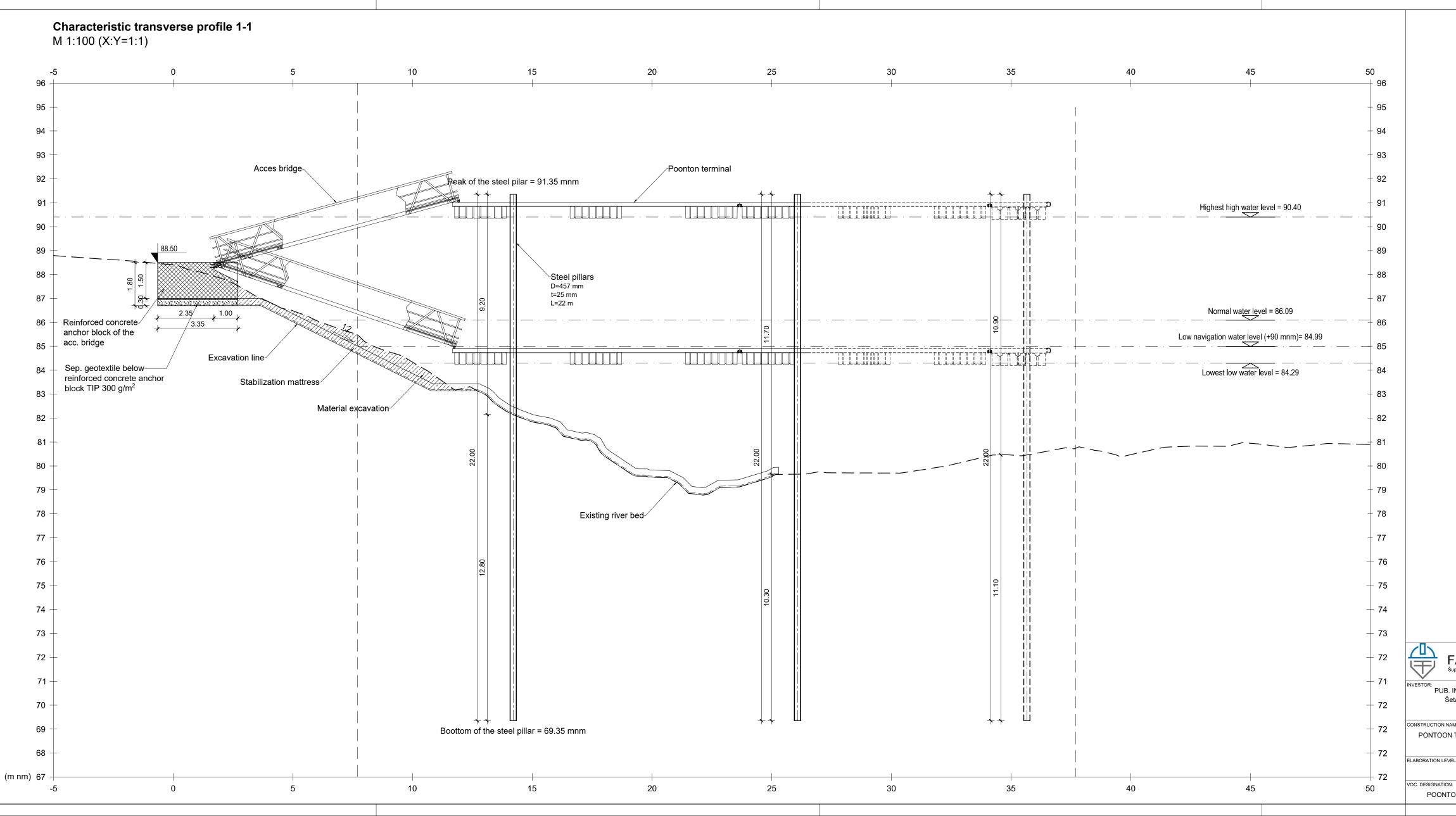


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## GROUND PLAN OF TOURIST TERMINAL

NAME OF THE GRAPHIC DISPLAY:





FAB - ING d.o.o. Jupera 1, 51 260 CRIKVENICA, OIB: 25508051403	CHARACTERISTIC TRANSVERSE PROFILE 1 - 1				
INST. AUTHORITY OF OSIJEK etalište kardinala F. Šepera 6	PROJECT No: 05-07-2022	<sup>ZOP:</sup> F_05_2022			
31 000 Osijek OIB: 78159614650	DATE OD PROD.: July 2022.	MEASURE: 1:100			
AME: I TERMINAL ON THE DRAVA RIVER IN BELIŠĆE	MODIFICATION NUMBER: 0	SHEETS: 3.			
	PLANNER: Dani Smojver, mag.ing.aedif. HRVATSKA/KOMORA INŽENJERA GRAĐEMNARSTVA	ASSOCIATE: Katarina Smojver, mag.ing.aedif.			
EL: MAIN PROJECT	Dani mojver magin aedir. Ovistovi inženjer gradovinarstva				
IE ON ANCHOR SYSTEM PROJECT	G 6053				

NAME OF THE GRAPHIC DISPLAY: