

ODTÜ KIBRIS'LA BİLİM EĞLENCELİDİR.

DESIGN OPTIMISATION OF AN MOORING FACILITY FOR FLOATING STORAGE REGASIFICATION UNIT.

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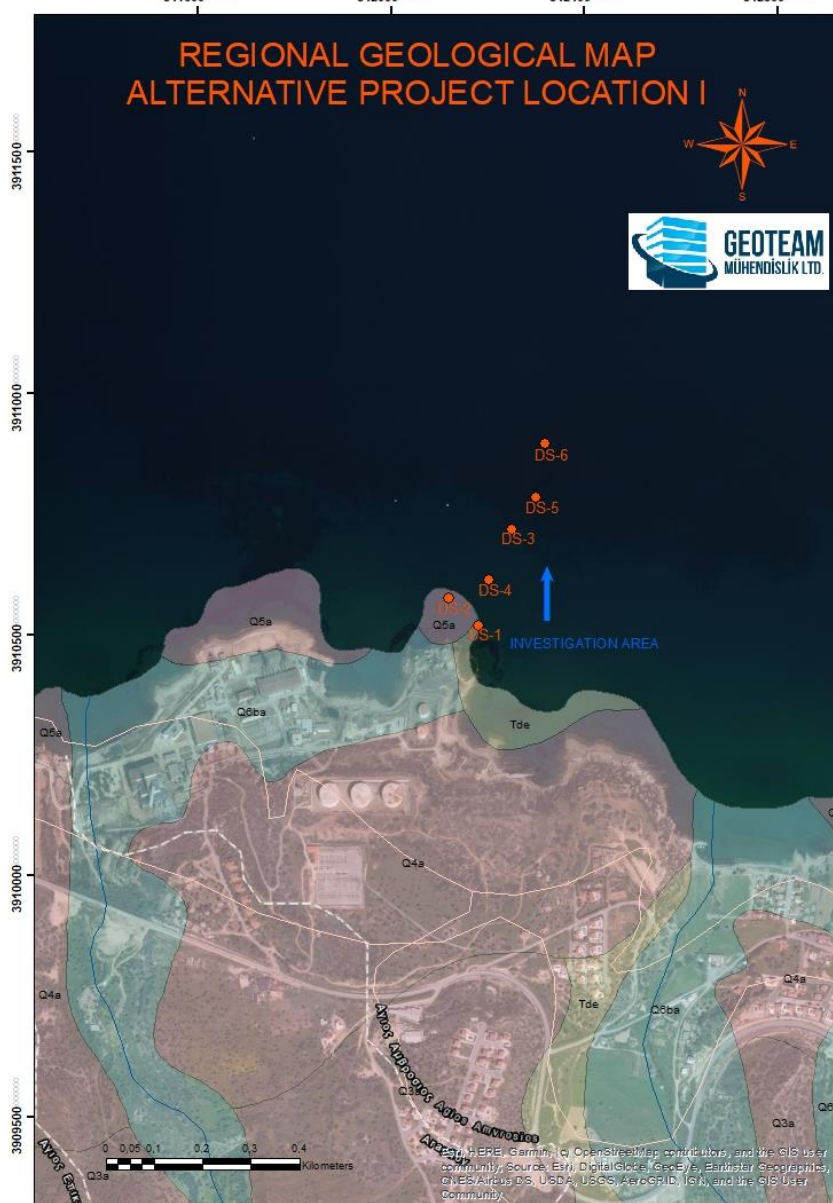
Introduction and Statement of the Problem

Natural gas is an important source of energy in the United States. Many cities and industries that require such energy, however, are located far from gas fields. This has resulted in a number of novel gas import alternatives, with offshore terminals, particularly Floating Storage and Regasification Units (FSRUs), being able to provide a solution capable of meeting the demands of both gas companies and local people. In this report, under the scope of the civil engineering design course (CVE 410), possible design solutions and explanations of the reasoning behind constructing a mooring system for FSRUs in Northern Cyprus will be discussed, which was supervised by Asst. Prof. Dr. Abdullah Ekinci.

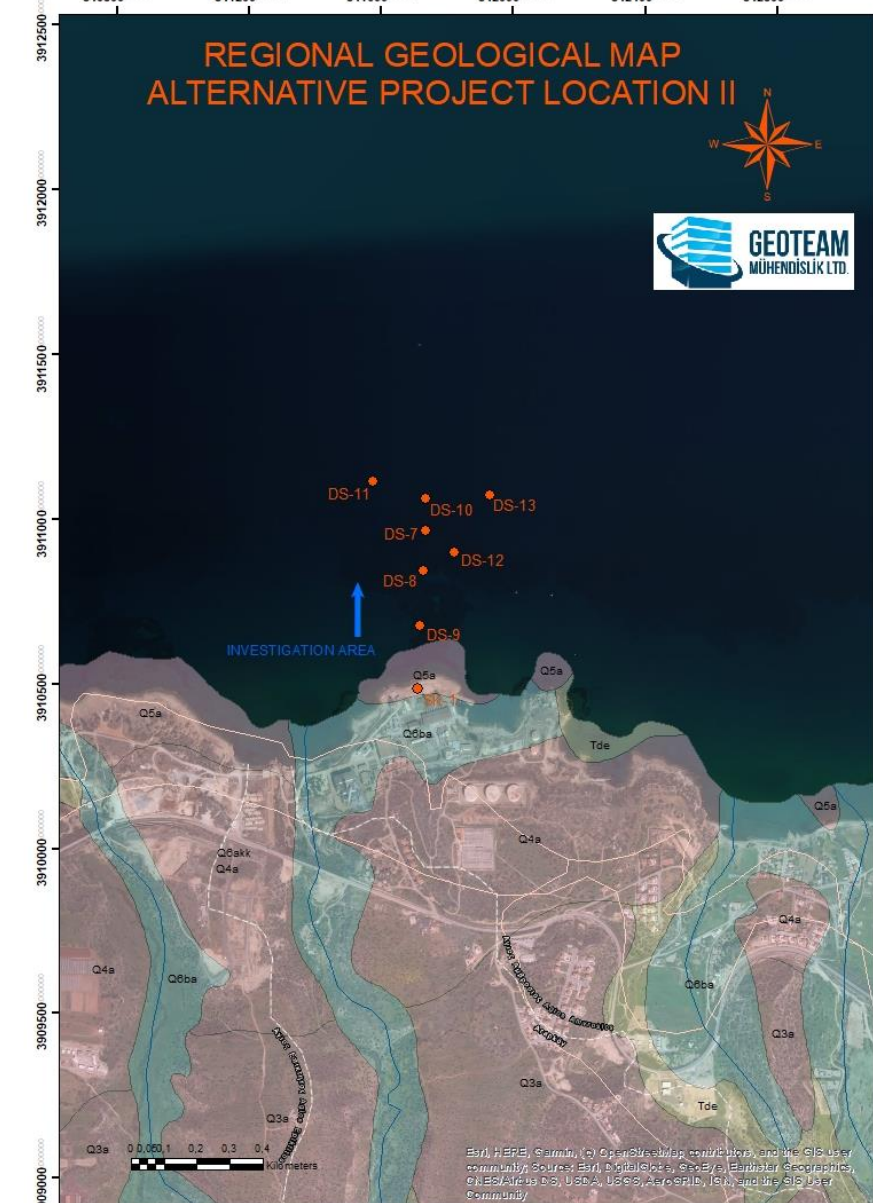
Site Investigation & Desk Study



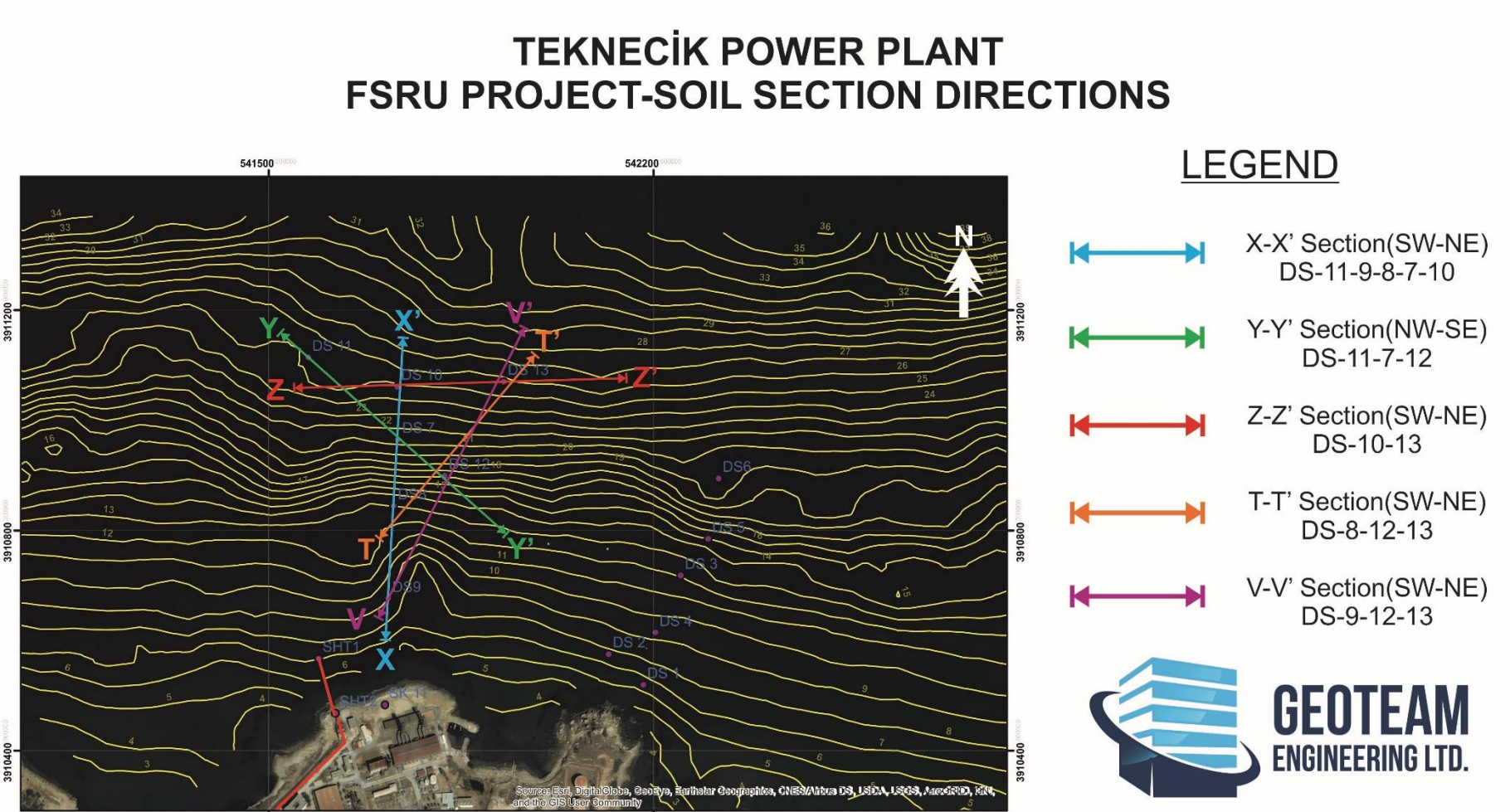
SITE LOCATION



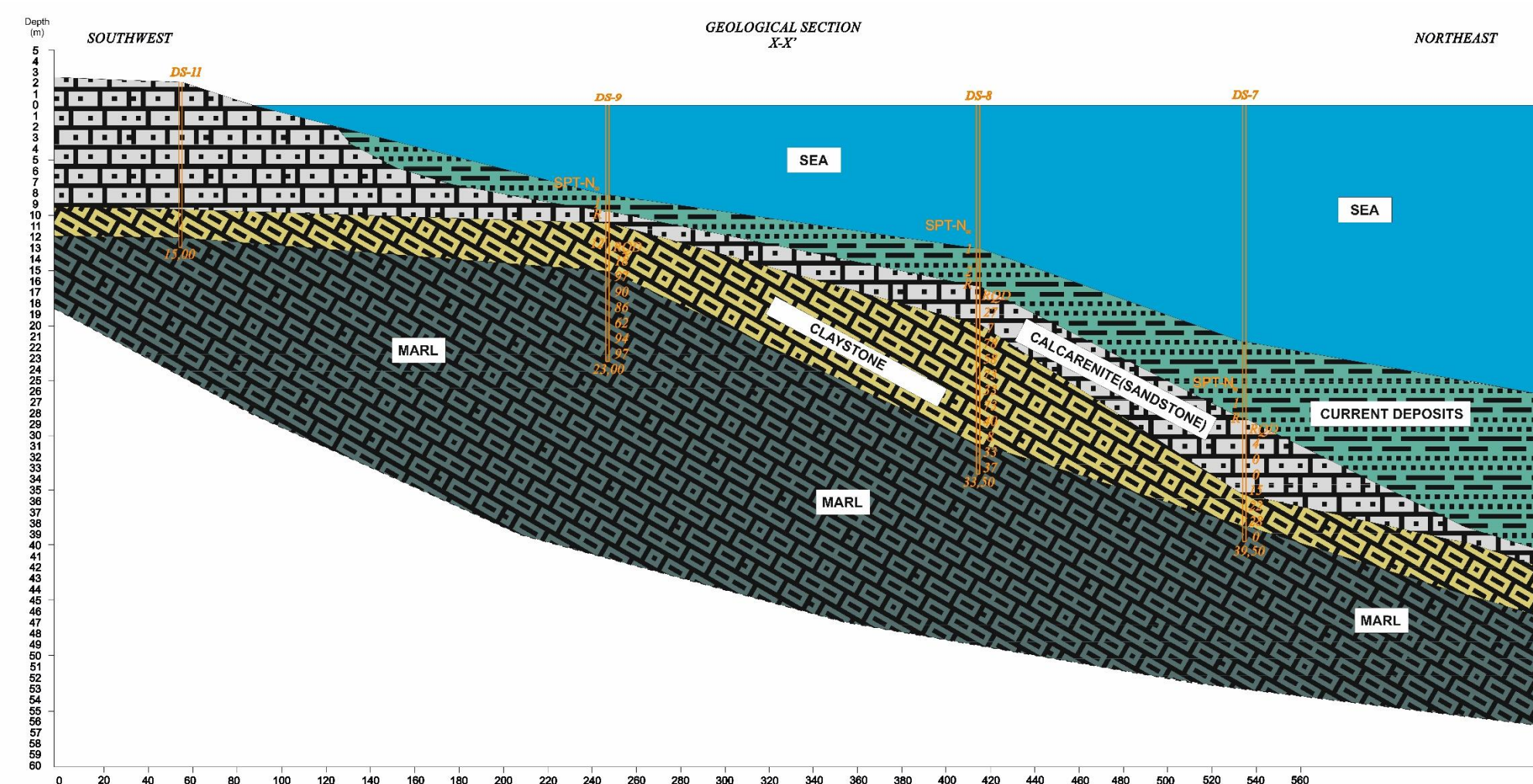
ALTERNATIVE I



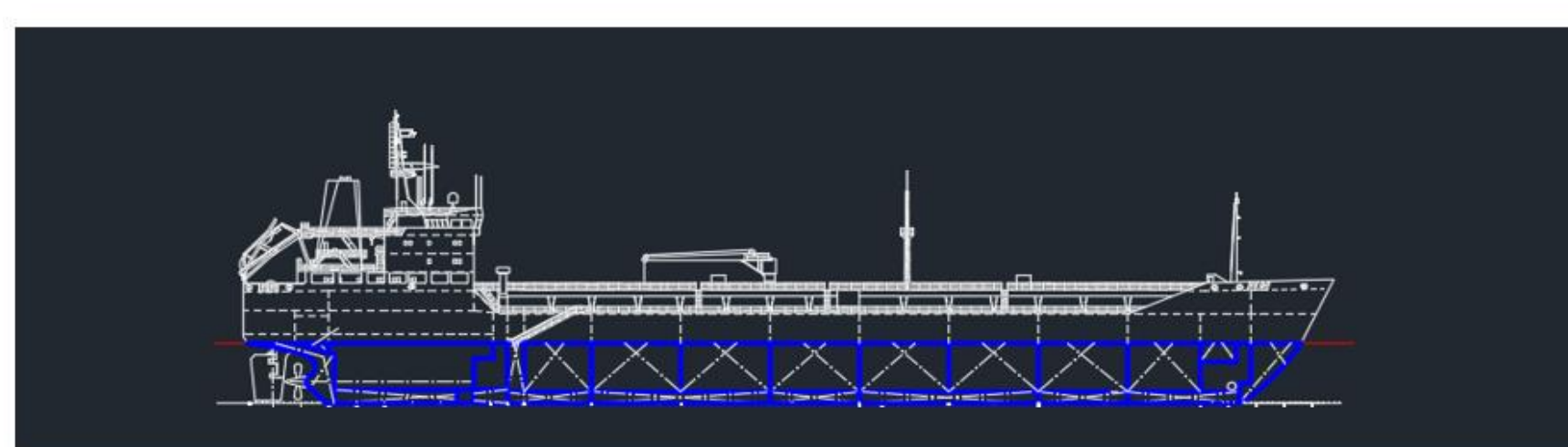
ALTERNATIVE II



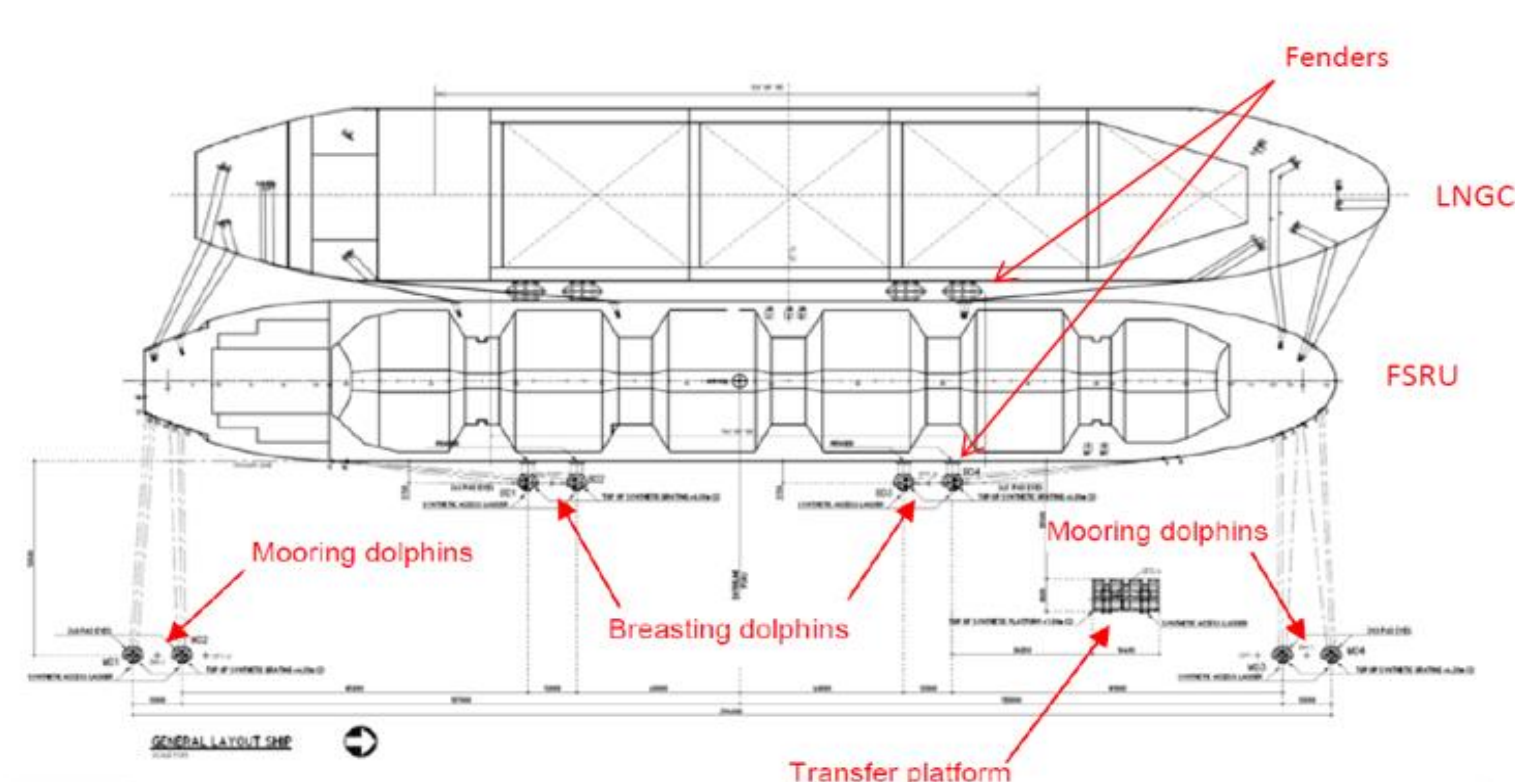
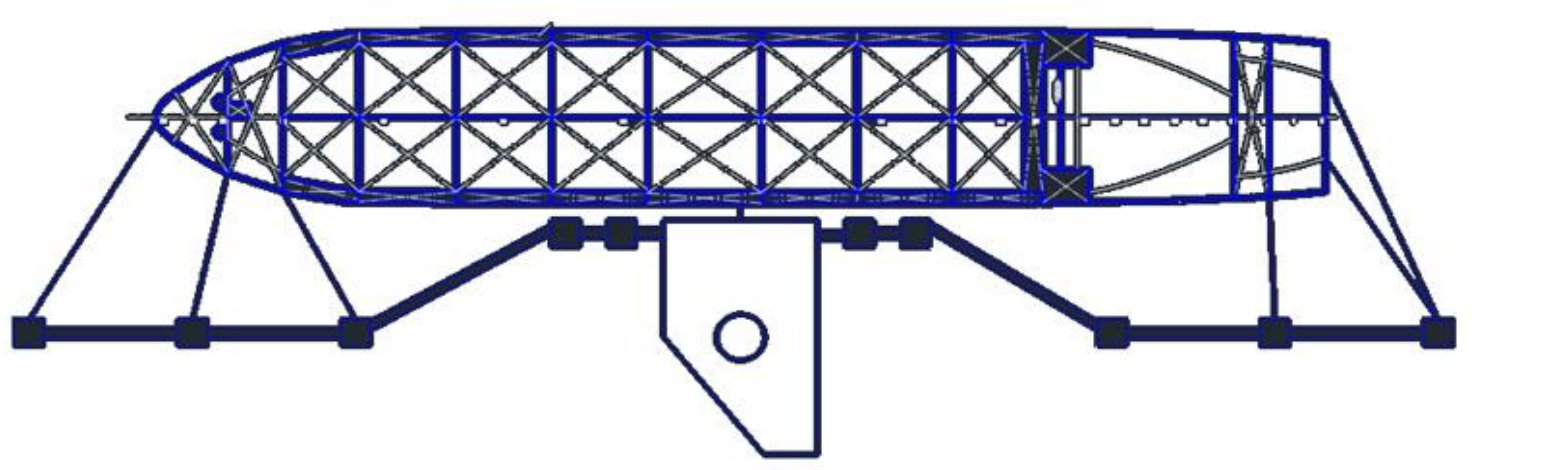
SOIL SECTION DIRECTIONS FOR ALTERNATIVE II



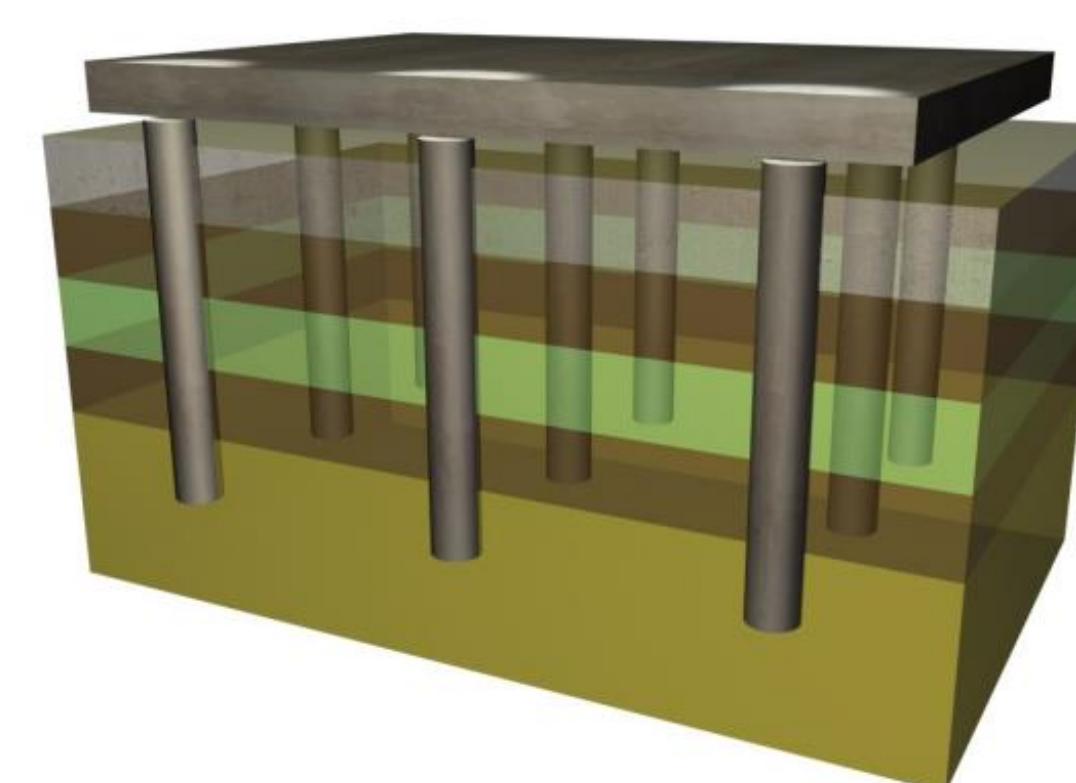
IDEALIZED SOIL PROFILE FOR DS-7, DS-8, DS-9, DS-11 BOREHOLES



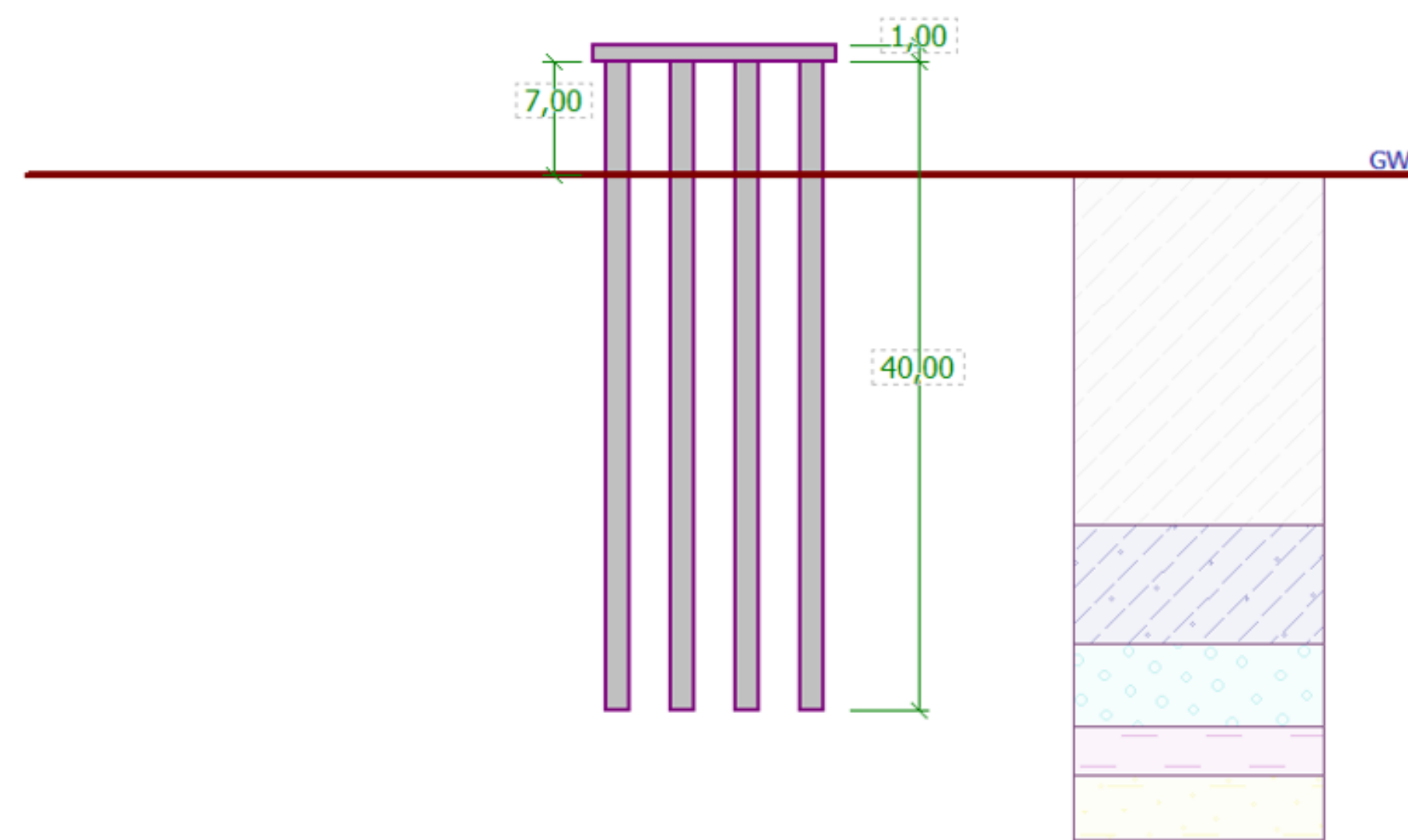
DESIGN BASED ON 400 M FSRU SHIP



Mooring dolphins are planned to be tied to the ship with steel ropes and pulled with a force of 100 kN



SAMPLE PILE DESIGN (A)



GEO5 is a strong programming suite for taking care of geotechnical issues dependent on customary scientific strategies, and the Finite Element Method (FEM)