

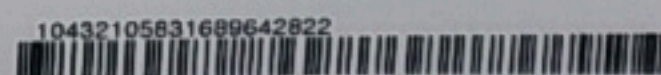
**San Roque Power Corporation
150MWac to 165MWac Floating PV**

San Roque Power Corporation

Feasibility Study Report - Final

145000079

20 December 2021



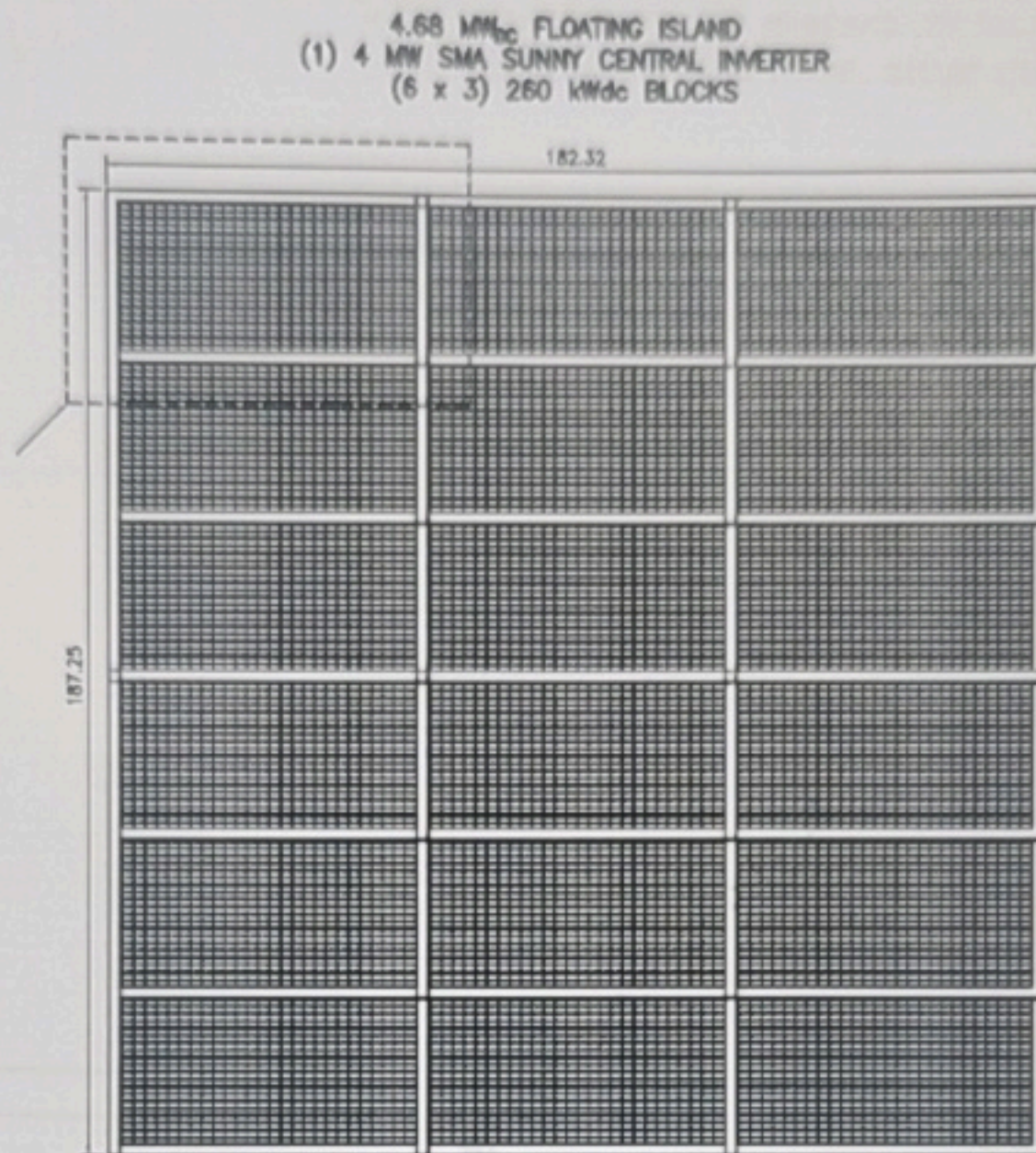


Figure 3-21: Schematic layout of a typical PV floating solar 4.68 MW_{dc} Floating Island Type I

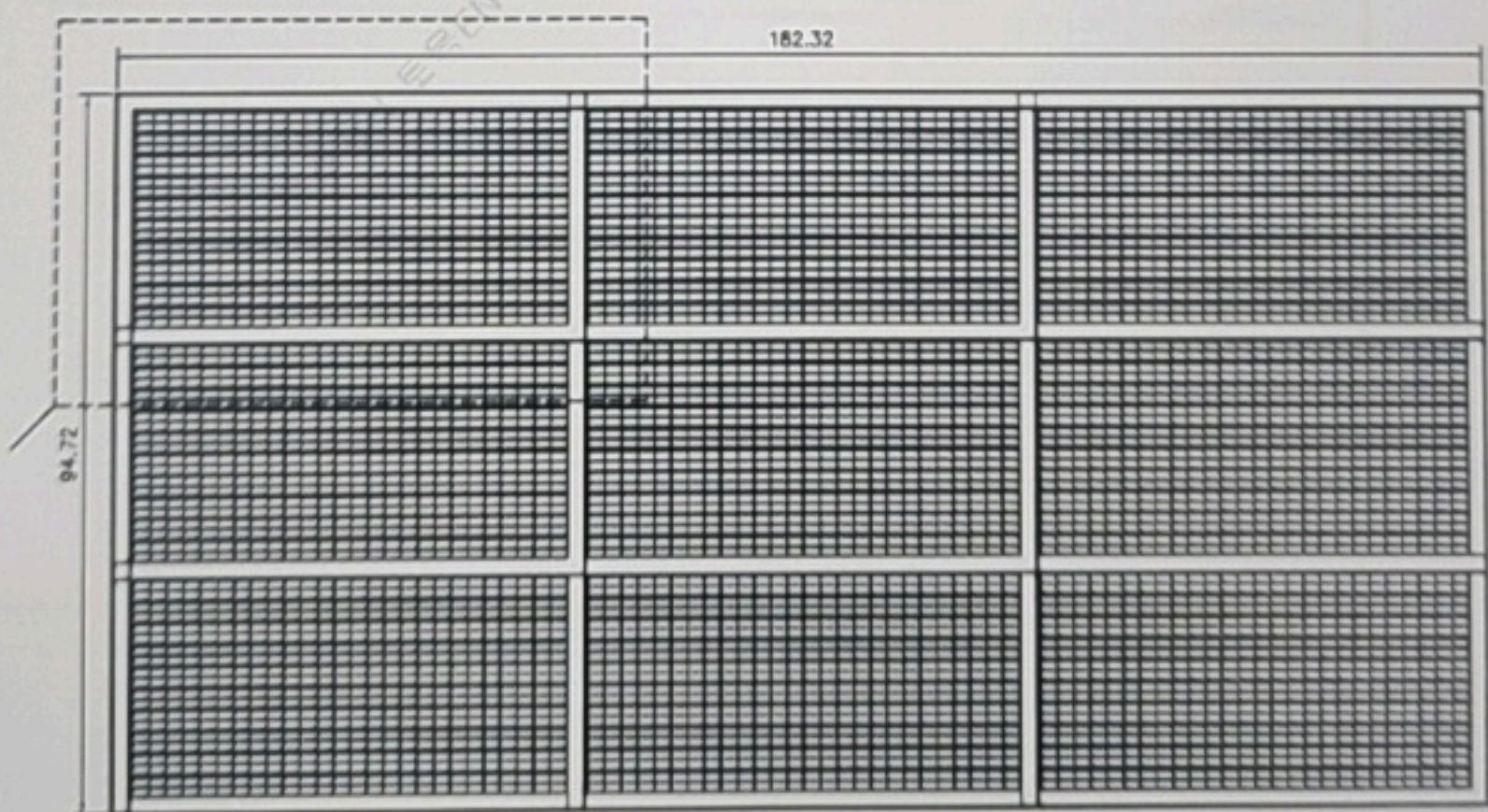
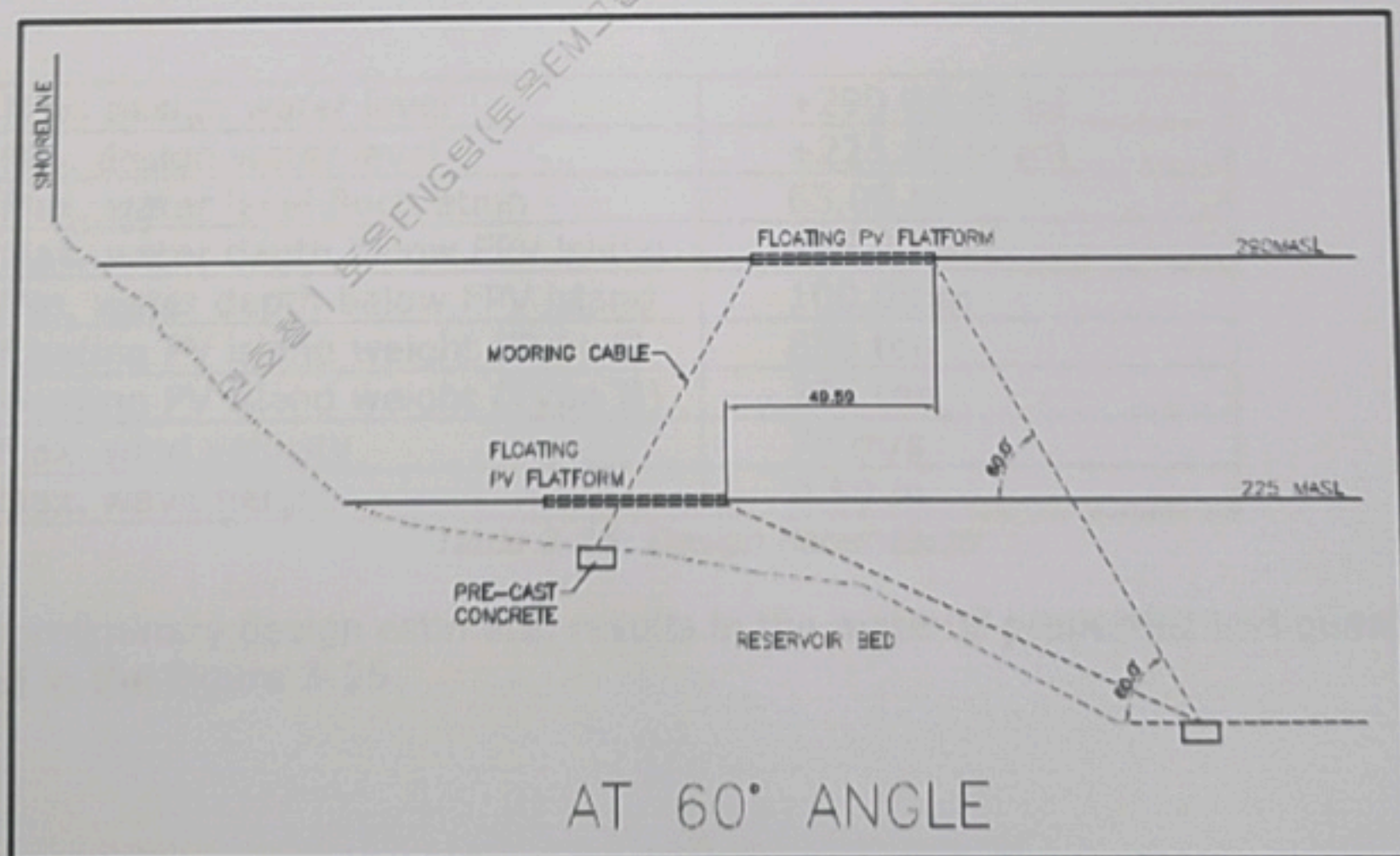
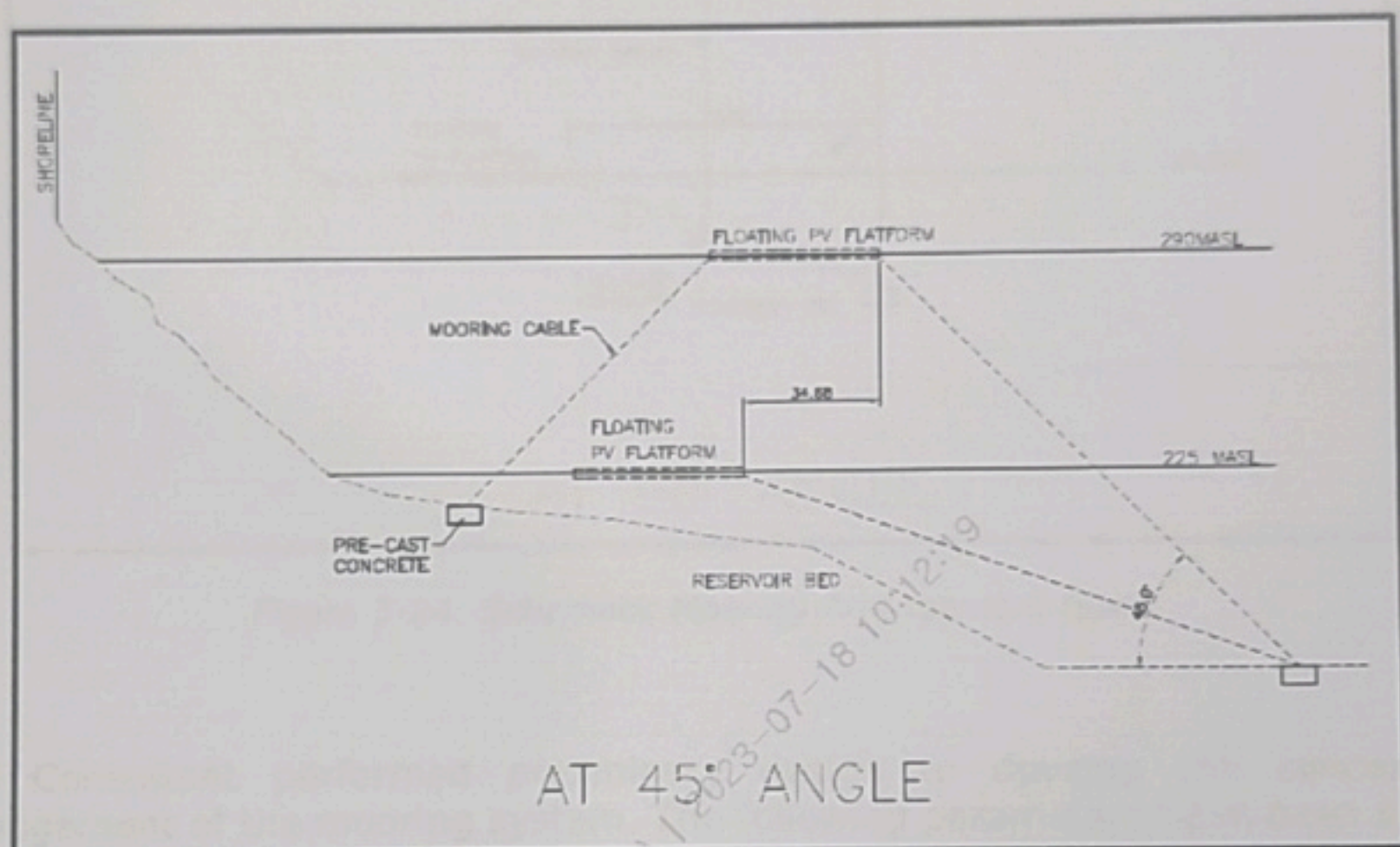


Figure 3-22: Schematic layout of a typical PV floating solar 2.34 MW_{dc} Floating island Type II

dictates how much space/buffer from the shoreline needed and space from other nearby FPV, for the 60 degree angle a maximum 50 meters displacement will occur once the water level drops by 65 meters from 290 masl, other displacement are shown on Figure 3-24.



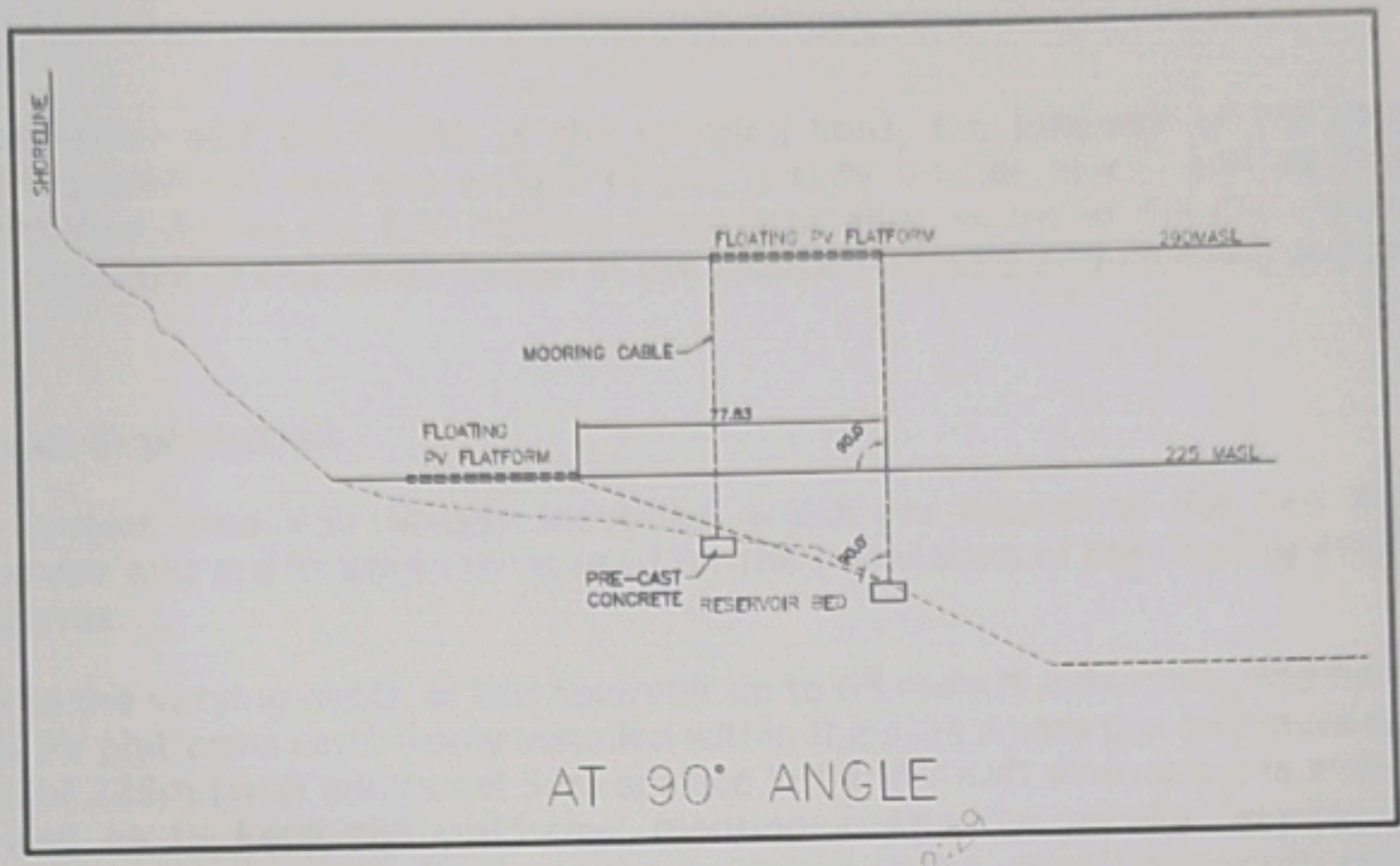


Figure 3-24: Schematic Mooring Arrangement types

The Consultant performed preliminary design to develop the conceptual arrangement of the mooring system. The following parameters have been used:

Max. design water level	+290.00 m asl
Min. design water level	+225.00 m asl
Max. water level fluctuation	65.00 m
Max. water depth below FPV island	165.00 m
Min. water depth below FPV island	100.00 m
Floating PV island weight (Type I)	650 ton
Floating PV island weight (Type II)	325 ton
Max. wind velocity	75 m/s
Max. wave height	0.50 m

Table 3-16: Design Parameters

The preliminary design estimate, results in the material properties and quantities listed in the Figure 3-25.

The number and the length of the mooring lines, the property of the elastic mooring element and the weight of the gravity anchor blocks will be finally determined during the EPC bidding process or after award of the EPC contract and execution of the detail design of the selected floating and mooring system.

3.4.6 Layout Explanation

The project area was already identified, which are located in the San Roque Reservoir and are foreseen to be used for the installation of the floating solar PV platforms.

Due to the varying depth or the reservoir up to 65 meters difference, the floating solar PV platforms can be only installed within the area where the minimum water level of 225m (with additional 50m surface buffer for drift allowance) is available as well as to keep the platforms' mooring system technically feasible. The enormous varying water level and the limitation of the water body width require special arrangement of the mooring system. Figure 3-26 shows the selected project layout arrangement. This should be noted that all kinds of drawings prepared for the purpose of conducting this feasibility study should not be used for construction purposes as these are purely indicative in nature.

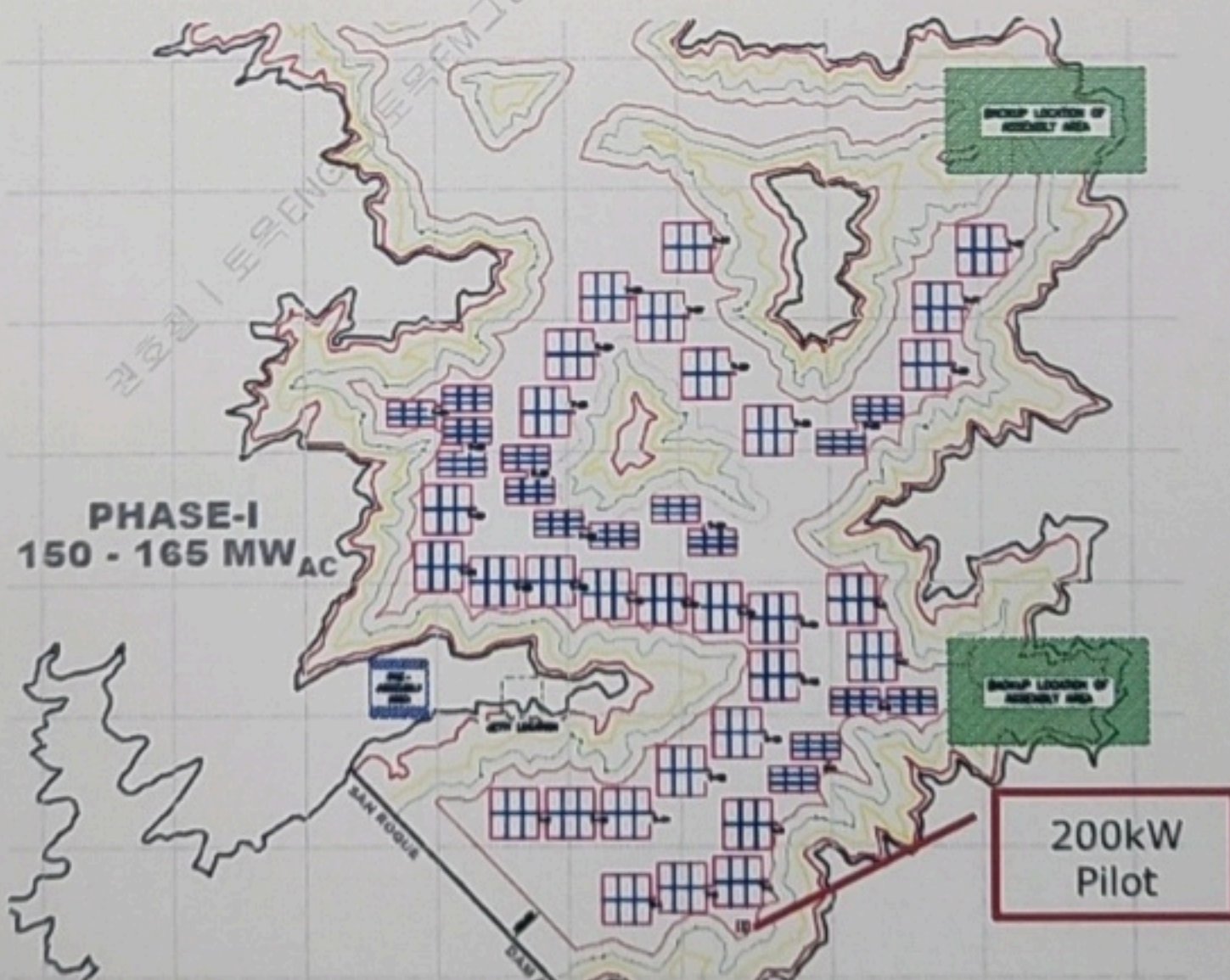


Figure 3-26: Proposed Project layout arrangement