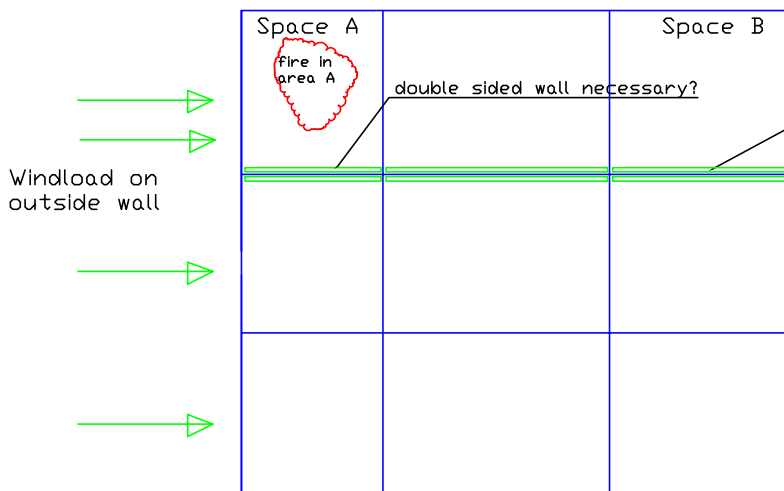


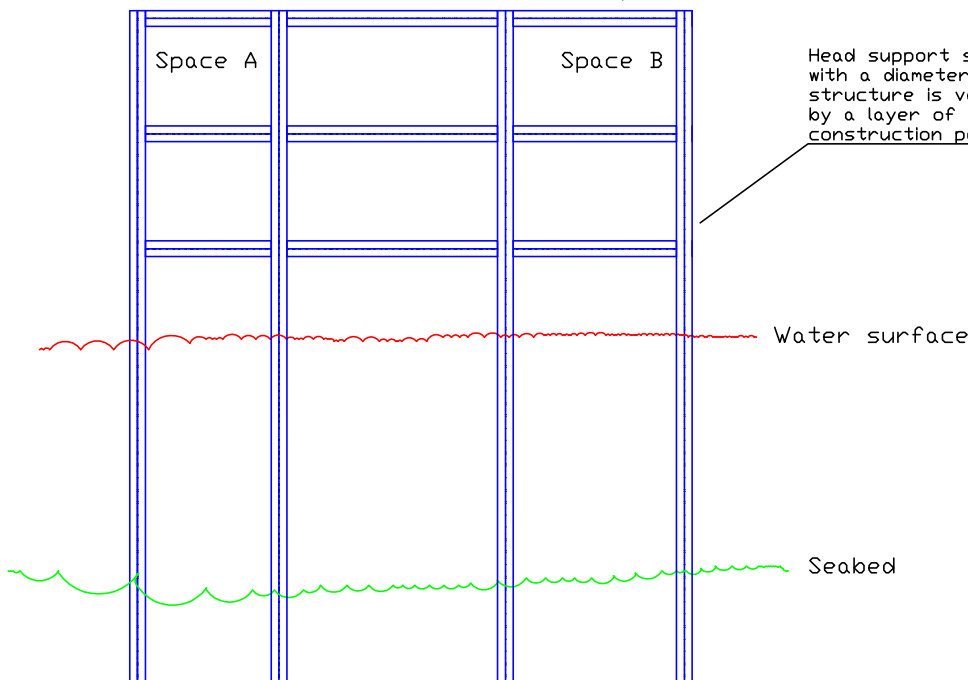
Lay out of an electrical off shore platform where not all walls need to be isolated double sided due to a clever safety reasoning

topview of head format of the oil platform



This side wall in space B can transfer the windloads to the ground when the sidewall in space A cannot carry any loads due to a fire. Temperature of the sidewall in space A reaches a temperature of 1000 degree Celsius and cannot carry any loads. An oil/electrical platform consists of pipes of big diameter welded together and isolated very well against fire. These pipes can transfer a windload on the left of the platform to space B.

side view of head format of this oil platform



Head support structure consists of thick walled pipes with a diameter of 500 until 1500 mm. This support structure is very well isolated for the heat of a fire by a layer of heat resistant material around these construction parts

Safety reasoning: the customer wanted most walls of this platform to be isolated on both sides against 1000 degree Celsius. In consideration with this client I asked the customer what would happen if on this platform two spaces were on fire. He told us that the platform would be abandoned if there was a fire in two spaces. The constructional integrity should only stay at a high level when there was a fire in one space. Inside walls of the platform are needed to divert for example the windloads to the ground. When there is a windload acting on the left side of the platform the main structure of the platform (good isolated thick pipes with high diameter) is able to divert these loads to another space where there is no fire. Assume there is a fire in space A, then this sidewall does not need any isolation because the sidewall in space B will carry the windload to the ground by shear forces. Because there is no fire in space B these sidewalls also do not need any heat isolation. So due to this safety approach a lot of walls do not need to be covered with a heat resistant and insulating material. Because the customer accepted this reasoning this led to a lower price for the insulation, a lower building time and a lower weight