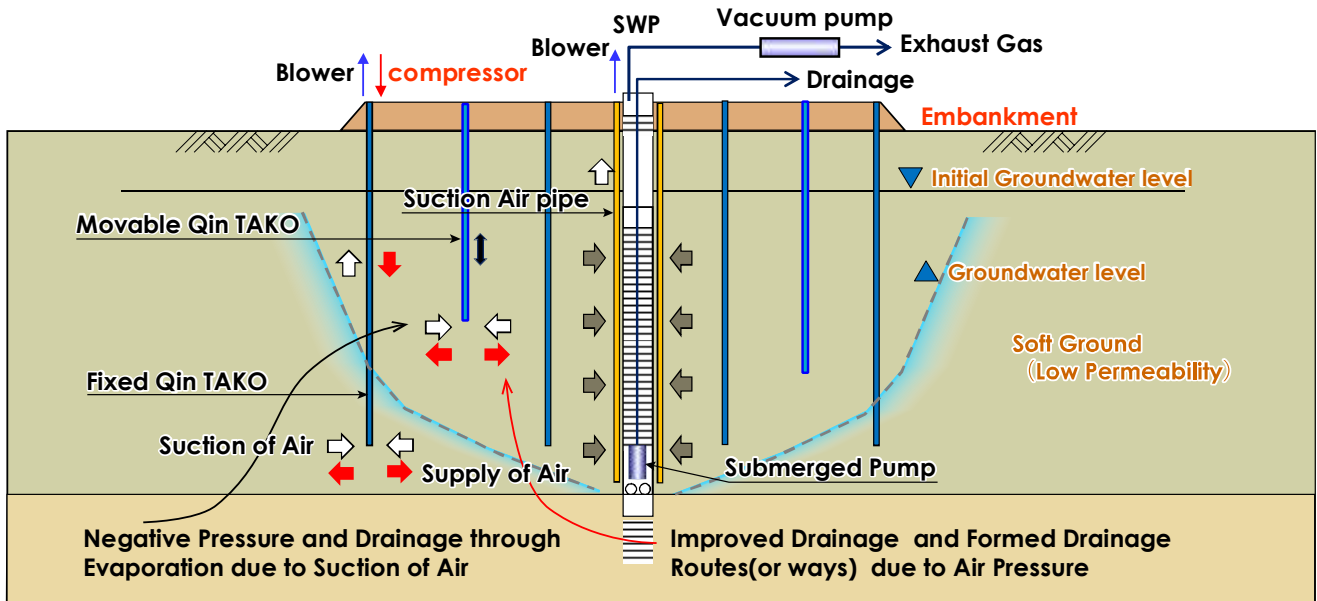


A&S Method

Consolidation Acceleration Method using SWP method

Compressive Forces = Lowering Groundwater level + Negative pressure + Embankment



Origins of Three Compressive Forces

- ① Effective Stress due to Groundwater Drawdown
- ② Induced Negative Pressure due to Suction of Air
- ③ Additional Stress due to Surcharge (Embankment height $H=2m \sim 3m$)

High Efficient Performance of Groundwater Drainage

- ① Groundwater (Free Water) Drawdown by SWP Method
- ② Pore Water is drained and drainage route is formed by Air pressure using Compressor
- ③ Pore water is drained through evaporation by Suction of Air using Vacuum and Blower pump

Advantages

- ① Low Cost
- ② Shortening of Consolidation Duration
- ③ No Sliding occurs under Surcharge because of no rise in Pore Water Pressure

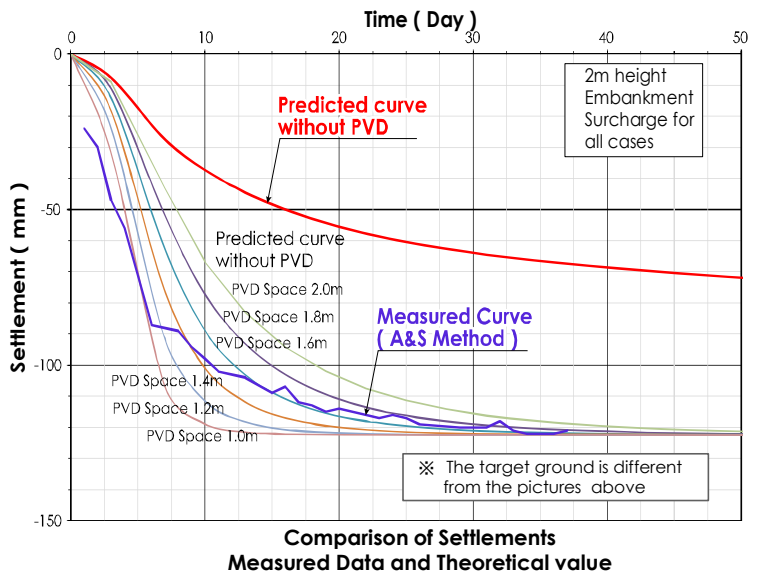


Example of Consolidation using A&S Method



Head of SWP

Place: Kanto region, independent houses planning area
 Year: 2012
 Objective: Ground improvement
 Geology: Alluvial cohesive soil layers, around 25~30m In Depth
 Improvement area:
 Pictures: 1050m²
 Graph: 1000m²



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Comparison of Settlements
 Measured Data and Theoretical value