SUNWAY AVILA @ WANGSA MAJU

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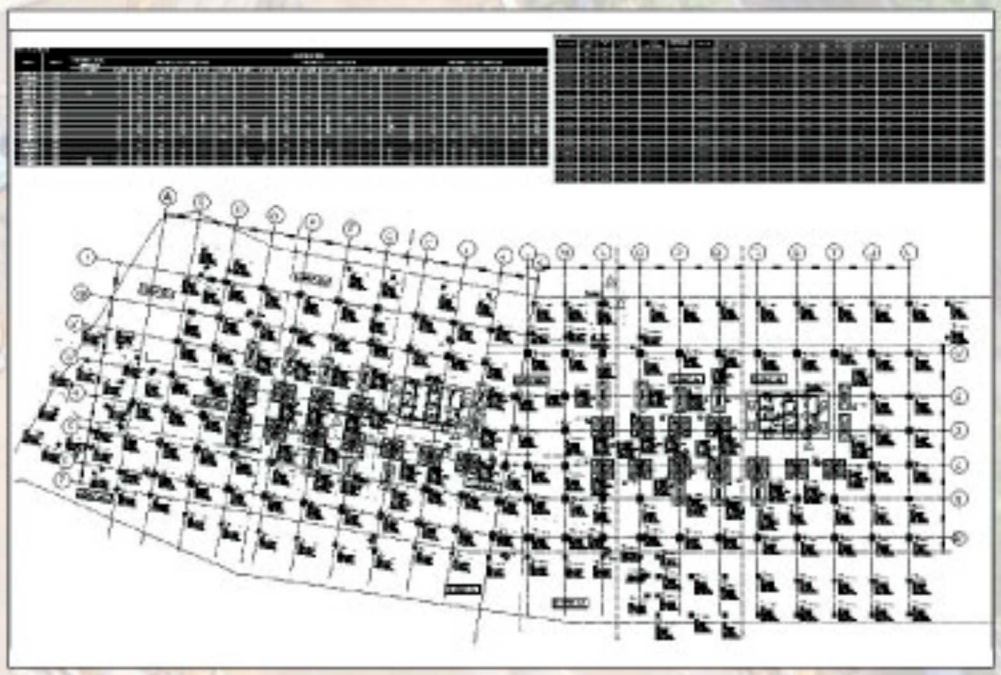
Sunway Avila is a development project by Sunway Property that was located in Wangsa Maju of 43-storey with two blocks. Various of amenities are located nearby this development such as shopping malls, schools and hospital. This project development is also accessible through DUKE, MRR2 and AKLEH and LRT (Station Sri Rampai). This project falls under the 'Contractor Alternative's Design' where we have proposed full bored piling foundation instead of the conforming design which in combination of bored pile and spun pile foundation system. Pile sizes are ranging from 600mm – 1800mm where the pile structural capacity is optimized using different grade of concrete.

The first geotechnical information that we can access to decide on the making the decision is through the soil investigation (SI) report. Through the SI, the impression is that the soil has a good ground condition where at most of the SI borehole reached SPT-N value of more than 300 at average depth of 18.0m from existing ground level and few boreholes encountered sandstone. This has given us advantage to have diversify our design in terms of pile zoning and pile length. Through the SI information, we designed all the piles to friction pile where the zonings were divided in accordance to the SI borehole location. Our operation team has mobilized in 6 numbers of boring rigs and 4 numbers of crawler crane to proceed with the construction works.



As we take off, we were startled by the limited working hour where we were no aware of this matter at the early stage of this project. This has left our team with no option but to be more cautious of our work planning and arrangement where any work that exceeded the limited working hours might cause summon to be issued to us. The piles for this project were designed as friction piles and our team are able to forecast and plan the work in order.

After about 2 months we started on this the project, again we faced another hiccup to our progress where we encountered shale rock layer at several zones. We have overlooked on this sedimentary rock where at the early stage of the design work through the SI we assumed the sandstone layer are not within our working area. We took the initiative to hire an SI Contractor to do the additional SI at the affected zone with the agreement by the geotechnical consultant and from the obtained SI report we had a discussion with the consultant. Through the discussion between our team and geotechnical consultant also by referring to legit technical data, we have established rock design parameter to be opt for the rock socket design of this project. The extracted shale rock samples through the boring works were then selected by the COW for point load test to know the strength of the rock and for the engineers to decide on the rock socket termination depth.





Alongside with the bored piling work, we also have started on our pilecap works. The most challenging part of this works are our liftcore construction work. We used open cut method for the excavation work instead of sheet piling installation work. On opting this method, we have submitted our slope design together with the analysis for the consultant approval. Once the commenting and reverting process finished and approval are gain, our operation team start planning on the execution. The slopes were cut and trim to layer by layer as per design and once the slope trimming work finish plastic sheet are applied on the slope surface for extra precaution. Our team also has appointed a supervisor to be on the lookout of the slope surface condition and also to maintain the slope. Through it all, we successfully casted the two numbers of liftcore of each block without any injuries and damages.

To conclude, this development is actually a straightforward construction work sequences but due to some overlooked incident has caused us some hiccup and delay in our progress. Congratulations on team of G502 on the completion of this project. Well done!