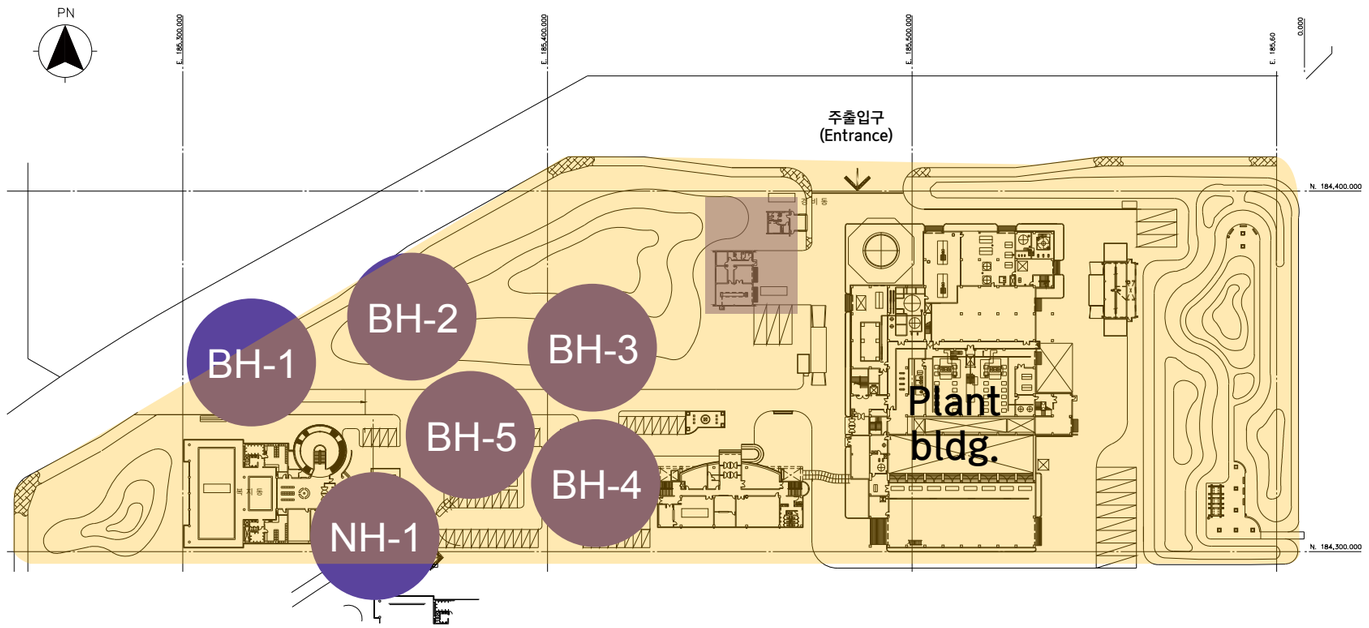
Geotechnical Investigation Brief Summary



1. This study was conducted as the geotechnical survey of " Geotechnical Investigation Service for City Main Library Gwangju Construction". The purpose of this study is to promote more economical and rational design and construction by providing basic geo-engineering data which was obtained from identifying and analyzing the stratification status and soil characteristics of the ground in the study area.
2. The study was conducted in the area of 2 Naebang-ro, Seo-gu, Gwangju(competition site), drilling investigation was administered to assess 1 NX Size and 5 BX Size sites.
3. Each layer from drilling investigation is as follows:
   Buried layer: 2.3~2.8m Sediment layer: 5.2~6.2m
   Weathering soil layer: 1.0~9.2m Soft rock layer: 1.2~8.7m
   Common rock layer: 5.0
4. The N values of each layer based on the standard penetration test are as follows:
   Buried layer: 5/30 ~ 14/30 (number/ cm) Sediment layer: 3/30 ~ 50/14 (number/ cm)
   Weathering soil layer: 8/30 ~ 50/12 (number/ cm)
5. In order to plan basic excavation works and determine the consequent effects of ground water by measuring the direction of ground water flow and the distribution of ground water levels, the water level in the downhole was measured after completing the drilling. Based on G.L, it was distributed (-) 2.9 ~ 3.5m below. This may vary depending on the effects of drilling water and the surrounding conditions, topographical and seasonal factors (dry and rainy).
6. The site classification as a result of the top-down elastic wave exploration is presented in the table below:

Borehole number	Test method	Test degree (G1.-m)	Average shear wave velocity to 17 meter (Vs, m/sec)	Ground classification
NH-1	D.H.T	0.0~30.0	276	S2 or SD

7. As this is an outcome resulted from the limited ground study, it should be considered that the ground characteristics of each point may vary.