

## **C. INTERCEPTOR SEWER**

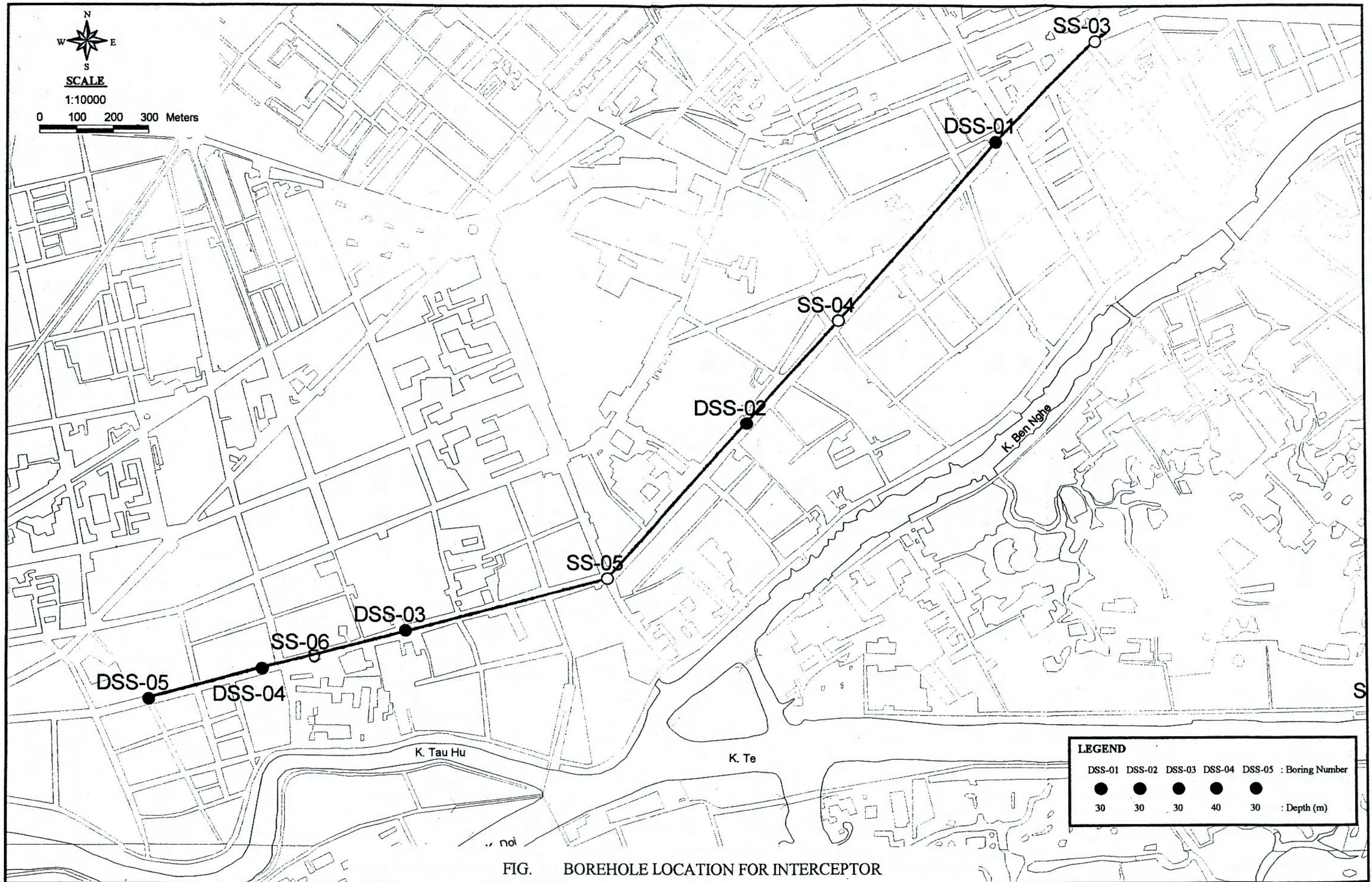


FIG. BOREHOLE LOCATION FOR INTERCEPTOR

#### 4 . PROGRESS OF INVESTIGATION.

Drilling, sampling and field test : Carried out from June 9<sup>th</sup> to July 15<sup>th</sup>, 2000.

Laboratory test : Carried out from June 15<sup>th</sup>, 2000 to Aug 5<sup>th</sup>, 2000.

## II ANALYSIS OF THE INVESTIGATION RESULT

### 1 . STRUCTURE OF THE BASE SOIL.

Based on in-situ survey, drilling documents and the results obtained from the soil tests. We have noticed that basic soil on the surveying site (up to 40.0m deep) was composed by Holocene and Pleistocene deposits. Thickness of the Holocene Deposits is from 0.6m to 2.0m and Pleistocene deposits, which the thickness has not been determined yet (boreholes of 40.0m depth did not excess these deposits). There is made ground on the surface with the thickness is from 1.0m to 2.0m. From the surface downwards there are the following layers:

1.1 . Layer 1: Made ground - Clayey sand or gravelly sand with cobbles of stone, brick, concrete.

This layer lies right on the surface found at all boreholes, with the thickness is from 1.0m(DSS-5) to 2.0m (SS-4).

1.2 . Layer 2: Very soft, high plasticity blackish grey ORGANIC CLAY (OH).

It was found at boreholes DSS-1 and DSS-5, it is covered by layer 1 with thickness from 0.6m (DSS-5) to 2.0m (SS-4) and the layer bottom is from 1.6m (DSS-5) to 4.0m (SS-4) deep. Standard penetration resistance N from 0 to 2. In total, 2 samples were taken from this layer, the obtained physico-mechanical properties of the samples have shown that, natural moisture is from 48.76% to 76.13%, wet density from 1.486 to 1.697g/cm<sup>3</sup>, liquid limit from 50.7 to 88.4%, plasticity index from 20.9 to 45.5%, high compressibility (see average value of the physico-mechanical properties - table 1). The main characteristics of the layer are as follows:

Wet density	$\gamma_w$	=	1,592 g/cm <sup>3</sup>
Unconfined compressive strength	$q_u$	=	0.225 Kg/cm <sup>2</sup>
Compression index	$C_c$	=	0.943 cm <sup>2</sup> /kg
Coefficient of consolidation	$C_v$	=	4.40 x 10 <sup>-4</sup> cm <sup>2</sup> /s
Coefficient of volume compressibility	$m_v$	=	6.87 x 10 <sup>-5</sup> cm <sup>2</sup> /g

1.3 . Layer 3a: Very soft, low plasticity blackish grey CLAY (CL).

It was found at all the boreholes SS-03, SS-18, SS-21 and SS-22. The thickness is from 4.3m (SS-03) to 4.3m (SS-22) and the depth of the layer bottom is from 3.5m (SS-03) to 23.0m (SS-18) . Standard penetration resistance from 0 to 2. In total, 7 samples were taken from this layer, the obtained physico-mechanical properties of the samples have shown that, natural moisture is from 39.48% to 55.89%, wet density from 1.609 to 1.758g/cm<sup>3</sup>, liquid limit from 39.2% to 48.2%, plasticity index is from 19.5% to 23.4%.