Site investigation report of johore bahru port construction essay

The objective of this investigation report is to get the whole picture of the new project of Johore Bahru port at Teluk Pelepas for the Government.

Procedure

The study will be carry out using the appropriate method of finding the source of data such as browsing from the internet and going to the site project to really see the site topography. The procedure includes the soil investigation specific method such as rock and soil boring and drilling. Other than that, the standard laboratory test will be carried out in accordance with the procedures in BS 1377 on selected samples.

Methodology

Projects by law involve in our project is according to the Malaysia. For the preliminary stages any by laws is identified to be followed. On the submissions of the plans we require the approval from JKR. Others by laws for the temporary works are not available. The constructional and structural requirements are from the JKR.

Scope of investigation

1. 0 Site preparations and historical data

2. 0 Planning on the sub structures construction work progress

3. 0 Planning on the superstructures construction progress

4. 0 External works progress of project

5. 0 Utilities installation

1. 0 Site preparation and historical data

Since the site is at seashore, the site clearing from debris and boulders need to be done. The study area encompasses approximately 1. 5 acres located within 500 ft from Tanjung Pelepas. Topography is characterized by a slight slope to the west. The study area is located at the foot of a steep hill to the east. Therefore it will be earthwork progress on cut and fill . but the problem appears during excavation along the bay where the petroleum contaminated soil element was found. It make the soils from this area were designated as unsuitable for backfill due to structural concerns and were transported to two temporary staging areas near by .

There is no surface water existence located within the study area. There will be a few stake of soil drilling location on the area to investigate the behavior of soil. Surrounding land usage is predominantly residential, with commercial/residential usage to the north at Tanjung Pelepas. Later when the project is begun, we have to provide a perimeter fencing so that the society aware of our constructions progress. On the area, the temporary access road will be construct to ease the load carrier enter the construction site.

The supplier of the material is found nearby the site location. This will gives advantages in saving time travel and money.

Information was gathered regarding the site history during a review of historical aerial photographs from a certain period of time found that the land is left unused by the government. Tanjung Pelepas is near this location;

where there is one devastating port was built. The overwhelming success of the port will help this Teluk Pelepas become well known in future.

2. 0 Planning on the sub structures construction work progress

In order to construct the substructures the preliminary soil investigation need to be done. The piling and foundation require good subsoil in term of geotechnical value. The sample from the staked location is analyzed and the result obtained. This data was collected to determine the appropriate method of handling dewatered groundwater encountered during excavation later. After having good subsoil, basement will be safe to be placed on the ground. Same goes with the column stumps. As the structure is in a damp environment, the appropriate materials which hardcore and damp-proof material need to be consider.

The groundwater level should be not affecting the constructions progress. In the soil investigation, it is found to be 3 ft from the surface.

3. 0 Planning on the superstructures construction progress

Superstructure will be constructing according to the drawing. All elements were located above the damp proof material. Since the site project is located on bay, the environment is prone to have the sulphate attack to the superstructure. Therefore the sulphate resisting Portland cement recommended to be used for the structural element. The influence of strong wind from sea is considered for installing a window and the roof. They should be strong in terms of strength to adapt the wind.

4. 0 External works progress of project

At the end of the construction progress, the external works need to be done outside the building such as roads, vehicle parking, gutter, sewer, fence and landscaping. The access road to the Teluk Pelepas is connected to the main highway so that the load shipped on the port will be easily transported to their destination. The large area of parking is provided for the large carrier for instances lorry and containers to be fit. Gutter to avoid flood will be constructed. For the usage of the office on the port, the water supply should be provided and sewer needs to be constructed accordingly. To initiate the port area, it must be fence nicely. Landscaping is considered quite important in designing the effective port.

5. 0 Utilities installation

In providing basic conveniences or luxury, the all component will be installed such as septic tank, telephone, fire detector or sprinkler, air-condition, elevator and security alarm.

Summary

In conclusion, the site investigation will help the progress of the construction in future. Its also help as a guideline of the project.

Bad Site Layout

Uploaded with ImageShack. usFigure show one example of site layout in a bad category. This site layout is for the actual site area. The layout consists of a site office, worker¿½s quarters, toilet, canteen, material storage, security guard and temporary access road. Referring to the figure, there is no parking area occupied on the site.

In terms of walking distances within facilities, the layout is fail minimize walking distances. For instance, the canteen is very far away from the site office. Same goes with the location of the toilet.

Next, the location of material storage is not strategic where the material supplier lorry needs to travel far to the material storage and it can be seen clearly that the temporary access road is quite narrow. This will induce the limitations of the lorry entries.

Other than that, material storage only one and it¿½s nearest to the sea. The problem appear if the is something happen from the sea, the material storage is the one affected much. This could increase the cost later on because of breakage or spoil materials.

As we see the fence, there it¿½s not the perimeter fence installed. This could be dangerous for the worker¿½s and visitor¿½s safety and also the safety of the material storage from being stolen.

The project sign board also wrong placed. It supposes to be outside the main gate to people initiate the project progress

Lastly, the entrance and exit is the same main access and its such a disadvantage to the project in terms of material travel.

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