

# Boundary lines and building lines construction essay



**ASSIGN  
BUSTER**

a) Tower crane erection-Location of existing structural at adjacent. (If a tower crane's boom intrudes into airspace of adjoining properties or streets, it will harm the safety of the neighbours and public. Hazard under coverage of tower crane)-Carrying capacity (maximum carrying load and its own load/ lateral load and wind load which may cause overturning, swing, torsion)- Estimates the overall structural strength, stability, loads and other details in accordance with international Standards. Safety factor. Machine specification data such as type, safe working load (SWL), lifting height, lifting speed, floor area, design code, power supply, control and other declaration should provide as well. Bracing arm as option.-Letters of application should contain the type of hoisting machine, the model, manufacturer and country of manufacturer, the unit requested and the signature, name and designation. List of technical personnel and engineering members responsible for erecting, maintaining and dismantling activities. State in detail their academic qualifications and experience.-Consent and approval must be granted by the relevant authority, Department of Occupational Safety and Health. This is carried out by Mr. Tan, the project manager within 2 days before commencement of construction work on 25 June 2012. b) Road Crossing Utilities which must cross the roadway should be buried as near perpendicular to the roadway alignment as practicable but in no case less than 30 degrees. The crossings must avoid deep cuts, footings, intersections, drains.-Carried out by Mr. Tan, project manager to get approval from Jabatan Tanah within 5 days before commencement of construction work on 25 June 2012. c) Water and electrical supplies Apply electrical supply from Tenaga Nasional Malaysia and water supply from Syarikat Bekalan Air Selangor (SYABAS). The construction work can not start without electricity and water <https://assignbuster.com/boundary-lines-and-building-lines-construction-essay/>

supply.-Carried out by Mr. Tan, project manager to apply the electrical supply from Tenaga Nasional Malaysia and water supply from SYABAS.-Mr. Tan, project manager also get approval from Department of Occupational Safety and Health (DOSH) owing to need to follow the requirement of DOSH to install the water & electrical supplies within 5 days before commencement of construction work on 25 June 2012. d)Worksite SafetyOccupational Safety and Health Administration (OSHA)Aims at safety and healthy working conditions for the employees to reduce death and accident that occurs at working site. To setting standards and conducting workplace inspection for ensuring whether employers are with the standards and providing a safe and healthful work place.-Carried out by Mr. Ang, safety officer to make sure the worksite safety within 5 days before commencement of construction work on 25 June 2012.

## **Site Surveys**

a)Boundary lines and building lines setting out-The project located within the Kuala Lumpur city centre. There should have lots of buildings and properties around. The space is limited.-The 3 block of 35-storey luxurious Services Apartments may encroach onto the adjoining property land if any survey deviations are not discovered.-The tower crane used by the project may across the boundary lines. This will crash with the adjoining property or falling objects outside the boundary line. The possibility of accidents toward the pedestrian will be high.-Waste time and cost in demolition and rebuild within the boundary line.-Carried out by Mr. Ng, licensed land surveyor who engaged to survey the boundary lines and proceed with setting out of the building grid lines within 2 days before commencement of construction work

on 25 June 2012. b) Detection of underground existing services-The project located within the Kuala Lumpur city centre, so there must be numerous underground services such as electrical cables, water and gas mains within the site boundary.-Costly rectification work needed to any damaged services. Causes inconvenience to the member of public at large for example the power failure due to improper survey of the underground services (electrical cables) before starting construction work.-If underground services are detected, is it wise to proceed with a trial pit using hand digging as to not damage the services.-The location of the services must be marked out on site and signatures on the paperwork for future reference.-The excavator operators must be aware of the underground services and excavate the exact marked position on site.-Carried out by Mr, Lee, licensed cable detector who engaged to undertake a survey of the underground existing services if there is reason to suspect within site boundary within 5 days before commencement of construction work on 25 June 2012. c) Pre-construction survey of adjacent properties-The owner of the adjoining property may allege that the damages to his/her property are the result of construction work on the site.-The 2-level basement (car parks) construction may cause geotechnical disturbances to the soil condition in the adjoining property. Result in settlement which leads to damages in the structures. Endangerment the interest of contractor in the event of dispute with any of the owner of the adjoining properties at city centre.-Require to take photos, data, and all existing conditions pertaining to the adjoining properties around the project.-Observations with comments in written form and come out with a report for approval by the contractor's staff.-Carried out by Miss Yaw, building surveyor who needed to inspect the adjacent buildings, structures, <https://assignbuster.com/boundary-lines-and-building-lines-construction-essay/>

roads, drainage and any properties around the project site at city centre within 5 days before commencement of construction work on 25 June 2012.

## **Approvals/ Clearance From Consultants**

a) Master Programme In the work programme must stated that the construction sequence, methods of construction, activity duration; labor, materials and plant inputs. It also served as the guideline to achieve the target duration for each activity and used by the Architect to monitor progress of the construction work.-Carried out by Mr. Tan, project manager who submitted the master programme to Ar. Tan, Architect for approval.- Within 21 days after receive contract sum awarded. b) Construction method for basement Decision on construction methods necessary for the project kick-off on site demands prior attention. For instance, With a restricted city centre site such as Kuala Lumpur city bounded by adjoining properties and streets on all sides, the excavation work is critical for the project start. Therefore, a decision on excavation method requires urgent attention and submission to the consultants for approval.-Carried out by Mr. Ng, subcontractor and approval to Mr. Lim, structural consultants.-7 days before of commencement of construction work on 25 June 2012. d) Rebars Supply The source of rebars supply such as from YTL steel company and the mill certificate need to be submitted to the structural consultant for approval.-Carried out by the Mr. Tan, project manager and approval to Mr. Lim structural consultant. Certificate is issue by structural consultant.-7 days before commencement of construction work on 25 June 2012. e) Concrete Mix Design The relevant grades of concrete received from the YTL ready mix concrete company is submitted to the structural consultant for approval. The

concrete cube compressive strength results also need to be submitted to the structural consultant for comment.-Carried out by the Mr. Tan, project manager and approval to Mr. Lim, structural consultant.-Documents are approval by Mr. Lim.-7 days before of commencement of construction work on 25 June 2012.

## **Sourcing of Key Resources**

a)Manpower Issues-Sourcing site technical and administrative staff-Sourcing general labor(a) 50 site and administrative staffs are needed to carry out the administration works on site. Site engineersQuantity surveyorsGeneral/senior foremanStructural foremanCoordinatorsSafety officersSupervisors(b) 300 general local and foreign laborers are needed to carry out the work on site. Transportation of materialHousekeepingMosquito controlSafety tasks-Mr. Lee should in charge of the application of working permit from CIDB for foreign general labourers within 2 weeks before the commencement of project on 25 June 2012. b)Funding IssuesA number of loans are needed to purchase the materials from suppliers. ConcreteBrickTimberPaintSteel-Mr. Lim is responsible to get the loans from Public Bank within 2 weeks before the commencement of the project on 25 June 2012. c)Sourcing Plant and MachineryPrior to site MobilizationPlant needed to start for the project; Tower /mobile craneWater pumpsCompressorForklift truckDumpersConcrete pumpSite officePortable toiletsEtc.-The site mobilization should be carry out by Mr. Tan, project manager within 4 days before the commencement of the project on 25 June 2012. d)Sourcing for the Project MaterialsConcrete mix designSourcing material from suppliers. The relevant grades of concrete received from the YTL ready mix concrete company has been approved and

ready to be used on the site. Materials such as cement, rebars, timber, aggregates and other urgent basis materials should be ready on site.-The concrete trial mix needs to be carried out by Mr. Lim, structural consultant within a week before the commencement of the project.-All materials should be placed order and be ready by Mr. Tan, project manager within a week before the commencement of the project on 25 June 2012.

### **Construction method of basement:**

Due to the poor soil condition, the method in constructing the 2-Level basement car park is top down method because from the information given, there are indicated clayey soils up to a depth of approximately 20 meters and thereafter the soil is a thick layer of hard rock formation. Detail of Top-down method: Untitled-Scanned-02It also name as perimeter trench methodUsually used where wear soil is encounteredA trench wide enough to allow the retaining walls to be constructed is excavated around the perimeter of the site and timbered according to the soil conditionsAfter that, the permanent retaining walls are constructed. Method of supporting are: Reinforced concrete diaphragm wall constructedContiguous bored piles or secant pilesThe RC bore piles are used as the method of supporting in advance of the main excavation because this method is useful in built up areas where noise and vibration should be limited. Rather than RC bore piles, reinforced concrete diaphragm walls are also constructed in advance the main excavation. TypesPlacesReasonsAdvantagesRC Diaphragm Wall ConstructionUse at approximately 20 meters from existing ground level where is the clayey soil conditionMost efficient water tightness wall compared to other wall type. Suitable for the soil where consist groundwater.

Impermeable, can be used as the facade, flexible, minimal vibration, little noise, deep work, lack of joints, can be used as footings RC Bored Piles Use after approximately 20 meters from the existing ground level where is the thick layer of hard rock formation It can use for stiff soil because it has higher capacity to overcome obstruction like rock compared to other system. They are cheap and don't disturb the surroundings as much as other walls Stiff walls, Good in confined site space, minimal vibration, low noise, Flexible plan, Avoids excessive excavation, Can be used as footings