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ADVANCED PROJECT MANAGEMENT ASSIGNMENT 1

CONSTRUCTION METHODOLOGY- CRITICAL ANALYSIS REPORT

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PREFACE:

The report which is given tells entire information regarding the development of two stored building which is an existing building now in Geelong. The detailed illustration has done on how to accomplish the project and how scheduled tasks are to be completed within the estimated time and budget and explains about the tools which are used to perform the tasks. The impact of the tools on every single aspect of the project such as, Management of cost, quality and time are also explained clearly. And lastly the detailed explanation is given on construction process, materials to be used and also gives entire information regarding contractual demolition process.

CHALLENGES INVOLVED IN 39 ALEXANDRA-AVENUE:

The demanding challenges which are influencing the project course are mainly partitioned into three aspects.

STRATEGIC CHALLENGES:

Explaining how to direct the project, budgets are allocated depending on recourses, decision making, long term goals of the project are illustrated this is known as strategic planning. The challenges which occur during the period of strategic planning are known as strategic challenges. Listed below are the few challenges faced during strategic planning.

- Organization benefits of project
- Allocation of resources
- Allocation of financial aspects
- Safeguards
- Appointment of labour
- Neighborhood permissions

TACTICAL CHALLENGES:

The obstacles which occur during the process of various stages of project are known as tactical challenges. The below listed are few challenges.

- Aspects related to productivity
- Proper storage of materials
- Managing labour
- Failing in risk management

- Delay from authorizing bodies in issuing permits
- Demands of work-force
- Management of time
- Problem due to lack of finance

OPERATIONAL OBSTACLES:

Operational challenges are the problems which may occur due stake-holders, whether change which is a natural hazard, issues created by people who belongs to the project etc. It is defined simply as risks which influence the operation of project in future. Few challenges are listed below:

- Failure in machinery and system
- Judicial problems
- Natural hazards
- Availability of resources
- Disputes among workers
- Waste management

DIFFERENCE BETWEEN VARIOUS DISCIPLINES OF THE PROJECT:

Discipline	Strategic challenges	Tactical challenges	Operational obstacles
Project specific	<ul style="list-style-type: none"> • Lack of communication between stakeholders and builders • Long term goals • Maintenance of time • Permissions from neighborhood 	<ul style="list-style-type: none"> • Storage of materials • Managing labour • Changes in initial designs • Allocation of funds • Involvement of clients 	<ul style="list-style-type: none"> • Machinery failures • Unexpected Weather conditions • Injuries in site • Work force
Parent organization (builders)	<ul style="list-style-type: none"> • Allocation of unprofessional staff • Contractual terms • Construction delays • Disputes with the company • Problems due to late permits 	<ul style="list-style-type: none"> • Mutual understanding between all the parties involved in project • Proper management of project expenditure • Availability of resources 	<ul style="list-style-type: none"> • Real time expenditure and estimation of time on the project • Judicial disputes • Repairs in machinery • Appropriate funding
Industry (AEC)	<ul style="list-style-type: none"> • Unavailability of materials which are desired • Failing to reach contracts terms • Sponsorship issues 	<ul style="list-style-type: none"> • Improper design plan • Lack of resources • Authorized bodies not issuing final draft permissions 	<ul style="list-style-type: none"> • Disputes among the parties involved in project • Scheduled delay in construction process

	<ul style="list-style-type: none"> • Heavy competition 	<ul style="list-style-type: none"> • Scarcity of labour on site 	<ul style="list-style-type: none"> • Market fluctuations
Project manager discipline	<ul style="list-style-type: none"> • Unrealistic business values • Lack of knowledge on the project • Disputes between stakeholders • Not understanding terms of contract 	<ul style="list-style-type: none"> • Not allocating budget properly • Failure in making decisions • Improper management • Properties involved with issues 	<ul style="list-style-type: none"> • Facing obstacles in reaching final goal • Failure in Progress of accountability • Guiding the staff in completion of project objectives

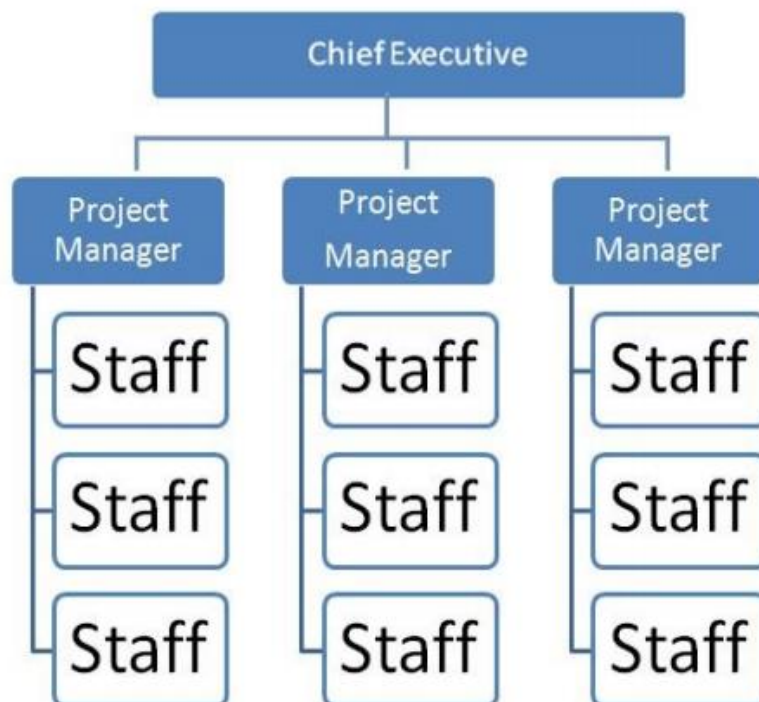
ORGANIZATION STRUCTURE FEASIBLE TO 39-AA PROJECT DEVELOPMENT:

For managing 39-AA project projectized organizational structure is the most advised organizational structure based on significance and project requirements.

Functional organization is a well-established structure where employee's are classified on the basis of their skills and specialization. These further divided into various departments like engineering and design staff, marketing, financial which are supervised by department executives and functional manager acting upon each department.

In this type of structure, the project manager has all-round authority on the entire project progress and on making decisions. The productivity of the project depends upon the co-ordination and mutual understandings between the departments involved in the project.

PROJECTIZED ORGANIZATIONAL STRUCTURE:



DEMOLITION AND CONSTRUCTION METHODS INVOLVED IN 39-AA REDEVELOPMENT:

DEMOLITION METHOD:

39-AA project does not requires heavy equipment because maximum structure which has to be demolished are recyclable materials. The convenient method to demolish this structure is deconstruction method. This method helps to make secondary materials which can further recycled and used in the construction.

The car-port and brick wall are demolished by using demolition machinery obviously and the material is collected and further disposed accordingly. The materials which can recycled are glass, wood, finishing materials, water closets are gathered and used to recycle which can further used of the same project.

CONSTRUCTION METHOD:

The appropriate method of construction to complete this project is contractual procurement method.

The concerned builder or contractor will build the structure by using all appropriate materials with maintaining standard quality as mentioned in agreement and he may also use the recycled materials from demolished structure where it can be used by doing this the project cost can be reduced which is benefit to the client. The entire project is completed under the guidance of Australian construction.

DRAFT REPORT OF THE 39-AA PROJECT:

INTRODUCTION:

39 Alexandra Avenue was located at inner city of Geelong and which is near to Geelong CBD.

In may 2007 the construction of the house got completed which is terrace type of construction. The price of the property is estimated around 645000AUD the demand of the property is high because of the location which is located near to Geelong CBD.

The main purpose to renovate this property 39-AA is to construct two individual houses in the same area by demolishing the previous structure. And also providing separate car-parking's for both individual houses.

SCOPE OF THE PROJECT:

The scope of project 39 Alexandra Avenue is to demolish the existing structure partially, the necessary planning and design are given to renovate new structure which has two individual housing facilities keeping this in considerations new designs are taken which includes with all necessary permits ,machinery , sufficient man power, materials required and proper documentations.

TIME MANAGEMENT PLAN:

The completion date of the project is decided once the design of the project is conformed. The necessary timings and permits should be finalized by authorized departments as the site is located in inner city of Geelong central.

SCHEDULE BASE LINE AND WORK BREAKDOWN STRUCTURE:

This structure involves with all the stages, schedules and resources along with timings are prepared with co-operation of all the parties involved in the project and also stake-holders.

COST MANAGEMENT:

Real-time expenditure and estimations of cost are verified accordingly to the variation in spending which can be compensate with-in the budget allocated. Every month a index called cost performance index is prepared and further which has to be reported to the stake holders and sponsors by project manager. The management will proceed further if the allocated budget is not exceeding.

QUALITY ASSURANCE MANAGEMENT:

The quality of the project is ensured by project manager but on the other hand sponsor should take responsibility of approving the project with quality standards because final acceptance of the project has to be signed by the sponsors. The responsibility of a project manager is to maintain the standard quality of materials from initial stage to till the project is handover to the client by taking help from quality controllers and from stakeholders.

HUMAN RESOURCE AND STAFF MANGEMENT PLAN:

The 39 Alexandra Avenue project is composed of projectized structure organization with taking various internal department support with-in the project. The necessary work is analyzed, performed and reported internally. And the relevant organizational documents are reported to sponsors and stakeholders when they ask for it.

Requirement of staff for 39-AA project are project manager, skilled labour, senior manager, staff assisting for project managers.

MANAGEMENT OF COMMUNICATION:

Many issues or problems can be solved and avoided before the problem gets complicated if the communication management is strong enough. By having a proper communication on site project manager can guide the work force properly according to the requirement changed by the clients. The communication may be processed through varies types like regularly conducting board meetings, sending status reports daily by project manager , e-mailing, if any changes in project it has to be informed to stake holders.

RISK MANAGEMENT:

The risk management deals with some major aspects like overrun of time, cost escalation and accidents on site. Depending upon the measure of risk the appropriate insurance policies are chosen. The company hires some risk managers along with concerned parties to avoid from impact of risk on the project. The duty of the employed risk manager is to give detailed report on the issues. All the information should be registered in a file which can help to avoid issues in future projects.

Listed below are some of the major risks effecting the project:

- Changes in initial design
- Financial problems

- Safety majors
- Unexpected weather.
- Restricted materials and machinery

PROCUREMENT MANAGEMENT PLAN:

Every project needs necessary degree of procurement. If the budget is exceeded due to any procurement then it should be approved by clients. This includes procurement of

- Machinery which is used for demolition.
- Procedures to dispose the materials.
- Skilled work force
- Materials used for finishing
- Construction materials
- Contractual documentation