

Planning Of Residential & Industrial Construction Technology

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Abstract— The Construction Technology will raise the sector to a higher world beating level of performance and competitiveness. This will be achieved by analysing the major challenges that the sector faces in terms of society, sustainability and technological development. Research and innovation strategies will be developed to meet these challenges engaging with and mobilising the wide range of leading skills, expertise and talent available to us within our industry over the coming decades, in order to meet the needs of the Society.

Keywords — Plan, design, construct and maintain the project.

I. INTRODUCTION

For the successful execution of a project, effective planning is essential. Those involved with the design and execution of the infrastructure in question must consider the environmental impact of the job, the successful scheduling, budgeting, construction site safety, availability of building materials, logistics, inconvenience to the public caused by construction delays and bidding, etc

These works include highways, railways and bridges, airports, dams and canals, oil/gas pipelines and transmission lines, large water supply and sewage disposal networks, docks, harbours, nuclear and thermal power plants, and other activities which build up the infrastructure for the growth of the economy. This type of construction typically serves public interest and is undertaken most often by large private corporations and government agencies.

II. MAJOR TYPES OF CONSTRUCTION

BUILDING CONSTRUCTION

Building Construction is a largest segment of construction. Building can be divided into two categories that are residential building and commercial buildings. Residential housing construction includes single family homes and multi-family dwellings such as duplexes and apartments are included in residential housing construction.

Commercial building construction includes such structures as schools and universities, medical clinics and hospitals, recreational facilities and sports stadiums, retail chain stores and large shopping centers, warehouses and light manufacturing plants, and skyscrapers for offices and hotels.

INFRASTRUCTURE CONSTRUCTION

Infrastructure Constructions are capital intensive and heavy equipment oriented works which involve movement of large quantity of bulk materials like earth, steel and concrete.

INDUSTRIAL CONSTRUCTION

These works include construction of manufacturing, processing and industrial plants like oil refineries, steel mills, chemical processing plants and consumer-goods factories. These projects are very complex and specialized. The ultimate owner will need to be very involved in every stage of project development from site selection and design to engineering and construction.

III. Sample for Construction Projects

Bridge Rehabilitation involves the modification, alteration or improvement of existing bridges on City of Brampton roads and pedestrian footbridges within Brampton's parks.

Class Environmental Assessments are performed prior to undertaking a major road construction project to identify and address the overall impact of the project on the social, cultural and natural environment. This is an approved process that municipalities must follow under the Ontario Environmental Assessment Act.

Future Construction Projects Under Design involves the preparation of detailed design contract drawings and technical specifications for construction projects, such as

new roads, grade separations and intersection improvements.

Intersection Improvements and modifications undertaken to improve the safety of the intersection.

Major Road Construction includes the construction of new roads, widening or reconstruction of existing roads and grade separations by the City of Brampton or the Region of Peel.

Park Walkway Improvements involves the removal of existing walkways and the placement of new and wider walkways within Brampton's parks.

Road Resurfacing involves the grinding out and repaving of the road surface to restore it to its original state.

Sidewalk Construction includes the construction of new sidewalks as part of the 10-year capital program.

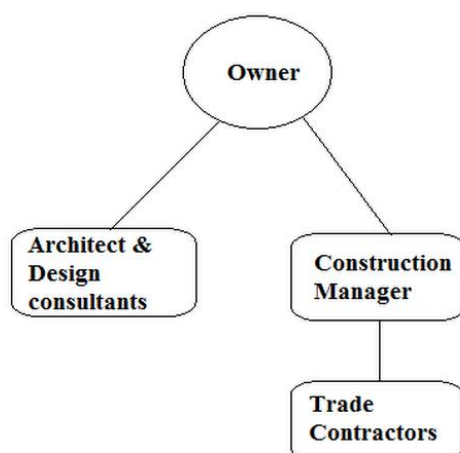
IV. CONSTRUCTION MANAGEMENT

The Construction Management concept joins the Owner, Architect and/or Engineers, as well as the Construction Manager, in a team approach to the construction process.

The Owner directly retains the Construction Manager, and Architect or Engineers for a fee based on required services. The Construction Manager prepares a budget and schedule from the Architect's preliminary drawings and specifications.

Now we will explain flow chart for Construction Management:-

**Construction Management
Organizational Chart**



Trade contract packages are released by the Construction Manager for tender on a competitive basis to specialty contractors during the period that the design is being finalized. When the competitive bidding process is completed, a total project cost can then be established.

V. SUMMARY

Construction is one of the most dangerous occupations in the world, incurring more occupational fatalities than any other sector in both the United States and in the European Union. The fatal occupational injury rate among construction workers in the all the world was nearly three times that for all workers. Falls are one of the most common causes of fatal and non-fatal injuries among construction workers. Proper safety equipment such as harnesses and guardrails and procedures such as securing ladders and inspecting scaffolding can curtail the risk of occupational injuries in the construction industry. [Other major causes of fatalities in the construction industry include electrocution, transportation accidents, and trench cave-ins.

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