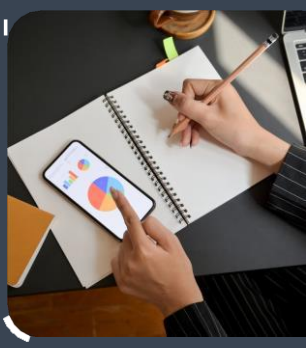
Graduation Project

Project ConstructionManagement



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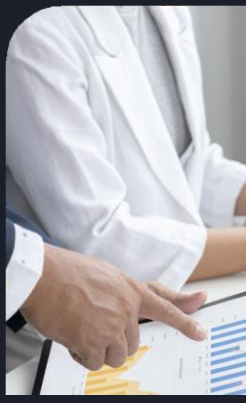

Nile Higher Institute for Engineering & Technology

Department of Civil Engineering

“Construction Project Management”

"مشروع ادارة مشروعات التشييد"

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Spring 2024

Table of Contents

Table of Contents

List Of Figures

List Of tables

Acknowledgments

Praise be to Allah who has granted us the knowledge, ability, and strength to performthis work.

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We would like to show our greatest appreciation to

Assoc. Prof. Dina Toballa

Eng. Sameh Makram

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Sincere gratitude goes to all friends, colleagues, for their help in collecting the information needed. Finally, we owe our deepest gratitude to our parents and the wholefamily, as we would have never made it without their endless love and support

ABSTRACT

The aim of this research is to analyze and study the construction project management for the construction of Tanta General Hospital. Key factors that impact the success of this project will be reviewed, and appropriate strategies will be identified for its effective management. A project management model will be presented, and an economic feasibility analysis of the project will be conducted to ensure the achievement of the defined objectives and reduction of potential risks. The performance of existing operations will also be evaluated, identifying strengths and weaknesses in order to improve project performance and ensure successful implementation.

❖ ***Problems: -***

The Tanta General Hospital construction project may face several challenges and problems, including:

- Budget Overruns
- Schedule Delays
- Quality Control Issues
- Safety Concerns.
- Stakeholder Management
- Environmental Impact
- Resource Management
- Technical Challenges
- Coordination with Healthcare Professionals.

❖ ***Technology (Engineering Standard): -***

1. The project follows engineering standards **Egyptian Code for Construction ProjectManagement** (Code NO. 311-2015).
2. the project follows the **Egyptian contract Law 182 of 2018**
3. the project follows **FIDIC Contracts.**

❖ ***Results: -***

1. Quality Assurance: - Meeting the required quality standards in all project aspects, includingmaterials, designs, and workmanship**.**
2. Safety Records: - Maintaining a good safety record with minimal accidents and injuries on theconstruction site.
3. Stakeholder Satisfaction: - Ensuring satisfaction among all stakeholders, including owners, end-users (such as doctors and

patients), and the local community.

4. Regulatory Compliance: - Adhering to all relevant local and international construction andbuilding regulations.
5. Social and Economic Impact: - Providing economic and social benefits to the local community, such as creating new jobs, improving healthcare infrastructure and Enhanced Healthcare Services.

Problem statement

❖ *Background: -*

Tanta city is in urgent need of developing its healthcare infrastructure to meet the increasing demand formedical services. Tanta General Hospital is one of the key healthcare facilities that require comprehensive improvements in its infrastructure to provide high-quality healthcare to the residents.

❖ *Problem: -*

The Hospital Construction Project Management Project in Tanta faces several challenges that hinder theefficient and effective implementation of operations. These challenges include:

1. **Budget Overruns: -** Unforeseen costs can lead to exceeding the allocated budget. Factorscontributing to this include rising material prices, labor costs, or unexpected site conditions.
2. **Schedule Delays: -** Delays in the construction schedule can occur due to various reasons such as poor weather conditions, supply chain disruptions, or delays in obtaining necessary permits and approvals.
3. **Quality Control Issues**: - Ensuring that construction meets the required standards can be challenging, especially if there are inconsistencies in material quality or workmanship.
4. **Safety Concerns: -** Maintaining a safe work environment is crucial. Construction sites are prone to accidents and injuries, which can halt progress and lead to legal and financial repercussions.
5. **Regulatory Compliance**: - Navigating the complexities of local, regional, and international construction regulations can be difficult, and non-compliance can result in fines, project delays, orshutdowns.
6. **Stakeholder Management**: - Balancing the expectations and requirements of different stakeholders, including investors, government bodies, healthcare providers, and the local community, can be challenging.
7. **Environmental Impact**: - Managing the environmental impact of the construction process,including waste disposal, emissions, and disturbance to the local ecosystem, is essential and can bea complex task.
8. **Resource Management**: - Efficiently managing resources such as labor, materials, and equipmentis critical. Shortages or mismanagement can lead to delays and increased costs.
9. **Technical Challenges**: - Complex technical issues can arise during construction, especially in a healthcare facility that requires specialized infrastructure for medical equipment, HVAC systems,and sanitary conditions.

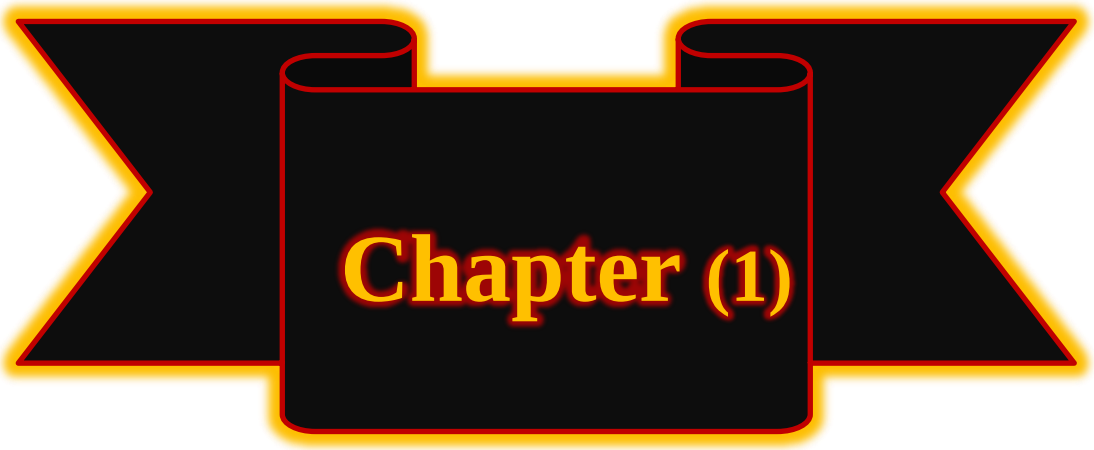
10. **Coordination with Healthcare Professionals**: Ensuring that the facility meets the operational needs of healthcare professionals requires constant coordination and may involve changes to the initial design, which can cause delays and additional costs.

❖ ***Objective:***

The project aims to develop an efficient system for managing construction projects for Tanta General Hospital to ensure the project is executed efficiently, within the set budget, and on time with maintaining quality and safety

❖ ***Proposed Solution:***

1. **Develop a detailed plan** that includes all project phases and clearly defines tasks andresponsibilities.
2. **Project time management** by using modern tools and techniques to track work progress andensure adherence to timelines.
3. **Effective resource management** through meticulous planning to allocate material and humanresources.
4. **Precise budget management** through cost analysis and regular expense monitoring.
5. **Quality assurance** by applying quality control standards at all project stages.
6. **Enhance communication** among all stakeholders by utilizing advanced project managementsystems.


Chapter (1)

Introduction

Construction project management handles the planning, coordination, and execution of a construction project, whether in the agricultural, residential, commercial, institutional, industrial, civil, or environmental industries.

Construction projects typically include hundreds of tasks and multiple phases that require a deep knowledge of the building process and ability to problem-solve to keep the project on track. Due to the complex, often shifting nature of construction projects, the role of a construction project manager is to keep the project moving according to plan.

The goal is to manage the project so that it finishes on time and on budget, while still delivering a final product that meets codes, plans, and specifications. Some of the construction project manager's responsibilities include project no management planning and cost, quality, and safety management. The management of construction projects requires knowledge of modern management as well as an understanding of the design and construction process. Construction projects have a specific set of objectives and constraints such as a required time frame for completion. While the relevant technology, institutional arrangements or processes will differ, the management of such projects has much in common with the management of similar types of projects in other specialty or technology domains such as aerospace, pharmaceutical and energy developments.

Project management is the art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participation satisfaction.

1.1 project motivation: -

1. **Improving healthcare services:** Expanding and developing Tanta General Hospital with its facilities and equipment can improve the quality of healthcare received by patients in the area.
2. **Meeting growing medical needs:** Developing the hospital can help meet the community's increasing need for healthcare services and treatment.
3. **Achieving financial sustainability:** Developing the hospital can increase revenue streams and achieve financial sustainability for the hospital.
4. **Promoting the local economy:** Implementing the construction project of the hospital can drive the local economic development by creating local job opportunities and supporting local businesses.
5. **Enhancing the hospital’s reputation:** Improving and expanding Tanta

General Hospital can enhance

1.2 Project aims

The project aims to successfully manage the construction project for Tanta General Hospital, ensuring that it is completed on time, within budget, and according to quality standards. This includes coordinating with contractors, suppliers, and stakeholders, managing resources effectively, and addressing any issues or risks that may arise during the construction process. Additionally, the project aims to deliver a safe and functional hospital facility that meets the needs of the community and provides quality healthcare services according to **(Engineering Standard)**: -

1. The project follows engineering standards **Egyptian Code for Construction Project Management** (Code NO. 311-2015).
2. the project follows the **Egyptian contract Law 182 of 2018**
3. the project follows **FIDIC Contracts.**

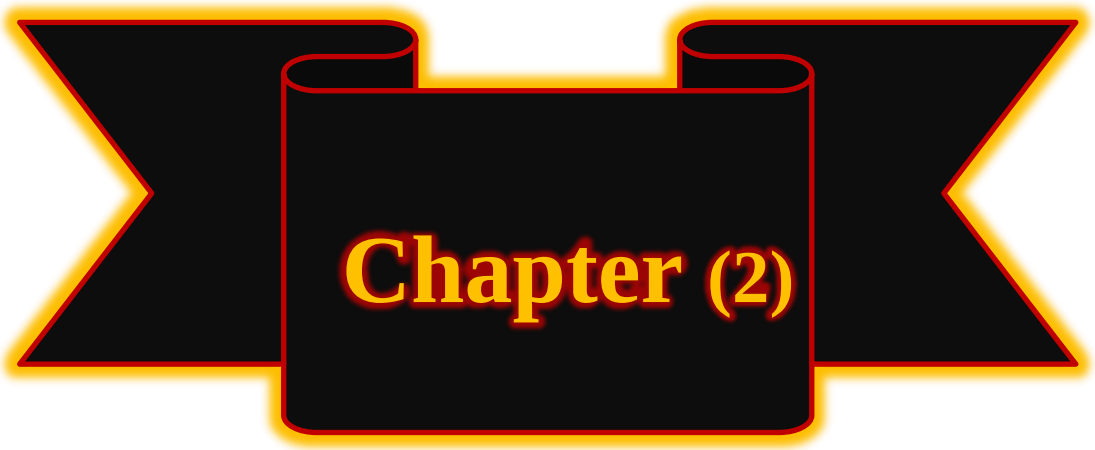
1.3 Project contributions

Some potential project contributions for a construction management project for the construction of Tanta General Hospital could include:

1. Developing a comprehensive project plan outlining the scope, schedule, budget, and resources required for the construction of the hospital.
2. Conducting site surveys and feasibility studies to assess the suitability of the location for the hospital and identify any potential challenges or obstacles.
3. Managing the procurement process to source qualified contractors, vendors, and suppliers for the construction project.
4. Implementing quality control measures to ensure that all construction work meets the required standards and specifications.
5. Coordinating with relevant stakeholders, including government officials, healthcare professionals, and local communities, to ensure alignment and support for the project.
6. Monitoring the progress of construction activities, identifying and addressing any issues or delays that may arise during the project.
7. Conducting regular risk assessments to identify potential risks to the project and develop mitigation strategies to minimize their impact.
8. Ensuring compliance with all relevant regulations, codes, and standards throughout the construction process.
9. Collaborating with architects, engineers, and other professionals to ensure that the design and construction of the hospital meet the needs and

requirements of its future occupants.

10. Providing regular updates and reports to stakeholders on the progress and performance of the construction project.


Chapter (2)

Economic Feasibility and Engineering Standards

The Economic Feasibility Study for the project of managing construction projects for Tanta General Hospital aims to

1. Evaluate the financial and economic aspects of the project,
2. Analyze the possibility of achieving the expected financial return from it.

This study usually includes economic factors that affect the project such as the costs required for construction and operation, expected revenues from hospital services, fixed and variable costs, and analysis of the financial profitability of the project.

The study aims to provide an accurate estimate of the project cost and the possibility of achieving profits from it, and to provide recommendations on the feasibility of continuing the project and improving its economic performance in the future.

The economic feasibility study is considered one of the important steps in preparing any project before starting its implementation.

2.1 Relation with the Environment and Economic Benefits:

The construction project of Tanta General Hospital provides significant economic benefits to the region and the local community as a whole, as it contributes to creating job opportunities for local residents during the construction and operational phases. Additionally, the project works to enhance investments in the area and attract capital.

2.1.1 Environmental Relationship:

the construction project of Tanta General Hospital can help improve the quality of the surrounding environment by monitoring and reducing harmful emissions and using environmentally friendly building materials. The project can also support the sustainability of local resources by employing green construction techniques and promoting principles of recycling and the use of renewable resources.

2.1.2Economic Benefits:

1. **Short-term Benefits: -**

- Job Opportunities: - Creating job opportunities for local residents during the construction phase, boosting the local economy.
- Local Investment: - Attracting local and foreign investments to participate in the project, enhancing the local economy.

2. Long-term Benefits: -

- Improved Healthcare Services: - Providing advanced healthcare services can improve community health and reduce long-term healthcare costs.
- Economic Growth: - Improved healthcare infrastructure can attract more residents and investments to the area, boosting local economic growth.
- Reduced Healthcare costs: - better healthcare can lower the costs of treatment and travel for medical care.

2.2 Balancing Environmental and Economic Benefits:

- Sustainable Design: - Investing in sustainable construction technologies can be costly
- initially but it provides long-term savings through reduced energy consumption and lower maintenance costs.
- Environmental Policies: - Adhering to strict environmental policies can ensure a balance between economic development and environmental preservation.

2.2.1 Recommendations:

- Environmental Impact Assessment: - Conducting studies to assess the environmental impact ofthe project before starting and taking necessary measures to mitigate any negative effects.
- Community Engagement: - Involving the local community in the planning and implementation phases to ensure the project meets their needs and addresses their concerns.
- Training and Development: - Providing training programs for workers on using sustainabletechnologies and eco-friendly work practices.

2.3 Economically feasibility study

Introduction

This study aims to evaluate the economic feasibility of constructing Tanta General Hospital. The analysis will include cost estimation, revenue projection, benefit analysis, and financial metrics to determine the viability of the project.

1. Project Overview

- Project Name: Tanta General Hospital
- Location: - Tanta, Gharbia, Egypt
- Capacity: - 300 beds
- Project Area: 13100 m2
- Services: General medicine, surgery, emergency services, pediatrics, maternity, and specialtyclinics

2. Cost Estimation

- Initial Capital Investment
  - Land Acquisition: $2,000,000
  - Construction Costs: $20,000,000
  - Medical Equipment and Technology: $10,000,000
  - Furniture and Fixtures: $2,000,000
  - Pre-Operating Expenses (permits, licenses, etc.): $1,000,000
  - Contingency (10% of total costs): $3,500,000
  - Total Initial Investment

- Operating Costs (Annual)
  - Salaries and Wages: $5,000,000
  - Utilities and Maintenance: $1,500,000
  - Supplies and Pharmaceuticals: $2,000,000
  - Administrative and Overhead: $1,000,000
  - Total Annual Operating Costs: $9,500,000

3. Revenue Projection

- Service Revenue (Annual)
  - Inpatient Services: $12,000,000
  - Outpatient Services: $5,000,000
  - Specialty Services and Surgeries: $8,000,000
  - Diagnostic and Laboratory Services: $2,000,000
  - Total Annual Revenue: $27,000,000

- Other Revenue
  - Government Grants and Subsidies: $1,500,000
  - Donations and Fundraising: $500,000
  - Total Additional Revenue: $2,000,000
  - Total Annual Revenue: $29,000,000

4. Benefit Analysis

- Cost-Benefit Analysis
  - Annual Net Revenue: $29,000,000 - $9,500,000 = $19,500,000
  - Payback Period: $38,500,000 / $19,500,000 = ~2 years

5. Risk Analysis

- Construction Delays: Mitigation through strict project management and contingency planning.

- Cost Overruns: Addressed by including a contingency fund and thorough planning.
- Revenue Shortfalls: Conservative revenue estimates and diversifying service offerings.
- Regulatory Changes: Regular compliance checks and engagement with regulatory bodies.

2.4 Engineering Standard: -

1. The project follows engineering standards **Egyptian Code for Construction Project Management** (Code NO. 311-2015).
2. the project follows the **Egyptian contract Law 182 of 2018.**
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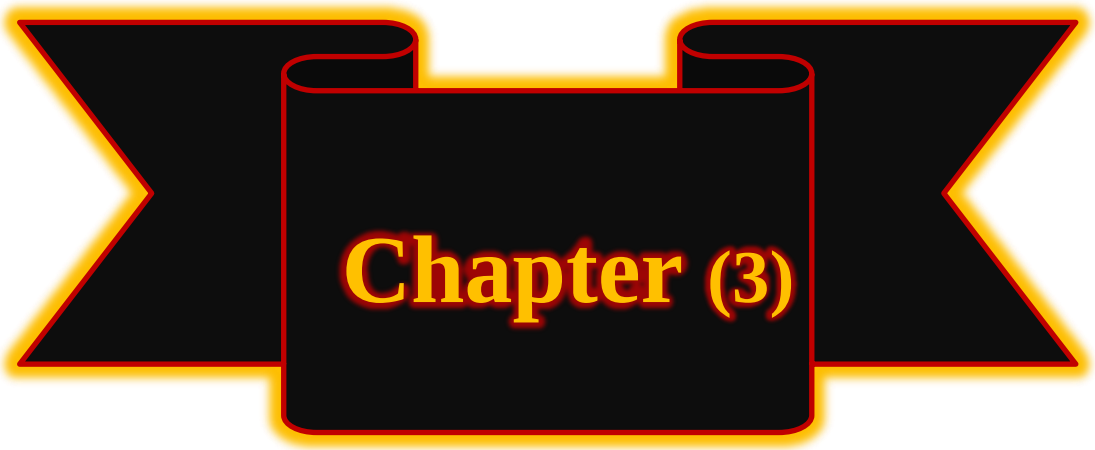

Chapter (3)

System Design and Analysis

3-1 Design Constraints

There are many constraints in every industry. But there are instances where we become unaware of the existence of the constraints. Or we tend to put more emphasis on the goals of the project.

The construction industry includes a multitude of parties that would bring complications in the management of the project. This could lead to conflicts and disputes which have cost consequences directly or indirectly to the clients and or contractors. It is therefore critical to identify the potential constraints to help decrease the loss of money and time due to inadequate planning. Controlling the possible constraints is a pre-requisite for the high performance of the project.

However, constraints in the construction sector limit their ability to perform at a high-level. If we can understand constraints better at the onset, then the performance level of your business will improve.

3.2 Types of Constraints in construction

- ***Design***

Design constraints are factors that limit the range of possible design outputs. Although, there is an argument that design constraints can be helpful in the creation and development of the design

The design constraints could include the budget, performance requirements, site boundaries, conditions from neighboring properties, site access, local structures, building regulations, completion dates, and local weather conditions.

It is also possible that design constraints may be known at the early stages of a project while others become apparent at the latter design process.

- ***Technical***

These types of constraints usually refer to the process involving the completion of construction activities. And they are often based on the practicality of building

standards and methods. Other technical constraints are related to the tolerances of construction, the space required for builders to work, available handling or storage areas, site access, and the coordination of services.

These constraints are all linked to health and safety, building regulations,

control and client needs, and any architectural aspects. Some of these constraints will be small and may seem meaningless but it can have a large impact.

An example of a technical constraint is the construction of the foundation. The site must be properly excavated. After this, the framework and the reinforcement can be placed before the concrete is poured. Each step or task must be completed before the next one can begin. Making the previous task a constraint to the next task.

There are also a few technical restraints that can come from a restrictive site area and congested environments or surroundings. This can pose constraints in storage space, design, and transportation. These are usually recognized at the stage of design, but this doesn't necessarily mean that all constraints can be readily overcome.

- ***Environmental***

Are limiting factors that concern the following; Air, water, or ground pollution.

Usage of hazardous or sustainable materials. Carbon emissions or energy consumption. Waste and water management, Dust, vibration, and noise.

Preservation of ecology, traffic, and transportation, climate change resilience.

Design for deconstruction and disposal.

These factors often can overlap with legal constraints but additional requirements can be provided by the client for environmental policies.

- ***Economic***

These relate to the budget of the project and the allocation of resources. If the budget is not enough or it is not allocated properly then it can have a negative impact on the quality, functionality, performance, safety, and success of the project.

Generally, construction projects are balanced between quality and cost. Any change in one will directly impact the other two.

However, these relate to not just the overall budget but also the flow of cash through the supply chain. Clients should have available funds to pay for works as they progress. Payments must be made on time through the contractual chain.

Cash flow is one of the primary causes of bankruptcy in the construction

business. and having to find new suppliers, contractors and subcontractors can cause a project to be delayed which would lead to additional costs.
Due to budget constraints, the adopted system for the construction may not necessarily be the best option for achieving quality and project goals. If the budget is also not efficiently allocated it can hamper the progress of the project. In summary, if the economic constraints are not managed properly it can affect the product, performance, function, and quality of the project.

- ***Technological***

These kinds of constraints are directly related to the limitation of projects due to technology. It is defined as the logical relationship between activities that cannot be changed unless the technology is changed. This is the most obvious constraint, as the application of a machine or a piece of automated equipment can directly change the progression of activities that changes the nature of the work.

- ***Legal***

This refers to regulations that the practices and activities in a construction project have to comply with. This usually involves safety requirements, employment law, building regulations, planning, and environmental requirements.
The process of complying with all these requirements and regulations can be time. Consuming and it usually requires a complete understanding of complicated bureaucratic procedures. However, failure in complying with these regulations can have a negative impact on your project
and business. It can affect the project by causing delays, remedial works, financial penalties and it can even cause criminal proceedings.
Any building will have to first get a planning permit and it has to meet certain criteria for approval. Planners can apply restrictions and or ask for improvements for your business to get permission. Building regulations have a set of detailed performance requirements or standards that the completed project must comply with. When your project or business can comply with all the requirements a certificate is normally provided or issued for insurance purposes.

- ***Social***

  Public concern and pressure from the media can impose a limitation and greater scrutiny on a project. It can even sometimes result in the alteration of the original plans and completion dates. Social constraints include components that arise from the result of wider interest or opposition to specific projects.
  Projects that are funded by the public are normally subject to social constraints because of the greater Interest it entails.
  These types of constraints are often labeled as "not in my backyard" or nimbyism.

- ***Time***

  These include vital dates on a scheduled project or milestone. Conforming to these dates is usually important in terms of the overall project completion date. Penalties are normally given if a business is unable to meet the agreed dates.
  But some delays are not necessarily the fault of a contractor. Of which they are usually granted an extension. Pushing the dates back.
  Other time constraints can come from third parties. These third-party components can be anything from planning permission expiry dates to changes in legislation.
  Contracts normally specify the earliest completion date, the date on which the task should be completed, and the exact date on which a task must be completed. Projects that have phases may include multiple starts and end dates.

- ***Managerial***

  Lastly, are managerial constraints. These are related to resources such as materials, equipment, and workers. This happens when it is required to adjust the schedule of active resources for certain projects or operations which can't be available as soon as they are needed. Management needs to take into consideration many constraints that are related to the nature of the equipment and its corresponding management principles.
  Several factors can affect the planning and scheduling of activities for construction. Which can lead to impacting the productivity, operating time, and rates of production.

Timing for maintenance of equipment, security programs, inventory of parts, workers' schedules, are all elements of a managerial constraint that should be considered heavily

3-2 Code of Ethics (COE)

Ethical Principles

Ever cognizant of the profound interrelationship of their profession with both human society and Nature, civil engineers shall work for the development of technology, deepen and consolidate their knowledge, contribute by means of their wisdom, skills, and virtues to both the peace and prosperity of the people and the nation and to the welfare and sustainable development of the humanity.

The Code of Professional Conduct Civil engineers shall:

1. Contribute to society.

Utilize their expertise and experience to develop and implement comprehensive solutions to issues of public interest, keeping in mind the peace and prosperity of the people and the development of society as their constant concern.

2. Respect both Nature and the fabric of civilization and culture.

Respect Nature indispensable to the survival and development of humanity while holding in esteem diverse civilizations and cultures.

3. Ensure the security of society and mitigate disasters.

Be committed to aiding in protecting the life and property of the people, working with colleagues across a broad range of disciplines, while looking beyond their professional expertise to the concerns of the people, realizing both the capabilities and the limitations of technology with the people.

4. Fulfill their professional responsibilities.

Recognize the essentially social significance of their work and thus endeavor to fulfill their duty to society.

5. Guard their integrity and avoid any conflicts of interest.

Be fair and unbiased in all their interactions with the people, their clients, the organizations for which they work, as well as themselves, faithfully and honestly discharging their duties and avoiding any conflicts of interest.

6. Openly provide information and engage in public dialog.

For the sake of the general welfare, be pro-active in sharing their expertise and knowledge in their endeavors and communicate in an open exchange of views with the people.

7. Make known the results of their research endeavors.

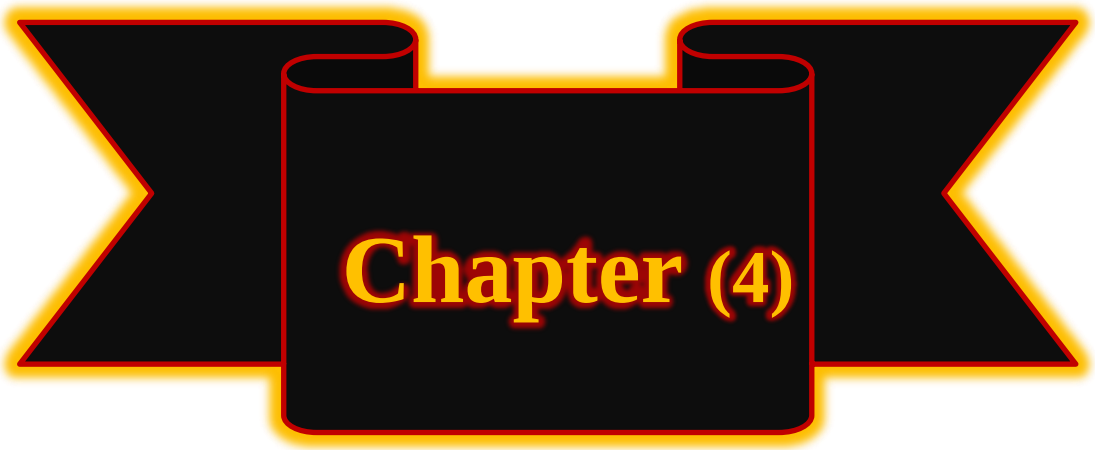
Publish their findings and policy recommendations with research papers and reports in conformity with both their scientific convictions and their own consciences, sharing these with both their professional colleagues and the people, always mindful of objective facts and the intellectual achievements of others.

8. Strive for self-improvement and human-resource development.

Cultivate and nurture their virtues, general knowledge and professional competence, pursue scientific endeavors in the realms of both scientific and practical theories for the sake of technological advances, and put to use their individual abilities, experience, and merits for the education and training of engineers.

9. Comply with established norms.

Carry out their work in full understanding of all laws, rules, and regulations as well as of well-founded principles, actively and willingly taking the lead in the observance of societal standards and seeking to improve them in response to both social and technological change.


Chapter (4)

PROJECT DESCRIBTION

4.1 Project Description: -

Table 1: Project Description

Project Name	**A project of the Construction of Tanta General Hospital**
Owner	**Ministry of Health and population**
Consultant	**Ain Shams University, Faculty of Engineering**
Contractor	**Wadi EL Nile Company**

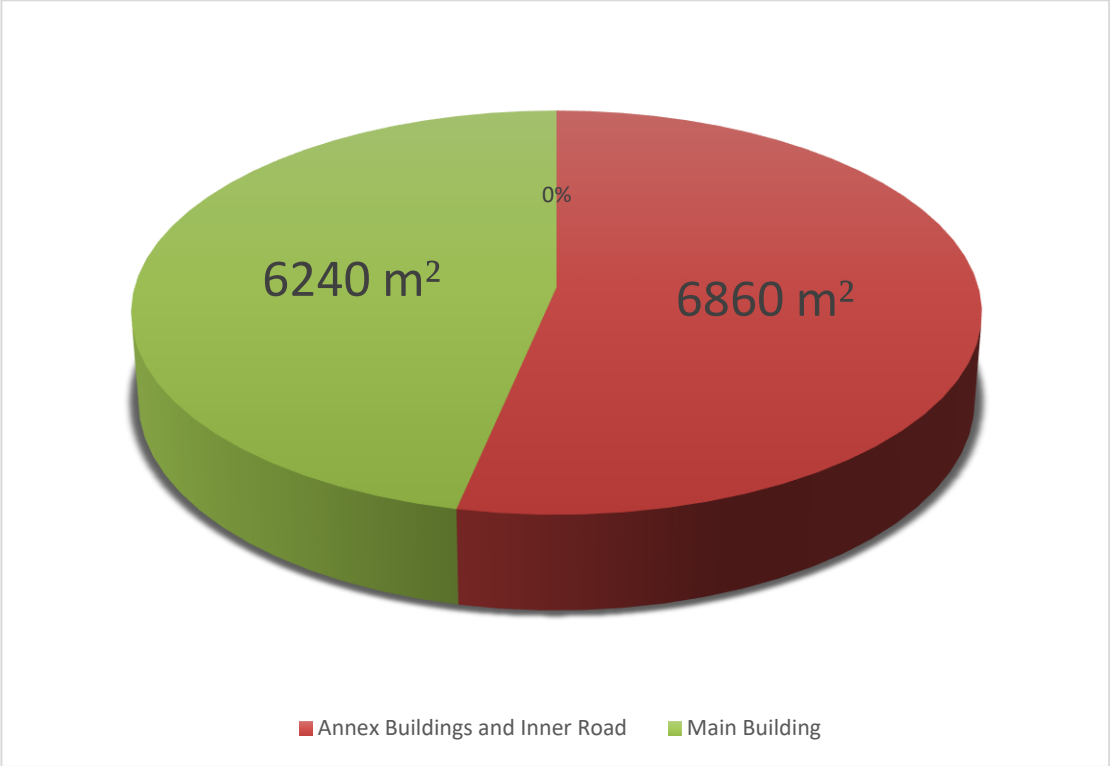
4.2 Project Description

Table 2 Project Description

Floor	Components
Ground	Main Entrance - Inquiries - Waiting Area – Financial and administrative management offices – Emergency department – X-ray place – Renal dialysis – Natural therapy – Service rooms – Outpatient clinics -Mortuary.
First Floor	Senior management of the hospital (Manager – Administrative offices – Meeting room – 4 intensive care units – 5 operating rooms – Heart catheterization department – Department of burns – Department of minimally invasive surgery – Laboratory department and blood bank)
Second Floor	Waiting area – Patient residence area – Women and maternity department – 2 cesarean operating rooms - Nurseries
Third Floor	Patient accommodation
Fourth Floor	Patient accommodation – Doctor's accommodation – Nursing accommodation
General Location	Service rooms (Transformers – Main electrical panels – Generator – Security – Workshops – Warehouses – Fire tank– Parking for cars and ambulances – Oxygen tank)
Annex Buildings	Electric Room- Processing Station- Fire Tank

4.3 General information about the project: -

- **Project Area**: - 13100 m2
- **Location**: - Egypt-Gharbia-Tanta-Seberbay.
- **Total Price**: 1363863000 billion EGP
- **Project start date**: 01/10/2023
- **Duration**: 21 months
- **Actual implementation rate**: 90%



4.4 Site Visit: -

Figure 9: Site Visit

Figure 10 Site Visit

Figure 11: Site Visit

4.5 project location: -

- ***Location: - Egypt-Gharbia-Tanta-Seberbay***

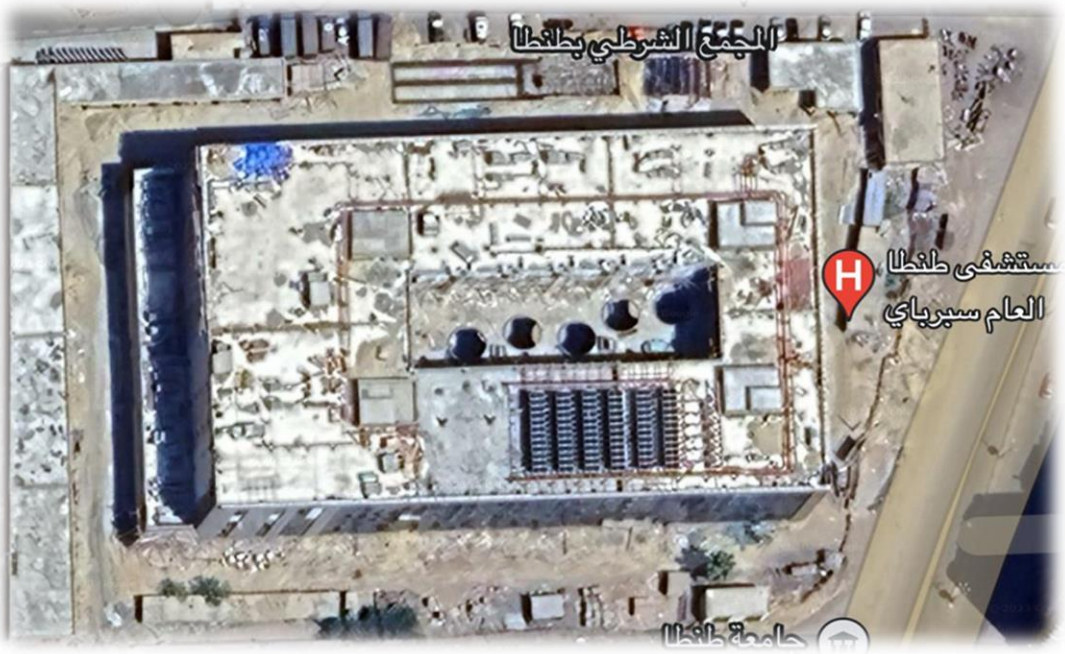


Figure 12: Project Location

4.6 Drawings: -

- ***Ground Floor Plan***

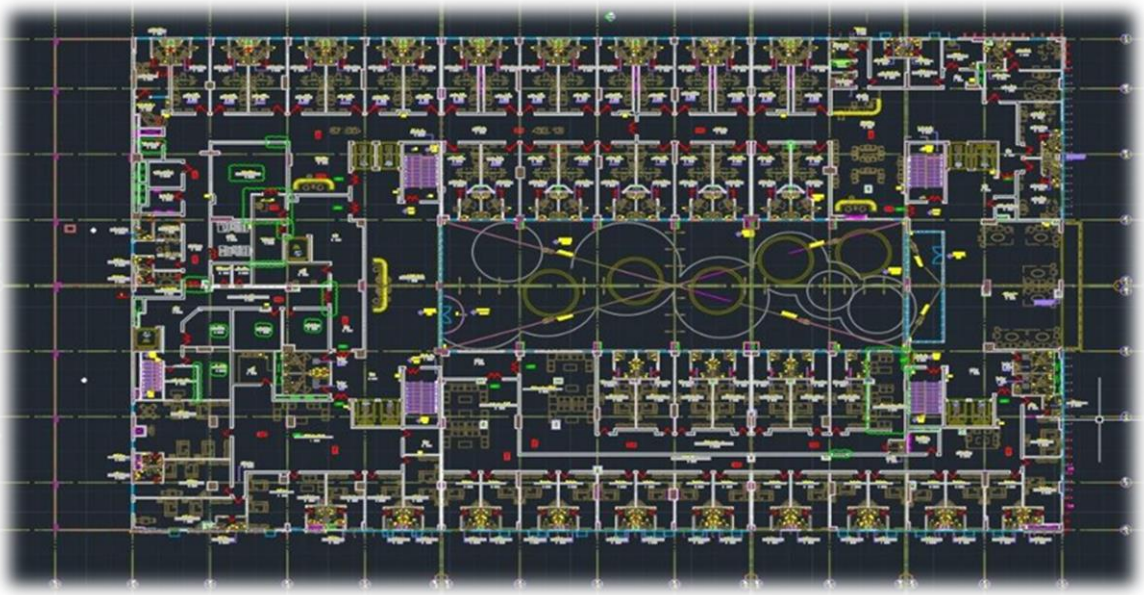


Figure 13 Ground Floor Plan:

- ***First Floor Plan***

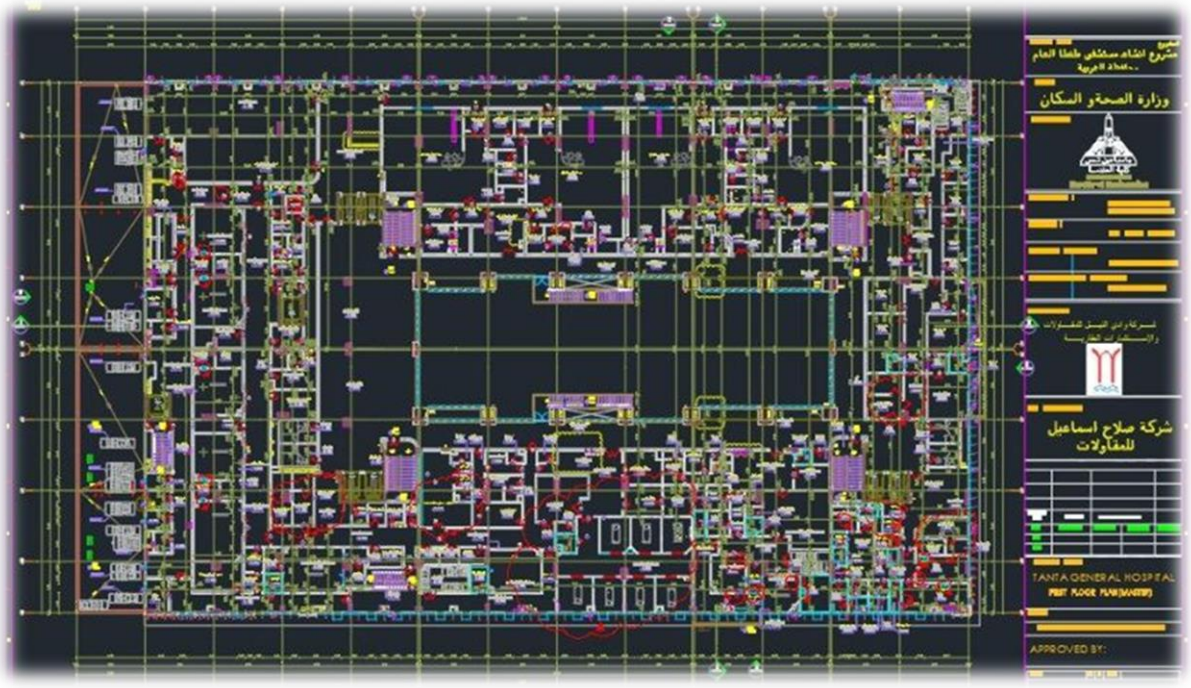


Figure 14: First Floor Plan

- ***Second Floor Plan***

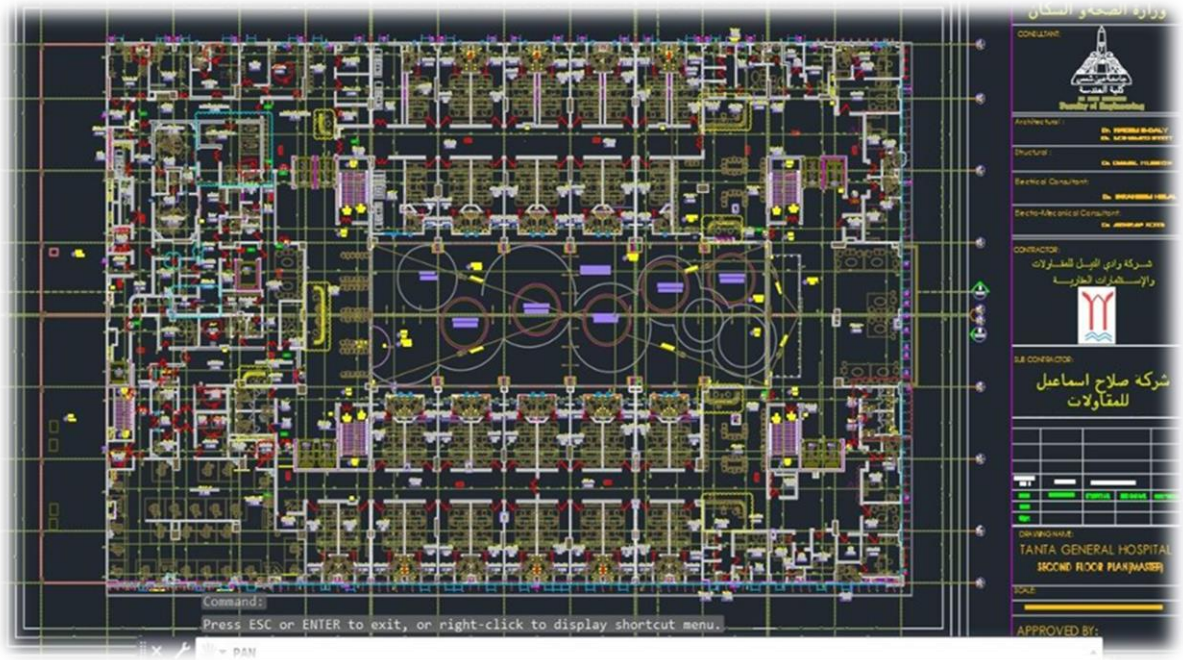


Figure 15: Second Floor Plan

- ***Third Floor Plan***

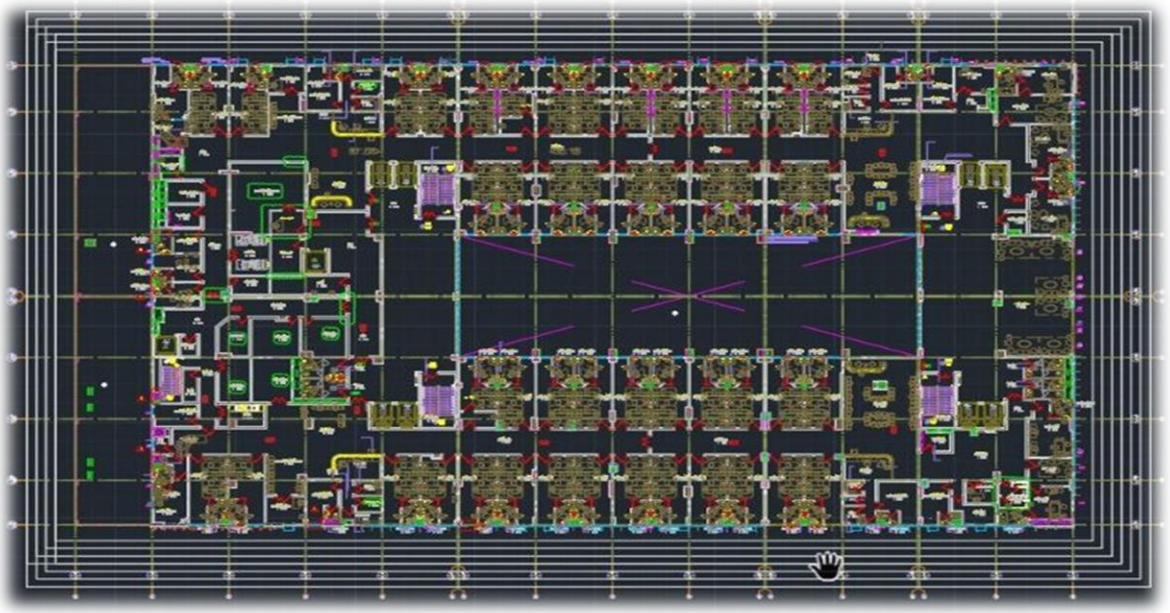
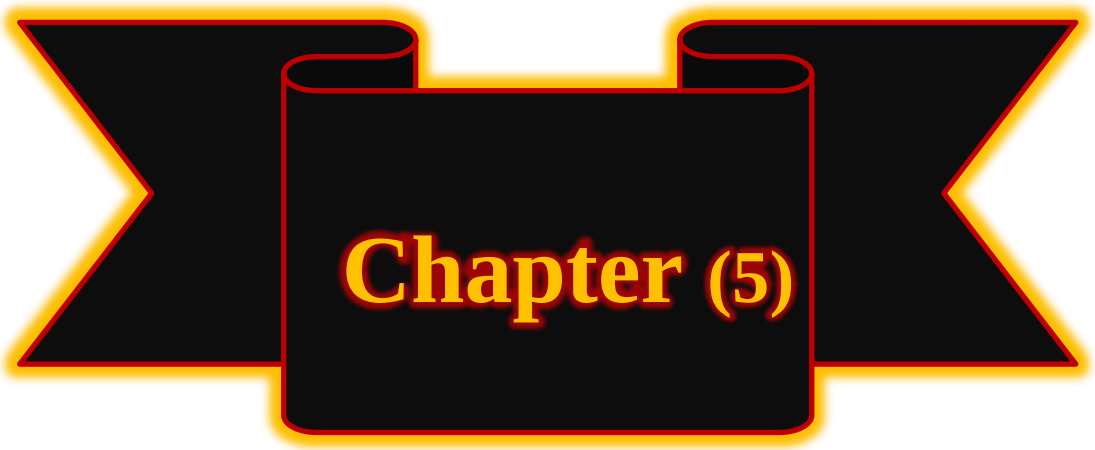


Figure 16: Third Floor Plan


Chapter (5)

Contract Analysis

5.1 Important Notes

1) Prices include making detailed operating drawings for each space showing all specialties (sanitary, electricity, gases, air conditioning, etc., furnishings, etc.), with the participation of supplying companies specialized in supplying supplies and equipment for hospitals, provided that they are approved by the consultants before the start of the project business.

2) All prices include the contractor's careful review of the actual dimensions and their review with the drawings Submitted by the consultant regarding signing the building on site and approving it with the consultant before starting implementation.

3) All prices include making operating drawings for any part and any specialty of the project, depending on For consultant instructions.

4) The contractor is obligated to provide all products supplied to the site in their original sealed packaging indicating the name of the producing company and its industry.

5) Prices include the contractor providing training to specialists from the Ministry's employees on the following:

6) Use of all equipment supplied to the building, methods of use and maintenance methods.

7) Methods of checking the validity of fire alarm devices. Dealing with central air conditioning devices.

8) Electricity distribution panels and other electrical devices.

9) When submitting the bid, the contractor is deemed to have visited the site and inspected it for due diligence.

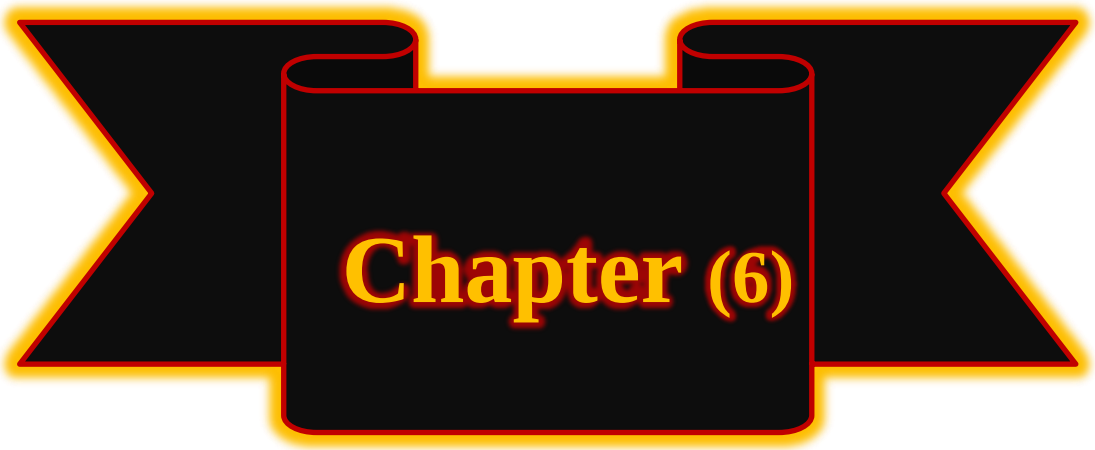
10) The items include removing and demolishing any buildings from the public site after they have been approved by the consulting engineer, or completely clearing it of any trees, buildings, concrete bases, or any facilities, and removing any foundations or fences, transporting demolition products to public dumps, and supplying all demolition products, including gates, windows, etc., To hospital warehouses, in accordance with the instructions of the consulting engineer.

Table 3 compression for contract to Fedics

FIDIC	Terms of the contract	Comparison
The first clause The previous introduction, tender documents, and project specifications are considered the subject of the contract, which was prepared by the Center for Research and Engineering Consultations at the Faculty of Engineering - Tanta University and approved by the competent authority of both parties to conclude this contract, as well as all previous correspondences and minutes prepared by the first party, which are an integral part of this contract and complement its provisions.	This part includes the general conditions for submitting a bid for the construction of works specified in detail in the documents attached hereto the conditions, which consist of: A. Working drawings. B. Technical specifications. C. Tables of quantities and prices.	in accordance
The second clause The second party shall carry out the construction of Tanta General Hospital building at the University Hospitals in accordance with the specifications attached to this contract, provided that the accounting is based on the actual implementation of the works according to the drawings, items, quantities, and specifications specified in the work schedule and in accordance with the list of weights received with the assignment order.	These Contractor's documents shall be in accordance with the specification and drawings, shall be written in the language for communications defined in Sub-Claude 1.4 (Law and Language), and shall include additional information required by the Engineer to add to the drawings for coordination of each party's designs	in accordance
The Third clause This contract shall come into effect from the date of receiving the advance payment, linked to the receipt of the site free from obstacles and impediments, according to a receipt signed by the representative of the second party.	The Employer shall make an advance payment, as an interest-free l can for mobilization, when the Contractor submits a guarantee in accordance with the Subclause. The total advance payment, the number and timing of instilments (if more than one), and the applicable currencies and proportions, shall be as static in the Appendix to Tender.	in accordance
Fourth Clause		in accordance

The execution period of the works is twenty-four months starting from the date of receiving the advance payment associated with the receipt of the site free of obstacles and hindrances, with the commitment of the second party to provide a schedule within two weeks for the duration of the execution to be approved by the first party... The first party undertakes to take measures to issue permits.	The Contractor shall submit a detailed time programmed to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programmed whenever the previous programmed is inconsistent with actual progress or with the Contractor's obligations. Each programmed shall include: (a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents procurement, manufacture of Plant, delivery to Site, construction, erection and testing,	
The Fifth clause Police regulations - Health - Maintaining order - Roads: On the other hand, following police regulations, health, organization, labor laws, and other regulations, and it is incumbent upon his agents and workers to follow them and be responsible for maintaining order at the workplace. The second party must be removed from work within 24 hours of receiving the order from the engineer of the first party or his representative if he does not follow the instructions issued to him.	The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In Collaboration with local heath authorities the Contractor shall ensure that medical staff, first and facilities, sick bay and ambulance service are available at all times at the site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.	in accordance
The sixth Clause If he is late in completing the work and delivering the project on the specified dates, delay fines will be imposed on him in accordance with the Tenders and Auctions Law No. 89 issued in 1998 and its executive regulations issued by the Minister of Finance. This fine will be imposed as soon as the delay occurs without the need for an official or informal assignment or warning or taking any legal measures.	If the Contractor fails to comply with Subclause 8.2 [Time for Completion], the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Appendix to Tender, which shall be paid for every day, which shall elapse between the relevant Time for Completion and the Date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the	in accordance

	Appendix to Tender. These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Subclause 15.2 [Termination by Employer] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities, which ha may have under the Contract.	
The Seventh Clause The owner has the right to send samples of materials supplied by the second party to government laboratories and private laboratories to ensure their suitability and compliance with the conditions and specifications. The second party must, at its expense, provide the necessary supplies, workmanship, and means of transportation necessary to conduct this test, as well as all testing costs to be borne by the second party or paid by the party. The first deducts it from the second party's receivables	The contractor shall submit the Following samples of materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works: (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost (b) additional samples instructed by the Engineer as Variation. Each sample shall be labeled as to origin and intended use in the Works	in accordance


Chapter (6)

Method statement

6.1 Excavation

Scope:

This method statement for excavation defines the sequence and control procedures to be followed for excavation work for the project and the practical guidance to manage health and safety risks associated with excavation activity.

The description of the procedure/ sequence:

1) Excavation work: depends on the foundations of fire tanks and building foundations.

2) Excavation work: in cubic metres 13104 m3.

3) Excavation will be carried out using an excavator with bucket.

Figure9: Digger

4) The excavators with bucket will be used to excavate the sandy soil and loaders will work at the same time to load the excavated materials in the dump truck.

Figure10: Digger

Figure11: loaders

5) The dump trucks will move the excavated materials to the land filling, considering the amount of the backfilling soil that is required.

Figure12 : dump trucks

6) Excavation work: in cubic meters, excavation of the foundations of the fire tank to any depth at all times Types of soil according to the consultant's instructions and the soil research report, and the category includes solid aspects Drilling also includes the removal of surface and groundwater, if any, and everything necessary for completion Work in accordance with conditions and specifications and according to industry principles and engineering measurement For design drawings, the measurement method was explained in the technical specifications for drilling and works Dirt. 1700 m3 .

7) Excavation work: in cubic meters, digging foundations to any depth in all types of soil According to the consultant's instructions and the soil research report, the category includes surface water dewatering And the subterranean materials, if any, and everything necessary to complete the work in accordance with the conditions and specifications The principles of industry and engineering measurement are according to the design drawings, and the measurement method is explained Technical specifications for excavation and earthworks. 7500 m3

8) The surveyor will keep checking on the level of each stage of excavation to avoid any over excavation or any over depth that will result a landslide of the soil that is being excavated .

9) The building area will be leveled with the aid of the total station.

Figure13 : total station.

6.2 QA/QC Engineer:

1) Ensure the proper implementation of the Quality system and monitor the overall quality of the work is maintained.

2) Conduct inspection and monitor tests. Determine and report any non-conformance and recommended corrective actions.

3) Ensure that all personnel is aware of the quality requirement.

4) Training of relevant personnel

6.3 Safety precautions on the site:

6.3.1 Protective Equipment:

•Safety boots. • Hard hats. • Protective jackets.

Figure14: Safety boots

Figure15: Hard hats

Figure16: Protective jackets.

6.3.2 Pre-Construction Safety Meetings

- Method statement and Risk Assessment to be briefed to all construction team before the activity start.
- General contractual safety, health, and environmental requirements.
- Roles of the contractor, subcontractors, authorized representatives, and all project workers. Accident reporting requirements.

Description	Applications
Loader	Loading of Excavated Materials
Excavator with bucket	Excavation Works
Dump Trucks	Hauling of Excavated Materials
Water Trucks	Dust Control
Generators	Power Supply
Total Station	Setting Out for Construction

Column work

The description of the procedure/ sequence:

Planning and Design: Engineering planning and design of columns is done based on project requirements and expected loads.

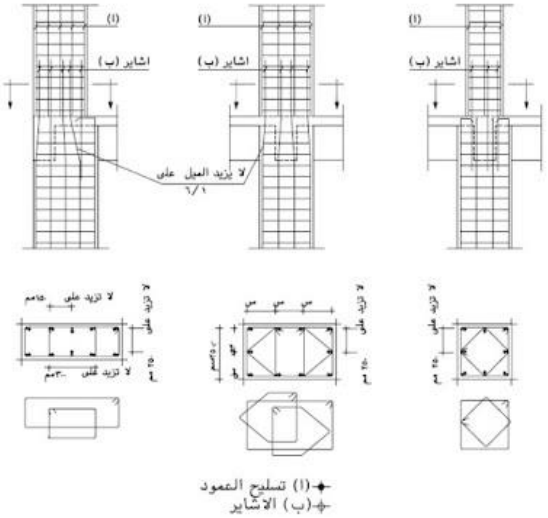


Figure 17

1) Site preparation : This includes cleaning the site, preparing it for construction operations, and determining the locations of columns on the project land according to engineering drawings.
2) Column mold casting : Column molds are formed and prepared for casting in reinforced concrete.
3) Reinforcing steel placement : Reinforcing steel is arranged and placed inside the column molds in coordination with the engineering design.

Figure 18

4) Concrete pouring : Concrete is poured into the column molds after securing the reinforcement steel.
5) Taking care of the curing process : After pouring, care must be taken of the

curing process to allow the concrete to harden properly.

6) Removal of formwork : After the concrete is strong enough, the formwork for the columns is carefully removed.

7) Quality Check : Columns are carefully inspected to ensure they are performed correctly according to specifications.

8) Moving to the next step : After ensuring the quality of the columns, we move to the next steps in the construction process.

6.4 Equipment and Tools:

1) Column molds : used to form concrete and act as containers for poured concrete.

2) Reinforcing steel : Iron bars are used to reinforce concrete and give it additional strength and rigidity.

3) Cutting tools : such as an electric or iron saw to cut rebar bars according to the required size and shape.

4) Measuring tools : such as a ruler, scale, and angles to ensure accurate column measurements and determine iron locations.

5) : to mix concrete in sufficient quantities and in the required proportion.

Figure19 : Concrete mixer

1) Concrete pump (optional) : If columns are high or require difficult access, a concrete pump can be used to pump concrete to the specified location.

2) Cleaning brooms and brushes : to clean the site of dust and dirt before pouring concrete.

3) Personal safety equipment : such as safety helmet, goggles, work gloves, and safety shoes to ensure worker safety while working.

4) Cure and Care Equipment : Such as blankets and water for irrigation to help

the concrete cure properly.

5) Fastening tools : such as manual and automatic tools to hold column molds in place.

6.5 Safety & Health Requirements:

1) Worker Training : Workers must have good training on how to work safely according to proper standards and procedures.
2) Personal Protective Equipment : All workers must wear personal protective equipment such as safety helmets, goggles, work gloves, and safety shoes.
3) Safety at work at heights : If the work requires working at height, safe and well-secured platforms and ladders must be provided.
4) Movement direction and control : Good direction and control must be provided for the movement of heavy equipment and trucks within the site to avoid accidents.

Figure 20

5) Providing safe work spaces : Work spaces must provide the necessary safety means such as safe corridors and safety signs.
6) Good ventilation : Work must be done in well-ventilated areas to reduce workers' exposure to dust and harmful gases.
7) Emergency Procedures : Appropriate emergency procedures must be provided, such as fire extinguishers, rescue crews, and first aid.
8) Risk assessment and management : An assessment of potential risks must be carried out and procedures applied to manage and reduce them as much as possible.
9) Health and safety follow-up : Health and safety policies must be constantly updated and reviewed and implementation monitored to ensure compliance.
10) Communication and instructions : Clear directions and instructions must be

provided to workers about safety and health procedures and the need to comply with them.

11) Worker Training : Ensure that all workers involved in the roof pouring process have the necessary safety training and the correct procedures to work safely.

12) Use personal protective equipment : Ensure that all workers wear appropriate personal protective equipment such as safety helmets, goggles, work gloves, and safety boots.

13) Securing the site : Make sure the site is well secured to prevent accidents, and use barriers and signs to identify risky areas and prevent unauthorized entry.

14) Control of materials and equipment : Ensure that all materials and equipment used have the necessary quality and safety, and ensure that there are no damage or defects in them.

15) Good ventilation : Make sure there is adequate ventilation in the workplace to reduce exposure to harmful gases and hazardous vapors.

16) Check the site periodically : Check the site periodically to ensure that there are no new risks or unsafe activities.

17) Clean the site regularly : Make sure to clean the site regularly from dust and debris to reduce the risk of slipping and falling.

18) Handle hazardous materials with caution : If there are hazardous materials such as chemicals or heavy boards, be sure to handle them with caution according to security guidelines.

19) Implement emergency procedures : Ensure that an emergency plan is in place, that the necessary rescue equipment is available, and that workers are trained to use it.

20) Communication and Collaboration : Enhancing communication and cooperation among all team members to ensure that work is carried out safely and effectively

21) QA/QC Engineer:

22) Develop and determine all standards to perform inspection and tests on all procedures and oversee all testing methods and maintain high standards of quality for all processes.

23) Review the quality of all materials at the site and ensure compliance with all project specifications and quality and collaborate with the department for all material procurement and maintain a quality of materials.

24) Supervise the effective implementation of all test and inspection schedules and ensure adherence to all procedures and coordinate with various teams to

perform quality audits on processes.

25) Assist with employees to ensure knowledge of all quality standards and ensure compliance to all quality manuals and procedures and collaborate with contractors and suppliers to maintain the quality of all systems.

6.6 roof work with drop panel

The description of the procedure/ sequence:

Planning and Design: Begin by planning and designing the roof structure, including determining the type of roof and the design of the drop panels.

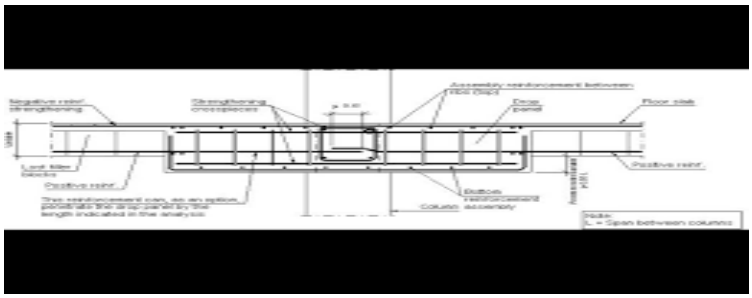


Figure 21

1) Site Preparation: Clean the site and prepare it for construction activities. Mark the locations for installing the drop panels according to the engineering design.

2) Installation of Drop Panels: Install the drop panels according to the engineered specifications. Ensure they are properly aligned and securely fixed in place.

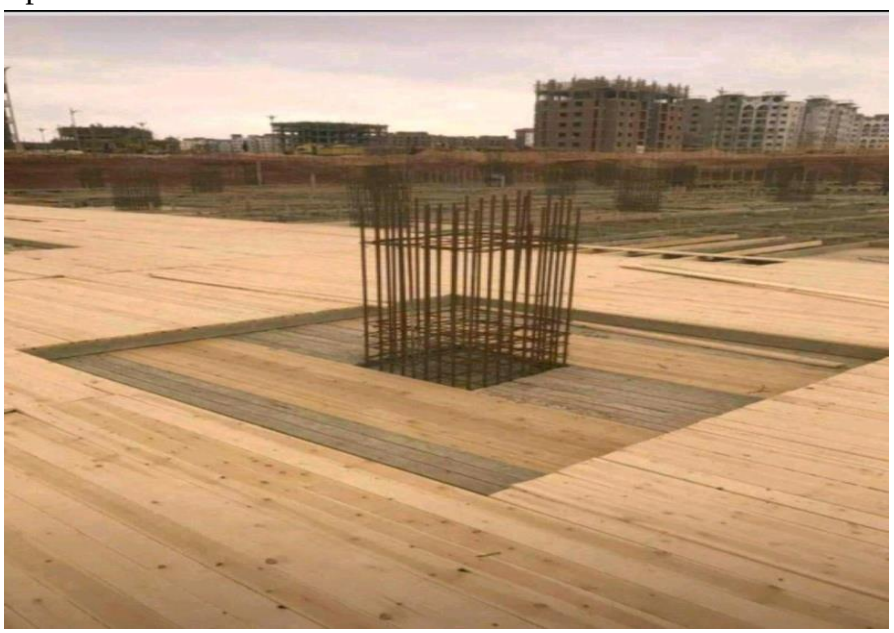


Figure 22

3) Installation of Horizontal and Vertical Supports: Install horizontal supports (beams) and vertical supports (columns) that connect the drop panels and

support the overall roof structure.

4) Reinforcement Placement: If required, place reinforcement bars (rebar) according to the design specifications for added strength and durability.

Figure 23

5) Curing Process: Allow the concrete to cure properly to achieve the desired strength and stability. Implement curing techniques such as water curing or using curing compounds as per the engineering recommendations.

6) Installation of Roofing Materials: Once the concrete has cured, proceed with the installation of roofing materials such as insulation, waterproofing membranes, and final roofing elements.

7) Finishing Touches: Complete any finishing touches such as adding insulation, sealing joints, and applying protective coatings as necessary.

8) Quality Inspection: Conduct a thorough inspection of the completed work to ensure it meets quality standards and engineering specifications.

6.7 Equipment and Tools:

1) Concrete mixer : used to mix concrete in large quantities and ensure its homogeneity.

Figure24 : Concrete mixer

2) Concrete Pump (Optional) : Can be used to pump concrete to the site more effectively, especially if the ceiling is high or not easily accessible.

Figurer25 : Concrete Pump

3) Molds for pouring concrete : used to form concrete correctly according to the specified design.
4) Reinforcing tools : This includes the reinforcing steel and the cutting and shaping tools required for its installation.
5) Spraying and cleaning equipment : used to clean and prepare the roof surface before pouring concrete and spraying insulating materials when needed.
6) Measuring and auxiliary tools : such as a ruler, scale, and angles to measure and determine locations accurately.

Figure 26

7) Personal safety equipment : such as safety helmet, goggles, work gloves, and safety shoes to protect workers.
8) Finishing tools : such as smoothing tools, air compressors, and other finishing tools necessary to complete the work properly.
9) Lifting and guiding equipment (optional) : Used to lift heavy materials to elevated locations and guide them accurately.
10) Cure and maintenance equipment : used to care for concrete after it has been poured, such as blankets, sprayers, and maintenance equipment.

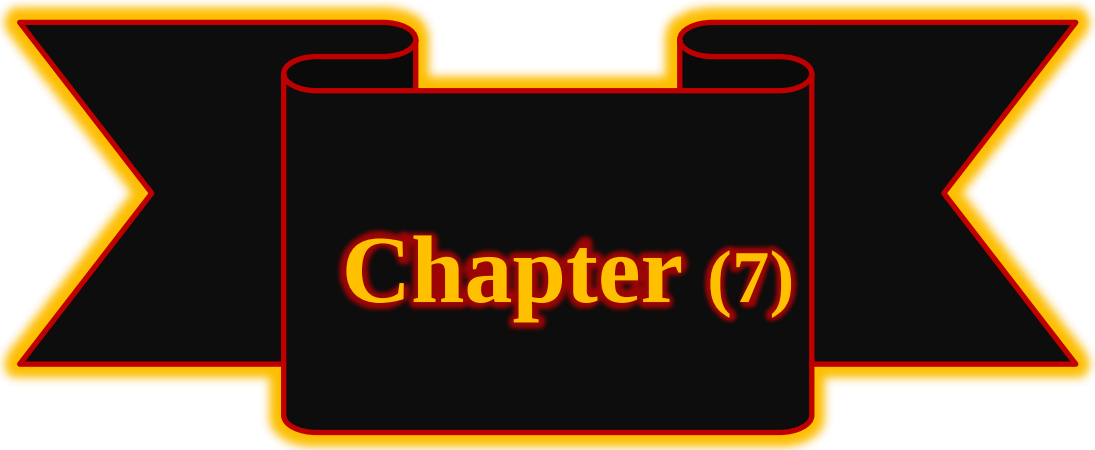
6.8 QA/QC Engineer:

1) Develop and determine all standards to perform inspection and tests on all procedures and oversee all testing methods and maintain high standards of quality for all processes.

2) Review the quality of all materials at the site and ensure compliance with all project specifications and quality and collaborate with the department for all material procurement and maintain a quality of materials.

3) Supervise the effective implementation of all test and inspection schedules and ensure adherence to all procedures and coordinate with various teams to perform quality audits on processes.

4) Assist with employees to ensure knowledge of all quality standards and ensure compliance to all quality manuals and procedures and collaborate with contractors and suppliers to maintain the quality of all systems.

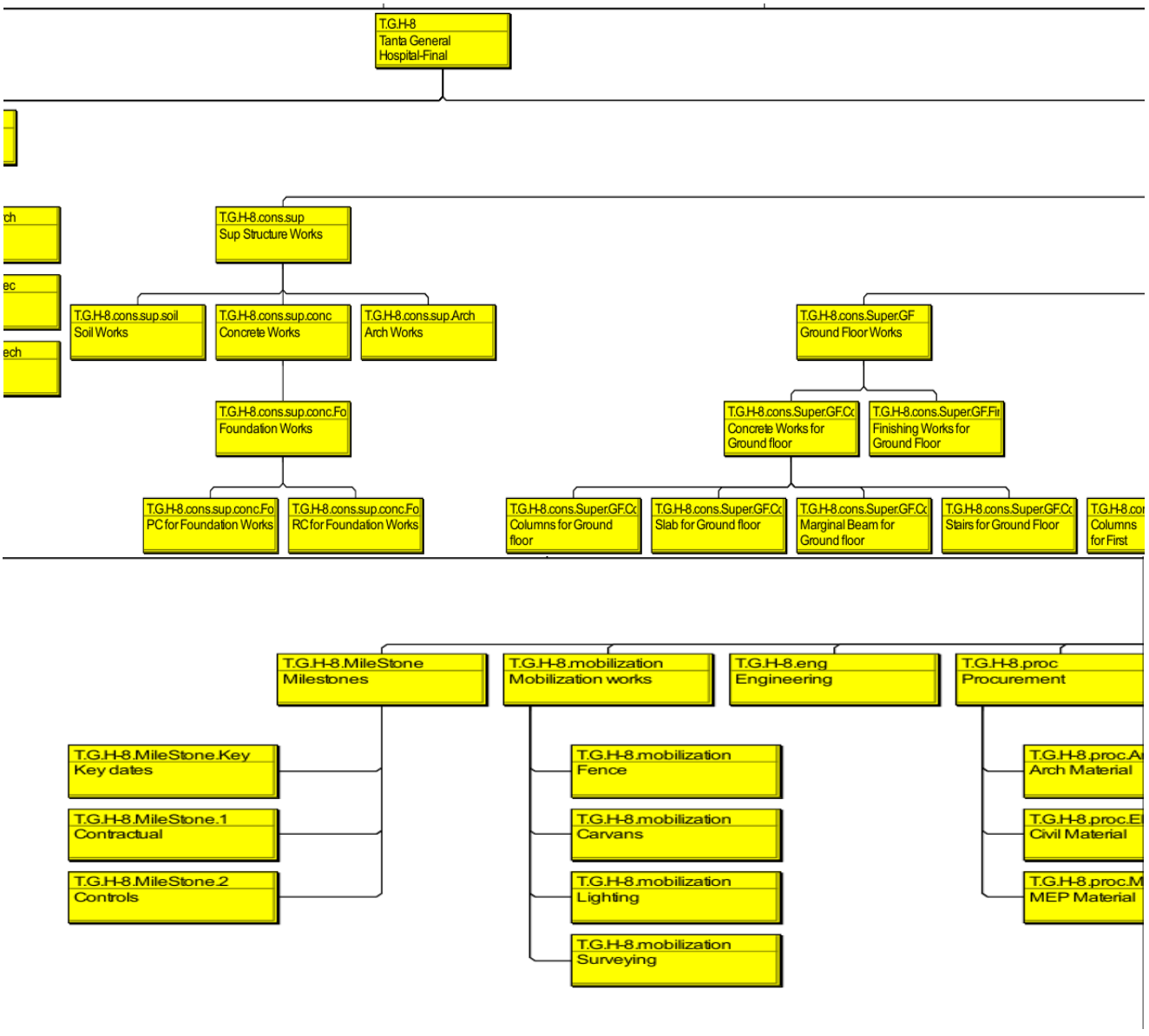

Chapter (7)

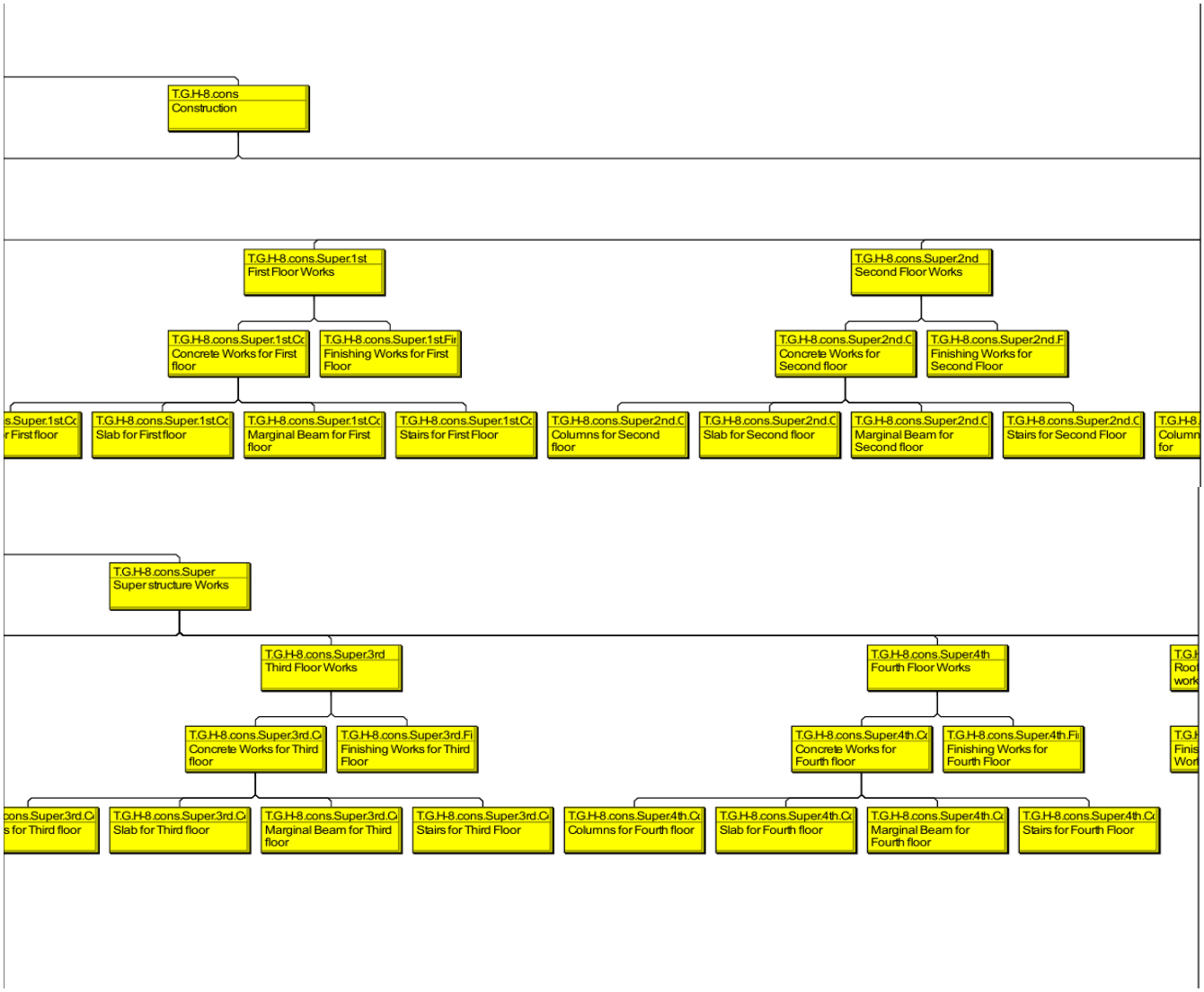
Work Breakdown Structure (WBS)

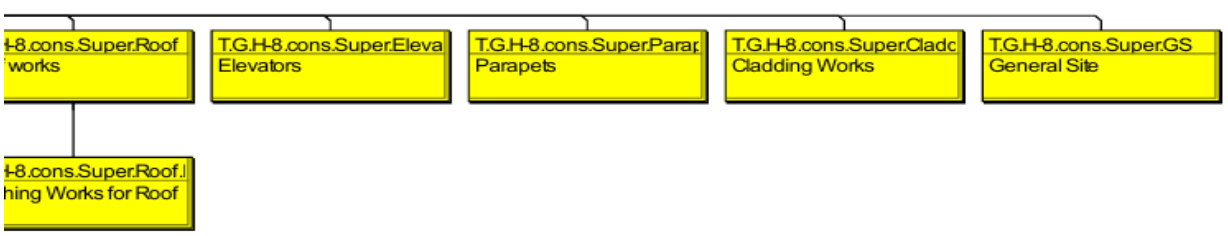
7.1 work breakdown structure (WBS)

a visual, hierarchical and deliverable-oriented deconstruction of a project. It is a helpful diagram for project managers because it allows them to break down their project scope and visualize all the tasks required to complete their projects.

Table 4 WBS




T.G.H-8.cons
Construction
T.G.H-8.cons.Super.1st
First Floor Works
T.G.H-8.cons.Super2nd
Second Floor Works
T.G.H-8.cons.Super.1st.Cc
Concrete Works for First floor
T.G.H-8.cons.Super.1st.Fi
Finishing Works for First Floor
T.G.H-8.cons.Super2nd.C
Concrete Works for Second floor
T.G.H-8.cons.Super2nd.F
Finishing Works for Second Floor
Slab for First floor
Marginal Beam for First floor
Stairs for First Floor
Columns for Second floor
Slab for Second floor
Marginal Beam for Second floor
Stairs for Second Floor
T.G.H-8.cons.Super
Super structure Works
T.G.H-8.cons.Super3rd
Third Floor Works
T.G.H-8.cons.Super4th
Fourth Floor Works
T.G.H-8.cons.Super3rd.Ci
Concrete Works for Third floor
T.G.H-8.cons.Super3rd.Fi
Finishing Works for Third Floor
T.G.H-8.cons.Super4th.Cc
Concrete Works for Fourth floor
T.G.H-8.cons.Super4th.Fi
Finishing Works for Fourth Floor
Slab for Third floor
Marginal Beam for Third floor
Stairs for Third Floor
Columns for Fourth floor
Slab for Fourth floor
Marginal Beam for Fourth floor
Stairs for Fourth Floor


works
T.G.H-8.cons.Super.Eleva
Elevators
T.G.H-8.cons.Super.Parap
Parapets
T.G.H-8.cons.Super.Cladc
Cladding Works
T.G.H-8.cons.Super.GS
General Site
hing Works for Roof

WBS Name	WBS Code	Total Activities
Tanta General Hospital-Final	T.G.H-8	259
Milestones	T.G.H-8.MileStone	12
Key dates	T.G.H-8.MileStone.Key dates	2
Contractual	T.G.H-8.MileStone.1	3
Controls	T.G.H-8.MileStone.2	7
Mobilization works	T.G.H-8.mobilization works	5
Fence	T.G.H-8.mobilization works.(fence)	2
Carvans	T.G.H-8.mobilization works.(carvans)	1
Lighting	T.G.H-8.mobilization works.(lighting)	1
Surveying	T.G.H-8.mobilization works.(Surveying)	1
Engineering	T.G.H-8.eng	4
Procurement	T.G.H-8.proc	6
Arch Material	T.G.H-8.proc.Arch	2
Civil Material	T.G.H-8.proc.Elec	2
MEP Material	T.G.H-8.proc.Mech	2
Construction	T.G.H-8.cons	232
Sup Structure Works	T.G.H-8.cons.sup	15
Soil Works	T.G.H-8.cons.sup.soil	4
Concrete Works	T.G.H-8.cons.sup.conc	8
Foundation Works	T.G.H-8.cons.sup.conc.Foundation	8
PC for Foundation Works	T.G.H-8.cons.sup.conc.Foundation.PC	3
RC for Foundation Works	T.G.H-8.cons.sup.conc.Foundation.RC	5
Arch Works	T.G.H-8.cons.sup.Arch	3
Super structure Works	T.G.H-8.cons.Super	217
Ground Floor Works	T.G.H-8.cons.Super.GF	39
Concrete Works for Ground floor	T.G.H-8.cons.Super.GF.Conc	16
Columns for Ground floor	T.G.H-8.cons.Super.GF.Conc.Col	4

Slab for Ground floor	T.G.H-8.cons.Super.GF.Conc.slab	4
Marginal Beam for Ground floor	T.G.H-8.cons.Super.GF.Conc.beam	4
Stairs for Ground Floor	T.G.H-8.cons.Super.GF.Conc.Stairs	4
Finishing Works for Ground Floor	T.G.H-8.cons.Super.GF.Finish	23
First Floor Works	T.G.H-8.cons.Super.1st	39
Concrete Works for First floor	T.G.H-8.cons.Super.1st.Conc	16
Columns for First floor	T.G.H-8.cons.Super.1st.Conc.Col	4
Slab for First floor	T.G.H-8.cons.Super.1st.Conc.slab	4
Marginal Beam for First floor	T.G.H-8.cons.Super.1st.Conc.beam	4
Stairs for First Floor	T.G.H-8.cons.Super.1st.Conc.Stairs	4
Finishing Works for First Floor	T.G.H-8.cons.Super.1st.Finish	23
Second Floor Works	T.G.H-8.cons.Super.2nd	39
Concrete Works for Second floor	T.G.H-8.cons.Super.2nd.Conc	16
Columns for Second floor	T.G.H-8.cons.Super.2nd.Conc.Col	4
Slab for Second floor	T.G.H-8.cons.Super.2nd.Conc.slab	4
Marginal Beam for Second floor	T.G.H-8.cons.Super.2nd.Conc.beam	4
Stairs for Second Floor	T.G.H-8.cons.Super.2nd.Conc.Stairs	4
Finishing Works for Second Floor	T.G.H-8.cons.Super.2nd.Finish	23
Third Floor Works	T.G.H-8.cons.Super.3rd	39
Concrete Works for Third floor	T.G.H-8.cons.Super.3rd.Conc	16
Columns for Third floor	T.G.H-8.cons.Super.3rd.Conc.Col	4
Slab for Third floor	T.G.H-8.cons.Super.3rd.Conc.slab	4
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Stairs for Third Floor	T.G.H-8.cons.Super.3rd.Conc.Stairs	4
Finishing Works for Third Floor	T.G.H-8.cons.Super.3rd.Finish	23
Fourth Floor Works	T.G.H-8.cons.Super.4th	39
Concrete Works for Fourth floor	T.G.H-8.cons.Super.4th.Conc	16
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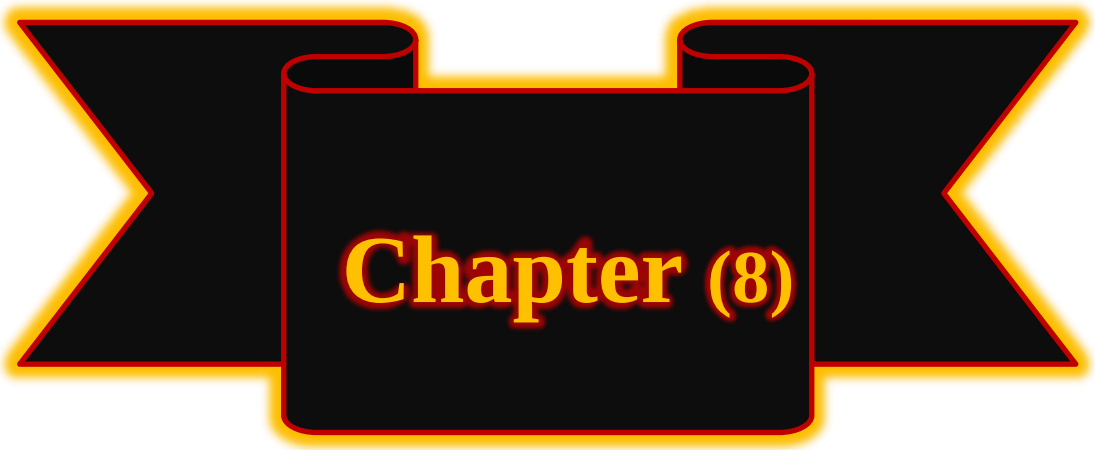
Slab for Fourth floor	T.G.H-8.cons.Super.4th.Conc.slab	4
Marginal Beam for Fourth floor	T.G.H-8.cons.Super.4th.Conc.beam	4
Stairs for Fourth Floor	T.G.H-8.cons.Super.4th.Conc.Stairs	4
Finishing Works for Fourth Floor	T.G.H-8.cons.Super.4th.Finish	23
Roof works	T.G.H-8.cons.Super.Roof	8
Finishing Works for Roof	T.G.H-8.cons.Super.Roof.Finish	8
Elevators	T.G.H-8.cons.Super.Elevator	2
Parapets	T.G.H-8.cons.Super.Parapets	4
Cladding Works	T.G.H-8.cons.Super.Cladding	5
General Site	T.G.H-8.cons.Super.GS	3


Chapter (8)

BIM Modeling & Quantity Take off

8.1 What is BIM*?*

Building information modeling (BIM) is the holistic process of creating and managing information for a built asset. Based on an intelligent model and enabled by a cloud platform, BIM integrates structured, multi-disciplinary data to produce a digital representation of an asset across its lifecycle, from planning and design to construction and operations.

8.2 The BIM growth forecast

Want to know the future for BIM? Or see how we stack up to our competitors? By analyzing global revenue and trends, Frost & Sullivan's report identifies strategic imperatives, growth opportunities, and has reviewed every major software provider out there. Perfect for BIM users and the BIM-curious alike. Dive in.

8.3 BIM Model (3D Modeling)

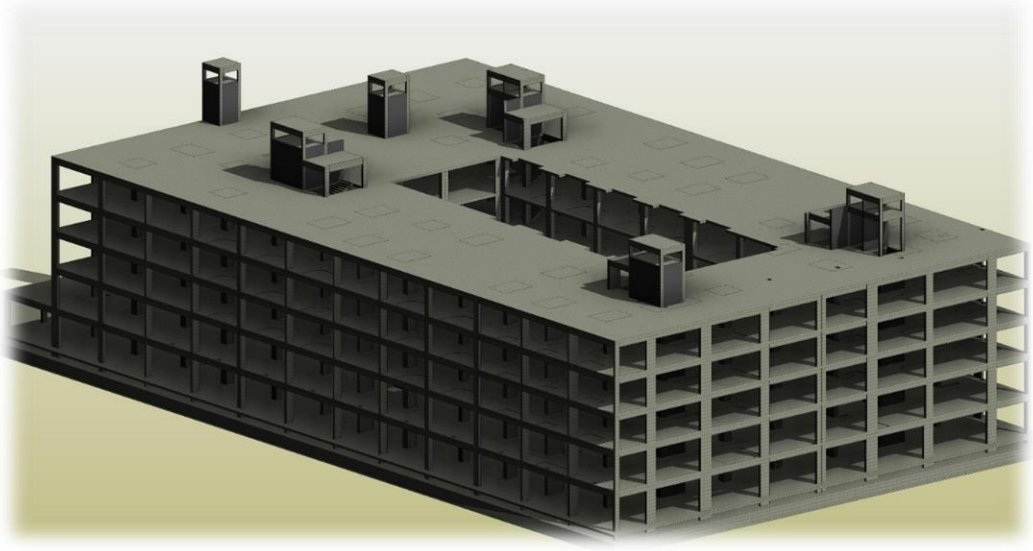


Figure 27 project 3D modelling

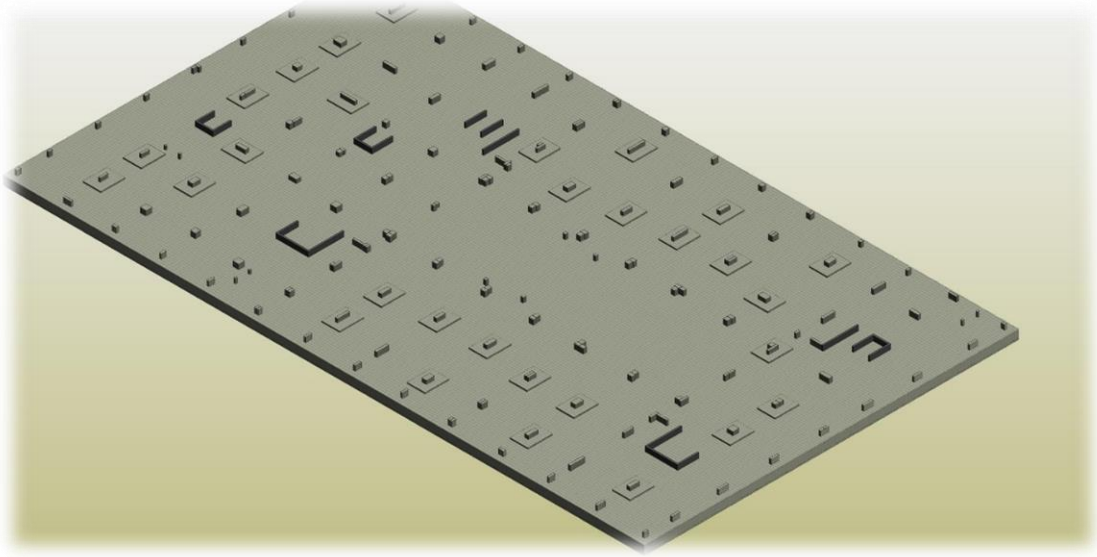


Figure 28 Project 3D footing

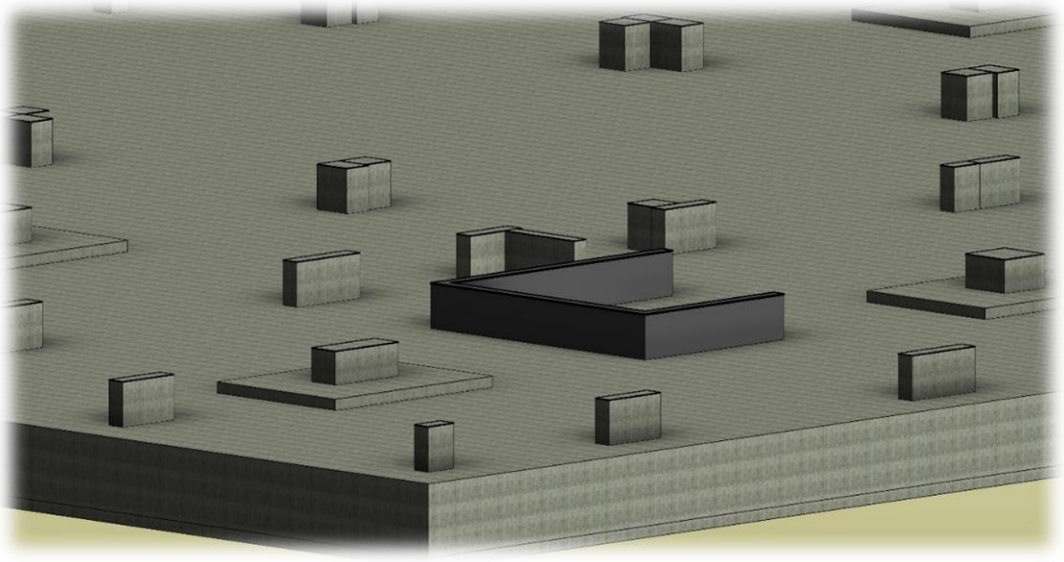


Figure29:-3D column necks

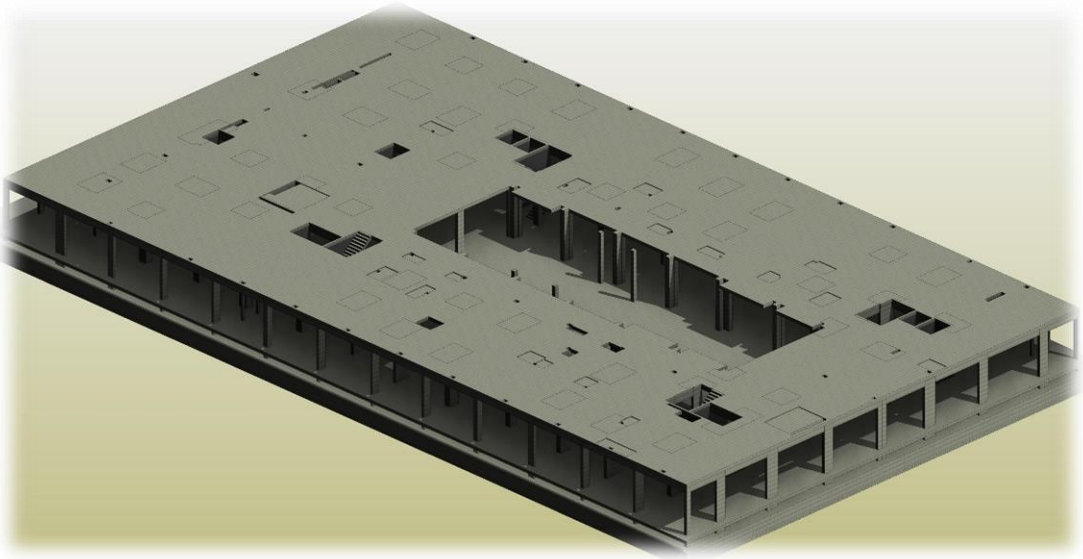


Figure29:-3D ground floor

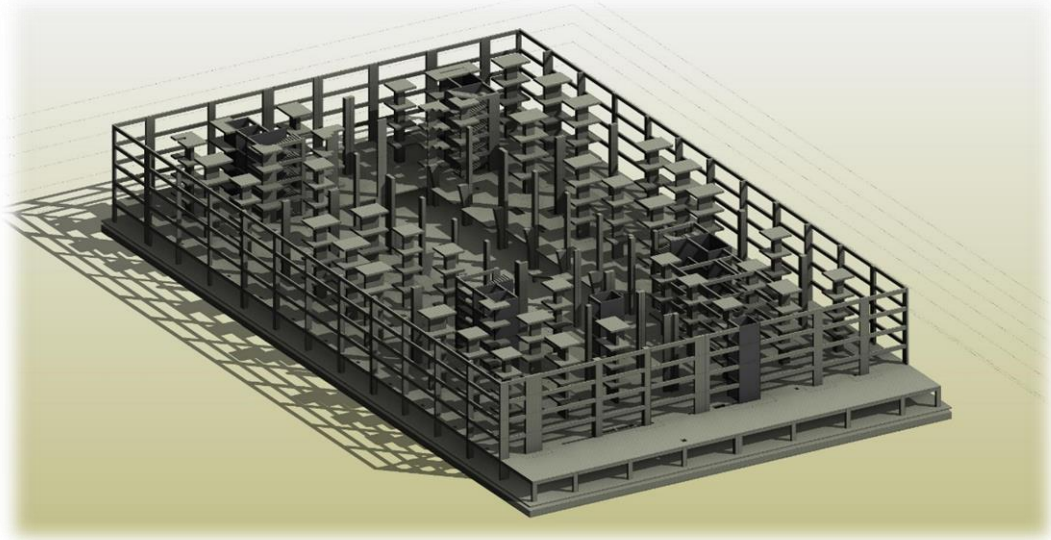


Figure 30 Project 3D columns and beams

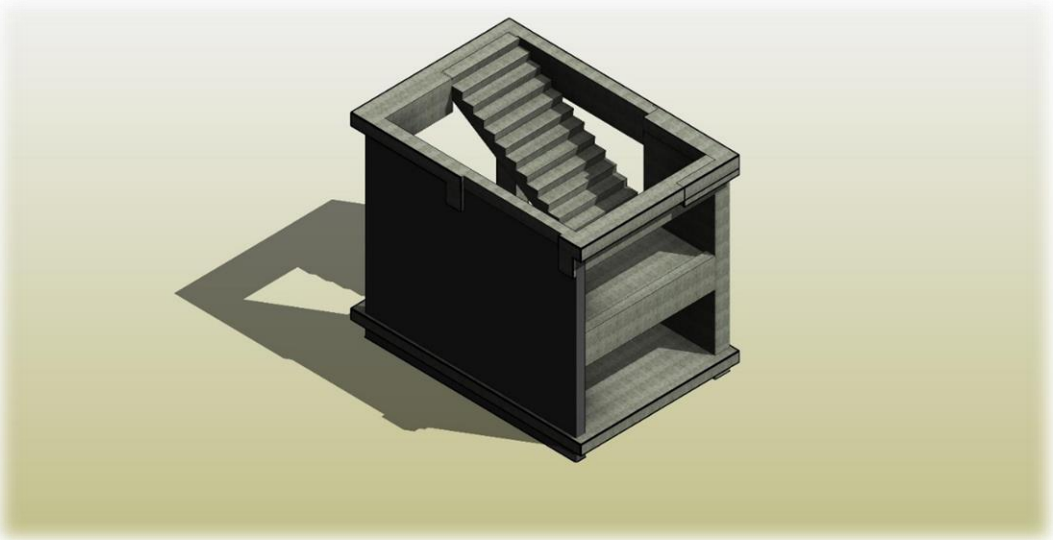


Figure 31:-3D stair model

Table 5 Quantity take off from Revit for concrete for the project

REVIT		
Family and Type	Material: Volume	Level
Floor: slab 0.15	11.357 m³	slab I 28.75
slab I 28.75: 1	11.357 m³	
Floor: slab 0.25m	18.550 m³	slab I 26.75
slab I 26.75: 1	18.550 m³	
Floor: slab 0.16	12.158 m³	slab I 25.55
slab I 25.55: 1	12.158 m³	
Concrete-Rectangular-Column: coulmn 0.3x0.6	1.238 m³	fourth
Concrete-Rectangular-Column: coulmn 0.3x0.65	1.338 m³	fourth
Concrete-Rectangular-Column: coulmn 0.25x0.40	17.695 m³	fourth
Concrete-Rectangular-Column: coulmn 0.300x1 2	1.028 m³	fourth
Concrete-Rectangular-Column: coulmn 0.300x1.300 2	1.334 m³	fourth
Concrete-Rectangular-Column: coulmn 0.400x1.500 2	2.035 m³	fourth
Concrete-Rectangular-Column: coulmn 0.400x2.00	2.710 m³	fourth
Floor: D.panle 0.45m	200.073 m³	fourth
Floor: slab 0.30m	1466.179 m³	fourth
fourth: 41	1693.630 m³	
Concrete-Rectangular-Column: coulmn0.65x0.65	16.478 m³	third
Concrete-Rectangular-Column: coulmn 0.3x0.6	2.106 m³	third
Concrete-Rectangular-Column: coulmn 0.3x0.8	1.872 m³	third
Concrete-Rectangular-Column: coulmn 0.4x0.8	11.232 m³	third
Concrete-Rectangular-Column: coulmn 0.30x0.65 2	10.647 m³	third
Concrete-Rectangular-Column: coulmn 0.35x0.65	1.775 m³	third
Concrete-Rectangular-Column: coulmn 0.45x0.45	2.369 m³	third
Concrete-Rectangular-Column: coulmn 0.60x1.60	3.600 m³	third
Concrete-Rectangular-Column: coulmn 0.75x0.55	22.527 m³	third
Concrete-Rectangular-Column: coulmn 0.85x0.85	11.054 m³	third
Concrete-Rectangular-Column: coulmn 0.300 x0.800	1.872 m³	third
Concrete-Rectangular-Column: coulmn 0.300x1 2	12.870 m³	third
Concrete-Rectangular-Column: coulmn 0.300x1.300 2	28.782 m³	third
Concrete-Rectangular-Column: coulmn 0.300x1.600 2	1.800 m³	third
Concrete-Rectangular-Column: coulmn 0.350x1	1.365 m³	third
Concrete-Rectangular-Column: coulmn 0.350x1.300	1.775 m³	third
Concrete-Rectangular-Column: coulmn 0.400x1.500 2	9.360 m³	third
Concrete-Rectangular-Column: coulmn 0.400x2.00	15.000 m³	third
Concrete-Rectangular-Column: coulmn 0.400x2.400	18.144 m³	third
Concrete-Rectangular-Column: coulmn 0.400x2.600	3.900 m³	third
Concrete-Rectangular-Column: coulmn 0.500x1.450	13.594 m³	third
Concrete-Rectangular-Column: coulmn 0.600x1600	21.600 m³	third
Concrete-Rectangular-Column: coulmn 0.650x1600 2	3.900 m³	third
Concrete-Rectangular-Column: coulmn 0.800x1.300	31.200 m³	third
Concrete-Rectangular-Column: coulmn 1x1	18.900 m³	third
Floor: D.panle 0.45m	200.073 m³	third

Concrete-Rectangular-Column: coulmn 0.350x1.300	1.845 m³	first
Concrete-Rectangular-Column: coulmn 0.400x1.500 2	9.360 m³	first
Concrete-Rectangular-Column: coulmn 0.400x2.00	15.000 m³	first
Concrete-Rectangular-Column: coulmn 0.400x2.400	18.144 m³	first
Concrete-Rectangular-Column: coulmn 0.400x2.600	3.900 m³	first
Concrete-Rectangular-Column: coulmn 0.500x1.450	13.594 m³	first
Concrete-Rectangular-Column: coulmn 0.600x1600	21.600 m³	first
Concrete-Rectangular-Column: coulmn 0.650x1600 2	3.900 m³	first
Concrete-Rectangular-Column: coulmn 0.800x1.300	31.200 m³	first
Concrete-Rectangular-Column: coulmn 1x1	18.900 m³	first
Floor: D.panle 0.45m	200.073 m³	first
Floor: slab 0.16	98.810 m³	first
Floor: slab 0.25m	83.623 m³	first
Floor: slab 0.30m	1373.403 m³	first
first: 157	2023.925 m³	
Concrete-Rectangular-Column: coulmn0.65x0.65	18.650 m³	ground
Concrete-Rectangular-Column: coulmn 0.3x0.6	2.354 m³	ground
Concrete-Rectangular-Column: coulmn 0.3x0.8	2.093 m³	ground
Concrete-Rectangular-Column: coulmn 0.4x0.8	12.557 m³	ground
Concrete-Rectangular-Column: coulmn 0.30x0.65 2	11.903 m³	ground
Concrete-Rectangular-Column: coulmn 0.35x0.65	1.984 m³	ground
Concrete-Rectangular-Column: coulmn 0.45x0.45	2.649 m³	ground
Concrete-Rectangular-Column: coulmn 0.60x1.60	4.042 m³	ground
Concrete-Rectangular-Column: coulmn 0.75x0.55	25.179 m³	ground
Concrete-Rectangular-Column: coulmn 0.85x0.85	12.384 m³	ground
Concrete-Rectangular-Column: coulmn 0.300 x0.800	2.093 m³	ground
Concrete-Rectangular-Column: coulmn 0.300x1 2	14.388 m³	ground
Concrete-Rectangular-Column: coulmn 0.300x1.300 2	32.191 m³	ground
Concrete-Rectangular-Column: coulmn 0.300x1.600 2	2.021 m³	ground
Concrete-Rectangular-Column: coulmn 0.350x1	1.526 m³	ground
Concrete-Rectangular-Column: coulmn 0.350x1.300	2.054 m³	ground
Concrete-Rectangular-Column: coulmn 0.400x1.500 2	10.464 m³	ground
Concrete-Rectangular-Column: coulmn 0.400x2.00	16.840 m³	ground
Concrete-Rectangular-Column: coulmn 0.400x2.400	20.352 m³	ground
Concrete-Rectangular-Column: coulmn 0.400x2.600	4.378 m³	ground
Concrete-Rectangular-Column: coulmn 0.500x1.450	15.261 m³	ground
Concrete-Rectangular-Column: coulmn 0.600x1600	24.250 m³	ground
Concrete-Rectangular-Column: coulmn 0.650x1600 2	4.378 m³	ground
Concrete-Rectangular-Column: coulmn 0.800x1.300	35.027 m³	ground
Concrete-Rectangular-Column: coulmn 1x1	21.200 m³	ground
Floor: D.panle 0.45m	221.412 m³	ground
Floor: slab 0.25m	33.715 m³	ground
Floor: slab 0.30m	1557.884 m³	ground
r sec: 0.65x130	39.516 m³	ground
ground: 159	2152.744 m³	
Concrete-Rectangular-Column: column 1.25x1	6.125 m³	Level 1
Concrete-Rectangular-Column: coulmn0.65x0.65	51.058 m³	Level 1

Concrete-Rectangular-Column: coulmn 0.4x0.8	14.688 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.35x0.65	36.957 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.35x1	5.355 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.45x0.45	6.480 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.60x1.60	4.560 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.75x0.55	29.453 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.85x0.85	14.269 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.350x1	14.280 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.350x1.300	50.073 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.350x1.600	13.972 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.400x2.00	19.640 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.400x2.400	23.184 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.400x2.600	4.940 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.500x1.450	17.654 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.600x1600	27.744 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.650x1600 2	4.940 m³	Level 1
Concrete-Rectangular-Column: coulmn 0.800x1.300	39.728 m³	Level 1
Concrete-Rectangular-Column: coulmn 1x1	19.750 m³	Level 1
Floor: slab clean 20cm	1314.244 m³	Level 1
Floor: slab 0.25m	79.318 m³	Level 1
Floor: Frist floor slab	1642.806 m³	Level 1
Floor: foundation 130 cm	8542.589 m³	Level 1
Footing-Rectangular: footing R 3m x 4m x 0.20m	72.000 m³	Level 1
Level 1: 364	12055.807 m³	
Concrete-Rectangular Beam: Beam 0.12X0.80 2	0.743 m³	
Concrete-Rectangular Beam: Beam 0.25X0.70	28.992 m³	
Concrete-Rectangular Beam: Beam 0.25X0.80	268.918 m³	
Concrete-Rectangular Beam: Beam 0.25X0.90	35.783 m³	
Concrete-Rectangular Beam: Beam 0.40X0.80 2	4.066 m³	
Concrete-Rectangular Beam: Beam 0.65X130	71.623 m³	
Concrete-Rectangular Beam:	1.709 m³	
: 457	411.834 m³	
Basic Wall: shear wall 0.25m	482.328 m³	
Cast-In-Place Stair: Monolithic Stair 2 0.22	155.520 m³	
Cast-In-Place Stair: Monolithic Stair 2 0.28	15.220 m³	
Monolithic Landing: 7" Thickness	43.052 m³	
Monolithic Run: 3/4" Nosing	127.688 m³	
: 225	823.808 m³	
Grand total: 1718	23053.482 m³	

Floor: slab 0.25m	83.563 m³	third
Floor: slab 0.30m	1373.330 m³	third
third: 156	1924.687 m³	
Concrete-Rectangular-Column: coulmn0.65x0.65	16.707 m³	second
Concrete-Rectangular-Column: coulmn 0.3x0.6	2.106 m³	second
Concrete-Rectangular-Column: coulmn 0.3x0.8	1.872 m³	second
Concrete-Rectangular-Column: coulmn 0.4x0.8	11.232 m³	second
Concrete-Rectangular-Column: coulmn 0.30x0.65 2	10.647 m³	second
Concrete-Rectangular-Column: coulmn 0.35x0.65	1.775 m³	second
Concrete-Rectangular-Column: coulmn 0.45x0.45	2.369 m³	second
Concrete-Rectangular-Column: coulmn 0.60x1.60	3.600 m³	second
Concrete-Rectangular-Column: coulmn 0.75x0.55	22.523 m³	second
Concrete-Rectangular-Column: coulmn 0.85x0.85	11.054 m³	second
Concrete-Rectangular-Column: coulmn 0.300 x0.800	1.872 m³	second
Concrete-Rectangular-Column: coulmn 0.300x1 2	12.870 m³	second
Concrete-Rectangular-Column: coulmn 0.300x1.300 2	28.782 m³	second
Concrete-Rectangular-Column: coulmn 0.300x1.600 2	1.800 m³	second
Concrete-Rectangular-Column: coulmn 0.350x1	1.365 m³	second
Concrete-Rectangular-Column: coulmn 0.350x1.300	1.845 m³	second
Concrete-Rectangular-Column: coulmn 0.400x1.500 2	9.360 m³	second
Concrete-Rectangular-Column: coulmn 0.400x2.00	15.000 m³	second
Concrete-Rectangular-Column: coulmn 0.400x2.400	18.144 m³	second
Concrete-Rectangular-Column: coulmn 0.400x2.600	3.900 m³	second
Concrete-Rectangular-Column: coulmn 0.500x1.450	13.594 m³	second
Concrete-Rectangular-Column: coulmn 0.600x1600	21.600 m³	second
Concrete-Rectangular-Column: coulmn 0.650x1600 2	3.900 m³	second
Concrete-Rectangular-Column: coulmn 0.800x1.300	31.200 m³	second
Concrete-Rectangular-Column: coulmn 1x1	18.900 m³	second
Floor: D.panle 0.45m	200.073 m³	second
Floor: slab 0.25m	83.563 m³	second
Floor: slab 0.30m	1373.330 m³	second
second: 156	1924.981 m³	
Concrete-Rectangular-Column: coulmn0.65x0.65	16.707 m³	first
Concrete-Rectangular-Column: coulmn 0.3x0.6	2.106 m³	first
Concrete-Rectangular-Column: coulmn 0.3x0.8	1.872 m³	first
Concrete-Rectangular-Column: coulmn 0.4x0.8	11.232 m³	first
Concrete-Rectangular-Column: coulmn 0.30x0.65 2	10.647 m³	first
Concrete-Rectangular-Column: coulmn 0.35x0.65	1.775 m³	first
Concrete-Rectangular-Column: coulmn 0.45x0.45	2.369 m³	first
Concrete-Rectangular-Column: coulmn 0.60x1.60	3.600 m³	first
Concrete-Rectangular-Column: coulmn 0.75x0.55	22.523 m³	first
Concrete-Rectangular-Column: coulmn 0.85x0.85	11.054 m³	first
Concrete-Rectangular-Column: coulmn 0.300 x0.800	1.872 m³	first
Concrete-Rectangular-Column: coulmn 0.300x1 2	12.870 m³	first
Concrete-Rectangular-Column: coulmn 0.300x1.300 2	28.782 m³	first
Concrete-Rectangular-Column: coulmn 0.300x1.600 2	1.800 m³	first
Concrete-Rectangular-Column: coulmn 0.350x1	1.365 m³	first

8.4 (ASD) Auto cad Structure Details

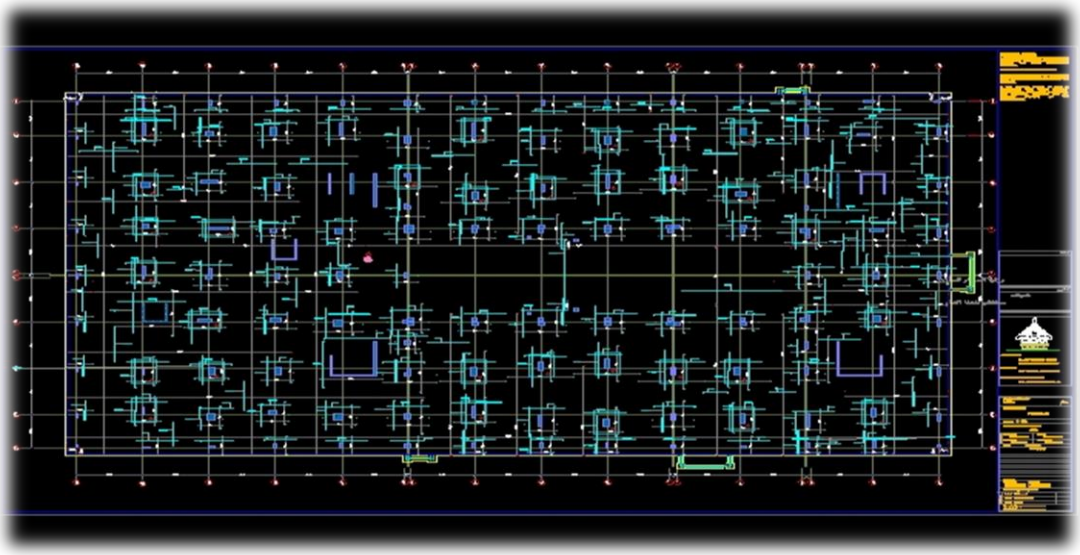


Figure 32 Auto cad Structure Details

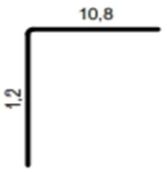
Table 6 Quantity of steel

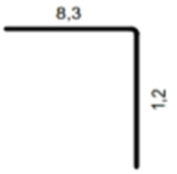
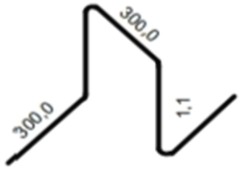
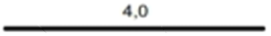
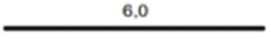
T	∅18	∅20	∅22
Unit weight (kg/m)	2.0	2.5	3.0
Total length (m)	91163.4	11826.0	136987.5
Total weight (t)	182.3	29.2	411.0

Table 7 Details of steel

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
17	1	18	12.0	11	1.2	10.8			7.4
18	1	18	12.0	00	12.0				7.4
19	1	18	12.0	00	12.0				7.4
20	1	18	12.0	00	12.0				7.4
21	1	18	12.0	00	12.0				7.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
22	1	18	12.0	00	12.0			12,0	7.4
23	1	18	12.0	00	12.0			12,0	7.4
24	1	18	12.0	00	12.0			12,0	7.4
25	1	18	12.0	00	12.0			12,0	7.4
26	1	18	10.0	11	8.8	1.2		8,8 / 1,2	6.1

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
27	1	18	12.0	11	1.2	10.8			12.7
28	1	18	12.0	00	12.0				12.7
29	1	18	12.0	00	12.0				12.7
30	1	18	12.0	00	12.0				12.7
31	1	18	12.0	00	12.0				12.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
32	1	18	9.4	11	8.3	1.2			10.0
33	1	20	3.0		0.3	0.3			29.2
34	1	22	4.0	00	4.0				5.0
35	1	22	4.0	00	4.0				6.7
36	1	22	6.0	00	6.0				6.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
37	1	22	5.0	00	5.0			5,0	1.0
38	1	18	4.0	00	4.0			4,0	3.5
39	1	22	4.0	00	4.0			4,0	0.2
40	1	22	3.5	00	3.5			3,5	0.6
41	1	22	3.0	00	3.0			3,0	0.3

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
42	1	22	5.0	00	5.0			5,0	0.5
43	1	22	4.0	00	4.0			4,0	0.2
44	1	22	4.0	00	4.0			4,0	0.6
45	1	22	4.0	00	4.0			4,0	0.4
46	1	22	5.0	00	5.0			5,0	0.5

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
47	1	22	4.0	00	4.0			4,0	0.6
48	1	22	5.0	00	5.0			5,0	0.8
49	1	22	4.0	00	4.0			4,0	0.3
50	1	22	5.0	00	5.0			5,0	0.9
51	1	22	5.0	00	5.0			5,0	0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
52	1	22	5.0	00	5.0			5,0	0.9
53	1	22	4.0	00	4.0			4,0	0.2
54	1	22	5.0	00	5.0			5,0	0.5
55	1	22	5.0	00	5.0			5,0	0.5
56	1	22	5.0	00	5.0			5,0	0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
57	1	22	5.0	00	5.0			5,0	0.9
58	1	22	5.0	00	5.0			5,0	0.9
59	1	18	4.0	00	4.0			4,0	0.2
60	1	18	4.0	00	4.0			4,0	7.2e-02
61	1	22	4.0	00	4.0			4,0	0.3

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
62	1	22	5.0	00	5.0			5,0	0.9
63	1	22	5.0	00	5.0			5,0	0.9
64	1	22	5.0	00	5.0			5,0	0.5
65	1	22	5.0	00	5.0			5,0	0.7
66	1	22	5.0	00	5.0			5,0	0.9

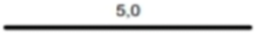
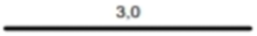
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
67	1	18	3.0	00	3.0			3,0	3.6e-02
68	1	18	3.0	00	3.0			3,0	5.4e-02
69	1	22	4.0	00	4.0			4,0	0.1
70	1	22	5.0	00	5.0			5,0	0.7
71	1	22	5.0	00	5.0			5,0	0.7

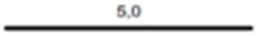
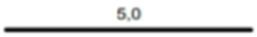
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
72	1	22	5.0	00	5.0			5,0	0.5
73	1	22	5.0	00	5.0			5,0	0.7
74	1	22	5.0	00	5.0			5,0	0.9
75	1	22	9.0	00	9.0			9,0	2.4
76	1	22	4.0	00	4.0			4,0	0.1

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
77	1	22	4.0	00	4.0			4,0	0.2
78	1	18	5.0	00	5.0			5,0	1.2
79	1	18	7.0	00	7.0			7,0	6.9
80	1	22	6.0	00	6.0			6,0	1.2
81	1	18	3.0	00	3.0			3,0	0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
82	1	18	6.0	00	6.0			6,0	4.9
83	1	18	7.0	00	7.0			7,0	5.2
84	1	22	5.0	00	5.0			5,0	3.6
85	1	18	5.0	00	5.0			5,0	0.8
86	1	22	5.0	00	5.0			5,0	0.9

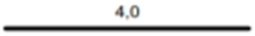
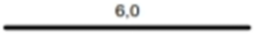
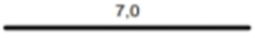
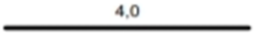
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
87	1	22	7.0	00	7.0			7,0	11.7
88	1	18	4.0	00	4.0			4,0	0.6
89	1	22	5.0	00	5.0			5,0	0.7
90	1	22	4.0	00	4.0			4,0	0.6
91	1	22	5.0	00	5.0			5,0	0.9

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
92	1	18	4.0	00	4.0				0.6
93	1	22	5.0	00	5.0				0.9
94	1	18	3.0	00	3.0				7.2e-02
95	1	22	10.0	00	10.0				5.8
96	1	22	4.5	00	4.5				8.9

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
97	1	22	12.0	00	12.0				11.1
98	1	22	5.0	00	5.0				1.3
99	1	22	4.0	00	4.0				0.3
100	1	22	5.0	00	5.0				0.5
101	1	22	7.0	00	7.0				1.5

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
102	1	22	6.0	00	6.0			6,0	1.3
103	1	22	6.0	00	6.0			6,0	1.3
104	1	22	6.0	00	6.0			6,0	2.5
105	1	22	4.0	00	4.0			4,0	0.2
106	1	22	5.0	00	5.0			5,0	0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
107	1	18	4.0	00	4.0			4,0	8.0e-03
108	1	18	6.0	00	6.0			6,0	0.5
109	1	18	6.0	00	6.0			6,0	0.5
110	1	22	8.0	00	8.0			8,0	4.9
111	1	22	5.0	00	5.0			5,0	0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
112	1	22	4.0	00	4.0				0.2
113	1	22	6.0	00	6.0				2.5
114	1	22	7.0	00	7.0				3.7
115	1	22	4.0	00	4.0				0.1
116	1	22	4.0	00	4.0				0.2

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
117	1	22	3.5	00	3.5			3.5	0.2
118	1	22	6.0	00	6.0			6.0	1.4
119	1	22	5.0	00	5.0			5.0	1.0
120	1	22	5.0	00	5.0			5.0	0.9
121	1	22	5.0	00	5.0			5.0	0.6

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
122	1	22	4.0	00	4.0			4,0	0.1
123	1	22	4.0	00	4.0			4,0	0.1
124	1	22	4.0	00	4.0			4,0	0.3
125	1	22	4.0	00	4.0			4,0	0.2
126	1	22	4.0	00	4.0			4,0	0.1

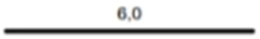
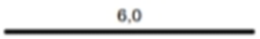
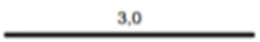
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
127	1	18	4.0	00	4.0			4,0	7.2e-02
128	1	22	3.5	00	3.5			3,5	0.2
129	1	22	7.0	00	7.0			7,0	2.0
130	1	22	8.0	00	8.0			8,0	2.3
131	1	22	5.0	00	5.0			5,0	0.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
132	1	22	6.0	00	6.0			6,0	1.1
133	1	22	3.0	00	3.0			3,0	0.3
134	1	22	5.0	00	5.0			5,0	0.6
135	1	18	5.0	00	5.0			5,0	0.7
136	1	22	5.0	00	5.0			5,0	0.6

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
137	1	22	5.0	00	5.0			5,0	0.5
138	1	22	5.0	00	5.0			5,0	0.9
139	1	22	5.0	00	5.0			5,0	0.7
140	1	22	5.0	00	5.0			5,0	0.7
141	1	22	5.0	00	5.0			5,0	0.5

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
142	1	22	5.0	00	5.0			5,0	0.9
143	1	22	5.0	00	5.0			5,0	0.8
144	1	22	5.0	00	5.0			5,0	0.7
145	1	22	5.0	00	5.0			5,0	0.5
146	1	22	5.0	00	5.0			5,0	0.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
147	1	22	4.0	00	4.0				0.4
148	1	18	12.0	00	12.0				0.7
149	1	22	4.0	00	4.0				0.4
150	1	22	4.0	00	4.0				0.4
151	1	22	5.0	00	5.0				1.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
152	1	22	4.0	00	4.0				0.4
153	1	18	6.0	00	6.0				0.3
154	1	22	6.0	00	6.0				1.3
155	1	22	5.0	00	5.0				0.7
156	1	18	3.0	00	3.0				3.6e-02

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
157	1	22	4.0	00	4.0			4,0	0.2
158	1	22	3.5	00	3.5			3,5	0.2
159	1	18	6.0	00	6.0			6,0	1.9
160	1	22	5.0	00	5.0			5,0	1.1
161	1	22	5.0	00	5.0			5,0	0.8

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
162	1	22	5.0	00	5.0			5,0	0.6
163	1	22	5.0	00	5.0			5,0	0.6
164	1	22	5.0	00	5.0			5,0	0.6
165	1	22	5.0	00	5.0			5,0	0.6
166	1	18	5.0	00	5.0			5,0	1.3

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
167	1	22	8.0	00	8.0			8,0	1.6
168	1	22	8.0	00	8.0			8,0	0.9
169	1	22	4.0	00	4.0			4,0	0.3
170	1	22	4.0	00	4.0			4,0	0.1
171	1	18	5.0	00	5.0			5,0	0.7

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
172	1	22	5.0	00	5.0			5,0	1.3
173	1	22	4.0	00	4.0			4,0	0.9
174	1	22	6.0	00	6.0			6,0	2.0
175	1	22	6.0	00	6.0			6,0	2.0
176	1	22	5.0	00	5.0			5,0	1.0

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
177	1	22	7.0	00	7.0			7,0	2.4
178	1	22	4.0	00	4.0			4,0	0.9
179	1	22	6.0	00	6.0			6,0	2.0
180	1	22	6.0	00	6.0			6,0	1.3
181	1	22	7.0	00	7.0			7,0	3.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
182	1	18	3.0	00	3.0			3,0	0.5
183	1	22	5.0	00	5.0			5,0	1.0
184	1	22	6.0	00	6.0			6,0	2.2
185	1	18	3.0	00	3.0			3,0	0.4
186	1	22	3.0	00	3.0			3,0	0.2

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
187	1	22	5.0	00	5.0			5,0	0.7
188	1	22	4.0	00	4.0			4,0	0.4
189	1	22	5.0	00	5.0			5,0	0.7
190	1	18	5.0	00	5.0			5,0	0.1
191	1	22	4.0	00	4.0			4,0	0.2

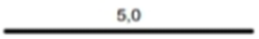
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
192	1	22	3.5	00	3.5			3,5	0.2
193	1	22	5.0	00	5.0			5,0	0.9
194	1	22	5.0	00	5.0			5,0	0.7
195	1	22	4.0	00	4.0			4,0	0.4
196	1	22	4.0	00	4.0			4,0	0.3

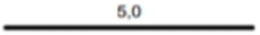
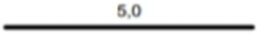
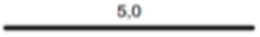
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
197	1	22	5.0	00	5.0			5,0	0.5
198	1	18	4.0	00	4.0			4,0	2.6
199	1	22	4.0	00	4.0			4,0	0.2
200	1	22	4.0	00	4.0			4,0	0.5
201	1	22	4.0	00	4.0			4,0	0.5

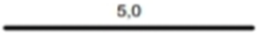
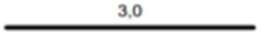
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
202	1	22	4.0	00	4.0			4,0	0.1
203	1	22	5.0	00	5.0			5,0	0.5
204	1	22	5.0	00	5.0			5,0	0.7
205	1	22	5.0	00	5.0			5,0	0.4
206	1	22	5.0	00	5.0			5,0	1.1

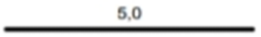
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
207	1	22	5.0	00	5.0			5,0	0.9
208	1	22	4.0	00	4.0			4,0	0.2
209	1	22	6.0	00	6.0			6,0	1.1
210	1	22	6.0	00	6.0			6,0	1.1
211	1	22	4.0	00	4.0			4,0	0.4

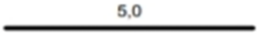
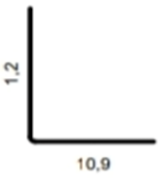
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
212	1	22	4.0	00	4.0			4,0	0.2
213	1	22	5.0	00	5.0			5,0	0.9
214	1	22	4.0	00	4.0			4,0	0.6
215	1	22	5.0	00	5.0			5,0	0.9
216	1	22	5.0	00	5.0			5,0	0.5

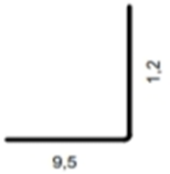
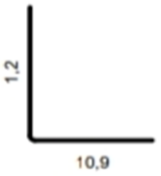
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
217	1	22	4.0	00	4.0				0.1
218	1	22	3.5	00	3.5				0.2
219	1	22	5.0	00	5.0				0.5
220	1	22	3.5	00	3.5				0.2
221	1	22	5.0	00	5.0				0.9

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
222	1	22	5.0	00	5.0				0.9
223	1	22	4.0	00	4.0				0.2
224	1	22	5.0	00	5.0				0.9
225	1	22	5.0	00	5.0				1.5e-02
226	1	22	5.0	00	5.0				0.4

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
227	1	22	5.0	00	5.0				0.7
228	1	22	4.0	00	4.0				0.6
229	1	22	4.0	00	4.0				0.2
230	1	22	4.0	00	4.0				0.1
231	1	18	3.0	00	3.0				5.4e-02

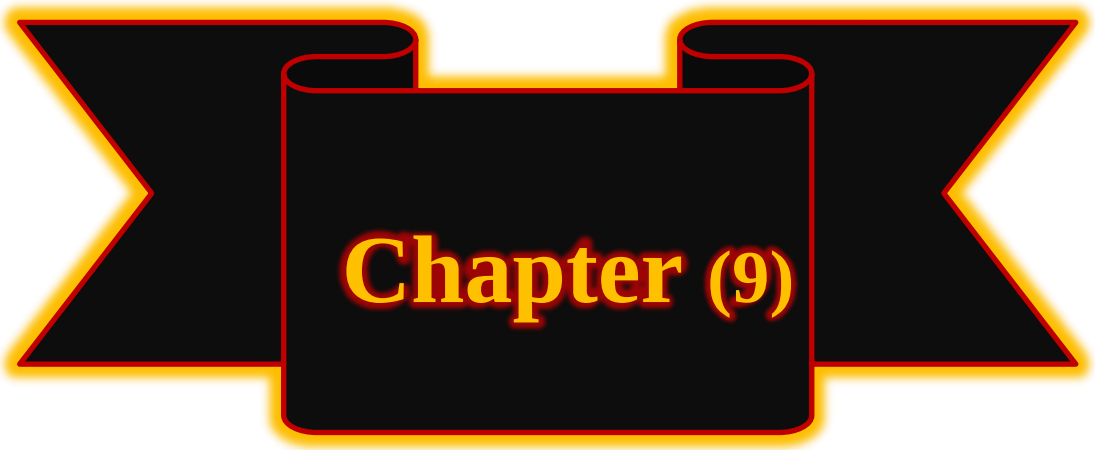
Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
232	1	22	5.0	00	5.0				1.1
233	1	22	5.0	00	5.0				0.8
234	1	22	5.0	00	5.0				0.4
235	1	22	4.0	00	4.0				0.1
236	1	22	4.0	00	4.0				0.2

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
237	1	18	5.0	00	5.0				0.8
238	1	22	12.0	11	1.2	10.9			19.1
239	1	22	12.0	00	12.0				19.1
240	1	22	12.0	00	12.0				19.1
241	1	22	12.0	00	12.0				19.1

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
242	1	22	12.0	00	12.0				19.1
243	1	22	10.6	11	9.5	1.2			16.9
244	1	22	12.0	11	1.2	10.9			11.1
245	1	22	12.0	00	12.0				11.1
246	1	22	12.0	00	12.0				11.1

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
247	1	22	12.0	00	12.0			12,0	11.1
248	1	22	12.0	00	12.0			12,0	11.1
249	1	22	12.0	00	12.0			12,0	11.1
250	1	22	12.0	00	12.0			12,0	11.1
251	1	22	12.0	00	12.0			12,0	11.1

Bar mark		Size	Length	Type	A	B	E/R	Symbol (m)	Total mass (t)
252	1	22	12.0	00	12.0			12,0	11.1
253	1	22	10.9	00	10.9			10,9	10.1
254	1	22	2.6	11	1.4	1.2		1,2 1,4	2.4


Chapter (9)

Detailed Quantity Take of (AutoCAD & Excel)

Detailed estimates: provides a deep dive into the details and costs of a project. Quantity estimates: This estimate includes the amount of each material needed and the costs associated with that quantity

9.1- Quantities Take of AutoCAD:

9.1.1- Quantities Of Building:

Tabel 8 Total Quantities of Building.

Floor	Area m²	BOQ
Ground	8652.098	
Frist	7949.829	
Second	6911.661	
Third	6578.487	
Fourth	7322	
above Roof	470	
annex building	1205.5	
backfill Short	2662.844	
Total	**41752.419**	**42000**

9.1.2- Quantities Of Plastering:

Tabel 9 Total Quantities of Oyster.

Floor	Area m²	BOQ
Ground	14124.846	
Frist	14564.331	
Second	11727.111	
Third	12044.43	
Fourth	15846.618	
Total	68307.336	54400

9.1.3- Quantities Of Ceramic:

Tabel 10 Total Quantities of Ceramic.

Floor	ceramic	porcelain	Vanille
Ground	9388	930	1004
First	4471	1558	1306
Second	5012	2319	489
Third	5657	2267	0
Fourth	6763	1813	0
Total	31291 m3	8887 m3	2799 m3

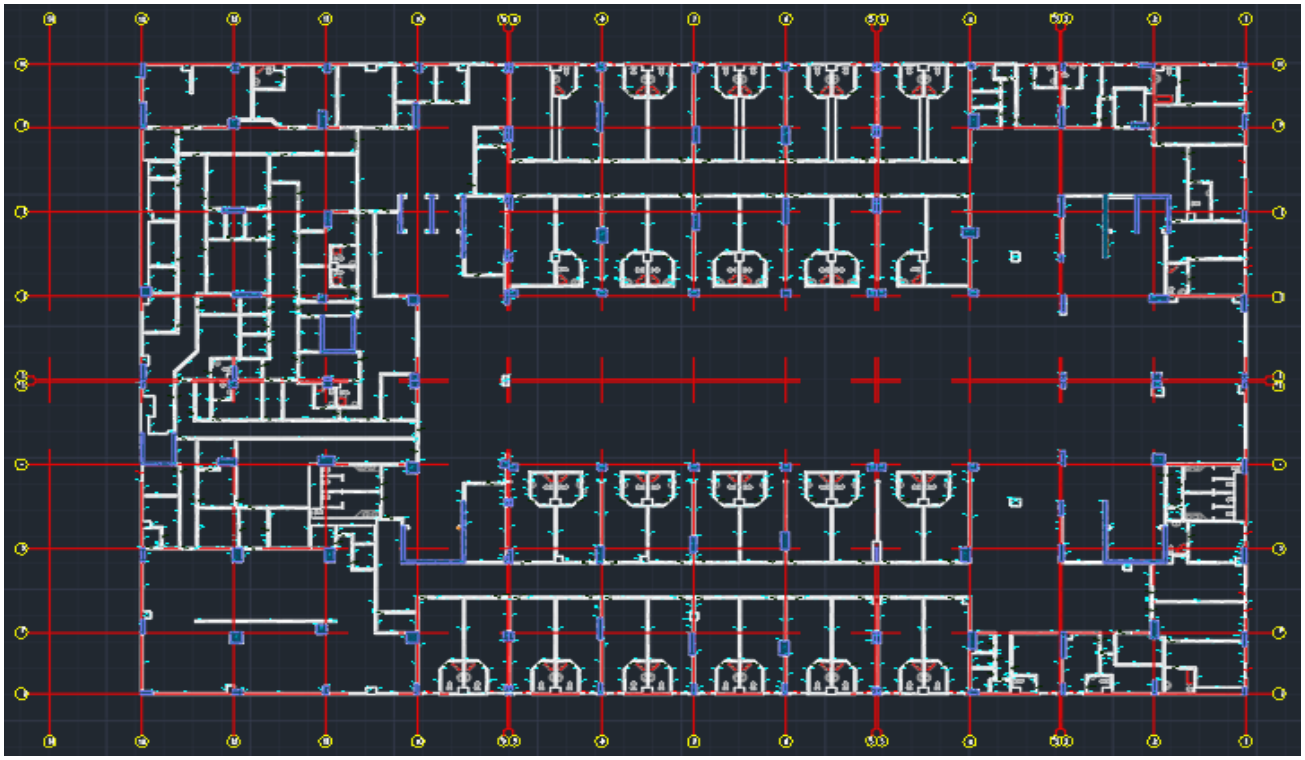


Fig.33 Number of walls for the Plastring

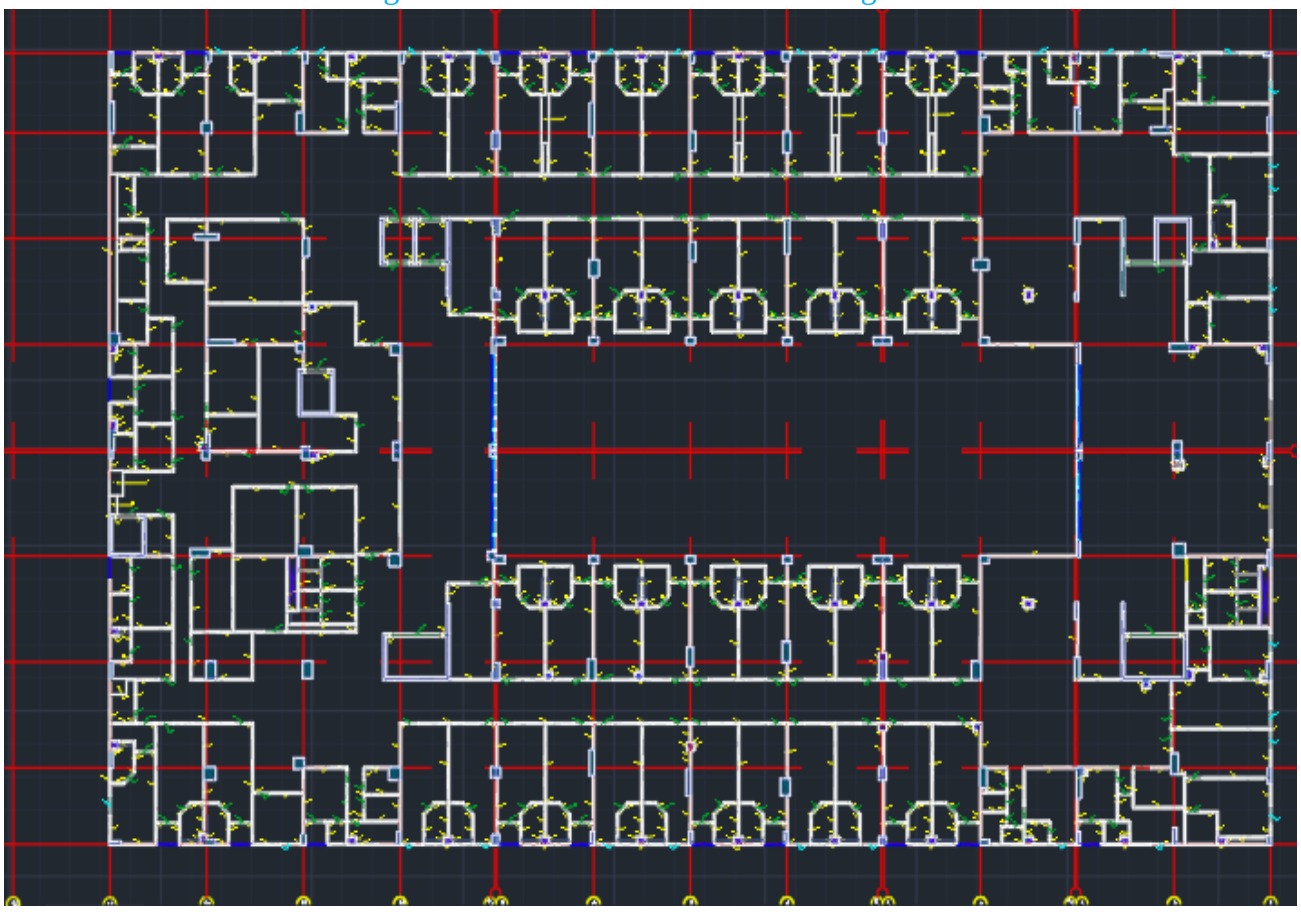


Fig.34 Number of walls for the building

9.2- Quantity Take Of Excel:

9.2.1-Quantity Of Plastering

Table 11 Quantity of plastering for second floor

Wall number	Length (m)	Width (m)	Height (m)	Area (m^2)	Wall number	Length (m)	Width (m)	Height (m)	Area (m^2)
1	1.802	0.02	3.9	7.028	1306	0.33	0.02	3.9	1.287
2	0.531	0.02	3.9	2.071	1307	4.207	0.02	3.9	16.407
3	0.18	0.02	3.9	0.702	1308	4.214	0.02	3.9	16.435
4	1.979	0.02	3.9	7.718	1309	0.15	0.02	3.9	0.585
5	1.801	0.02	3.9	7.024	1310	0.51	0.02	3.9	1.989
6	1.061	0.02	3.9	4.138	1311	0.229	0.02	3.9	0.893
7	0.16	0.02	3.9	0.624	1312	0.14	0.02	3.9	0.546
8	0.16	0.02	3.9	0.624	1313	0.16	0.02	3.9	0.624
9	1.531	0.02	3.9	5.971	1314	0.53	0.02	3.9	2.067
10	0.13	0.02	3.9	0.507	1315	0.33	0.02	3.9	1.287
11	0.16	0.02	3.9	0.624	1316	0.16	0.02	3.9	0.624
12	2.25	0.02	3.9	8.775	1317	4.35	0.02	3.9	16.965
13	3.686	0.02	3.9	14.375	1318	0.14	0.02	3.9	0.546
14	0.13	0.02	3.9	0.507	1319	1.907	0.02	3.9	7.437
15	0.16	0.02	3.9	0.624	1320	5.858	0.02	3.9	22.846
16	0.29	0.02	3.9	1.131	1321	5.858	0.02	3.9	22.846
17	0.14	0.02	3.9	0.546	1322	2.263	0.02	3.9	8.826
18	1.947	0.02	3.9	7.593	1323	1.126	0.02	3.9	4.391
19	0.16	0.02	3.9	0.624	1324	0.092	0.02	3.9	0.359
20	0.072	0.02	3.9	0.281	1325	0.12	0.02	3.9	0.468
21	0.38	0.02	3.9	1.482	1326	1.126	0.02	3.9	4.391
22	1.155	0.02	3.9	4.505	1327	0.083	0.02	3.9	0.324
23	3.178	0.02	3.9	12.394	1328	0.16	0.02	3.9	0.624
24	2.557	0.02	3.9	9.972	1329	0.16	0.02	3.9	0.624
25	3.558	0.02	3.9	13.876	1330	0.079	0.02	3.9	0.308
26	0.07	0.02	3.9	0.273	1331	2.226	0.02	3.9	8.681
27	0.16	0.02	3.9	0.624	1332	0.16	0.02	3.9	0.624
28	0.23	0.02	3.9	0.897	1333	0.16	0.02	3.9	0.624
29	2.796	0.02	3.9	10.904	1334	2.226	0.02	3.9	8.681
30	0.024	0.02	3.9	0.094	1335	0.111	0.02	3.9	0.433
31	0.16	0.02	3.9	0.624	1336	0.14	0.02	3.9	0.546
32	0.02	0.02	3.9	0.078	1337	0.14	0.02	3.9	0.546
33	0.922	0.02	3.9	3.596	1338	0.399	0.02	3.9	1.556
34	2.877	0.02	3.9	11.22	1339	8.458	0.02	3.9	32.986
35	0.54	0.02	3.9	2.106	1340	0.523	0.02	3.9	2.04
36	0.56	0.02	3.9	2.184	1341	0.5	0.02	3.9	1.95
37	2.5	0.02	3.9	9.75	1342	0.13	0.02	3.9	0.507
38	1.18	0.02	3.9	4.602	1343	0.14	0.02	3.9	0.546

39	0.18	0.02	3.9	0.702	1344	0.793	0.02	3.9	3.093
40	0.659	0.02	3.9	2.57	1345	3.333	0.02	3.9	12.999
41	0.16	0.02	3.9	0.624	1346	2.191	0.02	3.9	8.545
42	0.14	0.02	3.9	0.546	1347	0.87	0.02	3.9	3.393
43	1.118	0.02	3.9	4.36	1348	0.14	0.02	3.9	0.546
44	3.062	0.02	3.9	11.942	1349	0.71	0.02	3.9	2.769
45	0.046	0.02	3.9	0.179	1350	1.551	0.02	3.9	6.049
46	0.16	0.02	3.9	0.624	1351	1.72	0.02	3.9	6.708
47	0.276	0.02	3.9	1.076	1352	1.551	0.02	3.9	6.049
48	1.546	0.02	3.9	6.029	1353	0.13	0.02	3.9	0.507
49	0.16	0.02	3.9	0.624	1354	0.126	0.02	3.9	0.491
50	1.706	0.02	3.9	6.653	1355	0.397	0.02	3.9	1.548
51	0.23	0.02	3.9	0.897	1356	0.14	0.02	3.9	0.546
52	3.062	0.02	3.9	11.942	1357	0.127	0.02	3.9	0.495
53	0.161	0.02	3.9	0.628	1358	2.031	0.02	3.9	7.921
54	0.14	0.02	3.9	0.546	1359	1.31	0.02	3.9	5.109
55	0.16	0.02	3.9	0.624	1360	2.031	0.02	3.9	7.921
56	2.19	0.02	3.9	8.541	1361	0.323	0.02	3.9	1.26
57	0.29	0.02	3.9	1.131	1362	0.14	0.02	3.9	0.546
58	0.16	0.02	3.9	0.624	1363	0.523	0.02	3.9	2.04
59	0.16	0.02	3.9	0.624	1364	0.14	0.02	3.9	0.546
60	0.421	0.02	3.9	1.642	1365	0.04	0.02	3.9	0.156
61	3.637	0.02	3.9	14.184	1366	2.031	0.02	3.9	7.921
62	2.958	0.02	3.9	11.536	1367	1.994	0.02	3.9	7.777
63	0.13	0.02	3.9	0.507	1368	0.68	0.02	3.9	2.652
64	0.16	0.02	3.9	0.624	1369	0.26	0.02	3.9	1.014
65	0.27	0.02	3.9	1.053	1370	0.922	0.02	3.9	3.596
66	7.35	0.02	3.9	28.665	1371	1.334	0.02	3.9	5.203
67	0.29	0.02	3.9	1.131	1372	0.835	0.02	3.9	3.257
68	0.16	0.02	3.9	0.624	1373	0.14	0.02	3.9	0.546
69	0.13	0.02	3.9	0.507	1374	0.675	0.02	3.9	2.633
70	3.652	0.02	3.9	14.243	1375	1.174	0.02	3.9	4.579
71	1.88	0.02	3.9	7.332	1376	1.685	0.02	3.9	6.572
72	0.28	0.02	3.9	1.092	1377	1.174	0.02	3.9	4.579
73	1.757	0.02	3.9	6.852	1378	0.13	0.02	3.9	0.507
74	2.442	0.02	3.9	9.524	1379	0.176	0.02	3.9	0.686
75	0.28	0.02	3.9	1.092	1380	0.11	0.02	3.9	0.429
76	0.16	0.02	3.9	0.624	1381	0.525	0.02	3.9	2.047
77	0.16	0.02	3.9	0.624	1382	0.14	0.02	3.9	0.546
78	1.061	0.02	3.9	4.138	1383	0.108	0.02	3.9	0.421
79	0.045	0.02	3.9	0.175	1384	2.125	0.02	3.9	8.288
80	0.16	0.02	3.9	0.624	1385	0.722	0.02	3.9	2.816
81	0.16	0.02	3.9	0.624	1386	0.14	0.02	3.9	0.546
82	0.035	0.02	3.9	0.137	1387	0.16	0.02	3.9	0.624
83	4.768	0.02	3.9	18.595	1388	0.11	0.02	3.9	0.429

84	0.14	0.02	3.9	0.546	1389	0.299	0.02	3.9	1.166
85	3.359	0.02	3.9	13.1	1390	0.14	0.02	3.9	0.546
86	0.13	0.02	3.9	0.507	1391	7.863	0.02	3.9	30.666
87	0.14	0.02	3.9	0.546	1392	2.945	0.02	3.9	11.485
88	0.11	0.02	3.9	0.429	1393	0.14	0.02	3.9	0.546
89	1.23	0.02	3.9	4.797	1394	2.785	0.02	3.9	10.862
90	1.761	0.02	3.9	6.868	1395	4.232	0.02	3.9	16.505
91	1.23	0.02	3.9	4.797	1396	5.624	0.02	3.9	21.934
92	0.771	0.02	3.9	3.007	1397	0.399	0.02	3.9	1.556
93	0.12	0.02	3.9	0.468	1398	0.14	0.02	3.9	0.546
94	0.17	0.02	3.9	0.663	1399	0.169	0.02	3.9	0.659
95	0.04	0.02	3.9	0.156	1400	0.179	0.02	3.9	0.698
96	0.16	0.02	3.9	0.624	1401	0.875	0.02	3.9	3.413
97	0.04	0.02	3.9	0.156	1402	0.16	0.02	3.9	0.624
98	0.601	0.02	3.9	2.344	1403	2.464	0.02	3.9	9.61
99	1.37	0.02	3.9	5.343	1404	0.28	0.02	3.9	1.092
100	1.623	0.02	3.9	6.33	1405	1.74	0.02	3.9	6.786
101	0.31	0.02	3.9	1.209	1406	0.52	0.02	3.9	2.028
102	0.33	0.02	3.9	1.287	1407	0.5	0.02	3.9	1.95
103	2.09	0.02	3.9	8.151	1408	2.351	0.02	3.9	9.169
104	2.553	0.02	3.9	9.957	1409	0.13	0.02	3.9	0.507
105	0.13	0.02	3.9	0.507	1410	0.14	0.02	3.9	0.546
106	0.14	0.02	3.9	0.546	1411	0.25	0.02	3.9	0.975
107	0.63	0.02	3.9	2.457	1412	0.16	0.02	3.9	0.624
108	0.14	0.02	3.9	0.546	1413	2.783	0.02	3.9	10.854
109	0.36	0.02	3.9	1.404	1414	1.102	0.02	3.9	4.298
110	2.553	0.02	3.9	9.957	1415	0.722	0.02	3.9	2.816
111	1.357	0.02	3.9	5.292	1416	0.14	0.02	3.9	0.546
112	2.553	0.02	3.9	9.957	1417	0.16	0.02	3.9	0.624
113	0.137	0.02	3.9	0.534	1418	0.11	0.02	3.9	0.429
114	0.14	0.02	3.9	0.546	1419	0.26	0.02	3.9	1.014
115	0.407	0.02	3.9	1.587	1420	0.14	0.02	3.9	0.546
116	0.14	0.02	3.9	0.546	1421	0.73	0.02	3.9	2.847
117	0.11	0.02	3.9	0.429	1422	0.126	0.02	3.9	0.491
118	2.553	0.02	3.9	9.957	1423	0.14	0.02	3.9	0.546
119	0.582	0.02	3.9	2.27	1424	0.106	0.02	3.9	0.413
120	0.68	0.02	3.9	2.652	1425	1.893	0.02	3.9	7.383
121	1.16	0.02	3.9	4.524	1426	1.021	0.02	3.9	3.982
122	1.873	0.02	3.9	7.305	1427	1.712	0.02	3.9	6.677
123	0.772	0.02	3.9	3.011	1428	3.508	0.02	3.9	13.681
124	0.14	0.02	3.9	0.546	1429	1.18	0.02	3.9	4.602
125	0.912	0.02	3.9	3.557	1430	0.32	0.02	3.9	1.248
126	2.713	0.02	3.9	10.581	1431	1.16	0.02	3.9	4.524
127	3.177	0.02	3.9	12.39	1432	0.55	0.02	3.9	2.145
128	0.27	0.02	3.9	1.053	1433	2.598	0.02	3.9	10.132

129	0.14	0.02	3.9	0.546	1434	4.259	0.02	3.9	16.61
130	0.11	0.02	3.9	0.429	1435	1.001	0.02	3.9	3.904
131	9.035	0.02	3.9	35.237	1436	0.174	0.02	3.9	0.679
132	0.399	0.02	3.9	1.556	1437	0.14	0.02	3.9	0.546
133	0.14	0.02	3.9	0.546	1438	0.154	0.02	3.9	0.601
134	0.14	0.02	3.9	0.546	1439	2	0.02	3.9	7.8
135	2.226	0.02	3.9	8.681	1440	0.27	0.02	3.9	1.053
136	0.111	0.02	3.9	0.433	1441	0.14	0.02	3.9	0.546
137	0.14	0.02	3.9	0.546	1442	0.11	0.02	3.9	0.429
138	0.14	0.02	3.9	0.546	1443	2.861	0.02	3.9	11.158
139	0.091	0.02	3.9	0.355	1444	4.099	0.02	3.9	15.986
140	0.866	0.02	3.9	3.377	1445	2.421	0.02	3.9	9.442
141	5.914	0.02	3.9	23.065	1446	1.081	0.02	3.9	4.216
142	2.19	0.02	3.9	8.541	1447	0.42	0.02	3.9	1.638
143	0.16	0.02	3.9	0.624	1448	1.629	0.02	3.9	6.353
144	5.04	0.02	3.9	19.656	1449	0.14	0.02	3.9	0.546
145	0.14	0.02	3.9	0.546	1450	1.609	0.02	3.9	6.275
146	2.17	0.02	3.9	8.463	1451	1.456	0.02	3.9	5.678
147	5.917	0.02	3.9	23.076	1452	0.14	0.02	3.9	0.546
148	0.858	0.02	3.9	3.346	1453	0.396	0.02	3.9	1.544
149	0.109	0.02	3.9	0.425	1454	0.48	0.02	3.9	1.872
150	0.14	0.02	3.9	0.546	1455	1.466	0.02	3.9	5.717
151	0.16	0.02	3.9	0.624	1456	0.6	0.02	3.9	2.34
152	0.079	0.02	3.9	0.308	1457	0.314	0.02	3.9	1.225
153	2.226	0.02	3.9	8.681	1458	0.13	0.02	3.9	0.507
154	0.03	0.02	3.9	0.117	1459	0.14	0.02	3.9	0.546
155	0.161	0.02	3.9	0.628	1460	2.411	0.02	3.9	9.403
156	0.16	0.02	3.9	0.624	1461	0.13	0.02	3.9	0.507
157	0.182	0.02	3.9	0.71	1462	0.14	0.02	3.9	0.546
158	0.53	0.02	3.9	2.067	1463	0.16	0.02	3.9	0.624
159	0.13	0.02	3.9	0.507	1464	1.506	0.02	3.9	5.873
160	5.238	0.02	3.9	20.428	1465	1.883	0.02	3.9	7.344
161	0.15	0.02	3.9	0.585	1466	4.233	0.02	3.9	16.509
162	1.02	0.02	3.9	3.978	1467	0.906	0.02	3.9	3.533
163	0.13	0.02	3.9	0.507	1468	0.14	0.02	3.9	0.546
164	2.227	0.02	3.9	8.685	1469	0.16	0.02	3.9	0.624
165	0.13	0.02	3.9	0.507	1470	1.578	0.02	3.9	6.154
166	0.14	0.02	3.9	0.546	1471	0.18	0.02	3.9	0.702
167	0.4	0.02	3.9	1.56	1472	0.38	0.02	3.9	1.482
168	0.14	0.02	3.9	0.546	1473	5.38	0.02	3.9	20.982
169	0.11	0.02	3.9	0.429	1474	0.14	0.02	3.9	0.546
170	2.227	0.02	3.9	8.685	1475	5.36	0.02	3.9	20.904
171	0.35	0.02	3.9	1.365	1476	0.78	0.02	3.9	3.042
172	1.02	0.02	3.9	3.978	1477	0.161	0.02	3.9	0.628
173	0.33	0.02	3.9	1.287	1478	1.336	0.02	3.9	5.21

174	5.238	0.02	3.9	20.428	1479	0.14	0.02	3.9	0.546
175	0.35	0.02	3.9	1.365	1480	0.16	0.02	3.9	0.624
176	0.51	0.02	3.9	1.989	1481	8.031	0.02	3.9	31.321
177	0.049	0.02	3.9	0.191	1482	0.075	0.02	3.9	0.293
178	0.16	0.02	3.9	0.624	1483	0.14	0.02	3.9	0.546
179	0.16	0.02	3.9	0.624	1484	0.4	0.02	3.9	1.56
180	2.296	0.02	3.9	8.954	1485	0.14	0.02	3.9	0.546
181	0.067	0.02	3.9	0.261	1486	0.165	0.02	3.9	0.644
182	0.148	0.02	3.9	0.577	1487	8.191	0.02	3.9	31.945
183	0.16	0.02	3.9	0.624	1488	0.16	0.02	3.9	0.624
184	0.071	0.02	3.9	0.277	1489	1.953	0.02	3.9	7.617
185	0.864	0.02	3.9	3.37	1490	0.821	0.02	3.9	3.202
186	5.914	0.02	3.9	23.065	1491	0.156	0.02	3.9	0.608
187	2.188	0.02	3.9	8.533	1492	0.13	0.02	3.9	0.507
188	0.14	0.02	3.9	0.546	1493	0.14	0.02	3.9	0.546
189	5.04	0.02	3.9	19.656	1494	0.11	0.02	3.9	0.429
190	0.14	0.02	3.9	0.546	1495	0.344	0.02	3.9	1.342
191	2.172	0.02	3.9	8.471	1496	0.52	0.02	3.9	2.028
192	5.915	0.02	3.9	23.069	1497	0.98	0.02	3.9	3.822
193	0.868	0.02	3.9	3.385	1498	0.261	0.02	3.9	1.018
194	0.103	0.02	3.9	0.402	1499	0.659	0.02	3.9	2.57
195	0.14	0.02	3.9	0.546	1500	0.14	0.02	3.9	0.546
196	0.16	0.02	3.9	0.624	1501	0.16	0.02	3.9	0.624
197	0.079	0.02	3.9	0.308	1502	0.377	0.02	3.9	1.47
198	2.226	0.02	3.9	8.681	1503	4.873	0.02	3.9	19.005
199	0.03	0.02	3.9	0.117	1504	0.901	0.02	3.9	3.514
200	0.16	0.02	3.9	0.624	1505	0.14	0.02	3.9	0.546
201	0.12	0.02	3.9	0.468	1506	0.16	0.02	3.9	0.624
202	0.19	0.02	3.9	0.741	1507	1.81	0.02	3.9	7.059
203	0.53	0.02	3.9	2.067	1508	2.662	0.02	3.9	10.382
204	0.17	0.02	3.9	0.663	1509	0.14	0.02	3.9	0.546
205	5.329	0.02	3.9	20.783	1510	2.802	0.02	3.9	10.928
206	0.24	0.02	3.9	0.936	1511	0.704	0.02	3.9	2.746
207	1.62	0.02	3.9	6.318	1512	1.238	0.02	3.9	4.828
208	0.22	0.02	3.9	0.858	1513	0.724	0.02	3.9	2.824
209	1.537	0.02	3.9	5.994	1514	1.74	0.02	3.9	6.786
210	0.13	0.02	3.9	0.507	1515	2.118	0.02	3.9	8.26
211	0.14	0.02	3.9	0.546	1516	0.14	0.02	3.9	0.546
212	0.4	0.02	3.9	1.56	1517	2.098	0.02	3.9	8.182
213	0.14	0.02	3.9	0.546	1518	1.694	0.02	3.9	6.607
214	0.11	0.02	3.9	0.429	1519	0.64	0.02	3.9	2.496
215	1.537	0.02	3.9	5.994	1520	0.66	0.02	3.9	2.574
216	0.24	0.02	3.9	0.936	1521	0.62	0.02	3.9	2.418
217	1.62	0.02	3.9	6.318	1522	5.59	0.02	3.9	21.801
218	0.22	0.02	3.9	0.858	1523	1.754	0.02	3.9	6.841

219	5.329	0.02	3.9	20.783	1524	0.16	0.02	3.9	0.624
220	0.34	0.02	3.9	1.326	1525	2.812	0.02	3.9	10.967
221	0.51	0.02	3.9	1.989	1526	0.18	0.02	3.9	0.702
222	0.059	0.02	3.9	0.23	1527	1.32	0.02	3.9	5.148
223	0.14	0.02	3.9	0.546	1528	0.32	0.02	3.9	1.248
224	0.12	0.02	3.9	0.468	1529	4.132	0.02	3.9	16.115
225	2.238	0.02	3.9	8.728	1530	0.1	0.02	3.9	0.39
226	0.035	0.02	3.9	0.137	1531	1.594	0.02	3.9	6.217
227	0.092	0.02	3.9	0.359	1532	3.435	0.02	3.9	13.397
228	0.12	0.02	3.9	0.468	1533	5.766	0.02	3.9	22.487
229	0.043	0.02	3.9	0.168	1534	0.27	0.02	3.9	1.053
230	0.876	0.02	3.9	3.416	1535	2.335	0.02	3.9	9.107
231	5.954	0.02	3.9	23.221	1536	0.312	0.02	3.9	1.217
232	2.188	0.02	3.9	8.533	1537	0.27	0.02	3.9	1.053
233	0.1	0.02	3.9	0.39	1538	0.292	0.02	3.9	1.139
234	5	0.02	3.9	19.5	1539	2.991	0.02	3.9	11.665
235	0.1	0.02	3.9	0.39	1540	4.91	0.02	3.9	19.149
236	2.172	0.02	3.9	8.471	1541	2.991	0.02	3.9	11.665
237	5.955	0.02	3.9	23.225	1542	0.363	0.02	3.9	1.416
238	0.879	0.02	3.9	3.428	1543	0.27	0.02	3.9	1.053
239	0.075	0.02	3.9	0.293	1544	0.473	0.02	3.9	1.845
240	0.12	0.02	3.9	0.468	1545	3.971	0.02	3.9	15.487
241	0.12	0.02	3.9	0.468	1546	0.14	0.02	3.9	0.546
242	0.051	0.02	3.9	0.199	1547	2.125	0.02	3.9	8.288
243	2.238	0.02	3.9	8.728	1548	0.37	0.02	3.9	1.443
244	0.03	0.02	3.9	0.117	1549	0.144	0.02	3.9	0.562
245	0.1	0.02	3.9	0.39	1550	0.35	0.02	3.9	1.365
246	0.14	0.02	3.9	0.546	1551	1.122	0.02	3.9	4.376
247	0.1	0.02	3.9	0.39	1552	1.36	0.02	3.9	5.304
248	0.66	0.02	3.9	2.574	1553	1.122	0.02	3.9	4.376
249	0.28	0.02	3.9	1.092	1554	0.13	0.02	3.9	0.507
250	5.178	0.02	3.9	20.194	1555	0.144	0.02	3.9	0.562
251	0.38	0.02	3.9	1.482	1556	0.11	0.02	3.9	0.429
252	1.47	0.02	3.9	5.733	1557	0.053	0.02	3.9	0.207
253	0.36	0.02	3.9	1.404	1558	0.14	0.02	3.9	0.546
254	1.687	0.02	3.9	6.579	1559	1.332	0.02	3.9	5.195
255	0.13	0.02	3.9	0.507	1560	0.32	0.02	3.9	1.248
256	0.14	0.02	3.9	0.546	1561	1.32	0.02	3.9	5.148
257	0.4	0.02	3.9	1.56	1562	0.32	0.02	3.9	1.248
258	0.14	0.02	3.9	0.546	1563	1.46	0.02	3.9	5.694
259	0.11	0.02	3.9	0.429	1564	0.385	0.02	3.9	1.502
260	9.035	0.02	3.9	35.237	1565	1.46	0.02	3.9	5.694
261	0.399	0.02	3.9	1.556	1566	0.385	0.02	3.9	1.502
262	0.14	0.02	3.9	0.546	1567	0.79	0.02	3.9	3.081
263	2.386	0.02	3.9	9.305	1568	1.38	0.02	3.9	5.382

264	0.111	0.02	3.9	0.433	1569	0.2	0.02	3.9	0.78
265	0.14	0.02	3.9	0.546	1570	0.76	0.02	3.9	2.964
266	0.16	0.02	3.9	0.624	1571	0.97	0.02	3.9	3.783
267	0.092	0.02	3.9	0.359	1572	2.14	0.02	3.9	8.346
268	1.126	0.02	3.9	4.391	1573	0.16	0.02	3.9	0.624
269	5.915	0.02	3.9	23.069	1574	0.4	0.02	3.9	1.56
270	2.45	0.02	3.9	9.555	1575	0.14	0.02	3.9	0.546
271	0.14	0.02	3.9	0.546	1576	0.16	0.02	3.9	0.624
272	5.04	0.02	3.9	19.656	1577	1.311	0.02	3.9	5.113
273	0.14	0.02	3.9	0.546	1578	1.36	0.02	3.9	5.304
274	2.43	0.02	3.9	9.477	1579	0.121	0.02	3.9	0.472
275	5.915	0.02	3.9	23.069	1580	0.14	0.02	3.9	0.546
276	1.126	0.02	3.9	4.391	1581	0.101	0.02	3.9	0.394
277	0.103	0.02	3.9	0.402	1582	1.05	0.02	3.9	4.095
278	0.14	0.02	3.9	0.546	1583	1.02	0.02	3.9	3.978
279	0.16	0.02	3.9	0.624	1584	1.02	0.02	3.9	3.978
280	0.079	0.02	3.9	0.308	1585	0.86	0.02	3.9	3.354
281	2.226	0.02	3.9	8.681	1586	6.78	0.02	3.9	26.442
282	0.16	0.02	3.9	0.624	1587	0.399	0.02	3.9	1.556
283	0.16	0.02	3.9	0.624	1588	0.161	0.02	3.9	0.628
284	0.195	0.02	3.9	0.76	1589	6.28	0.02	3.9	24.492
285	0.53	0.02	3.9	2.067	1590	0.52	0.02	3.9	2.028
286	0.17	0.02	3.9	0.663	1591	0.659	0.02	3.9	2.57
287	8.506	0.02	3.9	33.173	1592	0.32	0.02	3.9	1.248
288	0.13	0.02	3.9	0.507	1593	1.2	0.02	3.9	4.68
289	0.14	0.02	3.9	0.546	1594	0.161	0.02	3.9	0.628
290	0.4	0.02	3.9	1.56	1595	5.897	0.02	3.9	22.998
291	0.14	0.02	3.9	0.546	1596	0.281	0.02	3.9	1.096
292	2.777	0.02	3.9	10.83	1597	0.843	0.02	3.9	3.288
293	0.28	0.02	3.9	1.092	1598	0.724	0.02	3.9	2.824
294	2.62	0.02	3.9	10.218	1599	0.499	0.02	3.9	1.946
295	0.26	0.02	3.9	1.014	1600	4.912	0.02	3.9	19.157
296	3.089	0.02	3.9	12.047	1601	0.48	0.02	3.9	1.872
297	0.34	0.02	3.9	1.326	1602	2.353	0.02	3.9	9.177
298	0.51	0.02	3.9	1.989	1603	0.62	0.02	3.9	2.418
299	0.059	0.02	3.9	0.23	1604	1.32	0.02	3.9	5.148
300	0.16	0.02	3.9	0.624	1605	5.932	0.02	3.9	23.135
301	0.14	0.02	3.9	0.546	1606	0.195	0.02	3.9	0.76
302	0.273	0.02	3.9	1.065	1607	0.27	0.02	3.9	1.053
303	2.216	0.02	3.9	8.642	1608	0.343	0.02	3.9	1.338
304	0.122	0.02	3.9	0.476	1609	0.29	0.02	3.9	1.131
305	0.14	0.02	3.9	0.546	1610	0.27	0.02	3.9	1.053
306	0.16	0.02	3.9	0.624	1611	0.363	0.02	3.9	1.416
307	0.077	0.02	3.9	0.3	1612	2.355	0.02	3.9	9.185
308	0.594	0.02	3.9	2.317	1613	0.27	0.02	3.9	1.053

309	5.915	0.02	3.9	23.069	1614	5.746	0.02	3.9	22.409
310	2.192	0.02	3.9	8.549	1615	3.435	0.02	3.9	13.397
311	0.12	0.02	3.9	0.468	1616	1.88	0.02	3.9	7.332
312	5.47	0.02	3.9	21.333	1617	0.08	0.02	3.9	0.312
313	0.14	0.02	3.9	0.546	1618	4.263	0.02	3.9	16.626
314	2.598	0.02	3.9	10.132	1619	0.32	0.02	3.9	1.248
315	8.514	0.02	3.9	33.205	1620	0.616	0.02	3.9	2.402
316	0.13	0.02	3.9	0.507	1621	0.16	0.02	3.9	0.624
317	0.5	0.02	3.9	1.95	1622	3.623	0.02	3.9	14.13
318	3.298	0.02	3.9	12.862	1623	0.18	0.02	3.9	0.702
319	0.68	0.02	3.9	2.652	1624	2.02	0.02	3.9	7.878
320	0.16	0.02	3.9	0.624	1625	9.645	0.02	3.9	37.616
321	5.178	0.02	3.9	20.194	1626	2.363	0.02	3.9	9.216
322	0.18	0.02	3.9	0.702	1627	0.133	0.02	3.9	0.519
323	1.32	0.02	3.9	5.148	1628	0.14	0.02	3.9	0.546
324	0.16	0.02	3.9	0.624	1629	0.113	0.02	3.9	0.441
325	1.837	0.02	3.9	7.164	1630	1.028	0.02	3.9	4.009
326	0.13	0.02	3.9	0.507	1631	0.277	0.02	3.9	1.08
327	0.14	0.02	3.9	0.546	1632	2.812	0.02	3.9	10.967
328	0.25	0.02	3.9	0.975	1633	1.758	0.02	3.9	6.856
329	1.347	0.02	3.9	5.253	1634	0.4	0.02	3.9	1.56
330	0.354	0.02	3.9	1.381	1635	0.27	0.02	3.9	1.053
331	0.14	0.02	3.9	0.546	1636	0.14	0.02	3.9	0.546
332	0.334	0.02	3.9	1.303	1637	0.11	0.02	3.9	0.429
333	0.47	0.02	3.9	1.833	1638	1.35	0.02	3.9	5.265
334	0.317	0.02	3.9	1.236	1639	0.14	0.02	3.9	0.546
335	1.16	0.02	3.9	4.524	1640	0.16	0.02	3.9	0.624
336	2.502	0.02	3.9	9.758	1641	0.95	0.02	3.9	3.705
337	1.65	0.02	3.9	6.435	1642	4.873	0.02	3.9	19.005
338	1.612	0.02	3.9	6.287	1643	1.932	0.02	3.9	7.535
339	0.12	0.02	3.9	0.468	1644	0.14	0.02	3.9	0.546
340	1.612	0.02	3.9	6.287	1645	3.483	0.02	3.9	13.584
341	2.739	0.02	3.9	10.682	1646	0.14	0.02	3.9	0.546
342	0.14	0.02	3.9	0.546	1647	3.463	0.02	3.9	13.506
343	4.69	0.02	3.9	18.291	1648	0.16	0.02	3.9	0.624
344	2.966	0.02	3.9	11.567	1649	0.071	0.02	3.9	0.277
345	5.178	0.02	3.9	20.194	1650	0.16	0.02	3.9	0.624
346	0.318	0.02	3.9	1.24	1651	1.939	0.02	3.9	7.562
347	0.66	0.02	3.9	2.574	1652	5.101	0.02	3.9	19.894
348	0.051	0.02	3.9	0.199	1653	0.14	0.02	3.9	0.546
349	0.14	0.02	3.9	0.546	1654	5.69	0.02	3.9	22.191
350	0.16	0.02	3.9	0.624	1655	0.14	0.02	3.9	0.546
351	1.683	0.02	3.9	6.564	1656	2.04	0.02	3.9	7.956
352	3.613	0.02	3.9	14.091	1657	0.13	0.02	3.9	0.507
353	0.263	0.02	3.9	1.026	1658	0.14	0.02	3.9	0.546

354	0.14	0.02	3.9	0.546	1659	0.16	0.02	3.9	0.624
355	0.103	0.02	3.9	0.402	1660	0.79	0.02	3.9	3.081
356	2.938	0.02	3.9	11.458	1661	3.61	0.02	3.9	14.079
357	0.724	0.02	3.9	2.824	1662	2.69	0.02	3.9	10.491
358	0.5	0.02	3.9	1.95	1663	0.88	0.02	3.9	3.432
359	1.855	0.02	3.9	7.235	1664	0.161	0.02	3.9	0.628
360	3.458	0.02	3.9	13.486	1665	3.143	0.02	3.9	12.258
361	1.196	0.02	3.9	4.664	1666	0.14	0.02	3.9	0.546
362	0.14	0.02	3.9	0.546	1667	0.16	0.02	3.9	0.624
363	1.395	0.02	3.9	5.441	1668	4.871	0.02	3.9	18.997
364	0.14	0.02	3.9	0.546	1669	0.13	0.02	3.9	0.507
365	0.039	0.02	3.9	0.152	1670	0.14	0.02	3.9	0.546
366	3.458	0.02	3.9	13.486	1671	0.11	0.02	3.9	0.429
367	1.148	0.02	3.9	4.477	1672	1.42	0.02	3.9	5.538
368	0.68	0.02	3.9	2.652	1673	0.14	0.02	3.9	0.546
369	0.42	0.02	3.9	1.638	1674	6.431	0.02	3.9	25.081
370	0.68	0.02	3.9	2.652	1675	1.48	0.02	3.9	5.772
371	0.399	0.02	3.9	1.556	1676	0.18	0.02	3.9	0.702
372	0.14	0.02	3.9	0.546	1677	1.32	0.02	3.9	5.148
373	0.2	0.02	3.9	0.78	1678	0.161	0.02	3.9	0.628
374	3.418	0.02	3.9	13.33	1679	0.865	0.02	3.9	3.374
375	2.116	0.02	3.9	8.252	1680	4.33	0.02	3.9	16.887
376	0.18	0.02	3.9	0.702	1681	0.14	0.02	3.9	0.546
377	0.089	0.02	3.9	0.347	1682	4.31	0.02	3.9	16.809
378	2.4	0.02	3.9	9.36	1683	0.261	0.02	3.9	1.018
379	0.639	0.02	3.9	2.492	1684	0.14	0.02	3.9	0.546
380	0.18	0.02	3.9	0.702	1685	0.14	0.02	3.9	0.546
381	0.159	0.02	3.9	0.62	1686	0.68	0.02	3.9	2.652
382	2.2	0.02	3.9	8.58	1687	0.864	0.02	3.9	3.37
383	1.527	0.02	3.9	5.955	1688	0.66	0.02	3.9	2.574
384	2.2	0.02	3.9	8.58	1689	0.844	0.02	3.9	3.292
385	0.528	0.02	3.9	2.059	1690	0.44	0.02	3.9	1.716
386	0.18	0.02	3.9	0.702	1691	1.86	0.02	3.9	7.254
387	1.191	0.02	3.9	4.645	1692	0.42	0.02	3.9	1.638
388	0.18	0.02	3.9	0.702	1693	1.84	0.02	3.9	7.176
389	0.463	0.02	3.9	1.806	1694	0.29	0.02	3.9	1.131
390	5.818	0.02	3.9	22.69	1695	3.15	0.02	3.9	12.285
391	1.466	0.02	3.9	5.717	1696	0.62	0.02	3.9	2.418
392	0.52	0.02	3.9	2.028	1697	0.82	0.02	3.9	3.198
393	0.904	0.02	3.9	3.526	1698	0.6	0.02	3.9	2.34
394	0.5	0.02	3.9	1.95	1699	4.713	0.02	3.9	18.381
395	2.38	0.02	3.9	9.282	1700	6.36	0.02	3.9	24.804
396	5.818	0.02	3.9	22.69	1701	0.64	0.02	3.9	2.496
397	0.11	0.02	3.9	0.429	1702	0.08	0.02	3.9	0.312
398	0.18	0.02	3.9	0.702	1703	0.14	0.02	3.9	0.546

399	3.035	0.02	3.9	11.837	1704	0.06	0.02	3.9	0.234
400	0.18	0.02	3.9	0.702	1705	1.555	0.02	3.9	6.065
401	1.151	0.02	3.9	4.489	1706	0.122	0.02	3.9	0.476
402	1.48	0.02	3.9	5.772	1707	0.14	0.02	3.9	0.546
403	0.66	0.02	3.9	2.574	1708	0.148	0.02	3.9	0.577
404	1.46	0.02	3.9	5.694	1709	0.083	0.02	3.9	0.324
405	0.854	0.02	3.9	3.331	1710	1.542	0.02	3.9	6.014
406	5.818	0.02	3.9	22.69	1711	5.259	0.02	3.9	20.51
407	0.544	0.02	3.9	2.122	1712	2.53	0.02	3.9	9.867
408	0.68	0.02	3.9	2.652	1713	0.14	0.02	3.9	0.546
409	0.46	0.02	3.9	1.794	1714	5.29	0.02	3.9	20.631
410	0.66	0.02	3.9	2.574	1715	0.14	0.02	3.9	0.546
411	3.473	0.02	3.9	13.545	1716	2.6	0.02	3.9	10.14
412	0.646	0.02	3.9	2.519	1717	6.143	0.02	3.9	23.958
413	0.18	0.02	3.9	0.702	1718	0.209	0.02	3.9	0.815
414	0.202	0.02	3.9	0.788	1719	2.24	0.02	3.9	8.736
415	0.682	0.02	3.9	2.66	1720	3.839	0.02	3.9	14.972
416	2.67	0.02	3.9	10.413	1721	4.553	0.02	3.9	17.757
417	2.718	0.02	3.9	10.6	1722	0.56	0.02	3.9	2.184
418	1.612	0.02	3.9	6.287	1723	0.82	0.02	3.9	3.198
419	1.032	0.02	3.9	4.025	1724	0.54	0.02	3.9	2.106
420	0.62	0.02	3.9	2.418	1725	2.99	0.02	3.9	11.661
421	0.18	0.02	3.9	0.702	1726	0.13	0.02	3.9	0.507
422	0.683	0.02	3.9	2.664	1727	0.14	0.02	3.9	0.546
423	1.032	0.02	3.9	4.025	1728	0.79	0.02	3.9	3.081
424	2.801	0.02	3.9	10.924	1729	0.567	0.02	3.9	2.211
425	0.73	0.02	3.9	2.847	1730	0.77	0.017	3.9	3.003
426	3.363	0.02	3.9	13.116	1731	0.55	0.02	3.9	2.145
427	0.18	0.02	3.9	0.702	1732	0.59	0.02	3.9	2.301
428	2.433	0.02	3.9	9.489	1733	1.54	0.02	3.9	6.006
429	0.73	0.02	3.9	2.847	1734	0.57	0.02	3.9	2.223
430	1.982	0.02	3.9	7.73	1735	1.52	0.02	3.9	5.928
431	5.088	0.02	3.9	19.843	1736	4.6	0.02	3.9	17.94
432	1.157	0.02	3.9	4.512	1737	0.64	0.02	3.9	2.496
433	0.68	0.02	3.9	2.652	1738	0.08	0.02	3.9	0.312
434	0.46	0.02	3.9	1.794	1739	0.14	0.02	3.9	0.546
435	0.66	0.02	3.9	2.574	1740	0.06	0.02	3.9	0.234
436	3.473	0.02	3.9	13.545	1741	1.566	0.02	3.9	6.107
437	2.705	0.02	3.9	10.55	1742	0.095	0.02	3.9	0.371
438	0.18	0.02	3.9	0.702	1743	0.14	0.02	3.9	0.546
439	2.165	0.02	3.9	8.444	1744	0.16	0.02	3.9	0.624
440	0.724	0.02	3.9	2.824	1745	0.113	0.02	3.9	0.441
441	0.5	0.02	3.9	1.95	1746	1.322	0.02	3.9	5.156
442	3.223	0.02	3.9	12.57	1747	5.259	0.02	3.9	20.51
443	1.18	0.02	3.9	4.602	1748	2.315	0.02	3.9	9.029

444	0.16	0.02	3.9	0.624	1749	0.14	0.02	3.9	0.546
445	2.358	0.02	3.9	9.196	1750	4.555	0.02	3.9	17.764
446	0.28	0.02	3.9	1.092	1751	0.14	0.02	3.9	0.546
447	2.26	0.02	3.9	8.814	1752	2.08	0.02	3.9	8.112
448	0.231	0.02	3.9	0.901	1753	5.259	0.02	3.9	20.51
449	0.16	0.02	3.9	0.624	1754	1.323	0.02	3.9	5.16
450	0.511	0.02	3.9	1.993	1755	0.097	0.02	3.9	0.378
451	2.976	0.02	3.9	11.606	1756	0.14	0.02	3.9	0.546
452	2.91	0.02	3.9	11.349	1757	0.16	0.02	3.9	0.624
453	1.923	0.02	3.9	7.5	1758	0.095	0.02	3.9	0.371
454	0.18	0.02	3.9	0.702	1759	1.56	0.02	3.9	6.084
455	1.244	0.02	3.9	4.852	1760	0.08	0.02	3.9	0.312
456	0.282	0.02	3.9	1.1	1761	0.14	0.02	3.9	0.546
457	0.18	0.02	3.9	0.702	1762	0.06	0.02	3.9	0.234
458	0.262	0.02	3.9	1.022	1763	0.64	0.02	3.9	2.496
459	1.166	0.02	3.9	4.547	1764	0.319	0.02	3.9	1.244
460	0.18	0.02	3.9	0.702	1765	0.14	0.02	3.9	0.546
461	0.487	0.02	3.9	1.899	1766	0.06	0.02	3.9	0.234
462	2.39	0.02	3.9	9.321	1767	0.14	0.02	3.9	0.546
463	1.457	0.02	3.9	5.682	1768	0.059	0.02	3.9	0.23
464	2.39	0.02	3.9	9.321	1769	6.22	0.02	3.9	24.258
465	0.13	0.02	3.9	0.507	1771	0.15	0.02	3.9	0.585
466	0.16	0.02	3.9	0.624	1772	1.483	0.02	3.9	5.784
467	0.457	0.02	3.9	1.782	1773	0.13	0.02	3.9	0.507
468	0.18	0.02	3.9	0.702	1774	0.14	0.02	3.9	0.546
469	0.107	0.02	3.9	0.417	1775	0.88	0.02	3.9	3.432
470	2.39	0.02	3.9	9.321	1776	0.12	0.02	3.9	0.468
471	2.967	0.02	3.9	11.571	1777	0.13	0.02	3.9	0.507
472	0.36	0.02	3.9	1.404	1778	1.503	0.02	3.9	5.862
473	0.86	0.02	3.9	3.354	1779	0.33	0.02	3.9	1.287
474	2.03	0.02	3.9	7.917	1780	6.22	0.02	3.9	24.258
475	2.9	0.02	3.9	11.31	1781	0.695	0.02	3.9	2.71
476	0.18	0.02	3.9	0.702	1782	0.14	0.02	3.9	0.546
477	6.236	0.02	3.9	24.32	1783	0.105	0.02	3.9	0.409
478	0.18	0.02	3.9	0.702	1784	2.593	0.02	3.9	10.113
479	3.136	0.02	3.9	12.23	1785	0.12	0.02	3.9	0.468
480	2.39	0.02	3.9	9.321	1786	5.13	0.02	3.9	20.007
481	4.106	0.02	3.9	16.013	1787	0.08	0.02	3.9	0.312
482	2.39	0.02	3.9	9.321	1788	0.14	0.02	3.9	0.546
483	0.129	0.02	3.9	0.503	1789	0.3	0.02	3.9	1.17
484	0.18	0.02	3.9	0.702	1790	0.14	0.02	3.9	0.546
485	0.438	0.02	3.9	1.708	1791	0.06	0.02	3.9	0.234
486	0.18	0.02	3.9	0.702	1792	5.13	0.02	3.9	20.007
487	0.109	0.02	3.9	0.425	1793	0.14	0.02	3.9	0.546
488	2.39	0.02	3.9	9.321	1794	2.573	0.02	3.9	10.035

489	1.827	0.02	3.9	7.125	1795	0.13	0.02	3.9	0.507
490	0.21	0.02	3.9	0.819	1796	0.12	0.02	3.9	0.468
491	0.59	0.02	3.9	2.301	1797	4.921	0.02	3.9	19.192
492	2.18	0.02	3.9	8.502	1798	0.14	0.02	3.9	0.546
493	1.488	0.02	3.9	5.803	1799	2.431	0.02	3.9	9.481
494	0.18	0.02	3.9	0.702	1800	5.259	0.02	3.9	20.51
495	4.164	0.02	3.9	16.24	1801	1.322	0.02	3.9	5.156
496	0.18	0.02	3.9	0.702	1802	0.093	0.02	3.9	0.363
497	2.476	0.02	3.9	9.656	1803	0.16	0.02	3.9	0.624
498	2.18	0.02	3.9	8.502	1804	0.16	0.02	3.9	0.624
499	0.12	0.02	3.9	0.468	1805	0.075	0.02	3.9	0.293
500	0.19	0.02	3.9	0.741	1806	1.566	0.02	3.9	6.107
501	0.724	0.02	3.9	2.824	1807	0.08	0.02	3.9	0.312
502	0.5	0.02	3.9	1.95	1808	0.12	0.02	3.9	0.468
503	2.602	0.02	3.9	10.148	1809	0.08	0.02	3.9	0.312
504	2.91	0.02	3.9	11.349	1810	0.66	0.02	3.9	2.574
505	0.13	0.02	3.9	0.507	1811	4.58	0.02	3.9	17.862
506	0.16	0.02	3.9	0.624	1812	0.64	0.02	3.9	2.496
507	0.29	0.02	3.9	1.131	1813	0.08	0.02	3.9	0.312
508	3.11	0.02	3.9	12.129	1814	0.14	0.02	3.9	0.546
509	2.097	0.02	3.9	8.178	1815	0.06	0.02	3.9	0.234
510	0.5	0.02	3.9	1.95	1816	1.56	0.02	3.9	6.084
511	0.924	0.02	3.9	3.604	1817	0.087	0.02	3.9	0.339
512	0.22	0.02	3.9	0.858	1818	0.16	0.02	3.9	0.624
513	1.475	0.02	3.9	5.753	1819	0.16	0.02	3.9	0.624
514	0.08	0.02	3.9	0.312	1820	0.077	0.02	3.9	0.3
515	0.674	0.02	3.9	2.629	1821	1.322	0.02	3.9	5.156
516	0.16	0.02	3.9	0.624	1822	5.259	0.02	3.9	20.51
517	0.75	0.02	3.9	2.925	1823	2.31	0.02	3.9	9.009
518	1.02	0.02	3.9	3.978	1824	0.12	0.02	3.9	0.468
519	1.957	0.02	3.9	7.632	1825	0.419	0.02	3.9	1.634
520	0.469	0.02	3.9	1.829	1826	0.14	0.02	3.9	0.546
521	1.604	0.02	3.9	6.256	1827	0.11	0.02	3.9	0.429
522	1.617	0.02	3.9	6.306	1828	0.14	0.02	3.9	0.546
523	0.251	0.02	3.9	0.979	1829	0.109	0.02	3.9	0.425
524	0.531	0.02	3.9	2.071	1830	1.653	0.02	3.9	6.447
525	2.38	0.02	3.9	9.282	1831	0.38	0.02	3.9	1.482
526	0.14	0.02	3.9	0.546	1832	1.47	0.02	3.9	5.733
527	3.003	0.02	3.9	11.712	1833	0.36	0.02	3.9	1.404
528	0.401	0.02	3.9	1.564	1834	7.723	0.02	3.9	30.12
529	0.14	0.02	3.9	0.546	1835	4.58	0.02	3.9	17.862
530	0.382	0.02	3.9	1.49	1836	0.08	0.02	3.9	0.312
531	2.297	0.02	3.9	8.958	1837	0.14	0.02	3.9	0.546
532	0.432	0.02	3.9	1.685	1838	0.3	0.02	3.9	1.17
533	0.273	0.02	3.9	1.065	1839	0.14	0.02	3.9	0.546

534	0.14	0.02	3.9	0.546	1840	0.06	0.02	3.9	0.234
535	0.101	0.02	3.9	0.394	1841	0.79	0.02	3.9	3.081
536	3.312	0.02	3.9	12.917	1842	0.567	0.02	3.9	2.211
537	5.968	0.02	3.9	23.275	1843	0.77	0.02	3.9	3.003
538	0.16	0.02	3.9	0.624	1844	0.547	0.02	3.9	2.133
539	0.202	0.02	3.9	0.788	1845	4.6	0.02	3.9	17.94
540	3.449	0.02	3.9	13.451	1846	0.64	0.02	3.9	2.496
541	0.14	0.02	3.9	0.546	1847	0.08	0.02	3.9	0.312
542	3.429	0.02	3.9	13.373	1848	0.14	0.02	3.9	0.546
543	5.299	0.02	3.9	20.666	1849	0.06	0.02	3.9	0.234
544	3.459	0.02	3.9	13.49	1850	1.566	0.02	3.9	6.107
545	0.12	0.02	3.9	0.468	1851	0.095	0.02	3.9	0.371
546	0.738	0.02	3.9	2.878	1852	0.168	0.02	3.9	0.655
547	2.36	0.02	3.9	9.204	1853	0.16	0.02	3.9	0.624
548	0.134	0.02	3.9	0.523	1854	0.093	0.02	3.9	0.363
549	0.12	0.02	3.9	0.468	1855	1.322	0.02	3.9	5.156
550	0.294	0.02	3.9	1.147	1856	5.259	0.02	3.9	20.51
551	2.5	0.02	3.9	9.75	1857	2.451	0.02	3.9	9.559
552	2.561	0.02	3.9	9.988	1858	0.14	0.02	3.9	0.546
553	0.134	0.02	3.9	0.523	1859	5.041	0.02	3.9	19.66
554	0.16	0.02	3.9	0.624	1860	0.14	0.02	3.9	0.546
555	5.816	0.02	3.9	22.682	1861	2.43	0.02	3.9	9.477
556	0.237	0.02	3.9	0.924	1862	5.259	0.02	3.9	20.51
557	0.16	0.02	3.9	0.624	1863	1.322	0.02	3.9	5.156
558	5.72	0.02	3.9	22.308	1864	0.097	0.02	3.9	0.378
559	0.3	0.02	3.9	1.17	1865	0.14	0.02	3.9	0.546
560	0.14	0.02	3.9	0.546	1866	0.16	0.02	3.9	0.624
561	0.28	0.02	3.9	1.092	1867	0.095	0.02	3.9	0.371
562	0.13	0.02	3.9	0.507	1868	1.56	0.02	3.9	6.084
563	0.14	0.02	3.9	0.546	1869	0.08	0.02	3.9	0.312
564	0.18	0.02	3.9	0.702	1870	0.14	0.02	3.9	0.546
565	2.215	0.02	3.9	8.638	1871	0.06	0.02	3.9	0.234
566	1.33	0.02	3.9	5.187	1872	0.64	0.02	3.9	2.496
567	0.36	0.02	3.9	1.404	1873	0.79	0.02	3.9	3.081
568	0.519	0.02	3.9	2.024	1874	0.57	0.02	3.9	2.223
569	2.39	0.02	3.9	9.321	1875	0.77	0.02	3.9	3.003
570	0.111	0.02	3.9	0.433	1876	0.547	0.02	3.9	2.133
571	0.14	0.02	3.9	0.546	1877	0.419	0.02	3.9	1.634
572	3.049	0.02	3.9	11.891	1878	0.14	0.02	3.9	0.546
573	0.14	0.02	3.9	0.546	1879	0.14	0.02	3.9	0.546
574	2.738	0.02	3.9	10.678	1880	0.109	0.02	3.9	0.425
575	2.23	0.02	3.9	8.697	1881	3.001	0.02	3.9	11.704
576	1.849	0.02	3.9	7.211	1882	0.385	0.02	3.9	1.502
577	2.735	0.02	3.9	10.666	1883	1.32	0.02	3.9	5.148
578	5.323	0.02	3.9	20.76	1884	0.365	0.02	3.9	1.424

579	5.816	0.02	3.9	22.682	1885	3.381	0.02	3.9	13.186
580	0.12	0.02	3.9	0.468	1886	0.08	0.02	3.9	0.312
581	0.651	0.02	3.9	2.539	1887	0.14	0.02	3.9	0.546
582	3.55	0.02	3.9	13.845	1888	0.3	0.02	3.9	1.17
583	0.632	0.02	3.9	2.465	1889	0.14	0.02	3.9	0.546
584	0.27	0.02	3.9	1.053	1890	0.06	0.02	3.9	0.234
585	1.014	0.02	3.9	3.955	1891	3.379	0.02	3.9	13.178
586	1.046	0.02	3.9	4.079	1892	0.295	0.02	3.9	1.15
587	0.87	0.02	3.9	3.393	1893	1.32	0.02	3.9	5.148
588	0.124	0.02	3.9	0.484	1894	0.275	0.02	3.9	1.073
589	0.14	0.02	3.9	0.546	1895	3.003	0.02	3.9	11.712
590	1.896	0.02	3.9	7.394	1896	0.11	0.02	3.9	0.429
591	0.14	0.02	3.9	0.546	1897	5.31	0.02	3.9	20.709
592	1.612	0.02	3.9	6.287	1898	0.14	0.02	3.9	0.546
593	0.87	0.02	3.9	3.393	1899	2.68	0.02	3.9	10.452
594	0.119	0.02	3.9	0.464	1900	5.259	0.02	3.9	20.51
595	0.424	0.02	3.9	1.654	1901	0.29	0.02	3.9	1.131
596	0.14	0.02	3.9	0.546	1902	0.864	0.02	3.9	3.37
597	0.114	0.02	3.9	0.445	1903	0.268	0.02	3.9	1.045
598	0.87	0.02	3.9	3.393	1904	2.24	0.02	3.9	8.736
599	0.14	0.02	3.9	0.546	1905	4.188	0.02	3.9	16.333
600	0.85	0.02	3.9	3.315	1906	2.29	0.02	3.9	8.931
601	0.13	0.02	3.9	0.507	1907	0.5	0.02	3.9	1.95
602	0.14	0.02	3.9	0.546	1908	0.67	0.02	3.9	2.613
603	0.13	0.02	3.9	0.507	1909	0.39	0.02	3.9	1.521
604	0.141	0.02	3.9	0.55	1910	4.223	0.02	3.9	16.47
605	0.693	0.02	3.9	2.703	1911	0.41	0.02	3.9	1.599
606	0.14	0.02	3.9	0.546	1912	1.16	0.02	3.9	4.524
607	0.378	0.02	3.9	1.474	1913	0.13	0.02	3.9	0.507
608	2.443	0.02	3.9	9.528	1914	0.14	0.02	3.9	0.546
609	1.512	0.02	3.9	5.897	1915	3.276	0.02	3.9	12.776
610	2.443	0.02	3.9	9.528	1916	0.127	0.02	3.9	0.495
611	0.129	0.02	3.9	0.503	1917	0.14	0.02	3.9	0.546
612	0.14	0.02	3.9	0.546	1918	0.107	0.02	3.9	0.417
613	1.777	0.02	3.9	6.93	1919	1.431	0.02	3.9	5.581
614	0.134	0.02	3.9	0.523	1920	0.27	0.02	3.9	1.053
615	0.14	0.02	3.9	0.546	1921	0.343	0.02	3.9	1.338
616	3.291	0.02	3.9	12.835	1922	2.989	0.02	3.9	11.657
617	0.12	0.02	3.9	0.468	1923	0.363	0.02	3.9	1.416
618	0.134	0.02	3.9	0.523	1924	0.271	0.02	3.9	1.057
619	0.134	0.02	3.9	0.523	1925	0.343	0.02	3.9	1.338
620	0.12	0.02	3.9	0.468	1926	2.344	0.02	3.9	9.142
621	0.134	0.02	3.9	0.523	1927	0.11	0.02	3.9	0.429
622	2.693	0.02	3.9	10.503	1928	1.762	0.02	3.9	6.872
623	2.443	0.02	3.9	9.528	1929	0.27	0.02	3.9	1.053

624	0.238	0.02	3.9	0.928	1930	0.14	0.02	3.9	0.546
625	0.26	0.02	3.9	1.014	1931	0.11	0.02	3.9	0.429
626	0.176	0.02	3.9	0.686	1932	7.357	0.02	3.9	28.692
627	0.14	0.02	3.9	0.546	1933	3.445	0.02	3.9	13.435
628	2.356	0.02	3.9	9.188	1934	0.53	0.02	3.9	2.067
629	0.14	0.02	3.9	0.546	1935	0.07	0.02	3.9	0.273
630	0.11	0.02	3.9	0.429	1936	4.873	0.02	3.9	19.005
631	2.723	0.02	3.9	10.62	1937	1.954	0.02	3.9	7.621
632	6.142	0.02	3.9	23.954	1939	1.755	0.02	3.9	6.844
633	0.12	0.02	3.9	0.468	1940	0.14	0.02	3.9	0.546
634	1.994	0.02	3.9	7.777	1941	1.735	0.02	3.9	6.767
635	0.13	0.02	3.9	0.507	1942	2.686	0.02	3.9	10.475
636	0.118	0.02	3.9	0.46	1943	0.32	0.02	3.9	1.248
637	0.163	0.02	3.9	0.636	1944	0.73	0.02	3.9	2.847
638	1.295	0.02	3.9	5.05	1945	0.77	0.029	3.9	3.003
639	1.902	0.02	3.9	7.418	1946	0.561	0.02	3.9	2.188
640	2.68	0.02	3.9	10.452	1947	0.93	0.02	3.9	3.627
641	2.066	0.02	3.9	8.057	1948	0.317	0.02	3.9	1.236
642	0.14	0.02	3.9	0.546	1949	6.569	0.02	3.9	25.619
643	4.252	0.02	3.9	16.583	1950	0.64	0.02	3.9	2.496
644	0.16	0.02	3.9	0.624	1951	0.08	0.02	3.9	0.312
645	2.046	0.02	3.9	7.979	1952	0.14	0.02	3.9	0.546
646	2.68	0.02	3.9	10.452	1953	0.06	0.02	3.9	0.234
647	1.923	0.02	3.9	7.5	1954	1.56	0.02	3.9	6.084
648	1.295	0.02	3.9	5.05	1955	0.094	0.02	3.9	0.367
649	0.14	0.02	3.9	0.546	1956	0.14	0.02	3.9	0.546
650	0.16	0.02	3.9	0.624	1957	0.16	0.02	3.9	0.624
651	0.11	0.02	3.9	0.429	1958	0.096	0.02	3.9	0.374
652	0.143	0.02	3.9	0.558	1959	1.316	0.02	3.9	5.132
653	0.093	0.02	3.9	0.363	1960	5.259	0.02	3.9	20.51
654	0.16	0.02	3.9	0.624	1961	2.45	0.02	3.9	9.555
655	3.446	0.02	3.9	13.439	1962	0.098	0.02	3.9	0.382
656	0.649	0.02	3.9	2.531	1963	0.68	0.02	3.9	2.652
657	0.1	0.02	3.9	0.39	1964	0.864	0.02	3.9	3.37
658	2.42	0.02	3.9	9.438	1965	0.66	0.02	3.9	2.574
659	0.08	0.02	3.9	0.312	1966	0.844	0.02	3.9	3.292
660	2.21	0.02	3.9	8.619	1967	0.79	0.02	3.9	3.081
661	3.466	0.02	3.9	13.517	1968	1.54	0.02	3.9	6.006
662	0.14	0.02	3.9	0.546	1969	0.08	0.02	3.9	0.312
663	3.446	0.02	3.9	13.439	1970	0.14	0.02	3.9	0.546
664	0.8	0.02	3.9	3.12	1971	0.06	0.02	3.9	0.234
665	0.836	0.02	3.9	3.26	1972	6.22	0.02	3.9	24.258
666	0.696	0.02	3.9	2.714	1973	0.68	0.02	3.9	2.652
667	0.12	0.02	3.9	0.468	1974	1.304	0.02	3.9	5.086
668	3.01	0.02	3.9	11.739	1975	0.06	0.02	3.9	0.234

669	0.16	0.02	3.9	0.624	1976	0.14	0.02	3.9	0.546
670	0.55	0.02	3.9	2.145	1977	0.88	0.02	3.9	3.432
671	1.588	0.02	3.9	6.193	1978	8.814	0.02	3.9	34.375
672	3.56	0.02	3.9	13.884	1979	0.63	0.02	3.9	2.457
673	0.13	0.02	3.9	0.507	1980	0.55	0.02	3.9	2.145
674	0.14	0.02	3.9	0.546	1981	4.6	0.02	3.9	17.94
675	3.635	0.02	3.9	14.176	1982	0.84	0.02	3.9	3.276
676	2.76	0.02	3.9	10.764	1983	0.08	0.02	3.9	0.312
677	1.615	0.02	3.9	6.299	1984	0.14	0.02	3.9	0.546
678	0.14	0.02	3.9	0.546	1985	0.06	0.02	3.9	0.234
679	0.714	0.02	3.9	2.785	1986	1.363	0.02	3.9	5.316
680	0.351	0.02	3.9	1.369	1987	0.103	0.02	3.9	0.402
681	0.14	0.02	3.9	0.546	1988	0.14	0.02	3.9	0.546
682	0.331	0.02	3.9	1.291	1989	0.16	0.02	3.9	0.624
683	0.655	0.02	3.9	2.555	1990	0.086	0.02	3.9	0.335
684	2.76	0.02	3.9	10.764	1991	1.322	0.02	3.9	5.156
685	3.431	0.02	3.9	13.381	1992	5.284	0.02	3.9	20.608
686	3.56	0.02	3.9	13.884	1993	2.28	0.02	3.9	8.892
687	4.012	0.02	3.9	15.647	1994	0.14	0.02	3.9	0.546
688	2.493	0.02	3.9	9.723	1995	4.26	0.02	3.9	16.614
689	1.016	0.02	3.9	3.962	1996	0.14	0.02	3.9	0.546
690	0.16	0.02	3.9	0.624	1997	1.82	0.02	3.9	7.098
691	0.109	0.02	3.9	0.425	1998	5.284	0.02	3.9	20.608
692	1.707	0.02	3.9	6.657	1999	1.322	0.02	3.9	5.156
693	0.14	0.02	3.9	0.546	2000	0.11	0.02	3.9	0.429
694	0.267	0.02	3.9	1.041	2001	0.14	0.02	3.9	0.546
695	2.708	0.02	3.9	10.561	2002	0.16	0.02	3.9	0.624
696	0.14	0.02	3.9	0.546	2003	0.089	0.02	3.9	0.347
697	2.688	0.02	3.9	10.483	2004	1.363	0.02	3.9	5.316
698	1.26	0.02	3.9	4.914	2005	0.08	0.02	3.9	0.312
699	3.698	0.02	3.9	14.422	2006	0.14	0.02	3.9	0.546
700	1.26	0.02	3.9	4.914	2007	0.84	0.02	3.9	3.276
701	0.11	0.02	3.9	0.429	2008	1.56	0.02	3.9	6.084
702	0.16	0.02	3.9	0.624	2009	0.57	0.02	3.9	2.223
703	0.27	0.02	3.9	1.053	2010	1.52	0.02	3.9	5.928
704	1.69	0.02	3.9	6.591	2011	0.57	0.02	3.9	2.223
705	0.14	0.02	3.9	0.546	2012	4.6	0.02	3.9	17.94
706	0.11	0.02	3.9	0.429	2013	0.84	0.02	3.9	3.276
707	1.844	0.02	3.9	7.192	2014	0.08	0.02	3.9	0.312
708	0.13	0.02	3.9	0.507	2015	0.14	0.02	3.9	0.546
709	0.14	0.02	3.9	0.546	2016	0.06	0.02	3.9	0.234
710	0.16	0.02	3.9	0.624	2017	1.363	0.02	3.9	5.316
711	0.818	0.02	3.9	3.19	2018	0.103	0.02	3.9	0.402
712	1.16	0.02	3.9	4.524	2019	0.14	0.02	3.9	0.546
713	0.305	0.02	3.9	1.19	2020	0.16	0.02	3.9	0.624

714	0.63	0.02	3.9	2.457	2021	0.083	0.02	3.9	0.324
715	2.155	0.02	3.9	8.404	2022	1.322	0.02	3.9	5.156
716	3.698	0.02	3.9	14.422	2023	5.284	0.02	3.9	20.608
717	3.198	0.02	3.9	12.472	2024	2.451	0.02	3.9	9.559
718	0.12	0.02	3.9	0.468	2025	0.14	0.02	3.9	0.546
719	3.489	0.02	3.9	13.607	2026	4.691	0.02	3.9	18.295
720	0.14	0.02	3.9	0.546	2027	0.14	0.02	3.9	0.546
721	0.11	0.02	3.9	0.429	2028	2.08	0.02	3.9	8.112
722	3.698	0.02	3.9	14.422	2029	5.284	0.02	3.9	20.608
723	0.13	0.02	3.9	0.507	2030	1.322	0.02	3.9	5.156
724	0.14	0.02	3.9	0.546	2031	0.098	0.02	3.9	0.382
725	0.11	0.02	3.9	0.429	2032	0.14	0.02	3.9	0.546
726	0.875	0.02	3.9	3.413	2033	0.16	0.02	3.9	0.624
727	0.14	0.02	3.9	0.546	2034	0.089	0.02	3.9	0.347
728	0.855	0.02	3.9	3.334	2035	1.363	0.02	3.9	5.316
729	2.16	0.02	3.9	8.424	2036	0.08	0.02	3.9	0.312
730	1.176	0.02	3.9	4.586	2037	0.14	0.02	3.9	0.546
731	0.165	0.02	3.9	0.644	2038	0.06	0.02	3.9	0.234
732	0.689	0.02	3.9	2.687	2039	0.84	0.02	3.9	3.276
733	2.345	0.02	3.9	9.146	2040	0.79	0.02	3.9	3.081
734	0.13	0.02	3.9	0.507	2041	0.57	0.02	3.9	2.223
735	0.14	0.02	3.9	0.546	2042	0.77	0.02	3.9	3.003
736	0.11	0.02	3.9	0.429	2043	0.55	0.02	3.9	2.145
737	0.585	0.02	3.9	2.282	2044	4.6	0.02	3.9	17.94
738	1.283	0.02	3.9	5.004	2045	0.84	0.02	3.9	3.276
739	0.14	0.02	3.9	0.546	2046	0.08	0.02	3.9	0.312
740	1.123	0.02	3.9	4.38	2047	0.14	0.02	3.9	0.546
741	2.379	0.02	3.9	9.278	2048	0.06	0.02	3.9	0.234
742	2.133	0.02	3.9	8.319	2049	1.363	0.02	3.9	5.316
743	2.379	0.02	3.9	9.278	2050	0.103	0.02	3.9	0.402
744	0.13	0.02	3.9	0.507	2051	0.14	0.02	3.9	0.546
745	0.14	0.02	3.9	0.546	2052	0.16	0.02	3.9	0.624
746	0.4	0.02	3.9	1.56	2053	0.085	0.02	3.9	0.332
747	0.14	0.02	3.9	0.546	2054	1.322	0.02	3.9	5.156
748	0.11	0.02	3.9	0.429	2055	5.284	0.02	3.9	20.608
749	2.379	0.02	3.9	9.278	2056	2.329	0.02	3.9	9.083
750	1.719	0.02	3.9	6.704	2057	0.14	0.02	3.9	0.546
751	2.379	0.02	3.9	9.278	2058	4.722	0.02	3.9	18.416
752	0.607	0.02	3.9	2.367	2059	0.14	0.02	3.9	0.546
753	0.16	0.02	3.9	0.624	2060	2.233	0.02	3.9	8.709
754	0.877	0.02	3.9	3.42	2061	5.284	0.02	3.9	20.608
755	0.14	0.02	3.9	0.546	2062	1.322	0.02	3.9	5.156
756	0.13	0.02	3.9	0.507	2063	0.098	0.02	3.9	0.382
757	2.379	0.02	3.9	9.278	2064	0.14	0.02	3.9	0.546
758	1.606	0.02	3.9	6.263	2065	0.16	0.02	3.9	0.624

759	1.734	0.02	3.9	6.763	2066	0.089	0.02	3.9	0.347
760	0.16	0.02	3.9	0.624	2067	1.363	0.02	3.9	5.316
761	0.649	0.02	3.9	2.531	2068	0.08	0.02	3.9	0.312
762	0.796	0.02	3.9	3.104	2069	0.14	0.02	3.9	0.546
763	0.14	0.02	3.9	0.546	2070	0.06	0.02	3.9	0.234
764	4.402	0.02	3.9	17.168	2071	0.84	0.02	3.9	3.276
765	3.979	0.02	3.9	15.518	2072	0.79	0.02	3.9	3.081
766	0.14	0.02	3.9	0.546	2073	0.57	0.02	3.9	2.223
767	0.108	0.02	3.9	0.421	2074	0.77	0.02	3.9	3.003
768	5.187	0.02	3.9	20.229	2075	0.55	0.02	3.9	2.145
769	0.128	0.02	3.9	0.499	2076	0.32	0.02	3.9	1.248
770	0.14	0.02	3.9	0.546	2077	0.14	0.02	3.9	0.546
771	0.268	0.02	3.9	1.045	2078	0.06	0.02	3.9	0.234
772	0.472	0.02	3.9	1.841	2079	5.18	0.02	3.9	20.202
773	3.231	0.02	3.9	12.601	2080	0.165	0.02	3.9	0.644
774	0.294	0.02	3.9	1.147	2081	1.47	0.02	3.9	5.733
775	0.439	0.02	3.9	1.712	2082	0.145	0.02	3.9	0.566
776	0.14	0.02	3.9	0.546	2083	0.874	0.02	3.9	3.409
777	0.279	0.02	3.9	1.088	2084	0.251	0.02	3.9	0.979
778	3.25	0.02	3.9	12.675	2085	0.14	0.02	3.9	0.546
779	0.14	0.02	3.9	0.546	2086	0.639	0.02	3.9	2.492
780	0.109	0.02	3.9	0.425	2087	0.14	0.02	3.9	0.546
781	3.231	0.02	3.9	12.601	2088	0.227	0.02	3.9	0.885
782	1.864	0.02	3.9	7.27	2089	0.874	0.02	3.9	3.409
783	3.231	0.02	3.9	12.601	2090	0.215	0.02	3.9	0.839
784	0.875	0.02	3.9	3.413	2091	1.47	0.02	3.9	5.733
785	0.14	0.02	3.9	0.546	2092	0.195	0.02	3.9	0.76
786	0.855	0.02	3.9	3.334	2093	5.18	0.02	3.9	20.202
787	0.299	0.02	3.9	1.166	2094	0.08	0.02	3.9	0.312
788	0.124	0.02	3.9	0.484	2095	0.12	0.02	3.9	0.468
789	4.986	0.02	3.9	19.445	2096	0.86	0.02	3.9	3.354
790	0.074	0.02	3.9	0.289	2097	0.08	0.02	3.9	0.312
791	0.14	0.02	3.9	0.546	2098	0.14	0.02	3.9	0.546
792	0.401	0.02	3.9	1.564	2099	0.06	0.02	3.9	0.234
793	0.14	0.02	3.9	0.546	2100	1.363	0.02	3.9	5.316
794	0.162	0.02	3.9	0.632	2101	0.109	0.02	3.9	0.425
795	1.632	0.02	3.9	6.365	2102	0.14	0.02	3.9	0.546
796	0.53	0.02	3.9	2.067	2103	0.098	0.02	3.9	0.382
797	0.67	0.02	3.9	2.613	2104	0.14	0.02	3.9	0.546
798	0.51	0.02	3.9	1.989	2105	1.322	0.02	3.9	5.156
799	2.595	0.02	3.9	10.121	2106	5.284	0.02	3.9	20.608
800	0.421	0.02	3.9	1.642	2107	2.333	0.02	3.9	9.099
801	0.079	0.02	3.9	0.308	2108	0.14	0.02	3.9	0.546
802	0.12	0.02	3.9	0.468	2109	4.924	0.02	3.9	19.204
803	0.14	0.02	3.9	0.546	2110	0.14	0.02	3.9	0.546

804	0.162	0.02	3.9	0.632	2111	1.911	0.02	3.9	7.453
805	0.524	0.02	3.9	2.044	2112	0.52	0.02	3.9	2.028
806	0.14	0.02	3.9	0.546	2113	0.5	0.02	3.9	1.95
807	0.244	0.02	3.9	0.952	2114	4.764	0.02	3.9	18.58
808	7.843	0.02	3.9	30.588	2115	1.322	0.02	3.9	5.156
809	3.725	0.02	3.9	14.528	2116	0.103	0.02	3.9	0.402
810	12.351	0.02	3.9	48.169	2117	0.14	0.02	3.9	0.546
811	0.14	0.02	3.9	0.546	2118	0.16	0.02	3.9	0.624
812	0.37	0.02	3.9	1.443	2119	0.083	0.02	3.9	0.324
813	1.945	0.02	3.9	7.585	2120	1.363	0.02	3.9	5.316
814	0.14	0.02	3.9	0.546	2121	0.08	0.02	3.9	0.312
815	1.925	0.02	3.9	7.508	2122	0.14	0.02	3.9	0.546
816	3.024	0.02	3.9	11.794	2123	0.06	0.02	3.9	0.234
817	0.53	0.02	3.9	2.067	2124	0.86	0.02	3.9	3.354
818	1.18	0.02	3.9	4.602	2125	4.56	0.02	3.9	17.784
819	2.505	0.02	3.9	9.769	2126	0.79	0.02	3.9	3.081
820	4.224	0.02	3.9	16.474	2127	0.569	0.02	3.9	2.219
821	0.13	0.02	3.9	0.507	2128	0.769	0.02	3.9	2.999
822	0.14	0.02	3.9	0.546	2129	0.55	0.02	3.9	2.145
823	0.4	0.02	3.9	1.56	2130	0.32	0.02	3.9	1.248
824	0.14	0.02	3.9	0.546	2131	0.14	0.02	3.9	0.546
825	0.11	0.02	3.9	0.429	2132	0.06	0.02	3.9	0.234
826	4.384	0.02	3.9	17.098	2133	6.08	0.02	3.9	23.712
827	3.175	0.02	3.9	12.382	2134	0.39	0.02	3.9	1.521
828	6.547	0.02	3.9	25.533	2135	1.444	0.02	3.9	5.632
829	0.73	0.02	3.9	2.847	2136	0.05	0.02	3.9	0.195
830	0.71	0.02	3.9	2.769	2137	0.156	0.02	3.9	0.608
831	2.994	0.02	3.9	11.677	2138	0.709	0.02	3.9	2.765
832	7.983	0.02	3.9	31.134	2139	0.156	0.02	3.9	0.608
833	0.1	0.02	3.9	0.39	2140	1.464	0.02	3.9	5.71
834	0.12	0.02	3.9	0.468	2141	0.07	0.02	3.9	0.273
835	0.16	0.02	3.9	0.624	2142	6.08	0.02	3.9	23.712
836	4.145	0.02	3.9	16.165	2143	0.08	0.02	3.9	0.312
837	1.758	0.02	3.9	6.856	2144	0.12	0.02	3.9	0.468
838	0.057	0.02	3.9	0.222	2145	4.58	0.02	3.9	17.862
839	0.14	0.02	3.9	0.546	2146	0.86	0.02	3.9	3.354
840	0.03	0.02	3.9	0.117	2147	0.08	0.02	3.9	0.312
841	1.043	0.02	3.9	4.068	2148	0.14	0.02	3.9	0.546
842	0.14	0.02	3.9	0.546	2149	0.06	0.02	3.9	0.234
843	0.16	0.02	3.9	0.624	2150	1.363	0.02	3.9	5.316
844	0.245	0.02	3.9	0.956	2151	0.103	0.02	3.9	0.402
845	2.307	0.02	3.9	8.997	2152	0.14	0.02	3.9	0.546
846	1.38	0.02	3.9	5.382	2153	0.16	0.02	3.9	0.624
847	0.284	0.02	3.9	1.108	2154	0.083	0.02	3.9	0.324
848	0.101	0.02	3.9	0.394	2155	1.322	0.02	3.9	5.156

849	0.14	0.02	3.9	0.546	2156	5.284	0.02	3.9	20.608
850	0.081	0.02	3.9	0.316	2157	2.296	0.02	3.9	8.954
851	1.394	0.02	3.9	5.437	2158	0.14	0.02	3.9	0.546
852	0.14	0.02	3.9	0.546	2159	4.576	0.02	3.9	17.846
853	1.676	0.02	3.9	6.536	2160	0.14	0.02	3.9	0.546
854	2.14	0.02	3.9	8.346	2161	1.6	0.02	3.9	6.24
855	0.48	0.02	3.9	1.872	2162	0.52	0.02	3.9	2.028
856	0.67	0.02	3.9	2.613	2163	0.5	0.02	3.9	1.95
857	0.3	0.02	3.9	1.17	2164	4.764	0.02	3.9	18.58
858	1.465	0.02	3.9	5.714	2165	1.322	0.02	3.9	5.156
859	0.12	0.02	3.9	0.468	2166	0.098	0.02	3.9	0.382
860	1.518	0.02	3.9	5.92	2167	0.14	0.02	3.9	0.546
861	0.031	0.02	3.9	0.121	2168	0.16	0.02	3.9	0.624
862	0.152	0.02	3.9	0.593	2169	0.089	0.02	3.9	0.347
863	0.16	0.02	3.9	0.624	2170	1.363	0.02	3.9	5.316
864	7.24	0.02	3.9	28.236	2171	0.08	0.02	3.9	0.312
865	0.14	0.02	3.9	0.546	2172	0.14	0.02	3.9	0.546
866	0.483	0.02	3.9	1.884	2173	0.06	0.02	3.9	0.234
867	3.698	0.02	3.9	14.422	2174	0.84	0.02	3.9	3.276
868	0.203	0.02	3.9	0.792	2175	0.25	0.02	3.9	0.975
869	0.14	0.02	3.9	0.546	2176	0.94	0.02	3.9	3.666
870	0.473	0.02	3.9	1.845	2177	0.77	0.02	3.9	3.003
871	0.14	0.02	3.9	0.546	2178	0.57	0.02	3.9	2.223
872	0.13	0.02	3.9	0.507	2179	0.84	0.02	3.9	3.276
873	3.697	0.02	3.9	14.418	2180	0.97	0.02	3.9	3.783
874	4.76	0.02	3.9	18.564	2181	0.34	0.02	3.9	1.326
875	0.07	0.02	3.9	0.273	2182	0.14	0.02	3.9	0.546
876	0.14	0.02	3.9	0.546	2183	0.32	0.02	3.9	1.248
877	0.05	0.02	3.9	0.195	2184	1.58	0.02	3.9	6.162
878	1.657	0.02	3.9	6.462	2185	0.41	0.02	3.9	1.599
879	0.16	0.02	3.9	0.624	2186	0.62	0.02	3.9	2.418
880	0.288	0.02	3.9	1.123	2187	0.39	0.02	3.9	1.521
881	19.722	0.02	3.9	76.916	2188	4.14	0.02	3.9	16.146
882	0.14	0.02	3.9	0.546	2189	0.41	0.02	3.9	1.599
883	0.512	0.02	3.9	1.997	2190	1.164	0.02	3.9	4.54
884	5.325	0.02	3.9	20.768	2191	0.134	0.02	3.9	0.523
885	0.14	0.02	3.9	0.546	2192	0.14	0.02	3.9	0.546
886	2.368	0.02	3.9	9.235	2193	9.758	0.02	3.9	38.056
887	0.154	0.02	3.9	0.601	2194	4.149	0.02	3.9	16.181
888	0.16	0.02	3.9	0.624	2195	0.16	0.02	3.9	0.624
889	0.11	0.02	3.9	0.429	2196	0.147	0.02	3.9	0.573
890	2.777	0.02	3.9	10.83	2197	0.738	0.02	3.9	2.878
891	3.198	0.02	3.9	12.472	2198	0.492	0.02	3.9	1.919
892	1.817	0.02	3.9	7.086	2199	0.27	0.02	3.9	1.053
893	1.48	0.02	3.9	5.772	2200	0.29	0.02	3.9	1.131

894	0.94	0.02	3.9	3.666	2201	0.342	0.02	3.9	1.334
895	0.628	0.02	3.9	2.449	2202	2.355	0.02	3.9	9.185
896	0.14	0.02	3.9	0.546	2203	0.11	0.02	3.9	0.429
897	0.768	0.02	3.9	2.995	2204	1.752	0.02	3.9	6.833
898	0.46	0.02	3.9	1.794	2205	1.795	0.02	3.9	7.001
899	1.32	0.02	3.9	5.148	2206	0.14	0.02	3.9	0.546
900	2.868	0.02	3.9	11.185	2207	1.635	0.02	3.9	6.377
901	0.14	0.02	3.9	0.546	2208	7.358	0.02	3.9	28.696
902	5.305	0.02	3.9	20.69	2209	3.445	0.02	3.9	13.435
903	15.651	0.02	3.9	61.039	2210	0.534	0.02	3.9	2.083
904	0.349	0.02	3.9	1.361	2211	0.07	0.02	3.9	0.273
905	0.16	0.02	3.9	0.624	2212	4.79	0.02	3.9	18.681
906	0.797	0.02	3.9	3.108	2213	0.09	0.02	3.9	0.351
907	0.16	0.02	3.9	0.624	2214	0.62	0.02	3.9	2.418
908	0.109	0.02	3.9	0.425	2215	0.07	0.02	3.9	0.273
909	0.88	0.02	3.9	3.432	2216	1.393	0.02	3.9	5.433
910	0.12	0.02	3.9	0.468	2217	0.32	0.02	3.9	1.248
911	6.311	0.02	3.9	24.613	2218	0.14	0.02	3.9	0.546
912	0.68	0.02	3.9	2.652	2219	0.3	0.02	3.9	1.17
913	1.32	0.02	3.9	5.148	2220	1.406	0.02	3.9	5.483
914	0.66	0.02	3.9	2.574	2221	0.44	0.02	3.9	1.716
915	0.824	0.02	3.9	3.214	2222	0.67	0.02	3.9	2.613
916	4.098	0.02	3.9	15.982	2223	0.42	0.02	3.9	1.638
917	4.077	0.02	3.9	15.9	2224	0.59	0.02	3.9	2.301
918	0.16	0.02	3.9	0.624	2225	0.49	0.02	3.9	1.911
919	0.46	0.02	3.9	1.794	2226	0.94	0.02	3.9	3.666
920	1.413	0.02	3.9	5.511	2227	0.47	0.02	3.9	1.833
921	0.12	0.02	3.9	0.468	2228	0.92	0.02	3.9	3.588
922	1.413	0.02	3.9	5.511	2229	1.06	0.02	1.7	1.802
923	3.457	0.02	3.9	13.482	2230	1.26	0.02	1.7	2.142
924	3.719	0.02	3.9	14.504	2231	1.26	0.02	1.7	2.142
925	3.457	0.02	3.9	13.482	2232	1.26	0.02	1.7	2.142
926	1.046	0.02	3.9	4.079	2233	1.26	0.02	1.7	2.142
927	0.14	0.02	3.9	0.546	2234	1.06	0.02	1.7	1.802
928	1.026	0.02	3.9	4.001	2235	1.26	0.02	1.7	2.142
929	0.48	0.02	3.9	1.872	2236	1.26	0.02	1.7	2.142
930	0.14	0.02	3.9	0.546	2237	1.26	0.02	1.7	2.142
931	5.432	0.02	3.9	21.185	2238	1.26	0.02	1.7	2.142
932	1.181	0.02	3.9	4.606	2239	1.26	0.02	1.7	2.142
933	0.82	0.02	3.9	3.198	2240	1.26	0.02	1.7	2.142
934	1.161	0.02	3.9	4.528	2241	1.06	0.02	1.7	1.802
935	0.214	0.02	3.9	0.835	2242	1.662	0.02	1.7	2.825
936	0.181	0.02	3.9	0.706	2243	1.662	0.02	1.7	2.825
937	0.14	0.02	3.9	0.546	2244	1.062	0.02	1.7	1.805
938	0.021	0.02	3.9	0.082	2245	1.062	0.02	1.7	1.805

939	2.089	0.02	3.9	8.147	2246	0.86	0.02	1.7	1.462
940	2.114	0.02	3.9	8.245	2247	0.86	0.02	1.7	1.462
941	2.089	0.02	3.9	8.147	2248	1.06	0.02	1.7	1.802
942	1.213	0.02	3.9	4.731	2249	1.26	0.02	1.7	2.142
943	0.14	0.02	3.9	0.546	2250	1.26	0.02	1.7	2.142
944	0.248	0.02	3.9	0.967	2251	1.261	0.02	1.7	2.144
945	0.135	0.02	3.9	0.527	2252	1.261	0.02	1.7	2.144
946	0.14	0.02	3.9	0.546	2253	1.26	0.02	1.7	2.142
947	0.115	0.02	3.9	0.449	2254	1.26	0.02	1.7	2.142
948	0.785	0.02	3.9	3.062	2255	1.082	0.02	1.7	1.839
949	3.301	0.02	3.9	12.874	2256	0.86	0.02	1.7	1.462
950	1.676	0.02	3.9	6.536	2257	0.86	0.02	1.7	1.462
951	1.879	0.02	3.9	7.328	2258	0.86	0.02	1.7	1.462
952	0.891	0.02	3.9	3.475	2259	0.96	0.02	1.7	1.632
953	0.408	0.02	3.9	1.591	2260	0.96	0.02	1.7	1.632
954	0.14	0.02	3.9	0.546	2261	0.86	0.02	1.7	1.462
955	0.248	0.02	3.9	0.967	2262	0.96	0.02	1.7	1.632
956	2.059	0.02	3.9	8.03	2263	0.96	0.02	1.7	1.632
957	0.14	0.02	3.9	0.546	2264	0.86	0.02	1.7	1.462
958	1.148	0.02	3.9	4.477	2265	0.86	0.02	1.7	1.462
959	1.879	0.02	3.9	7.328	2266	0.86	0.02	1.7	1.462
960	2.26	0.02	3.9	8.814	2267	0.86	0.02	1.7	1.462
961	1.879	0.02	3.9	7.328	2268	0.86	0.02	1.7	1.462
962	0.13	0.02	3.9	0.507	2269	0.86	0.02	1.7	1.462
963	0.14	0.02	3.9	0.546	2270	1.26	0.02	1.7	2.142
964	0.27	0.02	3.9	1.053	2271	1.26	0.02	1.7	2.142
965	2.019	0.02	3.9	7.874	2272	0.86	0.02	1.7	1.462
966	6.019	0.02	3.9	23.474	2273	0.86	0.02	1.7	1.462
967	2.745	0.02	3.9	10.706	2274	1.26	0.02	1.7	2.142
968	0.86	0.02	3.9	3.354	2275	1.26	0.02	1.7	2.142
969	0.88	0.02	3.9	3.432	2276	0.96	0.02	1.7	1.632
970	3.864	0.02	3.9	15.07	2277	0.96	0.02	1.7	1.632
971	0.18	0.02	3.9	0.702	2278	0.86	0.02	1.7	1.462
972	0.86	0.02	3.9	3.354	2279	0.86	0.02	1.7	1.462
973	3.328	0.02	3.9	12.979	2280	0.86	0.02	1.7	1.462
974	0.52	0.02	3.9	2.028	2281	0.86	0.02	1.7	1.462
975	0.864	0.02	3.9	3.37	2282	0.96	0.02	1.7	1.632
976	0.5	0.02	3.9	1.95	2283	0.957	0.02	1.7	1.627
977	3.308	0.02	3.9	12.901	2284	0.86	0.02	1.7	1.462
978	0.659	0.02	3.9	2.57	2285	0.86	0.02	1.7	1.462
979	0.44	0.02	3.9	1.716	2286	0.86	0.02	1.7	1.462
980	0.659	0.02	3.9	2.57	2287	0.86	0.02	1.7	1.462
981	7.02	0.02	3.9	27.378	2288	0.86	0.02	1.7	1.462
982	0.28	0.02	3.9	1.092	2289	0.86	0.02	1.7	1.462
983	0.66	0.02	3.9	2.574	2290	0.86	0.02	1.7	1.462

984	0.44	0.02	3.9	1.716	2291	0.86	0.02	1.7	1.462
985	0.664	0.02	3.9	2.59	2292	1.062	0.02	1.7	1.805
986	0.7	0.02	3.9	2.73	2293	1.062	0.02	1.7	1.805
988	0.18	0.02	3.9	0.702	2295	1.26	0.02	1.7	2.142
989	0.86	0.02	3.9	3.354	2296	1.26	0.02	1.7	2.142
990	5.444	0.02	3.9	21.232	2297	1.26	0.02	1.7	2.142
991	0.18	0.02	3.9	0.702	2298	1.26	0.02	1.7	2.142
992	1.43	0.02	3.9	5.577	2299	1.26	0.02	1.7	2.142
993	0.544	0.02	3.9	2.122	2300	1.26	0.02	1.7	2.142
994	0.66	0.02	3.9	2.574	2301	1.26	0.02	1.7	2.142
995	0.7	0.02	3.9	2.73	2302	1.062	0.014	1.7	1.805
996	4.69	0.02	3.9	18.291	2303	1.062	0.02	1.7	1.805
997	0.176	0.02	3.9	0.686	2304	1.145	0.02	1.7	1.946
998	1.161	0.02	3.9	4.528	2305	1.102	0.02	1.7	1.873
999	12.267	0.02	3.9	47.841	2306	1.3	0.02	1.7	2.21
1000	12.267	0.02	3.9	47.841	2307	1.28	0.02	1.7	2.176
1001	0.12	0.02	3.9	0.468	2308	1.28	0.02	1.7	2.176
1002	0.12	0.02	3.9	0.468	2309	1.28	0.02	1.7	2.176
1003	0.89	0.02	3.9	3.471	2310	1.26	0.02	1.7	2.142
1004	0.87	0.02	3.9	3.393	2311	1.26	0.02	1.7	2.142
1005	0.869	0.02	3.9	3.389	2312	1.26	0.02	1.7	2.142
1006	0.85	0.02	3.9	3.315	2313	1.26	0.02	1.7	2.142
1007	1.08	0.02	3.9	4.212	2314	1.062	0.02	1.7	1.805
1008	1	0.02	3.9	3.9	2315	1.062	0.02	1.7	1.805
1009	1.06	0.02	3.9	4.134	2316	1.04	0.02	1.7	1.768
1010	0.98	0.02	3.9	3.822	2317	1.26	0.02	1.7	2.142
1011	0.071	0.02	3.9	0.277	2318	1.26	0.02	1.7	2.142
1012	0.14	0.02	3.9	0.546	2319	0.86	0.02	1.7	1.462
1013	0.231	0.02	3.9	0.901	2320	0.86	0.02	1.7	1.462
1014	1.849	0.02	3.9	7.211	2321	0.86	0.02	1.7	1.462
1015	1.562	0.02	3.9	6.092	2322	0.86	0.02	1.7	1.462
1016	0.142	0.02	3.9	0.554	2323	0.86	0.02	1.7	1.462
1017	0.14	0.02	3.9	0.546	2324	0.86	0.02	1.7	1.462
1018	0.282	0.02	3.9	1.1	2325	1.26	0.02	1.7	2.142
1019	0.979	0.02	3.9	3.818	2326	1.26	0.02	1.7	2.142
1020	0.52	0.02	3.9	2.028	2327	1.26	0.02	1.7	2.142
1021	0.704	0.02	3.9	2.746	2328	1.26	0.02	1.7	2.142
1022	2.348	0.02	3.9	9.157	2329	1.06	0.02	1.7	1.802
1023	3.152	0.02	3.9	12.293	2330	1.062	0.02	1.7	1.805
1024	4.877	0.02	3.9	19.02	2331	1.062	0.02	1.7	1.805
1025	1.429	0.02	3.9	5.573	2332	1.26	0.02	1.7	2.142
1026	0.446	0.02	3.9	1.739	2333	1.26	0.02	1.7	2.142
1027	0.14	0.02	3.9	0.546	2334	1.26	0.02	1.7	2.142
1028	0.426	0.02	3.9	1.661	2335	1.26	0.02	1.7	2.142
1029	0.051	0.02	3.9	0.199	2336	1.26	0.02	1.7	2.142

1030	0.14	0.02	3.9	0.546	2337	1.26	0.02	1.7	2.142
1031	1.911	0.02	3.9	7.453	2338	1.062	0.02	1.7	1.805
1032	0.14	0.02	3.9	0.546	2339	1.062	0.02	1.7	1.805
1033	0.111	0.02	3.9	0.433	2340	1.062	0.02	1.7	1.805
1034	6.746	0.02	3.9	26.309	2341	1.062	0.02	1.7	1.805
1035	0.14	0.02	3.9	0.546	2342	1.26	0.02	1.7	2.142
1036	1.689	0.02	3.9	6.587	2343	1.26	0.02	1.7	2.142
1037	3.152	0.02	3.9	12.293	2344	1.26	0.02	1.7	2.142
1038	1.322	0.02	3.9	5.156	2345	1.26	0.02	1.7	2.142
1039	0.14	0.02	3.9	0.546	2346	1.26	0.02	1.7	2.142
1040	0.16	0.02	3.9	0.624	2347	1.26	0.02	1.7	2.142
1041	3.517	0.02	3.9	13.716	2348	1.06	0.02	1.7	1.802
1042	1.2	0.02	3.9	4.68	2349	0.86	0.02	1.7	1.462
1043	1.161	0.02	3.9	4.528	2350	0.86	0.02	1.7	1.462
1044	0.248	0.02	3.9	0.967	2351	1.66	0.02	1.7	2.822
1045	0.14	0.02	3.9	0.546	2352	1.66	0.02	1.7	2.822
1046	0.46	0.02	3.9	1.794	2353	1.56	0.02	1.7	2.652
1047	1.046	0.02	3.9	4.079	2354	1.56	0.02	1.7	2.652
1048	0.14	0.02	3.9	0.546	2355	1.26	0.02	1.7	2.142
1049	1.027	0.02	3.9	4.005	2356	1.26	0.02	1.7	2.142
1050	3.457	0.02	3.9	13.482	2357	1.26	0.02	1.7	2.142
1051	3.721	0.02	3.9	14.512	2358	1.26	0.02	1.7	2.142
1052	3.457	0.02	3.9	13.482	2359	1.062	0.02	1.7	1.805
1053	1.413	0.02	3.9	5.511	2360	1.028	0.02	1.7	1.748
1054	0.14	0.02	3.9	0.546	2361	1.062	0.02	1.7	1.805
1055	1.393	0.02	3.9	5.433	2362	1.064	0.02	1.7	1.809
1056	0.48	0.02	3.9	1.872	2363	1.26	0.02	1.7	2.142
1057	0.14	0.02	3.9	0.546	2364	1.26	0.02	1.7	2.142
1058	0.719	0.02	3.9	2.804	2365	1.26	0.02	1.7	2.142
1059	0.13	0.02	3.9	0.507	2366	1.26	0.02	1.7	2.142
1060	0.14	0.02	3.9	0.546	2367	1.26	0.02	1.7	2.142
1061	0.11	0.02	3.9	0.429	2368	1.26	0.02	1.7	2.142
1062	3.198	0.02	3.9	12.472	2369	1.26	0.02	1.7	2.142
1063	0.13	0.02	3.9	0.507	2370	1.26	0.02	1.7	2.142
1064	0.14	0.02	3.9	0.546	2371	1.062	0.02	1.7	1.805
1065	3.991	0.02	3.9	15.565	2372	1.062	0.02	1.7	1.805
1066	0.349	0.02	3.9	1.361	2373	1.062	0.02	1.7	1.805
1067	1.149	0.02	3.9	4.481	2374	1.064	0.02	1.7	1.809
1068	1.02	0.02	3.9	3.978	2375	1.26	0.02	1.7	2.142
1069	0.72	0.02	3.9	2.808	2376	1.26	0.02	1.7	2.142
1070	2.155	0.02	3.9	8.404	2377	1.26	0.02	1.7	2.142
1071	1.224	0.02	3.9	4.774	2378	1.26	0.02	1.7	2.142
1072	0.14	0.02	3.9	0.546	2379	1.26	0.02	1.7	2.142
1073	0.16	0.02	3.9	0.624	2380	1.26	0.02	1.7	2.142
1074	0.407	0.02	3.9	1.587	2381	1.26	0.02	1.7	2.142

1075	0.14	0.02	3.9	0.546	2382	1.26	0.02	1.7	2.142
1076	0.16	0.02	3.9	0.624	2383	1.062	0.02	1.7	1.805
1077	1.204	0.02	3.9	4.696	2384	1.064	0.02	1.7	1.809
1078	0.033	0.02	3.9	0.129	2385	1.56	0.02	1.7	2.652
1079	0.14	0.02	3.9	0.546	2386	1.56	0.02	1.7	2.652
1080	0.463	0.02	3.9	1.806	2387	1.26	0.02	1.7	2.142
1081	8.736	0.02	3.9	34.07	2388	1.26	0.02	1.7	2.142
1082	0.13	0.02	3.9	0.507	2389	1.062	0.02	1.7	1.805
1083	0.14	0.02	3.9	0.546	2390	1.062	0.02	1.7	1.805
1084	0.11	0.02	3.9	0.429	2391	1.26	0.02	1.7	2.142
1085	1.789	0.02	3.9	6.977	2392	1.26	0.02	1.7	2.142
1086	3.485	0.02	3.9	13.592	2393	1.26	0.02	1.7	2.142
1087	1.789	0.02	3.9	6.977	2394	1.26	0.02	1.7	2.142
1088	2.495	0.02	3.9	9.731	2395	1.28	0.02	1.7	2.176
1089	0.14	0.02	3.9	0.546	2396	1.26	0.02	1.7	2.142
1090	2.475	0.02	3.9	9.653	2397	1.062	0.02	1.7	1.805
1091	1.404	0.02	3.9	5.476	2398	1.062	0.02	1.7	1.805
1092	0.267	0.02	3.9	1.041	2399	1.062	0.02	1.7	1.805
1093	0.14	0.02	3.9	0.546	2400	1.062	0.02	1.7	1.805
1094	0.107	0.02	3.9	0.417	2401	1.26	0.02	1.7	2.142
1095	8.978	0.02	3.9	35.014	2402	1.26	0.02	1.7	2.142
1096	0.379	0.02	3.9	1.478	2403	1.26	0.02	1.7	2.142
1097	0.14	0.02	3.9	0.546	2404	1.26	0.02	1.7	2.142
1098	5.06	0.02	3.9	19.734	2405	1.26	0.02	1.7	2.142
1099	0.14	0.02	3.9	0.546	2406	1.26	0.02	1.7	2.142
1100	2.428	0.02	3.9	9.469	2407	1.26	0.02	1.7	2.142
1101	5.858	0.02	3.9	22.846	2408	1.26	0.02	1.7	2.142
1102	1.126	0.02	3.9	4.391	2409	1.062	0.02	1.7	1.805
1103	0.092	0.02	3.9	0.359	2410	1.062	0.02	1.7	1.805
1104	0.14	0.02	3.9	0.546	2411	1.062	0.02	1.7	1.805
1105	0.188	0.02	3.9	0.733	2412	1.062	0.02	1.7	1.805
1106	0.091	0.02	3.9	0.355	2413	1.26	0.02	1.7	2.142
1107	2.226	0.02	3.9	8.681	2414	1.26	0.02	1.7	2.142
1108	0.16	0.02	3.9	0.624	2415	1.26	0.02	1.7	2.142
1109	4.222	0.02	3.9	16.466	2416	1.26	0.02	1.7	2.142
1110	0.14	0.02	3.9	0.546	2417	1.26	0.02	1.7	2.142
1111	2.226	0.02	3.9	8.681	2418	1.26	0.02	1.7	2.142
1112	0.099	0.02	3.9	0.386	2419	1.26	0.02	1.7	2.142
1113	0.16	0.02	3.9	0.624	2420	1.26	0.02	1.7	2.142
1114	0.083	0.02	3.9	0.324	2421	1.062	0.02	1.7	1.805
1115	1.126	0.02	3.9	4.391	2422	1.062	0.02	1.7	1.805
1116	5.858	0.02	3.9	22.846	2423	0.88	0.02	1.7	1.496
1117	2.453	0.02	3.9	9.567	2424	0.86	0.02	1.7	1.462
1118	0.12	0.02	3.9	0.468	2425	1.26	0.02	1.7	2.142
1119	0.16	0.02	3.9	0.624	2426	1.26	0.02	1.7	2.142

1120	0.398	0.02	3.9	1.552	2427	1.24	0.02	1.7	2.108
1121	0.14	0.02	3.9	0.546	2428	1.24	0.02	1.7	2.108
1122	0.112	0.02	3.9	0.437	2429	0.82	0.02	1.7	1.394
1123	3.194	0.02	3.9	12.457	2430	0.82	0.02	1.7	1.394
1124	0.45	0.02	3.9	1.755	2431	0.942	0.02	1.7	1.601
1125	0.82	0.02	3.9	3.198	2432	0.942	0.02	1.7	1.601
1126	0.43	0.02	3.9	1.677	2433	1.52	0.02	1.7	2.584
1127	4.264	0.02	3.9	16.63	2434	1.52	0.02	1.7	2.584
1128	0.35	0.02	3.9	1.365	2435	1.022	0.02	1.7	1.737
1129	0.66	0.02	3.9	2.574	2436	1.44	0.02	1.7	2.448
1130	0.049	0.02	3.9	0.191	2437	1.44	0.02	1.7	2.448
1131	0.14	0.02	3.9	0.546	2438	0.94	0.02	1.7	1.598
1132	0.918	0.02	3.9	3.58	2439	0.94	0.02	1.7	1.598
1133	0.14	0.02	3.9	0.546	2440	1.86	0.02	1.7	3.162
1134	0.209	0.02	3.9	0.815	2441	1.86	0.02	1.7	3.162
1135	0.68	0.02	3.9	2.652	2442	1.56	0.02	1.7	2.652
1136	0.13	0.02	3.9	0.507	2443	1.556	0.02	1.7	2.645
1137	4.264	0.02	3.9	16.63	2444	0.94	0.02	1.7	1.598
1138	0.25	0.02	3.9	0.975	2445	0.94	0.02	1.7	1.598
1139	0.82	0.02	3.9	3.198	2446	1.837	0.02	1.7	3.123
1140	0.23	0.02	3.9	0.897	2447	1.837	0.02	1.7	3.123
1141	3.193	0.02	3.9	12.453	2448	0.82	0.02	1.7	1.394
1142	0.106	0.02	3.9	0.413	2449	0.82	0.02	1.7	1.394
1143	5.032	0.02	3.9	19.625	2450	0.82	0.02	1.7	1.394
1144	0.14	0.02	3.9	0.546	2451	0.838	0.02	1.7	1.425
1145	2.397	0.02	3.9	9.348	2452	1.46	0.02	1.7	2.482
1146	5.858	0.02	3.9	22.846	2453	1.46	0.02	1.7	2.482
1147	1.126	0.02	3.9	4.391	2454	1.56	0.02	1.7	2.652
1148	0.092	0.02	3.9	0.359	2455	1.56	0.02	1.7	2.652
1149	0.14	0.02	3.9	0.546	2456	1.46	0.02	1.7	2.482
1150	0.16	0.02	3.9	0.624	2457	1.46	0.02	1.7	2.482
1151	0.091	0.02	3.9	0.355	2458	0.96	0.02	1.7	1.632
1152	2.226	0.02	3.9	8.681	2459	0.96	0.02	1.7	1.632
1153	0.16	0.02	3.9	0.624	2460	0.96	0.02	1.7	1.632
1154	0.16	0.02	3.9	0.624	2461	0.96	0.02	1.7	1.632
1155	2.226	0.02	3.9	8.681	2462	1.716	0.02	1.7	2.917
1156	0.079	0.02	3.9	0.308	2463	1.716	0.021	1.7	2.917
1157	0.16	0.02	3.9	0.624	2464	0.96	0.02	1.7	1.632
1158	0.16	0.02	3.9	0.624	2465	0.96	0.02	1.7	1.632
1159	0.103	0.02	3.9	0.402	2466	0.86	0.02	1.7	1.462
1160	1.126	0.02	3.9	4.391	2467	0.96	0.02	1.7	1.632
1161	5.858	0.02	3.9	22.846	2468	0.96	0.02	1.7	1.632
1162	2.454	0.02	3.9	9.571	2469	0.96	0.02	1.7	1.632
1163	0.12	0.02	3.9	0.468	2470	0.96	0.02	1.7	1.632
1164	0.16	0.02	3.9	0.624	2471	0.96	0.02	1.7	1.632

1165	0.43	0.02	3.9	1.677	2472	0.96	0.02	1.7	1.632
1166	0.14	0.02	3.9	0.546	2473	0.96	0.02	1.7	1.632
1167	0.107	0.02	3.9	0.417	2474	0.96	0.02	1.7	1.632
1168	8.978	0.02	3.9	35.014	2475	1.46	0.02	1.7	2.482
1169	0.379	0.02	3.9	1.478	2476	1.46	0.02	1.7	2.482
1170	0.14	0.02	3.9	0.546	2477	1.46	0.02	1.7	2.482
1171	0.16	0.02	3.9	0.624	2478	1.46	0.02	1.7	2.482
1172	0.199	0.02	3.9	0.776	2479	0.82	0.02	1.7	1.394
1173	0.88	0.02	3.9	3.432	2480	0.82	0.02	1.7	1.394
1174	0.16	0.02	3.9	0.624	2481	0.82	0.02	1.7	1.394
1175	4.204	0.02	3.9	16.396	2482	0.82	0.02	1.7	1.394
1176	0.28	0.02	3.9	1.092	2483	0.86	0.02	1.7	1.462
1177	2.02	0.02	3.9	7.878	2484	0.96	0.02	1.7	1.632
1178	0.252	0.02	3.9	0.983	2485	0.96	0.02	1.7	1.632
1179	1.853	0.02	3.9	7.227	2486	0.96	0.02	1.7	1.632
1180	0.143	0.02	3.9	0.558	2487	0.96	0.02	1.7	1.632
1181	5.06	0.02	3.9	19.734	2488	0.86	0.02	1.7	1.462
1182	0.14	0.02	3.9	0.546	2489	0.86	0.02	1.7	1.462
1183	2.433	0.02	3.9	9.489	2490	0.86	0.02	1.7	1.462
1184	5.858	0.02	3.9	22.846	2491	0.86	0.02	1.7	1.462
1185	1.126	0.02	3.9	4.391	2492	0.86	0.02	1.7	1.462
1186	0.103	0.02	3.9	0.402	2493	0.86	0.02	1.7	1.462
1187	0.14	0.02	3.9	0.546	2494	0.86	0.02	1.7	1.462
1188	0.188	0.02	3.9	0.733	2495	0.86	0.02	1.7	1.462
1189	0.079	0.02	3.9	0.308	2496	0.962	0.02	1.7	1.635
1190	2.226	0.02	3.9	8.681	2497	0.962	0.02	1.7	1.635
1191	0.16	0.02	3.9	0.624	2498	0.86	0.02	1.7	1.462
1192	0.16	0.02	3.9	0.624	2499	0.86	0.02	1.7	1.462
1193	2.226	0.02	3.9	8.681	2500	0.96	0.02	1.7	1.632
1194	0.111	0.02	3.9	0.433	2501	0.96	0.02	1.7	1.632
1195	0.14	0.02	3.9	0.546	2502	0.82	0.02	1.7	1.394
1196	0.16	0.02	3.9	0.624	2503	0.82	0.02	1.7	1.394
1197	0.072	0.02	3.9	0.281	2504	0.96	0.02	1.7	1.632
1198	1.126	0.02	3.9	4.391	2505	0.96	0.02	1.7	1.632
1199	5.858	0.02	3.9	22.846	2506	0.86	0.02	1.7	1.462
1200	2.447	0.02	3.9	9.543	2507	0.96	0.02	1.7	1.632
1201	0.12	0.02	3.9	0.468	2508	0.96	0.02	1.7	1.632
1202	0.42	0.02	3.9	1.638	2509	0.86	0.02	1.7	1.462
1203	0.14	0.02	3.9	0.546	2510	0.86	0.02	1.7	1.462
1204	0.14	0.02	3.9	0.546	2511	1.26	0.02	1.7	2.142
1205	1.351	0.02	3.9	5.269	2512	1.26	0.02	1.7	2.142
1206	0.31	0.02	3.9	1.209	2513	0.96	0.02	1.7	1.632
1207	0.66	0.02	3.9	2.574	2514	0.96	0.02	1.7	1.632
1208	0.277	0.02	3.9	1.08	2515	0.86	0.02	1.7	1.462
1209	6.066	0.02	3.9	23.657	2516	0.96	0.02	1.7	1.632

1210	0.14	0.02	3.9	0.546	2517	0.96	0.02	1.7	1.632
1211	0.86	0.02	3.9	3.354	2518	0.96	0.02	1.7	1.632
1212	0.239	0.02	3.9	0.932	2519	0.96	0.02	1.7	1.632
1213	0.14	0.02	3.9	0.546	2520	1.66	0.02	1.7	2.822
1214	0.16	0.02	3.9	0.624	2521	1.66	0.02	1.7	2.822
1215	0.339	0.02	3.9	1.322	2522	0.96	0.02	1.7	1.632
1216	0.88	0.02	3.9	3.432	2523	0.96	0.02	1.7	1.632
1217	2.704	0.02	3.9	10.546	2524	0.86	0.02	1.7	1.462
1218	0.28	0.02	3.9	1.092	2525	0.96	0.02	1.7	1.632
1219	2.02	0.02	3.9	7.878	2526	0.96	0.02	1.7	1.632
1220	0.26	0.02	3.9	1.014	2527	0.86	0.02	1.7	1.462
1221	1.322	0.02	3.9	5.156	2528	0.96	0.02	1.7	1.632
1222	0.21	0.02	3.9	0.819	2529	0.96	0.02	1.7	1.632
1223	0.66	0.02	3.9	2.574	2530	0.86	0.02	1.7	1.462
1224	0.19	0.02	3.9	0.741	2531	0.86	0.02	1.7	1.462
1225	1.351	0.02	3.9	5.269	2532	1.66	0.02	1.7	2.822
1226	0.113	0.02	3.9	0.441	2533	1.66	0.02	1.7	2.822
1227	5.06	0.02	3.9	19.734	2534	0.86	0.02	1.7	1.462
1228	0.14	0.02	3.9	0.546	2535	0.86	0.02	1.7	1.462
1229	2.433	0.02	3.9	9.489	2536	1.66	0.02	1.7	2.822
1230	5.858	0.02	3.9	22.846	2537	1.68	0.02	1.7	2.856
1231	1.126	0.02	3.9	4.391	2538	1.06	0.02	1.7	1.802
1232	0.103	0.02	3.9	0.402	2539	1.06	0.02	1.7	1.802
1233	0.14	0.02	3.9	0.546	2540	1.66	0.02	1.7	2.822
1234	0.16	0.02	3.9	0.624	2541	1.66	0.02	1.7	2.822
1235	0.079	0.02	3.9	0.308	2542	0.86	0.02	1.7	1.462
1236	2.226	0.02	3.9	8.681	2543	0.86	0.02	1.7	1.462
1237	0.16	0.02	3.9	0.624	2544	0.96	0.02	1.7	1.632
1238	0.16	0.02	3.9	0.624	2545	0.96	0.02	1.7	1.632
1239	2.226	0.02	3.9	8.681	2546	0.96	0.02	1.7	1.632
1240	0.111	0.02	3.9	0.433	2547	0.96	0.02	1.7	1.632
1241	0.14	0.02	3.9	0.546	2548	0.96	0.02	1.7	1.632
1242	0.16	0.02	3.9	0.624	2549	0.96	0.02	1.7	1.632
1243	0.072	0.02	3.9	0.281	2550	1.46	0.02	1.7	2.482
1244	1.126	0.02	3.9	4.391	2551	1.46	0.021	1.7	2.482
1245	5.858	0.02	3.9	22.846	2552	0.96	0.02	1.7	1.632
1246	2.448	0.02	3.9	9.547	2553	0.96	0.02	1.7	1.632
1247	0.12	0.02	3.9	0.468	2554	1.26	0.02	1.7	2.142
1248	0.132	0.02	3.9	0.515	2555	1.26	0.02	1.7	2.142
1249	0.14	0.02	3.9	0.546	2556	1.26	0.02	1.7	2.142
1250	0.4	0.02	3.9	1.56	2557	1.26	0.02	1.7	2.142
1251	0.14	0.02	3.9	0.546	2558	0.86	0.02	1.7	1.462
1252	0.107	0.02	3.9	0.417	2559	0.86	0.02	1.7	1.462
1253	4.053	0.02	3.9	15.807	2560	1.262	0.02	1.7	2.145
1254	0.2	0.02	3.9	0.78	2561	1.262	0.02	1.7	2.145

1255	1.32	0.02	3.9	5.148	2562	1.46	0.02	1.7	2.482
1256	0.18	0.02	3.9	0.702	2563	1.46	0.02	1.7	2.482
1257	3.584	0.02	3.9	13.978	2564	1.262	0.02	1.7	2.145
1258	0.379	0.02	3.9	1.478	2565	1.262	0.02	1.7	2.145
1259	0.14	0.02	3.9	0.546	2566	0.962	0.02	1.7	1.635
1260	0.16	0.02	3.9	0.624	2567	0.962	0.02	1.7	1.635
1261	0.199	0.02	3.9	0.776	2568	0.86	0.02	1.7	1.462
1262	0.88	0.02	3.9	3.432	2569	0.86	0.02	1.7	1.462
1263	0.16	0.02	3.9	0.624	2570	0.86	0.02	1.7	1.462
1264	2.704	0.02	3.9	10.546	2571	0.86	0.02	1.7	1.462
1265	0.48	0.02	3.9	1.872	2572	1.41	0.02	2.5	3.525
1266	1.32	0.02	3.9	5.148	2573	1.41	0.02	2.5	3.525
1267	0.46	0.02	3.9	1.794	2574	1.41	0.02	2.5	3.525
1268	4.053	0.02	3.9	15.807	2575	1.41	0.02	2.5	3.525
1269	4.71	0.02	3.9	18.369	2576	1.41	0.02	2.5	3.525
1270	0.14	0.02	3.9	0.546	2577	1.41	0.02	2.5	3.525
1271	2.077	0.02	3.9	8.1	2578	1.41	0.02	2.5	3.525
1272	5.858	0.02	3.9	22.846	2579	1.41	0.02	2.5	3.525
1273	1.126	0.02	3.9	4.391	2580	1.43	0.02	2.5	3.575
1274	0.092	0.02	3.9	0.359	2581	1.43	0.02	2.5	3.575
1275	0.14	0.02	3.9	0.546	2582	1.421	0.02	2.5	3.553
1276	0.16	0.02	3.9	0.624	2583	1.385	0.02	2.5	3.463
1277	0.091	0.02	3.9	0.355	2584	1.41	0.02	2.5	3.525
1278	2.226	0.02	3.9	8.681	2585	1.41	0.02	2.5	3.525
1279	0.14	0.02	3.9	0.546	2586	1.39	0.02	2.5	3.475
1280	0.16	0.02	3.9	0.624	2587	1.47	0.02	2.5	3.675
1281	2.226	0.02	3.9	8.681	2588	1.41	0.02	2.5	3.525
1282	0.099	0.02	3.9	0.386	2589	1.41	0.02	2.5	3.525
1283	0.14	0.02	3.9	0.546	2590	1.41	0.02	2.5	3.525
1284	0.16	0.02	3.9	0.624	2591	1.41	0.02	2.5	3.525
1285	0.083	0.02	3.9	0.324	2592	1.41	0.02	2.5	3.525
1286	1.126	0.02	3.9	4.391	2593	1.41	0.02	2.5	3.525
1287	5.858	0.02	3.9	22.846	2594	1.41	0.02	2.5	3.525
1288	2.453	0.02	3.9	9.567	2595	1.409	0.02	2.5	3.523
1289	0.12	0.02	3.9	0.468	2596	1.41	0.02	2.5	3.525
1290	0.94	0.02	3.9	3.666	2597	1.41	0.02	2.5	3.525
1291	0.14	0.02	3.9	0.546	2598	1.41	0.02	2.5	3.525
1292	0.11	0.02	3.9	0.429	2599	1.409	0.02	2.5	3.523
1293	0.52	0.02	3.9	2.028	2600	1.41	0.02	2.5	3.525
1294	0.333	0.02	3.9	1.299	2601	1.41	0.02	2.5	3.525
1295	0.12	0.02	3.9	0.468	2602	1.41	0.02	2.5	3.525
1296	0.13	0.02	3.9	0.507	2603	1.41	0.02	2.5	3.525
1297	0.52	0.02	3.9	2.028	2604	1.414	0.02	2.5	3.535
1298	0.147	0.02	3.9	0.573	2605	1.41	0.02	2.5	3.525
1299	2.673	0.02	3.9	10.425	2606	1.41	0.02	2.5	3.525

1300	2.673	0.02	3.9	10.425	2607	1.41	0.02	2.5	3.525
1301	0.15	0.02	3.9	0.585	2608	3.03	0.02	2.5	7.575
1302	0.335	0.02	3.9	1.307	2609	1.41	0.02	2.5	3.525
1303	1.02	0.02	3.9	3.978					
1304	1.02	0.02	3.9	3.978					
1305	0.13	0.02	3.9	0.507					

9.2.2- Quantity Of Building:

Table 12 Quantity of building for third floor

Wall number	Length (m)	Width (m)	Height (m)	Area (m^2)	Wall number	Length (m)	Width (m)	Height (m)	Area (m^2)
W1	4.538	0.12	3.9	17.6982	W621	0.134	0.12	3.9	0.5226
W2	1.667	0.12	3.9	6.5013	W622	0.05	0.12	3.9	0.195
W3	3.143	0.12	3.9	12.2577	W623	0.12	0.104	3.9	0.468
W4	1.959	0.12	3.9	7.6401	W624	0.05	0.12	3.9	0.195
W5	0.21	0.12	3.9	0.819	W625	0.12	0.104	3.9	0.468
W6	1.934	0.12	3.9	7.5426	W626	0.05	0.12	3.9	0.195
W7	2.642	0.12	3.9	10.3038	W627	0.05	0.12	3.9	0.195
W8	0.168	0.12	3.9	0.6552	W628	0.05	0.12	3.9	0.195
W9	0.339	0.12	3.9	1.3221	W629	0.071	0.12	3.9	0.2769
W10	0.52	0.12	3.9	2.028	W630	0.05	0.12	3.9	0.195
W11	0.52	0.12	3.9	2.028	W631	0.12	0.104	3.9	0.468
W12	0.4	0.12	3.9	1.56	W632	0.05	0.12	3.9	0.195
W13	1.373	0.119	3.9	5.3547	W633	0.12	0.104	3.9	0.468
W14	3.407	0.12	3.9	13.2873	W634	0.085	0.12	3.9	0.3315
W15	1.541	0.12	3.9	6.0099	W635	0.05	0.12	3.9	0.195
W16	4.991	0.12	3.9	19.4649	W636	0.05	0.12	3.9	0.195
W17	3.127	0.12	3.9	12.1953	W637	0.071	0.12	3.9	0.2769
W18	0.659	0.12	3.9	2.5701	W638	5.218	0.12	3.9	20.3502
W19	2.093	0.12	3.9	8.1627	W639	1.877	0.15	3.9	7.3203
W20	0.54	0.12	3.9	2.106	W640	0.409	0.12	3.9	1.5951
W21	0.52	0.12	3.9	2.028	W641	3.907	0.115	3.9	15.2373
W22	0.701	0.12	3.9	2.7339	W642	0.65	0.23	3.9	2.535
W23	0.171	0.12	3.9	0.6669	W643	2.81	0.12	3.9	10.959
W24	1.336	0.12	3.9	5.2104	W644	0.25	0.213	3.9	0.975
W25	1.598	0.12	3.9	6.2322	W645	2.75	0.12	3.9	10.725
W26	0.905	0.121	3.9	3.5295	W646	4.18	0.12	3.9	16.302
W27	1.979	0.12	3.9	7.7181	W647	0.649	0.23	3.9	2.5311
W28	3.921	0.12	3.9	15.2919	W648	0.378	0.12	3.9	1.4742
W29	1.061	0.12	3.9	4.1379	W649	3.234	0.12	3.9	12.6126
W30	1.531	0.12	3.9	5.9709	W650	4.304	0.12	3.9	16.7856

W31	4.33	0.12	3.9	16.887	W651	0.05	0.12	3.9	0.195
W32	2.25	0.12	3.9	8.775	W652	4.205	0.12	3.9	16.3995
W33	6.451	0.12	3.9	25.1589	W653	2.188	0.12	3.9	8.5332
W34	0.25	0.12	3.9	0.975	W654	0.52	0.12	3.9	2.028
W35	0.17	0.12	3.9	0.663	W655	0.52	0.12	3.9	2.028
W36	0.13	0.12	3.9	0.507	W656	0.604	0.12	3.9	2.3556
W37	5.69	0.12	3.9	22.191	W657	2.48	0.12	3.9	9.672
W38	0.13	0.12	3.9	0.507	W658	2.296	0.12	3.9	8.9544
W39	0.77	0.12	3.9	3.003	W659	2.188	0.12	3.9	8.5332
W40	3.51	0.12	3.9	13.689	W660	0.096	0.12	3.9	0.3744
W41	0.52	0.12	3.9	2.028	W661	5.955	0.12	3.9	23.2245
W42	0.604	0.12	3.9	2.3556	W662	5.026	0.12	3.9	19.6014
W43	4.92	0.12	3.9	19.188	W663	3.485	0.12	3.9	13.5915
W44	0.13	0.12	3.9	0.507	W664	0.363	0.25	3.9	1.4157
W45	0.362	0.25	3.9	1.4118	W665	0.336	0.25	3.9	1.3104
W46	5.975	0.12	3.9	23.3025	W666	0.388	0.25	3.9	1.5132
W47	3.483	0.12	3.9	13.5837	W667	0.362	0.251	3.9	1.4118
W48	0.25	0.12	3.9	0.975	W668	0.336	0.251	3.9	1.3104
W49	1.35	0.12	3.9	5.265	W669	0.388	0.251	3.9	1.5132
W50	1.798	0.12	3.9	7.0122	W670	1.373	0.12	3.9	5.3547
W51	0.953	0.12	3.9	3.7167	W671	0.24	0.12	3.9	0.936
W52	6.41	0.117	3.9	24.999	W672	1.855	0.12	3.9	7.2345
W53	0.52	0.12	3.9	2.028	W673	0.32	0.12	3.9	1.248
W54	0.604	0.12	3.9	2.3556	W674	1.905	0.12	3.9	7.4295
W55	0.4	0.12	3.9	1.56	W675	1.363	0.12	3.9	5.3157
W56	0.733	0.08	3.9	2.8587	W676	0.362	0.25	3.9	1.4118
W57	0.85	0.12	3.9	3.315	W677	3.485	0.12	3.9	13.5915
W58	0.52	0.128	3.9	2.028	W678	5.02	0.12	3.9	19.578
W59	0.722	0.12	3.9	2.8158	W679	5.898	0.12	3.9	23.0022
W60	0.4	0.112	3.9	1.56	W680	2.296	0.12	3.9	8.9544
W61	6.82	0.12	3.9	26.598	W681	2.48	0.12	3.9	9.672
W62	0.338	0.05	3.9	1.3182	W682	0.844	0.12	3.9	3.2916
W63	1.331	0.12	3.9	5.1909	W683	0.4	0.12	3.9	1.56
W64	0.121	0.12	3.9	0.4719	W684	0.4	0.12	3.9	1.56
W65	0.736	0.12	3.9	2.8704	W685	4.263	0.12	3.9	16.6257
W66	4.473	0.121	3.9	17.4447	W686	2.179	0.12	3.9	8.4981
W67	1.803	0.05	3.9	7.0317	W687	2.188	0.12	3.9	8.5332
W68	0.36	0.05	3.9	1.404	W688	0.049	0.12	3.9	0.1911
W69	0.266	0.05	3.9	1.0374	W689	0.067	0.12	3.9	0.2613
W70	4.391	0.12	3.9	17.1249	W690	0.05	0.12	3.9	0.195
W71	0.38	0.12	3.9	1.482	W691	0.12	0.104	3.9	0.468
W72	1.798	0.05	3.9	7.0122	W692	0.05	0.12	3.9	0.195
W73	0.36	0.05	3.9	1.404	W693	0.12	0.104	3.9	0.468

W74	0.339	0.05	3.9	1.3221	W694	0.085	0.12	3.9	0.3315
W75	1.338	0.12	3.9	5.2182	W695	0.05	0.12	3.9	0.195
W76	0.13	0.124	3.9	0.507	W696	0.05	0.12	3.9	0.195
W77	0.37	0.124	3.9	1.443	W697	0.071	0.12	3.9	0.2769
W78	3.971	0.12	3.9	15.4869	W698	2.938	0.12	3.9	11.4582
W79	6.831	0.121	3.9	26.6409	W699	3.057	0.12	3.9	11.9223
W80	0.901	0.12	3.9	3.5139	W700	0.215	0.12	3.9	0.8385
W81	0.363	0.25	3.9	1.4157	W701	6.587	0.12	3.9	25.6893
W82	1.95	0.12	3.9	7.605	W702	7.1	0.12	3.9	27.69
W83	2.662	0.12	3.9	10.3818	W703	0.247	0.12	3.9	0.9633
W84	1.798	0.12	3.9	7.0122	W704	3.234	0.121	3.9	12.6126
W85	0.724	0.12	3.9	2.8236	W705	3.904	0.119	3.9	15.2256
W86	0.4	0.12	3.9	1.56	W706	6.054	0.12	3.9	23.6106
W87	8.071	0.12	3.9	31.4769	W707	0.096	0.12	3.9	0.3744
W88	5.38	0.12	3.9	20.982	W708	0.52	0.12	3.9	2.028
W89	0.127	0.12	3.9	0.4953	W709	0.604	0.12	3.9	2.3556
W90	0.603	0.12	3.9	2.3517	W710	4.765	0.12	3.9	18.5835
W91	5.224	0.12	3.9	20.3736	W711	0.861	0.12	3.9	3.3579
W92	1.486	0.12	3.9	5.7954	W712	3.247	0.12	3.9	12.6633
W93	0.127	0.12	3.9	0.4953	W713	0.937	0.12	3.9	3.6543
W94	2.313	0.12	3.9	9.0207	W714	0.13	0.12	3.9	0.507
W95	4.092	0.131	3.9	15.9588	W715	1.503	0.12	3.9	5.8617
W96	7.521	0.12	3.9	29.3319	W716	0.25	0.12	3.9	0.975
W97	0.4	0.12	3.9	1.56	W717	2.577	0.12	3.9	10.0503
W98	0.52	0.12	3.9	2.028	W718	0.38	0.12	3.9	1.482
W99	0.604	0.12	3.9	2.3556	W719	2.577	0.12	3.9	10.0503
W100	2.541	0.12	3.9	9.9099	W720	0.89	0.12	3.9	3.471
W101	2.797	0.84	3.9	10.9083	W721	0.253	0.12	3.9	0.9867
W102	0.5	0.545	3.9	1.95	W722	3.514	0.12	3.9	13.7046
W103	1.52	0.12	3.9	5.928	W723	0.362	0.249	3.9	1.4118
W104	2.108	0.12	3.9	8.2212	W724	0.361	0.25	3.9	1.4079
W105	0.38	0.12	3.9	1.482	W725	4.355	0.12	3.9	16.9845
W106	0.427	0.12	3.9	1.6653	W726	0.52	0.12	3.9	2.028
W107	0.12	0.088	3.9	0.468	W727	0.4	0.12	3.9	1.56
W108	0.659	0.12	3.9	2.5701	W728	0.85	0.12	3.9	3.315
W109	1.389	0.12	3.9	5.4171	W729	2.977	0.12	3.9	11.6103
W110	1.572	0.12	3.9	6.1308	W730	0.667	0.12	3.9	2.6013
W111	4.768	0.12	3.9	18.5952	W731	0.547	0.12	3.9	2.1333
W112	2.162	0.12	3.9	8.4318	W732	0.328	0.25	3.9	1.2792
W113	0.126	0.12	3.9	0.4914	W733	0.376	0.25	3.9	1.4664
W114	0.25	0.12	3.9	0.975	W734	1.891	0.12	3.9	7.3749
W115	2.221	0.12	3.9	8.6619	W735	0.13	0.12	3.9	0.507
W116	0.13	0.12	3.9	0.507	W736	1.756	0.12	3.9	6.8484

W117	2.863	0.12	3.9	11.1657	W737	3.795	0.12	3.9	14.8005
W118	0.7	0.12	3.9	2.73	W738	0.53	0.12	3.9	2.067
W119	1.798	0.12	3.9	7.0122	W739	0.618	0.12	3.9	2.4102
W120	3.328	0.12	3.9	12.9792	W740	3.757	0.12	3.9	14.6523
W121	3.475	0.12	3.9	13.5525	W741	4.98	0.12	3.9	19.422
W122	0.363	0.25	3.9	1.4157	W742	0.667	0.12	3.9	2.6013
W123	3.663	0.12	3.9	14.2857	W743	1.362	0.12	3.9	5.3118
W124	0.363	0.25	3.9	1.4157	W744	0.397	0.12	3.9	1.5483
W125	2.852	0.12	3.9	11.1228	W745	3.587	0.12	3.9	13.9893
W126	3.475	0.12	3.9	13.5525	W746	0.07	0.05	3.9	0.273
W127	0.234	0.4	3.9	0.9126	W747	0.658	0.05	3.9	2.5662
W128	0.64	0.12	3.9	2.496	W748	1.8	0.05	3.9	7.02
W129	0.52	0.12	3.9	2.028	W749	0.387	0.12	3.9	1.5093
W130	0.52	0.12	3.9	2.028	W750	4.667	0.12	3.9	18.2013
W131	0.4	0.12	3.9	1.56	W751	0.13	0.05	3.9	0.507
W132	1.627	0.12	3.9	6.3453	W752	0.13	0.05	3.9	0.507
W133	0.25	0.12	3.9	0.975	W753	0.658	0.05	3.9	2.5662
W134	3.033	0.12	3.9	11.8287	W754	1.8	0.05	3.9	7.02
W135	2.901	0.12	3.9	11.3139	W755	1.224	0.12	3.9	4.7736
W136	0.13	0.12	3.9	0.507	W756	5.71	0.12	3.9	22.269
W137	0.52	0.12	3.9	2.028	W757	0.57	0.15	3.9	2.223
W138	0.4	0.12	3.9	1.56	W758	5.814	0.12	3.9	22.6746
W139	2.803	0.12	3.9	10.9317	W759	0.362	0.25	3.9	1.4118
W140	4.259	0.12	3.9	16.6101	W760	2.095	0.12	3.9	8.1705
W141	1.191	0.12	3.9	4.6449	W761	0.882	0.12	3.9	3.4398
W142	0.444	0.12	3.9	1.7316	W762	0.254	0.12	3.9	0.9906
W143	0.294	0.12	3.9	1.1466	W763	3.49	0.12	3.9	13.611
W144	2.504	0.123	3.9	9.7656	W764	2.857	0.12	3.9	11.1423
W145	1.612	0.12	3.9	6.2868	W765	0.377	0.12	3.9	1.4703
W146	1.612	0.117	3.9	6.2868	W766	4.532	0.118	3.9	17.6748
W147	0.724	0.12	3.9	2.8236	W767	3.242	0.12	3.9	12.6438
W148	0.4	0.12	3.9	1.56	W768	0.885	0.12	3.9	3.4515
W149	0.174	0.12	3.9	0.6786	W769	0.12	0.132	3.9	0.468
W150	0.126	0.12	3.9	0.4914	W770	0.12	0.132	3.9	0.468
W151	4.247	0.12	3.9	16.5633	W771	0.772	0.123	3.9	3.0108
W152	2.362	0.12	3.9	9.2118	W772	0.184	0.12	3.9	0.7176
W153	2.101	0.12	3.9	8.1939	W773	1.6	0.12	3.9	6.24
W154	1.075	0.12	3.9	4.1925	W774	5.827	0.122	3.9	22.7253
W155	0.245	0.12	3.9	0.9555	W775	0.52	0.122	3.9	2.028
W156	3.738	0.12	3.9	14.5782	W776	0.604	0.122	3.9	2.3556
W157	4.768	0.12	3.9	18.5952	W777	0.07	0.05	3.9	0.273
W158	0.13	0.12	3.9	0.507	W778	3.739	0.12	3.9	14.5821
W159	0.891	0.12	3.9	3.4749	W779	1.415	0.12	3.9	5.5185

W160	0.042	0.12	3.9	0.1638	W780	5.523	0.12	3.9	21.5397
W161	1.27	0.12	3.9	4.953	W781	0.131	0.12	3.9	0.5109
W162	0.62	0.12	3.9	2.418	W782	1.279	0.12	3.9	4.9881
W163	2.493	0.12	3.9	9.7227	W783	4.945	0.12	3.9	19.2855
W164	0.377	0.12	3.9	1.4703	W784	0.4	0.12	3.9	1.56
W165	2.493	0.12	3.9	9.7227	W785	4.202	0.12	3.9	16.3878
W166	0.89	0.12	3.9	3.471	W786	0.098	0.12	3.9	0.3822
W167	3.692	0.12	3.9	14.3988	W787	0.52	0.12	3.9	2.028
W168	0.25	0.12	3.9	0.975	W788	0.724	0.12	3.9	2.8236
W169	1.813	0.12	3.9	7.0707	W789	0.4	0.12	3.9	1.56
W170	0.64	0.12	3.9	2.496	W790	8.675	0.12	3.9	33.8325
W171	0.724	0.12	3.9	2.8236	W791	0.13	0.12	3.9	0.507
W172	0.724	0.12	3.9	2.8236	W792	2.42	0.12	3.9	9.438
W173	0.4	0.12	3.9	1.56	W793	1.088	0.12	3.9	4.2432
W174	7.25	0.12	3.9	28.275	W794	2.188	0.12	3.9	8.5332
W175	7.25	0.12	3.9	28.275	W795	0.05	0.12	3.9	0.195
W176	0.64	0.12	3.9	2.496	W796	0.071	0.12	3.9	0.2769
W177	0.724	0.12	3.9	2.8236	W797	2.45	0.12	3.9	9.555
W178	0.52	0.12	3.9	2.028	W798	0.25	0.12	3.9	0.975
W179	0.604	0.12	3.9	2.3556	W799	9.32	0.12	3.9	36.348
W180	4.39	0.12	3.9	17.121	W800	7.88	0.12	3.9	30.732
W181	1.714	0.12	3.9	6.6846	W801	3.301	0.12	3.9	12.8739
W182	2.805	0.12	3.9	10.9395	W802	0.87	0.12	3.9	3.393
W183	0.73	0.12	3.9	2.847	W803	7.987	0.12	3.9	31.1493
W184	0.377	0.12	3.9	1.4703	W804	4.18	0.12	3.9	16.302
W185	2.071	0.12	3.9	8.0769	W805	3.736	0.12	3.9	14.5704
W186	0.28	0.12	3.9	1.092	W806	2.97	0.12	3.9	11.583
W187	0.503	0.12	3.9	1.9617	W807	0.38	0.12	3.9	1.482
W188	2.071	0.12	3.9	8.0769	W808	4.261	0.12	3.9	16.6179
W189	0.253	0.12	3.9	0.9867	W809	4.44	0.12	3.9	17.316
W190	2.005	0.12	3.9	7.8195	W810	10.845	0.12	3.9	42.2955
W191	1.859	0.12	3.9	7.2501	W811	5.171	0.12	3.9	20.1669
W192	0.578	0.12	3.9	2.2542	W812	1.868	0.12	3.9	7.2852
W193	0.724	0.12	3.9	2.8236	W813	5.982	0.12	3.9	23.3298
W194	0.4	0.123	3.9	1.56	W814	3.599	0.12	3.9	14.0361
W195	0.815	0.12	3.9	3.1785	W815	4.96	0.12	3.9	19.344
W196	0.12	0.02	3.9	0.468	W816	0.251	0.12	3.9	0.9789
W197	1.214	0.12	3.9	4.7346	W817	5.019	0.12	3.9	19.5741
W198	5.411	0.12	3.9	21.1029	W818	9.018	0.12	3.9	35.1702
W199	0.088	0.12	3.9	0.3432	W819	2.662	0.12	3.9	10.3818
W200	0.13	0.12	3.9	0.507	W820	0.132	0.12	3.9	0.5148
W201	4.388	0.12	3.9	17.1132	W821	0.072	0.12	3.9	0.2808
W202	0.198	0.12	3.9	0.7722	W822	0.285	0.12	3.9	1.1115

W203	3.057	0.12	3.9	11.9223	W823	2.171	0.12	3.9	8.4669
W204	0.25	0.12	3.9	0.975	W824	2.296	0.12	3.9	8.9544
W205	0.25	0.12	3.9	0.975	W825	0.259	0.121	3.9	1.0101
W206	3.03	0.12	3.9	11.817	W826	2.363	0.12	3.9	9.2157
W207	5.066	0.12	3.9	19.7574	W827	0.05	0.12	3.9	0.195
W208	7.39	0.12	3.9	28.821	W828	0.05	0.12	3.9	0.195
W209	3.353	0.123	3.9	13.0767	W829	4.12	0.12	3.9	16.068
W210	0.65	0.12	3.9	2.535	W830	0.804	0.12	3.9	3.1356
W211	0.52	0.123	3.9	2.028	W831	5.605	0.12	3.9	21.8595
W212	0.4	0.12	3.9	1.56	W832	4.488	0.12	3.9	17.5032
W213	3.904	0.123	3.9	15.2256	W833	3.057	0.12	3.9	11.9223
W214	2.358	0.12	3.9	9.1962	W834	0.38	0.12	3.9	1.482
W215	0.05	0.12	3.9	0.195	W835	1.015	0.12	3.9	3.9585
W216	0.162	0.12	3.9	0.6318	W836	7.603	0.12	3.9	29.6517
W217	4.04	0.12	3.9	15.756	W837	4.171	0.12	3.9	16.2669
W218	0.52	0.12	3.9	2.028	W838	0.38	0.12	3.9	1.482
W219	0.724	0.12	3.9	2.8236	W839	0.316	0.12	3.9	1.2324
W220	0.4	0.12	3.9	1.56	W840	0.52	0.12	3.9	2.028
W221	2.48	0.12	3.9	9.672	W841	0.4	0.12	3.9	1.56
W222	2.296	0.12	3.9	8.9544	W842	0.52	0.12	3.9	2.028
W223	0.085	0.12	3.9	0.3315	W843	3.233	0.118	3.9	12.6087
W224	0.05	0.12	3.9	0.195	W844	1.664	0.12	3.9	6.4896
W225	2.188	0.12	3.9	8.5332	W845	2.28	0.12	3.9	8.892
W226	0.071	0.12	3.9	0.2769	W846	0.644	0.12	3.9	2.5116
W227	0.201	0.12	3.9	0.7839	W847	0.32	0.12	3.9	1.248
W228	0.159	0.12	3.9	0.6201	W848	0.6	0.12	3.9	2.34
W229	2.913	0.64	3.9	11.3607	W849	4.16	0.12	3.9	16.224
W230	3.041	0.12	3.9	11.8599	W850	0.52	0.12	3.9	2.028
W231	3.041	0.12	3.9	11.8599	W851	0.604	0.12	3.9	2.3556
W232	5.02	0.12	3.9	19.578	W852	0.52	0.12	3.9	2.028
W233	4.87	0.12	3.9	18.993	W853	8.555	0.12	3.9	33.3645
W234	5.299	0.12	3.9	20.6661	W854	2.188	0.12	3.9	8.5332
W235	2.689	0.12	3.9	10.4871	W855	2.188	0.12	3.9	8.5332
W236	0.12	0.104	3.9	0.468	W856	0.186	0.12	3.9	0.7254
W237	0.12	0.104	3.9	0.468	W857	0.179	0.12	3.9	0.6981
W238	0.724	0.12	3.9	2.8236	W858	2.296	0.12	3.9	8.9544
W239	0.724	0.12	3.9	2.8236	W859	2.157	0.12	3.9	8.4123
W240	0.4	0.12	3.9	1.56	W860	0.417	0.12	3.9	1.6263
W241	2.28	0.12	3.9	8.892	W861	0.093	0.12	3.9	0.3627
W242	2.182	0.12	3.9	8.5098	W862	0.32	0.12	3.9	1.248
W243	0.05	0.12	3.9	0.195	W863	0.263	0.12	3.9	1.0257
W244	2.189	0.12	3.9	8.5371	W864	2.731	0.12	3.9	10.6509
W245	0.05	0.12	3.9	0.195	W865	1.899	0.12	3.9	7.4061

W246	4.56	0.12	3.9	17.784	W866	2.258	0.12	3.9	8.8062
W247	0.12	0.08	3.9	0.468	W867	0.05	0.12	3.9	0.195
W248	0.12	0.08	3.9	0.468	W868	0.085	0.12	3.9	0.3315
W249	0.12	0.08	3.9	0.468	W869	0.05	0.12	3.9	0.195
W250	5.278	0.12	3.9	20.5842	W870	0.071	0.12	3.9	0.2769
W251	2.267	0.12	3.9	8.8413	W871	2.59	0.12	3.9	10.101
W252	0.38	0.12	3.9	1.482	W872	0.13	0.12	3.9	0.507
W253	0.88	0.12	3.9	3.432	W873	3.563	0.12	3.9	13.8957
W254	0.203	0.12	3.9	0.7917	W874	0.13	0.11	3.9	0.507
W255	0.203	0.12	3.9	0.7917	W875	1.399	0.12	3.9	5.4561
W256	7.393	0.12	3.9	28.8327	W876	2.47	0.12	3.9	9.633
W257	0.12	0.08	3.9	0.468	W877	2.11	0.12	3.9	8.229
W258	0.12	0.08	3.9	0.468	W878	0.37	0.88	3.9	1.443
W259	4.56	0.12	3.9	17.784	W879	3.15	0.12	3.9	12.285
W260	2.184	0.12	3.9	8.5176	W880	0.25	0.12	3.9	0.975
W261	0.05	0.12	3.9	0.195	W881	2.882	0.12	3.9	11.2398
W262	2.48	0.12	3.9	9.672	W882	2.47	0.12	3.9	9.633
W263	0.844	0.12	3.9	3.2916	W883	0.25	0.12	3.9	0.975
W264	0.399	0.12	3.9	1.5561	W884	2.001	0.12	3.9	7.8039
W265	0.4	0.12	3.9	1.56	W885	2.248	0.12	3.9	8.7672
W266	0.12	0.08	3.9	0.468	W886	2.26	0.117	3.9	8.814
W267	0.12	0.08	3.9	0.468	W887	0.132	0.12	3.9	0.5148
W268	2.184	0.12	3.9	8.5176	W888	5.624	0.12	3.9	21.9336
W269	0.071	0.12	3.9	0.2769	W889	5.121	0.12	3.9	19.9719
W270	2.689	0.12	3.9	10.4871	W890	1.354	0.12	3.9	5.2806
W271	5.324	0.12	3.9	20.7636	W891	0.724	0.12	3.9	2.8236
W272	4.238	0.12	3.9	16.5282	W892	0.4	0.12	3.9	1.56
W273	0.085	0.12	3.9	0.3315	W893	0.18	0.12	3.9	0.702
W274	0.05	0.12	3.9	0.195	W894	0.43	0.12	3.9	1.677
W275	4.33	0.12	3.9	16.887	W895	1.99	0.12	3.9	7.761
W276	5.898	0.12	3.9	23.0022	W896	2.569	0.12	3.9	10.0191
W277	2.395	0.12	3.9	9.3405	W897	3.001	0.12	3.9	11.7039
W278	2.48	0.12	3.9	9.672	W898	2.861	0.12	3.9	11.1579
W279	0.844	0.12	3.9	3.2916	W899	1.47	0.12	3.9	5.733
W280	0.4	0.12	3.9	1.56	W900	1.109	0.12	3.9	4.3251
W281	0.4	0.12	3.9	1.56	W901	0.4	0.12	3.9	1.56
W282	2.188	0.12	3.9	8.5332	W902	0.4	0.095	3.9	1.56
W283	2.188	0.12	3.9	8.5332	W903	0.25	0.12	3.9	0.975
W284	4.16	0.12	3.9	16.224	W904	4.091	0.12	3.9	15.9549
W285	0.224	0.12	3.9	0.8736	W905	0.25	0.12	3.9	0.975
W286	0.136	0.12	4.2	0.5712	W906	0.25	0.12	3.9	0.975
W287	0.12	0.104	3.9	0.468	W907	1.851	0.12	3.9	7.2189
W288	0.12	0.104	3.9	0.468	W908	0.4	0.13	3.9	1.56

W289	0.05	0.12	3.9	0.195	W909	0.394	0.25	3.9	1.5366
W290	0.05	0.12	3.9	0.195	W910	3.21	0.12	3.9	12.519
W291	0.08	0.12	3.9	0.312	W911	2.232	0.12	3.9	8.7048
W292	0.08	0.12	3.9	0.312	W912	0.23	0.12	3.9	0.897
W293	6.774	0.12	3.9	26.4186	W913	0.095	0.116	3.9	0.3705
W294	0.64	0.12	3.9	2.496	W914	3.925	0.12	3.9	15.3075
W295	0.496	0.12	3.9	1.9344	W915	8.194	0.12	3.9	31.9566
W296	0.52	0.096	3.9	2.028	W916	0.13	0.12	3.9	0.507
W297	0.4	0.12	3.9	1.56	W917	5.111	0.12	3.9	19.9329
W298	0.9	0.12	3.9	3.51	W918	1.38	0.12	3.9	5.382
W299	0.9	0.12	3.9	3.51	W919	1.63	0.12	3.9	6.357
W300	0.52	0.12	3.9	2.028	W920	1.475	0.12	3.9	5.7525
W301	0.52	0.12	3.9	2.028	W921	1.38	0.12	3.9	5.382
W302	0.4	0.12	3.9	1.56	W922	2.569	0.12	3.9	10.0191
W303	2.713	0.12	3.9	10.5807	W923	0.25	0.12	3.9	0.975
W304	0.226	0.12	3.9	0.8814	W924	2.681	0.12	3.9	10.4559
W305	4.254	0.12	3.9	16.5906	W925	2.17	0.12	3.9	8.463
W306	0.134	0.12	3.9	0.5226	W926	0.376	0.12	3.9	1.4664
W307	0.12	0.05	3.9	0.468	W927	2.242	0.12	3.9	8.7438
W308	4.194	0.12	3.9	16.3566	W928	0.132	0.12	3.9	0.5148
W309	2.188	0.12	3.9	8.5332	W929	9.018	0.12	3.9	35.1702
W310	0.52	0.12	3.9	2.028	W930	2.022	0.12	3.9	7.8858
W311	0.724	0.12	3.9	2.8236	W931	2.223	0.12	3.9	8.6697
W312	0.4	0.12	3.9	1.56	W932	0.173	0.12	3.9	0.6747
W313	2.48	0.12	3.9	9.672	W933	0.173	0.12	3.9	0.6747
W314	2.296	0.12	3.9	8.9544	W934	0.521	0.12	3.9	2.0319
W315	2.188	0.12	3.9	8.5332	W935	0.604	0.12	3.9	2.3556
W316	0.186	0.12	3.9	0.7254	W936	0.18	0.15	3.9	0.702
W317	3.046	0.64	3.9	11.8794	W937	1.08	0.12	3.9	4.212
W318	2.908	0.12	3.9	11.3412	W938	2.188	0.123	3.9	8.5332
W319	2.908	0.12	3.9	11.3412	W939	2.233	0.12	3.9	8.7087
W320	5.02	0.12	3.9	19.578	W940	0.183	0.12	3.9	0.7137
W321	0.05	0.12	3.9	0.195	W941	0.18	0.12	3.9	0.702
W322	0.085	0.12	3.9	0.3315	W942	2.908	0.12	3.9	11.3412
W323	0.071	0.12	3.9	0.2769	W943	1.13	0.12	3.9	4.407
W324	0.05	0.12	3.9	0.195	W944	0.12	0.104	3.9	0.468
W325	4.595	0.12	3.9	17.9205	W945	0.05	0.12	3.9	0.195
W326	5.299	0.12	3.9	20.6661	W946	1.08	0.12	3.9	4.212
W327	2.689	0.12	3.9	10.4871	W947	0.05	0.12	3.9	0.195
W328	0.724	0.12	3.9	2.8236	W948	2.438	0.12	3.9	9.5082
W329	0.52	0.12	3.9	2.028	W949	3.057	0.12	3.9	11.9223
W330	0.604	0.12	3.9	2.3556	W950	0.64	12.036	3.9	2.496
W331	2.28	0.12	3.9	8.892	W951	2.506	0.11	3.9	9.7734

W332	2.182	0.12	3.9	8.5098	W952	2.157	0.12	3.9	8.4123
W333	2.189	0.12	3.9	8.5371	W953	0.83	0.12	3.9	3.237
W334	4.56	0.12	3.9	17.784	W954	1.897	1.14	3.9	7.3983
W335	0.08	0.12	3.9	0.312	W955	1.433	0.65	3.9	5.5887
W336	0.08	0.12	3.9	0.312	W956	0.25	0.13	3.9	0.975
W337	0.12	0.104	3.9	0.468	W957	6.19	0.12	3.9	24.141
W338	0.05	0.12	3.9	0.195	W958	0.52	0.12	3.9	2.028
W339	0.12	0.104	3.9	0.468	W959	0.604	0.12	3.9	2.3556
W340	0.05	0.12	3.9	0.195	W960	1.45	0.12	3.9	5.655
W341	4.56	0.12	3.9	17.784	W961	5.52	0.12	3.9	21.528
W342	2.184	0.12	3.9	8.5176	W962	1.3	1.196	3.9	5.07
W343	2.48	0.12	3.9	9.672	W963	2.023	0.12	3.9	7.8897
W344	0.844	0.12	3.9	3.2916	W964	1.961	0.12	3.9	7.6479
W345	0.399	0.12	3.9	1.5561	W965	0.085	0.12	3.9	0.3315
W346	0.4	0.12	3.9	1.56	WD1	0.12	1.1	1.7	0.204
W347	2.689	0.12	3.9	10.4871	WD2	0.12	1.3	1.7	0.204
W348	2.184	0.12	3.9	8.5176	WD3	0.12	1.3	1.7	0.204
W349	0.08	0.12	3.9	0.312	WD4	0.12	1.3	1.7	0.204
W350	0.08	0.12	3.9	0.312	WD5	0.12	1.1	1.7	0.204
W351	0.08	0.12	3.9	0.312	WD6	0.12	1.3	1.7	0.204
W352	5.324	0.12	3.9	20.7636	WD7	0.12	1.3	1.7	0.204
W353	4.671	0.12	3.9	18.2169	WD8	0.12	1.1	1.7	0.204
W354	4.67	0.12	3.9	18.213	WD9	0.05	0.802	1.7	0.085
W355	5.898	0.12	3.9	23.0022	WD10	0.05	0.802	1.7	0.085
W356	2.296	0.12	3.9	8.9544	WD11	0.12	1.102	1.7	0.204
W357	2.48	0.12	3.9	9.672	WD12	0.05	0.802	1.7	0.085
W358	0.844	0.12	3.9	3.2916	WD13	0.05	1.14	1.7	0.085
W359	0.4	0.12	3.9	1.56	WD14	0.12	1.102	1.7	0.204
W360	0.4	0.12	3.9	1.56	WD15	0.124	0.9	1.7	0.2108
W361	2.188	0.12	3.9	8.5332	WD16	0.12	1.1	1.7	0.204
W362	4.267	0.12	3.9	16.6413	WD17	0.12	1.3	1.7	0.204
W363	2.188	0.12	3.9	8.5332	WD18	0.12	1.3	1.7	0.204
W364	0.05	0.12	3.9	0.195	WD19	0.12	1.681	1.7	0.204
W365	0.05	0.12	3.9	0.195	WD20	0.12	1.3	1.7	0.204
W366	0.12	0.104	3.9	0.468	WD21	0.12	1.102	1.7	0.204
W367	0.12	0.104	3.9	0.468	WD22	0.12	0.9	1.7	0.204
W368	0.085	0.12	3.9	0.3315	WD23	0.12	0.9	1.7	0.204
W369	0.05	0.12	3.9	0.195	WD24	0.12	1.5	1.7	0.204
W370	0.071	0.12	3.9	0.2769	WD25	0.12	1	1.7	0.204
W371	0.05	0.12	3.9	0.195	WD26	0.12	1.3	1.7	0.204
W372	5.369	0.12	3.9	20.9391	WD27	0.12	1	1.7	0.204
W373	1.577	0.12	3.9	6.1503	WD28	0.12	1.3	1.7	0.204
W374	0.38	0.12	3.9	1.482	WD29	0.12	0.9	1.7	0.204

W375	0.622	0.12	3.9	2.4258	WD30	0.12	0.9	1.7	0.204
W376	0.193	0.4	3.9	0.7527	WD31	0.12	1	1.7	0.204
W377	4.82	0.12	3.9	18.798	WD32	0.12	0.9	1.7	0.204
W378	0.28	0.12	3.9	1.092	WD33	0.12	0.9	1.7	0.204
W379	1.363	0.12	3.9	5.3157	WD34	0.12	0.9	1.7	0.204
W380	5.91	0.12	3.9	23.049	WD35	0.12	0.9	1.7	0.204
W381	0.08	0.12	3.9	0.312	WD36	0.12	0.9	1.7	0.204
W382	0.08	0.12	3.9	0.312	WD37	0.12	0.9	1.7	0.204
W383	1.204	0.12	3.9	4.6956	WD38	0.12	0.9	1.7	0.204
W384	0.559	0.12	3.9	2.1801	WD39	0.12	0.9	1.7	0.204
W385	0.38	0.12	3.9	1.482	WD40	0.12	1	1.7	0.204
W386	4.093	0.12	3.9	15.9627	WD41	0.12	0.9	1.7	0.204
W387	2.744	0.12	3.9	10.7016	WD42	0.12	1.102	1.7	0.204
W388	0.224	0.12	3.9	0.8736	WD43	0.12	1.102	1.7	0.204
W389	0.064	0.12	3.9	0.2496	WD44	0.12	1.303	1.7	0.204
W390	0.198	0.12	3.9	0.7722	WD45	0.12	1.3	1.7	0.204
W391	2.308	0.12	3.9	9.0012	WD46	0.12	1.3	1.7	0.204
W392	0.162	0.12	3.9	0.6318	WD47	0.12	1.3	1.7	0.204
W393	4.04	0.12	3.9	15.756	WD48	0.12	1.102	1.7	0.204
W394	2.188	0.12	3.9	8.5332	WD49	0.12	1.102	1.7	0.204
W395	0.52	0.12	3.9	2.028	WD50	0.12	1.102	1.7	0.204
W396	0.724	0.12	3.9	2.8236	WD51	0.12	1.102	1.7	0.204
W397	0.4	0.12	3.9	1.56	WD52	0.12	1.3	1.7	0.204
W398	2.48	0.12	3.9	9.672	WD53	0.12	1.3	1.7	0.204
W399	2.296	0.12	3.9	8.9544	WD54	0.12	1.3	1.7	0.204
W400	0.201	0.12	3.9	0.7839	WD55	0.12	1.3	1.7	0.204
W401	3.622	0.64	3.9	14.1258	WD56	0.12	1.102	1.7	0.204
W402	2.332	0.12	3.9	9.0948	WD57	0.12	1.102	1.7	0.204
W403	2.332	0.12	3.9	9.0948	WD58	0.12	1.102	1.7	0.204
W404	5.02	0.12	3.9	19.578	WD59	0.12	1.102	1.7	0.204
W405	0.159	0.12	3.9	0.6201	WD60	0.12	1.3	1.7	0.204
W406	4.854	0.12	3.9	18.9306	WD61	0.12	1.3	1.7	0.204
W407	5.299	0.12	3.9	20.6661	WD62	0.12	1.3	1.7	0.204
W408	2.689	0.12	3.9	10.4871	WD63	0.12	1.3	1.7	0.204
W409	0.724	0.12	3.9	2.8236	WD64	0.12	1.102	1.7	0.204
W410	0.52	0.12	3.9	2.028	WD65	0.12	1.102	1.7	0.204
W411	0.604	0.12	3.9	2.3556	WD66	0.12	1.102	1.7	0.204
W412	2.28	0.12	3.9	8.892	WD67	0.12	1.102	1.7	0.204
W413	4.56	0.12	3.9	17.784	WD68	0.12	1.3	1.7	0.204
W414	2.182	0.12	3.9	8.5098	WD69	0.12	1.3	1.7	0.204
W415	0.12	0.08	3.9	0.468	WD70	0.12	1.3	1.7	0.204
W416	2.189	0.12	3.9	8.5371	WD71	0.12	1.3	1.7	0.204
W417	0.12	0.08	3.9	0.468	WD72	0.12	1.102	1.7	0.204

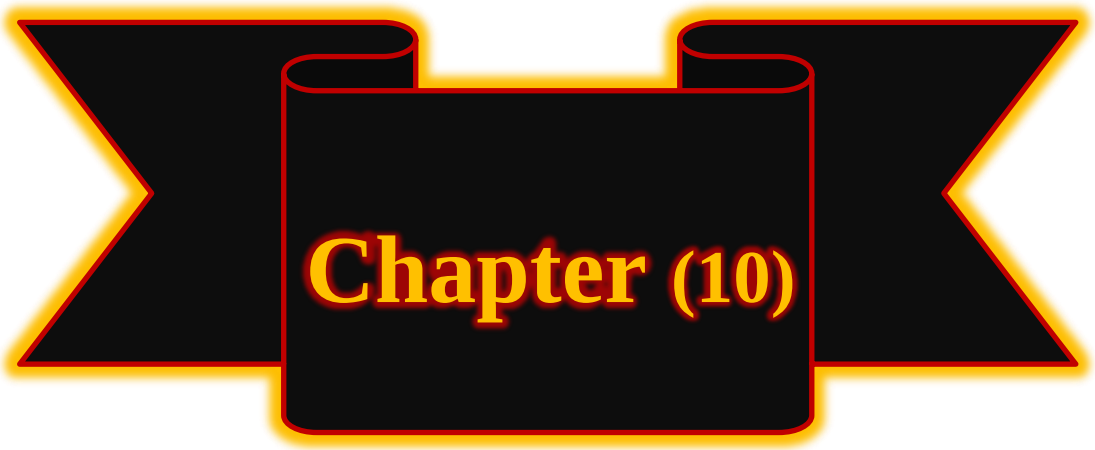
W418	0.12	0.08	3.9	0.468	WD73	0.12	1.102	1.7	0.204
W419	0.05	0.12	3.9	0.195	WD74	0.12	1.102	1.7	0.204
W420	0.12	0.104	3.9	0.468	WD75	0.12	1.102	1.7	0.204
W421	0.05	0.12	3.9	0.195	WD76	0.12	1.3	1.7	0.204
W422	0.12	0.104	3.9	0.468	WD77	0.12	1.3	1.7	0.204
W423	0.085	0.12	3.9	0.3315	WD78	0.12	1.3	1.7	0.204
W424	0.05	0.12	3.9	0.195	WD79	0.12	1.3	1.7	0.204
W425	0.071	0.12	3.9	0.2769	WD80	0.12	1.102	1.7	0.204
W426	0.05	0.12	3.9	0.195	WD81	0.12	1.102	1.7	0.204
W427	5.218	0.12	3.9	20.3502	WD82	0.12	1.102	1.7	0.204
W428	1.727	0.12	3.9	6.7353	WD83	0.12	1.102	1.7	0.204
W429	0.38	0.12	3.9	1.482	WD84	0.12	1.3	1.7	0.204
W430	0.379	0.12	3.9	1.4781	WD85	0.12	1.3	1.7	0.204
W431	1.693	0.12	3.9	6.6027	WD86	0.12	1.3	1.7	0.204
W432	5.753	0.12	3.9	22.4367	WD87	0.12	1.3	1.7	0.204
W433	6.35	0.12	3.9	24.765	WD88	0.12	1.102	1.7	0.204
W434	0.08	0.12	3.9	0.312	WD89	0.12	1.102	1.7	0.204
W435	0.08	0.12	3.9	0.312	WD90	0.12	1.102	1.7	0.204
W436	0.914	0.12	3.9	3.5646	WD91	0.12	1.102	1.7	0.204
W437	0.5	0.12	3.9	1.95	WD92	0.12	1.3	1.7	0.204
W438	0.38	0.12	3.9	1.482	WD93	0.12	1.3	1.7	0.204
W439	1.391	0.12	3.9	5.4249	WD94	0.12	1.3	1.7	0.204
W440	0.64	0.12	3.9	2.496	WD95	0.12	1.3	1.7	0.204
W441	0.52	0.12	3.9	2.028	WD96	0.12	1.102	1.7	0.204
W442	0.52	0.12	3.9	2.028	WD97	0.12	1.102	1.7	0.204
W443	0.4	0.12	3.9	1.56	WD98	0.12	1.102	1.7	0.204
W444	1.362	0.12	3.9	5.3118	WD99	0.12	1.102	1.7	0.204
W445	2.744	0.12	3.9	10.7016	WD100	0.12	1.3	1.7	0.204
W446	0.134	0.12	3.9	0.5226	WD101	0.12	1.3	1.7	0.204
W447	4.56	0.12	3.9	17.784	WD102	0.12	1.3	1.7	0.204
W448	2.184	0.12	3.9	8.5176	WD103	0.12	1.3	1.7	0.204
W449	2.184	0.12	3.9	8.5176	WD104	0.12	1.102	1.7	0.204
W450	2.48	0.12	3.9	9.672	WD105	0.12	1.102	1.7	0.204
W451	0.844	0.12	3.9	3.2916	WD106	0.12	1.102	1.7	0.204
W452	0.399	0.12	3.9	1.5561	WD107	0.12	1.102	1.7	0.204
W453	0.4	0.12	3.9	1.56	WD108	0.12	1.3	1.7	0.204
W454	2.689	0.12	3.9	10.4871	WD109	0.12	1.3	1.7	0.204
W455	0.08	0.12	3.9	0.312	WD110	0.136	1.3	1.7	0.2312
W456	0.08	0.12	3.9	0.312	WD111	0.12	1.3	1.7	0.204
W457	5.324	0.12	3.9	20.7636	WD112	0.12	1.102	1.7	0.204
W458	4.838	0.12	3.9	18.8682	WD113	0.12	1.102	1.7	0.204
W459	5.02	0.12	3.9	19.578	WD114	0.12	1.102	1.7	0.204
W460	5.898	0.12	3.9	23.0022	WD115	0.12	1.102	1.7	0.204

W461	2.296	0.12	3.9	8.9544	WD116	0.12	1.3	1.7	0.204
W462	2.48	0.12	3.9	9.672	WD117	0.12	1.3	1.7	0.204
W463	2.188	0.12	3.9	8.5332	WD118	0.12	1.3	1.7	0.204
W464	2.188	0.12	3.9	8.5332	WD119	0.12	1.3	1.7	0.204
W465	0.844	0.12	3.9	3.2916	WD120	0.12	1.102	1.7	0.204
W466	0.4	0.12	3.9	1.56	WD121	0.12	1.102	1.7	0.204
W467	0.4	0.12	3.9	1.56	WD122	0.12	1.102	1.7	0.204
W468	4.16	0.12	3.9	16.224	WD123	0.12	1.102	1.7	0.204
W469	0.136	0.12	3.9	0.5304	WD124	0.12	1.3	1.7	0.204
W470	0.226	0.12	3.9	0.8814	WD125	0.12	1.3	1.7	0.204
W471	0.05	0.12	3.9	0.195	WD126	0.12	1.6	1.7	0.204
W472	0.12	0.104	3.9	0.468	WD127	0.12	1.6	1.7	0.204
W473	0.05	0.12	3.9	0.195	WD128	0.12	1.3	1.7	0.204
W474	0.12	0.104	3.9	0.468	WD129	0.12	1.3	1.7	0.204
W475	0.085	0.12	3.9	0.3315	WD130	0.12	1.102	1.7	0.204
W476	0.05	0.12	3.9	0.195	WD131	0.12	1.102	1.7	0.204
W477	0.071	0.12	3.9	0.2769	WD132	0.12	1.5	1.7	0.204
W478	0.05	0.12	3.9	0.195	WD133	0.12	1.5	1.7	0.204
W479	0.4	0.12	3.9	1.56	WD134	0.12	1.5	1.7	0.204
W480	4.205	0.12	3.9	16.3995	WD135	0.12	1.5	1.7	0.204
W481	2.188	0.12	3.9	8.5332	WD136	0.12	1.5	1.7	0.204
W482	2.188	0.12	3.9	8.5332	WD137	0.12	1.5	1.7	0.204
W483	0.52	0.12	3.9	2.028	WD138	0.12	1.5	1.7	0.204
W484	0.724	0.12	3.9	2.8236	WD139	0.12	1.5	1.7	0.204
W485	0.4	0.12	3.9	1.56	WD140	0.12	1.5	1.7	0.204
W486	2.48	0.12	3.9	9.672	WD141	0.12	1.5	1.7	0.204
W487	2.296	0.12	3.9	8.9544	WD142	0.12	1.5	1.7	0.204
W488	5.955	0.12	3.9	23.2245	WD143	0.12	1.5	1.7	0.204
W489	5.02	0.12	3.9	19.578	WD144	0.12	1.5	1.7	0.204
W490	5.021	0.12	3.9	19.5819	WD145	0.12	1.5	1.7	0.204
W491	5.299	0.12	3.9	20.6661	WD146	0.09	1.5	1.7	0.153
W492	2.689	0.12	3.9	10.4871	WD147	0.12	1.5	1.7	0.204
W493	0.724	0.12	3.9	2.8236	WD148	0.12	1.5	1.7	0.204
W494	0.724	0.12	3.9	2.8236	WD149	0.12	1.5	1.7	0.204
W495	0.4	0.12	3.9	1.56	WD150	0.12	1.5	1.7	0.204
W496	2.28	0.12	3.9	8.892	WD151	0.12	1.5	1.7	0.204
W497	2.182	0.12	3.9	8.5098	WD152	0.12	1.5	1.7	0.204
W498	4.56	0.12	3.9	17.784	WD153	0.12	1.5	1.7	0.204
W499	2.189	0.12	3.9	8.5371	WD154	0.12	1.5	1.7	0.204
W500	0.12	0.08	3.9	0.468	WD155	0.12	1.5	1.7	0.204
W501	0.12	0.08	3.9	0.468	WD156	0.12	1.5	1.7	0.204
W502	0.186	0.12	3.9	0.7254	WD157	0.12	1.5	1.7	0.204
W503	0.08	0.12	3.9	0.312	WD158	0.12	1.5	1.7	0.204

W504	0.08	0.12	3.9	0.312	WD159	0.12	1.5	1.7	0.204
W505	4.56	0.12	3.9	17.784	WD160	0.12	1.5	1.7	0.204
W506	2.184	0.12	3.9	8.5176	WD161	0.12	1.5	1.7	0.204
W507	2.184	0.12	3.9	8.5176	WD162	0.12	1.5	1.7	0.204
W508	0.12	0.08	3.9	0.468	WD163	0.12	1.5	1.7	0.204
W509	2.48	0.12	3.9	9.672	WD164	0.12	0.9	1.7	0.204
W510	0.844	0.12	3.9	3.2916	WD165	0.12	0.9	1.7	0.204
W511	0.399	0.12	3.9	1.5561	WD166	0.12	0.9	1.7	0.204
W512	0.4	0.12	3.9	1.56	WD167	0.12	1	1.7	0.204
W513	0.12	0.08	3.9	0.468	WD168	0.12	0.9	1.7	0.204
W514	2.689	0.12	3.9	10.4871	WD169	0.12	1.7	1.7	0.204
W515	5.324	0.12	3.9	20.7636	WD170	0.12	0.9	1.7	0.204
W516	0.52	0.12	3.9	2.028	WD171	0.12	1	1.7	0.204
W517	0.4	0.12	3.9	1.56	WD172	0.12	0.9	1.7	0.204
W518	4.903	0.12	3.9	19.1217	WD173	0.12	1.7	1.7	0.204
W519	5.02	0.12	3.9	19.578	WD174	0.12	1.102	1.7	0.204
W520	5.898	0.12	3.9	23.0022	WD175	0.05	0.8	1.7	0.085
W521	2.296	0.12	3.9	8.9544	WD176	0.05	0.8	1.7	0.085
W522	2.48	0.12	3.9	9.672	WD177	0.12	1.1	1.7	0.204
W523	2.188	0.12	3.9	8.5332	WD178	0.05	0.8	1.7	0.085
W524	2.188	0.12	3.9	8.5332	WD179	0.05	0.8	1.7	0.085
W525	4.323	0.12	3.9	16.8597	WD180	0.12	1	1.7	0.204
W526	0.52	0.12	3.9	2.028	WD181	0.12	0.9	1.7	0.204
W527	0.724	0.12	3.9	2.8236	WD182	0.12	0.9	1.7	0.204
W528	0.4	0.12	3.9	1.56	WD183	0.12	1.03	1.7	0.204
W529	0.069	0.12	3.9	0.2691	WD184	0.12	0.9	1.7	0.204
W530	0.049	0.12	3.9	0.1911	WD185	0.123	1.5	1.7	0.2091
W531	0.12	0.08	3.9	0.468	WD186	0.12	1.3	1.7	0.204
W532	0.039	0.136	3.9	0.1521	WD187	0.12	1.501	1.7	0.204
W533	0.05	0.12	3.9	0.195	WD188	0.12	1.102	1.7	0.204
W534	0.12	0.104	3.9	0.468	WD189	0.12	1.102	1.7	0.204
W535	0.05	0.12	3.9	0.195	WD190	0.12	1.5	1.7	0.204
W536	0.12	0.104	3.9	0.468	WD191	0.12	1.1	1.7	0.204
W537	0.085	0.12	3.9	0.3315	WD192	0.12	1.3	1.7	0.204
W538	0.05	0.12	3.9	0.195	WD193	0.12	1.3	1.7	0.204
W539	0.05	0.12	3.9	0.195	WD194	0.12	1.3	1.7	0.204
W540	0.071	0.12	3.9	0.2769	WD195	0.12	1.3	1.7	0.204
W541	0.05	0.12	3.9	0.195	WD196	0.12	0.9	1.7	0.204
W542	0.12	0.104	3.9	0.468	WD197	0.12	1	1.7	0.204
W543	0.05	0.12	3.9	0.195	WD198	0.12	1.7	1.7	0.204
W544	0.12	0.104	3.9	0.468	WD199	0.12	0.9	1.7	0.204
W545	0.085	0.12	3.9	0.3315	WD200	0.12	0.9	1.7	0.204
W546	0.05	0.12	3.9	0.195	WD201	0.12	0.9	1.7	0.204

W547	0.05	0.12	3.9	0.195	WD202	0.12	1.5	1.7	0.204
W548	0.071	0.12	3.9	0.2769	WD203	0.12	1	1.7	0.204
W549	3.129	0.12	3.9	12.2031	WD204	0.12	1.7	1.7	0.204
W550	2.817	0.12	3.9	10.9863	WD205	0.12	0.9	1.7	0.204
W551	0.38	0.12	3.9	1.482	WD206	0.12	1	1.7	0.204
W552	0.379	0.12	3.9	1.4781	WD207	0.12	0.9	1.7	0.204
W553	3.043	0.12	3.9	11.8677	WD208	0.12	0.9	1.7	0.204
W554	4.553	0.12	3.9	17.7567	WD209	0.12	0.9	1.7	0.204
W555	7.25	0.12	3.9	28.275	WD210	0.12	1	1.7	0.204
W556	0.41	0.12	3.9	1.599	WD211	0.12	0.9	1.7	0.204
W557	1.894	0.12	3.9	7.3866	WD212	0.12	0.9	1.7	0.204
W558	4.244	0.12	3.9	16.5516	WD213	0.12	1.5	1.7	0.204
W559	4.162	0.12	3.9	16.2318	WD214	0.12	0.9	1.7	0.204
W560	2.188	0.12	3.9	8.5332	WD215	0.12	1	1.7	0.204
W561	0.198	0.12	3.9	0.7722	WD216	0.12	0.9	1.7	0.204
W562	0.162	0.12	3.9	0.6318	WD217	0.12	0.9	1.7	0.204
W563	0.52	0.12	3.9	2.028	WD218	0.12	0.9	1.7	0.204
W564	0.724	0.12	3.9	2.8236	WD219	0.11	0.9	1.7	0.187
W565	0.4	0.12	3.9	1.56	WD220	0.12	0.9	1.7	0.204
W566	2.48	0.12	3.9	9.672	WD221	0.12	0.9	1.7	0.204
W567	2.188	0.12	3.9	8.5332	WD222	0.12	0.9	1.7	0.204
W568	0.201	0.12	3.9	0.7839	WD223	0.12	1.7	1.7	0.204
W569	0.159	0.12	3.9	0.6201	WD224	0.12	1.3	1.7	0.204
W570	2.296	0.12	3.9	8.9544	WD225	0.12	1.3	1.7	0.204
W571	3.624	0.64	3.9	14.1336	WD226	0.12	1.3	1.7	0.204
W572	2.332	0.12	3.9	9.0948	WD227	0.12	1.302	1.7	0.204
W573	2.332	0.12	3.9	9.0948	WD228	0.12	1.102	1.7	0.204
W574	5.02	0.12	3.9	19.578	WD229	0.12	1.102	1.7	0.204
W575	4.87	0.12	3.9	18.993	WD230	0.12	1.5	1.7	0.204
W576	0.13	0.12	3.9	0.507	WD231	0.12	1.5	1.7	0.204
W577	5.299	0.12	3.9	20.6661	WD232	0.12	1.102	1.7	0.204
W578	2.689	0.12	3.9	10.4871	WD233	0.12	1.3	1.7	0.204
W579	0.724	0.12	3.9	2.8236	WD234	0.25	1.746	1.7	0.425
W580	0.52	0.12	3.9	2.028	WD235	0.25	1.701	1.7	0.425
W581	0.604	0.12	3.9	2.3556	WD236	0.25	1.802	1.7	0.425
W582	2.28	0.12	3.9	8.892	WD237	0.25	1.751	1.7	0.425
W583	2.182	0.12	3.9	8.5098	WD238	0.251	1.802	1.7	0.4267
W584	0.08	0.12	3.9	0.312	WD239	0.251	1.751	1.7	0.4267
W585	0.08	0.09	3.9	0.312	WD240	0.25	4.276	1.7	0.425
W586	4.56	0.12	3.9	17.784	WD241	0.25	4.225	1.7	0.425
W587	2.189	0.12	3.9	8.5371	WD242	0.25	4.522	1.7	0.425
W588	0.08	0.12	3.9	0.312	WW1	0.12	1.45	2.5	0.3
W589	0.34	0.12	3.9	1.326	WW2	0.12	1.45	2.5	0.3

W590	4.56	0.12	3.9	17.784	WW3	0.12	1.45	2.5	0.3
W591	2.184	0.12	3.9	8.5176	WW4	0.12	1.45	2.5	0.3
W592	0.12	0.08	3.9	0.468	WW5	0.12	1.45	2.5	0.3
W593	0.08	0.12	3.9	0.312	WW6	0.12	1.45	2.5	0.3
W594	2.48	0.12	3.9	9.672	WW7	0.12	1.46	2.5	0.3
W595	0.844	0.12	3.9	3.2916	WW8	0.12	1.45	2.5	0.3
W596	0.399	0.12	3.9	1.5561	WW9	0.12	1.45	2.5	0.3
W597	0.4	0.12	3.9	1.56	WW10	0.12	1.45	2.5	0.3
W598	2.184	0.12	3.9	8.5176	WW11	0.12	1.45	2.5	0.3
W599	0.08	0.12	3.9	0.312	WW12	0.12	1.45	2.5	0.3
W600	0.34	0.12	3.9	1.326	WW13	0.12	1.45	2.5	0.3
W601	2.689	0.12	3.9	10.4871	WW14	0.12	1.45	2.5	0.3
W602	5.324	0.12	3.9	20.7636	WW15	0.12	1.45	2.5	0.3
W603	0.52	0.12	3.9	2.028	WW16	0.12	1.45	2.5	0.3
W604	0.4	0.12	3.9	1.56	WW17	0.12	1.45	2.5	0.3
W605	4.556	0.12	3.9	17.7684	WW18	0.12	1.45	2.5	0.3
W606	4.992	0.12	3.9	19.4688	WW19	0.12	1.45	2.5	0.3
W607	0.05	0.136	3.9	0.195	WW20	0.12	1.45	2.5	0.3
W608	0.134	0.12	3.9	0.5226	WW21	0.12	1.45	2.5	0.3
W609	5.898	0.12	3.9	23.0022	WW22	0.12	1.7	2.5	0.3
W610	2.296	0.12	3.9	8.9544	WW23	0.12	1.7	2.5	0.3
W611	2.48	0.12	3.9	9.672	WW24	0.12	1.45	2.5	0.3
W612	2.188	0.12	3.9	8.5332	WW25	0.12	1.7	2.5	0.3
W613	0.224	0.12	3.9	0.8736	WW26	0.12	1.7	2.5	0.3
W614	0.136	0.12	3.9	0.5304	WW27	0.12	1.7	2.5	0.3
W615	4.16	0.12	3.9	16.224	WW28	0.12	1.45	2.5	0.3
W616	0.844	0.12	3.9	3.2916	WW29	0.12	1.7	2.5	0.3
W617	0.4	0.12	3.9	1.56	WW30	0.121	1.45	2.5	0.3025
W618	0.4	0.12	3.9	1.56	WW31	0.12	1.5	2.5	0.3
W619	2.188	0.12	3.9	8.5332	WW32	0.12	1.45	2.5	0.3
W620	0.085	0.12	3.9	0.3315					


Chapter (10)

Project Resources & Crew Formation

10.1 Project resources:

10.1.1 Labor resource identification:

Tabel 13 Labor Recourses

Code	Description	Rate/day	Basic Rate
L1	Commanda	564.3L.E	513.0L.E
L2	assistant worker	480.7L.E	437.0L.E
L3	Formal	385.0L.E	350.0L.E
L4	Driver Heavy Equipment	550.0L.E	500.0L.E
L5	Carpenter	605.0L.E	550.0L.E
L6	A builder	775.5L.E	705.0L.E
L7	Mortar preparation worker	495.0L.E	450.0L.E
L8	Brick laying worker	550.0L.E	500.0L.E
L9	Technical worker	660.0L.E	600.0L.E
L10	Plasterer	775.5L.E	705.0L.E
L11	Smith	605.0L.E	550.0L.E
L12	Carpenter's assistant	385.0L.E	350.0L.E
L13	Blacksmith's assistant	385.0L.E	350.0L.E
L14	Vibrator	275.0L.E	250.0L.E
L15	Insulation worker	627.0L.E	570.0L.E
L16	Insulation's assistant	480.7L.E	437.0L.E
L17	Ceramic worker	836.0L.E	760.0L.E
L18	Ceramic assistant	480.7L.E	437.0L.E
L19	Brick laying assistant	275.0L.E	250.0L.E
L20	Plasterer assistant	352.0L.E	320.0L.E
L21	Shuttering Worker for Cladding	1,760.0L.E	1,600.0L.E
L22	Glass Worker For Cladding	1,760.0L.E	1,600.0L.E
L23	Aluminum Worker for Cladding	1,760.0L.E	1,600.0L.E

10.2 Equipment resource identification:

Tabel 14 Equipment Resources

Code	Description	Rate/day	Basic Rate
E1	Excavator	3,300.0L.E	3,000.0L.E
E2	Loader	2,508.0L.E	2,280.0L.E
E3	bulldozer	2,750.0L.E	2,500.0L.E
E4	mash	3,553.0L.E	3,230.0L.E
E5	Tractor	4,807.0L.E	4,370.0L.E
E6	Dumpers	2,200.0L.E	2,000.0L.E
E7	winch	7,733.0L.E	7,030.0L.E
E8	concrete transport trucks	2,200.0L.E	2,000.0L.E
E9	Mechanical vibrator	1,100.0L.E	1,000.0L.E
E10	Bump	2,200.0L.E	2,000.0L.E

10.3 Project resources
(Labor & material):

Tabel 15 Project Resources

Tanta General Hospital-Final	Current Project's Resources			11/6/2024 00:40
Resource ID	Resource Name	Resource Type	Unit of Me:	Standard Rate	Max
R-207	Aluminum Works	Labor		295,735.93 EGP/d	1d/d
R-158	Workers	Labor		480.70 EGP/d	1d/d
R-159	Forger	Labor		385.00 EGP/d	1d/d
R-160	Insulation Worker	Labor		627.00 EGP/d	1d/d
R-161	Marble Installer	Labor		836.00 EGP/d	1d/d
R-162	plasterer	Labor		775.50 EGP/d	1d/d
R-173	Ceramic Installer	Labor		836.00 EGP/d	1d/d
R-176	Bricklayer	Labor		550.00 EGP/d	1d/d
R-177	Steel Fixer	Labor		605.00 EGP/d	1d/d
R-180	Carpenter	Labor		605.00 EGP/d	1d/d
R-182	Worker	Labor		2,508.00 EGP/d	1d/d
R-183	Steel FixerAssistant	Labor		385.00 EGP/d	1d/d
R-184	CarpenterAssistant	Labor		385.00 EGP/d	1d/d
R-185	BricklayerAssistant	Labor		275.00 EGP/d	1d/d
R-186	plastererAssistant	Labor		352.00 EGP/d	1d/d
R-187	Marble InstallerAssistant	Labor		480.70 EGP/d	1d/d
R-188	Ceramic InstallerAssistant	Labor		480.70 EGP/d	1d/d
R-189	Insulation Assistant	Labor		480.70 EGP/d	1d/d
R-190	Preliminary Sanitary	Labor		27,635.12 EGP/d	1d/d
R-191	Preliminary carbntry	Labor		294,150.79 EGP/d	1d/d
R-193	Preliminary Electrical	Labor		2,761,210.10 EGP/d	1d/d
R-194	Metal Works	Labor		114,822.50 EGP/d	1d/d
R-195	Preliminary HVAC	Labor		2,230,537.14 EGP/d	1d/d
R-196	Preliminary Fire Fighting	Labor		1,659,428.57 EGP/d	1d/d
R-197	Primary Painting	Labor		82,500.00 EGP/d	1d/d
R-198	Finishing Carpentry	Labor		441,226.20 EGP/d	1d/d
R-199	Finishing Electrical	Labor		1,661,211.09 EGP/d	1d/d
R-200	Finishing Sanitary	Labor		62,179.85 EGP/d	1d/d
R-201	Finishing HVAC	Labor		5,550,895.22 EGP/d	1d/d
R-202	Finishing Fire Fighting	Labor		4,873,390.50 EGP/d	1d/d
R-203	Glass Work	Labor		1,117,817.50 EGP/d	1d/d
R-204	Finisishing Painting	Labor		165,000.00 EGP/d	1d/d
R-205	Suspended Ceiling	Labor		267,229.00 EGP/d	1d/d
R-208	Elevator Works	Labor		1,833,333.00 EGP/d	1d/d
R-209	Elevator Instaliation	Labor		78,571.43 EGP/d	1d/d
R-210	Form Work for Cladding	Labor		21,120.00 EGP/d	1d/d
R-211	Glass Work for Cladding	Labor		21,120.00 EGP/d	1d/d
R-212	Aluminum Work for Cladding	Labor		7,040.00 EGP/d	1d/d
R-213	Road Paving Works for General Site	Labor		853,187.50 EGP/d	1d/d
R-214	Installing interlock Tiles for General Site	Labor		977,625.00 EGP/d	1d/d
R-151	Sand	Material	m3	126.50 EGP/m3	1m3/d
R-152	Bitumin	Material	Barrmel	3,630.00 EGP/Barrmel	1Barrmel/d
R-155	water	Material	m3	55.00 EGP/m3	1m3/d
R-157	polystyrene	Material	m2	38.50 EGP/m2	1m2/d
R-163	Steel	Material	Ton	44,000.00 EGP/Ton	1Ton/d
R-164	Ceramic	Material	m2	137.50 EGP/m2	1m2/d
R-166	Marble	Material	m2	517.00 EGP/m2	1m2/d
R-170	Deawstring Wire	Material	kg	66.00 EGP/kg	1kg/d
R-172	blocks	Material	1000	2,640.00 EGP/Unit	1Unit/d
R-174	cement	Material	Ton	2,420.00 EGP/Ton	1Ton/d
R-175	brick	Material	1000	2,640.00 EGP/Unit	1Unit/d

R-178	sika top seal -107	Material	m2	126.50 EGP/m2	1m2/d
R-179	Insusint N3000	Material	m2	660.00 EGP/m2	1m2/d
R-181	strings	Material	Roll	13.20 EGP/Roll	1Roll/d
R-1	Dewatering truck	Nonlabor		150.00 EGP/d	1d/d
Lo-1	loader	Nonlabor		2,508.00 EGP/d	1d/d
R-153	Excavator	Nonlabor		3,300.00 EGP/d	1d/d
mash-2	mash	Nonlabor		3,553.00 EGP/d	1d/d
pum-2	pump	Nonlabor		2,200.00 EGP/d	1d/d
vib-2	Vibrator for concrete	Nonlabor		1,100.00 EGP/d	1d/d
R-169	concrete transport trucks	Nonlabor		2,200.00 EGP/d	1d/d
R-206	tractor	Nonlabor		4,807.00 EGP/d	1d/d

10.4 Crew formation:

The following is the crew formation according to the work type, consisting of labors and equipment, and the crew total cost per time unit.

Tabel 16 Crew Formation

Code	Description	Rate/d	NoR1	Res1	NoR2	Res2	NoR3	Res3	NoR4	Res4	Prod/day
CR-01	Excavation Crew	31,805L.E	2.00	L2	2.00	E1	4.00	E5	2.00	E2	300 m^3
CR-02	Backfilling Crew	40,964L.E	2.00	E2	6.00	E5	2.00	E4			350 m^3
CR-03	Shuttering P.C Crew	1,980L.E	2.00	L5	2.00	L12					330m^3
CR-04	Pouring P.C Crew	271,370L.E	2.00	L3	120.00	E8	2.00	E9	2.00	E10	1000 m^3
CR-05	Shuttering Raft Crew	4,730L.E	4.00	L5	6.00	L12					500 m^3
CR-6	Steel Fixing Raft	17,875L.E	20.00	L11	15.00	L13					30 Ton
CR-7	Pouring Raft. Crew	1,770,725L.E	5.00	L3	800.00	E8	2.00	E10	4.00	E9	330 m^3
CR-8	Insulation crew	4,765L.E	3.00	L15	6.00	L16					750 m^2
CR-9	Shuttering crew For Column	4,730L.E	4.00	L5	6.00	L12					50 m^3
CR-10	Shuttering crew For Slab	5,940L.E	6.00	L5	6.00	L12					150 m^3/d
CR-11	Steel Fixing Column	7,920L.E	8.00	L11	8.00	L13					3.5 ton/d
CR-12	Steel Fixing Slab	12,760L.E	16.00	L11	8.00	L13					10 ton/d
CR-13	Steel Fixing Stairs	3,740L.E	3.00	L11	5.00	L13					4 ton/d
CR-14	Building Crew	8,250L.E	10.00	L8	10.00	L19					400 m^2/d
CR-15	Plastering crew	11,275L.E	10.00	L10	10.00	L20					150 m^2/d
CR-16	Ceramic Crew	13,167L.E	10.00	L17	10.00	L18					350 m^2/d
CR-17	Insulation Foundation	5,392L.E	4.00	L15	6.00	L16					500 m^2/d
CR-18	Pouring Columns	84,370L.E	2.00	L3	34.00	E8	2.00	E10	4.00	E9	25 m^2/d
CR-19	Pouring Slab	365,255L.E	3.00	L3	160.00	E8	3.00	E10	5.00	E9	160 m^2/d

CR-20	Shuttering for Stairs of Ground floor	1,375L.E	1.00	L5	2.00	L12					160 m^3/d
CR-21	Shuttering Formwork for Cladding	10,560L.E	6.00	L21							100 m^2/d
CR-22	Glass Work for Cladding	10,560L.E	6.00	L22							36 m^2/d
CR-23	Aluminum Work For Cladding	3,520L.E	2.00	L23							900 m/d
CR-24	Preliminary Plastering	2,255L.E	2.00	L20	2.00	L10					150 m^2/d
CR-25	Pouring for Stairs	13,970L.E	2.00	L3	3.00	E8	2.00	E9	2.00	E10	$31m^2$

Resources of material:

Tabel 17 Material

Code	Description	Cost/Unit	Basic (LE/Unit)	Unit
M1	**Cement**	**2,420.0L.E**	**2,200.000 L.E**	**Ton**
M2	**Sand**	**126.5L.E**	**115.000 L.E**	**M3**
M3	**Steel**	**44,000.0L.E**	**40,000.000 L.E**	**Ton**
M4	**Crushed stone**	**192.5L.E**	**175.000 L.E**	**M2**
M5	**Bitumen**	**3,630.0L.E**	**3,300.000 L.E**	**Barrel**
M6	**Water**	**55.0L.E**	**50.000 L.E**	**M3**
M7	**bricks**	**2,640.0L.E**	**2,400.000 L.E**	**1000.00**
M8	**Deawstring wire**	**66.0L.E**	**60.000 L.E**	**Kg**
M9	**Ceramic**	**137.5L.E**	**125.000 L.E**	**M2**
M10	**Grout**	**16.5L.E**	**15.000 L.E**	**Kg**
M11	**Marble**	**517.0L.E**	**470.000 L.E**	**M2**
M12	**Cladding**	**1,045.0L.E**	**950.000 L.E**	**M2**
M13	**Thermal insulation**	**2,942.5L.E**	**2,675.000 L.E**	**M2**
M14	**Paints**	**165.0L.E**	**150.000 L.E**	**M2**
M15	**Insusint N3000**	**660.0L.E**	**600.000 L.E**	**M2**
M16	**Sika top Seal -107**	**126.5L.E**	**115.000 L.E**	**M2**
M17	**polystyrene**	**38.5L.E**	**35.000 L.E**	**M2**
M18	**strings**	**13.2L.E**	**12.000 L.E**	**Roll**

10.5 Resources Histogram:

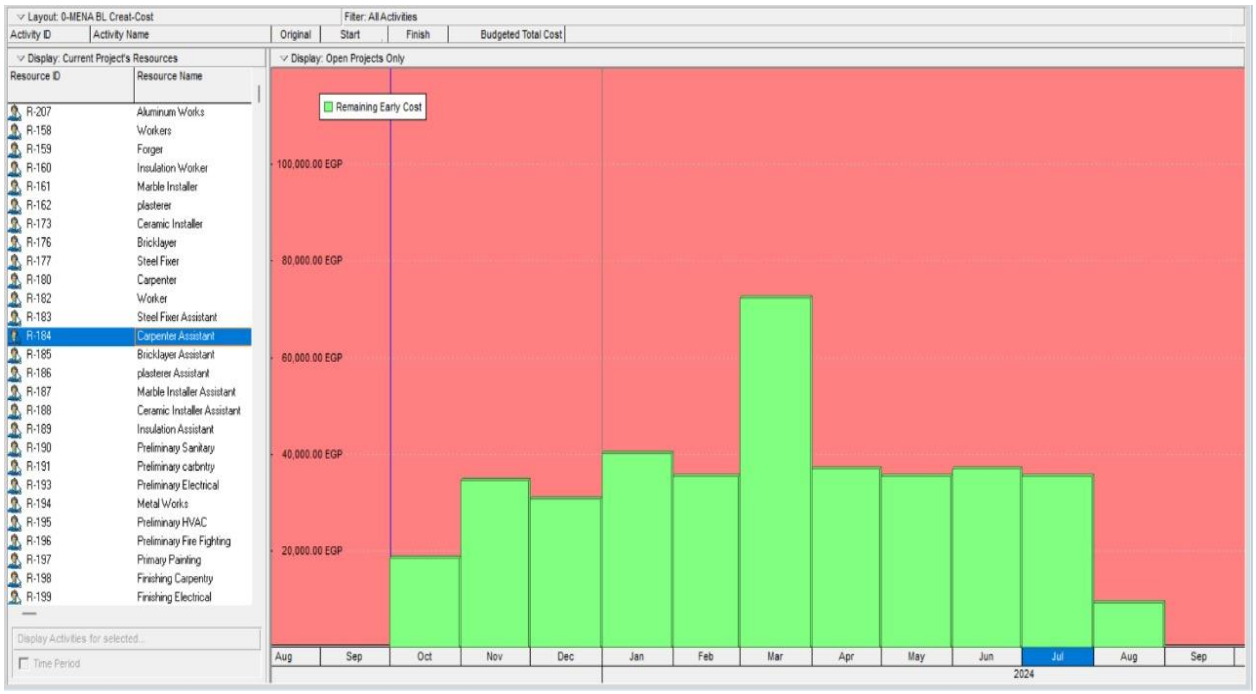


Figure 35 Carpenter Assistant Crews

Figure 36 Steel Fixer Crews

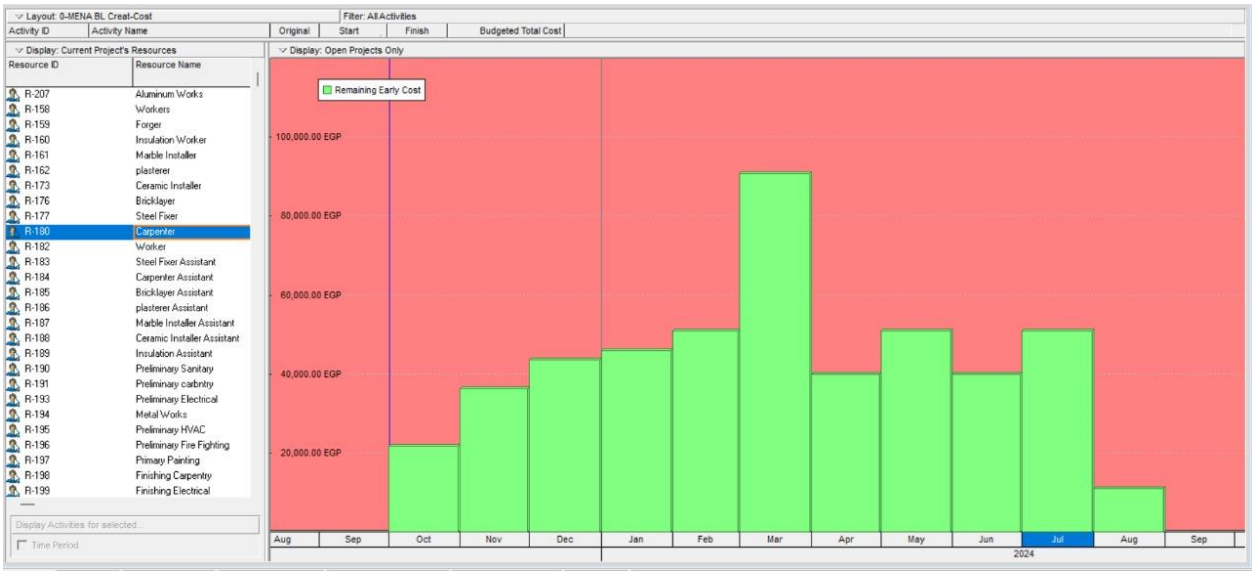
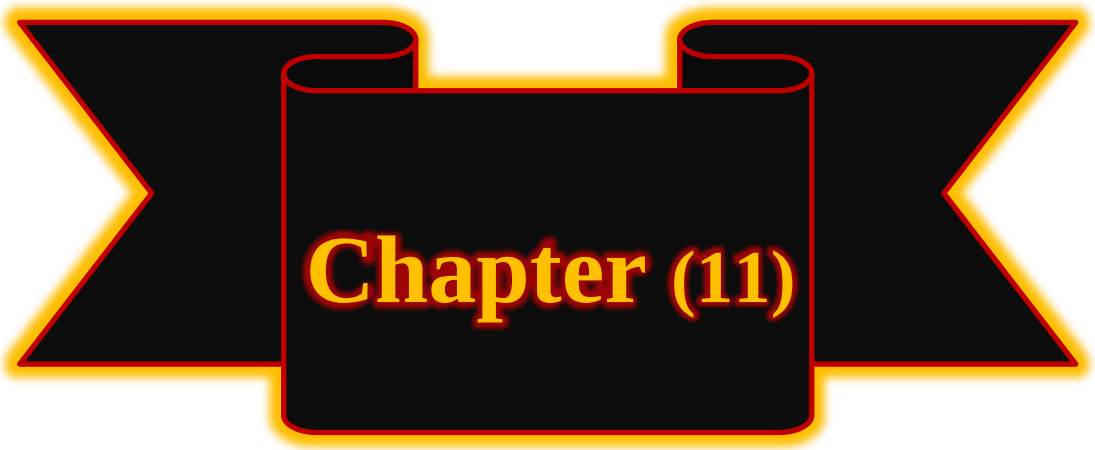


Figure 37 Carpenter crews

Figure 38 Vibrator for concrete Crews

Figure 39 Pump crews


Chapter (11)

Project Planning & Project Schedule

11.1What is Project Planning:

Project planning refers to the phase in project management in which you determine the actual steps to complete a project. This includes laying out timelines, establishing the budget, setting milestones, assessing risks, and solidifying tasks and assigning them to team members.

11.2Components of a project plan

During the planning phase of the project management lifecycle, you'll determine the steps to achieve your project goals. This is the "how" of completing the project.

The components of project planning are: tasks, milestones, people, documentation, and time. This step involves outlining your project scope, objectives, and timeline to make sure all stakeholders are on the same page.

Tasks: Tasks are activities that need to be accomplished within a set period of time. These are assigned to different members of the team according to their role and skill set.

Milestones: To go along with tasks, milestones are important points within the schedule that indicate progress. They tend to signify the completion of a deliverable or phase of the project.

People: A project plan also includes the people working on your team and their roles. It's important that each team member understands their role and the tasks they're responsible for completing. Ensuring that everyone is clear on their assigned tasks frees you up to focus on managing the project, ultimately creating a sense of personal responsibility for team members.

Documentation: During the project planning phase, it is a good idea to draft a project plan that links to relevant documentation. Besides your project plan, you can include documents like a RACI chart (Responsibility Assignment Matrix), which defines roles and responsibilities for individuals on your team. Another document is your charter which defines the project and outlines the details needed to reach your goals. You can include a budget and risk management plan, if relevant.

Time: Project plans should include the estimated duration of the project. How much time will be spent on each part? The schedule will be the anchor of your project plan. It includes dates for starting and completing tasks, and dates (deadlines) for reaching specific milestones. Indicating the project's start and end dates will help situate this project among competing priorities, and helps

determine resources (including people) needed and when you'll need them.

11.3 What Is a Project Schedule?

A project schedule is a timetable that organizes tasks, resources and due dates in an ideal sequence so that a project can be completed on time. A project schedule is created during the planning phase and includes the following:

- A project timeline with start dates, end dates and milestones.
- The work necessary to complete the project deliverables.
- The costs, resources and dependencies associated with each task.
- The team members that are responsible for each task.

11.4 What's Included in a Project Schedule?

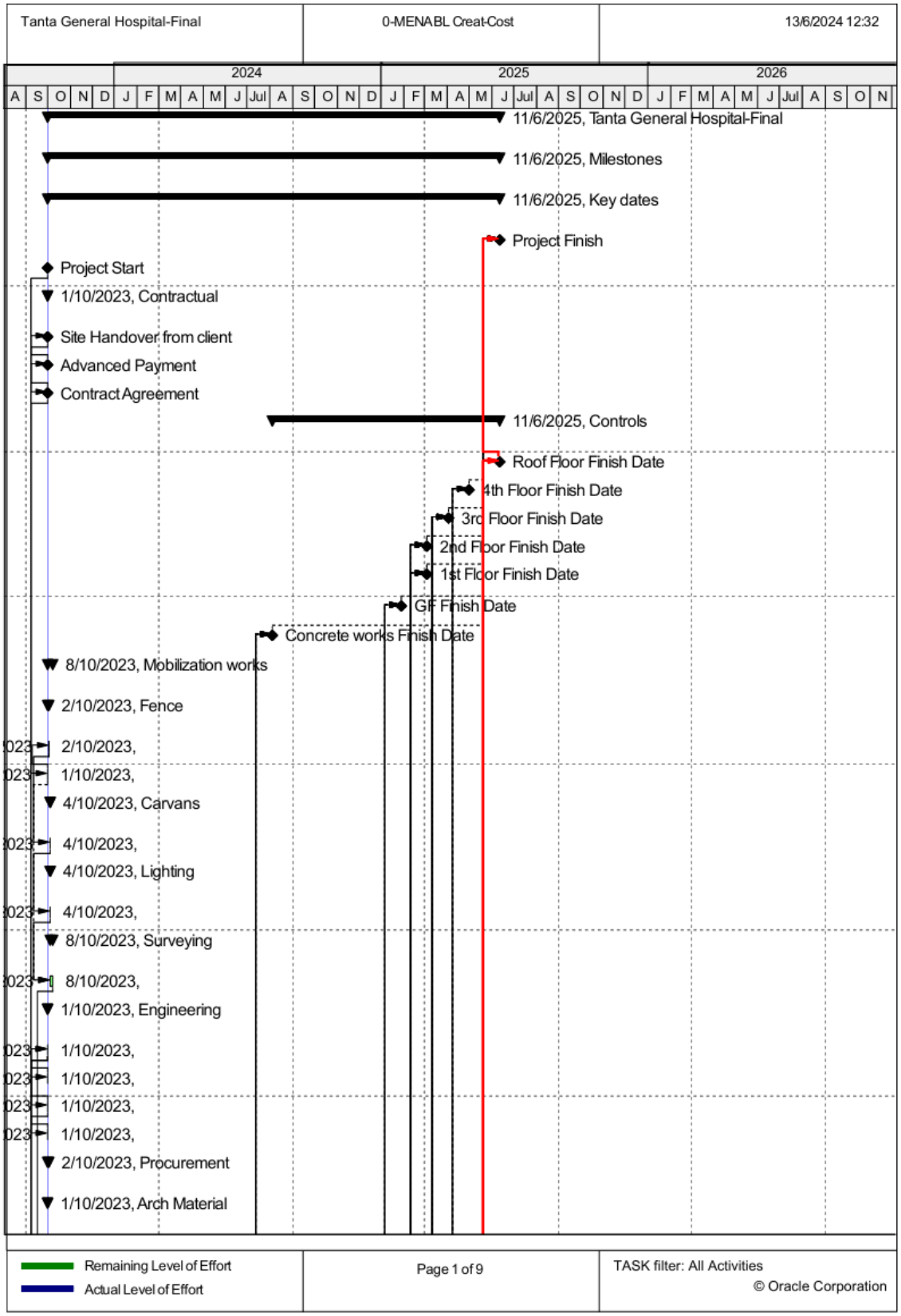
Project schedules are created during the project planning phase and are crucial to the creation of a project plan, where the schedule plan, schedule baseline, deliverables and requirements are identified. The project schedule is designed to guide the project team throughout the execution phase of the project.

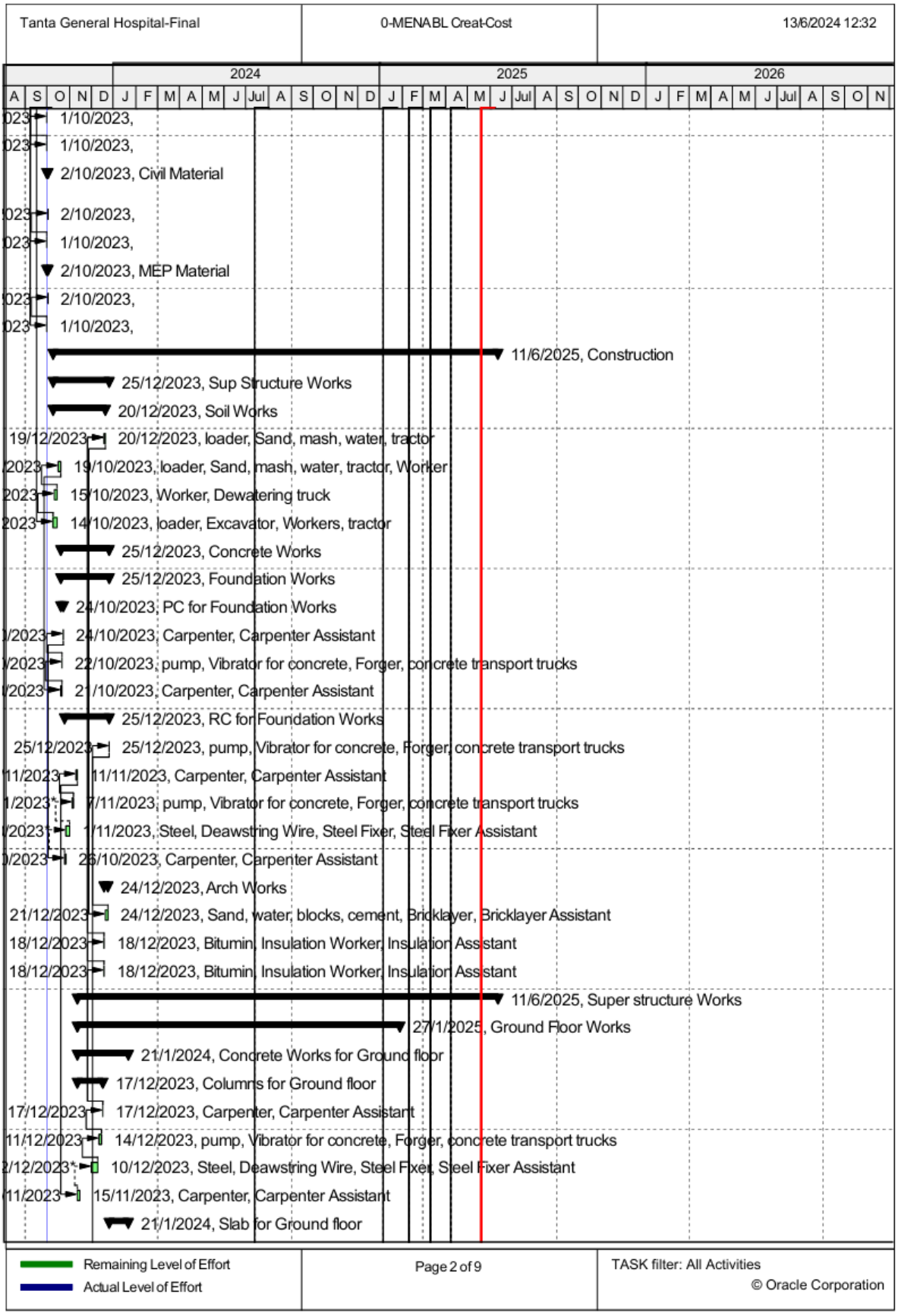
Then, during the execution phase, the schedule baseline is compared against the actual project progress. The following are included in the creation of a project schedule:

1) Deliverables
2) Tasks
3) Task start and end dates
4) Task dependencies
5) Project calendar
6) Work packages
7) Task duration and project timeline
8) Budgets
9) Resource availability
10) Schedule risk analysis

11.5 Construction Sequence:

Figure 40 Gant Chart

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15/10/2023, Worker, Dewatering truck
14/10/2023, loader, Excavator, Workers, tractor
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Page 2 of 9
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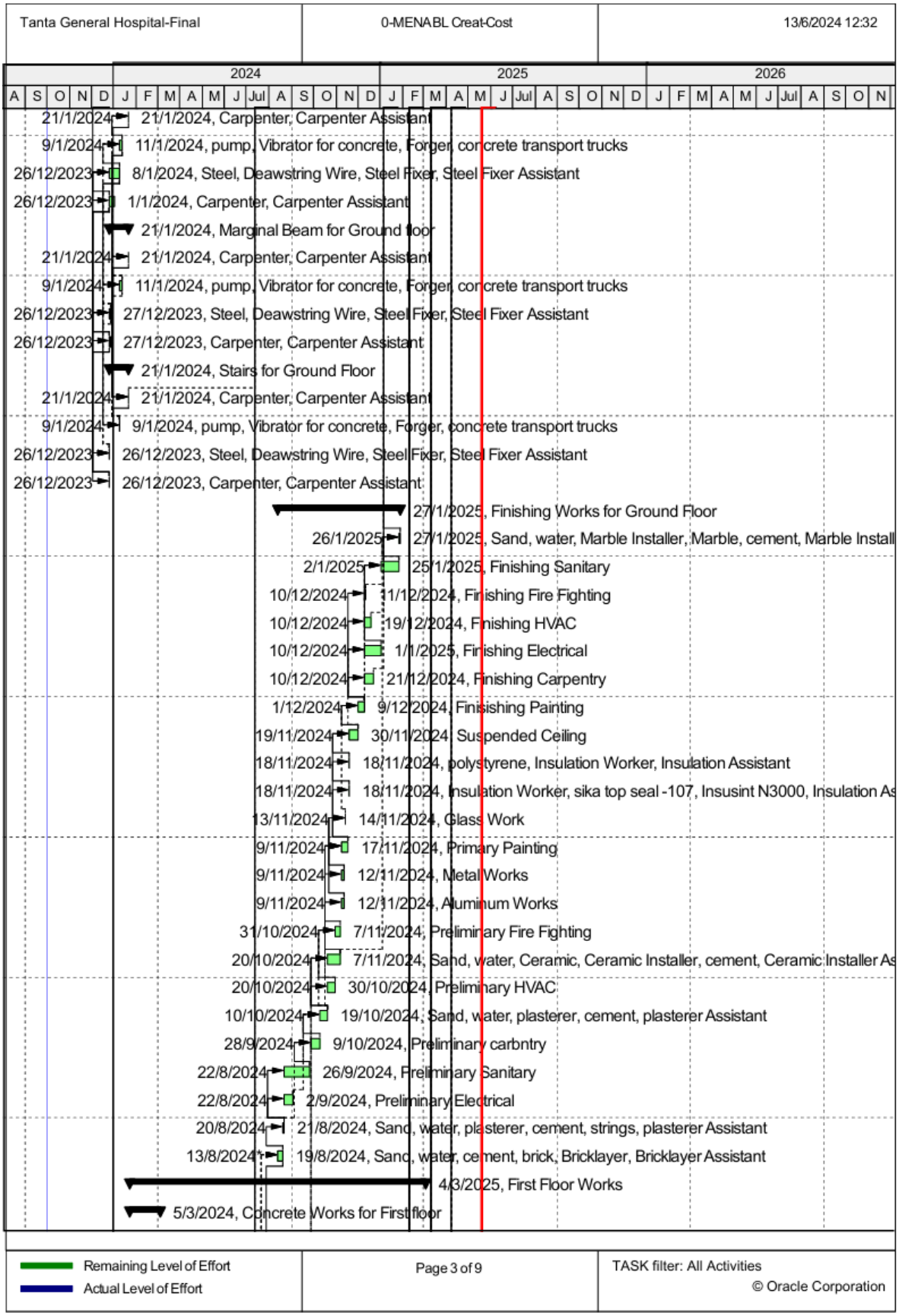
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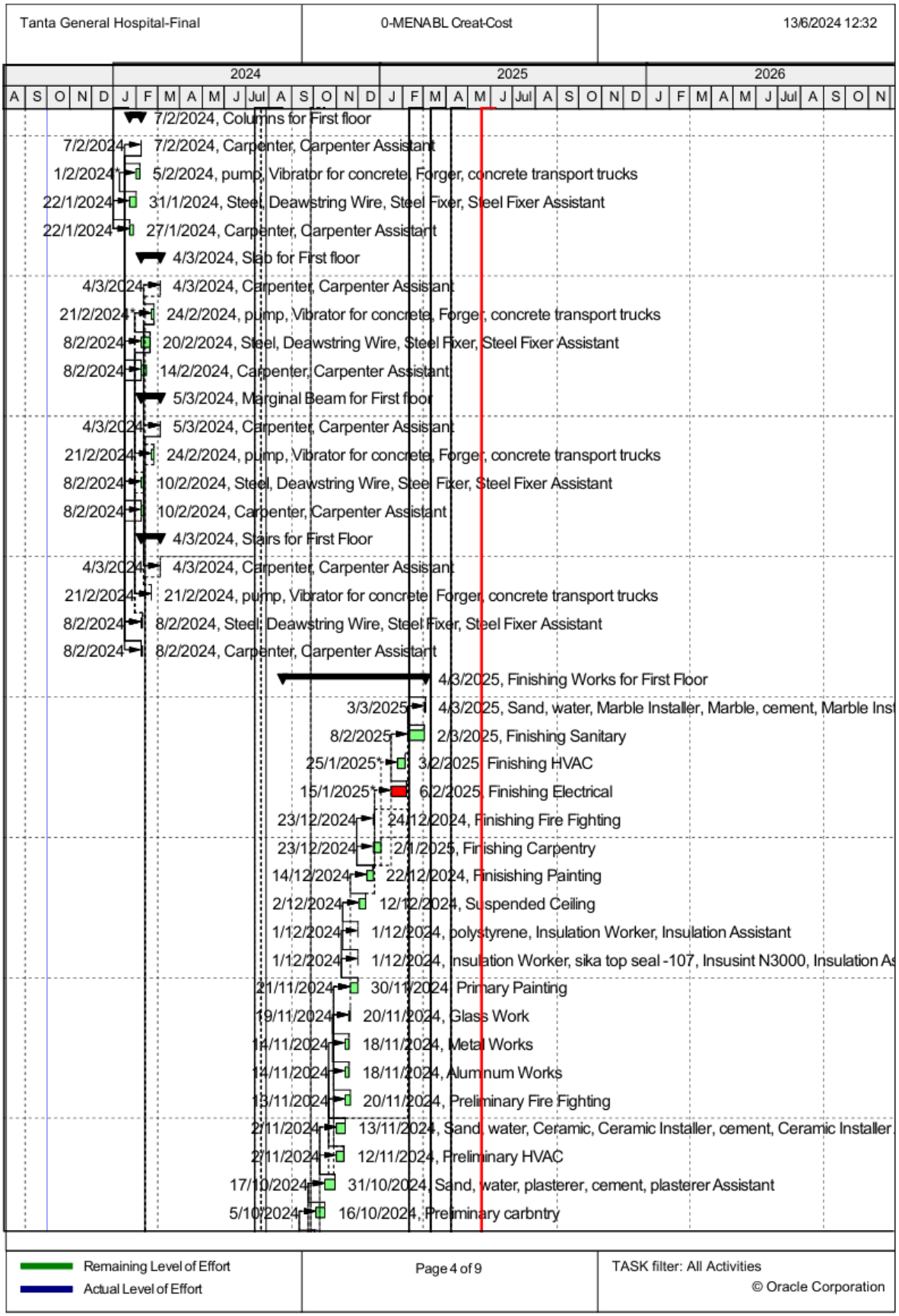
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Page 4 of 9
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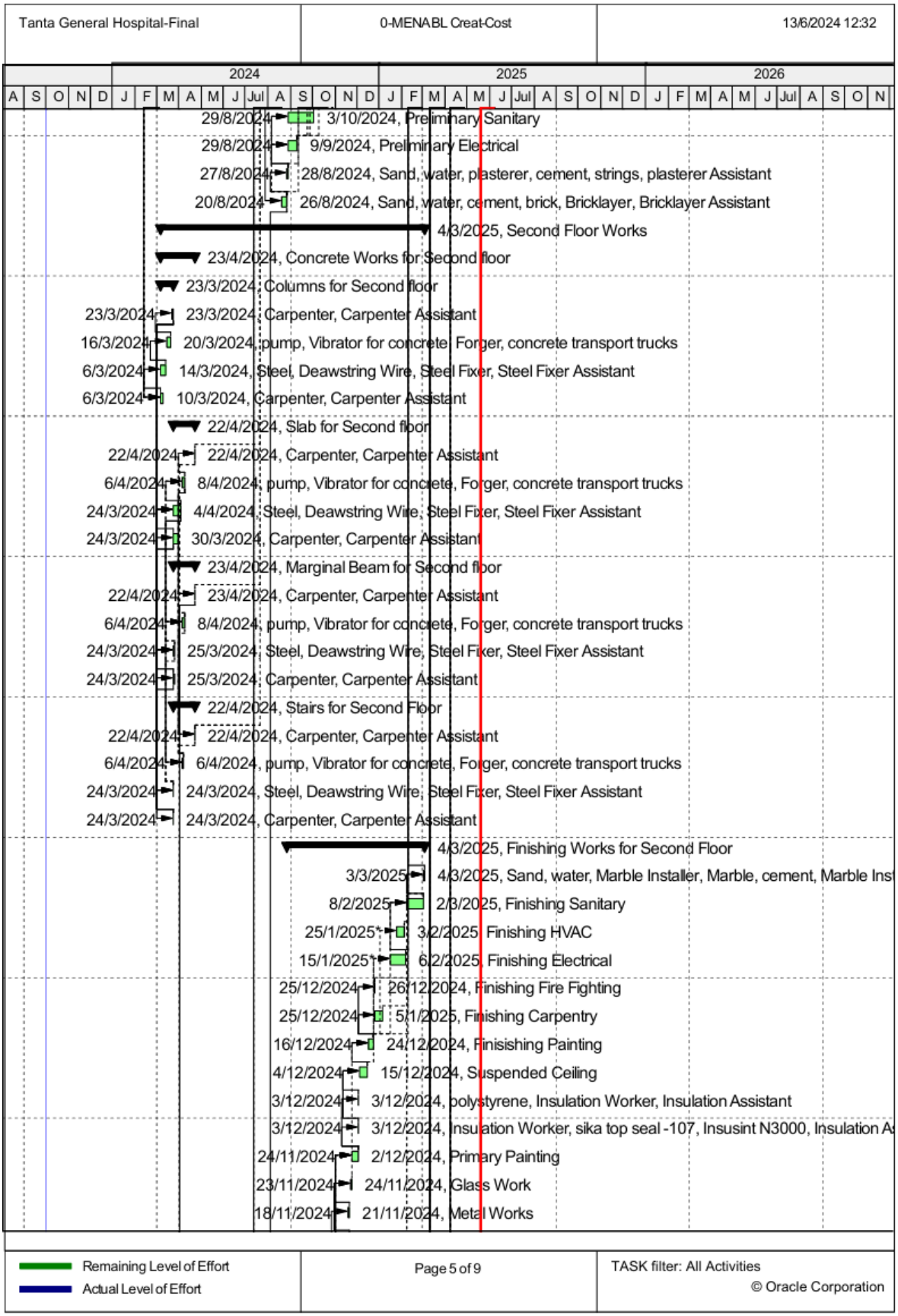
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Page 5 of 9
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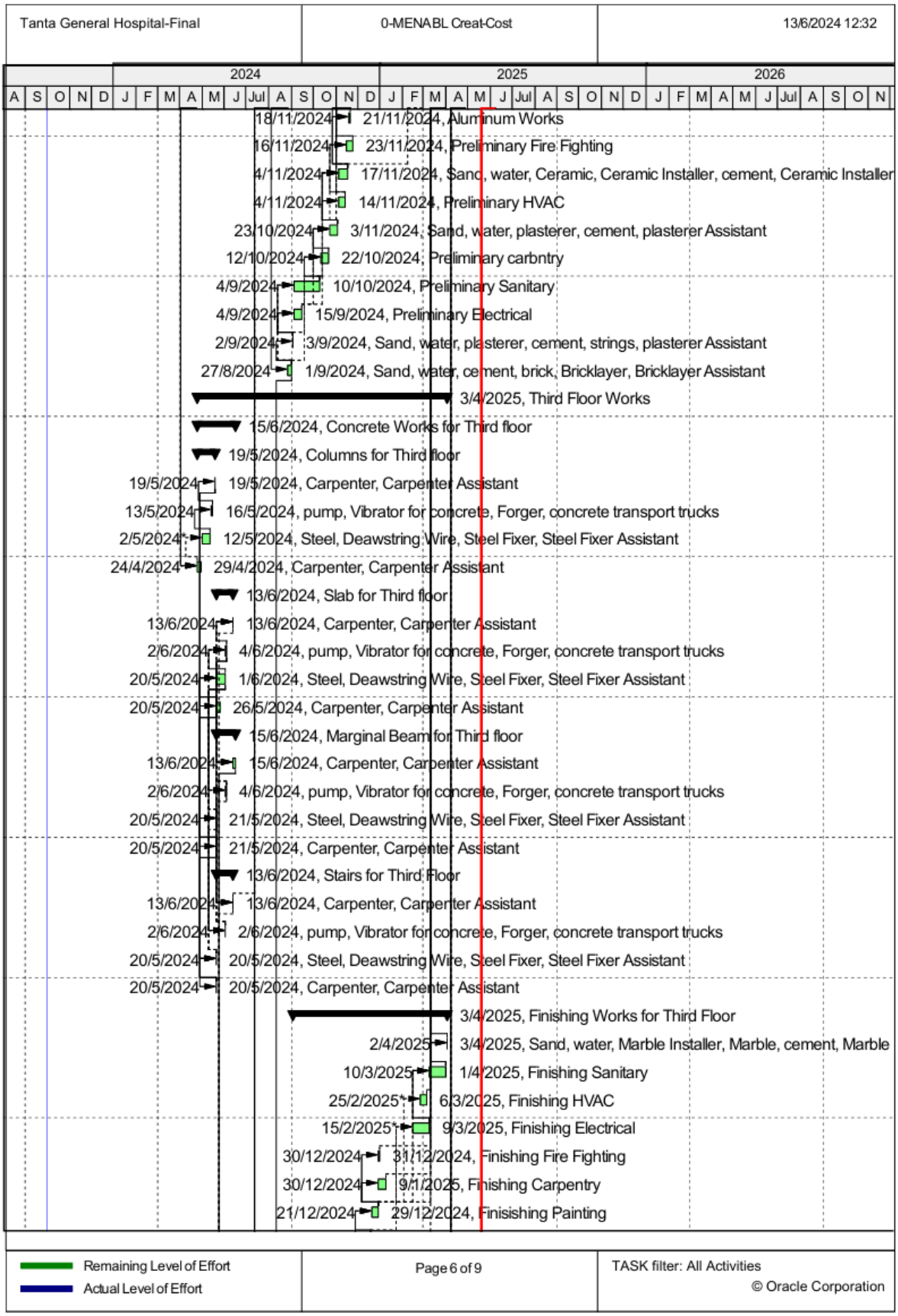
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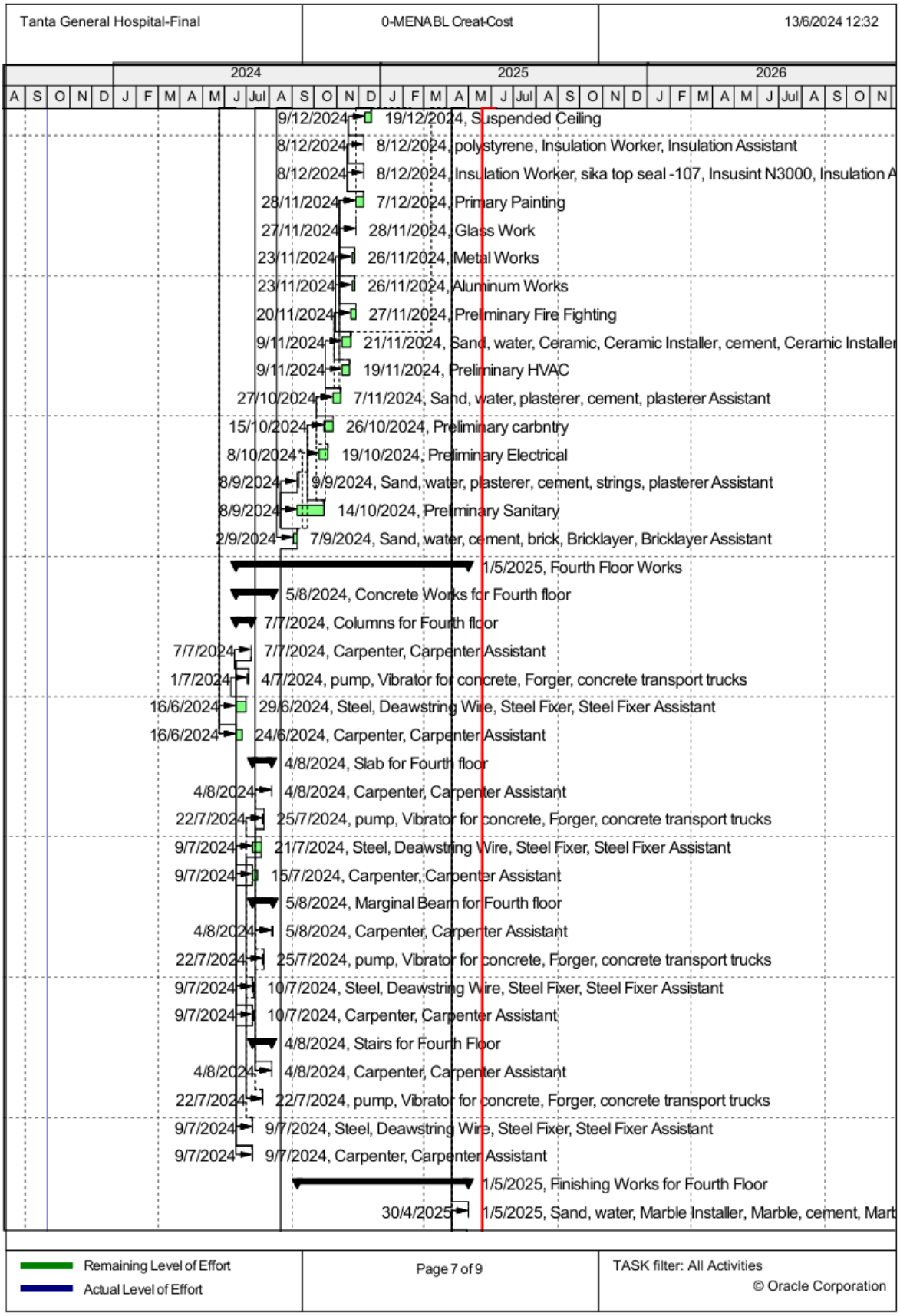
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30/4/2025 1/5/2025, Sand, water, Marble Installer, Marble, cement, Mart
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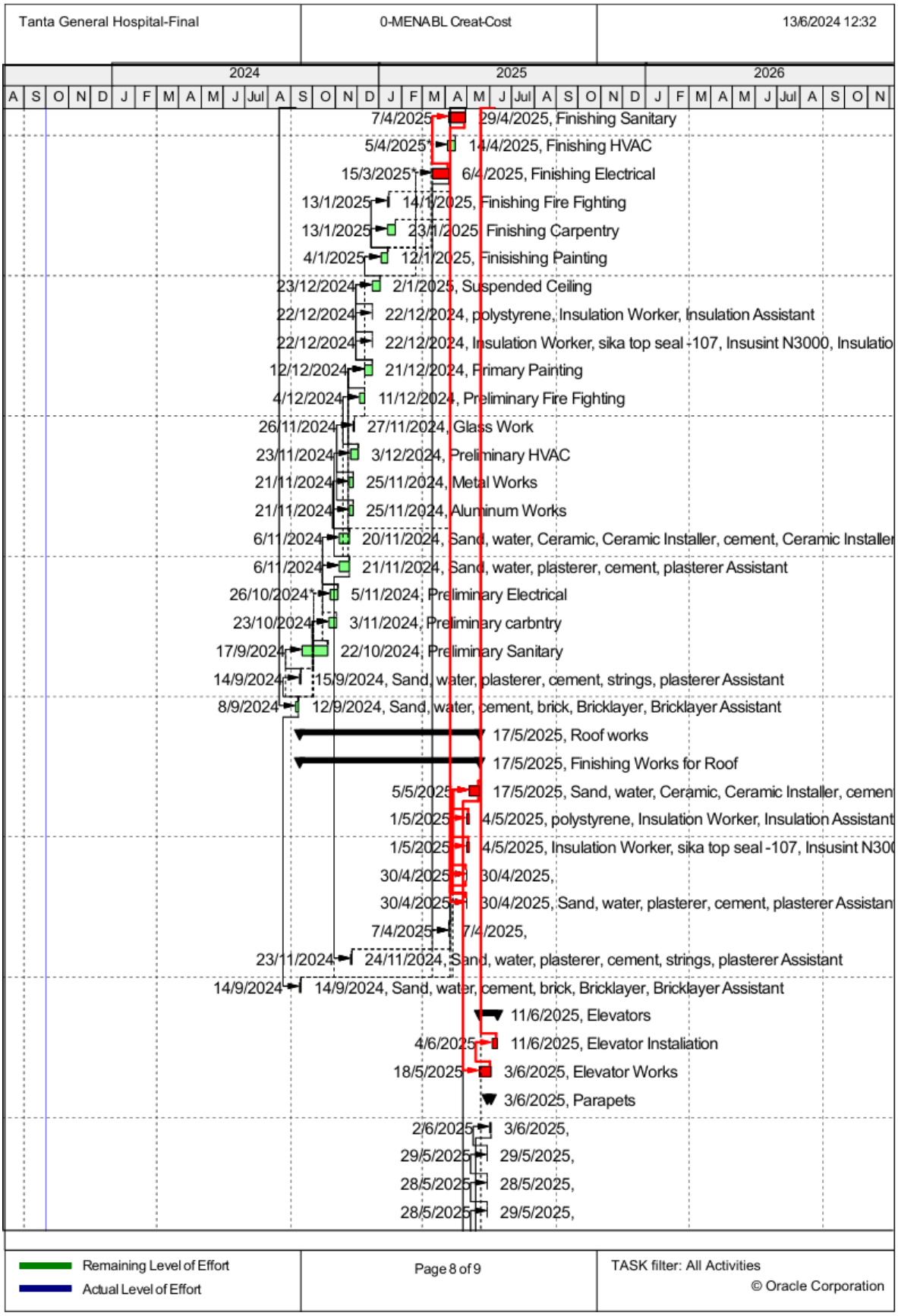
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5/5/2025, 17/5/2025, Sand, water, Ceramic, Ceramic Installer, cemen
1/5/2025, 4/5/2025, polystyrene, Insulation Worker, Insulation Assistant
1/5/2025, 4/5/2025, Insulation Worker, sika top seal -107, Insusint N30
30/4/2025, 30/4/2025,
30/4/2025, 30/4/2025, Sand, water, plasterer, cement, plasterer Assistan
7/4/2025, 7/4/2025,
23/11/2024, 24/11/2024, Sand, water, plasterer, cement, strings, plasterer Assistant
14/9/2024, 14/9/2024, Sand, water, cement, brick, Bricklayer, Bricklayer Assistant
11/6/2025, Elevators
4/6/2025, 11/6/2025, Elevator Instaliation
18/5/2025, 3/6/2025, Elevator Works
3/6/2025, Parapets
2/6/2025, 3/6/2025,
29/5/2025, 29/5/2025,
28/5/2025, 28/5/2025,
28/5/2025, 29/5/2025,
Remaining Level of Effort
Actual Level of Effort
Page 8 of 9
TASK filter: All Activities
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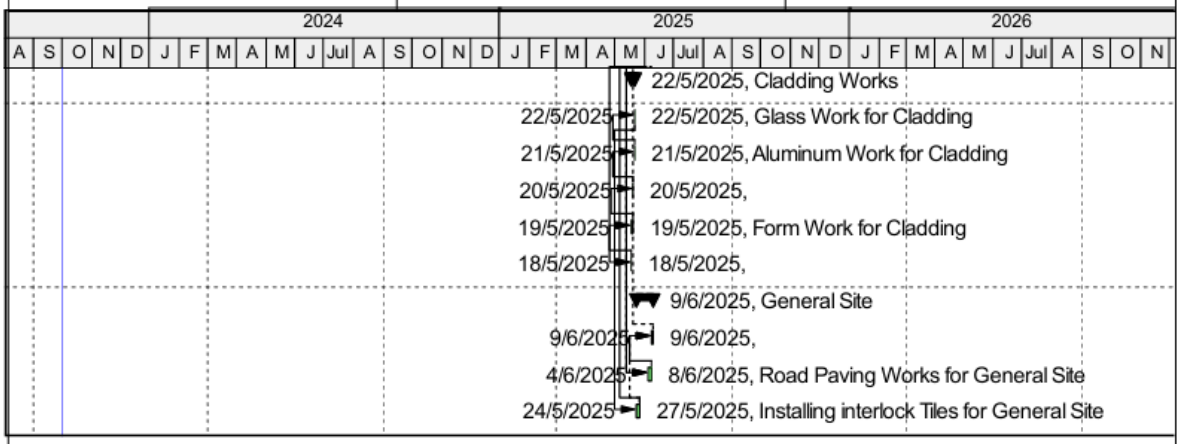
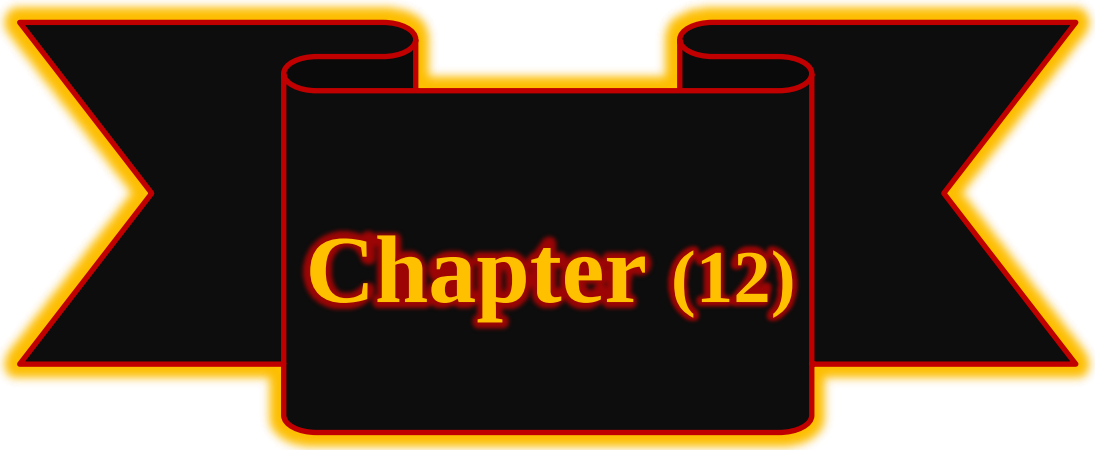



Chapter (12)

Cost management

12.1 Defining The Cost estimating

Cost estimating is a well-formulated prediction of the probable construction cost of a specific building project. A cost estimate can be an important management tool for library planners during the design phases of a project providing information about the facility and the project budget.

All projects begin with an idea and end by filling a need. Most projects at conceptual design requires changes to present an acceptable workable solution.

The conceptual cost estimate is becoming more important to owners, architects, and builders. It is a tool for determining required Hunding and gauging the needs of a project. This tool continues to be refined during the design stages of the project.

The cost estimate accounts for all items that will generally be included in the general contractor's bid. The cost estimate is prepared by breaking down the Items of work using a standard format and determining the cost of each item from experience and a database of current construction cost Information. A cost estimate should not be confused with a project budget. A project budget will include the total cost estimate, and will also include what is known as overhead" This overhead will specifically be excluded from the cost estimate and Will typically include land acquisition, architectural and design fees, movable nurture and equipment, building permits and fees, fire, and all risk insurance. The project budget will also include non-construction related costs such as fundraising and moving costs.

12.2 Types of Cost Estimates:

Cost estimates fall into two groups: conceptual estimates and detailed estimates.

Each can be broadly defined as follows:

Conceptual Estimate: Conceptual estimating or parametric estimating is the process of establishing a project's cost, often before any graphical representation of a facility has been developed, it depends on historical data. to make a conceptual cost estimate we can use one of these techniques.

1) linear regression

2) multiple regression

3) analogous estimation

4) top- domi & bottom-up estimation

5) factors & ratios

Figure 41 S- Curve

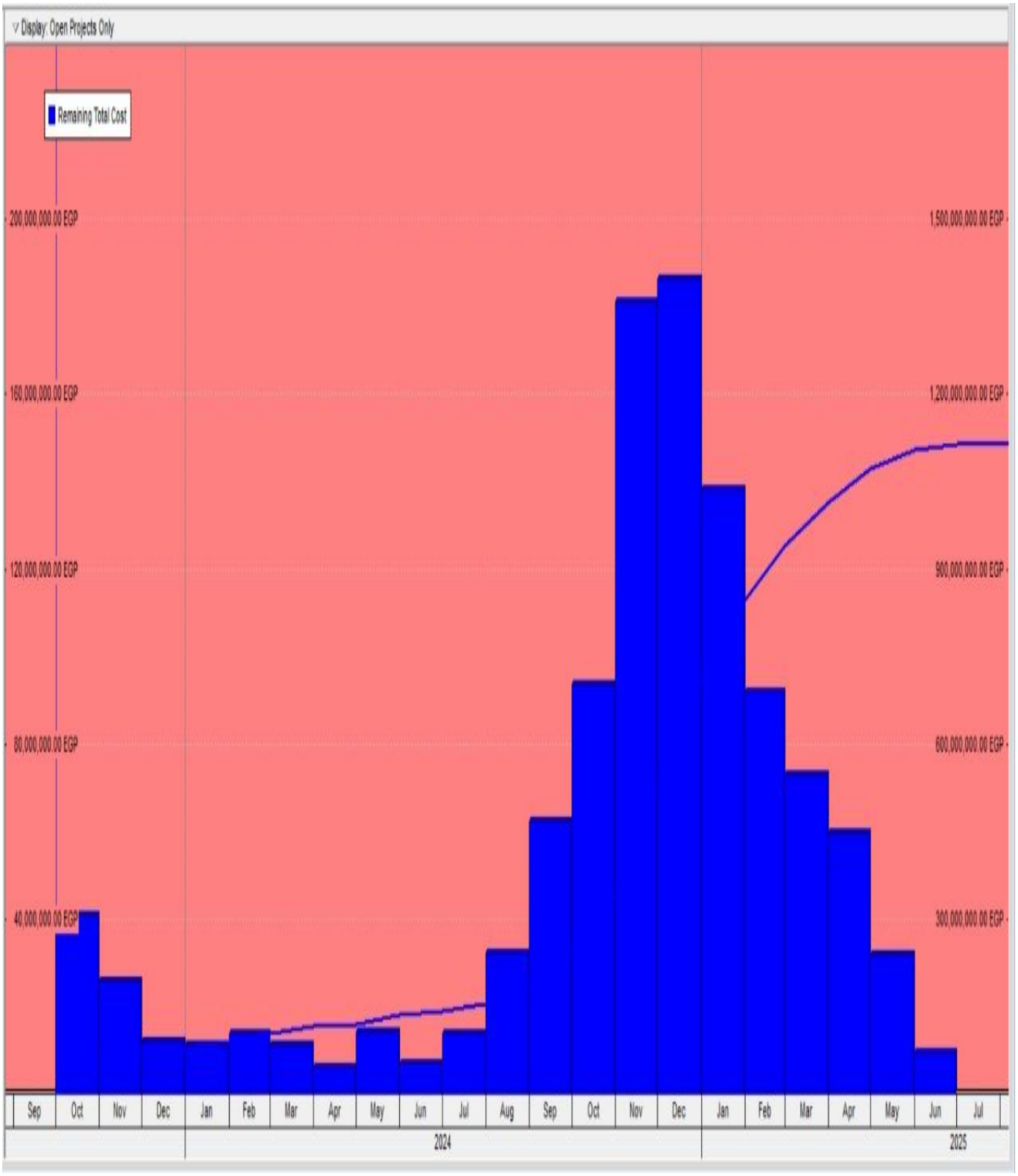


Table 17 list Of Activity in Excel with Budget Total Cost

Code	Description	Duration	Cost	Units	NoCrew/ Sub	Crew
1	Excavation	5	477,081 L.E	m3	3	CR-01
2	Soil replacement	4	594,211 L.E	m3	2	CR-01
3	Back filling	2	784,010 L.E	m3	2	CR-02
4	Shultering PC	1	5,940 L.E	m2	3	CR-03
5	Pouring PC	1	814,110 L.E	m3	3	CR-04
6	De shuttering PC	1	5,940 L.E	m2	3	CR-03
7	Shuttering RC Raft	2	28,380 L.E	m3	3	CR-05
8	Steel Fixing RC Raft	5	48,233,185 L.E	Ton	3	CR-6
9	Pouring RC Raft	3	15,936,525 L.E	m3	3	CR-7
10	De shuttering RC Raft	1	14,190 L.E	m2	3	CR-05
11	Pouring of slab on grade	1	814,110 L.E	m3	3	CR-04
12	Insulation for RC Foundation	1	148,862 L.E	m2	2	CR-17
13	Block under slab on grade	3	547,089 L.E	m2	3	CR-14
14	Shuttering for columns of Ground floor	4	56,760 L.E	m3	3	CR-9
15	Steel Fixed for column of ground floor	8	3,603,490 L.E	Ton	3	CR-11
16	Pouring for Columns of Ground floor	4	674,960 L.E	m3	2	CR-18
17	De shuttering for Columns of Ground floor	1	9,460 L.E	m3	2	CR-9
18	Shuttering for Slab of Ground floor	6	71,280 L.E	m3	2	CR-10
19	Steel Fixed for Slab of ground floor	11	9,944,660 L.E	Ton	2	CR-12
20	Pouring for Slab of Ground floor	3	2,191,530 L.E	m3	2	CR-19
21	De shuttering for Slab of Ground floor	1	11,880 L.E	m3	2	CR-10
22	Shuttering for Stairs of Ground floor	1	2,750 L.E	m2	2	CR-20
23	Steel Fixed for Stairs of Ground floor	1	245,089 L.E	ton	2	CR-13
24	Pouring for Stairs of Ground floor	1	13,970 L.E	M3	1	CR-25
25	De shuttering for Stairs of Ground floor	1	2,750 L.E	M3	2	CR-20
26	Brick Works of Ground floor	6	1,685,456 L.E	m2	3	CR-14
27	Primary Carpentry Works of Ground floor	10	2,941,508 L.E	unit	2	
28	Primary Electrical Works of Ground floor	10	27,612,101 L.E	unit	2	
29	Primary Sanitary Works of Ground floor	30	829,054 L.E	unit	2	
30	Aluminum Works of Ground floor	4	1,182,944 L.E	unit	2	
31	Metal Works of Ground floor	4	459,290 L.E	unit	2	
32	Primary HVAC System of Ground floor	10	22,305,371 L.E	unit	2	
33	Plastering of Ground floor	8	3,156,378 L.E	m2	3	CR-15
34	Primary Painting of Ground floor	8	660,000 L.E	unit	2	
35	Flooring of Ground Floor	17	1,988,414 L.E	m2	2	CR-16
36	Finishing Carpentry of Ground floor	10	4,412,262 L.E	unit	1	
37	Finishing Electrical of Ground floor	20	33,224,222 L.E	unit	1	
38	Finishing Sanitary of Ground floor	20	1,243,597 L.E	unit	1	
39	Finishing HVAC System of Ground floor	9	49,958,057 L.E	unit	1	
40	Finishing Fire Fighting System of Ground floor	2	9,746,781 L.E	unit	1	
41	Glass Work for Ground floor	2	2,235,635 L.E	unit	1	
42	Finisishing Painting of Ground floor	8	1,320,000 L.E	unit	2	
43	Moisture Insulation of Ground Floor	1	4,537,411 L.E	m2	2	CR-8
44	Thermal Insulation of Ground Floor	1	231,791 L.E	m2	2	CR-8
45	Suspended Ceiling for Ground Floor	10	2,672,290 L.E	m2	1	

46	Install Covering of Stairs for Ground floor	2	116,385 L.E	m2	3	CR-16
47	Moisture Insulation Roof	3	4,554,760 L.E	m2	1	CR-8
48	Thermal Insulation of Roof	3	236,556 L.E	m2	1	CR-8
49	Install Floor Cover for Roof	11	817,452 L.E	m2	2	CR-16
50	Elevator Works	15	27,500,000 L.E	unit	1	
51	Elevator Instaliation	7	550,000 L.E	unit	1	
52	Form Work for Cladding	1	21,120 L.E	m2	2	CR-21
53	Glass Work for Cladding	1	21,120 L.E	m2	2	CR-22
54	Aluminum Work for Cladding	1	7,040 L.E	m2	2	CR-23
55	Road Paving Works for General Site	4	3,412,750 L.E	unit	1	
56	Installing interlock Tiles for General Site	4	3,910,500 L.E	unit	1	
57	Shuttering for columns of First floor	4	56,760 L.E	m3	3	CR-9
58	Steel Fixed for coloumn of First floor	8	3,603,490 L.E	Ton	3	CR-11
59	Pouring for Columns of First floor	4	674,960 L.E	m3	2	CR-18
60	De shuttering for Columns of First floor	1	9,460 L.E	m3	2	CR-9
61	Shuttering for Slab of First floor	6	71,280 L.E	m3	2	CR-10
62	Steel Fixed for Slab of First floor	11	9,944,660 L.E	Ton	2	CR-12
63	Pouring for Slab of First floor	3	2,191,530 L.E	m3	2	CR-19
64	De shuttering for Slab of First floor	1	11,880 L.E	m3	2	CR-10
65	Shuttering for Staris of First floor	1	2,750 L.E	m2	2	CR-20
66	Steel Fixed for Stairs of First floor	1	245,089 L.E	ton	2	CR-13
67	Pouring for Stairs of First floor	1	13,970 L.E	M3	1	CR-25
68	De shuttering for Stairs of First floor	1	2,750 L.E	M3	2	CR-20
69	Brick Works of First floor	6	1,564,650 L.E	m2	3	CR-14
70	Preliminary Carpentry Works of First floor	10	2,941,508 L.E	unit	2	
71	Preliminary Electrical Works of First floor	10	33,224,222 L.E	unit	2	
72	Preliminary Sanitary Works of First floor	30	829,054 L.E	unit	2	
73	Aluminum Works of First floor	4	1,182,944 L.E	unit	2	
74	Metal Works of First floor	4	459,290 L.E	unit	2	
75	Preliminary HVAC System of First floor	10	22,305,371 L.E	unit	2	
76	Plastering of First floor	13	3,268,698 L.E	m2	2	CR-15
77	Primary Painting of First floor	8	660,000 L.E	unit	2	
78	Flooring of First Floor	11	1,711,996 L.E	m2	2	CR-16
79	Finishing Carpentry of First floor	10	4,412,262 L.E	unit	1	
80	Finishing Electrical of First floor	20	33,224,222 L.E	unit	1	
81	Finishing Sanitary of First floor	20	1,243,597 L.E	unit	1	
82	Finishing HVAC System of First floor	9	49,958,057 L.E	unit	1	
83	Finishing Fire Fighting System of First floor	2	9,746,781 L.E	unit	1	
84	Glass Work for First floor	2	2,235,635 L.E	unit	1	
85	Finisishing Painting of First floor	8	1,320,000 L.E	unit	2	
86	Moisture Insulation of First Floor	1	4,537,411 L.E	m2	2	CR-8
87	Thermal Insulation of First Floor	1	231,791 L.E	m2	2	CR-8
88	Suspended Ceiling for First Floor	10	2,672,290 L.E	m2	1	
89	Install Covering of Stars for First floor	2	116,385 L.E	m2	3	CR-16
90	Shuttering for columns of second floor	4	56,760 L.E	m3	3	CR-9
91	Steel Fixed for coloumn of second floor	8	3,603,490 L.E	Ton	3	CR-11
92	Pouring for Columns of second floor	4	674,960 L.E	m3	2	CR-18
93	De shuttering for Columns of second floor	1	9,460 L.E	m3	2	CR-9

94	Shuttering for Slab of second floor	6	71,280 L.E	m3	2	CR-10
95	Steel Fixed for Slab of second floor	11	9,944,660 L.E	Ton	2	CR-12
96	Pouring for Slab of second floor	3	2,191,530 L.E	m3	2	CR-19
97	De shuttering for Slab of second floor	1	11,880 L.E	m3	2	CR-10
98	Shuttering forStairs of second floor	1	2,750 L.E	m2	2	CR-20
99	Steel Fixed for Stairs of second floor	1	245,089 L.E	ton	2	CR-13
100	Pouring for Stairs of second floor	1	13,970 L.E	M3	1	CR-25
101	De shuttering for Stairs of second floor	1	2,750 L.E	M3	2	CR-20
102	Brick Works of second floor	5	1,361,722 L.E	m2	3	CR-14
103	Preliminary Carpentry Works of second floor	10	2,941,508 L.E	unit	2	
104	Preliminary Electrical Works of second floor	10	33,224,222 L.E	unit	2	
105	Preliminary Sanitary Works of second floor	30	829,054 L.E	unit	2	
106	Aluminum Works of second floor	4	1,182,944 L.E	unit	2	
107	Metal Works of second floor	4	459,290 L.E	unit	2	
108	Preliminary HVAC System of second floor	10	22,305,371 L.E	unit	2	
109	Plastering of second floor	10	2,622,032 L.E	m2	2	CR-15
110	Primary Painting of second floor	8	660,000 L.E	unit	2	
111	Flooring of second Floor	12	1,752,735 L.E	m2	2	CR-16
112	Finishing Carpentry of second floor	10	4,412,262 L.E	unit	1	
113	Finishing Electrical of second floor	20	33,224,222 L.E	unit	1	
114	Finishing Sanitary of second floor	20	1,243,597 L.E	unit	1	
115	Finishing HVAC System of second floor	9	49,958,057 L.E	unit	1	
116	Finishing Fire Fighting System of second floor	2	9,746,781 L.E	unit	1	
117	Glass Work for second floor	2	2,235,635 L.E	unit	1	
118	Finisishing Painting of second floor	8	1,320,000 L.E	unit	2	
119	Moisture Insulation of second Floor	1	4,537,411 L.E	m2	2	CR-8
120	Thermal Insulation of second Floor	1	231,791 L.E	m2	2	CR-8
121	Suspended Ceiling for second Floor	10	2,672,290 L.E	m2	1	
122	Install Covering of Stars for second floor	2	116,385 L.E	m2	3	CR-16
123	Shuttering for columns of third floor	4	56,760 L.E	m3	3	CR-9
124	Steel Fixed for coloumn of third floor	8	3,603,490 L.E	Ton	3	CR-11
125	Pouring for Columns of third floor	4	674,960 L.E	m3	2	CR-18
126	De shuttering for Columns of third floor	1	9,460 L.E	m3	2	CR-9
127	Shuttering for Slab of third floor	6	71,280 L.E	m3	2	CR-10
128	Steel Fixed for Slab of third floor	11	9,944,660 L.E	Ton	2	CR-12
129	Pouring for Slab of third floor	3	2,191,530 L.E	m3	2	CR-19
130	De shuttering for Slab of third floor	1	11,880 L.E	m3	2	CR-10
131	Shuttering for Stars of third floor	1	2,750 L.E	m2	2	CR-20
132	Steel Fixed for Stairs of third floor	1	245,089 L.E	ton	2	CR-13
133	Pouring for Stairs of third floor	1	13,970 L.E	M3	1	CR-25
134	De shuttering for Stairs of third floor	1	2,750 L.E	M3	2	CR-20
135	Brick Works of third floor	5	1,304,506 L.E	m2	3	CR-14
136	Preliminary Carpentry Works of third floor	10	2,941,508 L.E	unit	2	
137	Preliminary Electrical Works of third floor	10	33,224,222 L.E	unit	2	
138	Preliminary Sanitary Works of third floor	30	829,054 L.E	unit	2	
139	Aluminum Works of third floor	4	1,182,944 L.E	unit	2	

140	Metal Works of third floor	4	459,290 L.E	unit	2	
141	Preliminary HVAC System of third floor	10	22,305,371 L.E	unit	2	
142	Plastering of third floor	11	2,709,461 L.E	m2	2	CR-15
143	Primary Painting of third floor	8	660,000 L.E	unit	2	
144	Flooring of third Floor	12	1,755,823 L.E	m2	2	CR-16
145	Finishing Carpentry of third floor	10	4,412,262 L.E	unit	1	
146	Finishing Electrical of third floor	20	33,224,222 L.E	unit	1	
147	Finishing Sanitary of third floor	20	1,243,597 L.E	unit	1	
148	Finishing HVAC System of third floor	9	49,958,057 L.E	unit	1	
149	Finishing Fire Fighting System of third floor	2	9,746,781 L.E	unit	1	
150	Glass Work for third floor	2	2,235,635 L.E	unit	1	
151	Finisishing Painting of third floor	8	1,320,000 L.E	unit	2	
152	Moisture Insulation of third Floor	1	4,537,411 L.E	m2	2	CR-8
153	Thermal Insulation of third Floor	1	231,791 L.E	m2	2	CR-8
154	Suspended Ceiling for third Floor	10	2,672,290 L.E	m2	1	
155	Install Covering of Stars for third floor	2	116,385 L.E	m2	3	CR-16
156	Shuttering for columns of fourth floor	4	56,760 L.E	m3	3	CR-9
157	Steel Fixed for coloumn of fourth floor	8	3,603,490 L.E	Ton	3	CR-11
158	Pouring for Columns of fourth floor	4	674,960 L.E	m3	2	CR-18
159	De shuttering for Columns of fourth floor	1	9,460 L.E	m3	2	CR-9
160	Shuttering for Slab of fourth floor	6	71,280 L.E	m3	2	CR-10
161	Steel Fixed for Slab of fourth floor	11	9,944,660 L.E	Ton	2	CR-12
162	Pouring for Slab of fourth floor	3	2,191,530 L.E	m3	2	CR-19
163	De shuttering for Slab of fourth floor	1	11,880 L.E	m3	2	CR-10
164	Shuttering for Stars of fourth floor	1	2,750 L.E	m2	2	CR-20
165	Steel Fixed for Stairs of fourth floor	1	245,089 L.E	ton	2	CR-13
166	Pouring for Stairs of fourth floor	1	13,970 L.E	M3	1	CR-25
167	De shuttering for Stairs of fourth floor	1	2,750 L.E	M3	2	CR-20
168	Brick Works of fourth floor	5	1,432,169 L.E	m2	3	CR-14
169	Preliminary Carpentry Works of fourth floor	10	2,941,508 L.E	unit	2	
170	Preliminary Electrical Works of fourth floor	10	33,224,222 L.E	unit	2	
171	Preliminary Sanitary Works of fourth floor	30	829,054 L.E	unit	2	
172	Aluminum Works of fourth floor	4	1,182,944 L.E	unit	2	
173	Metal Works of fourth floor	4	459,290 L.E	unit	2	
174	Preliminary HVAC System of fourth floor	10	22,305,371 L.E	unit	2	
175	Plastering of fourth floor	14	3,552,805 L.E	m2	2	CR-15
176	Primary Painting of fourth floor	8	660,000 L.E	unit	2	
177	Flooring of fourth Floor	13	1,801,522 L.E	m2	2	CR-16
178	Finishing Carpentry of fourth floor	10	4,412,262 L.E	unit	1	
179	Finishing Electrical of fourth floor	20	33,224,222 L.E	unit	1	
180	Finishing Sanitary of fourth floor	20	1,243,597 L.E	unit	1	
181	Finishing HVAC System of fourth floor	9	49,958,057 L.E	unit	1	
182	Finishing Fire Fighting System of fourth floor	2	9,746,781 L.E	unit	1	
183	Glass Work for fourth floor	2	2,235,635 L.E	unit	1	
184	Finisishing Painting of fourth floor	8	1,320,000 L.E	unit	2	
185	Moisture Insulation of fourth Floor	1	4,537,411 L.E	m2	2	CR-8
186	Thermal Insulation of fourth Floor	1	231,791 L.E	m2	2	CR-8

187	Suspended Ceiling for fourth Floor	10	2,672,290 L.E	m2	1	
188	Install Covering of Stars for fourth floor	2	116,385 L.E	m2	3	CR-16
189	Preliminary Plastering Ground floor	2	20,030 L.E	M2	2	CR-24
190	Preliminary Plastering First floor	2	20,030 L.E	M2	2	CR-24
191	Preliminary Plastering Second floor	2	20,030 L.E	M2	2	CR-24
192	Preliminary Plastering Third floor	2	20,030 L.E	M2	2	CR-24
193	Preliminary Plastering fourth floor	2	20,030 L.E	M2	2	CR-24
194	Preliminary Plastering of Roof	2	10,702 L.E	M2	2	CR-24
195	Brick Works of Roof	1	346,222 L.E	M2	3	CR-14
196	Plastering of Roof	1	12,863 L.E	M2	1	CR-15
197	Preliminary Fire Fighting Works of Ground floor	7	11,616,000 L.E	unit	1	
198	Preliminary Fire Fighting Works of First floor	7	11,616,000 L.E	unit	1	
199	Preliminary Fire Fighting Works of Second floor	7	11,616,000 L.E	unit	1	
200	Preliminary Fire Fighting Works of third floor	7	11,616,000 L.E	unit	1	
201	Preliminary Fire Fighting Works of Fourth floor	7	11,616,000 L.E	unit	1	

Code	Sub	Quantity	RegPr/d	MatQ/Unit	Material1	MatQ/Unit	Material2	MatQ/Unit	Material3	MatQ/Unit	Material4
1		13104	900.0								
2		1872	300.0	1.00	M2	1.00	M6				
3		2663	700.0	1.41	M2	1.00	M6				
4		986	986.0								
5		1248	1000.0								
6		986	986.0								
7		8325	1500.0								
8		1082	90.0	1.00	M3	5.00	M8				
9		8325	1000.0								
10		8325	3000.0								
11		1248	1000.0								
12		2660	1500.0	0.01	M5						
13		2662	300.0	0.06	M7	0.01	M1	0.34	M2	0.15	M6
14		448	40.0								
15		77	3.5	1.00	M3	5.00	M8				
16		342	50.0								
17		448	300.0								
18		1674	150.0								
19		218	10.0	1.00	M3	5.00	M8				
20		1674	320.0								
21		1674	1500.0								
22		168	168.0								
23		4	4.0	1.34	M3	6.70	M8				
24		31	31.0								
25		31	31.0								
26		8652	500.0	0.06	M7	0.01	M1	0.67	M2	0.29	M6

27	**S9**	**1**	**1.0**								
28	**S12**	**1**	**1.0**								
29	**S13**	**1**	**1.0**								
30	**S10**	**1**	**1.0**								
31	**S11**	**1**	**1.0**								
32	**S5**	**1**	**1.0**								
33		**14125**	**600.0**	**0.08**	**M1**	**0.03**	**M2**	**0.12**	**M6**		
34	**S26**	**1**	**1.0**								
35		**11322**	**350.0**	**0.01**	**M1**	**0.12**	**M2**	**25.00**	**M9**	**0.07**	**M6**
36	**S15**	**1**	**1.0**								
37	**S16**	**1**	**1.0**								
38	**S17**	**1**	**1.0**								
39	**S18**	**1**	**1.0**								
40	**S19**	**1**	**1.0**								
41	**S20**	**1**	**1.0**								
42	**S27**	**1**	**1.0**								
43		**5757**	**3000.0**	**1.00**	**M15**	**1.00**	**M16**				
44		**5773**	**3000.0**	**1.00**	**M17**						
45	**S21**	**1**	**1.0**								
46		**168**	**30.0**	**0.00**	**M1**	**0.01**	**M2**	**0.01**	**M6**	**2.35**	**M11**
47		**5773**	**2700.0**	**1.00**	**M15**	**1.00**	**M16**				
48		**5773**	**2700.0**	**1.00**	**M17**						
49		**3114**	**150.0**	**0.01**	**M1**	**1.08**	**M9**	**0.03**	**M6**	**1.16**	**M2**
50	**S7**	**1**	**1.0**								
51	**S29**	**1**	**1.0**								
52		**1000**	**500.0**								
53		**1000**	**500.0**								
54		**100**	**50.0**								
55	**S22**	**1**	**1.0**								
56	**S23**	**1**	**1.0**								
57		**448**	**40.0**								
58		**77**	**3.5**	**1.00**	**M3**	**5.00**	**M8**				
59		**342**	**50.0**								
60		**448**	**300.0**								
61		**1674**	**150.0**								
62		**218**	**10.0**	**1.00**	**M3**	**5.00**	**M8**				
63		**1674**	**320.0**								
64		**1674**	**1500.0**								
65		**168**	**168.0**								
66		**4**	**4.0**	**1.34**	**M3**	**6.70**	**M8**				
67		**31**	**31.0**								
68		**31**	**31.0**								
69		**7949**	**500.0**	**0.06**	**M7**	**0.01**	**M1**	**0.67**	**M2**	**0.29**	**M6**
70	**S9**	**1**	**1.0**								
71	**S16**	**1**	**1.0**								
72	**S13**	**1**	**1.0**								
73	**S10**	**1**	**1.0**								
74	**S11**	**1**	**1.0**								
75	**S5**	**1**	**1.0**								
76		**14565**	**600.0**	**0.08**	**M1**	**0.03**	**M2**	**0.12**	**M6**		
77	**S26**	**1**	**1.0**								
78		**7335**	**350.0**	**0.01**	**M1**	**0.12**	**M2**	**25.00**	**M9**	**0.07**	**M6**
79	**S15**	**1**	**1.0**								

80	**S16**	**1**	**1.0**								
81	**S17**	**1**	**1.0**								
82	**S18**	**1**	**1.0**								
83	**S19**	**1**	**1.0**								
84	**S20**	**1**	**1.0**								
85	**S27**	**1**	**1.0**								
86		**5757**	**3000.0**	**1.00**	**M15**	**1.00**	**M16**				
87		**5773**	**3000.0**	**1.00**	**M17**						
88	**S21**	**1**	**1.0**								
89		**168**	**30.0**	**0.00**	**M1**	**0.01**	**M2**	**0.01**	**M6**	**2.35**	**M11**
90		**448**	**40.0**								
91		**77**	**3.5**	**1.00**	**M3**	**5.00**	**M8**				
92		**342**	**50.0**								
93		**448**	**300.0**								
94		**1674**	**150.0**								
95		**218**	**10.0**	**1.00**	**M3**	**5.00**	**M8**				
96		**1674**	**320.0**								
97		**1674**	**1500.0**								
98		**168**	**168.0**								
99		**4**	**4.0**	**1.34**	**M3**	**6.70**	**M8**				
100		**31**	**31.0**								
101		**31**	**31.0**								
102		**6912**	**500.0**	**0.06**	**M7**	**0.01**	**M1**	**0.67**	**M2**	**0.29**	**M6**
103	**S9**	**1**	**1.0**								
104	**S16**	**1**	**1.0**								
105	**S13**	**1**	**1.0**								
106	**S10**	**1**	**1.0**								
107	**S11**	**1**	**1.0**								
108	**S5**	**1**	**1.0**								
109		**11727**	**600.0**	**0.08**	**M1**	**0.03**	**M2**	**0.12**	**M6**		
110	**S26**	**1**	**1.0**								
111		**7820**	**350.0**	**0.01**	**M1**	**0.12**	**M2**	**25.00**	**M9**	**0.07**	**M6**
112	**S15**	**1**	**1.0**								
113	**S16**	**1**	**1.0**								
114	**S17**	**1**	**1.0**								
115	**S18**	**1**	**1.0**								
116	**S19**	**1**	**1.0**								
117	**S20**	**1**	**1.0**								
118	**S27**	**1**	**1.0**								
119		**5757**	**3000.0**	**1.00**	**M15**	**1.00**	**M16**				
120		**5773**	**3000.0**	**1.00**	**M17**						
121	**S21**	**1**	**1.0**								
122		**168**	**30.0**	**0.00**	**M1**	**0.01**	**M2**	**0.01**	**M6**	**2.35**	**M11**
123		**448**	**40.0**								
124		**77**	**3.5**	**1.00**	**M3**	**5.00**	**M8**				
125		**342**	**50.0**								
126		**448**	**300.0**								
127		**1674**	**150.0**								
128		**218**	**10.0**	**1.00**	**M3**	**5.00**	**M8**				
129		**1674**	**320.0**								
130		**1674**	**1500.0**								
131		**168**	**168.0**								
132		**4**	**4.0**	**1.34**	**M3**	**6.70**	**M8**				

133		**31**	**31.0**								
134		**31**	**31.0**								
135		**6579**	**500.0**	**0.06**	**M7**	**0.01**	**M1**	**0.67**	**M2**	**0.29**	**M6**
136	**S9**	**1**	**1.0**								
137	**S16**	**1**	**1.0**								
138	**S13**	**1**	**1.0**								
139	**S10**	**1**	**1.0**								
140	**S11**	**1**	**1.0**								
141	**S5**	**1**	**1.0**								
142		**12045**	**600.0**	**0.08**	**M1**	**0.03**	**M2**	**0.12**	**M6**		
143	**S26**	**1**	**1.0**								
144		**7924**	**350.0**	**0.01**	**M1**	**0.12**	**M2**	**25.00**	**M9**	**0.07**	**M6**
145	**S15**	**1**	**1.0**								
146	**S16**	**1**	**1.0**								
147	**S17**	**1**	**1.0**								
148	**S18**	**1**	**1.0**								
149	**S19**	**1**	**1.0**								
150	**S20**	**1**	**1.0**								
151	**S27**	**1**	**1.0**								
152		**5757**	**3000.0**	**1.00**	**M15**	**1.00**	**M16**				
153		**5773**	**3000.0**	**1.00**	**M17**						
154	**S21**	**1**	**1.0**								
155		**168**	**30.0**	**0.00**	**M1**	**0.01**	**M2**	**0.01**	**M6**	**2.35**	**M11**
156		**448**	**40.0**								
157		**77**	**3.5**	**1.00**	**M3**	**5.00**	**M8**				
158		**342**	**50.0**								
159		**448**	**300.0**								
160		**1674**	**150.0**								
161		**218**	**10.0**	**1.00**	**M3**	**5.00**	**M8**				
162		**1674**	**320.0**								
163		**1674**	**1500.0**								
164		**168**	**168.0**								
165		**4**	**4.0**	**1.34**	**M3**	**6.70**	**M8**				
166		**31**	**31.0**								
167		**31**	**31.0**								
168		**7322**	**500.0**	**0.06**	**M7**	**0.01**	**M1**	**0.67**	**M2**	**0.29**	**M6**
169	**S9**	**1**	**1.0**								
170	**S16**	**1**	**1.0**								
171	**S13**	**1**	**1.0**								
172	**S10**	**1**	**1.0**								
173	**S11**	**1**	**1.0**								
174	**S5**	**1**	**1.0**								
175		**15847**	**600.0**	**0.08**	**M1**	**0.03**	**M2**	**0.12**	**M6**		
176	**S26**	**1**	**1.0**								
177		**8576**	**350.0**	**0.01**	**M1**	**0.12**	**M2**	**25.00**	**M9**	**0.07**	**M6**
178	**S15**	**1**	**1.0**								
179	**S16**	**1**	**1.0**								
180	**S17**	**1**	**1.0**								
181	**S18**	**1**	**1.0**								
182	**S19**	**1**	**1.0**								
183	**S20**	**1**	**1.0**								
184	**S27**	**1**	**1.0**								
185		**5757**	**3000.0**	**1.00**	**M15**	**1.00**	**M16**				

186		5773	3000.0	1.00	M17						
187	S21	1	1.0								
188		168	30.0	0.00	M1	0.01	M2	0.01	M6	2.35	M11
189		120	40.0	0.00	M1	0.01	M2	4.04	M6	2.50	M18
190		120	40.0	0.00	M1	0.01	M2	4.04	M6	2.50	M18
191		120	40.0	0.00	M1	0.01	M2	4.04	M6	2.50	M18
192		120	40.0	0.00	M1	0.01	M2	4.04	M6	2.50	M18
193		120	40.0	0.00	M1	0.01	M2	4.04	M6	2.50	M18
194		120	40.0	0.00	M1	0.01	M2	0.16	M6	1.00	M18
195		420	200.0	0.01	M1	0.04	M2	0.18	M6	0.58	M7

Code	Mat1Cost	Mat2Cost	Mat3Cost	Mat4Cost	Sub Cost	Crew Cost
1						95,416.20
2	236,808.00	102,960.00				63,610.80
3	473,677.34	146,477.01				81,928.00
4						5,940.00
5						814,110.00
6						5,940.00
7						14,190.00
8	47,608,000.00	357,060.00				53,625.00
9						5,312,175.00
10						14,190.00
11						814,110.00
12	138,077.94					10,784.40
13	386,522.40	70,862.44	12,978.90	2,475.00		24,750.00
14						14,190.00
15	3,388,000.00	25,410.00				23,760.00
16						168,740.00
17						9,460.00
18						11,880.00
19	9,592,000.00	71,940.00				25,520.00
20						730,510.00
21						11,880.00
22						2,750.00
23	235,840.00	1,768.80				7,480.00
24						13,970.00
25						2,750.00
26	1,256,284.63	230,318.85	42,377.50	7,975.00		24,750.00
27					2,941,507.88	
28					27,612,101.00	
29					829,053.50	
30					1,182,943.67	
31					459,290.33	
32					22,305,371.36	
33	2,837,147.50	44,670.31	3,960.00			33,825.00
34					660,000.00	
35	164,395.44	171,867.96	1,203,125.00	1,347.50		26,334.00
36					4,412,261.82	
37					33,224,221.80	
38					1,243,596.75	
39					49,958,057.05	
40					9,746,781.00	

41					**2,235,635.49**	
42					**1,320,000.00**	
43	**3,799,620.00**	**728,260.50**				**9,530.40**
44	**222,260.50**					**9,530.40**
45					**2,672,289.58**	
46	**731.81**	**191.27**	**11.55**	**36,448.50**		**39,501.00**
47	**3,810,180.00**	**730,284.50**				**4,765.20**
48	**222,260.50**					**4,765.20**
49	**45,215.28**	**460,288.13**	**264.00**	**22,011.00**		**26,334.00**
50					**27,500,000.00**	
51					**550,000.00**	
52						**21,120.00**
53						**21,120.00**
54						**7,040.00**
55					**3,412,750.00**	
56					**3,910,500.00**	
57						**14,190.00**
58	**3,388,000.00**	**25,410.00**				**23,760.00**
59						**168,740.00**
60						**9,460.00**
61						**11,880.00**
62	**9,592,000.00**	**71,940.00**				**25,520.00**
63						**730,510.00**
64						**11,880.00**
65						**2,750.00**
66	**235,840.00**	**1,768.80**				**7,480.00**
67						**13,970.00**
68						**2,750.00**
69	**1,154,194.80**	**211,602.38**	**42,377.50**	**7,975.00**		**24,750.00**
70					**2,941,507.88**	
71					**33,224,221.80**	
72					**829,053.50**	
73					**1,182,943.67**	
74					**459,290.33**	
75					**22,305,371.36**	
76	**2,925,525.90**	**46,061.81**	**3,960.00**			**22,550.00**
77					**660,000.00**	
78	**106,504.20**	**111,345.30**	**1,203,125.00**	**1,347.50**		**26,334.00**
79					**4,412,261.82**	
80					**33,224,221.80**	
81					**1,243,596.75**	
82					**49,958,057.05**	
83					**9,746,781.00**	
84					**2,235,635.49**	
85					**1,320,000.00**	
86	**3,799,620.00**	**728,260.50**				**9,530.40**
87	**222,260.50**					**9,530.40**
88					**2,672,289.58**	
89	**731.81**	**191.27**	**11.55**	**36,448.50**		**39,501.00**
90						**14,190.00**
91	**3,388,000.00**	**25,410.00**				**23,760.00**
92						**168,740.00**
93						**9,460.00**

94						**11,880.00**
95	**9,592,000.00**	**71,940.00**				**25,520.00**
96						**730,510.00**
97						**11,880.00**
98						**2,750.00**
99	**235,840.00**	**1,768.80**				**7,480.00**
100						**13,970.00**
101						**2,750.00**
102	**1,003,622.40**	**183,997.44**	**42,377.50**	**7,975.00**		**24,750.00**
103					**2,941,507.88**	
104					**33,224,221.80**	
105					**829,053.50**	
106					**1,182,943.67**	
107					**459,290.33**	
108					**22,305,371.36**	
109	**2,355,485.22**	**37,086.64**	**3,960.00**			**22,550.00**
110					**660,000.00**	
111	**113,546.40**	**118,707.60**	**1,203,125.00**	**1,347.50**		**26,334.00**
112					**4,412,261.82**	
113					**33,224,221.80**	
114					**1,243,596.75**	
115					**49,958,057.05**	
116					**9,746,781.00**	
117					**2,235,635.49**	
118					**1,320,000.00**	
119	**3,799,620.00**	**728,260.50**				**9,530.40**
120	**222,260.50**					**9,530.40**
121					**2,672,289.58**	
122	**731.81**	**191.27**	**11.55**	**36,448.50**		**39,501.00**
123						**14,190.00**
124	**3,388,000.00**	**25,410.00**				**23,760.00**
125						**168,740.00**
126						**9,460.00**
127						**11,880.00**
128	**9,592,000.00**	**71,940.00**				**25,520.00**
129						**730,510.00**
130						**11,880.00**
131						**2,750.00**
132	**235,840.00**	**1,768.80**				**7,480.00**
133						**13,970.00**
134						**2,750.00**
135	**955,270.80**	**175,132.98**	**42,377.50**	**7,975.00**		**24,750.00**
136					**2,941,507.88**	
137					**33,224,221.80**	
138					**829,053.50**	
139					**1,182,943.67**	
140					**459,290.33**	
141					**22,305,371.36**	
142	**2,419,358.70**	**38,092.31**	**3,960.00**			**22,550.00**
143					**660,000.00**	
144	**115,056.48**	**120,286.32**	**1,203,125.00**	**1,347.50**		**26,334.00**
145					**4,412,261.82**	
146					**33,224,221.80**	

147					**1,243,596.75**	
148					**49,958,057.05**	
149					**9,746,781.00**	
150					**2,235,635.49**	
151					**1,320,000.00**	
152	**3,799,620.00**	**728,260.50**				**9,530.40**
153	**222,260.50**					**9,530.40**
154					**2,672,289.58**	
155	**731.81**	**191.27**	**11.55**	**36,448.50**		**39,501.00**
156						**14,190.00**
157	**3,388,000.00**	**25,410.00**				**23,760.00**
158						**168,740.00**
159						**9,460.00**
160						**11,880.00**
161	**9,592,000.00**	**71,940.00**				**25,520.00**
162						**730,510.00**
163						**11,880.00**
164						**2,750.00**
165	**235,840.00**	**1,768.80**				**7,480.00**
166						**13,970.00**
167						**2,750.00**
168	**1,063,154.40**	**194,911.64**	**42,377.50**	**7,975.00**		**24,750.00**
169					**2,941,507.88**	
170					**33,224,221.80**	
171					**829,053.50**	
172					**1,182,943.67**	
173					**459,290.33**	
174					**22,305,371.36**	
175	**3,183,028.42**	**50,116.14**	**3,960.00**			**22,550.00**
176					**660,000.00**	
177	**124,523.52**	**130,183.68**	**1,203,125.00**	**1,347.50**		**26,334.00**
178					**4,412,261.82**	
179					**33,224,221.80**	
180					**1,243,596.75**	
181					**49,958,057.05**	
182					**9,746,781.00**	
183					**2,235,635.49**	
184					**1,320,000.00**	
185	**3,799,620.00**	**728,260.50**				**9,530.40**
186	**222,260.50**					**9,530.40**
187					**2,672,289.58**	
188	**731.81**	**191.27**	**11.55**	**36,448.50**		**39,501.00**
189	**726.00**	**75.90**	**8,888.00**	**1,320.00**		**4,510.00**
190	**726.00**	**75.90**	**8,888.00**	**1,320.00**		**4,510.00**
191	**726.00**	**75.90**	**8,888.00**	**1,320.00**		**4,510.00**
192	**726.00**	**75.90**	**8,888.00**	**1,320.00**		**4,510.00**
193	**726.00**	**75.90**	**8,888.00**	**1,320.00**		**4,510.00**
194	**726.00**	**75.90**	**352.00**	**528.00**		**4,510.00**
195	**11,180.40**	**2,072.07**	**1,980.00**	**306,240.00**		**24,750.00**
196	**907.50**	**158.13**	**522.50**			**11,275.00**

Table 18 List of Subs

Code	Description	Cost/Unit	Sub-Contractor	SubCost/Unit	Unit
S1	Site Investigation	55,000.0L.E	Lump sum	50,000.0L.E	Lump sum
S2	Site Cleaning	33,000.0L.E	Lump sum	30,000.0L.E	Lump sum
S3	Temporary Facilities	220,000.0L.E	Lump sum	200,000.0L.E	Lump sum
S4	Surveying Works	33,000.0L.E	Lump sum	30,000.0L.E	Lump sum
S5	Primary HVAC System	22,305,371.4L.E	Lump sum	20,277,610.3L.E	Lump sum
S6	Glass Work	11,178,172.5L.E	Lump sum	10,161,975.0L.E	Lump sum
S7	Elevators works	27,500,000.0L.E	Lump sum	25,000,000.0L.E	Lump sum
S8	Primary Fire Fighting System	19,162,790.9L.E	Lump sum	17,420,719.0L.E	Lump sum
S9	Primary Carpentry	2,941,507.9L.E	Lump sum	2,674,098.1L.E	Lump sum
S10	Aluminum works	1,182,943.7L.E	Lump sum	1,075,403.3L.E	Lump sum
S11	Metal work	459,290.3L.E	Lump sum	417,536.7L.E	Lump sum
S12	Primary Electrical	27,612,101.0L.E	Lump sum	25,101,910.0L.E	Lump sum
S13	Primary Sanitary	829,053.5L.E	Lump sum	753,685.0L.E	Lump sum
S14	Kitchen and washroom	19,210,422.0L.E	Lump sum	17,464,020.0L.E	Lump sum
S15	Finishing Carpentry	4,412,261.8L.E	Lump sum	4,011,147.1L.E	Lump sum
S16	Finishing Electrical	33,224,221.8L.E	Lump sum	30,203,838.0L.E	Lump sum
S17	Finishing Sanitary	1,243,596.8L.E	Lump sum	1,130,542.5L.E	Lump sum
S18	Finishing HVAC System	49,958,057.1L.E	Lump sum	45,416,415.5L.E	Lump sum
S19	Finishing Fire Fighting System	9,746,781.0L.E	Lump sum	8,860,710.0L.E	Lump sum
S20	Glass Work	2,235,635.5L.E	Lump sum	2,032,395.9L.E	Lump sum
S21	Suspended Ceiling Work	2,672,289.6L.E	Lump sum	2,429,354.2L.E	Lump sum
S22	Road Paving Works for general site	3,412,750.0L.E	Lump sum	3,102,500.0L.E	Lump sum
S23	Installing interlock tiles for general site	3,910,500.0L.E	Lump sum	3,555,000.0L.E	Lump sum
S24	Agriculture Work for general site	1,566,963.8L.E	Lump sum	1,424,512.5L.E	Lump sum
S24	Agriculture Work for general site	1,566,964.9L.E	Lump sum	1,424,513.5L.E	Lump sum
S26	Primary Painting	660,000.0L.E	Lump sum	600,000.0L.E	Lump sum
S27	Finisishing Painting	1,320,000.0L.E	Lump sum	1,200,000.0L.E	Lump sum
S28	Parapet concrete casting	110,000.0L.E	Lump sum	100,000.0L.E	Lump sum
S29	Elevator Instaliation	550,000.0L.E	Lump sum	500,000.0L.E	Lump sum
S30	Parapet Shutter	110,000.0L.E	Lump sum	100,000.0L.E	Lump sum
S31	Parapet steel	110,000.0L.E	Lump sum	100,000.0L.E	Lump sum
S32	Parapet Deshutter	11,000.0L.E	Lump sum	10,000.0L.E	Lump sum
S33	tank of oxgyen	4,400,000.0L.E	Lump sum	4,000,000.0L.E	Lump sum
S34	Preliminary Fire Fighting	11,616,000.0L.E	Lump sum	10,560,000.0L.E	Lump sum

12.3 List of Activities:

The activity list is essentially an itemized documentation of all of the schedule activities that are part of a particular project. These lists are typically (and ideally should be) very detailed and comprehensive, providing as many details as possible to make it as easy and quick as possible for a user to attain general, broad sheet information. Some specific categories of information that should be included within the activity list can include the title or brief description of the activity, the detailed description of the activity, the unique activity identifier, a list of project team members who may be assigned to that particular activity. A detailed description of each activity is essential in providing all project team members with a big picture perspective of what is taking place, what work needs to be performed, and what their role will be within that activity. The activity list should be compiled as early in the process as possible to assure that all team members have a chance to review it.

Table 20 list Of Activity in Primavera With Budget Total Cost

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
Tanta General Hospital-Final		512d	1/10/2023	11/6/2025	1,114,504,793.49 EGP
Milestones		512d	1/10/2023	11/6/2025	0.00 EGP
Key dates		512d	1/10/2023	11/6/2025	0.00 EGP
A2	Project Finish	0d		11/6/2025	0.00 EGP
A1	Project Start	0d	1/10/2023*		0.00 EGP
Contractual		0d	1/10/2023	1/10/2023	0.00 EGP
A1020	Site Handover from client	0d		1/10/2023	0.00 EGP
A1010	Advanced Payment	0d		1/10/2023	0.00 EGP
A1000	Contract Agreement	0d		1/10/2023	0.00 EGP
Controls		265d	4/8/2024	11/6/2025	0.00 EGP
A4130	Roof Floor Finish Date	0d		11/6/2025	0.00 EGP
A4120	4th Floor Finish Date	0d		1/5/2025	0.00 EGP
A4110	3rd Floor Finish Date	0d		3/4/2025	0.00 EGP
A4100	2nd Floor Finish Date	0d		4/3/2025	0.00 EGP
A4090	1st Floor Finish Date	0d		4/3/2025	0.00 EGP
A4080	GF Finish Date	0d		27/1/2025	0.00 EGP
A1030	Concrete works Finish Date	0d		4/8/2024	0.00 EGP
Mobilization works		6d	1/10/2023	8/10/2023	0.00 EGP
Fence		2d	1/10/2023	2/10/2023	0.00 EGP

A1050	Fixing the fence	1d	2/10/2023	2/10/2023	0.00 EGP
A1040	Cleaning & Settlment Works	1d	1/10/2023	1/10/2023	0.00 EGP
Carvans		1d	4/10/2023	4/10/2023	0.00 EGP
A1060	Install Cravans and Offices	1d	4/10/2023	4/10/2023	0.00 EGP
Lighting		1d	4/10/2023	4/10/2023	0.00 EGP
A1070	Site Lighting	1d	4/10/2023	4/10/2023	0.00 EGP
Surveying		3d	4/10/2023	8/10/2023	0.00 EGP
A108	Surveying Works	3d	4/10/2023	8/10/2023	0.00 EGP
Engineering		1d	1/10/2023	1/10/2023	0.00 EGP
A1110	Shop Drawings Package	1d	1/10/2023	1/10/2023	0.00 EGP
A1100	MEP design Drawings	1d	1/10/2023	1/10/2023	0.00 EGP
A1090	Arch design Drawings	1d	1/10/2023	1/10/2023	0.00 EGP
A1080	Structural design drawings	1d	1/10/2023	1/10/2023	0.00 EGP
Procurement		2d	1/10/2023	2/10/2023	0.00 EGP
Arch Material		1d	1/10/2023	1/10/2023	0.00 EGP
A1130	Arch Material Approval	1d	1/10/2023	1/10/2023	0.00 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A1120	Arch Material Submittal	1d	1/10/2023	1/10/2023	0.00 EGP
Civil Material		2d	1/10/2023	2/10/2023	0.00 EGP
A1150	Civil Material Approval	1d	2/10/2023	2/10/2023	0.00 EGP
A1140	Civil Material Submittal	1d	1/10/2023	1/10/2023	0.00 EGP
MEP Material		2d	1/10/2023	2/10/2023	0.00 EGP
A1170	MEP Material Approval	1d	2/10/2023	2/10/2023	0.00 EGP
A1160	MEP Material Submittal	1d	1/10/2023	1/10/2023	0.00 EGP
Construction		506d	9/10/2023	11/6/2025	1,114,504,793.49 EGP
Sup Structure Works		67d	9/10/2023	25/12/2023	68,693,543.69 EGP
Soil Works		63d	9/10/2023	20/12/2023	1,996,045.35 EGP
140	Back filling	2d	19/12/2023	20/12/2023	763,948.35 EGP
130	Soil replacement	4d	16/10/2023	19/10/2023	630,696.00 EGP
120	Dewatering	4d	11/10/2023	15/10/2023	124,320.00 EGP
110	Excavation	5d	9/10/2023	14/10/2023	477,081.00 EGP
Concrete Works		57d	21/10/2023	25/12/2023	65,852,380.00 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
	Foundation Works	57d	21/10/2023	25/12/2023	65,852,380.00 EGP
	PC for Foundation Works	4d	21/10/2023	24/10/2023	825,990.00 EGP
A1250	De shuttering P.C Raft	1d	24/10/2023	24/10/2023	5,940.00 EGP
A1190	Pouring P.C Raft	1d	22/10/2023	22/10/2023	814,110.00 EGP
A1180	Shuttering PC Raft	1d	21/10/2023	21/10/2023	5,940.00 EGP
	RC for Foundation Works	53d	25/10/2023	25/12/2023	65,026,390.00 EGP
A1270	Pouring of Slab on grade	1d	25/12/2023	25/12/2023	814,110.00 EGP
A1260	De shuttering R.C Raft	1d	11/11/2023	11/11/2023	14,190.00 EGP
A1230	Pouring R.C Raft	3d	5/11/2023*	7/11/2023	15,936,525.00 EGP
A1220	Steel Fixing RC Raft	5d	28/10/2023*	1/11/2023	48,233,185.00 EGP
A1210	Shuttering RC Raft	2d	25/10/2023	26/10/2023	28,380.00 EGP
	Arch Works	6d	18/12/2023	24/12/2023	845,118.34 EGP
A1300	Blocks under slab on grade	3d	21/12/2023	24/12/2023	547,088.74 EGP
A1290	Insulation for RC Raft	1d	18/12/2023	18/12/2023	149,014.80 EGP
A1280	Insulation for PC Raft	1d	18/12/2023	18/12/2023	149,014.80 EGP
	Super structure Works	477d	12/11/2023	11/6/2025	1,045,811,249.80 EGP
	Ground Floor Works	361d	12/11/2023	27/1/2025	201,410,410.98 EGP
	Concrete Works for Ground fl	60d	12/11/2023	21/1/2024	17,256,492.00 EGP
	Columns for Ground floor	31d	12/11/2023	17/12/2023	4,344,670.00 EGP
A1370	De shuttering for Columns of Ground	1d	17/12/2023	17/12/2023	9,460.00 EGP
A1340	Pouring for Columns of Ground floor	4d	11/12/2023	14/12/2023	674,960.00 EGP
A1330	Steel Fixing for Columns of Ground flo	8d	2/12/2023*	10/12/2023	3,603,490.00 EGP
A1320	Shuttering for Columns of Ground floo	4d	12/11/2023	15/11/2023	56,760.00 EGP
	Slab for Ground floor	22d	26/12/2023	21/1/2024	12,219,350.00 EGP
A1420	De shuttering for Slab of Ground floor	1d	21/1/2024	21/1/2024	11,880.00 EGP
A1400	Pouring for Slab of Ground floor	3d	9/1/2024	11/1/2024	2,191,530.00 EGP
A1390	Steel Fixing for Slab of Ground floor	11d	26/12/2023	8/1/2024	9,944,660.00 EGP
A1380	Shuttering for Slab of Ground floor	6d	26/12/2023	1/1/2024	71,280.00 EGP
	Marginal Beam for Ground flo	22d	26/12/2023	21/1/2024	427,020.00 EGP
A3910	De shuttering for marginal beam	1d	21/1/2024	21/1/2024	2,750.00 EGP
A3900	Pouring for marginal beam	3d	9/1/2024	11/1/2024	60,720.00 EGP
A3890	Steel Fixing for marginal beam	2d	26/12/2023	27/12/2023	360,800.00 EGP

A3880	Shuttering for marginal beam	2d	26/12/2023	27/12/2023	2,750.00 EGP
Stairs for Ground Floor		22d	26/12/2023	21/1/2024	265,452.00 EGP
A3070	De shuttering for Stairs of Ground floo	1d	21/1/2024	21/1/2024	2,750.00 EGP
A3050	Pouring for Stairs of Ground floor	1d	9/1/2024	9/1/2024	13,970.00 EGP
A3040	Steel Fixing for Stairs of Ground floor	1d	26/12/2023	26/12/2023	245,982.00 EGP
A3030	Shuttering for Stairs of Ground floor	1d	26/12/2023	26/12/2023	2,750.00 EGP
Finishing Works for Ground Flooor		142d	13/8/2024	27/1/2025	184,153,918.98 EGP
A3280	Install Covering of Stairs for Ground fl	2d	26/1/2025	27/1/2025	116,377.80 EGP
A1580	Finishing Sanitary of Ground floor	20d	2/1/2025	25/1/2025	1,243,597.00 EGP
A1600	Finishing Fire Fighting System of Grou	2d	10/12/2024	11/12/2024	9,746,781.00 EGP
A1590	Finishing HVAC System of Ground flo	9d	10/12/2024	19/12/2024	49,958,056.98 EGP
A1550	Finishing Electrical of Ground floor	20d	10/12/2024	1/1/2025	33,224,221.80 EGP
A1540	Finishing Carpentry of Ground floor	10d	10/12/2024	21/12/2024	4,412,262.00 EGP
A1620	Finisishing Painting of Ground floor	8d	1/12/2024	9/12/2024	1,320,000.00 EGP
A1660	Suspended Ceiling for Ground Floor	10d	19/11/2024	30/11/2024	2,672,290.00 EGP
A1640	Thermal Insulation of Ground Floor	1d	18/11/2024	18/11/2024	231,790.90 EGP
A1630	Moisture Insulation of Ground Floor	1d	18/11/2024	18/11/2024	4,537,410.90 EGP
A1610	Glass Work for Ground floor	2d	13/11/2024	14/11/2024	2,235,635.00 EGP
A1520	Primary Painting of Ground floor	8d	9/11/2024	17/11/2024	660,000.00 EGP
A1480	Metal Works of Ground floor	4d	9/11/2024	12/11/2024	459,290.00 EGP
A1470	Aluminum Works of Ground floor	4d	9/11/2024	12/11/2024	1,182,943.70 EGP
A1500	Preliminary Fire Fighting Works of Gro	7d	31/10/2024	7/11/2024	11,616,000.00 EGP
A1530	Flooring of Ground Floor	17d	20/10/2024	7/11/2024	1,988,283.00 EGP
A1490	Preliminary HVAC System of Ground	10d	20/10/2024	30/10/2024	22,305,371.40 EGP
A1510	Plastering of Ground floor	8d	10/10/2024	19/10/2024	3,155,454.50 EGP
A1440	Preliminary Carpentry Works of Grou	10d	28/9/2024	9/10/2024	2,941,507.90 EGP
A1460	Preliminary Sanitary Works of Ground	30d	22/8/2024	26/9/2024	829,053.50 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A1450	Preliminary Electrical Works of Groun	10d	22/8/2024	2/9/2024	27,612,101.00 EGP
A5780	Preliminary Plastering of Ground floor	2d	20/8/2024	21/8/2024	20,029.90 EGP
A1430	Brick Works of Ground floor	6d	13/8/2024*	19/8/2024	1,685,460.70 EGP
First Floor Works		332d	22/1/2024	4/3/2025	201,085,689.44 EGP
Concrete Works for First floor		37d	22/1/2024	5/3/2024	17,214,912.00 EGP
Columns for First floor		14d	22/1/2024	7/2/2024	4,300,340.00 EGP
A4170	De shuttering for Columns of First floo	1d	7/2/2024	7/2/2024	9,460.00 EGP
A4160	Pouring for Columns of First floor	4d	1/2/2024*	5/2/2024	674,960.00 EGP
A4150	Steel Fixing for Columns of First floor	8d	22/1/2024	31/1/2024	3,559,160.00 EGP

A4140	Shuttering for Columns of First floor	4d	22/1/2024	27/1/2024	56,760.00 EGP
Slab for First floor		22d	8/2/2024	4/3/2024	12,219,350.00 EGP
A4210	De shuttering for Slab of First floor	1d	4/3/2024	4/3/2024	11,880.00 EGP
A4200	Pouring for Slab of First floor	3d	21/2/2024*	24/2/2024	2,191,530.00 EGP
A4190	Steel Fixing for Slab of First floor	11d	8/2/2024	20/2/2024	9,944,660.00 EGP
A4180	Shuttering for Slab of First floor	6d	8/2/2024	14/2/2024	71,280.00 EGP
Marginal Beam for First floor		23d	8/2/2024	5/3/2024	429,770.00 EGP
A4540	De shuttering for marginal beam	2d	4/3/2024	5/3/2024	5,500.00 EGP
A4530	Pouring for marginal beam	3d	21/2/2024	24/2/2024	60,720.00 EGP
A4520	Steel Fixing for marginal beam	2d	8/2/2024	10/2/2024	360,800.00 EGP
A4510	Shuttering for marginal beam	2d	8/2/2024	10/2/2024	2,750.00 EGP
Stairs for First Floor		22d	8/2/2024	4/3/2024	265,452.00 EGP
A4450	De shuttering for Stairs of First floor	1d	4/3/2024	4/3/2024	2,750.00 EGP
A4440	Pouring for Stairs of First floor	1d	21/2/2024	21/2/2024	13,970.00 EGP
A4430	Steel Fixing for Stairs of First floor	1d	8/2/2024	8/2/2024	245,982.00 EGP
A4420	Shuttering for Stairs of First floor	1d	8/2/2024	8/2/2024	2,750.00 EGP
Finishing Works for First Floor		167d	20/8/2024	4/3/2025	183,870,777.44 EGP
A4460	Install Covering of Stairs for First floor	2d	3/3/2025	4/3/2025	116,377.80 EGP
A4330	Finishing Sanitary of First floor	20d	8/2/2025	2/3/2025	1,243,597.00 EGP
A4340	Finishing HVAC System of First floor	9d	25/1/2025*	3/2/2025	49,958,056.98 EGP
A4320	Finishing Electrical of First floor	20d	15/1/2025*	6/2/2025	33,224,221.80 EGP
A4350	Finishing Fire Fighting System of First	2d	23/12/2024	24/12/2024	9,746,781.00 EGP
A4310	Finishing Carpentry of First floor	10d	23/12/2024	2/1/2025	4,412,262.00 EGP
A4370	Finisishing Painting of First floor	8d	14/12/2024	22/12/2024	1,320,000.00 EGP
A4410	Suspended Ceiling for First Floor	10d	2/12/2024	12/12/2024	2,672,290.00 EGP
A4390	Thermal Insulation of First Floor	1d	1/12/2024	1/12/2024	231,790.90 EGP
A4380	Moisture Insulation of First Floor	1d	1/12/2024	1/12/2024	4,537,410.90 EGP
A4290	Primary Painting of First floor	8d	21/11/2024	30/11/2024	660,000.00 EGP
A4360	Glass Work for First floor	2d	19/11/2024	20/11/2024	2,235,635.00 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A4260	Metal Works of First floor	4d	14/11/2024	18/11/2024	459,290.00 EGP
A4250	Aluminum Works of First floor	4d	14/11/2024	18/11/2024	1,182,943.70 EGP
A4490	Preliminary Fire Fighting Works of First	7d	13/11/2024	20/11/2024	11,616,000.00 EGP
A4300	Flooring of First Floor	11d	2/11/2024	13/11/2024	1,711,996.00 EGP
A4270	Preliminary HVAC System of First floor	10d	2/11/2024	12/11/2024	22,305,371.40 EGP
A4280	Plastering of First floor	13d	17/10/2024	31/10/2024	3,268,684.98 EGP
A4220	Preliminary Carpentry Works of First f	10d	5/10/2024	16/10/2024	2,941,507.90 EGP

A4240	Preliminary Sanitary Works of First flo	30d	29/8/2024	3/10/2024	829,053.50 EGP
A4230	Preliminary Electrical Works of First flo	10d	29/8/2024	9/9/2024	27,612,101.00 EGP
A4470	Preliminary Plastering of First floor	2d	27/8/2024	28/8/2024	20,755.90 EGP
A4500	Brick Works of First floor	6d	20/8/2024	26/8/2024	1,564,649.68 EGP
Second Floor Works		295d	6/3/2024	4/3/2025	200,277,146.87 EGP
Concrete Works for Second floor		37d	6/3/2024	23/4/2024	17,214,912.00 EGP
Columns for Second floor		14d	6/3/2024	23/3/2024	4,300,340.00 EGP
A4990	De shuttering for Columns of second	1d	23/3/2024	23/3/2024	9,460.00 EGP
A4980	Pouring for Columns of second floor	4d	16/3/2024	20/3/2024	674,960.00 EGP
A4970	Steel Fixing for Columns of second flo	8d	6/3/2024	14/3/2024	3,559,160.00 EGP
A4960	Shuttering for Columns of second floo	4d	6/3/2024	10/3/2024	56,760.00 EGP
Slab for Second floor		22d	24/3/2024	22/4/2024	12,219,350.00 EGP
A5030	De shuttering for Slab of second floor	1d	22/4/2024	22/4/2024	11,880.00 EGP
A5020	Pouring for Slab of second floor	3d	6/4/2024	8/4/2024	2,191,530.00 EGP
A5010	Steel Fixing for Slab of second floor	11d	24/3/2024	4/4/2024	9,944,660.00 EGP
A5000	Shuttering for Slab of second floor	6d	24/3/2024	30/3/2024	71,280.00 EGP
Marginal Beam for Second floor		23d	24/3/2024	23/4/2024	429,770.00 EGP
A5360	De shuttering for marginal beam	2d	22/4/2024	23/4/2024	5,500.00 EGP
A5350	Pouring for marginal beam	3d	6/4/2024	8/4/2024	60,720.00 EGP
A5340	Steel Fixing for marginal beam	2d	24/3/2024	25/3/2024	360,800.00 EGP
A5330	Shuttering for marginal beam	2d	24/3/2024	25/3/2024	2,750.00 EGP
Stairs for Second Floor		22d	24/3/2024	22/4/2024	265,452.00 EGP
A5270	De shuttering for Stairs of second floo	1d	22/4/2024	22/4/2024	2,750.00 EGP
A5260	Pouring for Stairs of second floor	1d	6/4/2024	6/4/2024	13,970.00 EGP
A5250	Steel Fixing for Stairs of second floor	1d	24/3/2024	24/3/2024	245,982.00 EGP
A5240	Shuttering for Stairs of second floor	1d	24/3/2024	24/3/2024	2,750.00 EGP
Finishing Works for Second Floor		161d	27/8/2024	4/3/2025	183,062,234.87 EGP
A5280	Install Covering of Stairs for second floor	2d	3/3/2025	4/3/2025	116,377.80 EGP
A5150	Finishing Sanitary of second floor	20d	8/2/2025	2/3/2025	1,243,597.00 EGP
A5160	Finishing HVAC System of second floor	9d	25/1/2025*	3/2/2025	49,958,056.98 EGP
A5140	Finishing Electrical of second floor	20d	15/1/2025*	6/2/2025	33,224,221.80 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A5170	Finishing Fire Fighting System of seco	2d	25/12/2024	26/12/2024	9,746,781.00 EGP
A5130	Finishing Carpentry of second floor	10d	25/12/2024	5/1/2025	4,412,262.00 EGP
A5190	Finisishing Painting of second floor	8d	16/12/2024	24/12/2024	1,320,000.00 EGP
A5230	Suspended Ceiling for second Floor	10d	4/12/2024	15/12/2024	2,672,290.00 EGP

A5210	Thermal Insulation of second Floor	1d	3/12/2024	3/12/2024	231,790.90 EGP
A5200	Moisture Insulation of second Floor	1d	3/12/2024	3/12/2024	4,537,410.90 EGP
A5110	Primary Painting of second floor	8d	24/11/2024	2/12/2024	660,000.00 EGP
A5180	Glass Work for second floor	2d	23/11/2024	24/11/2024	2,235,635.00 EGP
A5080	Metal Works of second floor	4d	18/11/2024	21/11/2024	459,290.00 EGP
A5070	Aluminum Works of second floor	4d	18/11/2024	21/11/2024	1,182,943.70 EGP
A5310	Preliminary Fire Fighting Works of sec	7d	16/11/2024	23/11/2024	11,616,000.00 EGP
A5120	Flooring of second Floor	12d	4/11/2024	17/11/2024	1,752,734.50 EGP
A5090	Preliminary HVAC System of second	10d	4/11/2024	14/11/2024	22,305,371.40 EGP
A5100	Plastering of second floor	10d	23/10/2024	3/11/2024	2,622,028.81 EGP
A5040	Preliminary Carpentry Works of secon	10d	12/10/2024	22/10/2024	2,941,507.90 EGP
A5060	Preliminary Sanitary Works of second	30d	4/9/2024	10/10/2024	829,053.50 EGP
A5050	Preliminary Electrical Works of second	10d	4/9/2024	15/9/2024	27,612,101.00 EGP
A5290	Preliminary Plastering of second floor	2d	2/9/2024	3/9/2024	20,029.90 EGP
A5320	Brick Works of second floor	5d	27/8/2024	1/9/2024	1,362,750.78 EGP
Third Floor Works		284d	24/4/2024	3/4/2025	200,310,054.86 EGP
Concrete Works for Third floor		42d	24/4/2024	15/6/2024	17,214,912.00 EGP
Columns for Third floor		19d	24/4/2024	19/5/2024	4,300,340.00 EGP
A5400	De shuttering for Columns of Third flo	1d	19/5/2024	19/5/2024	9,460.00 EGP
A5390	Pouring for Columns of Third floor	4d	13/5/2024	16/5/2024	674,960.00 EGP
A5380	Steel Fixing for Columns of Third floor	8d	2/5/2024*	12/5/2024	3,559,160.00 EGP
A5370	Shuttering for Columns of Third floor	4d	24/4/2024	29/4/2024	56,760.00 EGP
Slab for Third floor		22d	20/5/2024	13/6/2024	12,219,350.00 EGP
A5440	De shuttering for Slab of Third floor	1d	13/6/2024	13/6/2024	11,880.00 EGP
A5430	Pouring for Slab of Third floor	3d	2/6/2024	4/6/2024	2,191,530.00 EGP
A5420	Steel Fixing for Slab of Third floor	11d	20/5/2024	1/6/2024	9,944,660.00 EGP
A5410	Shuttering for Slab of Third floor	6d	20/5/2024	26/5/2024	71,280.00 EGP
Marginal Beam for Third floor		23d	20/5/2024	15/6/2024	429,770.00 EGP
A5770	De shuttering for marginal beam	2d	13/6/2024	15/6/2024	5,500.00 EGP
A5760	Pouring for marginal beam	3d	2/6/2024	4/6/2024	60,720.00 EGP
A5750	Steel Fixing for marginal beam	2d	20/5/2024	21/5/2024	360,800.00 EGP
A5740	Shuttering for marginal beam	2d	20/5/2024	21/5/2024	2,750.00 EGP
Stairs for Third Floor		22d	20/5/2024	13/6/2024	265,452.00 EGP
A5680	De shuttering for Stairs of Third floor	1d	13/6/2024	13/6/2024	2,750.00 EGP
A5670	Pouring for Stairs of Third floor	1d	2/6/2024	2/6/2024	13,970.00 EGP

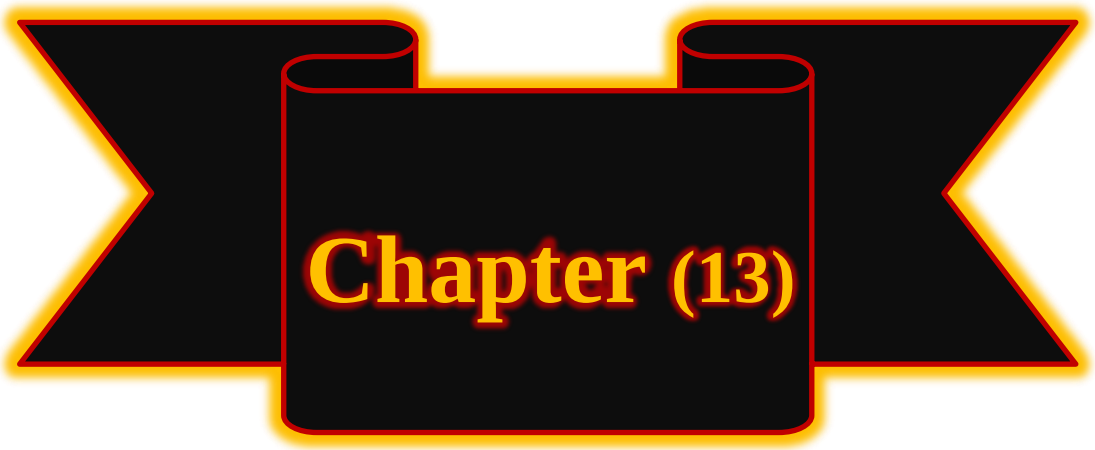
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A5660	Steel Fixing for Stairs of Third floor	1d	20/5/2024	20/5/2024	245,982.00 EGP

A5650	Shuttering for Stairs of Third floor	1d	20/5/2024	20/5/2024	2,750.00 EGP
Finishing Works for Third Floor		182d	2/9/2024	3/4/2025	183,095,142.86 EGP
A5690	Install Covering of Stairs for Third floor	2d	2/4/2025	3/4/2025	116,377.80 EGP
A5560	Finishing Sanitary of Third floor	20d	10/3/2025	1/4/2025	1,243,597.00 EGP
A5570	Finishing HVAC System of Third floor	9d	25/2/2025*	6/3/2025	49,958,056.98 EGP
A5550	Finishing Electrical of Third floor	20d	15/2/2025*	9/3/2025	33,224,221.80 EGP
A5580	Finishing Fire Fighting System of Third	2d	30/12/2024	31/12/2024	9,746,781.00 EGP
A5540	Finishing Carpentry of Third floor	10d	30/12/2024	9/1/2025	4,412,262.00 EGP
A5600	Finisishing Painting of Third floor	8d	21/12/2024	29/12/2024	1,320,000.00 EGP
A5640	Suspended Ceiling for Third Floor	10d	9/12/2024	19/12/2024	2,672,290.00 EGP
A5620	Thermal Insulation of Third Floor	1d	8/12/2024	8/12/2024	231,790.90 EGP
A5610	Moisture Insulation of Third Floor	1d	8/12/2024	8/12/2024	4,537,410.90 EGP
A5520	Primary Painting of Third floor	8d	28/11/2024	7/12/2024	660,000.00 EGP
A5590	Glass Work for Third floor	2d	27/11/2024	28/11/2024	2,235,635.00 EGP
A5490	Metal Works of Third floor	4d	23/11/2024	26/11/2024	459,290.00 EGP
A5480	Aluminum Works of Third floor	4d	23/11/2024	26/11/2024	1,182,943.70 EGP
A5720	Preliminary Fire Fighting Works of Thir	7d	20/11/2024	27/11/2024	11,616,000.00 EGP
A5530	Flooring of Third Floor	12d	9/11/2024	21/11/2024	1,755,813.62 EGP
A5500	Preliminary HVAC System of Third floo	10d	9/11/2024	19/11/2024	22,305,371.40 EGP
A5510	Plastering of Third floor	11d	27/10/2024	7/11/2024	2,710,102.19 EGP
A5450	Preliminary Carpentry Works of Third	10d	15/10/2024	26/10/2024	2,941,507.90 EGP
A5460	Preliminary Electrical Works of Third fl	10d	8/10/2024*	19/10/2024	27,612,101.00 EGP
A5700	Preliminary Plastering of Third floor	2d	8/9/2024	9/9/2024	20,029.90 EGP
A5470	Preliminary Sanitary Works of Third flo	30d	8/9/2024	14/10/2024	829,053.50 EGP
A5730	Brick Works of Third floor	5d	2/9/2024	7/9/2024	1,304,506.28 EGP
Fourth Floor Works		266d	16/6/2024	1/5/2025	201,326,876.23 EGP
Concrete Works for Fourth floor		37d	16/6/2024	5/8/2024	17,214,912.00 EGP
Columns for Fourth floor		14d	16/6/2024	7/7/2024	4,300,340.00 EGP
A4580	De shuttering for Columns of Fourth fl	1d	7/7/2024	7/7/2024	9,460.00 EGP
A4570	Pouring for Columns of Fourth floor	4d	1/7/2024	4/7/2024	674,960.00 EGP
A4560	Steel Fixing for Columns of Fourth floo	8d	16/6/2024	29/6/2024	3,559,160.00 EGP
A4550	Shuttering for Columns of Fourth floor	4d	16/6/2024	24/6/2024	56,760.00 EGP
Slab for Fourth floor		22d	9/7/2024	4/8/2024	12,219,350.00 EGP
A4620	De shuttering for Slab of Fourth floor	1d	4/8/2024	4/8/2024	11,880.00 EGP
A4610	Pouring for Slab of Fourth floor	3d	22/7/2024	25/7/2024	2,191,530.00 EGP
A4600	Steel Fixing for Slab of Fourth floor	11d	9/7/2024	21/7/2024	9,944,660.00 EGP
A4590	Shuttering for Slab of Fourth floor	6d	9/7/2024	15/7/2024	71,280.00 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
	Marginal Beam for Fourth floor	23d	9/7/2024	5/8/2024	429,770.00 EGP
A4950	De shuttering for marginal beam	2d	4/8/2024	5/8/2024	5,500.00 EGP
A4940	Pouring for marginal beam	3d	22/7/2024	25/7/2024	60,720.00 EGP
A4930	Steel Fixing for marginal beam	2d	9/7/2024	10/7/2024	360,800.00 EGP
A4920	Shuttering for marginal beam	2d	9/7/2024	10/7/2024	2,750.00 EGP
	Stairs for Fourth Floor	22d	9/7/2024	4/8/2024	265,452.00 EGP
A4860	De shuttering for Stairs of Fourth floor	1d	4/8/2024	4/8/2024	2,750.00 EGP
A4850	Pouring for Stairs of Fourth floor	1d	22/7/2024	22/7/2024	13,970.00 EGP
A4840	Steel Fixing for Stairs of Fourth floor	1d	9/7/2024	9/7/2024	245,982.00 EGP
A4830	Shuttering for Stairs of Fourth floor	1d	9/7/2024	9/7/2024	2,750.00 EGP
	Finishing Works for Fourth Floor	201d	8/9/2024	1/5/2025	184,111,964.23 EGP
A4870	Install Covering of Stairs for Fourth flo	2d	30/4/2025	1/5/2025	116,377.80 EGP
A4740	Finishing Sanitary of Fourth floor	20d	7/4/2025	29/4/2025	1,243,597.00 EGP
A4750	Finishing HVAC System of Fourth floo	9d	5/4/2025*	14/4/2025	49,958,056.98 EGP
A4730	Finishing Electrical of Fourth floor	20d	15/3/2025*	6/4/2025	33,224,221.80 EGP
A4760	Finishing Fire Fighting System of Four	2d	13/1/2025	14/1/2025	9,746,781.00 EGP
A4720	Finishing Carpentry of Fourth floor	10d	13/1/2025	23/1/2025	4,412,262.00 EGP
A4780	Finisishing Painting of Fourth floor	8d	4/1/2025	12/1/2025	1,320,000.00 EGP
A4820	Suspended Ceiling for Fourth Floor	10d	23/12/2024	2/1/2025	2,672,290.00 EGP
A4800	Thermal Insulation of Fourth Floor	1d	22/12/2024	22/12/2024	231,790.90 EGP
A4790	Moisture Insulation of Fourth Floor	1d	22/12/2024	22/12/2024	4,537,410.90 EGP
A4700	Primary Painting of Fourth floor	8d	12/12/2024	21/12/2024	660,000.00 EGP
A4900	Preliminary Fire Fighting Works of Fou	7d	4/12/2024	11/12/2024	11,616,000.00 EGP
A4770	Glass Work for Fourth floor	2d	26/11/2024	27/11/2024	2,235,635.00 EGP
A4680	Preliminary HVAC System of Fourth fl	10d	23/11/2024	3/12/2024	22,305,371.40 EGP
A4670	Metal Works of Fourth floor	4d	21/11/2024	25/11/2024	459,290.00 EGP
A4660	Aluminum Works of Fourth floor	4d	21/11/2024	25/11/2024	1,182,943.70 EGP
A4710	Flooring of Fourth Floor	13d	6/11/2024	20/11/2024	1,801,507.18 EGP
A4690	Plastering of Fourth floor	14d	6/11/2024	21/11/2024	3,552,802.14 EGP
A4640	Preliminary Electrical Works of Fourth	10d	26/10/2024*	5/11/2024	27,612,101.00 EGP
A4630	Preliminary Carpentry Works of Fourt	10d	23/10/2024	3/11/2024	2,941,507.90 EGP
A4650	Preliminary Sanitary Works of Fourth	30d	17/9/2024	22/10/2024	829,053.50 EGP
A4880	Preliminary Plastering of Fourth floor	2d	14/9/2024	15/9/2024	20,029.90 EGP
A4910	Brick Works of Fourth floor	5d	8/9/2024	12/9/2024	1,432,934.14 EGP
	Roof works	209d	14/9/2024	17/5/2025	5,978,546.42 EGP
	Finishing Works for Roof	209d	14/9/2024	17/5/2025	5,978,546.42 EGP
A3710	Install Floor Cover for Roof	11d	5/5/2025	17/5/2025	817,442.73 EGP

A3700	Thermal Insulation of Roof	3d	1/5/2025	4/5/2025	236,556.10 EGP
A3690	Moisture Insulation Roof	3d	1/5/2025	4/5/2025	4,554,760.10 EGP
A3790	Sanitary Works of Roof	0d	30/4/2025	30/4/2025	0.00 EGP

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
A3770	Plastering of Roof	1d	30/4/2025	30/4/2025	12,863.13 EGP
A3780	Electrical Works of Roof	0d	7/4/2025	7/4/2025	0.00 EGP
A3760	Preliminary Plastering of Roof	2d	23/11/2024	24/11/2024	10,701.90 EGP
A3680	Brick Works of Roof	1d	14/9/2024	14/9/2024	346,222.47 EGP
Elevators		22d	18/5/2025	11/6/2025	28,049,995.00 EGP
A3370	Elevator Instaliation	7d	4/6/2025	11/6/2025	550,000.00 EGP
A3360	Elevator Works	15d	18/5/2025	3/6/2025	27,499,995.00 EGP
Parapets		6d	28/5/2025	3/6/2025	0.00 EGP
A3750	Parapet Deshutter	2d	2/6/2025	3/6/2025	0.00 EGP
A3740	Parapet Concrete Casting	1d	29/5/2025	29/5/2025	0.00 EGP
A3730	Parapet steel	1d	28/5/2025	28/5/2025	0.00 EGP
A3720	Parapet Shutter	2d	28/5/2025	29/5/2025	0.00 EGP
Cladding Works		5d	18/5/2025	22/5/2025	49,280.00 EGP
A3390	Glass Work for Cladding	1d	22/5/2025	22/5/2025	21,120.00 EGP
A3400	Aluminum Work for Cladding	1d	21/5/2025	21/5/2025	7,040.00 EGP
A3410	Artifical Stone Work for Cladding	1d	20/5/2025	20/5/2025	0.00 EGP
A3380	Form Work for Cladding	1d	19/5/2025	19/5/2025	21,120.00 EGP
A3420	Release Form Work for Cladding	1d	18/5/2025	18/5/2025	0.00 EGP
General Site		15d	24/5/2025	9/6/2025	7,323,250.00 EGP
A3450	Agriculture Work for General Site	1d	9/6/2025	9/6/2025	0.00 EGP


Chapter (13)

Cash flow

13.1 Cash flow

measures how much cash a company takes in versus how much it expends. More cash coming in than going out means the cash flow is positive. If the opposite is true, the cash flow is negative.

A business is considered healthy when its cash flow is positive for a prolonged period of time. Even profitable businesses, however, can experience short periods of negative cash flow.

When a business has a negative cash flow for an extended period of time, it typically becomes insolvent and may need to declare bankruptcy.

Banks look at cash flow to help decide how much money they are willing to lend a company. They calculate EBITDA (earnings before deducting interest, taxes, depreciation and amortization) to measure cash coming in, and then deduct all contractual debt payments of principal and interest (cash expended) to determine the net cash flow.

Table . Cash Flow Analysis Calculations

	0	1	2	3	4	5	6	7	8	9	10	11
	beginning	March	April	May	June	July	August	September	October	November	December	January
DC	0	40,673,015	25,654,112	11,903,069	11,335,760	13,578,862	11,332,452	5,959,350	13,967,742	6,806,330	13,578,862	32,289,679
IC	0	5,287,492	3,335,035	1,547,399	1,473,649	1,765,252	1,473,219	774,716	1,815,806	884,823	1,765,252	4,197,658
Total Cost	0	45,960,507	28,989,147	13,450,468	12,809,409	15,344,114	12,805,671	6,734,066	15,783,548	7,691,153	15,344,114	36,487,337
Cum. Cost	0	45,960,507	74,949,654	88,400,121	101,209,530	116,553,644	129,359,315	136,093,380	151,876,929	159,568,082	174,912,196	211,399,533
Cum. Expenses	0	45,960,507	74,949,654	88,400,121	101,209,530	116,553,644	129,359,315	136,093,380	151,876,929	159,568,082	174,912,196	211,399,533
Revenue		50,556,557.65	31,888,061.22	14,795,514.38	14,090,349.68	16,878,525.47	14,086,237.84	7,407,472.05	17,361,903.31	8,460,268.19	16,878,525.47	40,136,070.96
Retention												
advanced payment	138,532,946											
Adjusted Revenue	138,532,946	42,973,074.00	27,104,852.03	12,576,187.22	11,976,797.23	14,346,746.65	11,973,302.16	6,296,351.24	14,757,617.81	7,191,227.96	14,346,746.65	34,115,660.32
Cum. Revenue	138,532,946	181,506,019.83	208,610,871.86	221,187,059.09	233,163,856.32	247,510,602.96	259,483,905.12	265,780,256.36	280,537,874.17	287,729,102.14	302,075,848.78	336,191,509.10
Cum. Income	138,532,946	138,532,945.83	181,506,019.83	208,610,871.86	221,187,059.09	233,163,856.32	247,510,602.96	259,483,905.12	265,780,256.36	280,537,874.17	287,729,102.14	302,075,848.78
Cash Before	138,532,946	92,572,438.88	63,583,292.32	93,105,898.70	107,401,341.93	104,633,415.10	103,804,541.57	111,417,222.71	107,606,976.41	106,212,174.75	105,625,678.50	76,329,569.23
Cash After			106,556,366.32	120,210,750.73	119,977,529.16	116,610,212.33	118,151,288.21	123,390,524.87	113,903,327.65	120,969,792.56	112,816,906.47	90,676,315.88

	12	13	14	15	16	17	18	19	20	21	22
	February	March	April	May	June	July	August	September	October	November	December
DC	62,286,469	93,526,515	181,068,368	186,119,194	138,336,507	92,065,598	73,176,119	59,757,319	31,626,724	9,462,749	
IC	8,097,241	12,158,447	23,538,888	24,195,495	17,983,746	11,968,528	9,512,895	7,768,451	4,111,474	1,230,157	
Total Cost	70,383,710	105,684,962	204,607,256	210,314,689	156,320,253	104,034,125	82,689,014	67,525,771	35,738,198	10,692,906	
Cum. Cost	281,783,243	387,468,205	592,075,461	802,390,150	958,710,402	1,062,744,528	1,145,433,542	1,212,959,312	1,248,697,510	1,259,390,417	1,259,390,417
Cum. Expenses	281,783,243	387,468,205	592,075,461	802,390,150	958,710,402	1,062,744,528	1,145,433,542	1,212,959,312	1,248,697,510	1,259,390,417	1,259,390,417
Revenue	77,422,080.69	116,253,458.15	225,067,982.01	231,346,157.53	171,952,278.01	114,437,537.99	90,957,915.35	74,278,347.65	39,312,017.72	11,762,197.01	
Retention										69,266,472.92	
advanced payment											
Adjusted Revenue	65,808,768.59	98,815,439.42	191,307,784.71	196,644,233.90	146,159,436.31	97,271,907.29	77,314,228.04	63,136,595.51	33,415,215.06	9,997,867.46	
Cum. Revenue	402,000,277.69	500,815,717.11	692,123,501.82	888,767,735.72	1,034,927,172.03	1,132,199,079.33	1,209,513,307.37	1,272,649,902.87	1,306,065,117.94	1,316,062,985.39	1,316,062,985.39
Cum. Income	336,191,509.10	402,000,277.69	500,815,717.11	692,123,501.82	888,767,735.72	1,034,927,172.03	1,132,199,079.33	1,209,513,307.37	1,272,649,902.87	1,306,065,117.94	1,316,062,985.39
Cash Before	20,292,606.15	-51,276,695.48	-190,075,183.26	-301,574,432.50	-266,586,900.54	-173,976,792.08	-110,506,369.72	-80,760,233.02	-39,184,202.91	13,259,486.23	46,674,701.29
Cash After	54,408,266.47	14,532,073.11	-91,259,743.84	-110,266,647.80	-69,942,666.63	-27,817,355.77	-13,234,462.43	-3,446,004.98	23,952,392.60	46,674,701.29	56,672,568.75

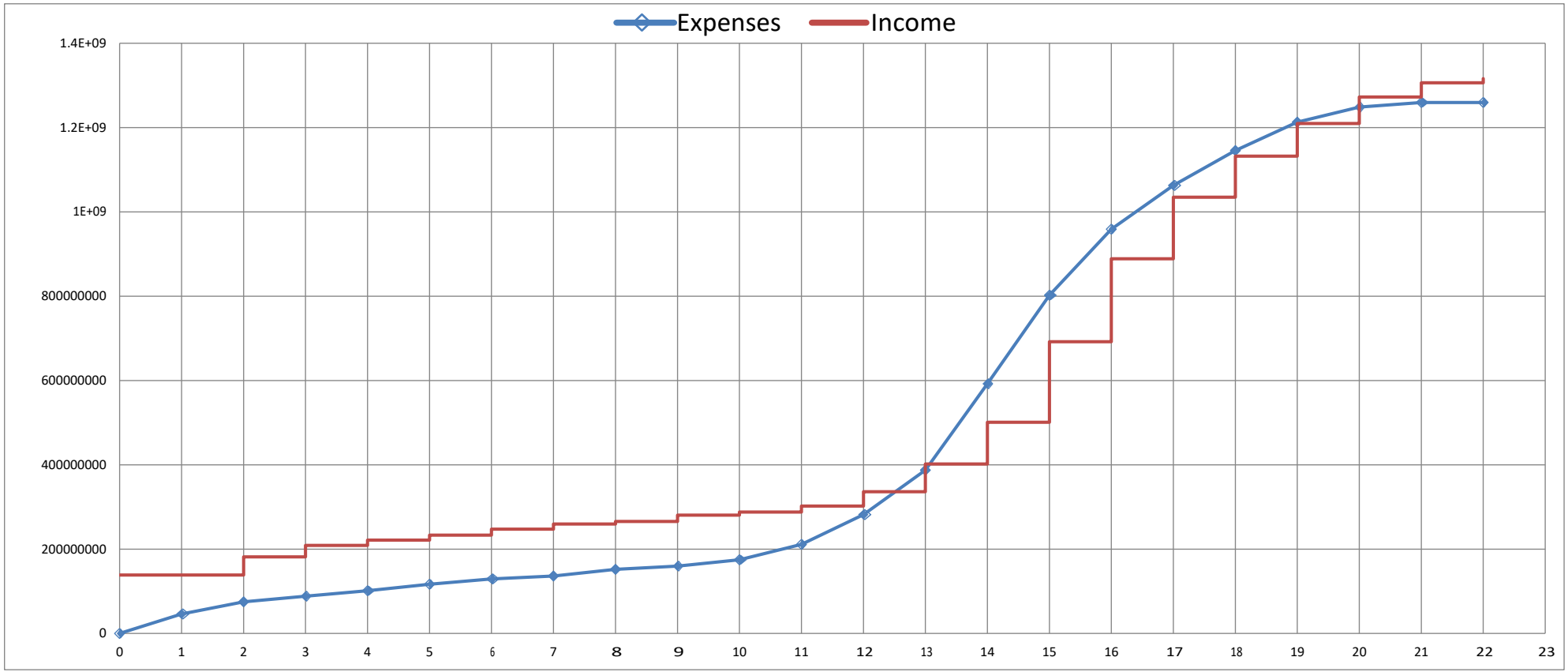


Figure . Cash Flow Curves (Cumulative Income & Expenses Curves)

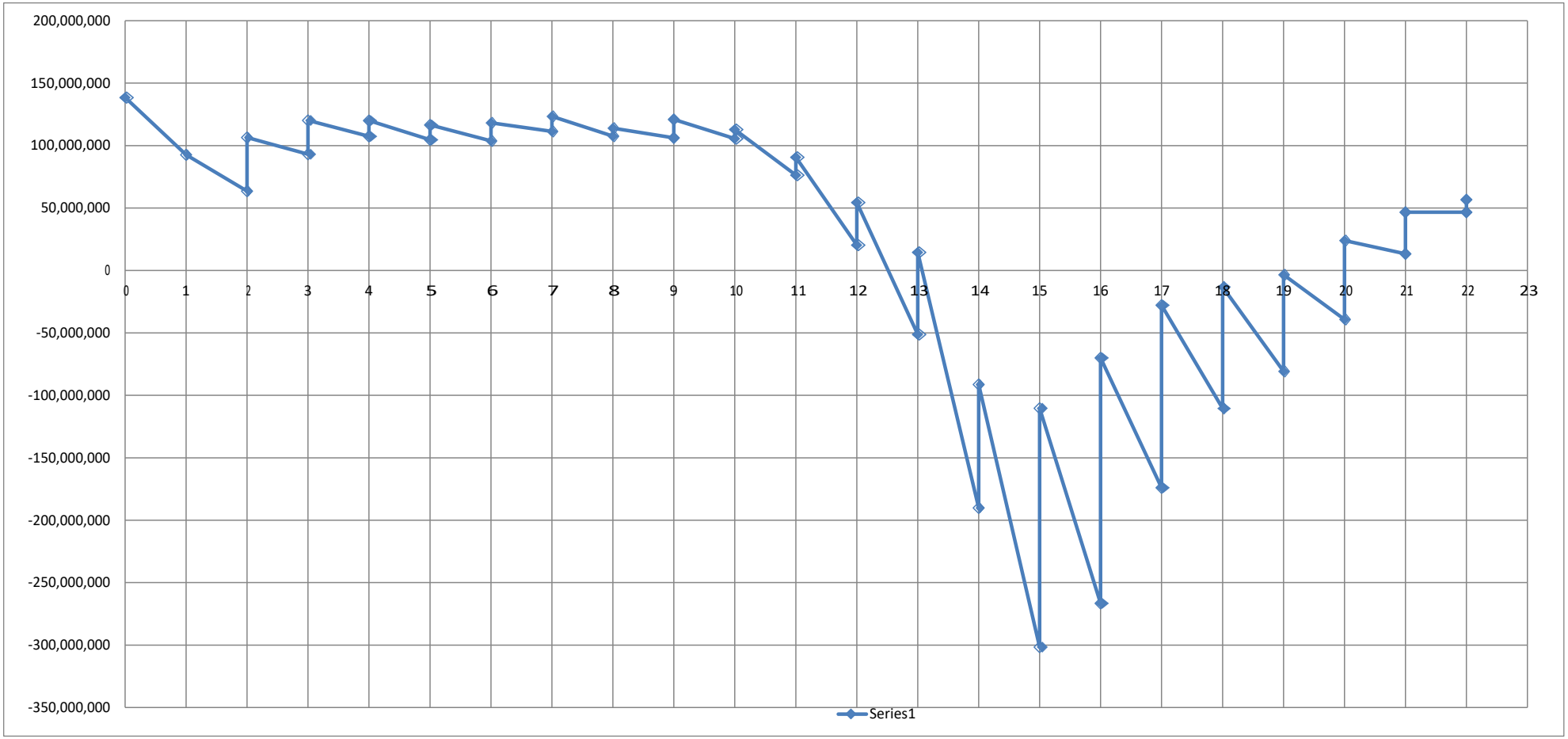
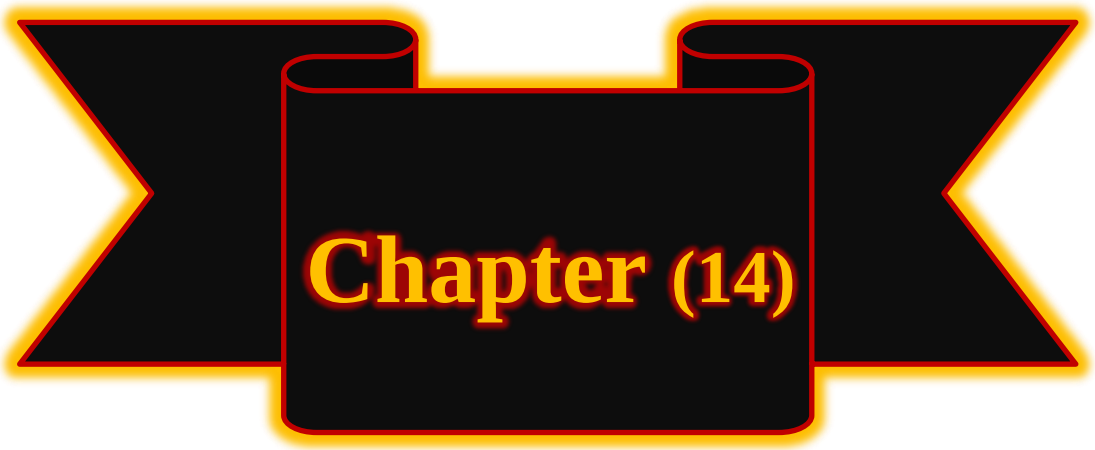


Figure . Net Cash Flow Curve


Chapter (14)

Project & Contract Pricing

Because of the unique nature of constructed facilities, it is almost imperative to have a separate price for each facility. The construction contract price includes the direct project cost including field supervision expenses plus the markup imposed by contractors for general overhead expenses and profit. The factors influencing a facility price will vary by type of facility and location as well. Within each of the major categories of construction such as residential housing, commercial buildings, industrial complexes and infrastructure, there are smaller segments which have very different environments with regard to price setting. However, all pricing arrangements have some common features in the form of the legal documents binding the owner and the supplier(s) of the facility. Without addressing special issues in various industry segments, the most common types of pricing arrangements can be described broadly to illustrate the basic principles.

Pricing

Table 22 Pricing

Name of items		Measuring unit	Cost of unit	Quantity	PRICE
Excavation	In cubic metres, excavate the necessary foundations to any depth in all types of soil in accordance with the consultant's instructions and the soil research report. The category includes the removal of surface and groundwater, if any, and everything necessary to complete the work in accordance with the conditions and specifications and according to the principles of industry and engineering measurement according to the design drawings. The method of measurement has been clarified in the technical specifications for excavation and earthworks.	m3	45	13104	589680
Soil replacement	In cubic metres, supply and implementation of a replacement layer of sand and sand At a ratio of 1:2, taking into account that the prescribed proportions are mixed well before backfilling the replacement soil and it is formed The layers are at a height of 25 cm, and the layers are compacted well with mash weighing no less than 10 tons In layers with a thickness of 25 cm for each layer after adding the necessary percentage of water to it (off-site) To reach the maximum dry density based on the modified Proctor experiment and not less than 95% of its value and in accordance with the instructions of the supervising engineer and everything necessary for this work according to Technical specifications and industry standards.	m3	400	1872	748800

Back filling	In cubic metres, backfill around foundations and buildings using clean sand in layers Its height is more than 25 cm, with good compaction using mechanical compactors and good spraying With water to reach a relative blood level of no less than 95% of that sample according to the test Modified Proctor and these layers are made until the levels specified in the drawings are reached The category includes everything necessary to complete the work in accordance with the conditions and specifications and according to the rules Industry and engineering measurement.	m3	37	2662	98494
PC	In cubic metres, supplying and pouring ordinary concrete for foundations Change it in the project with a cement content of no less than 250 kg/m3 so that the resistance does not decrease Pressure for its standard cubes must be no less than 200 kg/cm2 after 28 days of casting. This category includes weighing and leveling the bottom and surface of the concrete at the required level and compacting it well Spraying it with water after finishing it according to industry standards and technical specifications.	m3	815	1248	1017120
RC	In cubic metres, supplying and pouring any new foundations needed for the project, including rooms on site General or any other foundations (0.8 oz., 0.4 m3 sand, 400+ kg Seawater cement (This category includes reinforcing steel of different diameters, and its standard cubes can withstand stress of no less than About 300 kg/cm2 after 28 days according to drawings and specifications, all of which are in cubic metres.	m3	9487	8325	78979275
Pouring of slab on grade	By square metre, supply and pour a regular concrete pile for the building floors with a thickness of 10 cm The item includes everything necessary to complete the business in accordance with industry principles Technical specifications and instructions of the supervising engineer.	m2	803	1248	1002144

Insulation for RC Foundation	Per square metre, supply and paint hot bitumen in three faces for all structural elements Adhering to the soil. According to specifications and industry principles, all in square metres.	m2	67	2660	178220
Block under slab on grade		m3	253	2662	673486
Columns	In cubic metres, supplying and pouring reinforced concrete for any new columns required for the works (0.8 m3 0.4 gravel + m3 sand + 400 kg ordinary Portland cement (the category includes rebar Of different diameters, its standard cubes can withstand a stress of no less than 350 kg/cm2. After 28 days according to the specifications, all in cubic metres.	m3	12376	2159	26719784
Slab & Stairs	In cubic metres, supplying and pouring reinforced concrete for any slabs or slab beams Solid slabs, which is necessary for any new rooms or any new concrete elements on the site General (0.8 m3 gravel + 0.4 m3 sand + 350 kg ordinary Portland cement) and the category includes Reinforcing steel of different diameters, its standard cubes can withstand a stress of no less than 350 kg/cm2 according to specifications, all of which are in cubic metres.	m3	8387	9154.5	76778791.5
Brick Works	In cubic metres, supplying and making brick buildings 25 x 12 x 6 cm (in bathrooms, the walls are up to a meter high The floor is made of solid cement bricks at the same price and the rest of the price Clay bricks, 25 cm thick, according to the sample approved for supply and construction With cement and sand mortar and finishing work, the item is charged with plastering Of galvanized iron in the connection places between buildings, columns and everything else The work must be completed in accordance with industry principles and technical	m3	252	41755	10522260

	specifications And the instructions of the consulting engineer.				
Carpentry Works	All carpentry works are carried out according to the specifications of the architectural carpentry works according to the Egyptian code.	LUMPSUM		1	45225685.5
Electrical Works	Wires ,Cables ,Feeders and related accessories: multicore copper cables PVC as shown on the drawings and specification including all required works such like manholes , civil works.	LUMPSUM		1	374143387
Sanitary Works & HVAC System	Suppling, Installing, connecting and testing of UPVC pipes and fitting above ground and under tiles with 6 bar completed with all accessories as per specification and drawings.	LUMPSUM		1	457166886
Aluminum Works & Metal Works	All aluminum and metal works are carried out According to specifications Aluminum and metal works mentioned in the specifications and in accordance with the Egyptian code.	LUMPSUM		1	2019947.82

Plastering	By square meter, supplying and making rough plastering for interior walls Interior ceilings are made from a general slab with mortar of 350 kg cement/m3 Sand and backing with a mortar consisting of cement and sand, 350 kg Cement/m3 sand with an average thickness of 2 cm and the category includes covering the seams between The connection of the concrete structure with the bricks with strips of expanded mesh is no less Its width is more than 10 cm, and it is fixed with galvanized nails on both sides according to the welding According to the specifications, the item also includes whitewashing in damaged areas with work The necessary treatment for it if it has cracks and making any necessary additions Of building materials. The item is comprehensive, all of which are measured by flat meters and according to the instructions Consulting engineer. The measurement is geometric.	m2	287	68307.34	19604205.4
Painting	By square meter, supplying and making plastic paints for walls or ceilings Based on acrylic, such as Cricut, produced by a local company such as: Skip, Jotun, or similar modern building chemicals, according to the sample Approved from three sides other than the preparatory side in the required color In accordance with industry principles and standard specifications. The item is charged It requires preparing the surface with an abrasive material such as Silcoat 101 or something Similar items, and the item includes all of them in square metres, in accordance with the instructions Consulting engineer.	LUMPSUM		1	12177000

Flooring	Supply and installation of ceramic floor tiles produced by Al-Gawhara companies Cleopatra or similar, taking into account the regularity of the floor tiles with The walls and brackets are loaded with watering cans filled with anti-bacteria according to the requirements Excellent industry principles and in accordance with technical specifications and instructions The consultant and the approved sample.	m2	352	42967	15124384
Fire Fighting System	All Fire Fighting System are carried out According to specifications Fire Fighting System mentioned in the specifications and in accordance with the Egyptian code.	LUMPSUM		1	131381103
Glass Work	By flat metre, supply and installation of thick securit glass partitions 10 mm and sanded the item in some parts according to the instructions The consultant also includes all necessary accessories For installation according to the consultant's instructions and the item is comprehensive, all of which are per metre Flat and according to the consultant's instructions.	LUMPSUM		1	13749155.3
Moisture Insulation	By square metre, supply and installation of insulation for bathrooms, roof and floor The ground floor consists of a layer of Innocent 3000N coil, 3 mm thick or Bitonil or something similar, which is installed in Bashbouri and according to industry standards. Production of enzymes or something similar. The price includes making a plastered cement plaster The bottom is 3 cm thick, as well as a 3 cm cement plaster on top for protection, as well as Overalls 30cm high and measured according to horizontal projection. According to specifications The clause is comprehensive of all of them, in accordance with the instructions of the consulting mentor.	m2	970	34558	33521260

Thermal Insulation	By square metre, supply and installation of a heat insulating layer of polycarbonate panels Styrene manufactured by extrusion method with a thickness of less than 5 cm and the price includes Make a cement plaster over it with a thickness of 3 cm, and the item includes all of them. In metres flat and according to the instructions of the consulting engineer.	m2	223	7723	1722229
Suspended Ceilling	By flat metre, supply and installation of artificial ceilings made of gypsum boards GYPSUM BOARD (first class fire resistance), produced by a company Knauf, Lafarge, Saint-Gobain, or similar, complete with suspension system and price It includes making the necessary openings and entries for lighting units and exits Air conditioning, etc., as well as the required inspection doors in coordination with the rest Works and bearing on the item putty and acrylic paints and lining The final color is in the required color until the work is completed according to the rules Industry. According to drawings, specifications, engineering measurement, and the item is comprehensive Of all of it. According to the instructions of the consulting engineer.	LUMPSUM		1	16434583.5
Install Covering of Stairs	By linear metre, supply and installation of granite staircase cladding Gray or colored according to the consultant's instructions, with a thickness of 4 cm and slate 2 cm of skirting, the height of the post and the width of the sleeper, and a bearing on it Braking or hammering with a 4cm wide blade according to approved samples and a bearing The item includes runners for the stairs and also made a skirting board with a height of up to 20 cm And finish the work in accordance with industry standards and specifications, in accordance with instructions Consulting engineer.	m^2	852	840	715680

Elevator Works	Supply, Install, testing, commissioning, maintenance and guarantee of the following elevators all in accordance with the tender drawings, specifications (Division 14) and the latest technology provided by one of the following elevators.	LUMPSUM		1	34501500
Cladding	All Cladding works are carried out According to specifications Cladding works mentioned in the specifications and in accordance with the Egyptian code.	LUMPSUM		1	60614.4
Road Paving Works for General Site	Per square meter, supply and installation of interlock tiles for street cars Rectangular and in the colors approved by the consultant and according to the operating drawings With a thickness of not less than 8 cm, the item includes a layer of clean, fine sand Well tamped under the tiles with a thickness of 8 cm according to the specifications and drawings The item includes all of it, and the item includes all of it, in flat meters and accordingly For consultant instructions.	LUMPSUM		1	4197682.5
Installing interlock Tiles for General Site	Per square metre, supply and installation of rectangular garden interlocks 10*20 cm With a thickness of not less than 6 cm or according to the consultant's instructions. The item includes a layer Of clean, soft sand, well tamped under the tiles, 8 cm thickFor specifications, drawings and the item is comprehensive of all of them.	LUMPSUM		1	4809915
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