



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

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**SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF ARCHITECTURE
M. Arch (Building management)**

**PROFESSIONAL TRAINING (S84APT)
JUL 2022 – AUG 2022**

Name of the Student : SOWMMIYA NARAYANAN S

Semester : III

Reg No. : 41840015

Batch : 2021-2023



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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

M. Arch (Building management)

VIVA-VOCE EXAMINATION

This is to certify that the Professional Training Report (S84APT) is the work of **SOWMMIYA NARAYANAN S (41840015)** who had undergone training in **BUILTEC ENGINEERS AND CONSULTANTS** and has been monitored by the continuous assessment during Jul 2022 to Aug 2022.

Dr. Devyani Gangopadhyay

HOD AND DEAN

Submitted for Viva voce Examination held on **20.12.22**

Internal Examiner
(A. RAMESH KUMAR)

External Examiner
(A. DEVIPRASAD)



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DECLARATION

I **SOWMMIYA NARAYANAN S** hereby declare that this Professional Training Report **30 Days from 11th July 2022 to 13th August 2022** done by me under the guidance of **Mr. GOPI MOHAN** is submitted in partial fulfillment of the requirements for the completion of practical training session.



DATE : 20.12.2022

PLACE : Chennai

S. Sowmmiya Narayanan

SIGNATURE OF CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. Devyani Gangopadhyay Dean, School of building and Environment** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to **Mr. Gopi Mohan** for his valuable guidance, suggestions and constant encouragement paved way for the successful completion of my Training.

I would also like to express my sincere thanks to **Ar. Surya Raj Kumar** (Internal Co-Ordinator) for her valuable guidance, during the entire Professional Training period.

I wish to express my thanks to all Teaching and Non-teaching staff members of the Department of Architecture who were helpful in many ways for the completion of the project.

I take this moment to thank, **Mr. Vishwanathan** (Celesta Apartments - Project Manager) and **Mr. Sathyamoorthy** (Guru Nanak College Sports Complex - Project Manager) for all the support since the day I began to work.

I am profoundly grateful to them for their, professionalism, concern, passionate support and encouragement throughout my training.

BONAFIDE CERTIFICATE

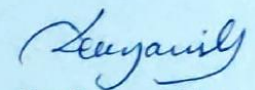

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Date: 11.05.2022

TO WHOMSOEVER IT MAY CONCERN

SOWMMIYA NARAYANAN S (Reg No- 41840015) is a bonafide student of our institution pursuing Masters in Architecture in Building Management (Batch 2021-2023). As part of the curriculum the students are required to undergo Professional Training for a minimum period of 30 working days. Kindly grant permission for the same in your esteemed organization. We also assure that information collected about any project will be used for academic purpose only.

Thanking You,


Dr. Devyani Gangopadhyay
Dean, School of Building & Environment



JOINING LETTER


ENGINEERS AND CONSULTANTS

BUILTEC ENGINEERS AND CONSULTANTS
No. 12, Jawaharlal Nehru Street, VGN Nagar, Phase - 4,
(Mogappair - West), Madhavoyal P.O., Nalambur,
Chennai - 600095, TN, Ph: 044 - 42693779 / 42151577
info@bultecpmc.com | www.bultecpmc.com

Date: 09.07.2022

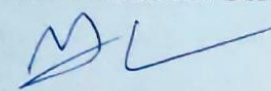
Acceptance for Internship - Project Management

We are glad to inform you that your Internship training in our work sites start from 11.07.2022 to 13.08.2022 totaling 30 days. Your punctuality and discipline is highly appreciated in the training period.

1. The Celesta Project, Pallikarani - 11.07.2022 to 23.07.2022
2. Guru Nanak College, Velachery - 25.07.2022 to 07.08.2022
3. Our Office - 08.08.22 to 13.08.2022 (Study of documents and certification).

Thanking you,

FOR BUILTEC ENGINEERS & CONSULTANTS


T. HARINANDANAN
CEO



EXPERIENCE CERTIFICATE



BUILTEC ENGINEERS AND CONSULTANTS
No. 12, Jawaharlal Nehru Street, VGN Nagar, Phase - 4,
(Mogappair West), Madhavoyal P.O., Nalambur,
Chennai - 600095, TN. Ph: 044 - 42693779 / 42151577
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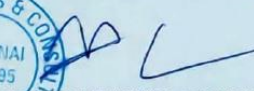
Date: 16.07.2022

TO WHOM -SO- EVER IT MAY CONCERN

This is to certify that Mr. S.Sowmmiya Narayanan (Reg. No-41840015), a student of 2nd Year Master in Architecture in Building Management (Batch 2021 -2023) at Sathyabama University, Chennai, has successfully completed (From 11th July, 2022 to 13th August, 2022) implant training at our Company. The training was provided in the areas of construction planning, Scheduling, Monitoring in our projects. During the period of his implant training with us he was found punctual, hardworking and inquisitive. We wish his all success in his future endeavour.

Thanking you,

FOR BUILTEC ENGINEERS & CONSULTANTS



T. HARINANDANAN
CEO

MONTHLY REPORT



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SCHOOL OF BUILDING & ENVIRONMENT, DEPARTMENT OF ARCHITECTURE
M. Arch (Building management) Batch 2021-2023
Continuous Assessment Report for Professional training

(Continuous progress report of the trainee architect/Project Manager for the period of 15 working days in the office to be submitted to HOD)

1. Name of the office / organization :	BUILTEC ENGINEERS AND CONSULTANTS
2. Address & Contact Number :	NO.12, JAWAHARLAL ST, NOLAMBUR, CHENNAI - 95
3. Name of the student :	SOWMMIYA NARAYANAN. S
4. Duration :	From 11/7/2022 To 27/7/2022
5. Total No. of days :	15 DAYS
6. Evaluation of Performance criteria shall be on	

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month;

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture		✓			
Skillsets related to project management		✓			
Design Management		✓			
Understanding the Triple Constraints		✓			
Observation during Site Visits		✓			
Understanding of construction details		✓			
Understanding of Construction sequences		✓			
Site Supervision / Discussion with clients		✓			
Adherence to Time schedule		✓			
Quantitative aptitude		✓			
Documentation skills		✓			
Coordination with other consultants		✓			

Overall Grading*	B
------------------	---

(A - 8.0, B - 7.0, C - 6.0, D - 5.5, E - 5.0, F - <5)

7. Any other Remarks : Very attentive

8. Signature of the Head of the Office / Organization (With Seal) :  



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1. Name of the office / organization :	BUILTEC ENGINEERS AND CONSULTANTS
2. Address & Contact Number :	NO.12, JAWAHARLAL ST, NOLAMBUR, CHENNAI - 95
3. Name of the student :	SOWMMIYA NARAYANAN. S
4. Duration :	From 28/7/2022 To 13/8/2022
5. Total No. of days :	15 DAYS
6. Evaluation of Performance criteria shall be on	

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month;

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture		✓			
Skillsets related to project management		✓			
Design Management		✓			
Understanding the Triple Constraints		✓			
Observation during Site Visits		✓			
Understanding of construction details		✓			
Understanding of Construction sequences		✓			
Site Supervision / Discussion with clients		✓			
Adherence to Time schedule		✓			
Quantitative aptitude		✓			
Documentation skills		✓			
Coordination with other consultants		✓			

Overall Grading*	B
------------------	---

(A - 8.0, B - 7.0, C - 6.0, D - 5.5, E - 5.0, F - <5)

7. Any other Remarks : Attended the Site on all days

8. Signature of the Head of the Office / Organization (With Seal) :  

WORK DAIRY

DAY	PROJECT NAME	WORK DONE	DAY	PROJECT NAME	WORK DONE
11/7/2022	Krishna Celesta apartments, Chennai	Project introduction - Floor plans and Working drawings	28/7/2022	Sports Complex, Guru Nanak College, Chennai	Hindrance report
12/7/2022	Krishna Celesta apartments, Chennai	Logistic plan	29/7/2022	Sports Complex, Guru Nanak College, Chennai	Monthly work schedule tracking
13/7/2022	Krishna Celesta apartments, Chennai	Project Schedule	30/7/2022	Sports Complex, Guru Nanak College, Chennai	Monthly work schedule plan
14/7/2022	Krishna Celesta apartments, Chennai	Hindrance report	01/8/2022	Sports Complex, Guru Nanak College, Chennai	Concrete testing and treatment
15/7/2022	Krishna Celesta apartments, Chennai	Labour requirement calculation	02/8/2022	Sports Complex, Guru Nanak College, Chennai	On-Site work progress
16/7/2022	Krishna Celesta apartments, Chennai	Block 6, Civil work - Snag	03/8/2022	Sports Complex, Guru Nanak College, Chennai	Quality issues
18/7/2022	Krishna Celesta apartments, Chennai	Block 6, Ceiling work - Snag	04/8/2022	Krishna Celesta apartments, Chennai	Block 5, Wall finish – Internal painting - Snag
19/7/2022	Krishna Celesta apartments, Chennai	Block 5, Floor Tile laying - Snag	05/8/2022	Krishna Celesta apartments, Chennai	Block 4, Flooring and Wall alignment - Quality inspection
20/7/2022	Krishna Celesta apartments, Chennai	Block 5, Kitchen a wall tile dadoing - Snag	06/8/2022	Krishna Celesta apartments, Chennai	Block 2, Wooden door and cupboard installation - Snag
21/7/2022	Krishna Celesta apartments, Chennai	Block 4, Tile calculation	08/8/2022	Krishna Celesta apartments, Chennai	Block 3, Bathroom fixtures - Quality inspection
22/7/2022	Sports Complex, Guru Nanak College, Chennai	Project introduction - Floor plans and Working drawings	09/8/2022	Krishna Celesta apartments, Chennai	Block 3, PVC window Quality Inspection
23/7/2022	Sports Complex, Guru Nanak College, Chennai	Weekly work schedule tracking	10/8/2022	Krishna Celesta apartments, Chennai	General Condition Contract
25/7/2022	Sports Complex, Guru Nanak College, Chennai	Weekly work schedule plan	11/8/2022	Krishna Celesta apartments, Chennai	Special Condition Contract
26/7/2022	Sports Complex, Guru Nanak College, Chennai	Project schedule	12/8/2022	Krishna Celesta apartments, Chennai	Revised Schedule
27/7/2022	Sports Complex, Guru Nanak College, Chennai	General and Special Condition Contract	13/8/2022	Krishna Celesta apartments, Chennai	Bill of Quantities



Chief Architect Signature:

Office seal:

TABLE OF CONTENTS

TITLE	PAGE NO
1. ABOUT THE FIRM.....	12
1.1 FIRM HISTORY.....	12
1.2 FIRM VISION.....	12
1.3 FIRM MISSION.....	12
.....	13
1.4 PROJECTS DONE BY THE FIRM	13
1.5 AWARDS	13
1.6 REASONS FOR CHOOSING THE FIRM	13
2. PROJECT DETAILS	14
2.1 PROJECT 01 - INTRODUCTION	14
2.2 PROJECT SCHEDULE	16
2.2 PROJECT SCHEDULDE	2.3 LOGISTIC PLAN.....
	17
2.4 HINDRANCE REPORT	18
2.5 LABOUR REQUIREMENT CALCULATION	21
2.6 TENTATIVE BUDGETORY COST	22
3. PROJECT DETAILS	27
3.1 PROJECT - 02	27
LOGISTIC PLAN.....	27

3.2 WEEKLY PLAN (12.07.22 to 18.07.22)	28
3.3 WEEKLY PLAN (26.07.22 to 01.08.22)	30
3.4 PROJECT SCHEDULE	33
3.5 HINDRANCE REPORT	36
3.6 MONTHLY REPORT – JULY MONTH (Planned vs Achieved)	38
3.7 MONTHLY REPORT – AUGUST MONTH (Project Plan).....	40
.....	41
3.8 QUALITY ISSUES.....	41

LIST OF FIGURES

Figure 1 Celesta apartments	14
Figure 2 Isometric view	14
Figure 3 Logistic plan	17
Figure 4 Shaheed Bhagat Sing Sports academy	27
Figure 5 Logistic plan	27
Figure 6 Column foundation	41
Figure 7 Lift pit-Concrete well.....	41
Figure 8 Tie beam - Shuttering	41
Figure 9 Column - Concreting	41
Figure 10 Excavation pit.....	41
Figure 11 Excavation pit.....	41
Figure 12 Shaheed Bhagat Sing Sports academy	42
Figure 13 Celesta apartments	42

LIST OF TABLES

Table 1 Hindrance 18

Table 2 Labour requirement 21

Table 3 Tentative budgetary cost 22

Table 4 Weekly plan..... 28

Table 5 Weekly plan..... 30

Table 6 Hindrance 36

Table 7 Monthly report 38

Table 8 Monthly report 40

1. ABOUT THE FIRM

1.1 FIRM HISTORY

Builtec Engineers and Consultants, started by T.Harinandan and T.Gopi Mohan, is a division of “**Builtec Engineers and Builders**”, a construction company started in the year 1987. It diversified exclusively into Project Management and Consultancy Services since 2004.

Whereas Projects up to 7 million sq. ft. of Built-up area comprising of Residential, IT Park, Luxury Hotels, Hospitals and Factories have been successfully completed.

1.2 FIRM VISION

- Ample resources
- Hands on involvement of the CEO and COO in all aspects of the project
- 3 decades of contracting experience
- A comprehensive range of services
- Perfect evaluation of client needs and project scope
- Efficient coordination among all stakeholders
- Strong commitment to time and schedule

Project Management Consultation

- Client total representation
- Program Planning
- Design team management
- Time scheduling
- Project document review
- On-site contractors co-ordination
- Quality Control
- Health and safety provisions co-ordination
- Statutory Compliance

Cost Management Consultation

- Budgeting
- Tendering process
- Contract administration
- Value engineering
- Cash-flow management
- Bill certification
- Cost control

Quality Management Consultation

- Quality survey
- Quality control
- Sending weekly / monthly QC reports to clients

1.3 FIRM MISSION

Residence

- We have handled project sizes from 12,000 Sq. ft. individual house to 1 million sq. ft. residential flats for different clients.
- We understand the specs and requirement of our client and see to that there is no compromise in quality and timelines along with making sure all projects are completed within the stipulated budget.

Hotels

- We have handled projects from 8,000 Sq. ft. Resto-Bar to 4 lakh sq. ft. 5-star hotels. The key is to deliver the high finishes expected in a hotel.

School and Colleges

- In schools and colleges we have handled projects from 40,000 sq. ft. to 1 lakh sq. ft.
- The key to school and college work is the speed of work apart from quality of

- Our testimonials will show you that we were given cash awards by our clients for achieving the same.

IT Parks

- We have handled IT parks from 40,000 sq. ft. To 1.1 Million sq. ft.
- IT Parks require a strong MEP Team, which we have. The 1.1 Million sq. ft. IT Park was completed in a record time of 18 months.

Auditoriums

- The key deliverables are the acoustics of the auditorium with the right sound equipment and lighting, which we were able to achieve by coordinating with the best consultants in the industry.

Hospitals

- At Hospitals the key is the coordination of medical requirement like PTS (Pneumatic Tube system), MGPS (Medical Gas), OT, etc.
- We have successfully completed a 400 bed Hospital with all the latest amenities in about 24 months.

Factories

- The key issue is to bring in the right structural roofing vendor with the right specs and price along with collecting MEP requirements for each equipment in advance from the client to avoid rework.
- Coordinating with the client in providing a cold shell for machine erection and completing the warm shell on time is challenging and our success rate is 100%.

College of Special Education /

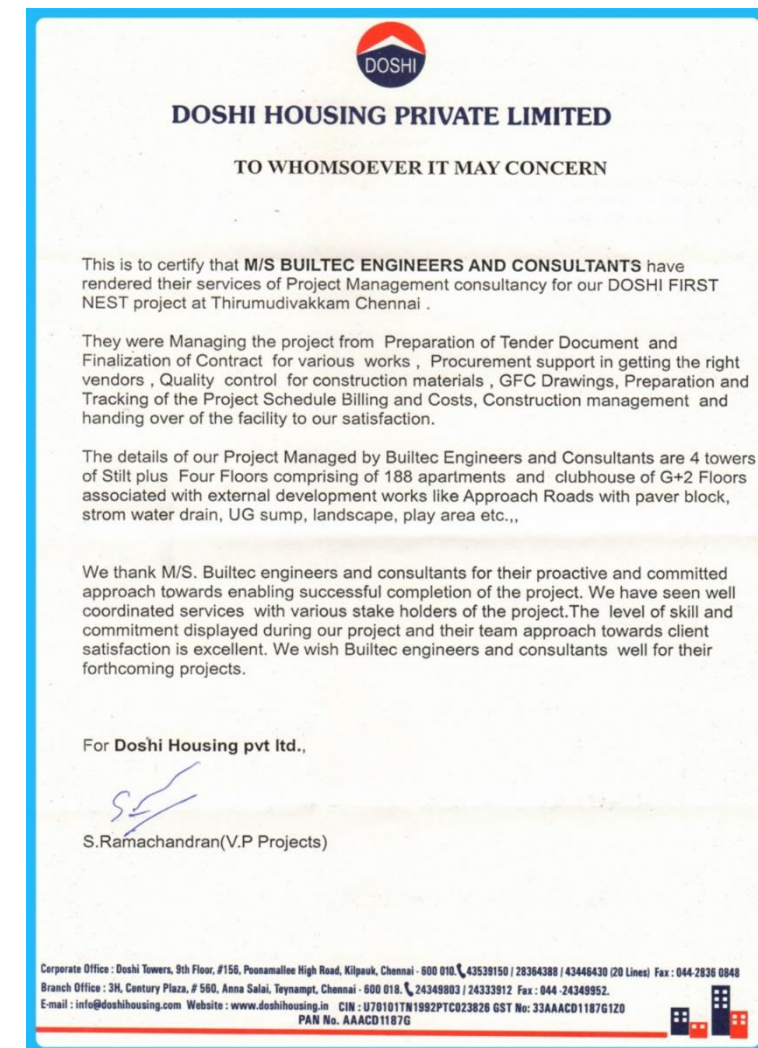
HSC School for visually challenged

- Name of the client: M/s.NETHRODAYA
- Scope of services: PMC
- Project Area: 25000 sft

1.4 PROJECTS DONE BY THE FIRM

- Total No.of Projects -
- Total Number Of Clients Handled -
- Area Finished - 7 million sq. ft.

1.5 AWARDS



1.6 REASONS FOR CHOOSING THE FIRM

The firm takes over different typology of projects which would be more helpful in order to have and experience and knowledge different typologies of project and to gain site knowledge for the better understanding of the role of a project manager.

2. PROJECT DETAILS

2.1 PROJECT 01 - INTRODUCTION

- **Project Name:** Celesta Apartments
- **Project Status:** Construction Ongoing
- **Development Size:** 1.5acres
- **Location:** Jeyachandran Nagar, Pallikarani, Chennai – 600100.
- **Typology:** Apartments
- **No. of Units:** 100
- **Bedroom Typology:** 2, 2.5, 3 BHK
- **No. of Towers:** 5
- **No. of Floors:** G+5 with Stilt
- **Type of Contract:** Item Rate Contract



Figure 1 Celesta apartments

Amenities

- **Common area flooring:** Marble/ Granite
- **Inter:** Lock paving blocks for driveway
- **Car parking:** Stilt parking
- **Lift capacity:** 10 passengers
- Gymnasium
- Multipurpose hall
- Table tennis rooms in Block B, Block C and Block D
- Board game rooms in Block A and E
- Sewage treatment plant
- Water treatment plant



Figure 2 Isometric view

Contractors

- **Civil Works:** Qualtech Engineers Pvt. Ltd
- **Lift:** Jonson Lift
- **Electrical Works:** HK Electricals
- **Plumbing Works:** Abi vairavan Engineers
- **Doors:** Jac Door
- **Windows:** Perfect window systems
- **Fabrication Works:** Guru Vigneshwara Rolling Shutters
- **External Painting Works:** HOME CARE
- **A/C Works:** SAI AIRCON
- **External Louver Works:** Madha Industries
- **Communication Works:** Abi vairavan Engineers
- **False Ceiling Works:** GYP Plaster Decorators

Structure

- R.C.C Framed Structure with Columns, Beams and Slabs

Walls

- External Walls of burnt Clay Bricks / Cement Blocks with Cement Mortar
- Partition Walls in burnt Clay Bricks / Cement Blocks with Cement Mortar

Plastering

- All Internal Walls plastered in Gypsum
- External Walls plastered in Cement Mortar

Flooring

- 2 X 2 Vitrified Tiles for Living, Dining, Bedrooms and Kitchen
- Anti-Skid Tiles in Balcony

Doors

- Engineered Wooden Door Frame and Shutter with Teak Wood Laminate finish for Main Door

- Engineered Wooden Door Frame and shutter for all the internal doors with Laminate Finish
- Toilets: Waterproof (inner side) and external with Laminate Finish flush doors

Window

- **Balcony:** UPVC French doors with Sliding Glass
- **Windows:** UPVC Frames and Shutters with Openable Glass and MS Grill as per the Architect's Design

Kitchen

- Dado of 2' above Kitchen Platform in Ceramic Stone finish / Glazed tiles
- Provision for Water Purification System in Kitchen
- Provision for Washing Machine in Service Area

Bathroom

- Stone finish / glazed designer false / Porcelain Wall Tiles up to false ceiling height.

- Matt finish Anti-Skid Ceramic / Porcelain Tile flooring
- Kohler wall mounted closets, Wash basins and CP Fittings for all the bathrooms

Electrical

- Three Phase Power Supply with independent E.B meters for each apartment.
- All internal conduits with PVC India Tubes make.
- Modular Switches will be provided.
- Television / Telephone points in Living Room and Bedrooms.
- Power Back up for each apartment
- For 2 BHK and 2.5 BHK – 1 KVA and 3 BHK – 1.5 KVA with one Fridge point in each apartment
- Split AC provision with necessary copper and drainpipes in Living and Bedrooms.

2.2 PROJECT SCHEDULE

Task Name	Duration	Start	Finish
Block 2	386	20-08-20	09-09-21
SUB STRUCTURE	98	20-08-20	25-11-20
Earth Work excavation for Footings			Completed
Hard rock Breaking			Completed
Dust filling & PCC for Footings			Completed
RCC Footings			Completed
RCC Columns upto Plinth			Completed
Back filling in foundation - 1st layer			Completed
Back filling in foundation - 2nd layer			Completed
Back filling upto Plinth Beam Bottom			Completed
Plinth Beam PCC Concrete	6	30-10-20	04-11-20
Plinth Beam Reinforcement	7	01-11-20	07-11-20
Plinth Beam Shuttering	8	04-11-20	11-11-20
Plinth Beam Concreting	1	12-11-20	12-11-20
RCC Column in Basement	5	13-11-20	17-11-20
Brick work in Basement	5	14-11-20	18-11-20
Filling in plinth	6	16-11-20	21-11-20
Consolidation and Compaction	6	18-11-20	23-11-20
Quarry Dust Filling	1	24-11-20	24-11-20
Anti termite Treatment	1	25-11-20	25-11-20
Flooring PCC	1	25-11-20	25-11-20
SUPER STRUCTURE	202	27-11-20	16-06-21
Stilt Floor	39	27-11-20	04-01-21
RCC for Column	7	27-11-20	03-12-20
Formwork for Roof Slab	12	04-12-20	15-12-20
Rein. Work for Roof Slab	9	11-12-20	19-12-20
Laying of Conduits. Inserts	2	19-12-20	20-12-20
RCC for Roof Slab - GF	1	21-12-20	21-12-20
Deshuttering	4	01-01-21	04-01-21
First Floor	44	22-12-20	03-02-21
RCC for Column	7	22-12-20	28-12-20
Formwork for Roof Slab	12	05-01-21	16-01-21
Rein. Work for Roof Slab	9	11-01-21	19-01-21
Laying of Conduits. Inserts	2	19-01-21	20-01-21
RCC for Roof Slab	1	21-01-21	21-01-21
Deshuttering	4	31-01-21	03-02-21
Second Floor	44	22-01-21	06-03-21
RCC for Column	7	22-01-21	28-01-21
Formwork for Roof Slab	12	04-02-21	15-02-21
Rein. Work for Roof Slab	9	11-02-21	19-02-21
Laying of Conduits. Inserts	2	19-02-21	20-02-21
RCC for Roof Slab	1	21-02-21	21-02-21
Deshuttering	4	03-03-21	06-03-21
Third Floor	43	22-02-21	05-04-21
RCC for Column	7	22-02-21	28-02-21

Name	Duration	Start	Finish
Formwork for Roof Slab	12	07-03-21	18-03-21
Rein. Work for Roof Slab	9	13-03-21	21-03-21
Laying of Conduits. Inserts	2	21-03-21	22-03-21
RCC for Roof Slab	1	23-03-21	23-03-21
Deshuttering	4	02-04-21	05-04-21
Fourth floor	43	24-03-21	05-05-21
RCC for Column	7	24-03-21	30-03-21
Formwork for Roof Slab	12	06-04-21	17-04-21
Rein. Work for Roof Slab	9	12-04-21	20-04-21
Laying of Conduits. Inserts	2	20-04-21	21-04-21
RCC for Roof Slab	1	22-04-21	22-04-21
Deshuttering	4	02-05-21	05-05-21
Fifth floor	43	23-04-21	04-06-21
RCC for Column	7	23-04-21	29-04-21
Formwork for Roof Slab	12	06-05-21	17-05-21
Rein. Work for Roof Slab	9	12-05-21	20-05-21
Laying of Conduits. Inserts	2	20-05-21	21-05-21
RCC for Roof Slab	1	22-05-21	22-05-21
Deshuttering	3	02-06-21	04-06-21
Terrace Floor	22	26-05-21	16-06-21
RCC for Column for OHT / Head room	4	26-05-21	29-05-21
OHT BASE SLAB	5	30-05-21	03-06-21
OHT RCC WALLS	10	04-06-21	13-06-21
OHT COVER SLAB	3	14-06-21	16-06-21
HEAD ROOM ROOF SLAB	6	30-05-21	04-06-21
FINISHING WORKS	245	05-01-21	06-09-21
Internal Finishes	211	05-01-21	03-08-21
Stilt Floor	50	05-01-21	23-02-21
Brick work including lintel & loft	10	05-01-21	14-01-21
Electrical wall chasing , Pipe & box fixing	2	15-01-21	16-01-21
Ceiling & Internal Plastering	20	15-01-21	03-02-21
Joineries by others	2	04-02-21	05-02-21
Flooring including toilets	15	04-02-21	18-02-21
Internal Painting	5	19-02-21	23-02-21
First Floor	60	04-02-21	04-04-21
Brick work including lintel & loft	35	04-02-21	10-03-21
Electrical wall chasing , Pipe & box fixing	26	14-02-21	11-03-21
Ceiling & Internal Plastering	30	14-02-21	15-03-21
Joineries by others	17	01-03-21	17-03-21
Flooring including toilets	25	06-03-21	30-03-21
Internal Painting	20	16-03-21	04-04-21

2.2 PROJECT SCHEDULE

Name	Duration	Start	Finish
Second floor	60	07-03-21	05-05-21
Brick work including lintel & loft	35	07-03-21	10-04-21
Electrical wall chasing , Pipe & box fixing	26	17-03-21	11-04-21
Ceiling & Internal Plastering	30	17-03-21	15-04-21
Joineries by others	17	01-04-21	17-04-21
Flooring including toilets	25	06-04-21	30-04-21
Internal Painting	20	16-04-21	05-05-21
Third floor	60	06-04-21	04-06-21
Brick work including lintel & loft	35	06-04-21	10-05-21
Electrical wall chasing , Pipe & box fixing	26	16-04-21	11-05-21
Ceiling & Internal Plastering	30	16-04-21	15-05-21
Joineries by others	17	01-05-21	17-05-21
Flooring including toilets	25	06-05-21	30-05-21
Internal Painting	20	16-05-21	04-06-21
Fourth floor	60	06-05-21	04-07-21
Brick work including lintel & loft	35	06-05-21	09-06-21
Electrical wall chasing , Pipe & box fixing	26	16-05-21	10-06-21
Ceiling & Internal Plastering	30	16-05-21	14-06-21
Joineries by others	17	31-05-21	16-06-21
Flooring including toilets	25	05-06-21	29-06-21
Internal Painting	20	15-06-21	04-07-21
Fifth floor	60	05-06-21	03-08-21
Brick work including lintel & loft	36	05-06-21	10-07-21
Electrical wall chasing , Pipe & box fixing	26	15-06-21	10-07-21
Ceiling & Internal Plastering	30	15-06-21	14-07-21
Joineries by others	17	30-06-21	16-07-21
Flooring including toilets	25	05-07-21	29-07-21
Internal Painting	20	15-07-21	03-08-21
Terrace Floor	45	05-06-21	19-07-21
Parapet Wall	10	05-06-21	14-06-21
Head room wall & Plastering	15	05-06-21	19-06-21
Terrace Water proofing work	30	20-06-21	19-07-21
External Finishes	60	09-07-21	06-09-21
External Plastering	40	09-07-21	17-08-21
External development / Miscellaneous	20	18-08-21	06-09-21
Final Handing Over	3	07-09-21	09-09-21
Project Snagging & De-snagging	3	07-09-21	09-09-21

2.3 LOGISTIC PLAN

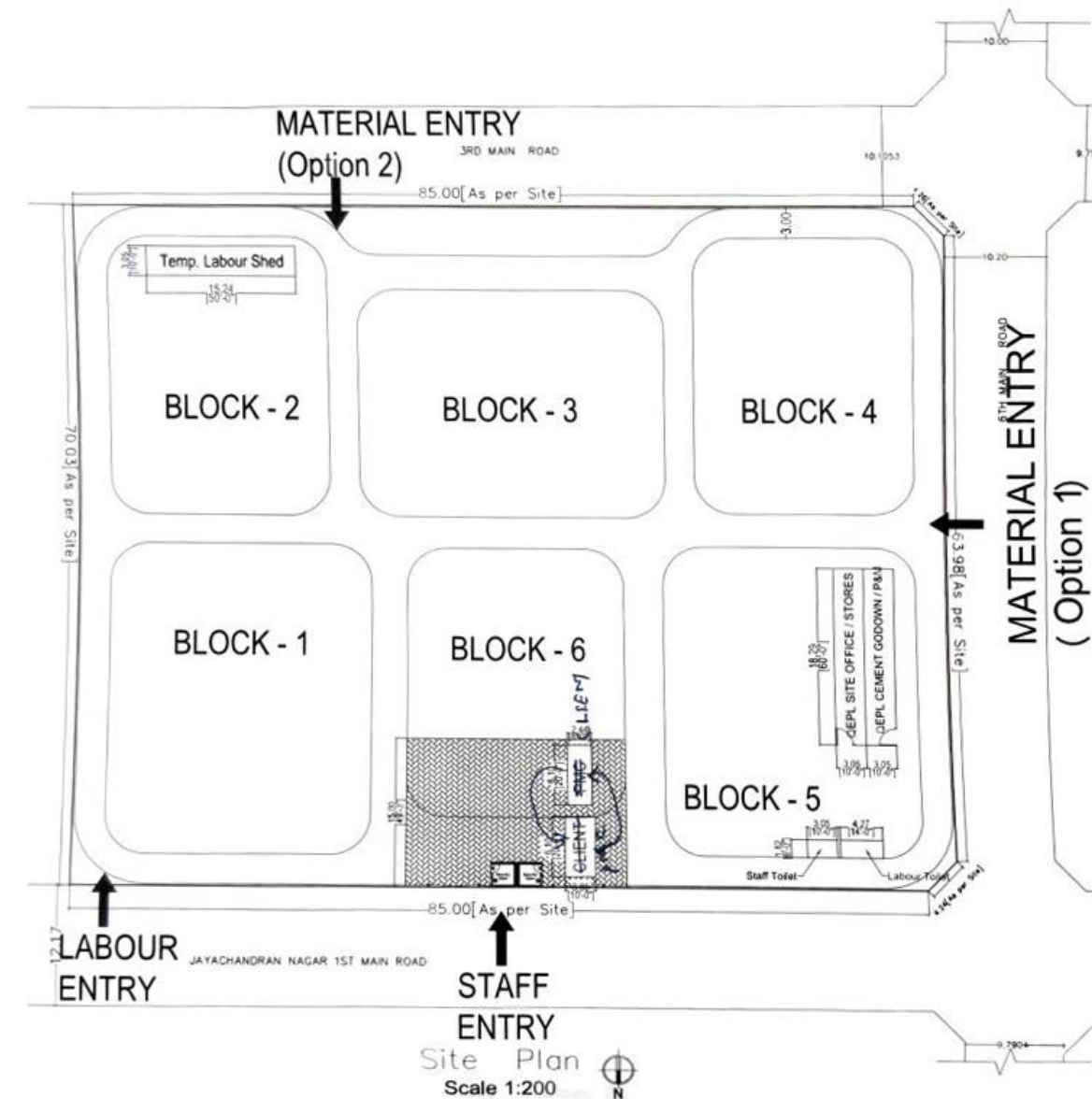


Figure 3 Logistic plan

The main entry for materials is through the western side of the site and the second optional entry is through the rear end (Southern side) of the site. The materials are also stored in the slit of Block 2. Whereas the cement bags are stored in the stilt of Block 5 and the RMC vehicle also enters the site through the northern side of the site since it's the main access point from the main road.

2.4 HINDRANCE REPORT

Table 1 Hindrance

Hindrance Given to Contractor					Actual Delayed	
S.no	Description of Hindrance	Start date	End date	Number of days	Actual No of Days	Reason
1	Due to Covid 19 Lockdown 1st time.	24/3/2020	5/5/2020	43 days	43 days	
2	Due to Covid 19 Lockdown 2nd time.	19/6/2020	5/7/2020	17 days	17 days	
3	Due to Rain not yet working at site.	9/7/2020	10/7/2020	2 days	2 days	
4	Due to Rain Afternoon not yet working at site.	28/7/2020	28/7/2020	0.5 days	0.5 days	
5	Due to Rain – No Work at site.	29/7/2020	29/7/2020	1 days	1 days	
6	Due to Rain – No Work at site.	10/10/2020	10/10/2020	1 days	2 days	Due to Rain - Filling Work & Dewater work was delayed
7	Due to Rain – No Work at site.	12/10/2020	12/10/2020	1 days	2 days	Due to Rain – RMC & Heavy Vehicle unable to come inside
8	Due to Rain – No Work at site.	24/10/2020	24/10/2020	1 days	1.5 days	Due to Rain – Backfilling soil not drive unable to filling earth for Block 2 & 3
9	Due to Rain – No Work at site.	29/10/2020	29/10/2020	1 days	1.5 days	Due to Rain – Backfilling soil not drive unable to filling earth for Block 2 & 3

10	Due to Rain – No Work at site.	16/11/2020	16/11/2020	1 days	2 days	Due to Rain – Backfilling soil not available
11	Due to Cyclone Nivar - No Work at site.	24/11/2020	27/11/2020	4 days	6 days	Block 3 quarry dust filling due to soil not dried.
12	Due to Rain – No Work at site.	04/12/2020	04/12/2020	1 days	2 days	Due to Rain – No RMC Vehicle Moment.
13	Due to Rain – No Work at site.	05/01/2021	05/01/2021	1 days	1.5 days	Due to Rain – No RMC Vehicle Moment.
14	Due to Sunday Lockdown	25/04/2021	25/04/2021		1.0 days	
15	Due to Tile Material Delivery delay for Block 4 First Floor					Site is ready on 23/04/2021. Till received on 15/5/2021.
16	Due to Covid at Site for Labours	17/05/2021	23/05/2021	7 days	7 days	
17	Due to Covid 19 Lockdown 3 rd Time.	24/05/2021	07/06/2021	15 days	15 days	
18	Due to Rain – No Work at site.	11/11/2021	11/11/2021	1	1 Day	Due to Rain – Labour not come due to the labour camp was affected by the floods
19	Due to continuous rain- Work delayed	07/11/2021	29/11/2021		23 Days	Texture Painting – Wall very wet

						• External Plastering – Wall very wet • Storm water trench work & • Terrace water proofing work – Cement works • Yard work- Not working condition • The scaffolding removal, External MEP works are affected by Non completion of External plastering & painting.
20	Due to Vitrified tiles 600 x 600mm Zero stock from 15-12-2021. 60% Tile received on 05-01-22	15/12/2021	05-01-22		22Days	• Block 2 Flooring works delayed.
21	MPH Blocks Ready for tile laying 05-01-2022 and Tile Floor Tile Received on 28 Jan'2022.	05-01-22	28-01-22		24Days	• MPH Flooring works 24 DAYS delayed.
22	Due to all wall tiles 300 x 450mm Zero stock from 1-2-2022. 50% Tile received on 24-02-22	01-02-22	24-02-22		24Days	• Block 5-Toilet wall and Flooring works delayed.
23	Block 5 – Bathroom 2 tile not stock at site	01-05-2022				
	Total number of days			97.5days	199 days	

2.5 LABOUR REQUIREMENT CALCULATION

Table 2 Labour requirement

S No	Month	Carpenter	Steel Fitter	Concrete Mason	Block Mason	Plastering Mason	Gypsum Mason	Painter	Tile Mason	Granite Mason
A	AS PER APPROVED MCP - Project Completion Date : 01.01.2022									
1	December'20	15	10	4	2					
2	January'21	21	13	4	4	5	1			
3	February'21	26	17	3	8	10	5	11	3	1
4	March'21	26	16	3	13	19	10	39	4	2
5	April'21	31	19	3	20	29	13	62	7	2
6	May'21	29	18	4	16	28	13	61	9	3
7	June'21	18	8	3	21	32	17	77	8	3
8	July'21	11	8	3	16	76	14	89	11	7
9	August'21	8	6	2	9	82	8	82	8	3
10	September'21	4	4	2	8	36	8	54	6	2
11	October'21	1	1	2	5	24	2	53	4	1
12	November'21					40	4	24	2	1
13	December'21			1	1	9	1	3	1	1

2.6 TENTATIVE BUDGETORY COST

Table 3 Tentative budgetory cost

S.No	Description of Work	Budget as on 07.04.2021					Budget as on 08.04.2022				
		Unit	Area / Qty	Rate / Unit	Amount	Remarks	Unit	Area / Qty	Rate / Unit	Amount	Remarks
1	Civil Work - All Blocks, Sump, STP, Security Room, Compound Wall, Rain Water Trench & Yard Work				206,402,561.00	Qualtec Workorder Value				206,402,561.00	As per Qualtec Workorder Value
2	Free Issue Material - Tile										
a	All area Flooring - Living, Bed, Kitchen etc..	Sqft	86186.00	32.00	2,757,952.00	As per assumed Rate - Rs.32.00 / Sqft	Sqft	86759.00	36.50	3,166,703.50	As per M/s.Krishna Purchase Average Rate adopted
b	Toilet, Balcony & Utility Flooring	Sqft	18449.00	38.00	701,062.00	As per assumed Rate - Rs.38.00 / Sqft	Sqft	18449.00	36.50	673,388.50	As per M/s.Krishna Purchase Average Rate adopted
c	Toilet, Kitchen & Utility Wall Dado	Sqft	64023.00	38.00	2,432,874.00	As per assumed Rate - Rs.38.00 / Sqft	Sqft	65572.00	42.00	2,754,024.00	As per M/s.Krishna Purchase Average Rate adopted
d	MPH & Security cabin floor Tile						Sqft	2294.00	36.50	83,731.00	As per M/s.Krishna Purchase Average Rate adopted
e	MPH Toilets floor tile						Sqft	512.00	36.50	18,688.00	As per M/s.Krishna Purchase Average Rate adopted
f	MPH Toilets Dado Tile						Sqft	2569.00	42.00	107,898.00	As per M/s.Krishna Purchase Average Rate adopted
g	MPH Portico Tile						Sqft	403.00	36.50	14,709.50	As per M/s.Krishna Purchase Average Rate adopted
3	External Painting Work										
a	Texture + 1 Coat Primer + 2 Coat Weather Shield Paint	Sqft	205790.00	39.00	8,025,810.00	As per Meadows Site Regal Rate - Rs.39.00 / Sqft	Sqft	205790.00	34.50	7,099,755.00	As per Homecare BOQ Rate Considered
b	1 Coat Primer + 2 Coat Weather Shield Paint	Sqft	61050.00	14.00	854,700.00	As per Meadows Site Regal Rate - Rs.14.00 / Sqft	Sqft	79557.00	12.50	994,462.50	As per Homecare BOQ Rate Considered
c	1 Coat Primer + 1 Coat Emulsion paints of Asian / Equivalent brand (Shaft)						Sqft	69316.00	8.00	554,528.00	As per Homecare BOQ Rate Considered
d	1 Coat Primer - Lift pit walls						Sqft	10753.00	3.00	32,259.00	As per Homecare BOQ Rate Considered
e	Painting all Metal work / Grill in all floors with Two coats of Synthetic Enamel paint						Sqft	5715.00	13.50	77,152.50	

4	Balcony & Staircase MS Handrail										
a	Balcony Grill	Kg	5160.00	118.00	608,880.00	As per Qualtec MS Grill Rate - Rs.118.00/Kg	Kg	3850.00	110.00	423,500.00	As per Guru Vigneshwara Rate Considered
b	Staircase Handrail - Vertical Support	Rm	330.00	1607.00	530,310.00	As per Meadows Site Regal Rate - Rs.490.00/Rft	Rft	1080.00	595.00	642,600.00	As per Guru Vigneshwara Rate Considered
c	Staircase Handrail - Wall Support	Rm	346.00	640.00	221,440.00	As per Qualtec BOQ Rate - Rs.640.00/Rm					
d	Terrace Floor Shaft Covering						Sqm	148.00	1884.00	278,832.00	
5	Terrace Floor Waterproofing, Brickbat Coba with Thermotek Heat Reflective Paint										
a	Brickbat Coba with Waterproofing	Sqm	2511.00	1333.00	3,347,163.00	As per Qualtech Rate - Rs.1333.00/Sqm					
b	Waterproofing with Screed - SHR & LMR Area	Sqm	140.00	848.00	118,720.00	As per Qualtech Rate - Rs.848.00/Sqm				3,702,577.00	As per Qualtech Amendment Workorder Value
c	40mm thick Screed Concrete	Sqm	2208.00	316.00	697,728.00	As per Qualtec BOQ Rate - Rs.316.00/Sqm (This could be removed as Paint could be applied directly on Brick bat coba also)					
d	Thermotek Heat Reflective Paint	Sqm	2307.00	320.00	738,240.00	As per assumed Rate - Rs.30.00 / Sqft (Normally over Brick bat coba no Paint is applied)	Sqft	30258.00	30.00	907,740.00	Cool Paint Considered
6	Joinery Work - Doors										
a	Typical Floor - Main Door, Bed Door & Toilet Door				7,902,500.00	As per Jacson's finalized Quote				7,397,391.00	As per Thamarapalli Brothers Workorder Value
b	Stilt Floor & Terrace Floor	No's	35.00	15000.00	525,000.00	As per assumed Rate - Rs.15000.00 / No					
c	Terrace Floor						No's	15.00	14000.00	210,000.00	As per Steeltech Doors (Rate given by M/s.Krishna)
d	Stilt Floor - Toilet Doors						No's	5.00	3500.00	17,500.00	As per PVC Door
e	Stilt Floor -Lobby Doors						No's	10.00	4500.00	45,000.00	As per Aluminium Product Corporation Rate Considered
f	Security Cabin Doors						No's	2.00	4500.00	9,000.00	As per Aluminium Product Corporation Rate Considered
c	Hardwares - Supply by Client incl. Fixing Charges										
i	Main Door	No's	100.00	5800.00	580,000.00	As per assumed Rate - Rs.5800.00 / No (To be checked from your end)					
ii	Bed Door	No's	360.00	2150.00	774,000.00	As per assumed Rate - Rs.2150.00 / No (To be checked from your end)				1,069,859.00	As per Purchase order of M/s. Hindware & Heena Marketing.

S.No	Description of Work	Budget as on 07.04.2021					Budget as on 08.04.2022				
		Unit	Area / Qty	Rate / Unit	Amount	Remarks	Unit	Area / Qty	Rate / Unit	Amount	Remarks
iii	Toilet Door	No's	240.00	1750.00	420,000.00	As per assumed Rate - Rs.1750.00 / No (To be checked from your end)					
7	Joinery Work - Windows & Ventilators				6,800,000.00	As per Perfect Windows Quote				6,963,873.00	As per Perfect Windows Workorder Value
8	Joinery Work - Doors - MPH	LS			160,000.00	NCL Quote Rate Adopted				270,000.00	As per Aluminium Product Corporation Workorder Value
9	Joinery Work - Windows & Ventilators - MPH	LS			225,000.00	NCL Quote Rate Adopted					
10	Aluminium Louvers - External Duct	Sqm	1608.00	4937.50	7,939,500.00	As per Meadows Site KM Exterior Rate - Rs.4937.50 / Sqm (Could think of alternative material like Shera Board)				3,597,950.00	As per Madha Industries Workorder Value
11	MPH Bolcony glass Railing									32,000.00	As per Madha Industries Quote Value
12	Electrical Shaft Door	Sqm	90.00	7105.00	639,450.00	As per Meadows Site Steel Tech Rate - Rs.7105.00 / Sqm				508,110.00	As per KM Exterior & Interior Workorder Value
13	False Ceiling - Toilet Area	Sqm	897.00	732.00	656,604.00	As per Meadows Site Picco Rate - Rs.68.00 / Sqft	Sqm	942.00	650.00	612,300.00	As per Gyp Plaster Decorators Workorder Value
14	False Ceiling - Multipurpose Hall incl. Toilet	Sqm	274.11	732.00	200,651.45	As per Meadows Site Picco Rate - Rs.68.00 / Sqft	Sqm	341.00	750.00	255,750.00	As per Gyp Plaster Decorators Workorder Value
15	Interior Work - Lobby Area	LS			500,000.00	Assumed					
16	Electrical Work				16,340,810.00	HK Electrical Workorder Value				21,241,612.00	As per HK Electrical Revised Workorder Value
17	Electrical Light Fixtures - Common Area & Multipurpose Hall	LS			1,000,000.00	Assumed (To be checked from your end)				1,110,000.00	Assumed
18	Plumbing Work				10,821,831.00	Abhi Vairavan Workorder Value				10,821,831.00	As per Abhi Vairavan Workorder Value
19	Plumbing Fittings	LS			6,500,000.00	Abhi Vairavan Quote Rate Adopted				9,873,791.00	As per Purchase order of M/s. Abivairavan Engineering.
20	Lift	No's	5.00	1200000.00	6,000,000.00	(To be checked from your end)	No's	5.00	762712.00	3,813,560.00	As per Johnson Workorder Value
21	DG Set	Sqft	134948.00	12.50	1,686,850.00	(To be checked from your end)				1,450,000.00	As per Rate given by M/s.Krishna
22	STP	LS			2,850,000.00	STP with Ultra Filtration as per Consultant Budget				3,315,000.00	As per Workorder of M/s.Green Earth (Including 3 months maintainance) incl. WTP

23	Pumps - Sump, STP & WTP									850,000.00	As per Flow Techniques Quote Value
24	Firefighting Work	Sqft	134948.00			Not required.					
25	Lightning Arrestor	No's	5.00	210000.00	1,050,000.00	As per Head Quarters Site KK Singh Rate - Rs.2,09,360.00 / Total Amount					
26	CCTV & Video Door Phone	Flat	100.00	11200.00	1,120,000.00	As per Meadows Site Star Electronics Rate - Rs.2,67,713.00 / 24 Flats				3,968,207.00	As per Satwork & Maxotech Workorder Value
27	Telecom facility & Cable TV	Flat	100.00	9500.00	950,000.00	As per Meadows Site Satwork Rate - Rs.2,27,614.00 / 24 Flats					
28	Piped Gas Line Work					Not required.					
29	Landscaping Work	Sqft	134948.00	7.50	1,012,110.00	Assumed				200,000.00	Assumed
30	Scaffolding Work				300,000.00	Assumed	No's	5.00	17000.00	85,000.00	Lift Scaffolding
31	Elevation Work				1,000,000.00	Assumed					
32	Speed Breaker				200,000.00	Assumed	Rm	50.00	1820.00	91,000.00	
33	Entranc Canopy									871,500.00	As per Madha Industries Workorder Value
34	Boom Barrier						No's	2.00	65000.00	130,000.00	As per Rate given by M/s.Krishna
35	Post Box						No's	105.00	800.00	84,000.00	
36	Marking for Car Parks				100,000.00	Assumed				100,000.00	Assumed
37	Signage Work				500,000.00	Assumed				300,000.00	Assumed
38	Air Conditioning Work				2,244,000.00	As per Sai Aircon Quote				3,597,950.00	As per Sai Aircon Workorder Value
39	1.5 Ton AC - 1 No / Block (Indoor Game Room)						No's	5.00	42000.00	210,000.00	
40	2.0 Ton AC - 10 No's (MPH Block)						No's	10.00	50000.00	500,000.00	
41	Transformer - 2Nos of 500kVA (As per GFC Drawing). Consultant suggested to be confirmed with TANGEDCO.									1,500,000.00	As per Rate given by M/s.Krishna
42	Borewells				400,000.00	Assumed				1,025,000.00	As per M/s. Krisna march month Expenses mail Rs.6,79,694 for 4Nos of bores . So total 6 Nos of bores assumed based on the 4 Nos bore
43	Gym Equipments	Sqft	134948.00	7.00	944,636.00	Assumed				1,800,000.00	Assumed as per discussion with M/s. Krishna
44	Solar System for CC Purpose									450,000.00	Assumed

S.No	Description of Work	Budget as on 07.04.2021					Budget as on 08.04.2022				
		Unit	Area / Qty	Rate / Unit	Amount	Remarks	Unit	Area / Qty	Rate / Unit	Amount	Remarks
45	Security Charges				400,000.00	Assumed				200,000.00	Assumed
46	EB Charges									150,000.00	Assumed
47	PMC - Bultec Engineers and Consultants				12,075,000.00					14,600,000.00	
48	Architect - Kharche & Associates				2,500,000.00					2,500,000.00	
49	Structural Consultant - United Consultants				1,582,000.00					1,582,000.00	
50	Electrical Consultant - Sumanam Engineering Services				496,481.00					496,481.00	
51	Plumbing Consultant - C.N.Punniyamoorthy				663,271.00					663,271.00	
	Total - A				327,497,134.45					336,504,045.50	
52	Material Escalation	%		3%	9,824,914.03		%		3%	10,095,121.37	
	Total - B				9,824,914.03					10,095,121.37	
	TOTAL AMOUNT - A+B				#####					#####	
	Saleable Area in Sqft				134,947.59					134,947.59	
	Rate / Sqft				2,499.65					2,568.40	
	GST 18%				Extra					Extra	

3. PROJECT DETAILS

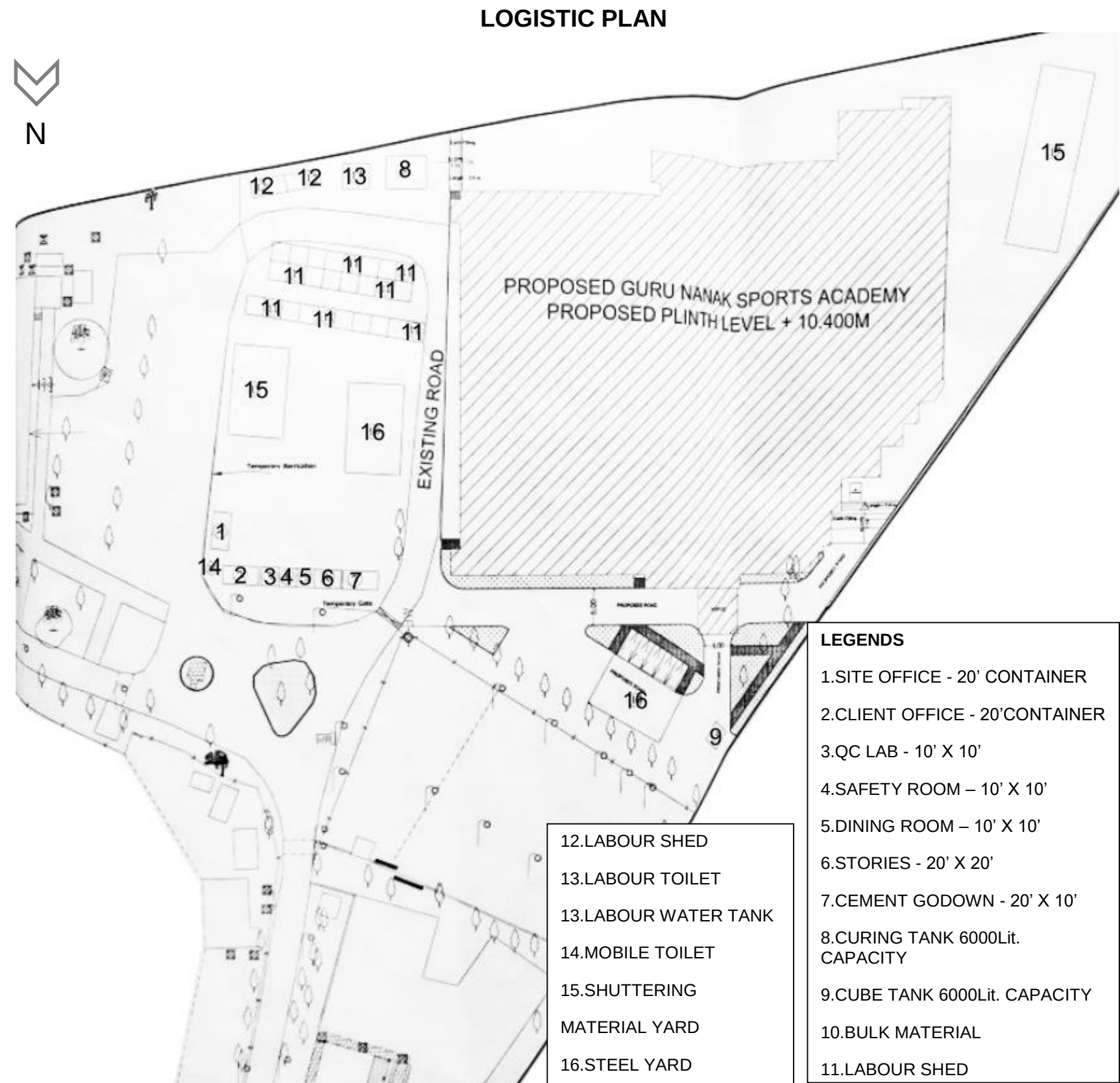


Figure 5 Logistic plan

3.1 PROJECT - 02

- Project Name: **Shaheed Bhagat Singh Sports Academy**
 - Project Start Date: 25-05-2022
 - Project Completion Date: 30-11-2022
 - Duration of Project: 6 Months
 - Built up Area: 57127 Sq. ft.
 - Project Value: 13,98,07,326.00
- Incl. GST (M/s. Ascent Value)

It is a sports complex in Guru nanak college which is located in Velachery, Chennai. The Sports complex has riffle shooting range and an armoury in the ground floor. In first floor there are provisions for board games and view point for spectating the riffle shooting.



Figure 4 Shaheed Bhagat Sing Sports academy

3.2 WEEKLY PLAN (12.07.22 to 18.07.22)

Table 4 Weekly plan

S.NO	Date	Description of work	UNIT	Planned qty	TOTAL QTY	COMPLETED	BALANCE QTY	PRE PLANNED	Remarks
1	12-Jul-2022	Footing Earth work	NOS	4.00	268.00				
		Footing PCC	NOS	7.00	268.00				17
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM	30.00	1130.00				
		Plinth Beam RCC	RM		1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Column Concrete upto FFL	NOS	5.00	114.00				
2	13.07.2022	Footing Earth work	NOS	4.00	268.00				
		Footing PCC	NOS	7.00	268.00				
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM		1130.00				
		Plinth Beam RCC	RM	30.00	1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Floor PCC - I	SQM	60.00	1722.00				
3	14.07.2022	Footing Earth work	NOS	4.00	268.00				
		Footing PCC	NOS	7.00	268.00				
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM	30.00	1130.00				
		Plinth Beam RCC	RM		1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Floor PCC - I	SQM	60.00	1722.00				
3	14.07.2022	Column Concrete upto FFL	NOS	5.00	114.00				

4	15.07.2022	Footing Earth work	NOS	0.00	268.00				
		Footing PCC	NOS	7.00	268.00				
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM		1130.00				
		Plinth Beam RCC	RM	30.00	1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Column Concrete upto FFL	NOS	5.00	114.00				
		Floor PCC - I	SQM	60.00	1722.00				
		Slab Shuttering pour - I	SQM	50.00	2150.00				
5	16.07.2022	Footing Earth work	NOS	5.00	268.00				
		Footing PCC	NOS	7.00	268.00				
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM	30.00	1130.00				
		Plinth Beam RCC	RM		1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Column Concrete upto FFL	NOS	5.00	114.00				
		Floor PCC - I	SQM	60.00	1722.00				
		Slab Shuttering pour - I	SQM	50.00	2150.00				
6	18.07.2022	Footing Earth work	NOS		268.00				
		Footing PCC	NOS	4.00	268.00				
		Footing RCC	NOS	7.00	268.00				
		Pedestal Concrete	NOS	7.00	282.00				
		Plinth Beam PCC	RM		1130.00				
		Plinth Beam RCC	RM	30.00	1130.00				
		Brick Work	RM	15.00	1130.00				
		plinth beam concrete II	RM	15.00	1130.00				
		Column Concrete upto FFL	NOS	5.00	114.00				
		Floor PCC - I	SQM	50.00	1722.00				
		Slab Shuttering pour - I	SQM	50.00	2150.00				
EARTH WORK	17.00	Footing RCC	42.00	PLINTH BEM PCC	90.00	BRICK WORK		90.00	
FOOTING PCC	39.00	PEDESTAL RCC	42.00	PLINTH BEAM RCC	90.00	PLINTH BEAM RCC II		90.00	
COLUMN UPTO	30.00	FLOOR PCC - I	290.00			Slab Shuttering pour - I		150.00	

3.3 WEEKLY PLAN (26.07.22 to 01.08.22)

Table 5 Weekly plan

S.NO	Date	Description of work	UNIT	Planned qty	TOTAL QTY	Remarks
1	26.07.2022	Plinth Beam - I PCC	RM	30.00	1130.00	
		Plinth Beam - I RCC	RM		1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	SQM	3.50	75.00	
2	27.07.2022	Plinth Beam - I PCC	RM		1130.00	
		Plinth Beam - I RCC	RM	30.00	1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	MT	3.50	75.00	

3	28.07.2022	Plinth Beam - I PCC	RM	30.00	1130.00	
		Plinth Beam - I RCC	RM		1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	MT	3.50	75.00	
4	29.07.2022	Plinth Beam - I PCC	RM		1130.00	
		Plinth Beam - I RCC	RM	30.00	1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	MT	3.50	75.00	

5	30.07.2022	Plinth Beam - I PCC	RM	30.00	1130.00	
		Plinth Beam - I RCC	RM		1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	MT	3.50	75.00	
6	01.08.2022	Plinth Beam - I PCC	RM		1130.00	
		Plinth Beam - I RCC	RM	30.00	1130.00	
		Brickwork	RM	20.00	1130.00	
		Plinth Beam - II RCC	RM	20.00	900.00	
		Floor - I PCC	SQM	50.00	1722.00	
		Column upto FFL	NOS	3.00	84.00	
		Slab shuttering - I	SQM	50.00	2150.00	
		Slab Reinforcement Work - I	MT	3.50	75.00	

BRICKWORK 120.00

FFL COLUMN 18.00

SLAB

SHUTTERING 300.00

PB PCC - I

PB RCC - I

Slab Reinforcement

90.00

90.00

21.00

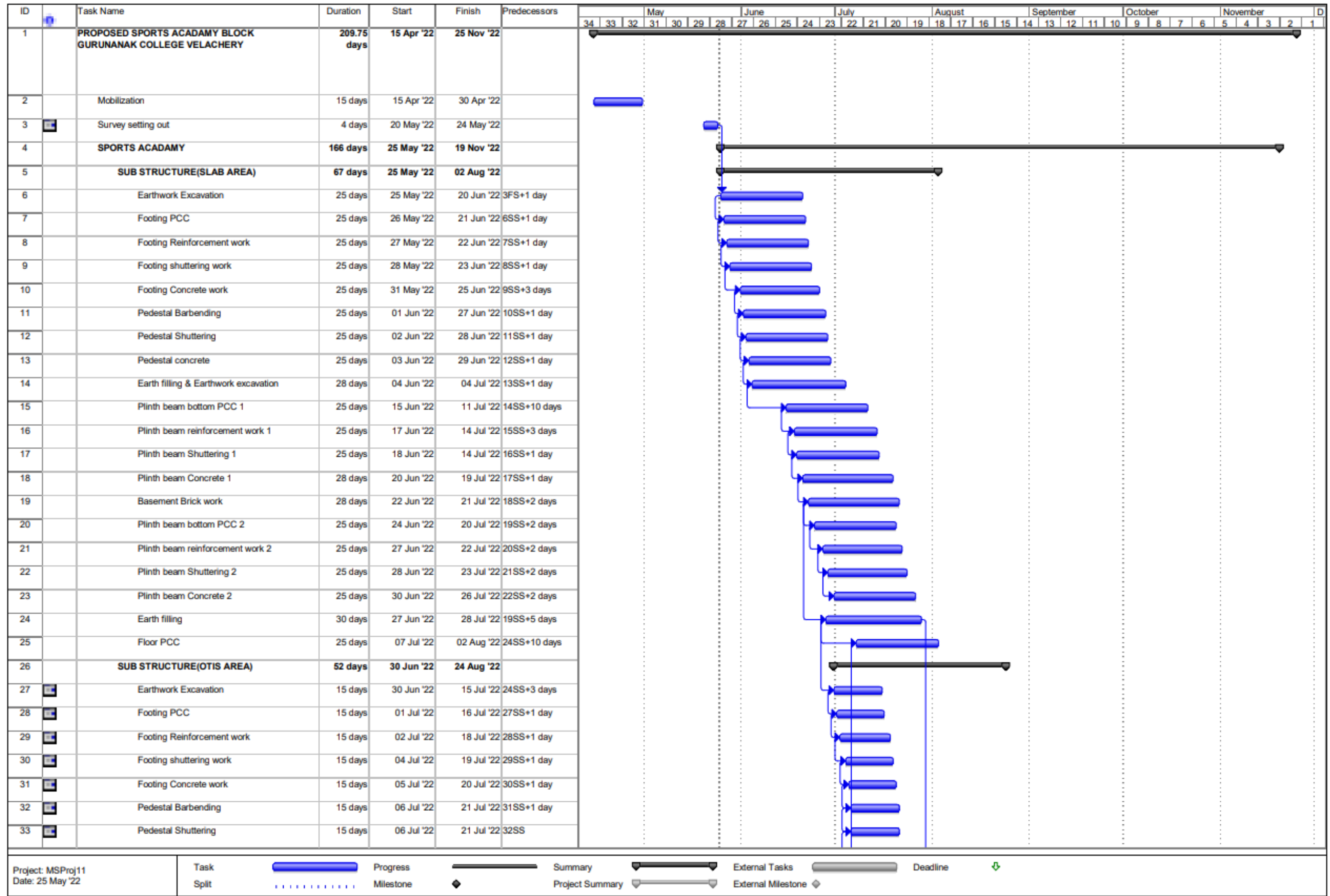
PB RCC - II

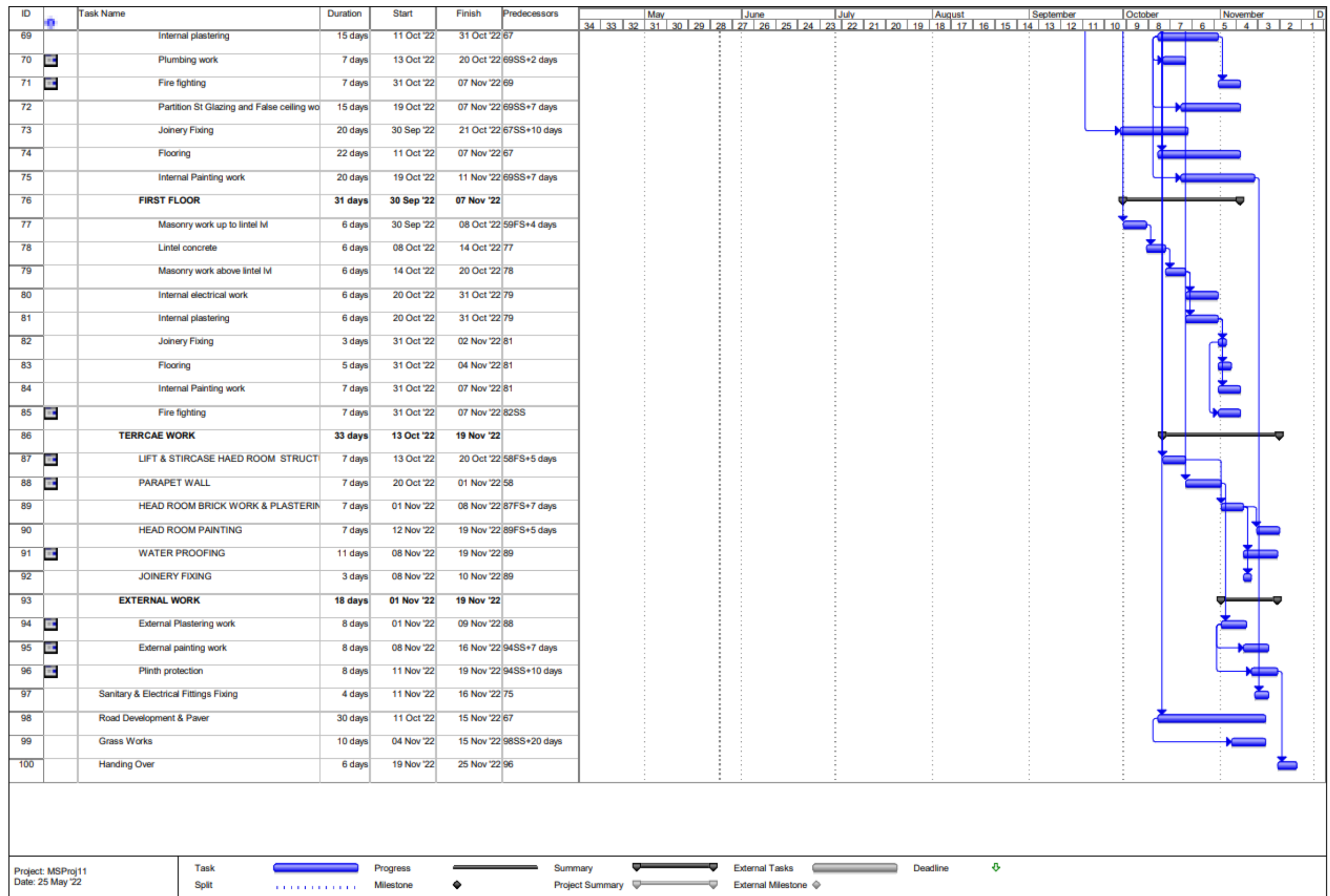
FLOOR PCC- I

120.00

300.00

3.4 PROJECT SCHEDULE





3.5 HINDRANCE REPORT

Table 6 Hindrance

S. No	Description	Start Date	End Date	Number of Days	Reason
1	Footing concrete delayed due to CM arrival	03.06.22	03.06.22	01	Due to CM visit RMC vehicle and noise works were not allowed at site
2	Due to rain Footing Excavation, PCC, RCC works delayed	20.06.22	21.06.22	03	Due to Rain Dewatering work in progress. Heavy Vehicle movement was not possible at the time
3	Due to rain concrete pouring and earth work excavation stopped.	06.07.22	06.07.22	0.5	Due to heavy rain shuttering and earth work excavation work stopped
4	Due to rain work has been stopped.	07.07.22	07.07.22	0.5	Due to rain heavy vehicle movement and <u>labours</u> movement were not possible at site
5	Due to rain work has been stopped	11.07.22	11.07.22	0.5	Due to rain earth work excavation, footing shuttering and concrete pouring work delayed

6	Due to rain work has been stopped.	12.07.22	12.07.22	0.5	Due to rain heavy vehicle movement and <u>labours</u> movement were not possible at site
7	Due to rain work has been stopped	13.07.22	13.07.22	0.5	Due to Rain Dewatering work in progress. Heavy Vehicle movement was not possible at the time
8	East side compound wall damaged due to excavated soil sliding over the forest area.	15.07.22	15.07.22	01	Due to this forest rangers stopped the footing excavation and concrete pouring activity on east side
9	Work stopped due to CM visit for Guru <u>arjan</u> dev block inauguration.	25.07.22	26.07.22	01	Due to CM visit RMC vehicle and noise works were not allowed at site
10	Portico area slab shuttering delayed due to drawing revised.	27.07.22	28.07.22	02	In portico area already beam bottom shuttering works were completed. Drawing revised and insisted to rise the slab level <u>upto</u> 600mm
	Total No of Days			10.5 Days	

3.6 MONTHLY REPORT – JULY MONTH (Planned vs Achieved)

Table 7 Monthly report

S. No	Description	Unit	Qty	MCP		% Of Completion in July	Achieved till July'22	Completed in %
				Start Date	End date			
	Proposed Sports Academy Block							
1	Earthwork Excavation	No's	146	25-May-22	20-Jun-22	100%	146	100%
2	Footing PCC	No's	146	26-May-22	21-Jun-22	100%	146	100%
3	Footing Concrete work	No's	146	31-May-22	25-Jun-22	100%	146	100%
4	Column concrete	No's	158	3-Jun-22	29-Jun-22	100%	158	100%
5	Earth filling – footing level	Cum	2002	27-Jun-22	28-Jul-22	100%	2002	100%
6	Plinth beam bottom PCC 1	RM	650	15-Jun-22	11-Jul-22	100%	625	96%
7	Plinth beam Concrete 1	RM	650	20-Jun-22	19-Jul-22	100%	538	82%
8	Basement Brick work	RM	650	22-Jun-22	21-Jul-22	100%	422	65%
9	Plinth beam Concrete 2	RM	650	30-Jul-22	26-Jul-22	100%	259	40%
10	Floor PCC – Pour 1	SQM	1722	7-Jul-22	2-Aug-22	92%	624	36%

S. No	Description	Unit	Qty	MCP		% Of Completion in July	Achieved till July'22	Completed in %
				Start Date	End date			
SUB STRUCTURE (OTS AREA)								
1	Earthwork Excavation-pour 2	No's	115	30-Jun-22	15-Jul-22	100%	115	100%
2	Footing PCC	No's	115	1-Jul-22	16-Jul-22	100%	115	100%
3	Footing Concrete work	No's	115	5-Jul-22	20-Jul-22	100%	115	100%
4	Pedestal concrete	No's	125	6-Jul-22	21-Jul-22	100%	125	100%
5	Earth filling	Cum	2486	28-Jul-22	12-Aug-22	20%	2486	100%
6	Plinth beam bottom PCC	RM	480	7-Jul-22	23-Jul-22	100%	211	44%
7	Plinth beam Concrete	RM	480	11-Jul-22	28-Jul-22	100%	164	34%
8	Basement Brick work	RM	250	15-Jul-22	30-Jul-22	100%	163	65%
9	Plinth beam RCC-2 (10.4M level)	RM	250	23-Jul-22	02-Aug-22	85%	129	51%
SUPER STRUCTURE								
1	Ground Floor Column pour-1	No's	55	13-Jul-22	2-Aug-22	90%	27	50%
2	Slab shuttering pour 1	SQM	2150	03-Aug-22	12-Aug-22	0%	305	14%
3	Slab bar bending pour 1	MT	50	08-Aug-22	19-Aug-22	0%	10	13%
4	Slab concrete pour 1	CUM	450	22-Aug-22	22-Aug-22	0%	84	19%

3.7 MONTHLY REPORT – AUGUST MONTH (Project Plan)

Table 8 Monthly report

S. No	Description	Unit	Qty	MCP			% Of Completion in AUGUST	Aug'22 Planned	July'22 Cumulative
				Start Date	End date	Catch up date			
SUPER STRUCTURE									
1	Ground Floor Column	No's	55	13-Jul-22	2-Aug-22		100%	28	27
2	Slab shuttering pour 1	SQM	2150	15-Jul-22	25-Jul-22		100%	1845	305
3	Slab bar bending pour 1	MT	50	20-Jul-22	30-Jul-22		100%	40	10
4	Slab concrete pour 1	CUM	450	22-Aug-22	22-Aug-22		100%	366	84
5	Slab shuttering pour 2	SQM	1150	23-Aug-22	02-Sep-22		90%	1035	
6	Slab bar bending pour 2	MT	35	27-Aug-22	08-Sep-22		33%	12	
7	FF Column	No's	55	24-Aug-22	01-Sep-22		88%	48	
8	First floor slab Shuttering pour-1 (Part slab)	SQM	305	12-Aug-22	27-Aug-22		100%	305	
9	First floor slab concrete (Part slab) Pour 1	CUM	90	28-Aug-22	28-Aug-22		100%	90	
10	First floor slab Shuttering (balance) pour1	SQM	1845	28-Aug-22	12-Sep-22		28%	527	
11	First floor slab concrete (Balance slab) pour1	CUM	366	13-Sep-22	13-Sep-22				
SUPER STRUCTURE (OTS AREA)									
1	Ground floor column	No's	42	24-Aug-22	10-Sep-22		47%	20	
2	Baffle beam	RM	230	25-Aug-22	21-Sep-22		22%	50	

3.8 QUALITY ISSUES

Concreting issues	Reinforcement issues	Sub structure issues	Column issues	Excavation issues	Shuttering issues
Issue: Improper laying of concrete lead to the formation. Location of issue within the site: Column foundation in north eastern side of the shooting range	Issue: Improper reinforcement led to the damage in concrete after cooling period. Location of issue within the site: Lift pit	Issue: Brick work below tie beam was found to be broken. Location of issue within the site: Tie beam in front of the armoury and closer to the lift pit	Issue: Improper concrete mix led to the formation of honey combs in columns. Location of issue within the site: Column closer to the lobby	Issue: Collapse of excavated soil due to heavy rainfall and lack of stability Location of issue within the site: South east corner of the site near the retaining wall	Issue: Wooden shuttering made for casting plinth beam was damaged due to the collapse of excavated soil. Location of issue within the site: Eastern side
 Figure 6 Column foundation	 Figure 7 Lift pit-Concrete well	 Figure 8 Tie beam - Shuttering	 Figure 9 Column - Concreting	 Figure 10 Excavation pit	 Figure 11 Excavation pit

2.7 CRITICAL OVERVIEW FROM PROFESSIONAL TRAINING



Figure 13 Celesta apartments



Figure 12 Shaheed Bhagat Sing Sports academy

- The firm provided good opportunity for learning through different typology of projects (Residential - Celesta apartments and Recreational - Shaheed Bhagat Singh Sports Academy) in different stages of construction (Construction and Handover - Celesta apartments, Initial stage of execution on site - Shaheed Bhagat Singh Sports Academy)
- More knowledge on logistic planning, project scheduling, tracking the hinderance in the project and labour requirement calculation were gained through the Celesta apartment project. Especially methods of checking snag and quality inspection were taught onsite which was more helpful in understanding the parameters to be checked during the handover of a project.
- In Shaheed Bhagat Singh Sports academy project, issues faced in construction stage, coordination issues, role of a project manager and the methods to identify the technical glitches which affects the performance of the project were learnt onsite. On the other hand, guidance for preparation of weekly work schedule plan and monthly work schedule plan was also provided along with tracking of weekly work plan and monthly work plan.
- On the whole from the internship a good opportunity for learning quality inspection methods, project scheduling and tracking,