## CLOUDLINE CONSTRUCTION PVT LTD



#87, Velachery Main Road, Pallikaranai - Chennai - 100





cloudlineconstruction@gmail.com

info@cloudlineconstruction.com

Website: www.cloudlineconstruction.com



Contact No - 9843494990 / 9994492997.





#### **MANAGEMENT**

Mr. SATHISIVA DHAYALAN

Director

Mr. RAJAGURU DEVASAGAYAM

Director



#### **About us**

- With over decades of sheer expertise and excellence, our company from a moderate organization a few years back, has today grown into a full flagged Construction Company. We have built numerous new technologically advanced projects all over Chennai, Madurai which have now become the landmarks in the city.
- Along with that we have also taken up and completed successfully many challenging reconstruction and renovation contracts. Not only this, we are enabled with a team of young and qualified Engineers & Experienced people ready to take up and complete any kind of projects with great ease.



#### **OUR ASSOCIATES**

NEW CG CONSTRUCTION



#### **Our Clients**

- ►M/s. Alliance Group
- ►M/s. Bluemoon Properties
- ►M/s. Akshaya Private Limited
- ▶M/s. Sree Thillai Kaliamman Pile Foundation
- >M/s. Innovate Infrastructure
- >M/s. Abode Real Estate Developers Pvt Ltd
- ►M/s. Gateway Builders & Interiors
- ►M/s. Accord Group
- ▶J. R. Medical College & Hospital



#### **Tools & Equipment**

➤ Shuttering Materials	18500 Sq.ft
>Front Loader	01 Nos
>Welding Machine	02 Nos.
<ul><li>De Watering Pumps</li><li>Bar Cutting Machines</li></ul>	02 Nos. 02 Nos
➤Bar Bending Machines	02 Nos.
➤ Concrete Vibrators	04 Nos.
➤Tower Hoists	02 Nos.
➤Mini Crane – 500kg capacity	02 Nos.
➤ Water Pumps	04 Nos.



#### **Tools & Equipment**

Levelling Instrument	02 Nos
➤ Breaker Machine	02 Nos
➤ Wood Cutting Machine	10 Nos
➤ Drilling Machine	06 Nos
➤ Wall Cutting Machine	05 Nos
➤ Steel Hand Cutting Machine 14"	03 Nos



#### List of Skilled / Un Skilled Labour

S.No	Trade	Availbility
1	Concrete Mason	10
2	Concrete Unskilled	10
3	Barbender Fitter	30
4	Barbender Helper	40
5	Carpenter Skilled	30
6	Carpenter Helper	35
7	Block Work Mason	15
8	Block Work Helper	15
9	Plastering Mason	15
10	Plastering Work Helper	15



#### **Basics of Construction**



#### Qualified project team is very much essential to execute construction from the point of view of .......

- Execution of work strictly as per architectural / structural and services drawings.
- Meticulous site layout and site logistics.
- In depth project planning and monitoring.
- Maintaining stipulated quality standards.
- Monitoring safety standards.
- Appropriate resource management and activity scheduling.



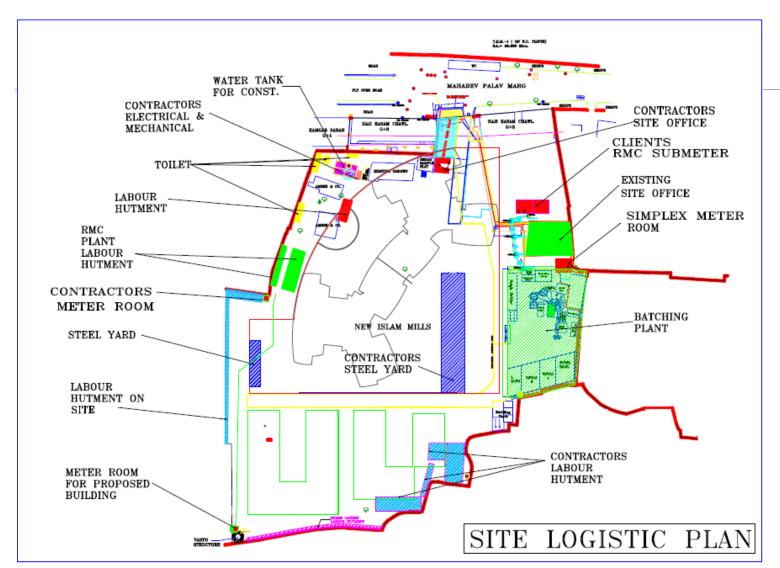
#### **Site Layout & Logistics**

- Plot boundary & barricading / fencing.
- 2. Footprint of the main and ancillary buildings.
- 3. Labor camp & related welfare, sanitary facilities.
- 4. Approach road to building, vehicle parking and construction vehicle movement.
- 5. Entry / Exit and security posts.
- 6. Marking location & route of existing service lines, if any.
- 7. Location of i) Batching plant & various godowns ii) Construction and drinking water tanks, iii) Site office/s iv) Fabrication yard for reinforcement and structural steel v) Machine yard & vi) Crane location.

Above 7 points, if properly thought, shall ensure smooth execution of the project without any additional cost & reworking.

#### A Typical Site Layout / Logistic Plan





#### A very cramped site, in heart of Mumbai

Plot area - 2,81,429 Sft
Area of Sale Building (60 storey) 26,19,043 Sft
Area of 2 Rehab buildings (23 storey) - 6,19,145 Sft
Total construction are proposed 32,38,188 Sft

### Cement Godown, Material storage & mix Construction design



Site Batching Plant Permanent Cement go down and covered material storage

Details of the mix design for concreting to commence



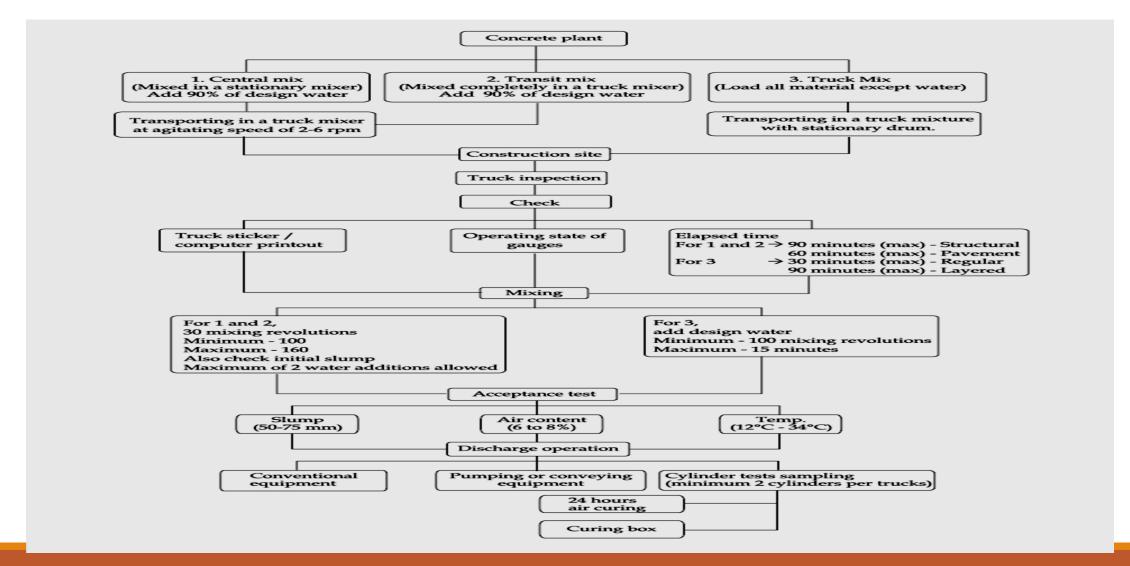


# Quality standards & Quality control

Few Guidelines on.....

Various important stages of concerting from it's loading at RMC plant till laying at designated point of concrete placement





#### **Typical shuttering for column**





Sturdy shuttering out of steel plates & soldier for columns.













Reinforcement above ground level in spite of filthy soil conditions during monsoon





No trickling of water allowed along the parapet wall.

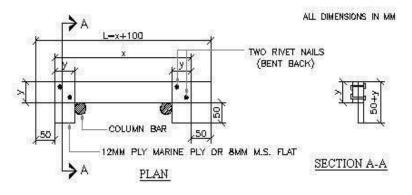
Working platform along beam outer face for vibrating & to avoid bulging.







A wooden piece ("Kanda") for column reinforcement during slab casting.



- x WIDTH OF COLUMN/WALL (MODHIA)
- y = CLEAR COVER+DIAMETER OF STIRRUP (INCLUDING RIB OF DEFORMED BAR)

WCK TO BE PLACED AT BOTH ENDS OF COLUMN/SHEAR WALL/PARDI PLUS AT EVERY 1.0 M C/C IF COLUMN OR WALL IS LONGER THAN 1.0 M

NOTE: PLYWOOD CUT EDGES MUST BE RED OIL PAINTED

Generally PVC cover block or mortar cover blocks are used in our construction industry.

However, it is tricky to keep control and ascertain the grade of concrete of concrete cover block which becomes the root cause for seepage.

The system shall be applicable for column, Cantilever Chajjah & Beam Sides.

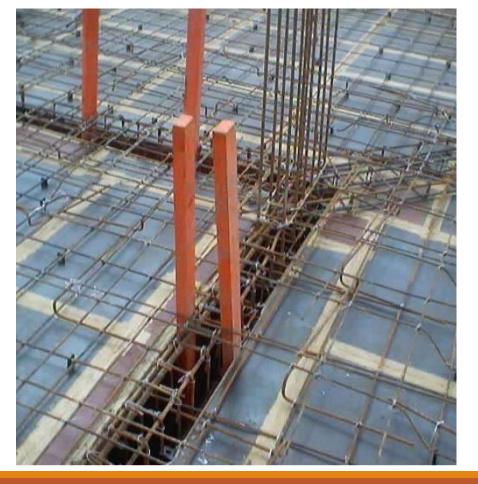
For slab bottom and beam bottom plastic cover blocks are to be placed as the above system cannot be applied.





A wooden piece ("Kanda") instead of concrete cover at the chajjah / slab edge

A wooden piece ("Kanda") instead of concrete cover for beam reinforcement







Quality of shuttering
A pleasing look of Column - beam
and slab beam junction

Covering of slab area (during monsoon) under casting and use of screed vibrator for compaction



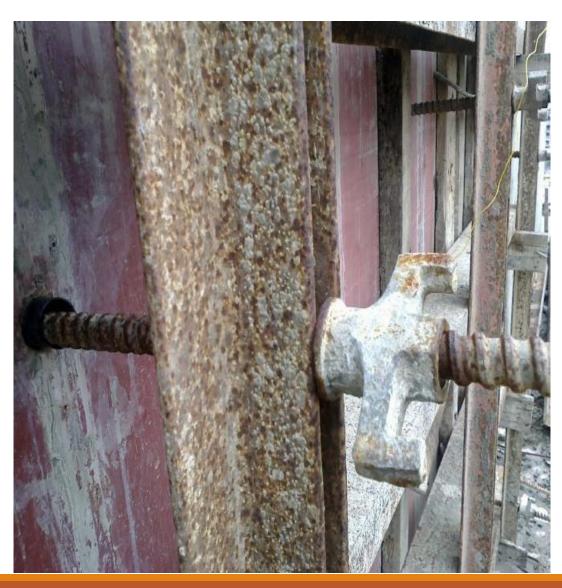




Steel platforms outside the building line to support multi storeyed staging and scaffolding

Vertical joint in the retaining and RCC pardi wall. Joints left open for reinforcement to be sealed.





#### **Tie Rods and Sealing of Tie rod holes**

Generally it is over looked to ensure Proper filling of the tie rod holes. The problem is critical especially for structural elements along the external face of the building.

is observed that during plastering work, these hole get covered by just a Superficial mortar which keeps the air entrapped and results in cracking & seepage at a later date.

The Tie rod hole is to be filled up using With Cement mortar or Polymer + Cement mixture in a "Goli" form, pushed / packed inside the tie rod hole with 6 mm dia. Steel rod until the hole gets jammed completely.





Sealing of Tie rod holes



Tie rod in place







#### **Treatment for Junction of RCC and Masonry.**

Many a time cracks are seen on painted wall surface along the junction or RCC element and masonry viz beam & masonry or column & masonry etc. The correct and permanent treatment of these joints as is seen above photos, using an aggregate ("Khadi") pieces firmly fixed in mortar at the junction.

Plastering of this area is then done by providing a chicken mesh parting covering both, the RCC element and masonry wall.

Proper curing is also an important aspect, which is often overlooked and resulting in appearances of cracks subsequently.



#### **Safety Nets**

Now a days, tying of safety nets is made mandatory by the Client's from the safety point of view of not only the workers at site but also for the pedestrians below.

Ideally, the net is designed to cater to a load of 5 to 10 Kg. of an objects falling from the top.

The correct way of testing is to throw a 50 Kg bags of cement from the highest level of building on the tied net & if it retains on the net, then the safety net is safe & proper.



#### **Crane mast connected to the main structure**



Frequent checking & maintenance of Crane connections to the main structure is necessary



#### **Building Construction**

# Construction methodology & Shuttering options



#### "Conventional" RCC construction

#### Advantages:-

- Low initial shuttering cost to the client.
- Specialized contractor not required.
- All building can start simultaneously engaging separated contractor.
- A normally accepted method adopted in India.

#### **Disadvantages:-**

- Regular checking quality of shuttering material & workmanship.
- Quality deteriorates due to lack of supervision. Thus, additional cost for rectification.
- Laborious & time consuming involving large quantum of shuttering.
- Requires additional manpower as well.
- > Slab cycle under normal circumstance shall be 12 to 15 days.



# Checking of Plumb for External Columns by Total Station Survey



#### Checking plumb of the column in a high rise building

- Plumb of the column in a multi storey building is checked by Total station Survey
- Place a scale on a straight wooden piece and keep on the column below and the read the distance on the scale at upper floors.
- The difference between the two readings (taken in two directions) gives variation.
- Minimum Eccentricity clauses as per IS 456..... All columns shall be designed for minimum eccentricity, equal to the unsupported length of column / 500 plus lateral dimensions /30, subject to a minimum of 20 mm.

#### Total station survey











## PROJECTS UNDER CONSTRUCTION



#### **Work in Progress**

#### **RESIDENTIAL PROJECTS:**

PROJECT	CLIENT	LOCATION	AREA
CALLISTO	BLUEMOON PROPERTIES	THORAIPAKKAM, OMR	86,000 SFT
ANAHA	INNOVATE INFRASTRUCTURE	ALWAREPT, CHENNAI	10,500 SFT
RESIDENCE	INNOVATE INFRASTRUCTURE	ECR, CHENNAI	40,000 SFT



#### **Work in Progress**

#### **COMMERCIAL PROJECTS:**

PROJECT	CLIENT	LOCATION	AREA
MEDICAL COLLEGE & HOSPITAL BUILDING	J. R. MEDICAL COLLEGE & HOSPITAL	TINDIVANAM	4,00,000 SFT
HOTEL	ACCORD HOTELS	T. NAGAR	RENOVATION
HOTEL	KALDAN SAMUDHRA	ECR	RENOVATION



#### **Works Completed**

PROJECT	CLIENT	LOCATION	AREA
COVE	AKSHAYA PVT LTD	URAPAKKAM	ADDITIONAL
SREE NARAYANA SCHOOL	ABODE REAL ESTATE DEVELOPERS PVT LTD	SRIPERUMBUDUR	INFRA DEVELOPMENT
COMMERICIAL	GATEWAY	PERUNGUDI	12,000 SFT
COLLEGE	BHARATH UNIVERSITY	SELAIYUR	1,20,000 SFT



#### **PROPOSAL SUBMITTED**



#### PROJECT PROPOSAL SUBMITTED

- ►M/s. L&T limited, Trichy MRF Test Center
- ➤ Silver Sand Resort Mahabalipuram
- > J. R. Engineering College Tindivanam
- >ACT College Uthiramerur
- >M/s. Foxconn Dormitory Sriperumbudur
- ➤M/s. Adroit Urban Developers Pvt Ltd Prosper Chennai





Thank You