

Turnkey Solutions for Building Structure's – Using Prestressed <u>PRECA</u>st Construction Technology



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Why **PRECA**st



High Quality & Durable

Precast concrete reinforces the quality of construction and extends building life span. Research proved precast elements have over 100 year life with much lower life cycle costs. Factory-made products are the result of rational & efficient manufacturing processes, skilled workers, quality surveillance, etc.,



Structural Efficiency

A hollow core slab offers the ideal structural section by reducing dead weight whilst providing the maximum structural efficiency with the minimum slab depth. This provides the means of longer spans there by reducing internal load bearing walls and foundation.



Versatility of Design

Precast concrete buildings are functional and beautiful. Unlike conventional concrete, precast provides a structural platform which will give the architects and structural engineers greater freedom in designing virtually any layout.



Cost Effective

The long spans, columns & beams, minimize costs. With hollow core pre-stressed elements, structure weight will be reduced and thereby reducing foundation requirement & costs.



Rapid Construction

Precast concrete construction does jobs sooner. The manufacturing of pre-stressed elements and site preparation can proceed simultaneously. Early occupancy provides benefits to the client along with saving in Interest costs.



Conserves Energy

Pre-stressed concrete components can improve the thermal storage potential of a building. It effectively conserves energy required for heating and cooling.

PRECAst the only way forward

Non Availability of skilled labor

The Indian construction sectors have grown many folds over the past few years but the manpower in these sectors have not grown at the same pace, making alternative methods a necessity

Projects sizes have increased many folds

Typical project sizes have increased which makes it impossible to stick to conventional methods of constructions. Large scale projects need solutions which are innovative and are much faster.

Quality Execution & Round-the-clock Execution

Conventional construction is fraught with many quality issues. Adding to that, compelling night shift workings, sparsely controlled materials and work have been causing severe quality shortfalls and deficiencies. Whereas, Precast is of high quality due to production under controlled environment.

Time is money

Precast methods are much quicker than conventional method of construction. Hence realizations are much quicker not to mention saving in interest costs.

Cost effective solution

PRECAst model of development is much more cost effective as compared to conventional development methods



PRECAst Turnkey Activity Flow

PRE - CONTRACT STAGE

MANUFACTURE

ENQUIRY PRECA CLIENT

- **Project Details**
- **Specifications**
- **Preliminary Drawings**

SITE STUDY

- Soil Report
- Site Approach Roads / Direction
- Crane Maneuvering
- Stacking Yard, etc.

MEETING WITH CLIENT & CONSULTANT

- **Project requirements**
- Project scope and Time lines.

PROJECT STUDY

- **Review drawings**
- Deliberate with consultant/ client
- Studying options
- Arrive appropriate system

COMMERCIALS & CONTRACT

- Finalize scope of work
- Agree Commercial.
- Sign Contract

GFC DRAWINGS & SCHEDULE **APPROVALS**

- Drawings & detailing for GFC.
- Drawings & construction schedule for approval.

DEPLOYMENT OF

EXECUTION TEAM

PRODUCTION DRAWINGS

- Arriving production drawings.
- Planning production program

MOULDS PREPARATION

- Fabrication/ customizing moulds for project specific elements.
- Allocating moulds/ Lines for productions

PRODUCTION PROCESS

- Production of PRECAst building elements as per schedule.
- Mobilization of execution team and cranes for project.

DELIVERY TO THE SITE

- Logistics planning as per delivery schedule.
- Transportation on JIT model.

ERECTION AT THE SITE

- Erection as per schedule & standards. project to the client
- Client / contractors / consultants co ordination.

PROJECT HANDOVER

- Handing over the satisfaction.
- **Deliver AS BUILD** drawings.

ERECTION STAGE DELIVERY AND

CONTINUOUS QUALITY MONITORING AT EVERY STAGE OF ACTIVITIES

Green Building LEED Certification: PRECAst

| LEED Category | Credit Reference | Credit Earning Factor | PRECA advantage | Potential Points | |
|---|----------------------|--|---|---------------------|--|
| Innovation & Design | Credit 1.1 to 1.4 | Innovation in design | Preca designs are compatible for meeting the innovation requirement | 2 | |
| | Credit 1.1 to 1.4 | , | Preca products, do not involve fly ash, but uses less cement and hence are better match for SCM | 1 | |
| | Credit 1.2 | LEED Accredited Professional | Optional, although LEED aspiring Structures appoints a professional | 1 | |
| Sustainable Sites | Credit 5.1 | Habitat | Preca Products, because of JIT, help avoiding the disturbance to the surrounding habitats | 1 | |
| | Credit 7.1 | Heat Island Effect: Non - Roof | For relevant structures | 1 | |
| | Credit 2.1 | Construction Waste Management: Divert 50% from disposal | Preca Products automatically reduce construction waste | 1 | |
| | Credit 2.2 | 7.5% from disposal | Preca Products automatically reduce construction waste | 1 | |
| Materials & | Credit 4.1 | Recycled content, use 5% post - consumer or 10% other | Preca Products are amenable to use recycled content | 1 | |
| Resources | Credit 4.2 | Recycled content, use 5% post - consumer or 20% other | Preca Products are amenable to use recycled content | 1 | |
| | Credit 5.1 | Processed & Manufactured Regionally | Preca sources all the materials regionally after careful quality checks | 1 | |
| | Credit 5.2 | Regional Materials: 20% Extracted, Processed, & Manufactured Regionally | Preca sources all the materials regionally after careful quality checks | 1 | |
| Indoor Environmental Quality | Credit 3.1 | 1 | Preca products, subject to the design, facilitate indoor air quality | 1 | |
| Energy & Atmosphere | Credit 6.1 | | Preca products are naturally energy efficient | 10 | |
| Total Potential points for Green Building LEED Certification | | | | | |
| By adopting GMP, Conventional construction methodology also may scores upto 10 points | | | | | |

PRECAST: Environmental Friendly Construction

Lighter Structural Frame with Hollow Core Slabs:

HCS have less self-weight reducing deadweight of total structural frame. They have lower water-cement ratio besides enhancing Indoor Air Quality. HCS allow longer spans avoiding many intermediate columns. HCS' Soffits are smooth requiring less paints.

Energy Conservation Building Code, Ministry of Power, GoI:

Ministry of Environment & Forests made ECBC adherence mandatory. As precast elements facilitate ECBC compliance, precast is fast emerging as the natural choice.

Environmental Clearance, Ministry of Environment & Forests, GoI:

MoE&F suggested usage of Precast and particularly Hollow Core Slabs in their Manual on norms and standards for environmental clearance of large constructions.

Conservation of Natural Resources:

Precast Construction conserves natural resources by reducing air pollution, water consumption & pollution, sound pollution, and impact on local communities & surroundings of the construction site.

Green Manufacturing Award:

PRECA received award for its Good Manufacturing Practices and Green Category Precast Products.





Pictorial Case Study:

Factory Produced Buildings

(Prestressed & Precast Construction)

PRECAst Advantage — No Brick Work





Past..

PRECAst Advantage — Less Steel





PRECAst Advantage — No Shuttering & scaffolding





PRECAst Advantage — Safe Construction





PRECAst Advantage — Better Quality & Finishes





PRECAst..

Past..

PRECAst Advantage — Better Site Conditions





Past..





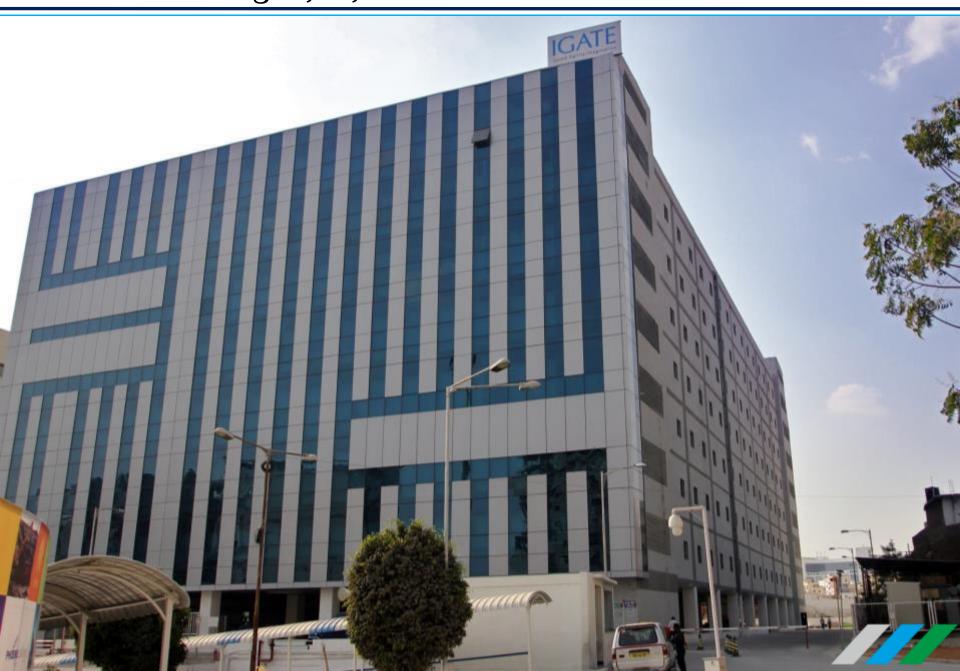
Pictorial Case Study:

<u>Factory</u>

Produced & Delivered Buildings

(Prestressed & Precast Construction)

IT SEZ Building: 3,40,000 Sft



IT SEZ Building:



Project Description:

- ✓ Office Building, Stilt-2+G+7, 3,40,000 Square Foot
- ✓ Precast work started at 3rd level roof onwards 1,70,000 square foot

Construction Methodology:

✓ Precast Prestressed Hollow core Slabs, Prestressed Beams and In- situ Columns, Staircase & Brickwork

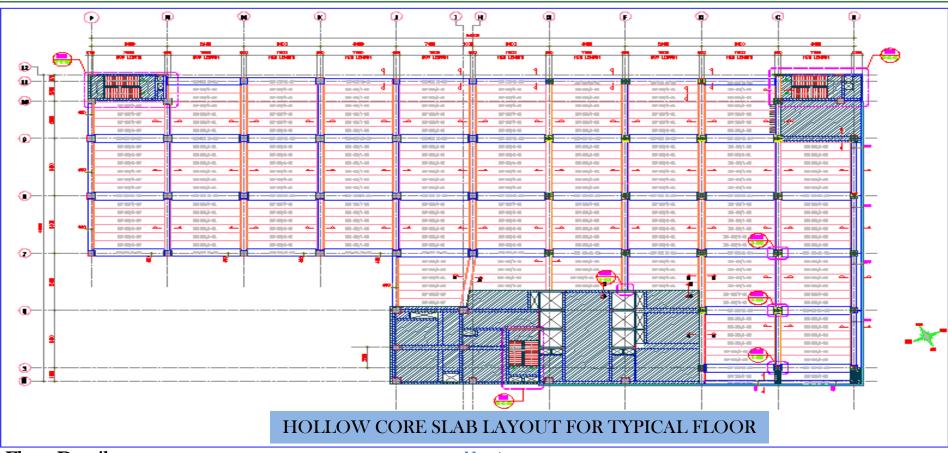
Our Scope:

✓ Turnkey delivery - Prestressed Hollow core slabs & Prestressed Beams

Result

- ✓ Client met his time lines set by his customer
- ✓ PRECA awarded with new Project by client

IT SEZ Building: Typical Floor Layout



Floor Details:

✓ Floor Area = 32,500 Square Foot, floor to floor height = 4.2m

Grid Details:

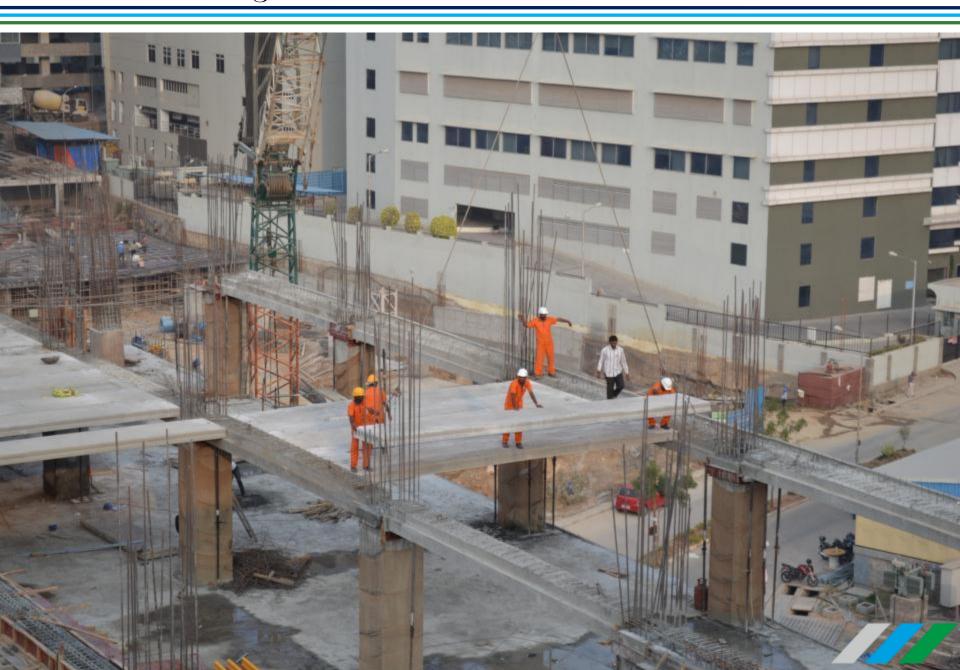
 \checkmark Grid size = 8.4 m x 8.4 m

Structural details:

✓ Precast Frame Structure with Hollow core slab, Prestressed beam and In- situ columns.

- ✓ Hollow core slab & Prestressed beams (M50)
- ✓ HCS depth = 200mm with structural topping = 50mm & Prestressed beam depth including slab thickness = 460mm
- Erection with 1 crew of 6 no's + 1 Crane 150 ton
- The MEP services were run through the prearranged openings provided in the Precast Prestressed beams as per services layout.

IT SEZ Building: Visuals



IT SEZ Building: Visuals



Logistics:



- ✓ Precast elements are transported from factory to the site on the flat bed trailers of 12m length with loading limit of 30 tons
- ✓ Number of elements (Hollow core slab/ Prestressed beams) per trip depends on weight of elements.
- ✓ Wooden sleepers are provided at both the ends of elements and wrapped with steel chains/
 belts for safe transportation.
- ✓ Entry in city was restricted and allowed only after 10.00 pm
- ✓ As entry in city was restricted all the trailers were loaded in the evening at factory and reached the site during the permitted times.
- ✓ As per program, the erection was carried out by lifting directly from trailers. Elements are unloaded on the ground as per next day program.

Crane for Erection:

- ✓ 150 ton mobile mechanical crane was used for erection of precast elements.
- ✓ Crane specification: 40 m working radius with end tip load capacity 6.5 ton.
- ✓ Crane height: Main boom 32 m + luffing boom 46m
- ✓ Maximum weight of elements erected hollow core slab 3 ton & Precast Prestressed beam 7.5 ton



IT SEZ Building: Onsite Issues - Approach Adopted

Limited Storage Place for elements

| Issues | Approach Adopted | | |
|--|--|--|--|
| The ongoing project under execution was given to PRECA for implementation. | The advantages of Precast Engineering could not be fully utilized. However the advantages of quality & speed is demonstrated with in the budget. | | |
| Client has no experience/ team in erecting the precast elements | Erection was undertaken by PRECA with its highly experienced team. | | |
| Column corbels - Not planned | Corbel free solution was provided by placing temporary steel brackets for supporting precast | | |

temporary steel brackets for supporting precast beam.

Limited Crane Maneuvering

Angle of crane movement was restricted to 135 degrees against the available 360 degrees. The handling of elements was planned and done in the same direction.

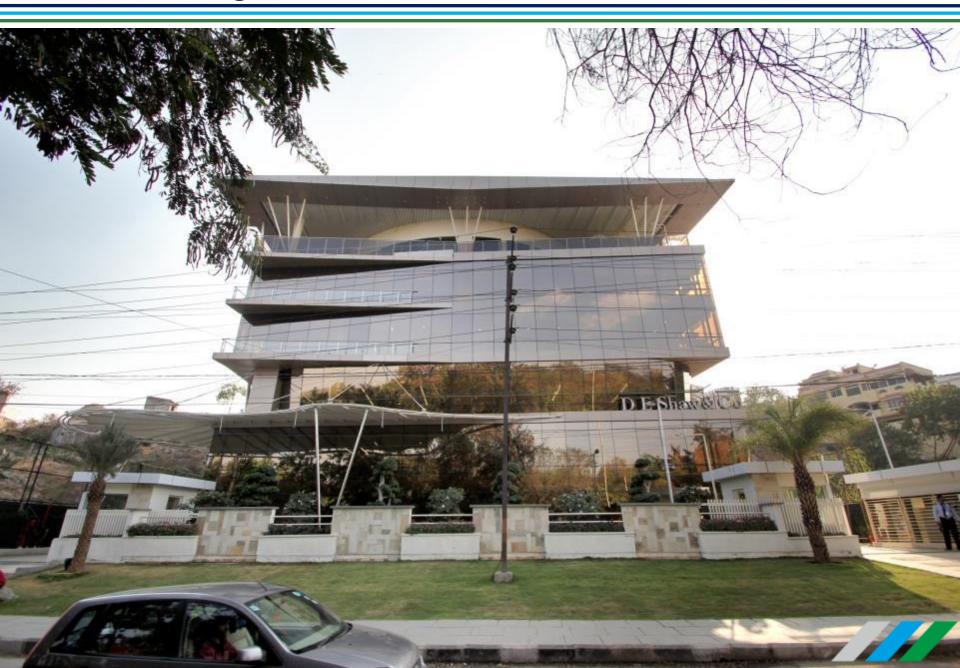
Accurate delivery schedule to match erection

program (Just in time Inventory)

IT SEZ Building: Delivered in 4 months



Office Building: 1,65,000 Sft



Office Building:



Project Description:

✓ Office Building, Stilt-2+G+4, 1,65,000 Square Foot

Project Prime Challenge:

✓ Time line provided - 4.5months

Construction Methodology:

✓ In- situ Columns, Precast Prestressed Hollow Core Slabs, Prestressed Beams, <u>Precast Retaining walls</u>, <u>Precast lift walls</u>, <u>Precast staircases</u>.

Our Scope:

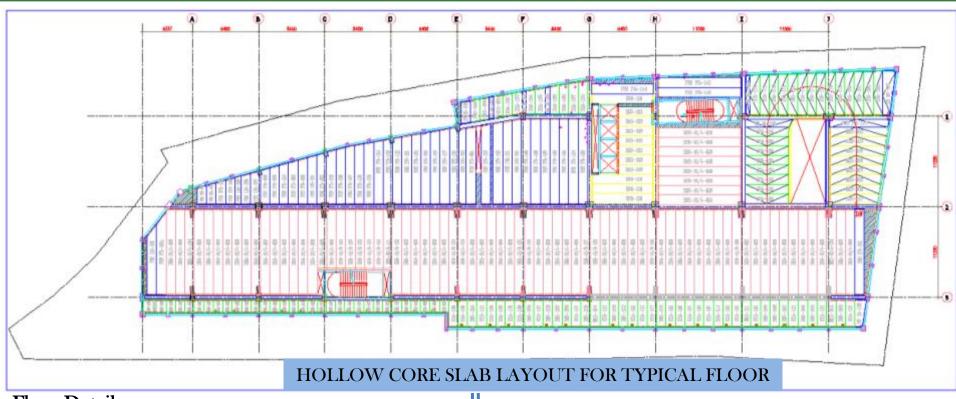
✓ Turnkey delivery- Precast Prestressed Hollow Core Slabs, Prestressed Beams, Precast Retaining walls, Precast lift walls, Precast staircases.

Result

✓ Client met his time lines set by his customer



Office Building: Typical Floor Layout



Floor Details:

✓ Floor Area = 26,550 Square Foot, Maximum floor to floor height is up to 3.85m

Grid Details:

✓ Grid size = $8.4 \text{ m} \times 11.0 \text{ m} & 11.0 \text{ m} \times 11.0 \text{ m}$

Structural details:

✓ Precast Frame Structure with Hollow core slab,
Prestressed beam, Introduced Precast retaining
walls, Precast lift walls, Precast Ramps and Precast
staircases and In- situ columns.

- ✓ Hollow core slab(M50) & Prestressed beams (M50) and for Precast Retaining walls, Precast Lift walls & Precast Staircases (M40)
- ✓ HCS depth = 150 & 250mm and structural topping =60mm & Prestressed beam depth = 520 mm
- Erection with 1 crew of 6 no's + 1 Crane 150 ton.

Office Building: Approach Adopted

- As PRECA involved in planning stage itself the designs were optimized. <u>11m spans</u> were introduced and economized sub structure of the building.
- The scope of work also expanded to Retaining wall, Lift walls, Staircase, Ramps,
 Hollow core slabs and Prestressed beams.

• The 3 sides of building is fully covered with natural rock hill and only one side approach is possible and the inside width of plot is also restricted to small cranes.

Planned the erection of building in the vertical stages of construction.



Office Building: Visuals



Office Building: Visuals



Office Building: Visuals



Office Building: Delivered in 4.5 months



Hospital Building: 1,20,000 Sft



Hospital Building:



Project Description:

✓ Office Building, G+4, 1,20,000 Square Foot

Project Prime Challenge:

✓ Time line provided - $\frac{4 \text{ months}}{2}$

Construction Methodology:

✓ Precast Prestressed Hollow Core, solid slabs, Precast Beams, Precast Columns, Precast Lift walls, Precast Ducts, Precast architectural elements and Staircases

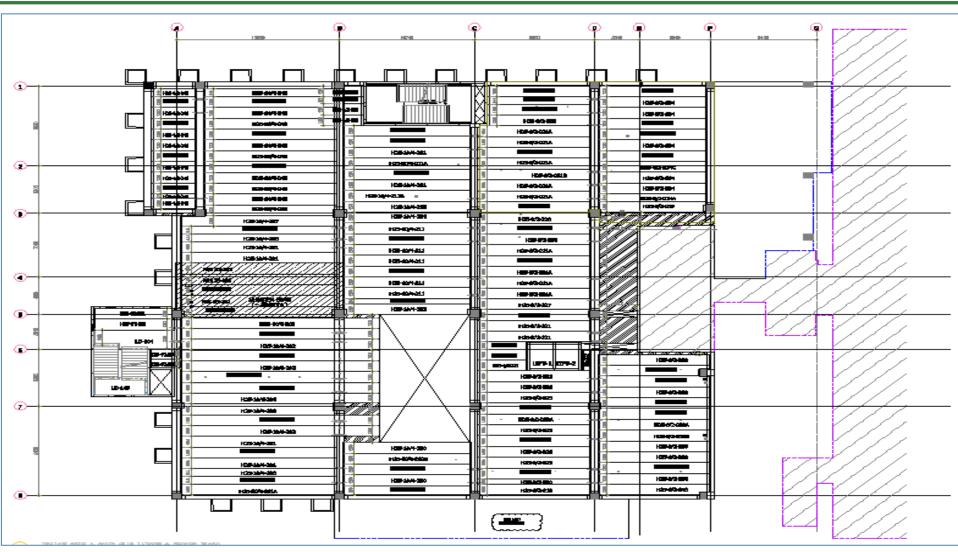
Our Scope:

✓ Turnkey delivery-Design, manufacture, delivery and erection of Precast Prestressed Hollow Core, solid slabs, Precast Beams, Precast Columns, Precast Lift walls, Precast Ducts, Precast architectural elements and Staircases.

Result

✓ Project Delivered as per schedule

Hospital Building: Typical Floor Layout



Details:

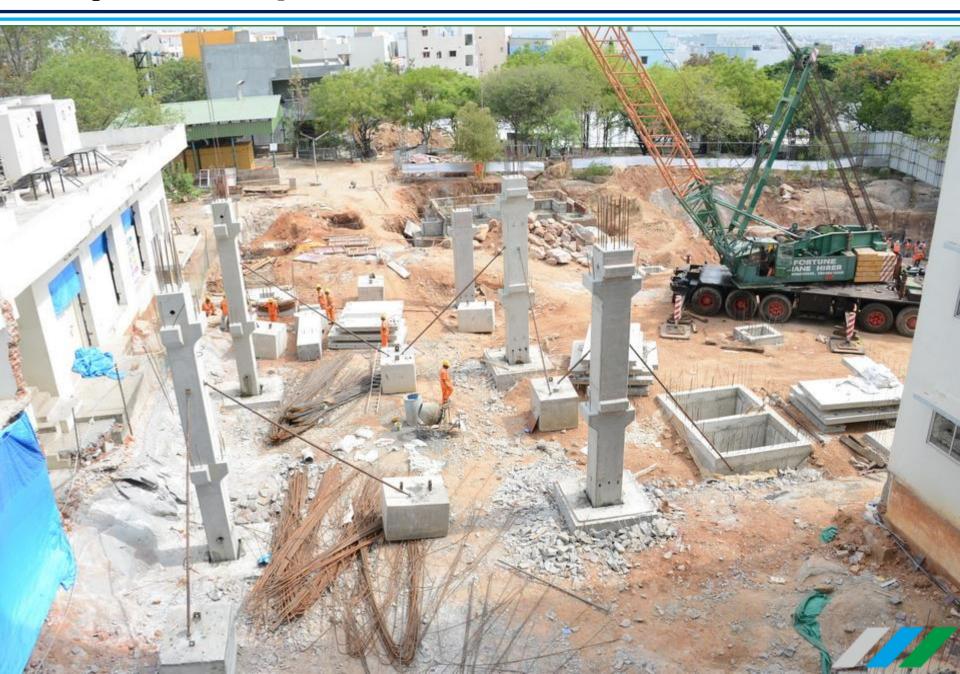
- ✓ Long Span Construction System Adopted: Hollow core slab with Beam.
- ✓ Max Span with Hollow Core slab = 15m
- ✓ Max Length of the Beam = 16m.



| Hospital Building: Onsite Issues - Approach Adopted | | | |
|---|--|--|--|
| Issues | Approach Adopted | | |
| Limited Storage | ☐ Planned Just In Time delivery for the long elements | | |
| Crane Maneuvering | □ Site was surrounded with three sides buildings. Crane Maneuvering was restricted to one side. □ Planned phase wise erection. | | |
| Material Transport to Site | Entrance to the site was the common entrance for the hospital block which was is in operation. Planned night time delivery with minimum disturbance . | | |
| Minimum Tolerance to Existing Block | □ Few Prestressing elements were supposed to erect with minimum tolerance to the existing building. □ Planned special lifting and erection | | |

program.





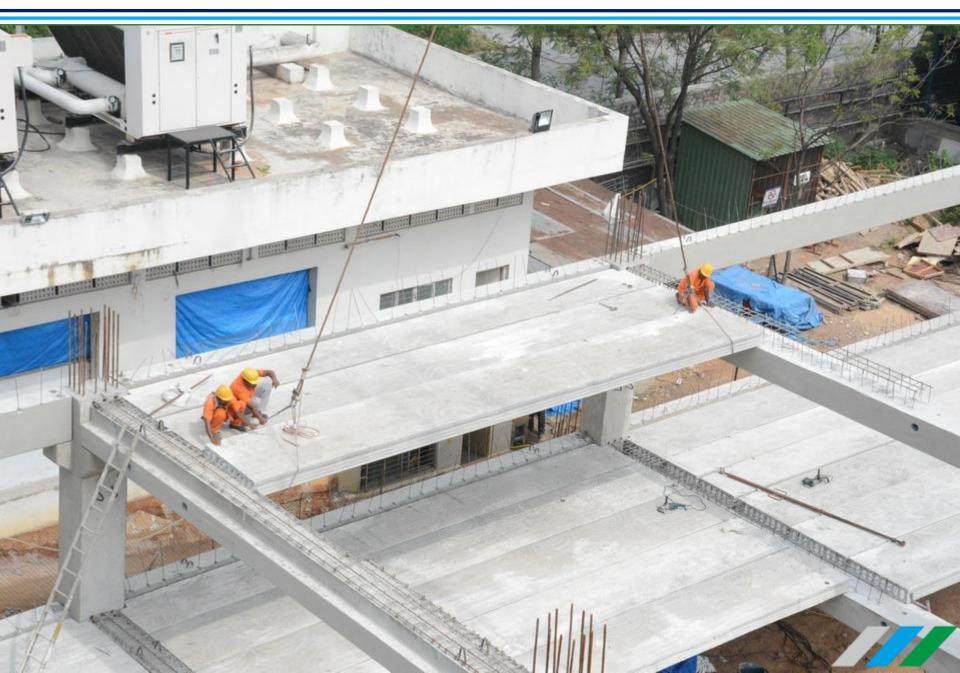


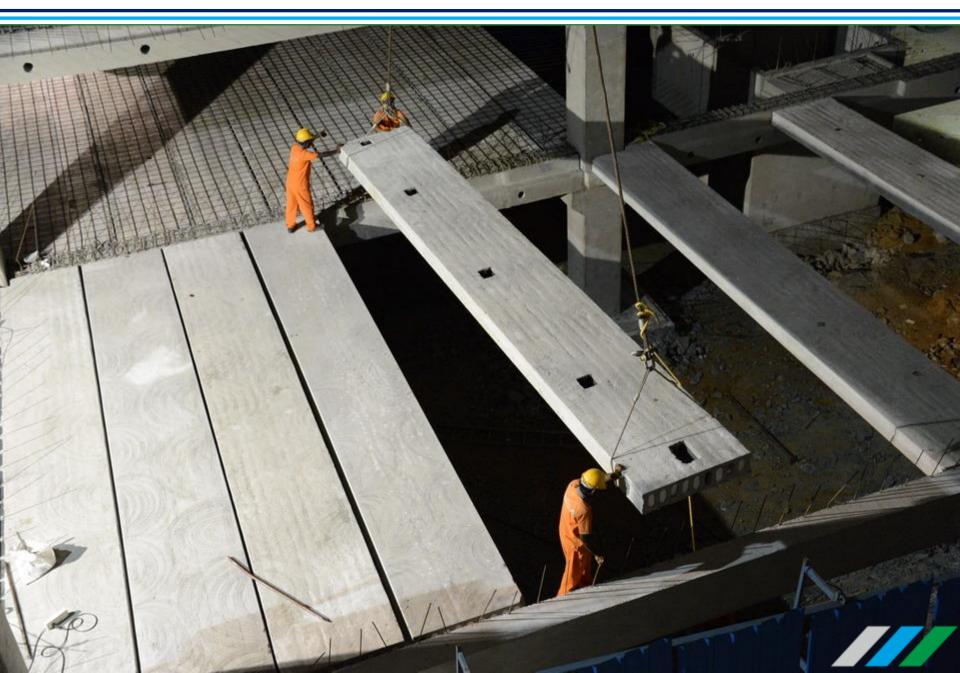


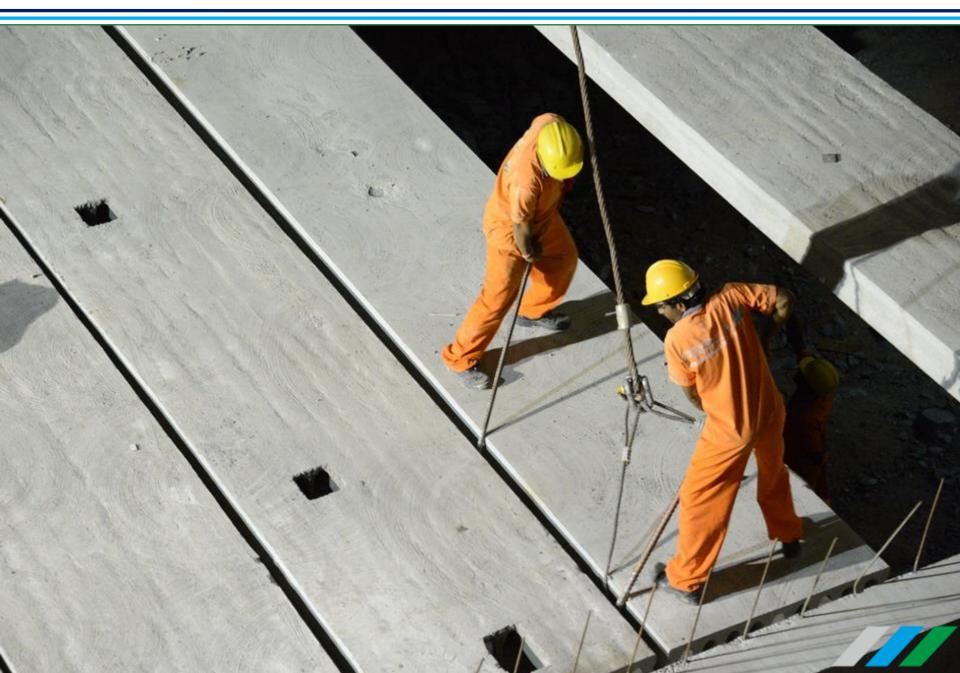




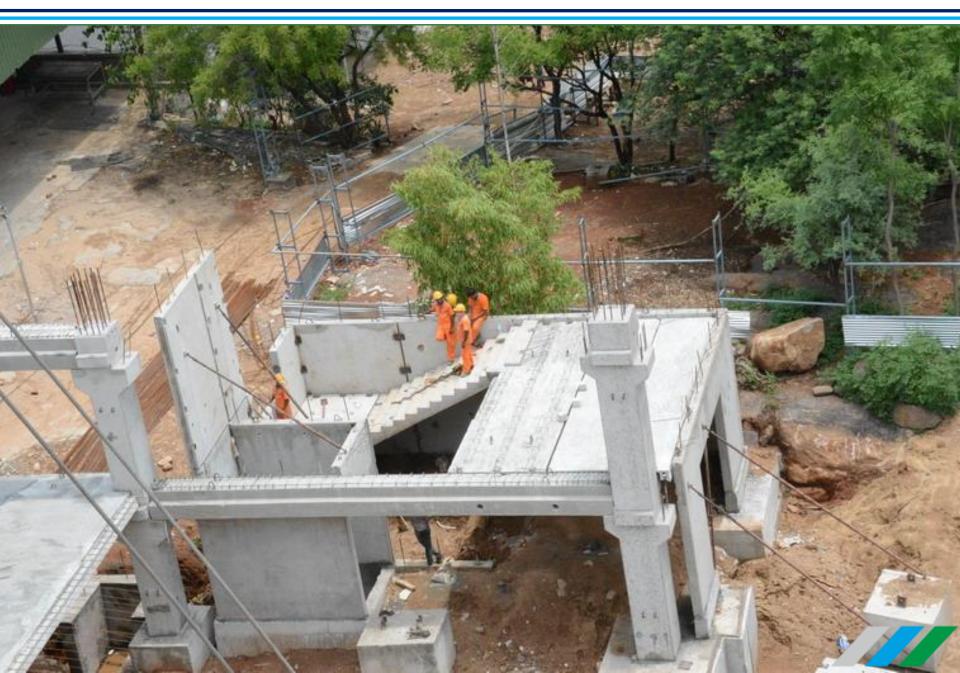






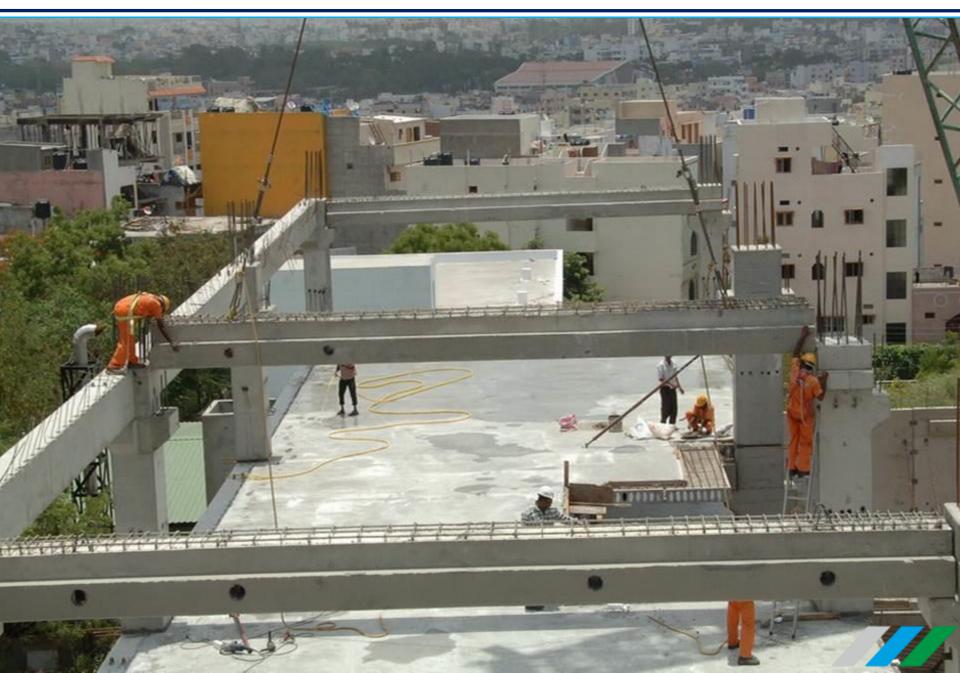


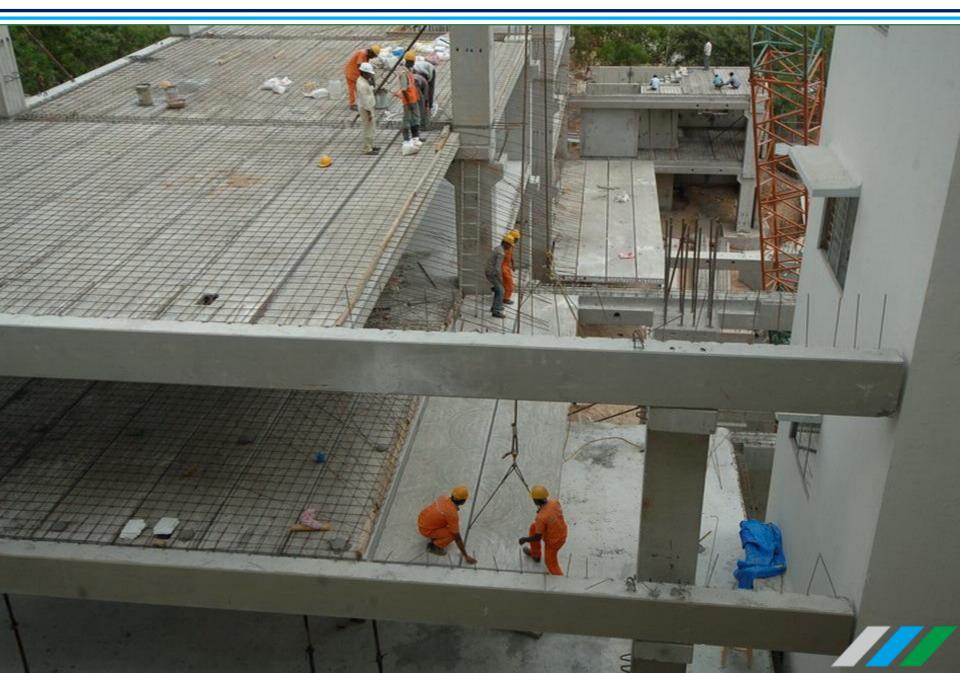




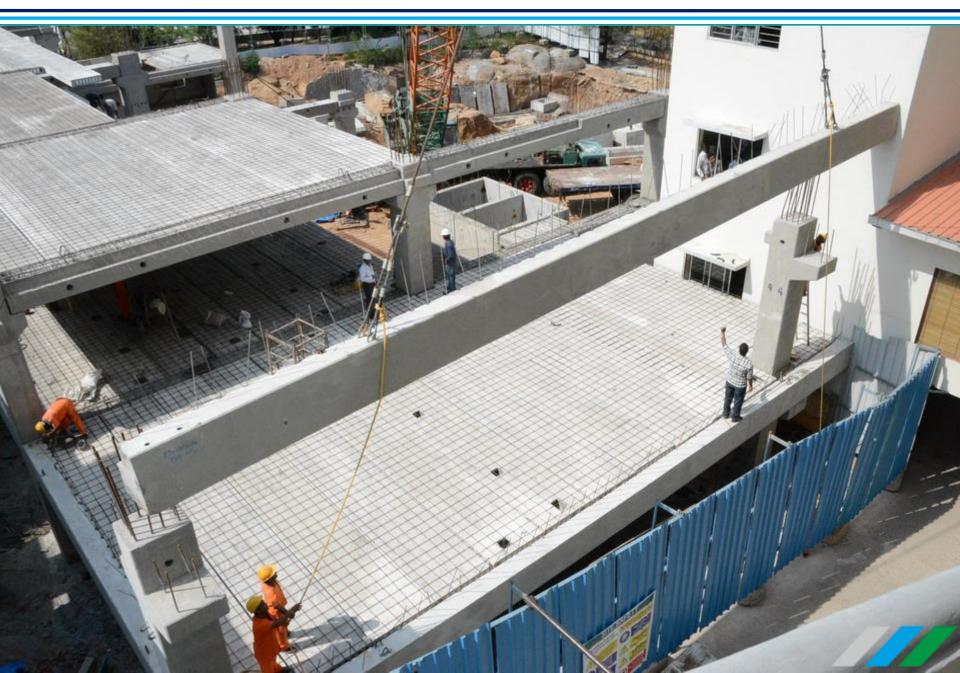


















Hospital Building: Delivered in 4 months



Multi Level Vehicle Parking Building: 1,10,000 Sft - Ongoing





Project Description:

- ✓ Office Building, 3 basements + G+1, 1,10,000 Sft
- Project Prime Challenge:
- ✓ Time line provided $\frac{5 \text{ months}}{}$

Construction Methodology:

✓ Precast Prestressed Hollow core, Single & double T Slabs, Precast Columns, Prestressed Beams, Precast Retaining walls, Precast lift walls, Precast staircases and Precast Ramp.

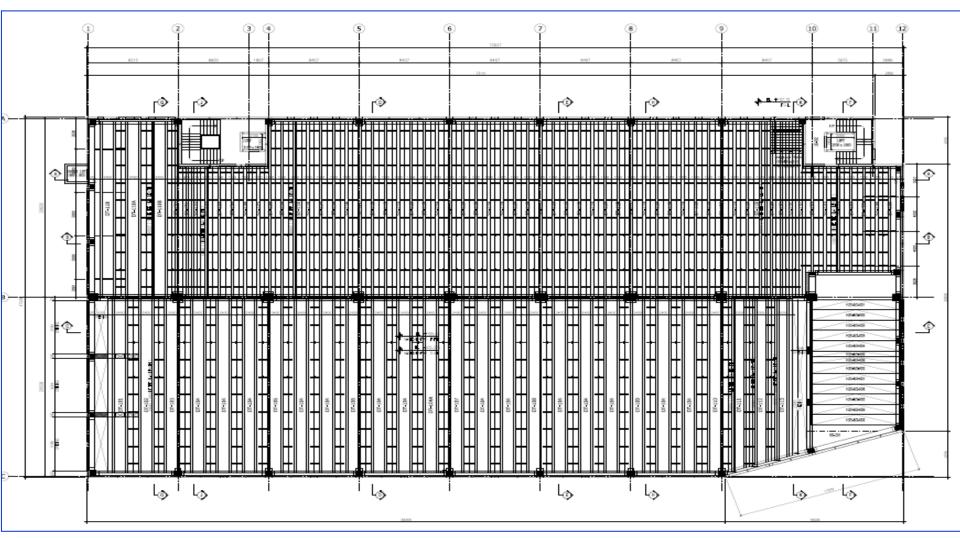
Our Scope:

✓ Turnkey delivery-Design, manufacture, delivery and erection of Precast Prestressed Hollow core, Single & double T Slabs, Precast Columns, Prestressed Beams, Precast Retaining walls, Precast lift walls, Precast staircases and Precast Ramp.

Result

✓ Higher perking density (More cars per sft)

Multi Level Vehicle Parking Building: Typical Floor Layout:



Details:

- ✓ Long Span Construction System Adopted: Tee Slab with Beam.
- ✓ Max floor Span with Tee slab = 21m
- ✓ Max Length of the Beam = 8.5m.



















Logistics



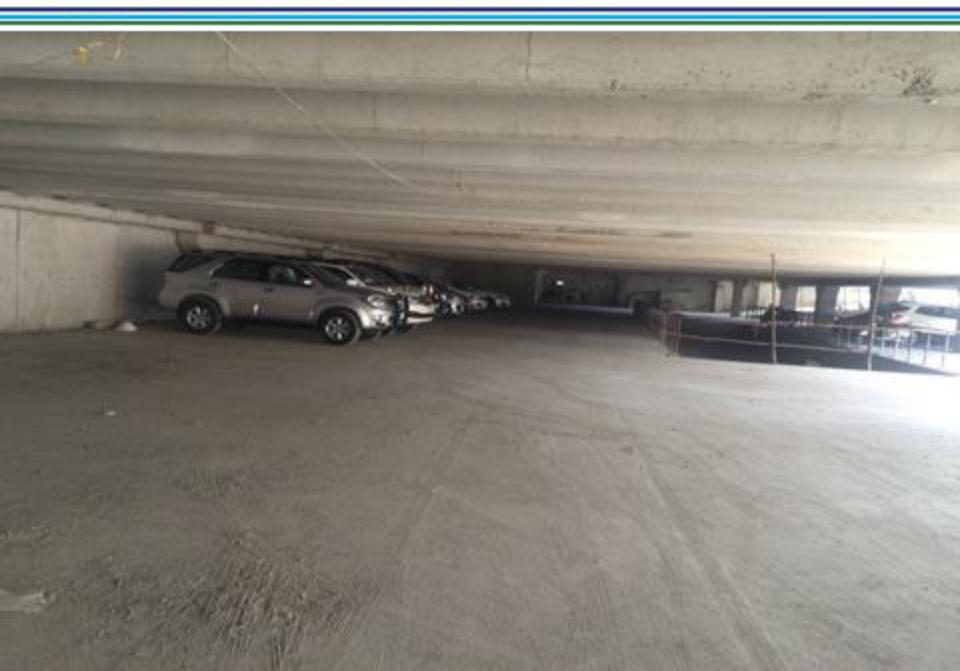
Multi Level Vehicle Parking Building: Ongoing



Parking Building: Long Span Building



Parking Building: Long Span Building



Industrial Building - Cadburys Project: 2,20,000 Sft

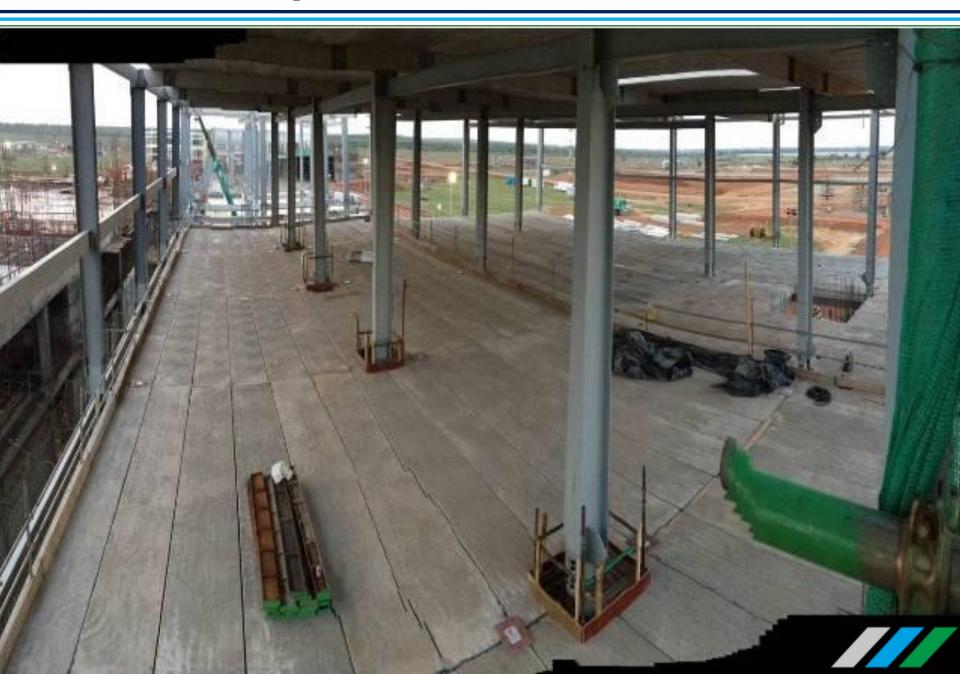


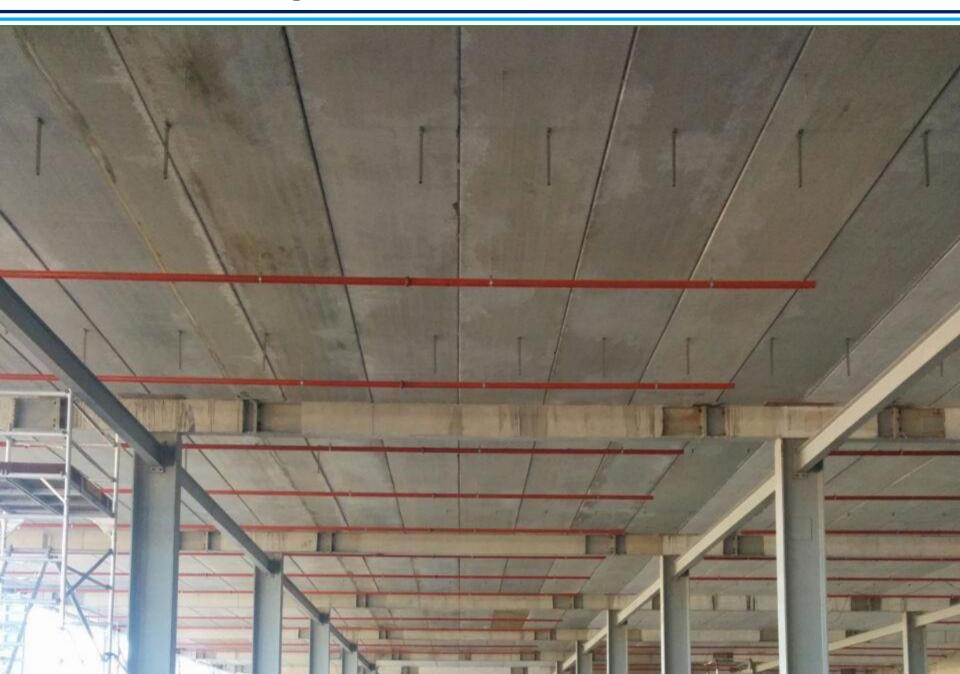


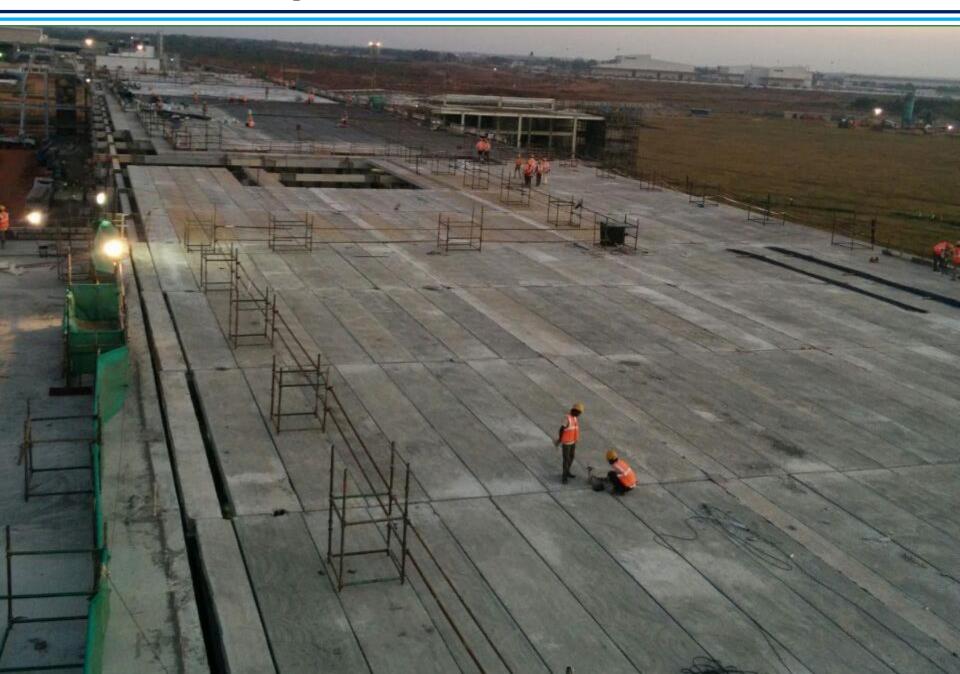


















Industrial Building: Cadburys Project: Delivered in 5 months



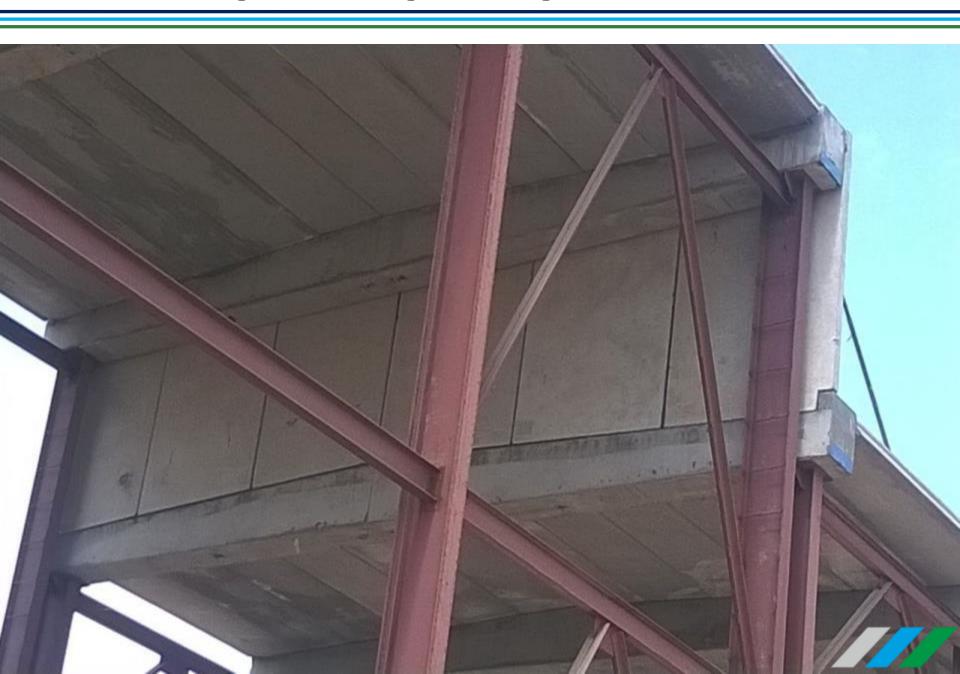
Industrial Wagon Loading Building: 1,15,000 Sft



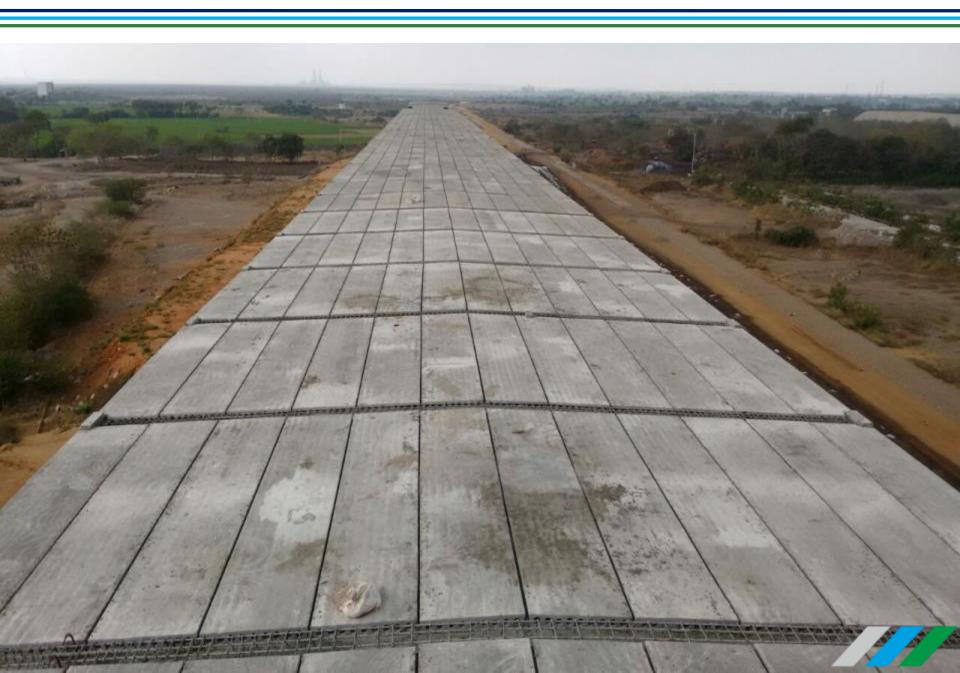












Industrial Wagon Loading Building: Delivered in 4 months





Office Building: 1,00,000 Sft













Logistics : Office Building



Office Building: Delivered in 3.5 months



Commercial Showroom: 20,000 Sft



Commercial Showroom: Visuals



Commercial Showroom: Visuals

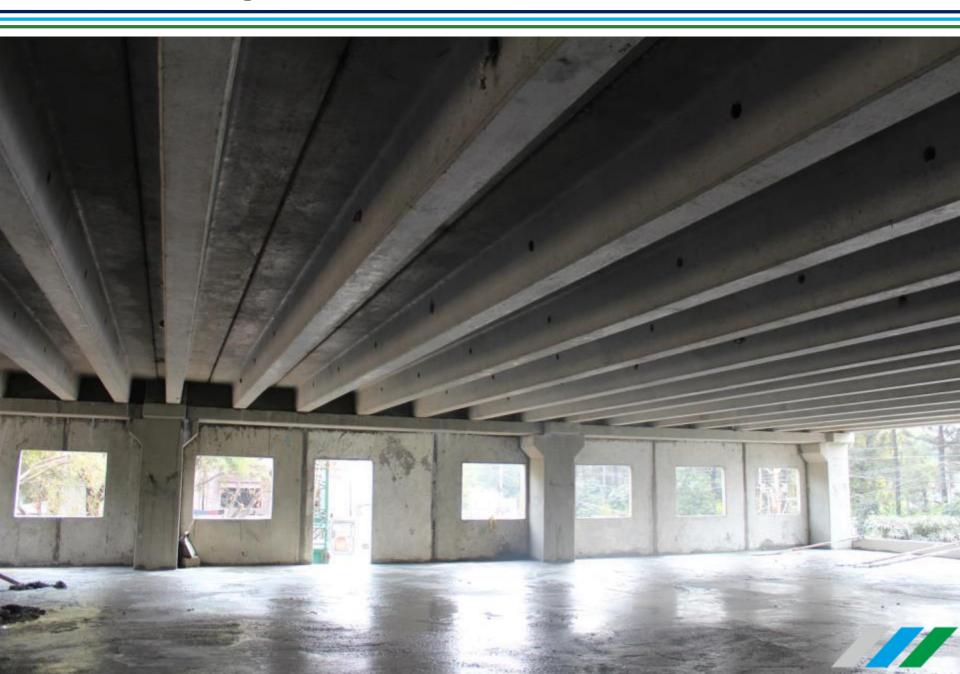


Commercial Showroom: Delivered in 45 days



Office Building: 40,000 Sft









Office Building: Delivered in 90 days



International School Building:



International School Building:



International School Building: Delivered in 40 days



Residential Building: 22,400 Sft



Residential Building: Visuals



Residential Building: Visuals



Residential Building: Visuals



Residential Building: Delivered in 28 days



Compound wall: Visual At Factory



Compound wall: Visual At Site

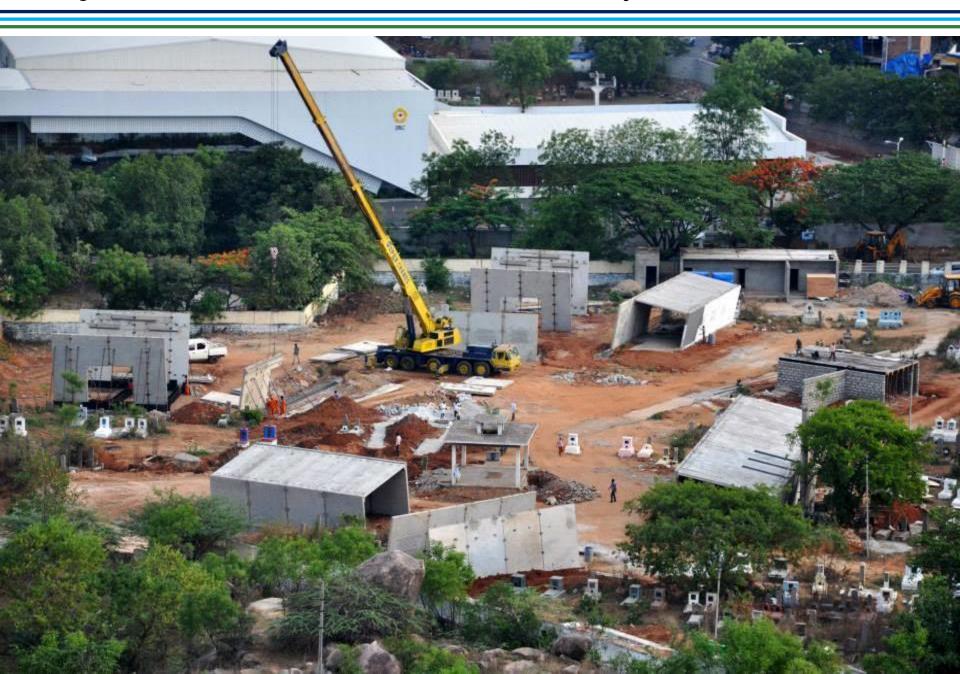


Compound wall: Visual At Site



Compound wall: Visual At Site





Project- for Crematorium - CSR Activity











Project- for Crematorium - CSR Activity





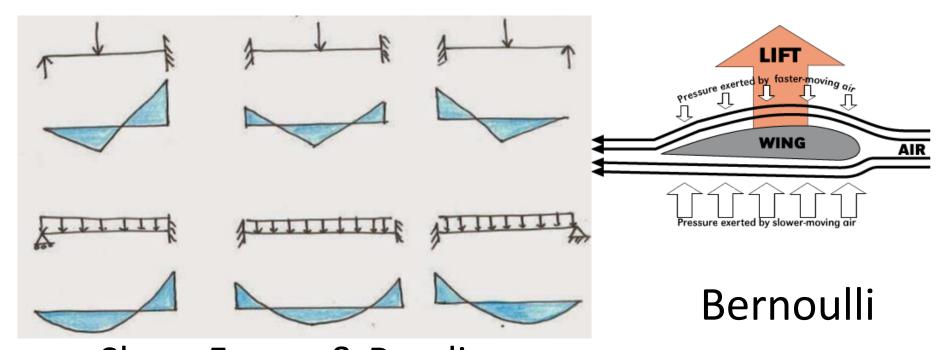


PRECAst Connections

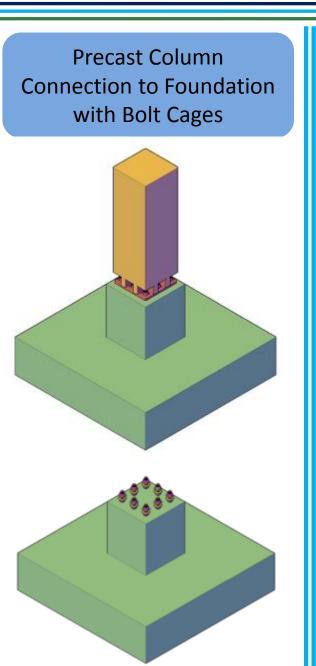
Connections – is it safe?

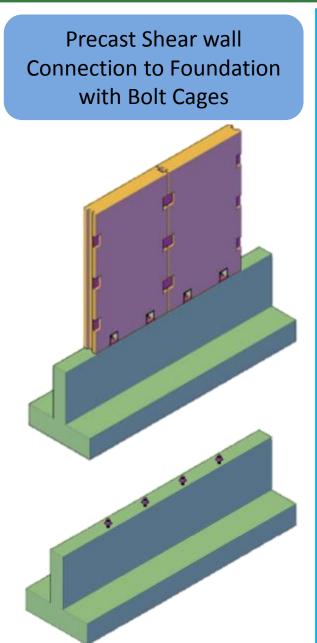


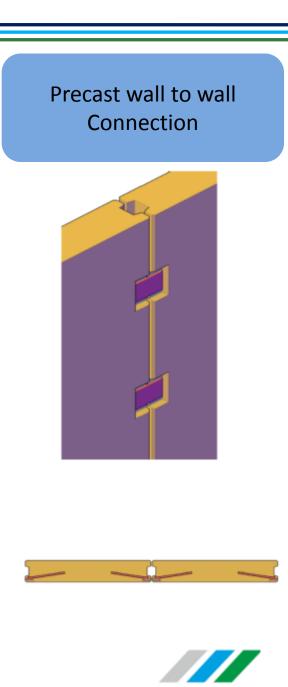
Same Technical Principle Apply



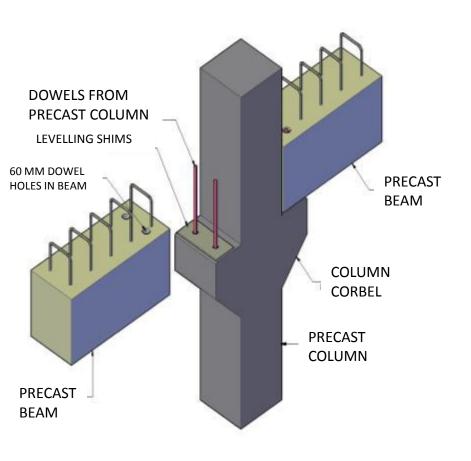
Shear Forces & Bending Moment in Beams

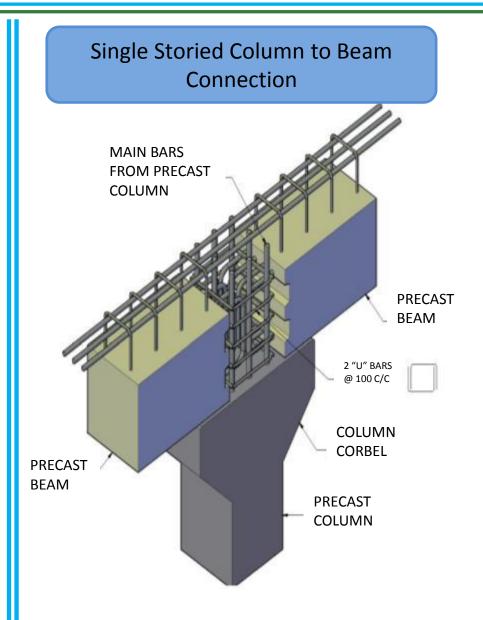




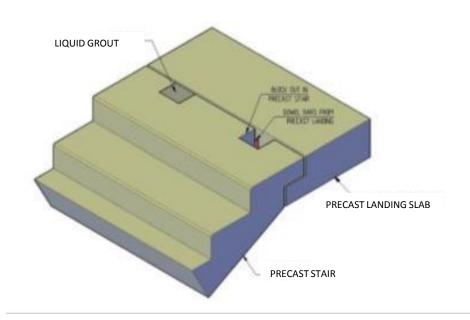


Double Storied Column with Corbels to Beam Connection

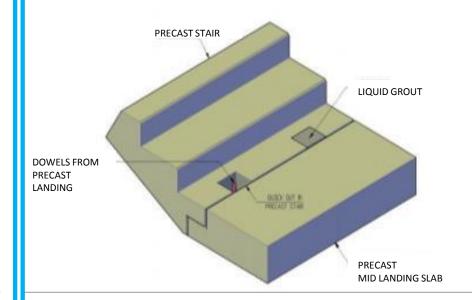




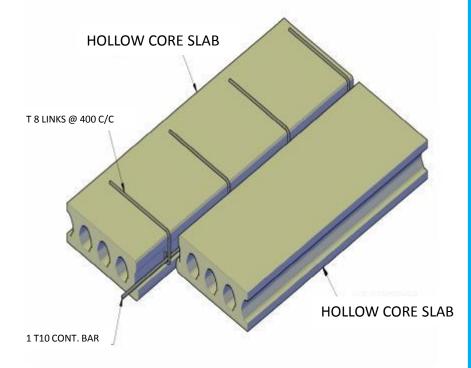
Staircase Flight to Mid Landing Connection



Mid Landing to Staircase Flight Connection

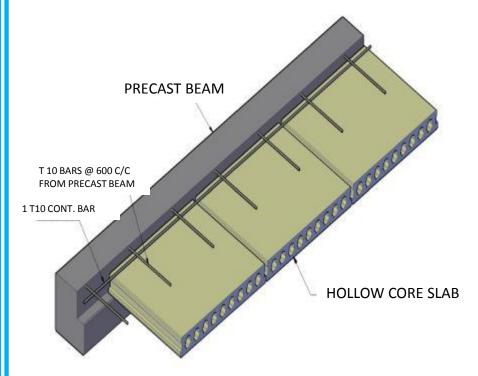






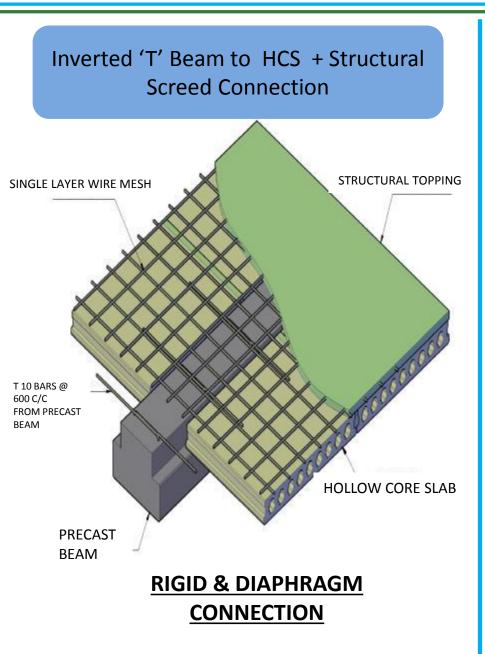
DIAPHRAGM CONNECTION

'L' Beam to HCS Connection

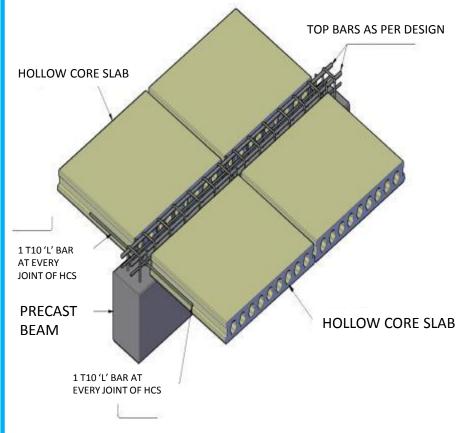


DIAPHRAGM CONNECTION





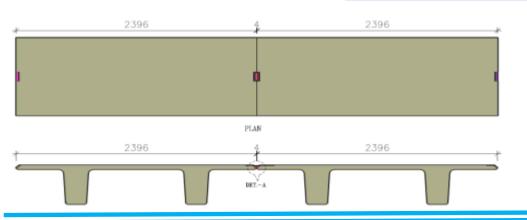
Precast Beam to HCS Connection

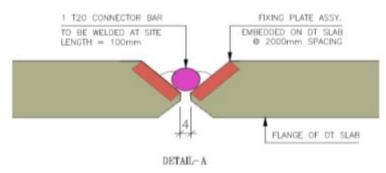




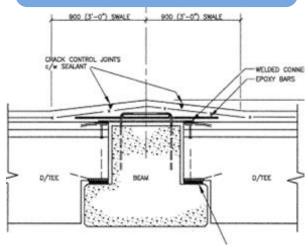


DOUBLE T – DOUBLE T Connection

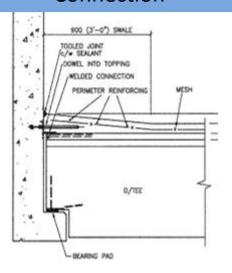


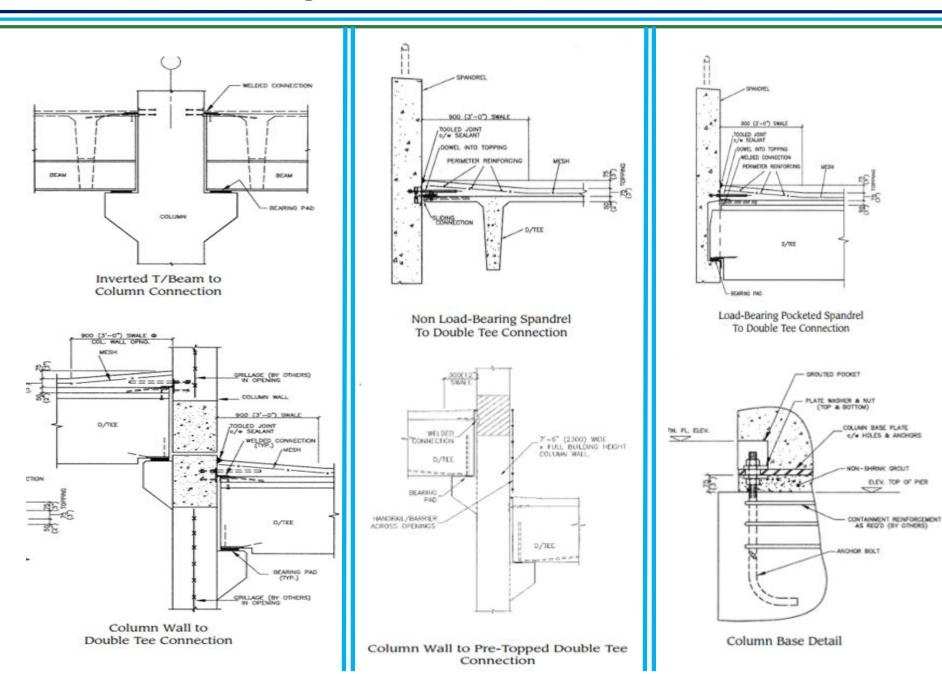


Inverted Beam to Tee slab Connection



Spandrel to Tee Slab Connection







About PRECA

What We Do?

We Manufacture Buildings in our Factory...



We...

- ✓ Designs Buildings & Other Structures
- ✓ Manufactures Buildings in the Factory
- ✓ Erects Buildings & Other Structures
- ✓ Delivers Buildings & Other Structures

In sum, PRECA provides complete TURNKEY Engineering solutions



Our Turnkey Services

PRECA delivers turnkey services from design to on-site installation



Who are we?PRECA, an International JV

PRECA, an International JV Promoted by:

✓ Satish Gottipati in JV with European & African Techno-Commercial partners.

PRECA's advantages:

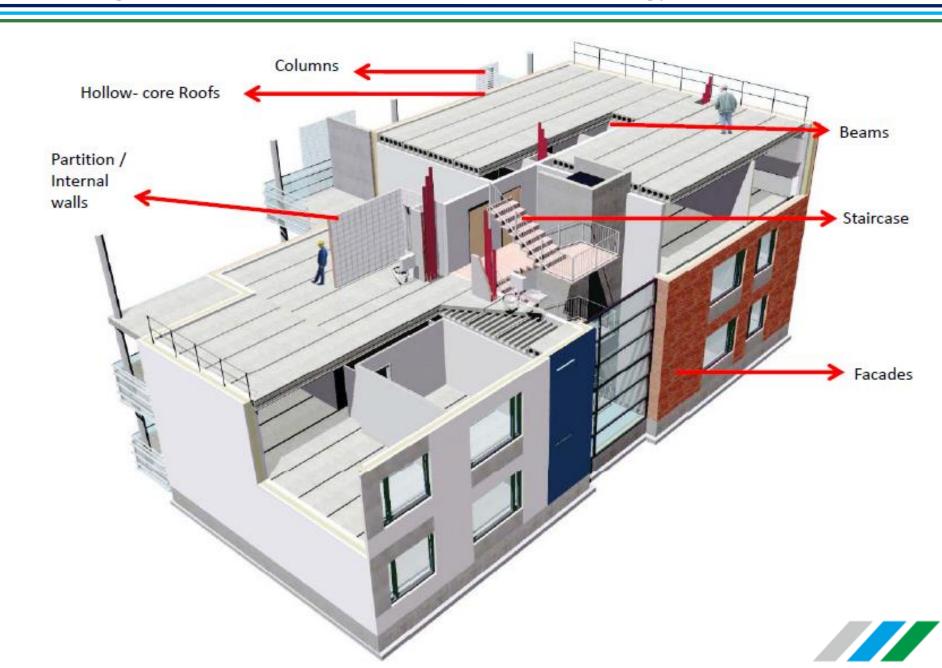
- ✓ Israeli managerial and technical expertise
- ✓ State-of-the-art infrastructure, plant & machinery, and European Technology
- ✓ Operations headed by World's most Experienced & Qualified Precast Professional
- ✓ Team has long precast experience in Dubai, Malaysia, Israel, & other Gulf Regions.

PRECA's vision

✓ To be a significant player in the South India market providing quality solutions by improving construction methodologies through commercially proven technologies.

Plans to set up multiple factories in South India and aims to be the first choice for quality turnkey solutions

Building with Prestressed Precast Technology





Hyderabad Plant at Shankarpally



- ✓ 10,000 SFT full structure production per day.
- ✓ 60,000 SFT Built-Up Factory in 14-acres
- ✓ Located at Shankarpally, near Hyderabad

- ✓ Production Technology from Europe.
- ✓ In-House Fabrication, Lab & Mechanized Bar Bending equipment
- ✓ 100 % Power Backup



PRECA Team

Promoters:



Mr. Satish Gottipati

- Has more than 16 years of business experience in the field of manufacturing, infrastructure, real estate and Investment sectors.
- Served many organizations, including listed and foreign companies
- Qualified Chartered Accountant and Cost Accountant.
- Board member, Israeli-Indian JV, & Financial Advisory Companies
- Vice President, FISME-India, and Head FISME Andhra Pradesh.



Dr. Tunji Olowolafe:

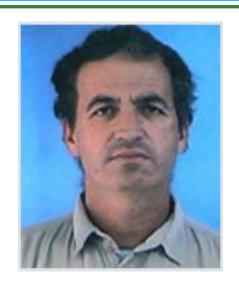
- Chairman of various Nigerian Companies involved in Manufacturing, Infrastructure, Metro Rail, and Medical Facilities, Real Estate etc.
- Owns Nigerian largest Infrastructure Companies and has investments in many companies with financial & technical partners around the World including Tata from India.
- Qualified MBBS Doctor and has long experience in Medical Infrastructure



Mr. Uri Kertes

- An Hungarian-Israeli, Civil Engineer by Qualification & Profession
- Has 33 years experience in managing, supervising & executing various civil engineering projects, including residential, commercial, industrial, roads, & infrastructure projects in Israel, Hungary, Cameroon and Nigeria.

Our Technical Team



Mr. Nadav Shachaf - Technology Head

- Nadav, from Israel, is a qualified engineer. Associated with Prestressed Element Manufacturing Industry since 1976.
- Held several positions in leading companies such as Spancrete Palmachim Ltd, Spancrit Cellenbeton and Spancrete Ltd Israel.
- Was MD at Spancrete Cellenbeton for 2 years and Spancrete Ltd for 4 years. Assisted Shay-Gil Project Building & Marketing Ltd, leading Israel company, to set up new prestressed concrete element manufacturing facility.
- At PRECA, is responsible for technical operations as he is joined by a team of experts.



Mr. Shridhar C.N -Head (Design & Marketing)

- Qualified Civil engineer with Masters Degree in Prestressed Concrete Structures.
- Over 14 years experience in design & detailing of largescale precast structures. Has long experience in designing major projects in Dubai & Saudi Arabia. Served several levels of design process for large scale organizations at Gulf. Expert in international design codes.
- Has long experience in the design aspects of setting up and expansions of precast factories. Leads and guides the team towards the success of company. He updates new developments in precast technology and adopts and implements the same in practice.



Other Team Members



Mr. G. Siva Rama Krishna - Financial Controller & Head - Finance

- Qualified Chartered Accountant and Cost Accountant
- More than 15 years of experience in the field of audit, accounts & finance.
- Associated with member firms of all the 'Big 4' accounting firms and worked with a power generation group.



Other Team Members:

- Includes qualified & experienced members in Departments including foreign technicians, and foreign returned Indian experts delivering higher performance and consistent contribution.
- Team has international experience in Gulf, Africa, Israel etc., in precast engineering and construction. Team members are associated with prestigious precast constructions such as office buildings, residential villas, residential complexes, commercial towers, and other structures.
- The design team has hands-on experience of providing engineering solutions involving precast construction and cast-in-situ construction.



Our Strength - Our Team

Team strength:

| Discipline | Nos. |
|------------------------------------|------|
| Engineers incl. Masters | 25 |
| Diploma | 23 |
| CA | 2 |
| Legal | 1 |
| P.G & Graduate (Non- Technical) | 5 |
| Skilled | 83 |
| Semi Skilled | 20 |
| Un Skilled | 85 |
| Total | 244 |

In-house Teams:

- Engg. & Design Dept.
- Project Planning Dept.
- Production Dept.
- QC Dept.
- Erection Dept.
- Health Safety & Environment Dept.
- Maintenance Dept.
- Logistics Department.

Supported by Management Teams, Administration Teams, HRD Team, Procurement Team, Finance Team etc.

Team Composition:

- Resident Foreign Technology Expert
- Foreign ReturnedExperienced Engineers
- Engineers with Masters
 Engineering (structural / Precast) Qualifications
- Decade + experienced Engineering Experts
- Multi-Skilled and Multi-Qualified Professionals



Our Select Prestressed & Precast Products

[Produced & used in Our Delivered Projects]

Our Prestressed & Precast Products - 1





Columns

Beams

Retaining Walls







T Slabs



Stair Cases

Pictures of above products are from our executed projects

Our Prestressed & Precast Products - 2



Boundary walls



Service Ducts



Architectural Elements



Wall Panels



Architectural Fins



Gate Arches

Pictures of above products are from our executed projects





Certifications & Appreciations
To

PRECA

Certifications:

ISO 9001:2008 Certification for Design, Manufacture and Supply of Precast Prestressed Concrete Products and Turnkey Execution

First Independent Prestressed Precast Company in India to get ISO 9001:2008 Certificate





CERTIFICATE

The Certification Body of TÜV SÜD South Asia Private Limited

certifies that

PRECA ///

Preca Solutions India Private Limited

HO: Plot No.6, D No.2-9/5/6, Venkat Sai Gateway, Greenland Colony, Gachibowli, Hyderabad - 500 032, INDIA

Works:

Survey No.167 & 169, Fatehpur Village, Shankarapalli Mandal, Ranga Reddy District - 501 203, Hyderabad, INDIA

has established and applies a Quality Management System for

Design, Manufacture and Supply of Precast & Prestressed Concrete Products of all ranges, and

Turnkey execution, Project Contracting & Construction of Various Structures

An audit was performed, Report No. 20059565

Proof has been furnished that the requirements according to

ISO 9001: 2008

are fulfilled. The certificate is Valid until 2015-09-14

Subject to successful completion of the Annual Audit before 2013-08-25
The present status of this Certificate can be obtained on www.hur-sud in
Further standardors reparating the scape of this certificate and the applicability of
\$10.0011-2017 reparameters may be obtained by consulting the certification being

Certificate Registration No. 99 100 13833

Mumbai

Effective Date: 2012-09-15

Just of

Certification Body of TOV SUD South Asia Private Limited Member of TOV SUD Group





Certifications:



Best in Class - Green Manufacturing Award in National Quality Excellence Awards 2013 by World CSR & Stars of Industry, USA

Certifications:



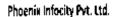


This Certificate of Appreciation is given to M/s PRECA Solutions India Pvt. Ed. for executing precast prestressed concrete construction for Extension Slock of Dolhi Public School in Hyderahad during 2013 meeting highest quality, health, safety, and environmental standards.

y Leoni Ninsyana Jt. Secretary

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QUALITY AND HISE RECOGNITION

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Preca Solutions India Pvt. Ltd.
in appreciation of your Contribution & Support at

Green Building Congress 2013, Hyderabad

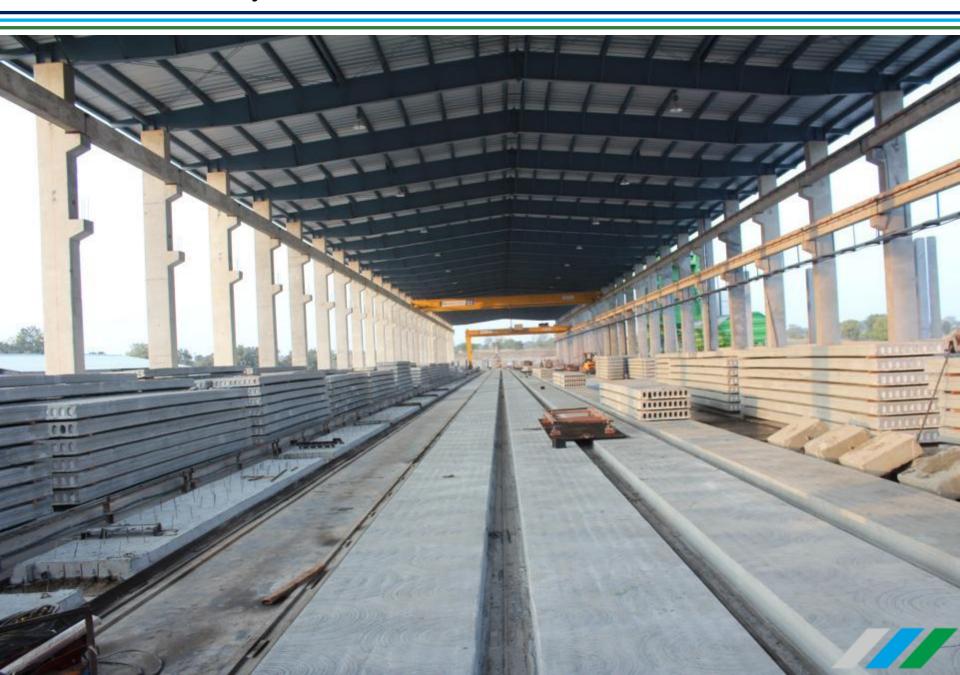
www.ight.in



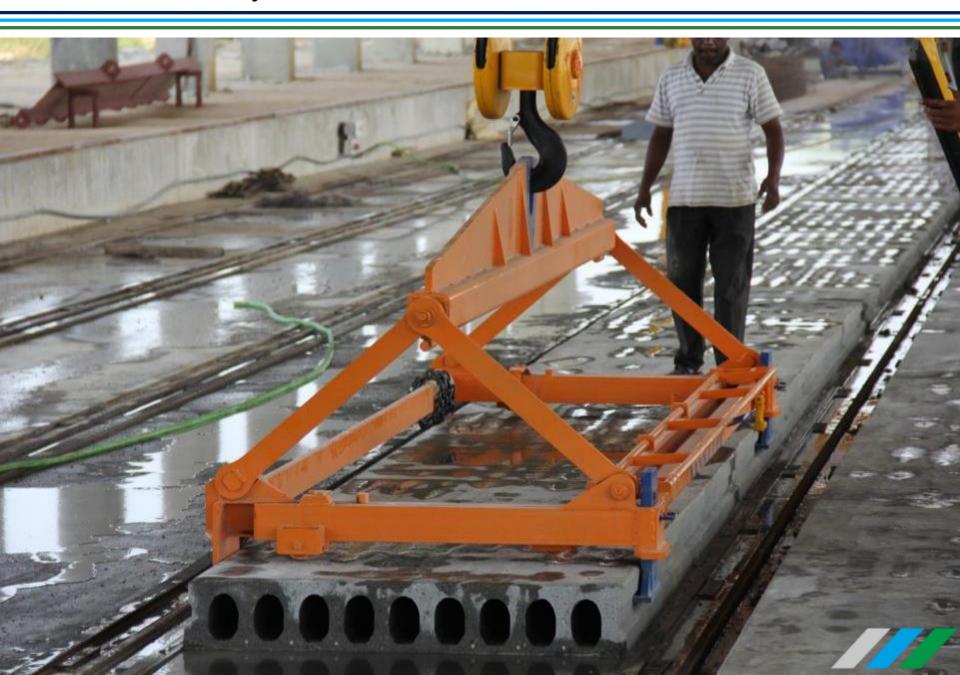
Our Select Work Pictures

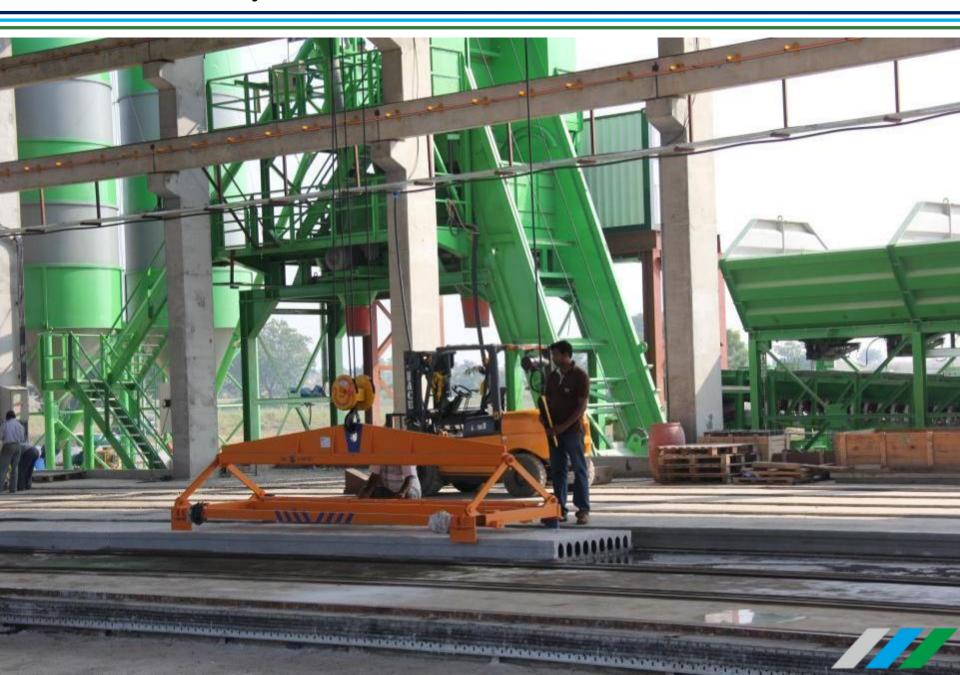










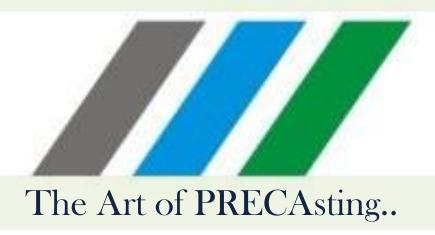


PRECAst Capability

- ✓ Commercial Building Structures
- ✓ Residential
- ✓ Institutional
- ✓ Industrial
- ✓ Stadia's
- ✓ Hospitals
- ✓ Parking

In sum, PRECA delivers any building structure





Thank You.

www.preca.in