

## Company Presentation

October 2019

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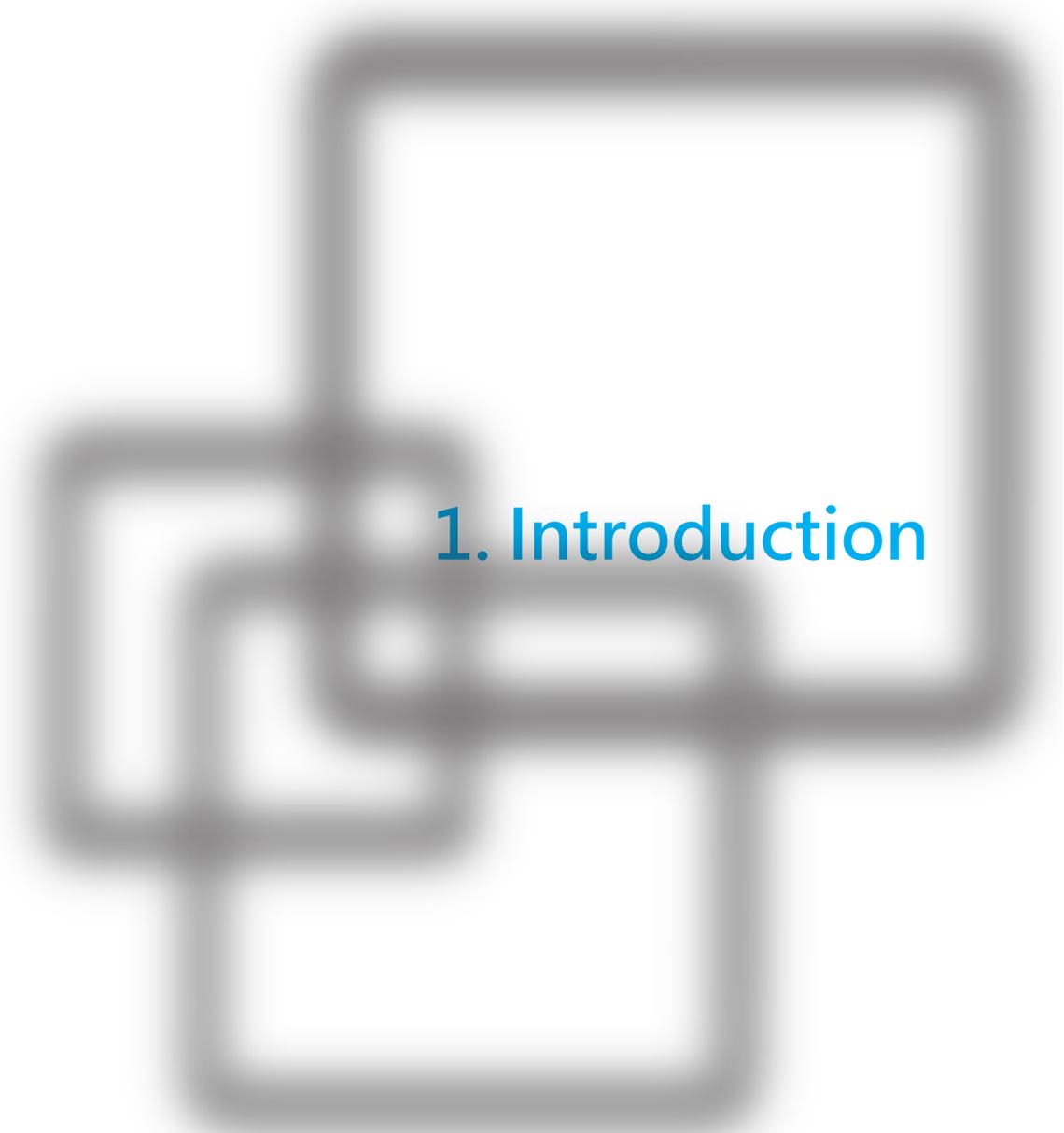
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Cellate Prospectus 2017 Rev9

Celebrating  
50 Years



# 1. Introduction



*“Cellate advantage” is a collective, defined by excellence, superiority, unbeatable value, time and quality in every application and at every phase delivered beyond the customers expectation”.*

Company presentation has been produced to give a basic understanding of our philosophy and wide range of services and what we refer to as the Cellate Advantage, We trust you will enjoy the following, further detailed technical data is available on request.

## 2. Mission & Company Overview

## Our Mission



*“To be the world leading green turnkey solutions provider of choice, utilising our patented eco technology to safely produce innovative quality structures and products within all major sectors and industries”.*

## Company Overview



World Trade Centre, Sri Lanka, built using Cellate

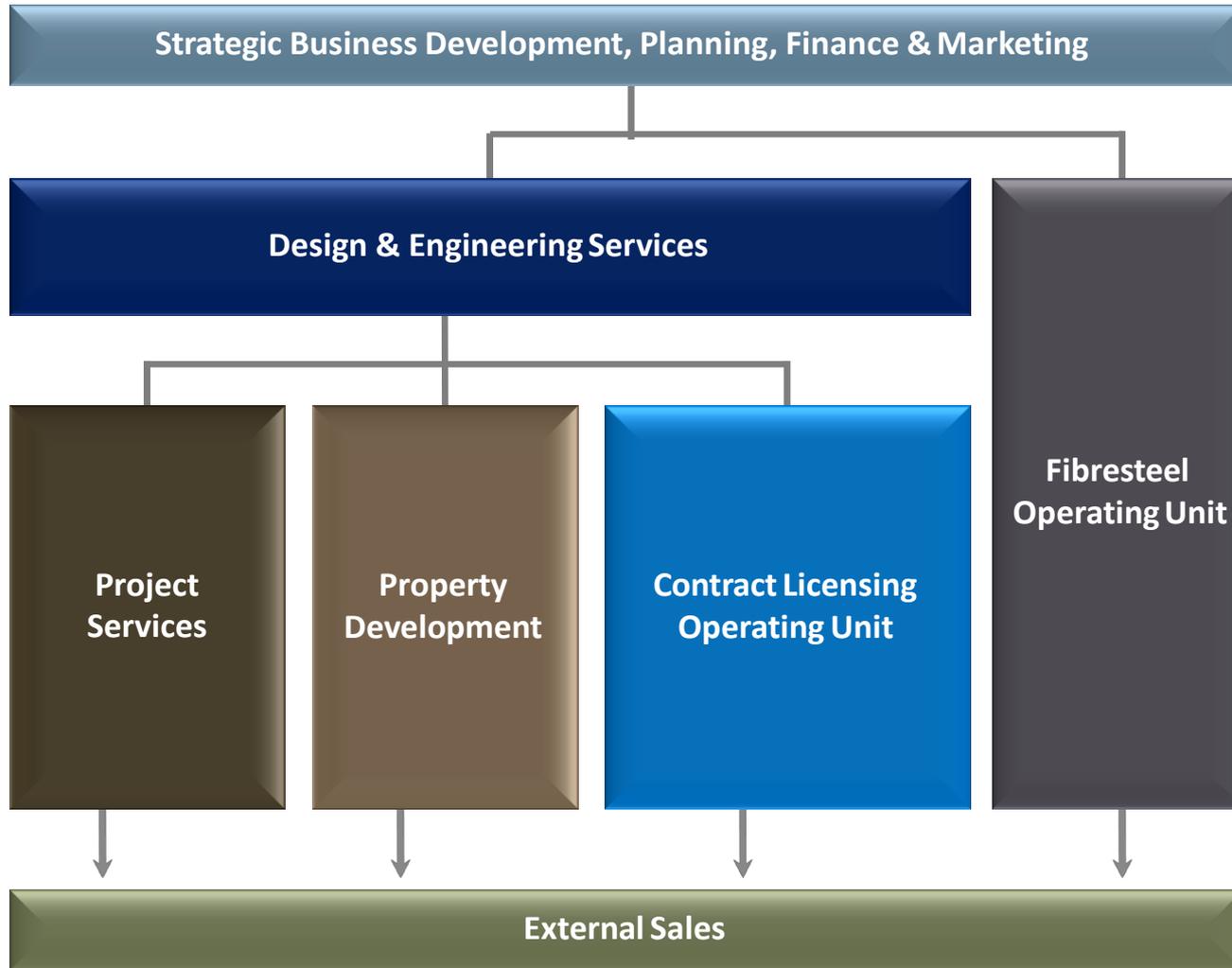
Cellate unique technology which has successfully evolved since **1964** by a core team of professionals.

We specialise in providing a full turnkey service delivering both affordable and prestigious developments within key sectors.

We are strategically located in Dubai for both coordination of development programmes and our manufacturing of fibre steel which is a key component of our patented technology.

We operate throughout the world and are currently engaged on a number of projects, within the Middle East, Asia and South America.

# Operating Model



### 3. The Cellate Advantage

# The Advantages



Economic Development Solutions

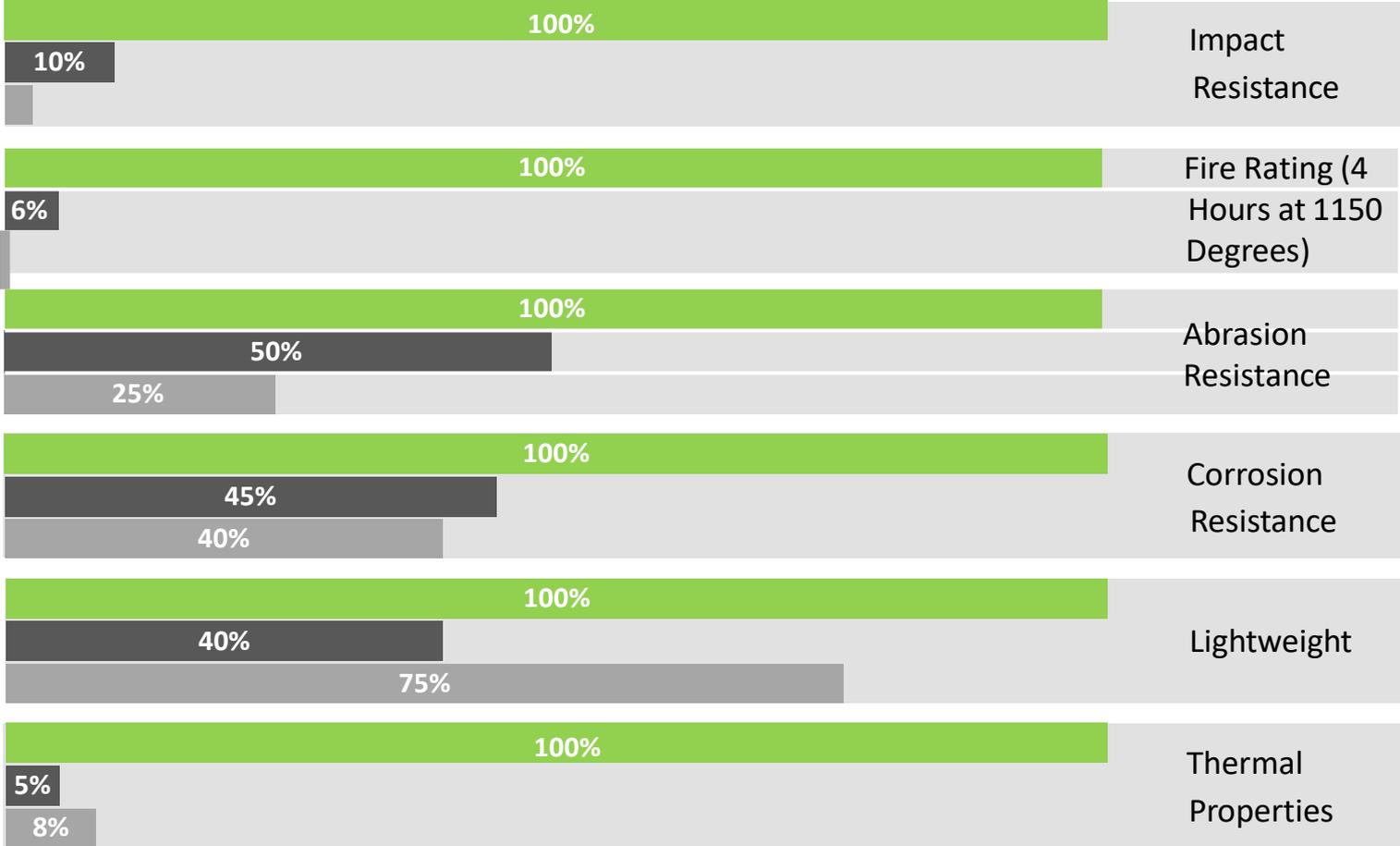
Cellate structures are very economical to produce and superior in quality, environmental considerations, life cycle duration and maintenance costs compared to all other forms of construction.

Cellate is superior in resilience, It is designed for the most hostile of environments providing high end protection from fires, flood, earthquakes, tornados, tsunami, hurricane and projectiles.

Cellate's light weight and ease of constructability means it can be cast and assembled quickly on site reducing costs for piling, transport, formwork and craneage and thus utilising local labour and materials.

Cellate has been tried and tested globally over the last **50yrs** and used to construct thousands of homes and various designs in every sector.

# Product Comparison



 CELLATE

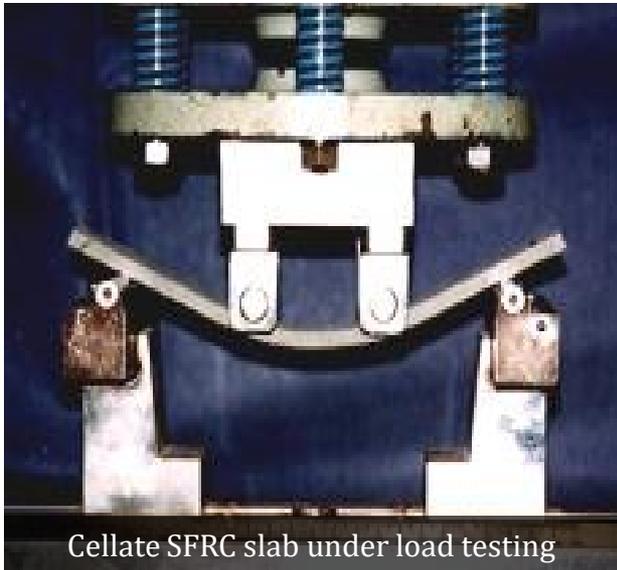
 Reinforced Concrete

 Concrete Hollow Block

# Cellate Fibresteel

- Cellate incorporates EE Steel Fibre <sup>TM</sup> into its unique matrix structure, resulting in the most advanced building product.
- EE Steel Fibre is vastly superior in every way to regular steel reinforcement and other variants.
- EE Steel Fibre Reinforced Concrete (SFRC) stops cracks and spalling (concrete cancer) associated with normal concrete even when fully submerged in sea water over long periods of time.
- SFRC is far more economical than normal reinforced concrete, it uses less raw material and thereby qualifies under the LEED Green foot-print with far higher quality, strength and flexibility.





- National Research Centre, Canada
- ICI Research Laboratory, Sydney, NSW Australia
- Experimental Housing Laboratory Sydney, Australia
- International Seismic Effects, Sendai, JS 4 Japan
- BHP Mining Group Laboratory, Melbourne
- Institute of Engineering and Structural Mechanics & Laboratory for Engineering Informatics University of Sydney, NSW Australia
- Sri Lankan, Australian, British, Dutch, Saudi Arabia, Singapore Ministries of Defence
- Dubai Municipality for Affordable Housing Program

# Large Panel Application

Housing



Commercial property



Marinas



Hotels & Leisure



Industrial premises



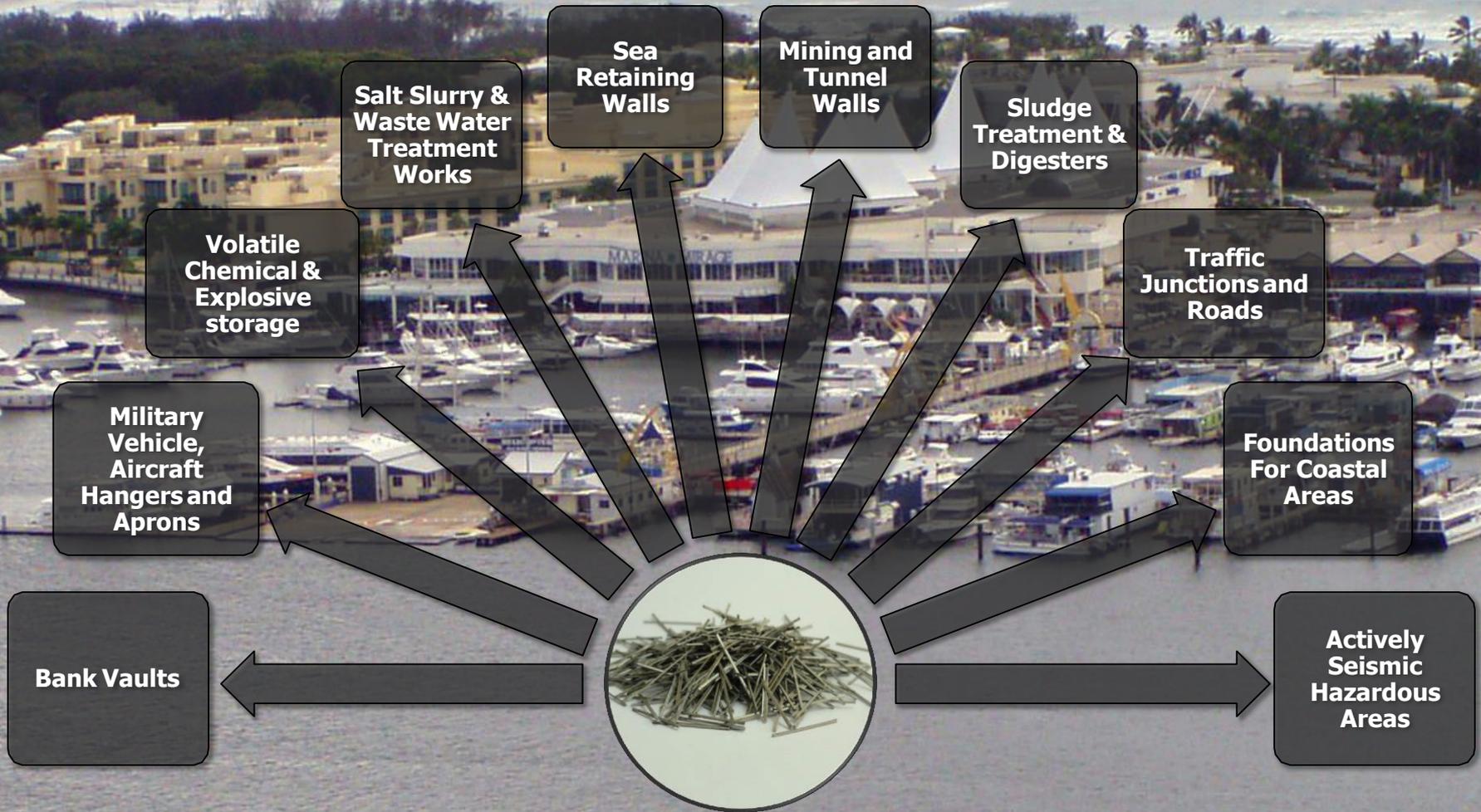
Schools & Hospitals



Anti Ballistic Buildings



# Cellate SFRC Applications



## Cellate Advantage - Seismic



- ✓ Cellate is fast becoming a favourite building product of the building economist because of the potential for cutting on-site time and labour costs, reducing the time lost erecting, filling and dismantling expensive formwork.
- ✓ Cellate is recognised as the most advanced precast material and is the **ONLY** concrete based system in the world rated to Seismic **Scale 9**.

## Product Advantages



- ✓ Cellate large panels are load bearing and we have spanned 50m (**50:1 span to depth ratio**) without column supports achieving a weight reduction of 60% compared to ORC.
- ✓ Cellate can be poured in place with traditional construction methods to provide a seamless wall for Hurricane prone areas exceeding category 4 and above.
- ✓ Services, utility conduits and box-outs etc are all installed during casting,
- ✓ Cellate panels high quality finish reduces the need for additional plastering or renders.
- ✓ The superior curing time means it can be painted sooner.
- ✓ Building Insurance is reduced by up to 50%
- ✓ Cellate buildings have a far greater expected design life span of 200 years.

# Advantages – IMPACT RESISTANCE



Since 1995, The WTC twin towers in Colombo have withstood TWO separate terrorist bombings with no structural damage.

Cellate process and storage tanks built for highly corrosive salt slurry in UAE are still defect free after 20 years.

Cellate sea retaining wall in Sydney Australia has suffered negligible corrosion after 30 years of tidal waters.

Many lives have been saved using Cellate for Anti-Ballistic applications world wide.

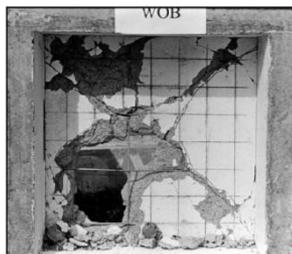
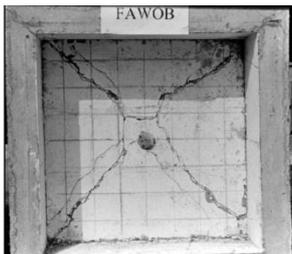


We have successfully completed a number of confidential defence projects throughout the Middle East and on behalf of Ministry of Defence UK, USA, KSA

**Top Left** - 20t payload slammed into a Cellate panel wall at 100Kph during impact testing.

**Middle Left** - Anti ballistic Properties of T2 Cellate Fibre Reinforced Panels being subjected to rapid fire

**Bottom Left** - Concrete Test pieces subjected to heavy gun fire with and without SFRC.



## Advantages - SEISMIC



**Without the use of Cellate**, the above represents **typical failures of traditional buildings** when subjected to severe lateral force or movement. Cellate buildings are rated to Seismic 9 and Tornado scale 5 and Hurricane Strength 5.

## Product Advantages - Flexibility



- ✓ Cellate pre-engineered panels can be formed into any shape and can be given any surface texture finish or embellishment.
- ✓ Cellate will out-perform all other building materials in every way, ideal for all climates and coastal regions.
- ✓ Cellate is loadbearing and will not deform when subjected to wind loadings
- ✓ The only limitation is the designers imagination.

## 4. Capability & Scope of Service

- Turnkey Project Delivery
- Design
- Construction
- Product & System Manufacture
- Quality & Safety Management

# Turnkey Project Management

- Founded on the belief that clients wish a more collaborative and flexible approach, we provide full bespoke global turnkey solutions from outline Architectural design, detailed civil engineering, owned product manufacture and construction installation to fit-out and handover through highly effective project management.

Our services include, but are not limited to:

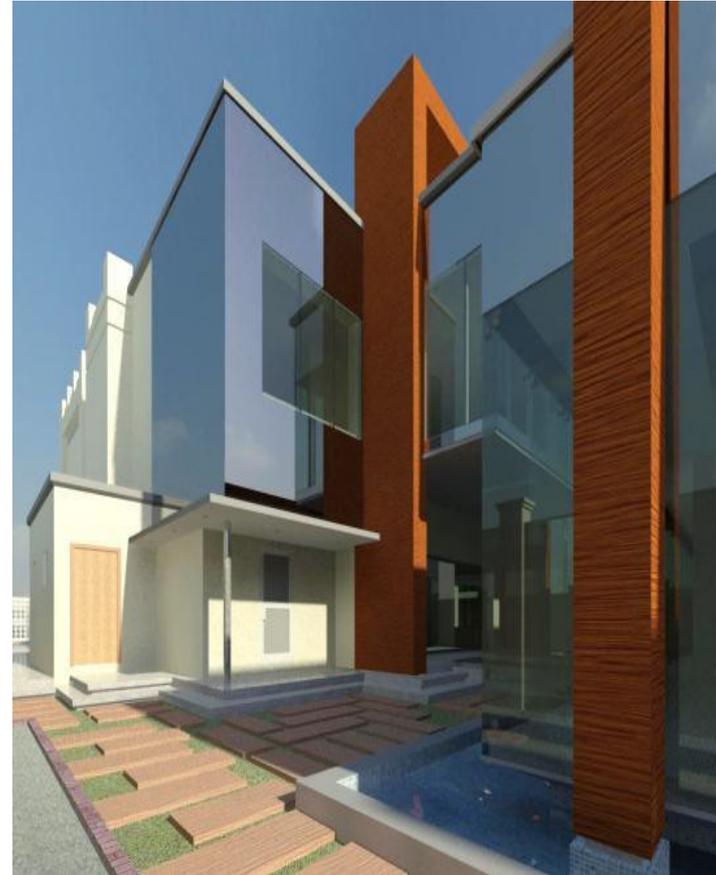
- **FEASIBILITY & BUDGET STUDIES**
- **CULTURAL ANALYSIS AND OUTLINE PLANNING PROPOSALS**
- **FIBRE STEEL PRODUCT MANUFACTURE**
- **ARCHITECTURAL DESIGN FROM CONCEPT THROUGH TO HAND OVER, INCLUDING URBAN PLANNING.**
- **STRUCTURAL AND CIVIL ENGINEERING DESIGN**
- **PROJECT & CONSTRUCTION MANAGEMENT**

We retain directly and through long term associations, highly qualified project managers, engineers and specialists in civil, mechanical and electrical disciplines who have proven track records across many sectors

Through established JV partners we utilize the latest software to improve the management construction process of projects.

## **ADVANTAGES:**

- ✓ Ensuring effective cost planning and control systems are in place.
- ✓ The ability to evaluate sustainable building and infrastructure design analysis to predict performance before breaking ground.
- ✓ The 4D model can be used to develop, visualize and analyze macro level construction phasing strategies to avoid timely delays.
- ✓ Better overall project comprehension for the client with project estimates and proposals.



# Typical Casting Facility Set Up

Cost conscious solutions to meet the requirement



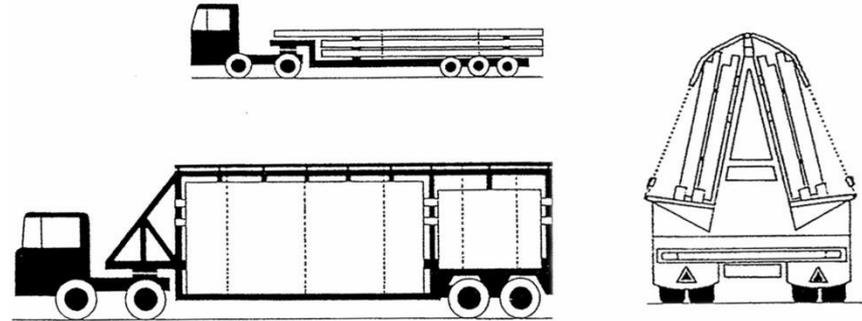
## Flexibility of Manufacture

A Cellate casting facility can be sophisticated with a degree of automation or very simple depending on the project requirements, location and application, all aspects are considered to provide the best solution to the client and end user, all panels are produced quickly at the site and will retain the same high quality finish.

## Flexible Construction & Installation

Unique cost saving processes deliver factory quality panels at the job site or strategically placed to maximise the impact to the project budget and program.

The speed of manufacture to erection time with considerable weight savings significantly reduces typical labour, transport and craneage associated with traditional builds.



If required, panels can be transported via a number of ways including shipping and haulage. This is a distinct advantage over alternative forms of precast construction as only the Cellate product is both very strong and flexible enough to be transported by various means.

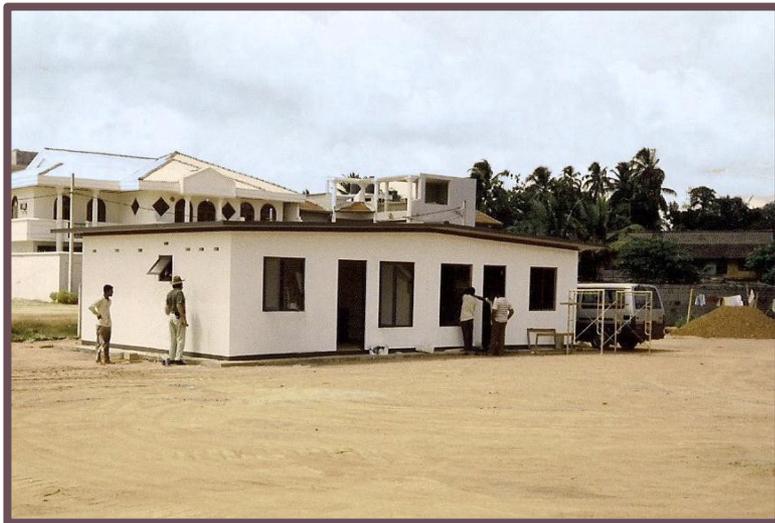
Beams, columns, slabs, T's and the like are transported on flat beds, walls panels, sandwich panels and cladding panels on A- frame trailers.

Taller components can be turned 90 degrees around and transported "lying" down unlike normal precast. At site, the components are again turned around to an upright position using special lifting devices as not to damage the panels during erection.

## Robust Affordable Construction – Built in a day

In **1996**, the Sri Lankan Government put Cellate to the test in a televised demonstration, ultra affordable rapid build housing, the advantages of the system were soon realised and became the building system of choice.

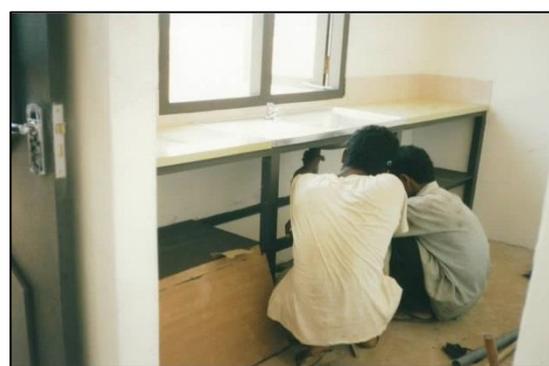
- Below: The “finished in one day” affordable dwelling using Cellate panels.



- Below: In the foreground is the Korean house, Not complete, Not insulated and poorly constructed.



# Robust Affordable Construction – Built in a day



# Safety and Quality Management

Safety & Quality Management Policy Extracts

## **We adhere to a zero accident philosophy.**

We are committed to a Safety Program requiring that accountability will begin at the highest level of management. Each level of Project Management, Contractor Management, supervision and employees will claim ownership in, and take personal responsibility for their roles in the safety program and will act as a change agent to modify each employee's behaviour positively towards working safely.

## **We operate all systems and procedures to ISO9001 - 2008 edition**

As leaders in our profession, we must deliver consistently services of the highest Quality that fulfills the expectation of our Clients (customers) in all our markets. Protection and minimization of the risks to our Clients is the very foundation of our business and organization.

## 5. Resume of Project Experience

## Current Involved Projects



**Affordable houses in Dubai for HH Sheikh Mohammed Al Maktoum**

**Affordable Housing Fijian Government**

**Housing Complex Gosford NS Wales Australia**

**Anti Balistic Walls and buildings for Egyptian Government**

**Affordable Housing complex Baghdad Iraq**



# Projects Gallery



# Projects Gallery



## RESIDENTIAL

### **Umm Nahad Local Housing development, Dubai**

1000 single story villas Phase 1 successfully completed September 2017

### **Al Ghadeer housing village, Najaf, Iraq**

3000 G+1 houses 120,150 and 180 m2 on behalf of the Najaf investment council.

### **Fishing Village:** Hambantota, Sri Lanka H.H. Sheikh Sultan Bin Zayed Al Nahyan.

200 low cost cottages

### **Low cost housing,** Sri Lanka

Construction of 2,000 G+2+3 floor apartment units, Director of Ministry of housing and construction,

### **Grand Parasimut:** Bangkok, Thailand

14 Apartment blocks G + 8

### **Sharjah Residential Tower :** UAE, HH Sheikh Mohamed Bin Saker Al Nahyan

1 Tower B+G +10 Storey

### **Cuba Residentia:** Havana Cuba - President Fidel Castro -

74 residential Blocks consisting of G +7 story development

### **Growing House Development,** Jakarta, Indonesia

2000 low cost housing units

### **Buccament Bay:** Santo Vincente, West Indies

Residential apartments G + 5 design only. Buildings designed for active seismic and tsunami conditions.

### **Springs Emirates Hills:** UAE (EMMAR)

Consisting of 500 Residential villa development, boundary walls.

### **Future Housing for European Community:** Brussels, Belgium

1000 houses consisting of Basement + 4 floors

# Completed Major Projects List

## HOTELS AND LEISURE

**Dubai Creek Golf and Yacht Club:** Dubai, UAE  
Consisting of Sail Structure (*2006 best design award*)

**Barberyn Reef Hotel:** Coruvala, Sri Lanka  
110 room G + 4 floors

**Grand Hyatt Hotel:** Dubai, UAE  
Consisting of external cladding Entrance reception and main atrium support

**Marina Mirage Hotel:** Port Douglas Bay, Queensland, Australia  
Marina Mirage Hotel

**Al Ain Palm Equestrian, Shooting and Golf Club:** Al Ain, UAE, Al Zaroni Trans Emirates  
Grand Stand Incorporating 30 meter cantilever beams.

**The Floating Hotel:** John Brewer Reef, Queensland, Australia

**Tahiti Intercontinental Beachcomber Hotel,** Tahiti, French Polynesia  
G+2 Hotel resort

**Travel Hotel Madol,** Nan Madol, Palowi, Pohnpei, Micronesia  
G+1 30 room hotel

**Hotel Bandung:** Yuyuk, Jakarta, Indonesia  
5 buildings G+1 20 room Boutique Hotel  
Tommy Suharto

**Marriott Hotel:** Dubai, UAE  
G+6 storey

## COMMERCIAL AND RETAIL

**Mutual Life Tower:** Sydney, Australia

1 Tower 72 storey total height of 228m (*World's Largest Precast Structure*)

**World Trade Centre Colombo:** Sri Lanka

2 (twin) G + 40 storey towers to a height of 152 M (*2nd largest Twin Towers in South Asia*)

**Al Bustan Shopping Plaza,** Sharjah, UAE

G+4 shopping centre.

**Up Town Shopping Mall:** Bahrain - A. Bassim (Dammam owner)

Complex Multi Geometry G + 4 floors

**Abu Dhabi World Trade Centre:** Abu Dhabi, UAE

Fibre steel reinforced concrete pre-cast seating platforms

**Bank of China:** Kuala Lumpur, Malaysia

34 storey tower

**MIDF Building:** Kuala Lumpur, Malaysia

15 storey office tower

**GT Tower 1:** Kuala Lumpur, Malaysia

G+28 storey

# Completed Major Projects List

## GOVERNMENT BUILDINGS

**Paker Yarsi Medical University:** Jakarta, Indonesia  
G+14 Storey building with large lecturing faculty within mid section.

**McMurdo Sound Research Facility:** Antarctica - Australian Government  
Housing for research Scientists (temperature differential from -50 degrees)

**Mackiti Mablou Floating Mosque:** Zanzibar for HE the President Dr. Salim Amour

**Schools Madrassa:** Tanzania, on behalf of H.E. Juan Mubarak Al Mazroui, undersecretary for water and power, Abu Dhabi,  
50 Schools to facilitate 300 pupils per school

**Hospital: Zanzibar, Tanzania,** H.E. Juan Mubarak Al Mazroui, undersecretary for water and power, Abu Dhabi  
G+5 250 Bed,

**Sydney Technical University:** Sydney, Australia  
G+7 storey

## INFRASTRUCTURE

**Road Bridge,** Hickra Duna Sri-Lanka  
Pre-engineered pre-cast bridge

**Tunnel Road:** Under Harbour Tunnel, Hong Kong  
850 m maintenance free road

## HARBOURS AND MARINAS

**Breakwater Barrier:** Trincomale, Sri Lanka  
4,800 m2 for Ministry of Defense

**Marina Mirage:** Surfers Paradise, Gold Coast Queensland, Australia  
Marina hovercraft/Heli pad and floating road

**Harbour Retaining wall:** Mina Zayed Port, Abu Dhabi  
Petron Emirates construction

## INDUSTRIAL

**Gold Bay Waste Water Plant:** Gold Bay Canada  
1.2 million litre

**Mineral water bottling plant,** Fujairah, UAE  
Al Gadhier mineral water plant,

**Reverse Osmosis desalination plant,** Sharjah UAE  
Construction of pre-cast 1 million gallon per day plant including water tanks  
Asam A. Al Mulla

**Pumping Stations,** Fujairah, UAE  
Waste water pumping station buildings.

**Waste water tanks,** Dubai UAE  
Springs development Cellate fibrecrete tanks

**Navitigala Tea Factory,** Navitigala , Sri Lanka  
John Kills, G+4 Floors

# Spotlight

## Uptown Shopping Village Bahrain



This chic shopping development utilized Cellate Large panel technology throughout. The buildings to the top right were geometrically complex with large unsupported flooring spanning up to 10 meters across. All Panels were cast on site to the back of the development which became the car park after building completion. This project was completed ahead of the original program in 4 months.

## 6. Why Cellate?

# Why Cellate ?

- ✓ **Economical – Proven Affordable Solutions.**
  - ✓ **Full Turnkey Service.**
  - ✓ **Engineering Excellence**
  - ✓ **Architecture, Urban Development and Master Planning**
  - ✓ **Product Superiority In All Regards Compared With Alternative Materials.**
  - ✓ **Environmentally Sustainable – LEED Green Footprint Approved.**
  - ✓ **Low Risk Fast Production and Installation.**
  - ✓ **Superior Performance - Very Long Life and Low Maintenance**
  - ✓ **Earthquake, Fire, Flood, Storm and Projectile Resistant**
  - ✓ **Uses Local Materials and Labour.**
  - ✓ **Core Components Manufactured and Controlled by Cellate.**
  - ✓ **Lower Insurability**
  - ✓ **Designs covered by Lloyds of London**
- 



## CELLATE - YOUR PARTNER OF CHOICE

**Celebrating  
50 Years**

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