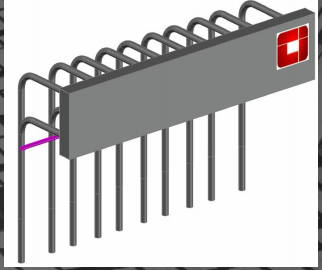


CONNECTION BOXES

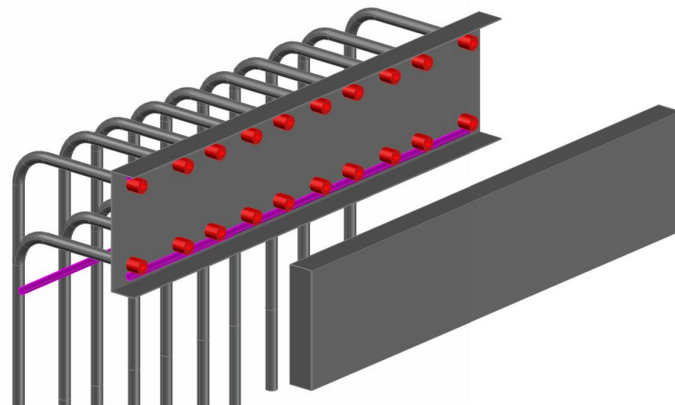


Connectrix

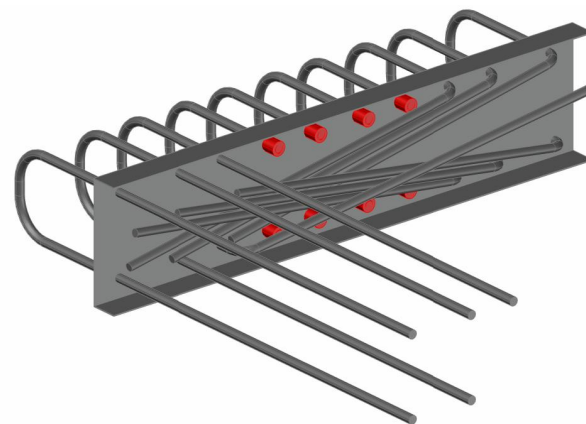
Construction Innovated

Introduction

The Connectrix connection box system comprises of a galvanised steel casing which houses pre-bent bars. The unit is cast into the face of the vertical element (wall or blade column) and bars are straightened ready for lapping when the horizontal element is ready to be constructed after vertical element have been cast.



All couplers with box cover



Pull-out bars & couplers

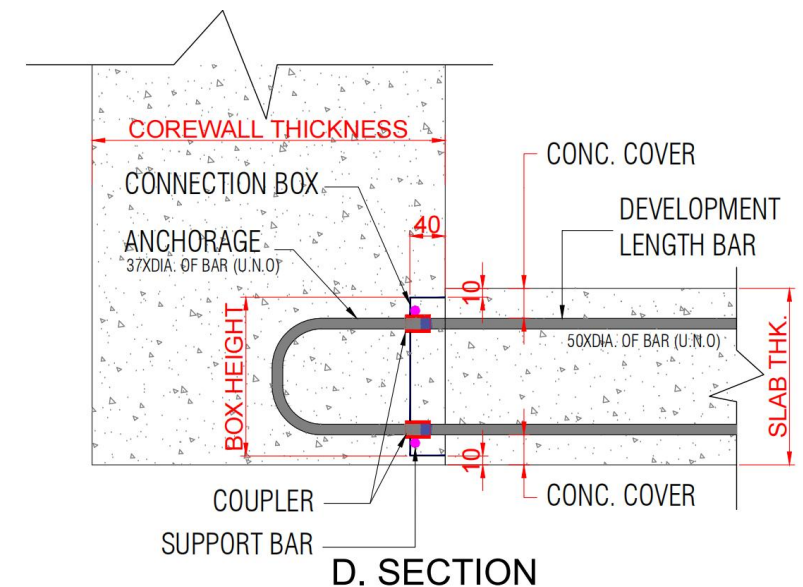
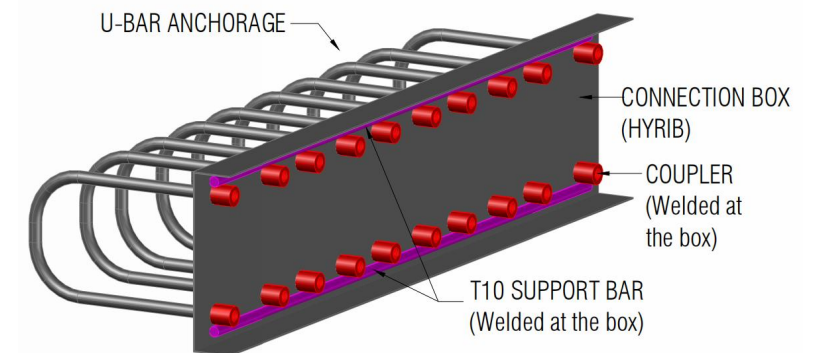
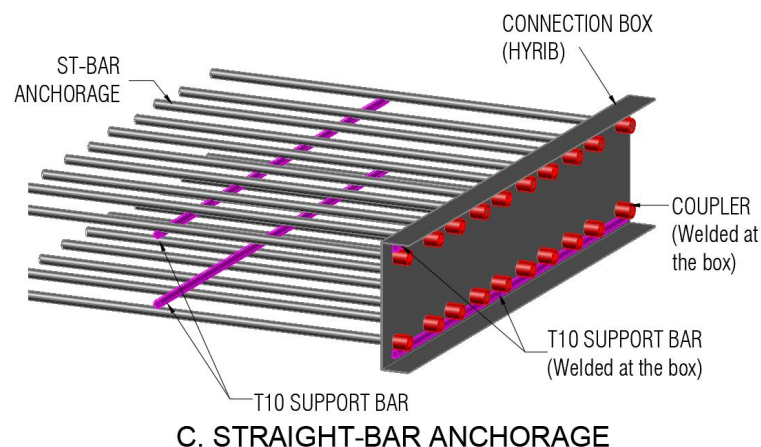
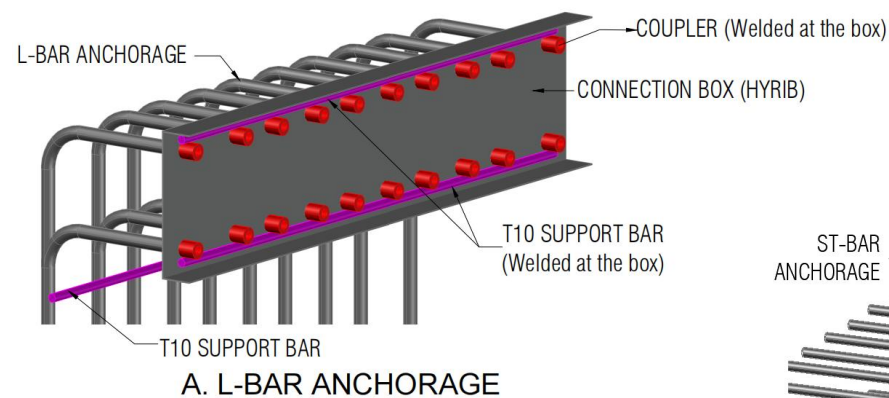


Connection Box Detail

The use of reinforcement continuity system (connection boxes) is globally a widely accepted means of providing structural continuity, in terms of strength and stiffness, across a construction joint at the interface between horizontal concrete elements and vertical concrete elements.

The system provides a safe and cost-effective method with time and Labor saving factor.

The system is designed and custom made utilizing the engineer's original reinforcement details.



Benefits and Features

- Connectrix Box System is a customized manufactured product designed and tailored to suit each project requirement and detailing. No wastage at site.
- Intense and detailed shop drawings is provided with Qty take off and précised details.
- Accommodates variety of bar sizes, spacings, thickening and configurations. Can be made curved if required.
- Comply with anchorage and lap lengths design requirements. With careful design can provide considerable savings.
- Fully fabricated and assembled off-site in a factory-controlled environment.
- Arrives to site with clear identification and marking thus eliminate site installation mistakes.
- Fast and simple to install.
- Help fast track concrete pouring schedules therefore save cost and time.
- Eliminate chipping or hacking works required to expose lap reinforcement bars.
- Eliminate / minimize the need for post drilling.
- Eliminate the use of polystyrene sheets that are required in the conventional use therefore considered clean and environmentally friendly.
- Design and installation of formwork is simplified.
- Cover and casting produced from certified pre-galvanized steel providing a rigid box.
- Improve site safety as lap bars are only exposed / bent when required.
- Joints can be made simple and easy to manage
- Produces a rebate in the concrete which gives added shear resistance

SAFETY

SPEED

COST



Benefits and Features

SAFETY

The starter bars are housed in the boxes until ready to be straightened. There are No protruding bars so minimize risk of injury and enhance working space. The rebate will eliminate the need for joint preparation and scabbling using mechanical tools which is a time consuming exercise with health and safety hazards.

SPEED

The Connection boxes are easy to use and quick to install. Formwork design can be Made simple and complicated joints design mitigated and minimized. The connection boxes allow cores and vertical to climb ahead thus enable the use of Climbing formwork systems and speed up project construction.

COST

The Connection boxes eliminate any requirement to drill or damage the formwork systems which increases its re-usability cycles. The system is easy to use and do not require skilled or specialist laborers. It simplifies formwork design and allows for larger concrete pours thus speed up works and increase productivity.



The Design

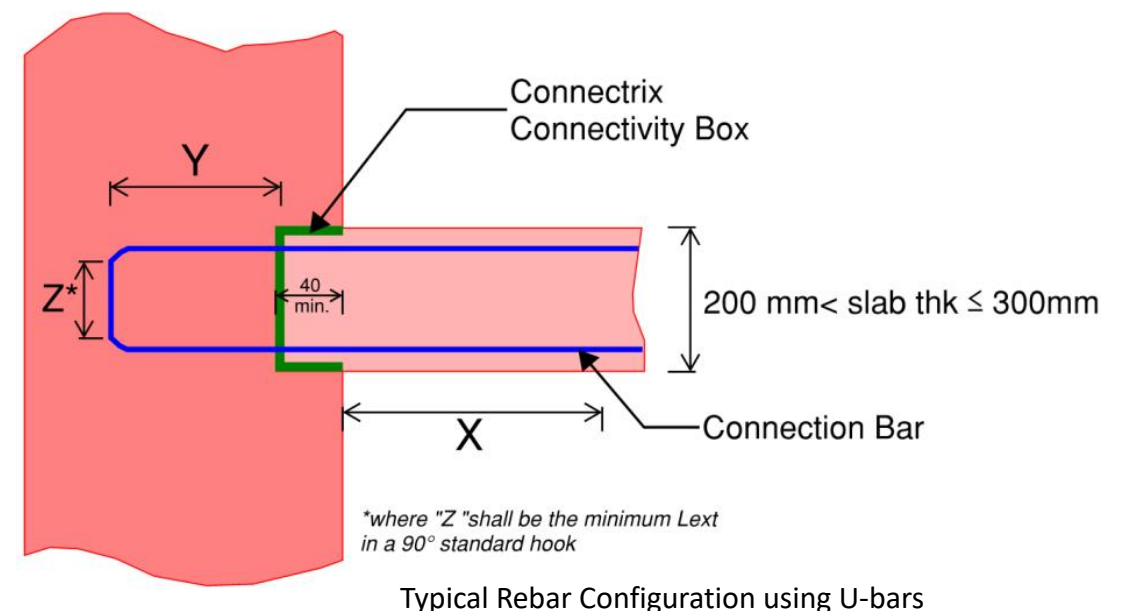
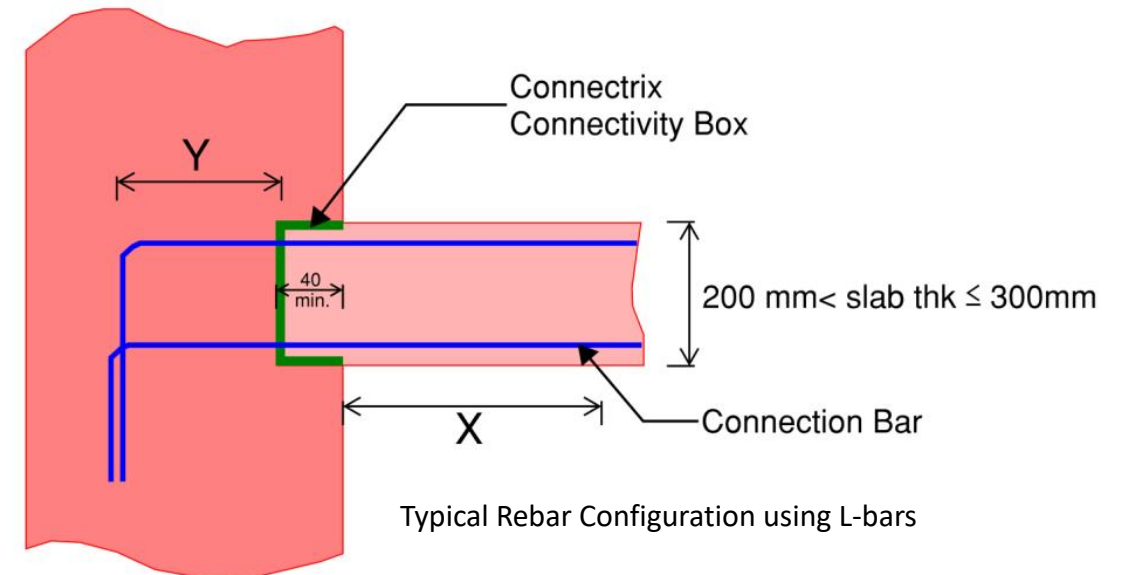
Following recommended values for lap splice length “X” and anchorage length “Y”. The splice length “X” must be coordinated with the project specific requirements based on the slab design in addition to the below minimum lap lengths.

Bar Dia	RECOMMENDED LAP SPLICE LENGTH "X", mm				
	f'c = 30 MPa	f'c = 35 MPa	f'c = 40 MPa	f'c = 50 MPa	f'c = 60 MPa
8	400	400	400	400	400
10	400	400	400	400	400
12	400	400	400	400	400
16	650	600	550	500	450
20	1,150	1,100	1,000	900	850
25	1,700	1,550	1,450	1,300	1,200

Bar Dia	RECOMMENDED ANCHORAGE LENGTH "Y"				
	f'c = 30 MPa	f'c = 35 MPa	f'c = 40 MPa	f'c = 50 MPa	f'c = 60 MPa
8	200	150	150	150	150
10	250	200	200	200	150
12	250	250	250	200	200
16	350	300	300	250	250
20	450	400	350	350	300
25	550	500	450	400	400

It shall be noted that the anchorage length “Y” must terminate as a U-bar or in a 90-degree standard hook. The standard hooks must satisfy the minimum inside bend diameter and minimum straight extension lengths L-ext as described in ACI 318M-14 Table 25.3.1.

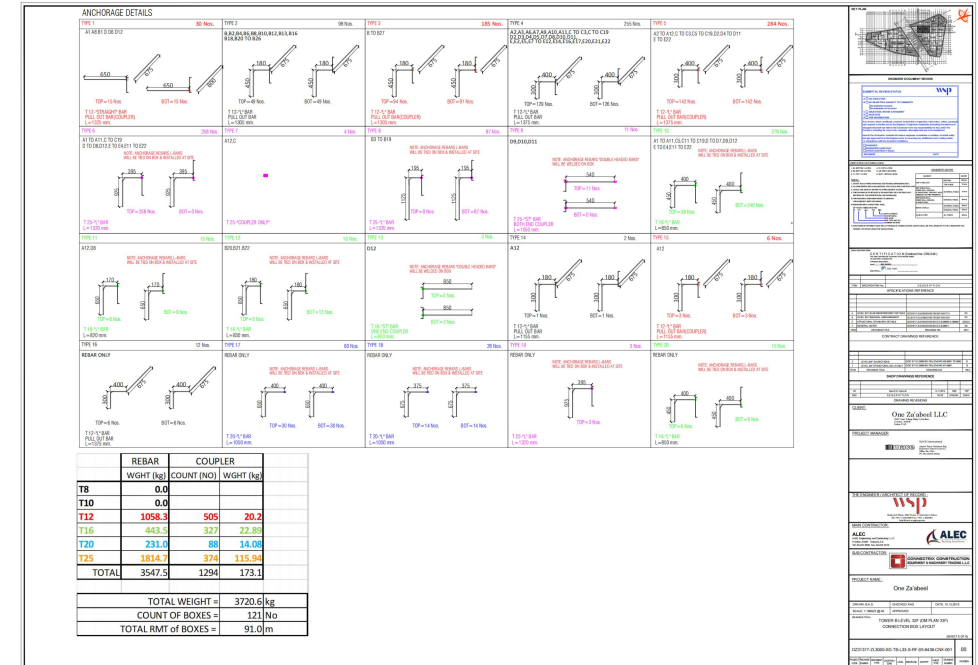
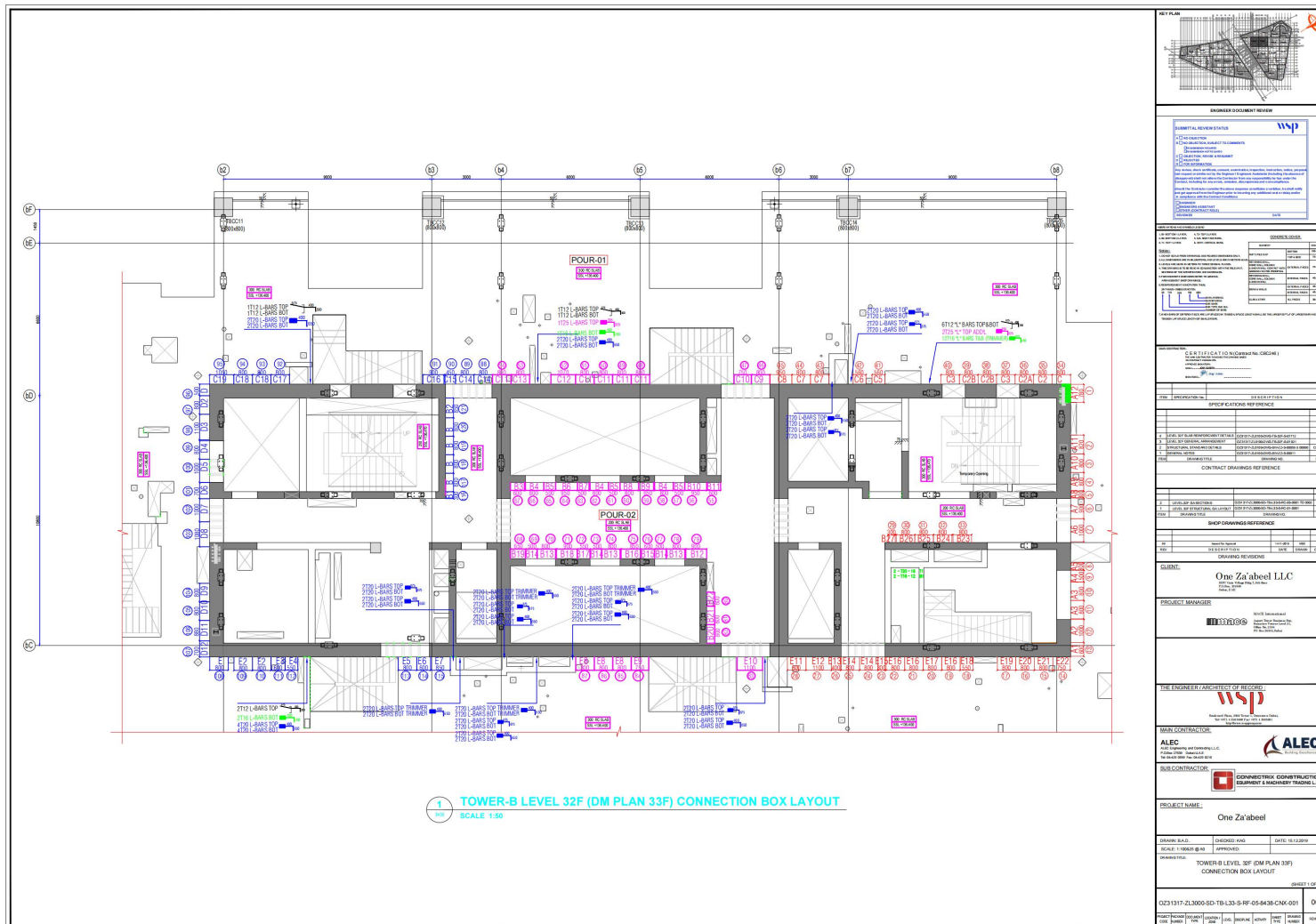
The connection box case design offers an efficient key and rebate sufficient to transfer the design shear force from the slab into the wall. It requires no further joint preparation. The rebate remains embedded in the joint and is filled with concrete on the subsequent concrete pour.



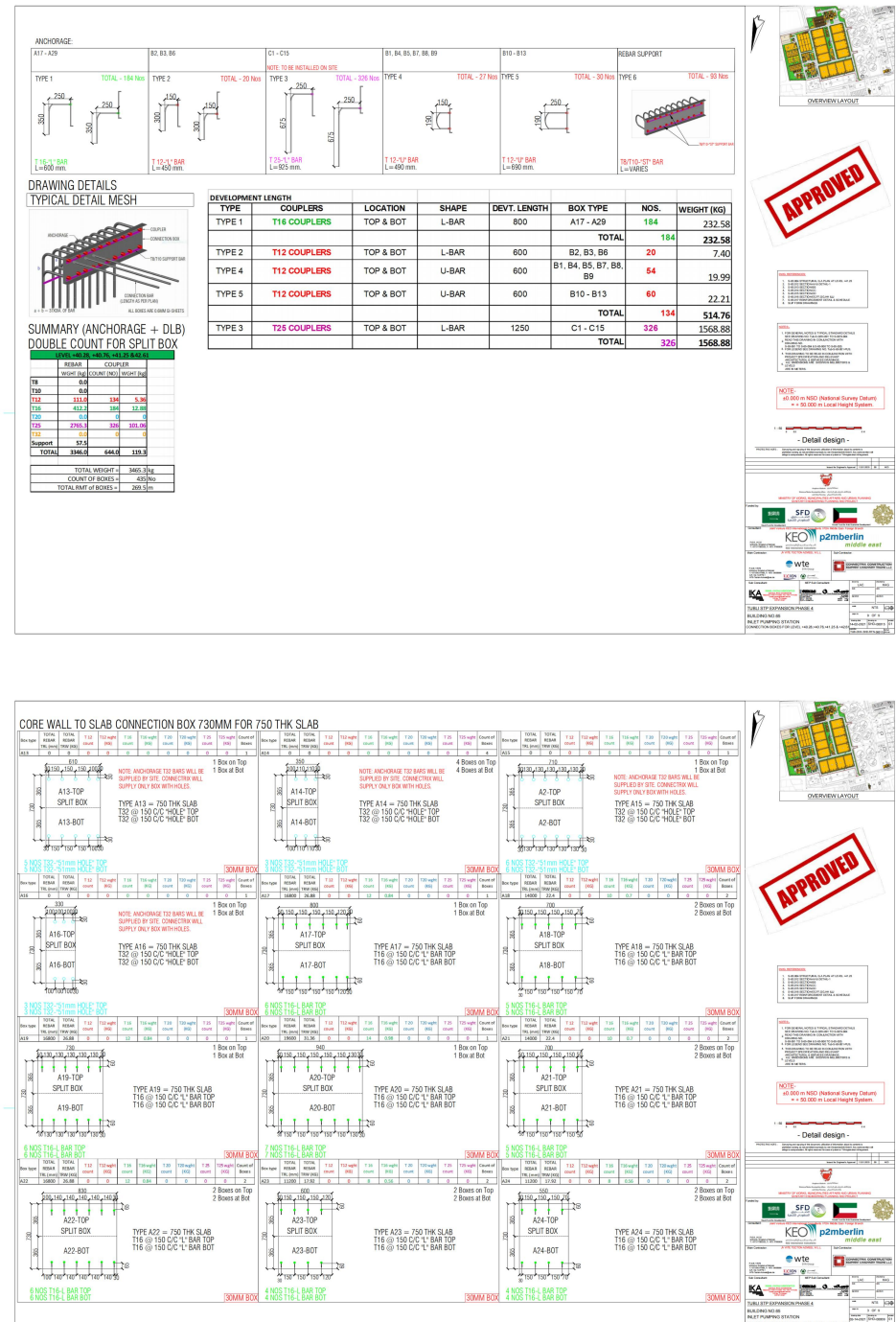
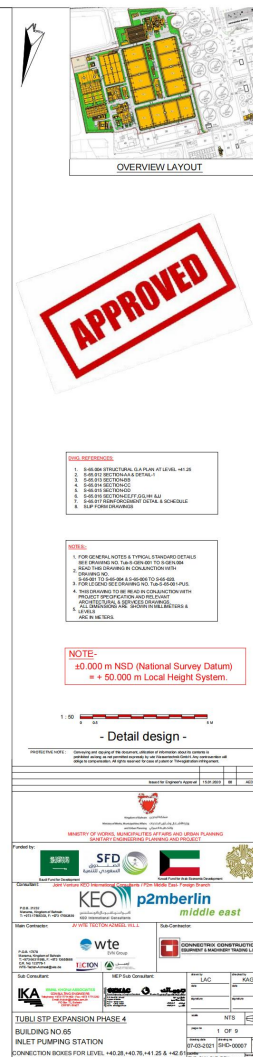
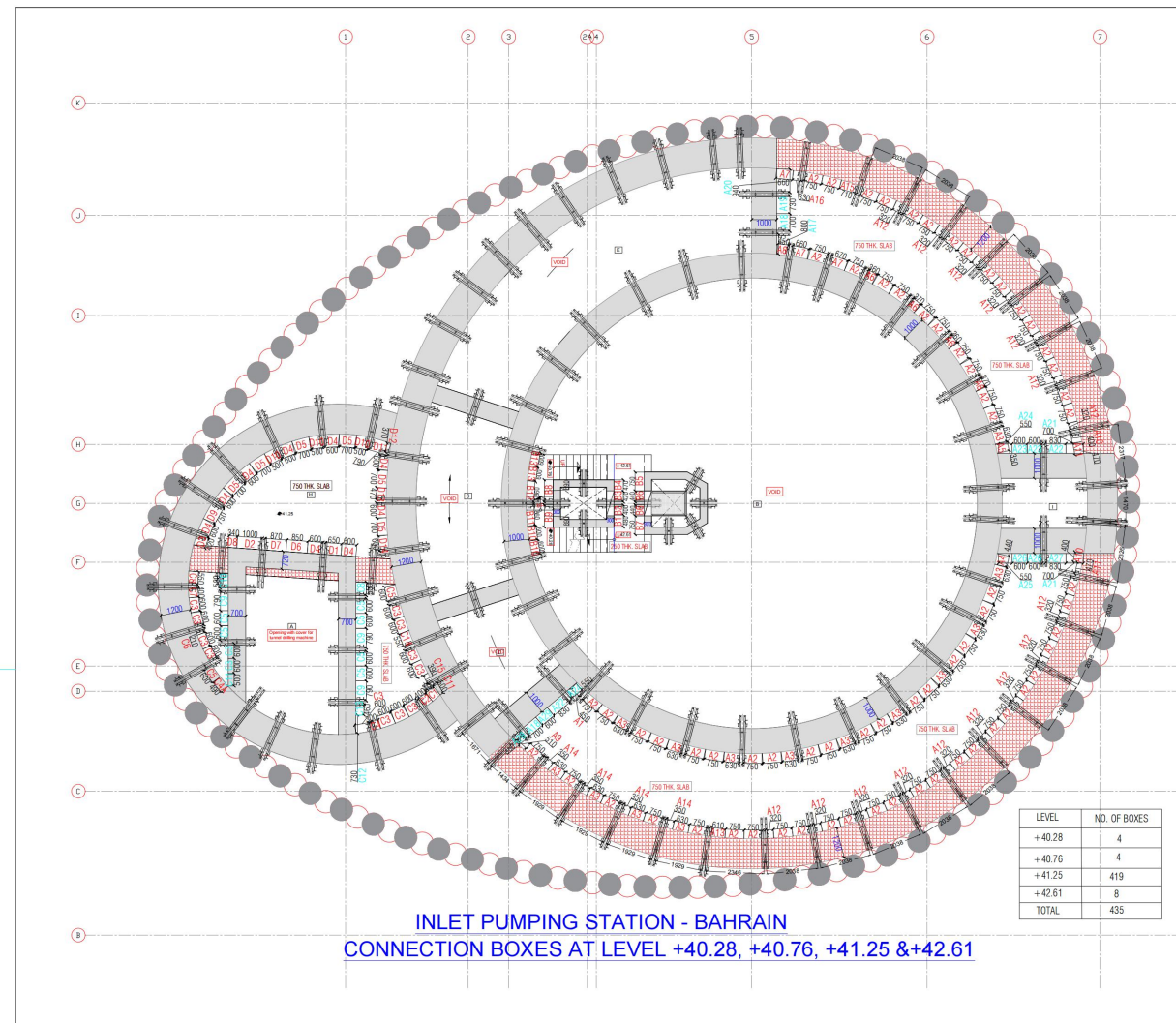
The Detailing

Our services includes provision of shop drawings for each level detailing the specific case and providing boxes customized sizes, types, positions, marks, rebar and couplers details including quantities.

These details are later used for the production and sequenced deliveries.



The Detailing

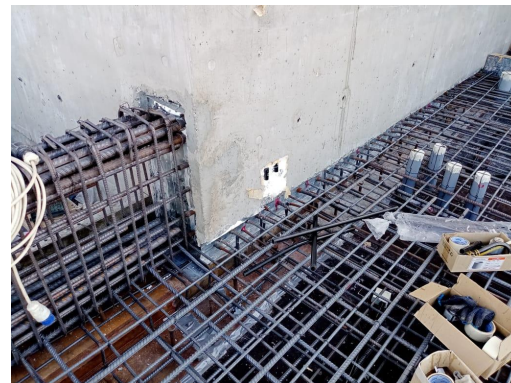
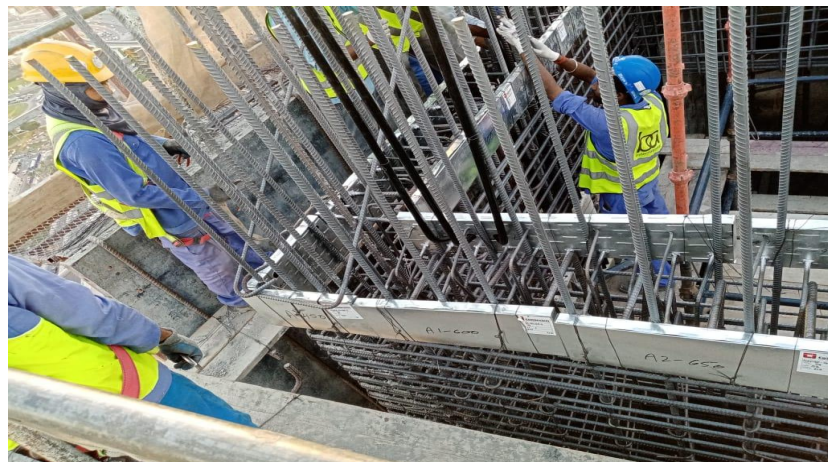
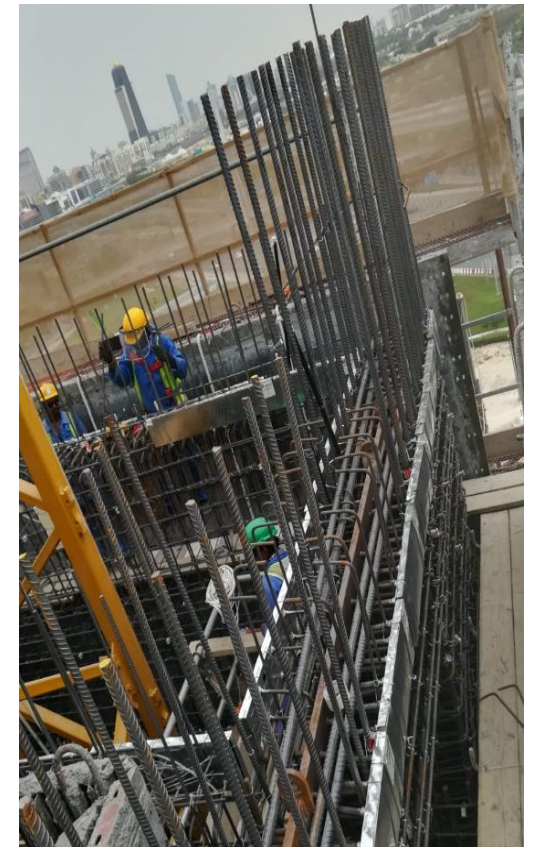


Applications

Many joints in different types of construction sites have the potential to be formed using the Connectrix box system .

Typical joint application includes:

- Walls to floor Slabs
- Floor Slabs to Slabs
- Wall to Wall
- Stair Landings and Corbels
- Precast Slabs and Tilt up Panels
- Cantilevered Slabs and Balconies
- Starter Bars in Slabs and Footing for Reinforced Concrete Walls
- Starter Bars in Slabs and Footings for Reinforced Block Walls
- Ramps, Water Tanks and Stairway applications



Materials Quality and Compliant

Connectrix is committed to sustainability and responsibility in its entrepreneurial decisions. In addition to ethical obligations to which Connectrix is dedicated the conformity to regulations and obligations of material usage is of great importance to us.

The boxes are fabricated in an ISO certified Factory to ensure all rebar measurements and centers are correctly maintained.

Rebars - All rebars or rebar mesh when supplied by Connectrix are sourced from reliable Manufacturers and Suppliers backed with all required Certifications and Conformities to confirm with the projects Specifications they are issued to.

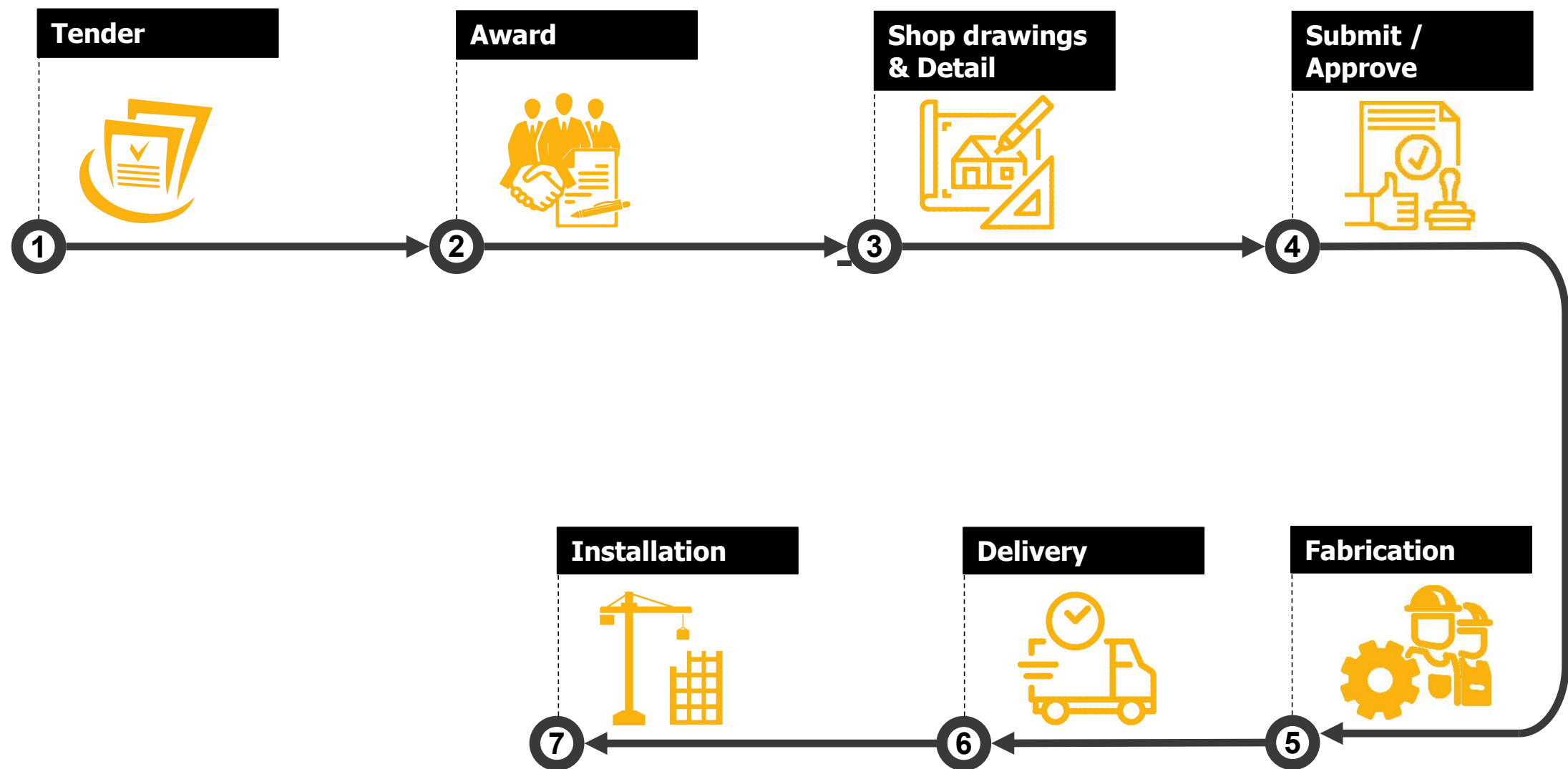
Coil - Coil used for connection boxes is galvanized, Grade ASTM A653.2015/CS and backed with all required certification.

Couplers - All Couplers used in the boxes are in compliance with EN 10204-2.1, sourced from approved and certified Manufacturers and backed by all required certification.

The collage includes several key documents:

- Certificate of Product Conformity** from Dubai Central Laboratory Department (DCLD) of Dubai Municipality, dated 19/06/2020, for Steel Couplers and Mechanical Splices manufactured by DEXTRA MANUFACTURING CO. LTD, Bangkok, Thailand.
- Material Inspection Request on Site** form from ALFAHIM, dated 18/06/2021, for COAS-02.
- Technical Submittal** form from ATKINS, dated 14/06/2018, for JUMERAH LIVING MARINA GATE.
- Material Submittal Form** from MEYDAN BEACH HOTEL - MAIN WORK, dated 08/01/2018.
- Material Approval Request (MAR)** form from ATLANTIS, dated 29/06/2017.
- Material Submittal** form from JUMERAH LIVING MARINA GATE, dated 13/06/2018.
- Material Submittal** form from ATLANTIS, dated 29/06/2017.

The Process



Fabrication & Logistics

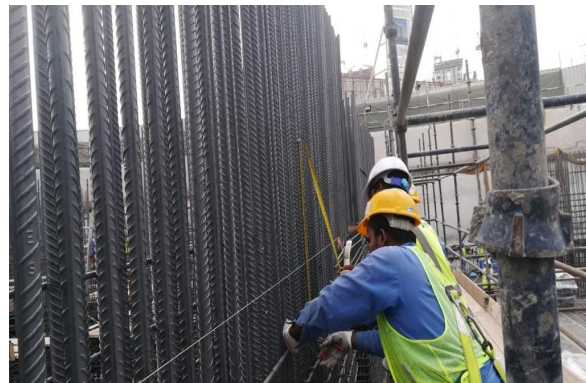
Once design is approved, the shop drawings are issued to the fabrication facility where making of the boxes commenced based on the program and sequence agreed with the Customer. The process undergoes all necessary quality control and measures to ensure each fabricated box is compliant with the approved shop drawings.

Prior to the delivery, each box will be properly tagged and wrapped/palletted and delivered in accordance with the sequence requested.

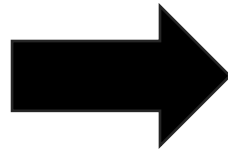
**FABRICATION AND PRODUCTION YARD LOCATED AT
UMM AL QUWAIN , UAE**



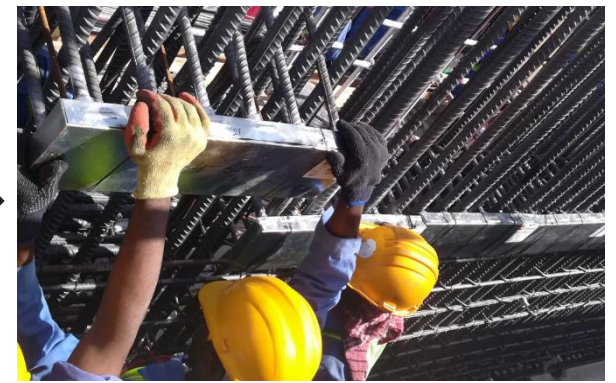
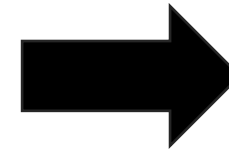
Installation



SETTING OF SLAB ELEVATION



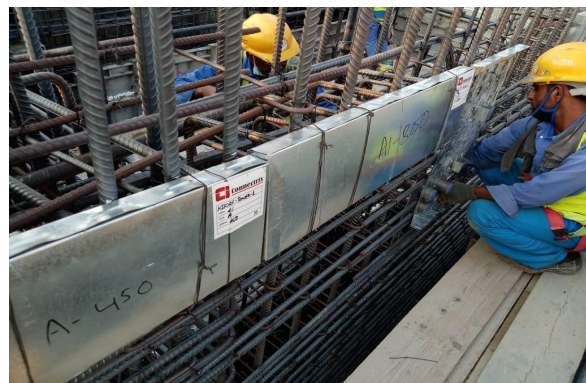
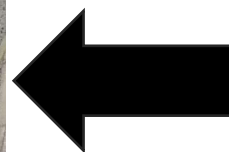
FITTING OF BOXES



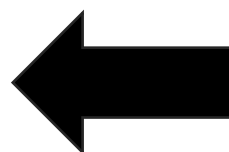
INSTALLATION OF BOXES



INSTALLED BOXES

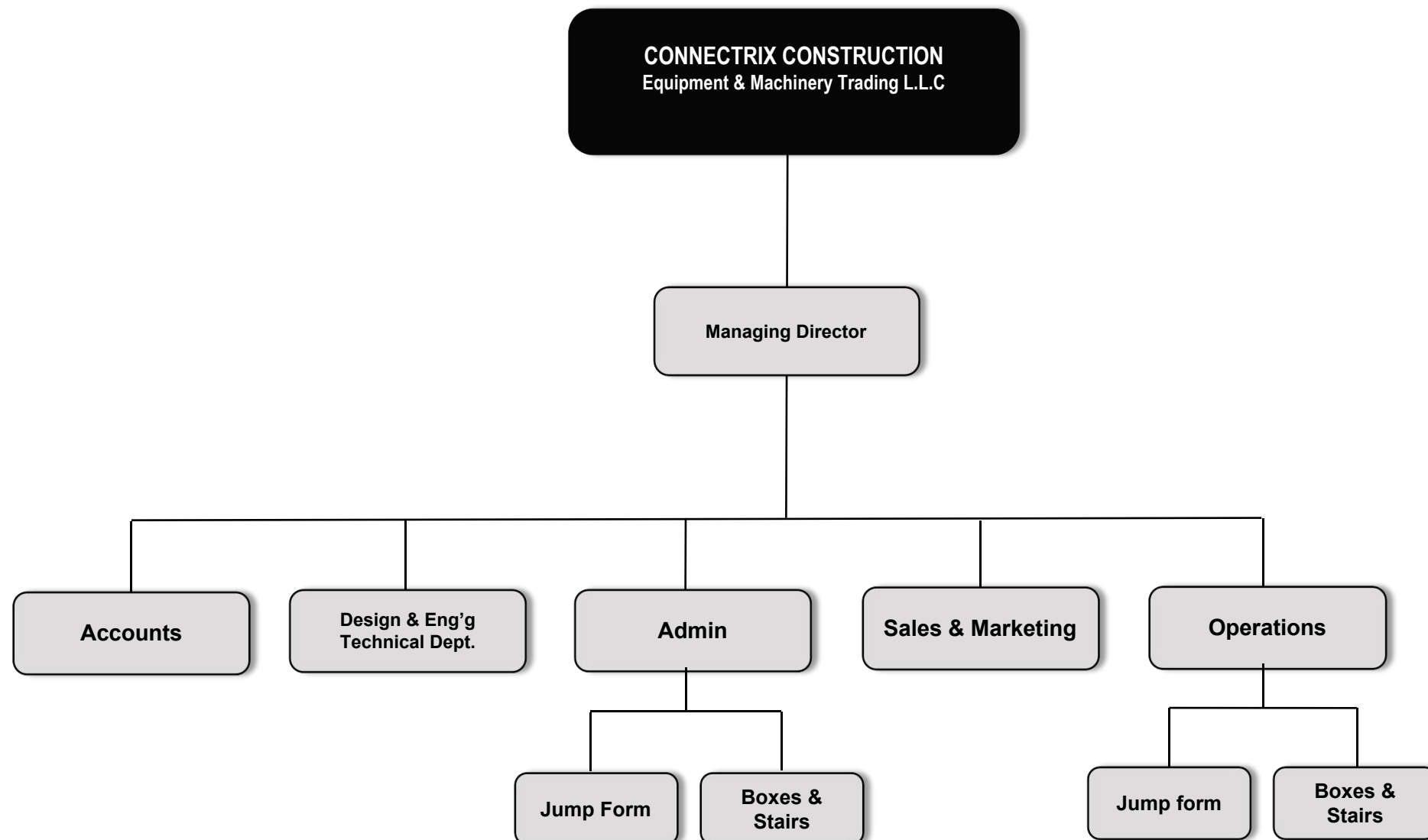


BOXES ARE BEING TIED



FIXING OF BOXES

Company Structure



Projects



Dubai Uptown Phase 1 - Dubai

Height : 328 m
No. of Floors : 2B + 78
Contractor : BESIX Construct



Projects



Dubai Uptown Phase 1 - Dubai

Height : 328 m
No. of Floors : 2B + 78
Contractor : BESIX Construct

Projects

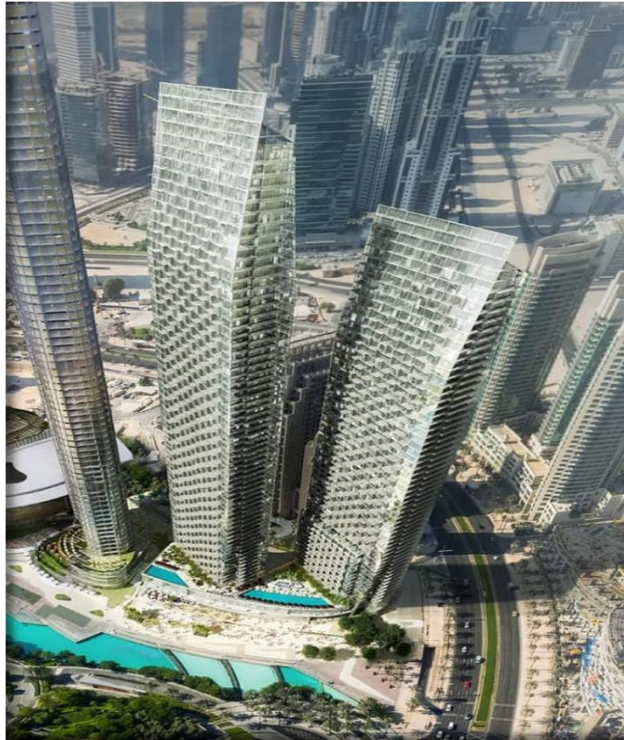


F1007 KIFAF DEVELOPMENT - Dubai

Height : 328 m
No. of Floors : 2B + 78
Contractor : Ssangyoung Engineering & Construction



Projects



THE ADDRESS Residences Dubai Opera A2&A3 - Dubai

Height : 260 m
No. of Floors : 65
Contractor : TAV TEPE AKFEN INVESTMENT
CONSTRUCTION & OPERATION



Projects



ONE ZA'ABEEL TOWER - Dubai

Height : 330 m
No. of Floors : 67
Contractor : ALEC Construction



Projects



MEYDAN BEACH HOTEL - Dubai

Height : 258 m
No. of Floors : 56
Contractor : FIBREX Construction

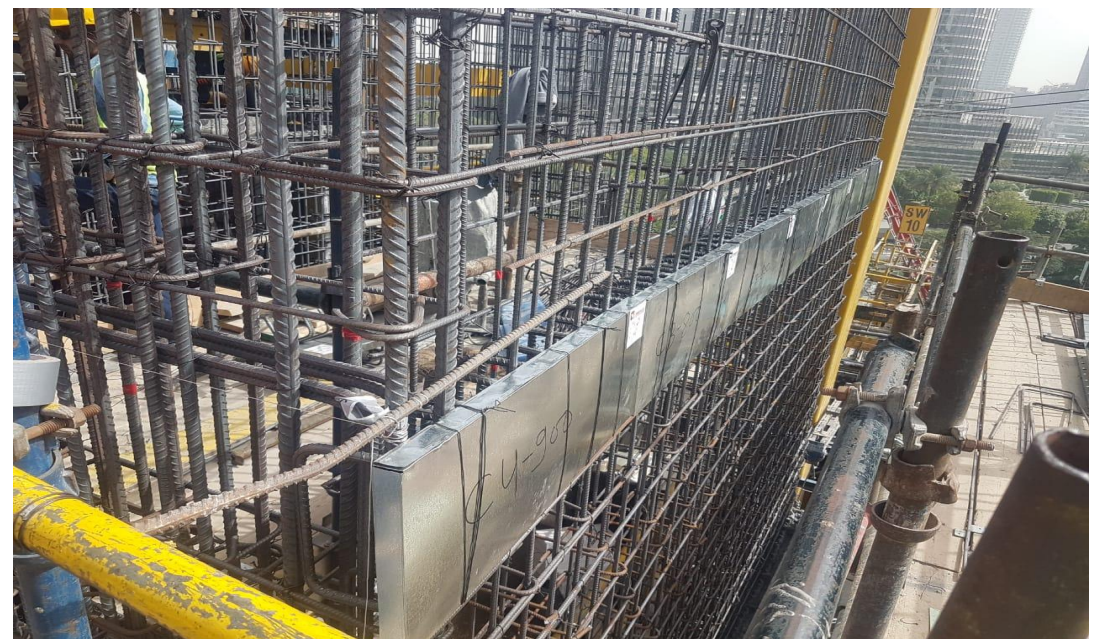


Projects



THE ROYAL ATLANTIS RESORT AND RESIDENCES - Dubai

Height : 185 m
No. of Floors : 43
Contractor : BESIX CONSTRUCT/
SSANGYONG



Projects

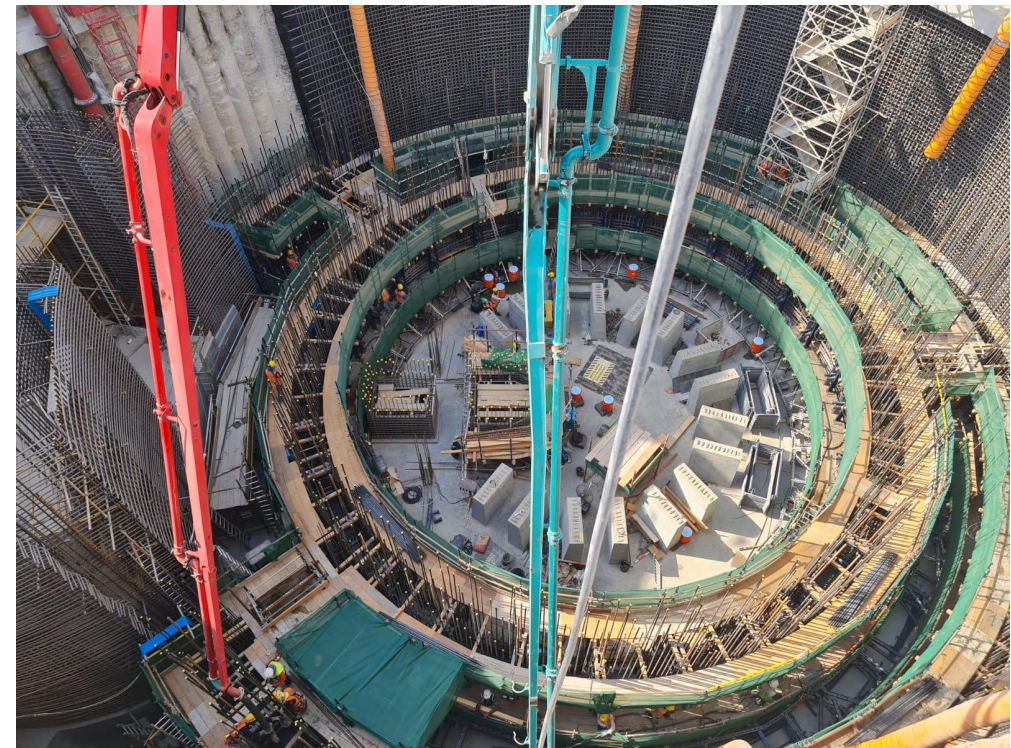


THE PALM JUMEIRAH GATEWAY - Dubai

Height : 285 m
No. of Floors : 59
Contractor : SHAPOORJI PAALONJI MIDDLE EAST



Projects

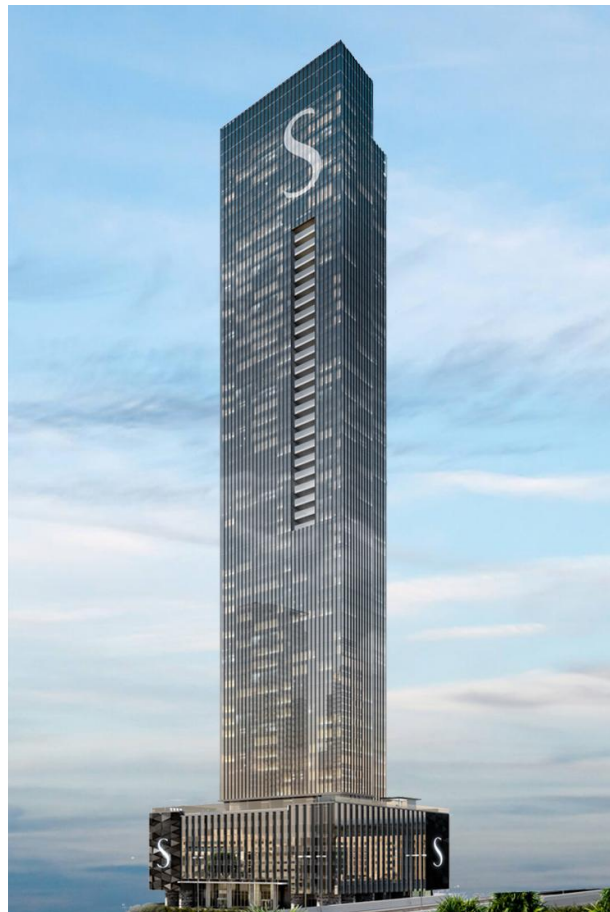


TUBLI STP EXPANSION- PHASE 4 - Tubli, Bahrain

Height : 58 m

Contractor : JV TECTON AZMEEL WLL

Projects



**THE S TOWER SOBHA SIGNATURE - Sobha
Hartland , Dubai UAE**

Height : 228 m
Contractor : SOBHA CONSTRUCTIONS



Projects



THE CREST TOWER A,B,C - Sobha Hartland , Dubai UAE

Height : 140 m
Contractor : SOBHA CONSTRUCTIONS

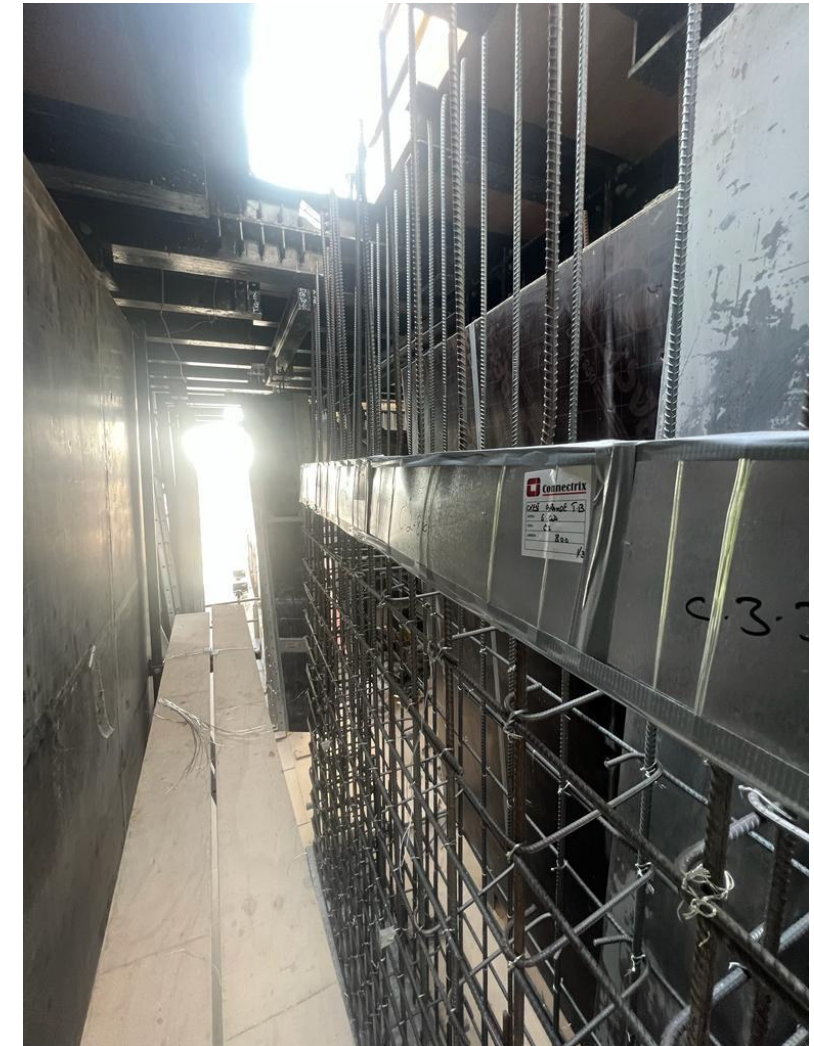
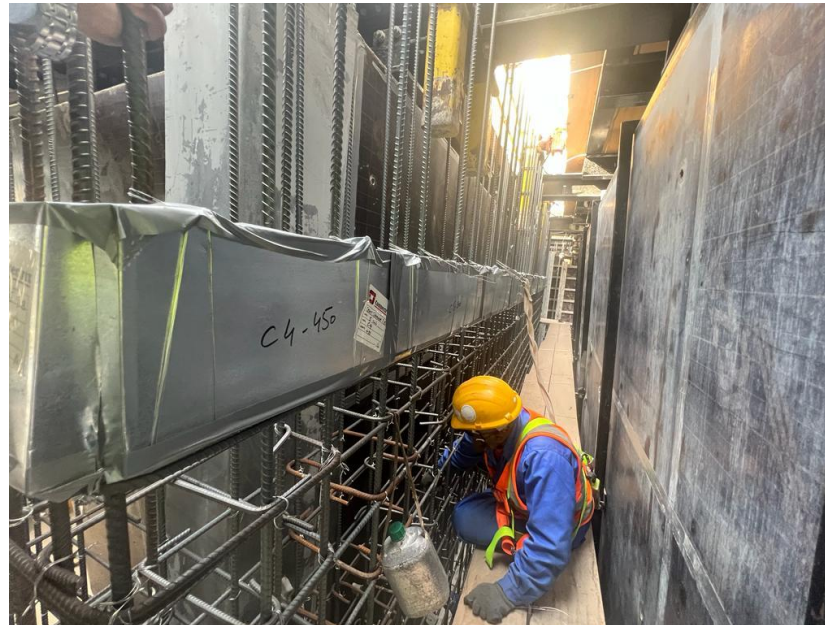
Projects



**CREEK VISTAS GRANDE - Sobha Hartland , Dubai
UAE**

Height : 163 m
Contractor : SOBHA CONSTRUCTIONS

Projects



THE CREST GRANDE TOWER A,B, & C - Sobha Hartland , Dubai UAE

Height : 165.275 m
Contractor : SOBHA CONSTRUCTIONS



CONTACT US:

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