

Logos Apparels Ltd. (Building 4)

Telirchala, Mouchak, Kaliakoir, Gazipur-1751.
(24.016327, 90.305253)

25th November 2020



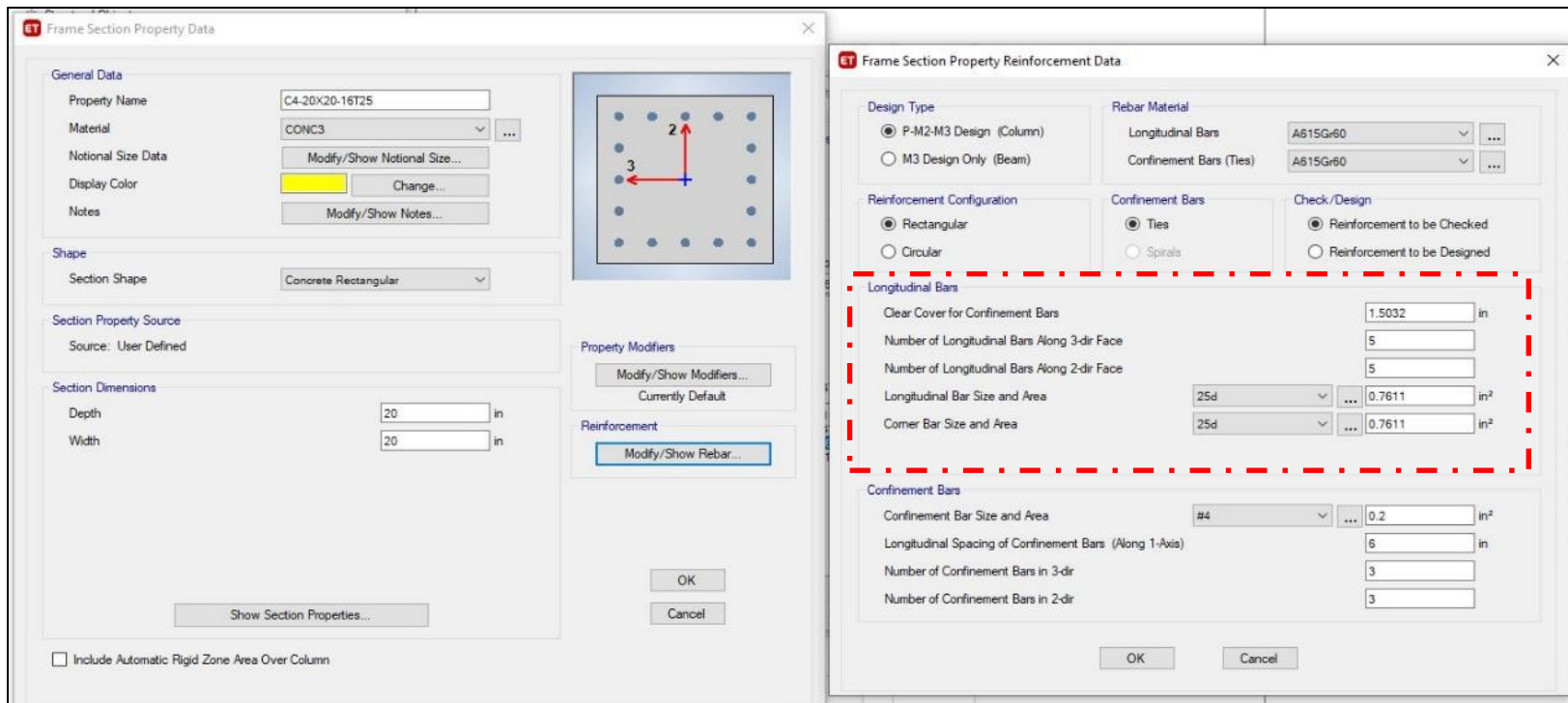
Building Information

1. Production Building (Building 4) (B+G+5)

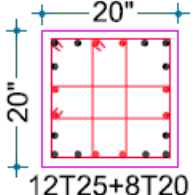
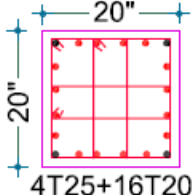
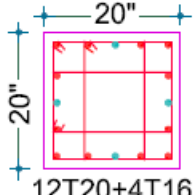
Observations

Design report need to be prepared

Observation: Production Building (Building 4)



Sectional property and reinforcement data from FEM on ETABS

C4	B5,B6,B7,C2, C4,C5,C6,C7	22"X22"	20"X20"	 12T25+8T20	 4T25+16T20	 12T20+4T16
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C04 type column rebar schedule

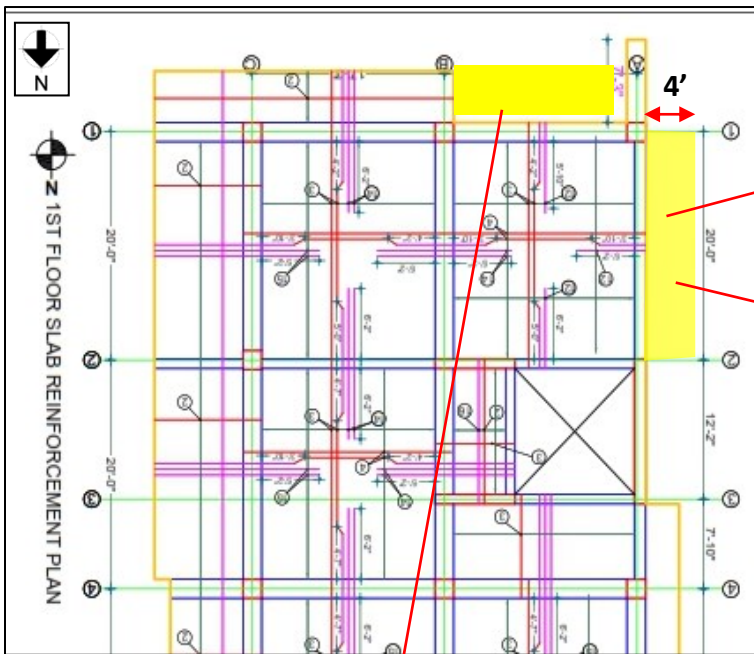
As per drawing the C04 column has 20 number of rebar but on the sectional property of C04 column on FEM, 14 number of rebar has been assigned.



Column P-M-M interaction ratio found from FEA model on ETABS

There was no design report available for this structure on site, during inspection. Factory only provided the FEA model of this structure. During FEA model check, some columns were found overstressed. Factory is required to revise the FEA model. Also, the steel part (ACP works) loading of the roof has not been assigned. Building Engineer to prepare design report as per BNBC (part-6; Article 1.9.1) by reviewing design, loads and capacity of structural members.

Mismatches in As built drawings



1st Floor Slab reinforcement details



Extra cantilever on 1st and 2nd floor



Slab continuous on A-B/01 grid

During inspection, a 4' wide extra cantilever slab in the west face of the building was observed which was not present in 1st & 2nd floor slab drawings. Also, there was no slab according to A-B/01 grid of 1st floor slab drawing, but during inspection, slab was found on that location. Revision of slab layout is required. Also, the slab layout does not correlate with the load plan drawing.

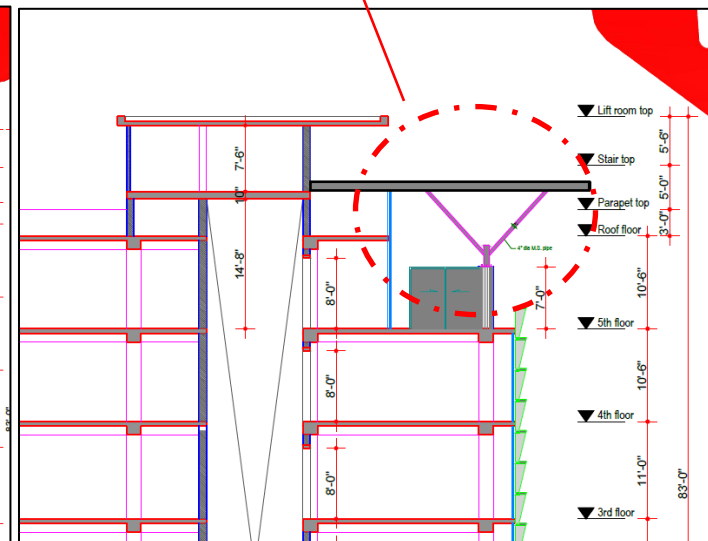
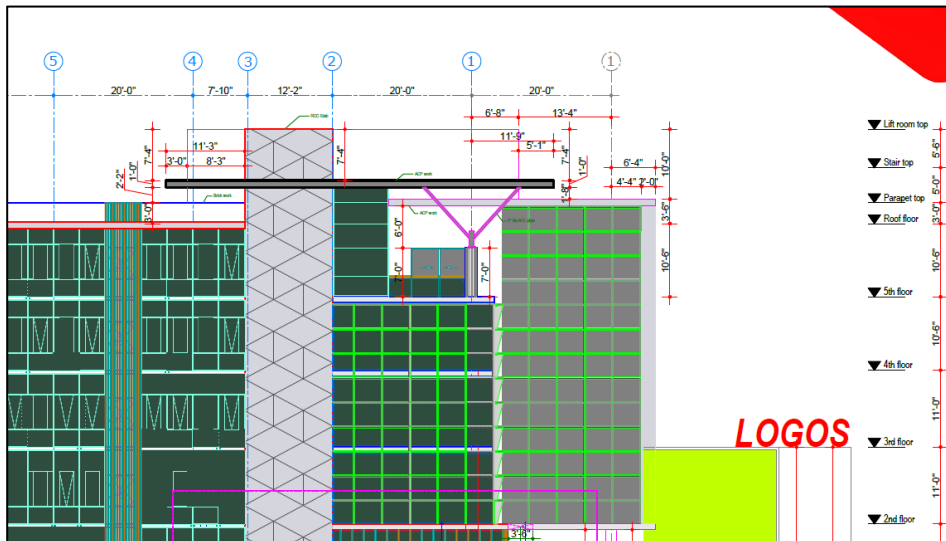
Drawings of the steel canopy (ACP work) missing

Observation: Production Building (Building 4)



A steel canopy portion will be built in the top floor in future, as per the architectural drawing. But the detailed drawings, connection details of the steel canopy is unavailable.

Steel Canopy will be built in the marked portion



Corrosion in Exposed Rebars

Observation: Production Building (Building 4)



During inspection, corrosion was observed in the exposed rebars.

Problems Observed

Production Building (Building 4):

Item 1: Design report need to be prepared.

Item 2: Mismatches in As built drawings.

Item 3: Drawings of the steel canopy (ACP work) missing.

Item 4: Corrosion in Exposed Rebars.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Design report need to be prepared	Building Engineer to prepare design report as per BNBC (part-6; Article 1.9.1) by reviewing design, loads and capacity of structural members.	6-weeks
02	Design report need to be prepared	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column and foundation capacity.	6-weeks
03	Design report need to be prepared	Complete implementation of any remedial works deemed necessary by the Design Report.	6-months
04	Design report need to be prepared	Continue to implement loading plan.	6-months
05	Mismatches in As built drawings	Building Engineer to survey the structure and prepare accurate as-built (both architectural & structural) drawings.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Drawings of the steel canopy (ACP work) missing	Building Engineer is required produce detailed drawings of the steel canopy and include with as built drawings.	6-weeks
07	Corrosion in Exposed Rebars	Building Engineer is required to remove the corrosions and take preventive measures.	6-weeks