Union Knitting and Dyeing ltd

42&44 Boro Rangamatia Zirabo Savar, Dhaka

(23.912160N, 90.306213E)

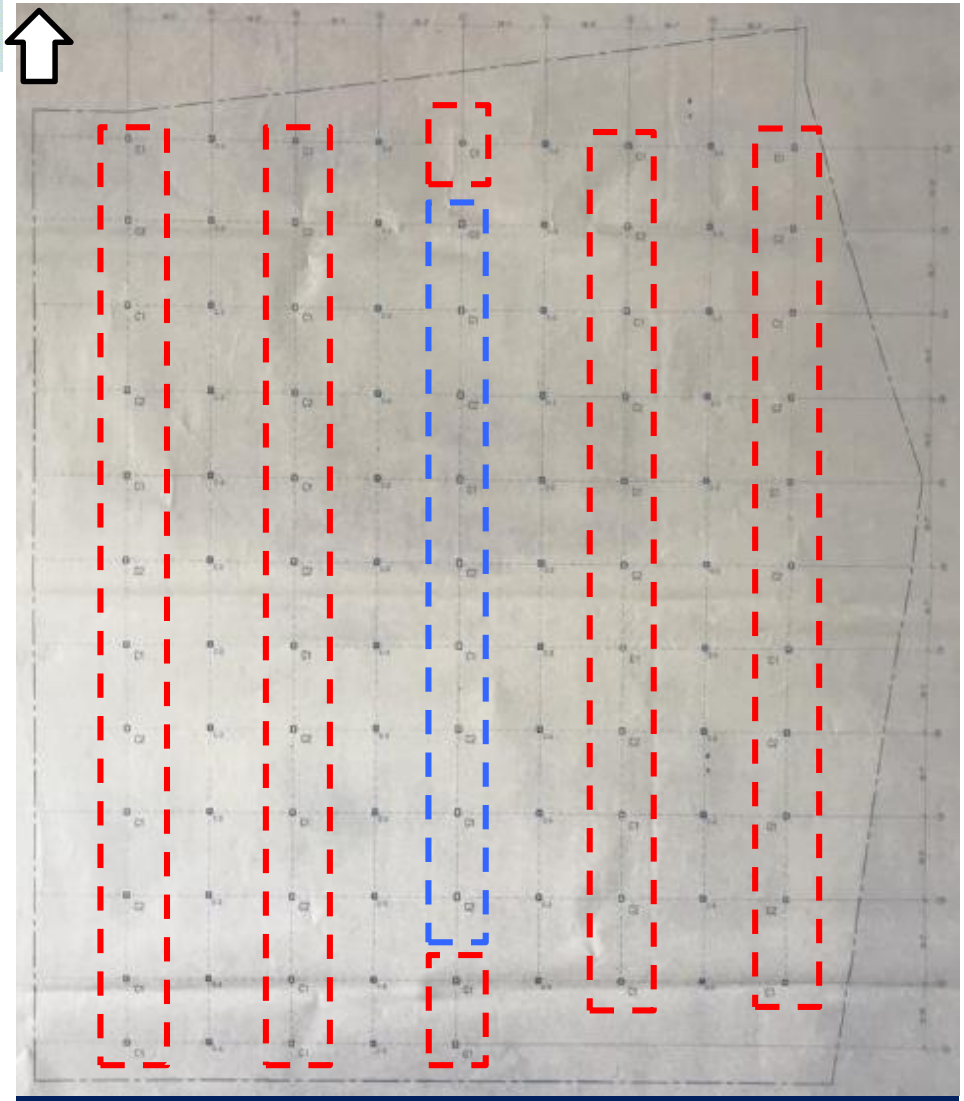
01st October 2018

ACCORD
on Fire and Building Safety in Bangladesh

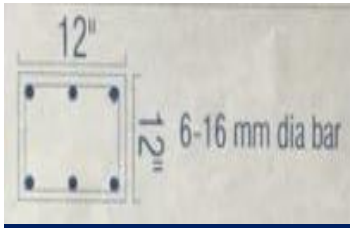
Observations

Discrepancy between as-built drawings and on site condition

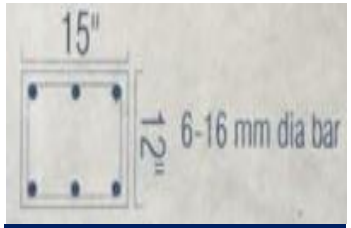
Observation-Production shed



Column Layout Plan



C1 (Column Schedule)



C2 (Column Schedule)

Column layout of onsite condition did not match with provided drawing. In the blue marked location and red marked location, 10inch x 15inch column, and 10inch x 12inch was found respectively. Whereas in the provided column layout, C1 and C2 type column was shown as the alternate arrangement in the North-South direction.

Observation-Production shed

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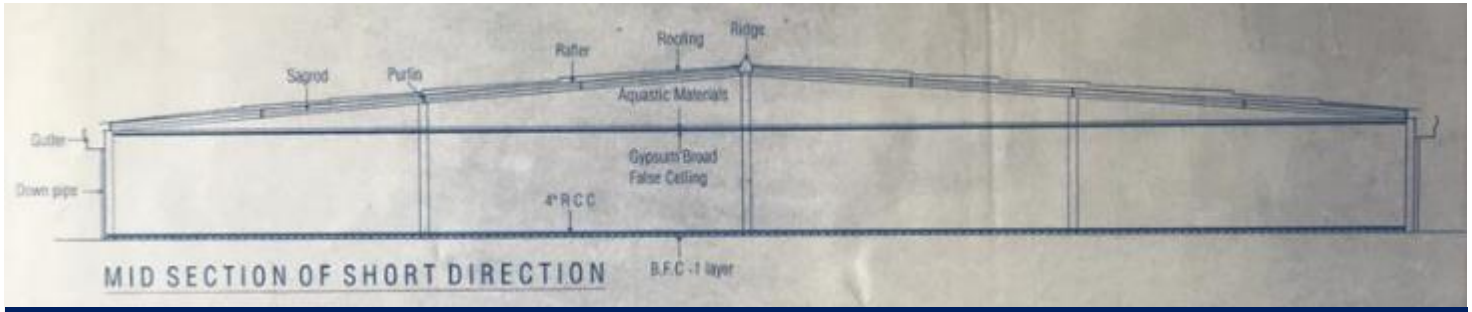
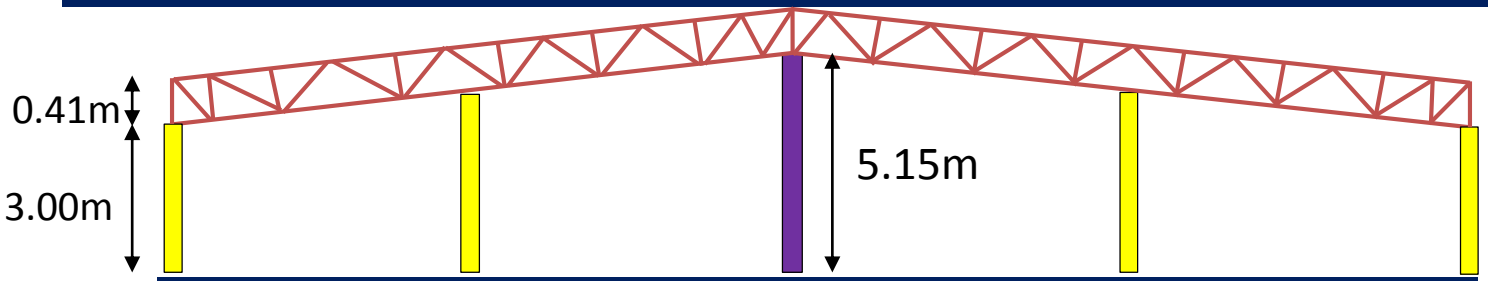


Typical frame (From Drawing)



Typical Truss frame (Field Condition)

In the provided structural drawing rafter was mentioned as roof framing system whereas truss frame was found on site. Factory is required to produce as –built drawing which reflect the onsite condition.

Typical internal truss frame (Field Condition)

Observation-Production shed

Lateral stability check is required

Observation-Production shed

No bracing system was observed between truss frames

The connections of the truss & RC column are apparently non-engineered. Also, no bracing system was observed. The stability system is required to be checked against lateral and vertical loads.

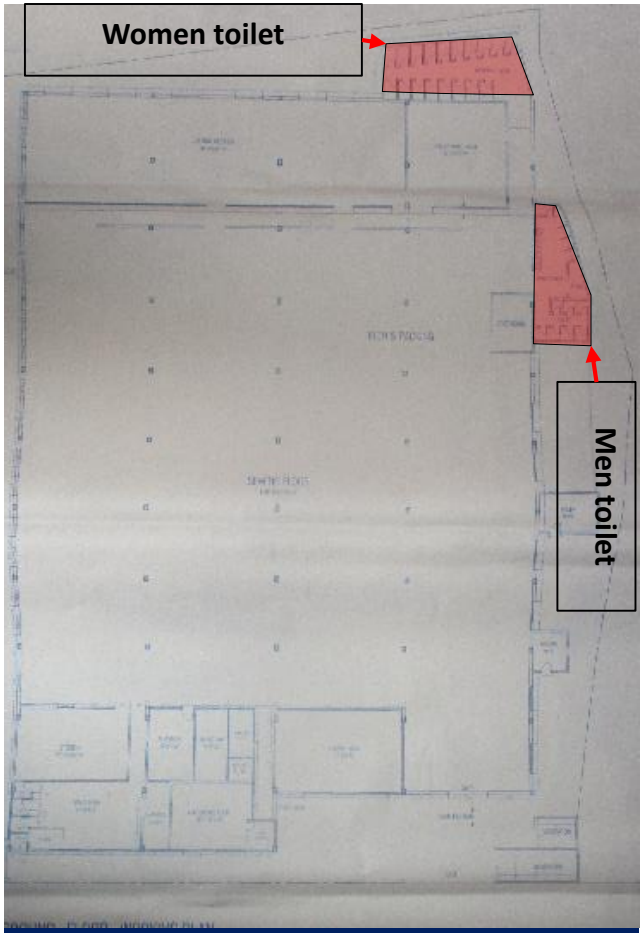
No connection detail was found in drawing. All members were connected by welding joint.

Welded connection between edge columns & truss

Observation-Production shed

Capacity check of roof slab and steel frame supporting water tanks is required

Observation-Production shed



Toilet location in floor plan

2000 litre water tank on steel frame over men toilet roof top

Water clogging observed over roof top of men's toilet

2000 litre water tank on steel frame over women toilet roof top

Deflection of roof slab of men's toilet

Concerns on the roof slab and steel frame supporting 2000 Liter water tanks. A capacity check of these slabs and all related elements need to be carried out. In addition, improve the drainage system for preventing the water clogging on slab.

Observation-Production shed

Corrosion observed at steel sections

Observation-Production shed

Extensive corrosion observed in truss member

Extreme Corrosion observed in canopy

Extensive corrosion observed in gutter

Extensive corrosion was observed on various location in structural members as well as gutter and canopy. Factory is required to identify all the corroded locations and take proper remedial measures according to the engineer's recommendation.

Observation-Production shed

Apparently non-engineered light weight roof shed

Observation-Generator shed & Boiler shed

Generator shed

Steel angle was supported on brick wall

Boiler shed

Steel angle was supported on brick wall

The support condition of those steel sheds were vulnerable and non engineered due to poor detailing of connection between members.

Observation-Generator shed & Boiler shed

Priority Actions

Problems Observed:

Production shed:

Item 1: Discrepancy between as-built drawings and on site condition

Item 2: Lateral stability check is required

Item 3: Capacity check of roof slab and steel frame supporting water tanks is required

Item 4: Corrosion observed at steel sections

Generator shed & Boiler shed:

Item 5: Apparently non-engineered light weight roof shed

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	(Production shed) Discrepancy between as-built drawings and on site condition	Factory engineer to survey the whole building and produce as-built documentation which reflects the as constructed condition.	**6-weeks**
2	(Production shed) Lateral stability is required to check	Factory is required to check stability against lateral and vertical loads.	**6-weeks**
3	(Production shed) Lateral stability is required to check	Carry out remedial action as per engineering assessment where required.	**6-months**
4	(Production shed) Capacity check of roof slab and steel frame supporting water tanks is required	Factory engineer to review design, loads and related elements including roof slabs in area identified above to confirm capacity of the tanks.	**6-weeks**
5	(Production shed) Capacity check of roof slab and steel frame supporting water tanks is required	Factory is required to improve the drainage system for preventing the water clogging on slab.	**6-weeks**
6	(Production shed) Capacity check of roof slab and steel frame supporting water tanks is required	Carry out remedial action as per engineering assessment where required.	**6-months**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	(Production shed) Corrosion observed at steel sections	Factory is required to identify all the corroded members and take proper remedial measures according to the engineer's recommendation.	**6-weeks**
8	(Generator shed & Boiler shed) Apparently non-engineered light weight roof shed	Factory engineer to check the capacity of the lightweight steel roofs under lateral and vertical loading.	**6-weeks**
9	(Generator shed & Boiler shed) Apparently non-engineered light weight roof shed	Carry out remedial action as per engineering assessment where required.	**6-months**