

SF Sweaters Ltd. (9879)

South Salna, Salna Bazar, Gazipur.

(+24.016401N, 90.383430E)

04.June.2014



Identified Priority 1 Concerns

1st Priority 1 Concern



Critical Column at Original Building

The critical columns in both the original building and the extension portion are overstressed. Three separate critical columns were examined, and all three were found to be overstressed. In addition, if the roof of the extension portion is completed, some columns will become critically overstressed.



Critical Column at Extension Portion

2nd Priority 1 Concern



A column was added at the roof to support a newly constructed water tank, however this column is supported only by the beam below and is not shown on the structural drawings.

Identified Priority 2 Concerns

1st Priority 2 Concern



Brick not Stone Aggregate

The structural drawings do not match the following existing conditions:

- Column size
- Column reinforcing
- Joint detailing
- Grid spacing
- Beam size
- Concrete type
- Reinforcing grade



15"x13" column not 20"x12"



40 not 60 Grade Reinforcing



No Beams across Joint

2nd Priority 1 Concern



No structural drawings or details exists for the mobile towers and additional rooms on the roof.



3rd Priority 2 Concern



Medium Crack along Joint



Plaster Repair along Joint

A crack has developed on all floors at the joint between the extension and the original building. In some areas this crack has been plastered over. No movement joint is apparent between the two cantilevered slabs. In addition, the structural as-built drawings indicate beams across the joint, however these beams are not present.

4th Priority 2 Concern



A concrete link between the original building and an adjacent building exists on the 3rd level, however no drawings were made available for this.

5th Priority 2 Concern



The decommissioned concrete stairs along the outside of the original building appear deficient. In addition, a large beehive is present at the 5th level.

Identified Priority 3 Concerns

1st Priority 3 Concern



No loading plans were made available and high storage loading was observed on nearly all the floors.



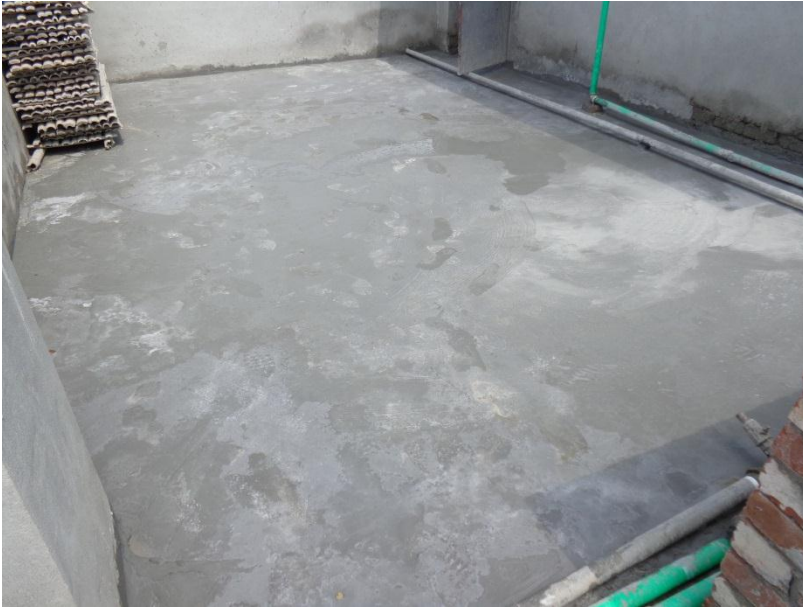
Overall Stability System



The building did not feature any core or shear walls. Stability was achieved through sway action between beams and columns and masonry infill walls.

We require that these items be investigated in a Detail Engineering Assessment

Water Ingress at Roof Level



A waterproofing membrane was visible on the roof of the building, but only for a small portion. Waterproofing should extend across the entire roof in order to limit infiltration of water and corrosion of the reinforcing steel.



Priority Actions

Problems Observed Summary

- ITEM 1: (1st Priority 1)** The critical columns in both the original building and the extension are overstressed.
- ITEM 2: (2nd Priority 1)** A column was added at the roof to support a newly constructed water tank, however this column is supported by the beam below and is not shown on the structural drawings.
- ITEM 3: (1st Priority 2)** The structural drawings do not match the existing conditions. Column size and reinforcing, joint details, grid spacing, beam size, concrete type and reinforcing grade all differ on site from the as-built structural drawings.
- ITEM 4: (2nd Priority 2)** No structural drawings or details exist for the mobile towers and additional rooms on the roof.
- ITEM 5: (3rd Priority 2)** A crack has developed on all floors at the joint between the extension and the original building.
- ITEM 6: (4th Priority 2)** A concrete link between the original building and an adjacent building exists on the 3rd level, however no drawings were made available.
- ITEM 7: (5th Priority 2)** The decommissioned concrete stairs along the outside of the original building appears deficient.
- ITEM 8: (1st Priority 3)** No loading plans were made available and storage loading was observed on nearly all of the floors.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	1st Priority 1 - The critical columns in both the original building and the extension are overstressed.	Stop all further construction. Reduce all loading, on all floors, for both the original building and the extension down to a maximum of 2.0 kPa (40 psf).	Immediate - Now
2	1st Priority 1 - The critical columns in both the original building and the extension are overstressed.	A Detailed Engineering Assessment is required to determine the concrete strength and load bearing capacity for the entire building (both original and extension portion).	6-weeks
3	1st Priority 1 - The critical columns in both the original building and the extension are overstressed.	Complete and Implement any recommendations from the DEA.	6-months
4	2nd Priority 1 - A column was added at the roof to support a newly constructed water tank, however this column is supported by the beam below and is not shown on the structural drawings.	Empty water in tank down to minimum volume required to meet fire code and regulations. Temporarily prop column between two beams to help transfer load across roof beam and 5th floor beam.	Immediate - Now
5	2nd Priority 1 - A column was added at the roof to support a newly constructed water tank, however this column is supported by the beam below and is not shown on the structural drawings.	A Detailed Engineering Assessment is required to determine the capacity of the roof beam supporting the concentrated column load.	6-weeks
6	2nd Priority 1 - A column was added at the roof to support a newly constructed water tank, however this column is supported by the beam below and is not shown on the structural drawings.	Implement any recommendations from DEA.	6-months
7	1st Priority 2 - The structural drawings do not match the existing conditions. Column size and reinforcing, joint details, grid spacing, beam size, concrete type and reinforcing grade all differ on site from the as-built structural drawings.	Structural Engineer to review existing conditions and revise drawings to match as-built conditions.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	2nd Priority 2 - No structural drawings or details exist for the mobile towers and additional rooms on the roof.	Detailed Engineering Assessment is required to assess the impact of added loading from all towers and additional structures on the roof.	6-weeks
9	2nd Priority 2 - No structural drawings or details exist for the mobile towers and additional rooms on the roof.	Implement any recommendations from DEA.	6-months
10	3rd Priority 2 - A crack has developed on all floors at the joint between the extension and the original building.	Detailed Engineering Assessment is required for the joint (or lack there of) between the two phases of construction.	6-weeks
11	3rd Priority 2 - A crack has developed on all floors at the joint between the extension and the original building.	Implement any recommendations from DEA.	6-months
12	4th Priority 2 - A concrete link between the original building and an adjacent building exists on the 3rd level, however no drawings were made available.	Detailed Engineering Assessment is required for the concrete link between the two buildings.	6-weeks
13	4th Priority 2 - A concrete link between the original building and an adjacent building exists on the 3rd level, however no drawings were made available.	Implement any recommendations from DEA.	6-months
14	5th Priority 2 - The decommissioned concrete stairs along the outside of the original building appears deficient.	Detailed Engineering Assessment is required for the concrete stairs.	6-weeks
15	5th Priority 2 - The decommissioned concrete stairs along the outside of the original building appears deficient.	Implement any recommendations from DEA.	6-months
16	1st Priority 3 - No loading plans were made available and storage loading was observed on nearly all of the floors.	Structural Engineer to provide loading plans based on capacity for each floor of the entire building. Post and manage loading on all floors.	6-months