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Spencer Design Ltd (10074)
Fariha Accessories Int. Ltd.

Plot # 276, Narshingapur, Ashulia, Savar, Dhaka
(+23.92962N, 90.30895E)

31.MAY.2014



Identified Priority 1 Concerns

1st Priority 1 Concern



The machine in the Boiler & Compressor room doesn't have any information on its weight. The Client needs to review the weight of machines and to make sure that the floor loading does not exceed 3.0kPa (60psf). It is suggested that the boiler & compressor machine should be moved to the ground floor due to the vibrations they cause anyway.

1st Priority 1 Concern (Continued)



The fabric rolls on level 2 in the storage area is heavier than the design loading of 3.0 kPa (60psf). Each roll of fabric is estimated to be approximately 45 kg with 7 rolls per layer and a total of 7 layers. The plan area is 1.45x1.45m, so the live load for this area is 10.5 kPa (210psf) which is higher than the design loading.



The live load is higher than the imposed load, the stacking of the fabric rolls should be carefully monitored to ensure that there is no possibility of future overloading.

1st Priority 1 Concern (Continued)



The stored boxes on level 2 are heavier than the allowable design loading of 3.0 kPa (60psf). Each box of fabric is estimated to be approximately 15kg with a plan dimension of 0.5x0.4m and 6 layers, the live load for this area is 4.5kPa (90psf).

The live load is higher than the imposed load, the stacking of boxes should be carefully monitored to ensure that there is no possibility of overloading in the future.

Identified Priority 2 Concerns

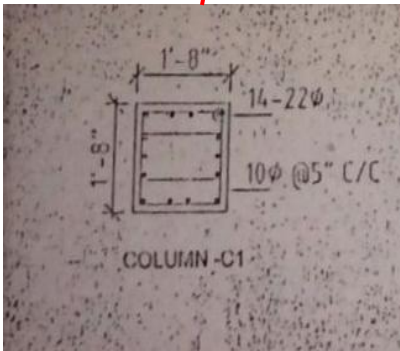
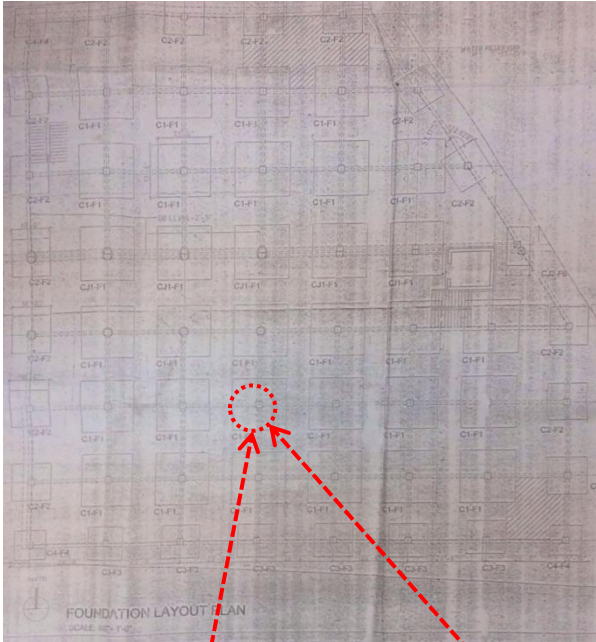
Priority 2 Concern



Main building

Based on the load rundown analysis of the building with 8 floors, as per Building Permit drawing, it gives a YELLOW status result for all checked columns that have similar loading conditions and designs. This requires that all floor loadings must be carefully monitored and loading plans provided which must then be strictly maintained.

Based on the load rundown analysis of the building with the current existing 4 floors, the current building operates well within structural limits.



Column to be checked

Identified Priority 3 Concerns

1st Priority 3 Concern



Dining room



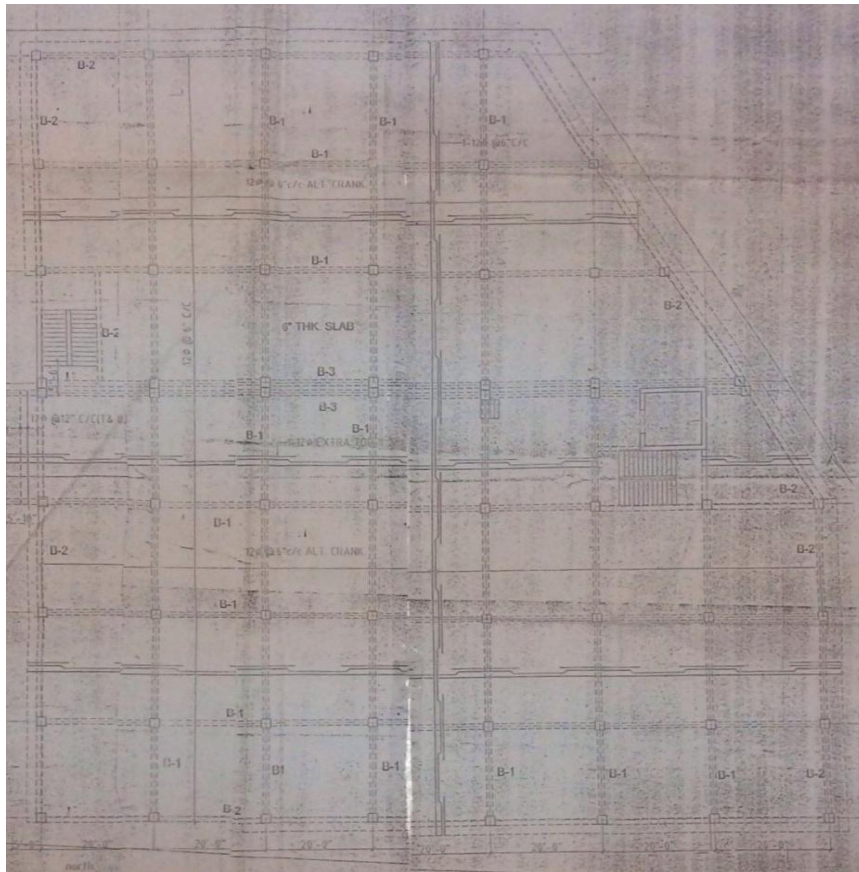
The dining building appears to be a temporary structure. There are no structural records to show the structural layout or connection details.

The steel beams and columns are very small and don't have any longitudinal bracing and appear corroded.



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

Overall Stability System



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

R.C Beam and column frame with a 2-way solid slab. Stability provided by moment frame system only.

Slab Thickness 152.4mm
Column Size 508x508mm (typ.)
Beam Size 305x533mm (typ.)

Grid 6.1m x 6.2m.

This type of structural framing is appropriate for a building of less than 10 storeys high, with this large plan area. However, it is required that A Structural Engineer reviews and checks the building's horizontal deflection and storey drift under wind and seismic load.

Priority Actions

Problems Observed Summary

ITEM 1: (1st Priority 1) Loading intensity appears to be greater than what should be allowable in some locations.

ITEM 2: (1st Priority 2) Typical columns have low factors of safety with respect to their loading capacity with 8 floors applied as per the Building permit drawing.

ITEM 3: (1st Priority 3) The structure for the dining building needs to be reviewed and longitudinal bracing and connections improved.

ITEM 4: (2nd Priority 3) There is no waterproofing provided on the existing roof.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	1st Priority 1 - Loading intensity appears to be greater than what should be allowable in some locations.	Immediately reduce stacking height of fabric bags, rolls and boxes to ensure total load does not exceed 3.0kPa (60psf)	Immediate - Now
2	1st Priority 1 - Loading intensity appears to be greater than what should be allowable in some locations.	Produce loading plans for each level to ensure full factory compliance.	6-weeks
3	1st Priority 1 - Loading intensity appears to be greater than what should be allowable in some locations.	Ensure continued compliance to the loading intensity limitations on a long-term basis. Maintain and enforce the loading plans.	6-months
4	1st Priority 2 - Typical columns have low factors of safety with respect to their loading capacity with 8 floors applied as per the Building permit drawing.	In the future, if Client wants to build the building up to the originally intended 8 floors as per their Building Permit drawing, A Structural Engineer needs to review the building design fully, its loads and column stresses before construction commences. Verify insitu concrete stresses either by 100mm dia. cores or existing cylinder strength data. Produce and actively manage a loading plans for all floor plates within the factory giving consideration to floor and column capacities.	6-months
5	1st Priority 3 - The structure for the dining building needs to be reviewed and longitudinal bracing and connections improved.	The detailed design for the Dining Building to be fully reviewed to verify the lateral stability under wind loading.	6-months
6	2nd Priority 3 - There is no waterproofing provided on the existing roof.	Provide and maintain a proper waterproofing layer on the roof level.	6-months