Cordial Design

TMS Fashion Ltd

25/2 Shah Alibagh, Mirpur-1, Dhaka
(+23.7952N, 90.358E)

16 September 2013

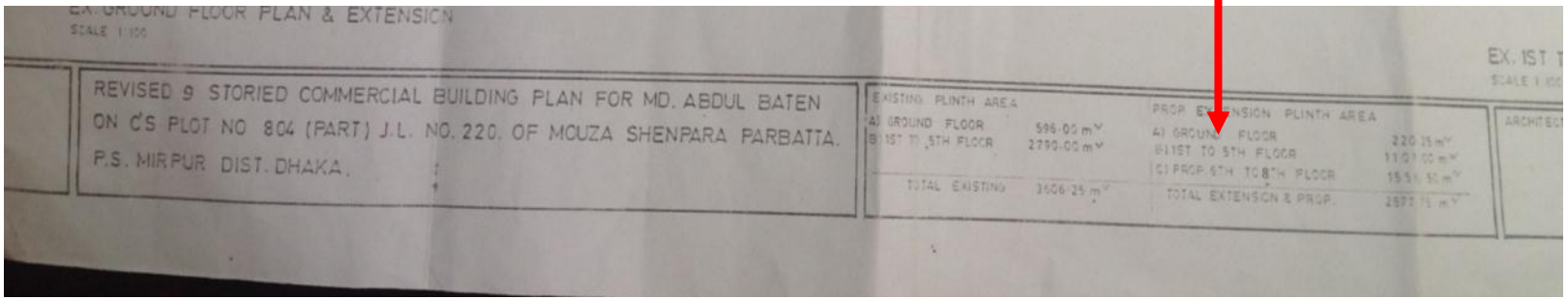
ACCORD on Fire and Building Safety in Bangladesh

ARUP

Check on column loads and design required

Column investigation shows columns have not been increased in size for the extra floor(s)

Permit Drawing indicates vertical and horizontal addition to the building, but is not accurate as to which floors were added. We believe one slab was added (current roof slab)



Building Engineer to revisit As-Built Drawings, Design Check required for all columns in the original Southern building

Check on column loads and design required

ACCORD on Fire and Building Safety in Bangladesh ARUP

Check on roof additions required

Northern roof structures built beyond the height shown in the design drawings, built of masonry and a lightweight steel roof

South Set-Back roof structure addition

Check on roof additions required

ACCORD on Fire and Building Safety in Bangladesh ARUP

Lightweight steel roof

Masonry Walls

Check on roof additions required

Lightweight steel roof built Over original roof set-back on South side

These structures should be Designed and upgraded to support code vertical and wind loads by the building Engineer, or they should be vacated and removed.

Check on roof additions required

Repair to Water Damaged Column Required

Water damage has rusted steel reinforcement, causing spalling of concrete.
Engineer to inspect propose a suitable repair

Repair to Water Damaged Column Required

Check on Lift Shaft In-Fill Slab required

The original lift shaft has been filled in on floors 2-8 using small metal angles and a thin slab.

Ensure this does not get used for storage.

The building Engineer should verify that this can carry code required floor load, or design and construct a retrofit

Check on roof additions required

Priority Actions

Problems Observed

ITEM 1: Historic addition of a floor has resulted in heavily loaded columns, As-Built drawings do not match the actual columns.

ITEM 2: Lightweight steel roof additions do not appear to be strong enough for severe wind events or access loading

ITEM 3: One ground level column in the South-West corner has corroded.

ITEM 4: The original lift shaft has been filled-in with a lightweight steel floor, which does not appear to be strong enough for heavier storage loads

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Historic addition of a floor has resulted in heavily loaded columns, As-Built drawings do not match the actual columns	Design check all columns South of the joint between the original and extension buildings. Revise As-Built drawings showing actual column sizes. Propose strengthening as required	**6-weeks**
2	Historic addition of a floor has resulted in heavily loaded columns, As-Built drawings do not match the actual columns	Verify insitu concrete stresses either by cores or existing cylinder strength data for South of the joint between the original and extension	**6-weeks**
3	Historic addition of a floor has resulted in heavily loaded columns, As-Built drawings do not match the actual columns	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	**6-months**
4	Lightweight steel roof additions do not appear to be strong enough for severe wind events or access loading	Addition structures should be Designed and upgraded to support code vertical and wind loads by the building Engineer, or they should be vacated and removed.	**6-months**
5	One ground level column in the South-West corner has corroded	Engineer to inspect propose a suitable repair	**6-months**
6	The original lift shaft has been filled-in with a lightweight steel floor, which does not appear to be strong enough for heavier storage loads	Do not place storage on the lift shaft area	**Immediate - Now**
7	The original lift shaft has been filled-in with a lightweight steel floor, which does not appear to be strong enough for heavier storage loads	The building Engineer should verify this can carry code floor load, or design and construct a retrofit	**6-months**