

Naz Knitwear Ltd (10653)

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Identified Priority 1 Concerns

(None)

Identified Priority 2 Concerns

**Uncertainty Regarding Flat Slab/Beam Slab Locations
and Corresponding Lateral Stability**

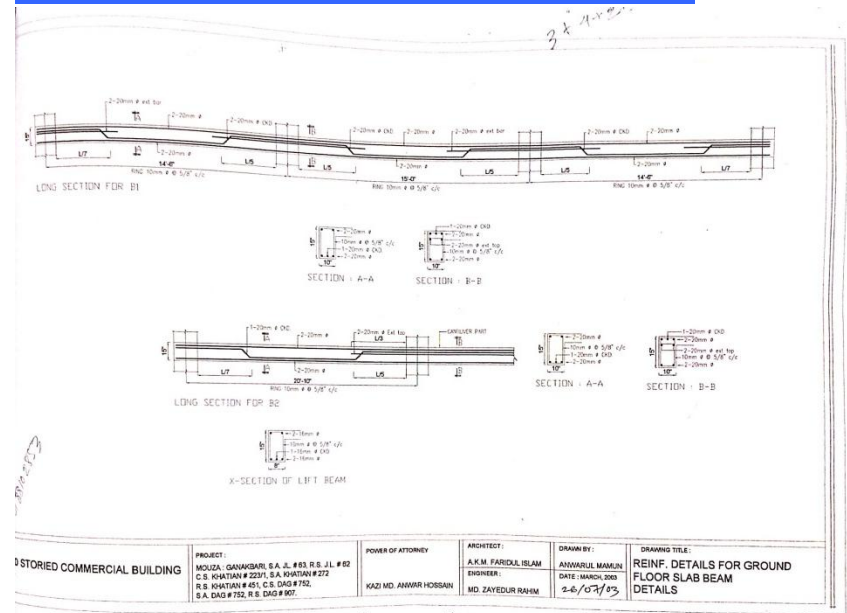
Intention of Additional Construction



Underside of 3rd Floor Slab

Priority 2 Concern

Ground Floor Slab Beam Details



Structural drawings were unclear as to which levels of the building were intended to be flat slabs and which were intended to be beam slab arrangements as no beam layout plans were provided nor were beams shown on slab reinforcing plans. Only the 3rd floor slab was constructed as a beam slab arrangement while all others were flat slabs. Additionally this leads to concern regarding the lateral restraint system. At all floors other than the 3rd floor slab (moment frames), there was no apparent lateral restraint system in place.

Design Intent Uncertainty – Poor Structural Drawings



5th Floor/Current Roof Level

Priority 2 Concern

C11	 20-20mm Ø Size:22"x22"	 16-20mm Ø Size:22"x22"	 16-20mm Ø Size:20"x20"
C12	 16-25mm Ø Size:22"x22"	 8-25mm +8-22mm Ø Size:22"x22"	 8-25mm +8-22mm Ø Size:20"x20"
C13	 20-25mm Ø Size:22"x22"	 16-25mm Ø Size:22"x22"	 16-25mm Ø Size:20"x20"

Critical Column Details

The factory staff indicated the intent to continue with the addition of further stories in 2015. Based upon column load run-downs, the building is not suitable for more than one additional storey. However, permit approval and construction documents indicate a potential for 5 additional stories.

Design Intent Uncertainty – Poor Structural Drawings

Identified Priority 3 Concerns

No Formal Loading Plan Available and High Level of Storage Observed at Ground Floor



No formal loading plan was available at the time of inspection. Storage was in general minimal and localized. However thread roll storage at the ground floor was higher than desirable and was estimated at approximately 6 kPa.

Lack of Floor Loading Plan and High Ground Floor Storage

Priority Actions

Problems Observed Summary

ITEM 1: (Priority 2) Structural drawings were unclear as to which floors have beams and which are intended to be flat slabs. Beams were observed only at the third floor slab while structural beam details indicate beams are at the ground floor level. Furthermore, no beam layout plans are provided and no beams are shown on floor slab reinforcing plans. The stories with flat slab arrangements lack an apparent lateral stability system.

ITEM 2: (Priority 2) The construction documents indicate potential for a 10 storey building while construction is currently halted at the 5th floor slab. It was put forth that further stories will be added in 2015. However, column checks indicate structural adequacy of columns for only one additional storey.

ITEM 3: (Priority 3) No floor loading plan was provided or being enacted. While storage loads were generally below minimum allowable levels, there were heavy storage loads at the ground floor level.

Item 1 and Actions

Uncertainty regarding slab arrangements and lateral stability

Priority 1 (Immediate – Now)

- None

Priority 2 (within 6 weeks)

- The original design engineer is to verify the construction and provide a letter confirming that slab construction has been built as intended.
- Commence a Detailed Engineering Assessment upon structure's lateral stability system.

Priority 3 (within 6 months)

- Implement any recommendations and remedial works required by the design engineer and/or the detailed engineering assessment.

Item 2 and Actions

Intent to add further stories

Priority 1 (Immediate – Now)

- None

Priority 2 (within 6 weeks)

- If more than 1 additional storey is to be added, have the detailed engineering assessment from Item 1 include the feasibility of the addition of further stories within its scope.

Priority 3 (within 6 months)

- Carry out any remedial works required recommendations of the detailed engineering assessment.

Item 3 and Actions

No loading plan and heavy storage at ground floor

Priority 1 (Immediate – Now)

- Reduce storage at ground floor level to design floor load.

Priority 2 (within 6 weeks)

- Develop and actively manage a loading plan for all floor plates within the factory giving consideration to slab, beam and column capacity.

Priority 3 (within 6 months)

- Continuously manage floor loading plan.