

Mega Yarn Dyeing Mills Ltd. (Expansion) & Mega Fashion Wear Ltd.

Sardagonj, Gabindabari, Kashimpur, Gazipur.
(23.965296, 90.285794)

1st & 16th June 2021

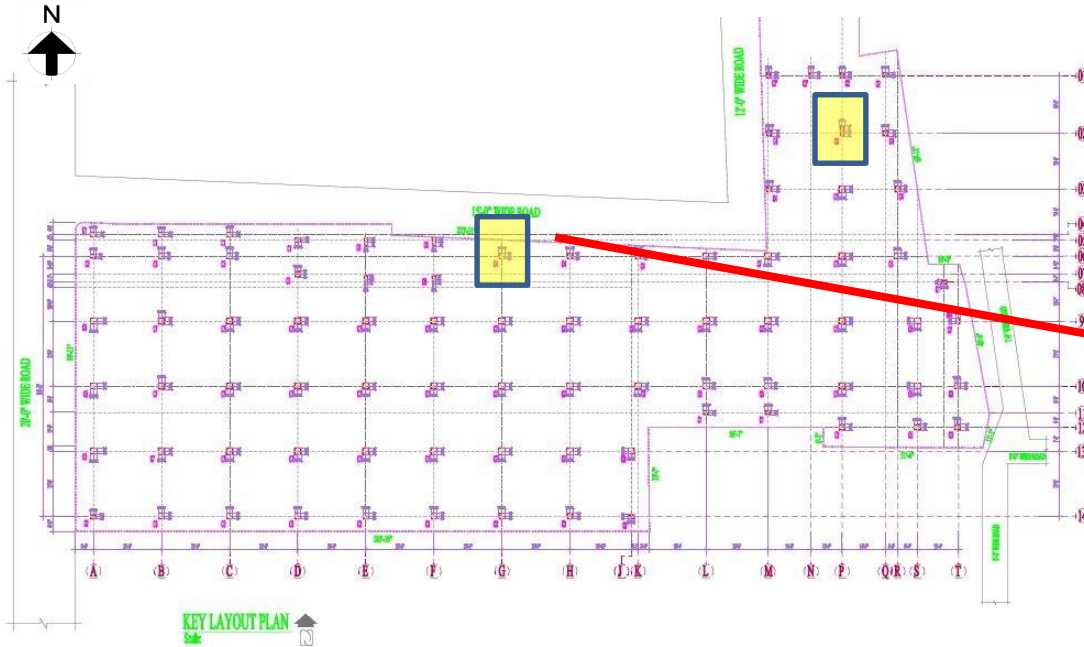


Buildings Information

1. Building-8 (G+8): Nine storied reinforced concrete (RC) building

Observation

Column marginally stressed above normal design limits



Cursory calculation indicates that one column is marginally stressed above normal design limit at the marked locations considering 3 and 4 kPa live load on typical floor as per prepared live load plan. Factory Engineer to review design, loads and columns stresses. Also, verify in-situ concrete strength (100mm dia. cores from 4 columns). Produce and actively manage load plan according to the column and floor capacity.



Floor live load plan doesn't comply with BNBC



Load plan for 4th floor (Yarn store-4KPa)



Typical storage area-4th floor

Live load at storage areas are considered as 4 KPa in prepared load plan. However, as per BNBC the live load for light storage area is required to be considered as 6 KPa. Factory engineer is required to revise the load plan as per BNBC.

INDUSTRIAL, STORAGE & HAZARDOUS (Occupancy - G, H & I)	Workshop, factory, warehouse			
1	Light workroom without storage	3.0	2.7	
2	Machinery hall & circulation area	4.0	4.5	
3	Factory, workshop etc.	5.0	4.5	
4	Manufacturing : light	6.0	4.5	
	heavy	12.0	9.0	⁽⁵⁾
	ice	15.0	9.0	⁽⁵⁾
5	Printing plant :			⁽⁵⁾
	Press room	7.0	11.0	
	Composing and linotype room	5.0	9.0	⁽⁵⁾
	Paper storage room	12.0	9.0	⁽⁵⁾
6	Motor room, fan room etc. including the weight of machinery	7.5	4.5	
7	Cold storage, grain storage	15.0	9.0	⁽⁵⁾
8	Storage warehouses : light	6.0	4.5	⁽⁵⁾
	heavy	12.0	9.0	
9	Foundries	20.0	12.0	

Live load table from BNBC-2006



Typical storage area-4th floor



Typical storage area-1st floor

Load plan for 1st floor (Yarn store-3KPa)

Live load at storage areas are considered as 3 KPa in prepared load plan. However, as per BNBC the live load for light storage area is required to be considered as 6 KPa. Factory engineer is required to revise the load plan as per BNBC.

INDUSTRIAL, STORAGE & HAZARDOUS (Occupancy - G, H & I)				
Workshop, factory, warehouse	1	Light workroom without storage	3.0	2.7
	2	Machinery hall & circulation area	4.0	4.5
	3	Factory, workshop etc.	5.0	4.5
	4	Manufacturing : light	6.0	4.5
		heavy	12.0	9.0
		ice	15.0	9.0
	5	Printing plant :		
		Press room	7.0	11.0
		Composing and linotype room	5.0	9.0 ⁽⁵⁾
	Paper storage room	12.0	9.0 ⁽⁵⁾	
6	Motor room, fan room etc. including the weight of machinery	7.5	4.5	
7	Cold storage, grain storage	15.0	9.0 ⁽⁵⁾	
8	Storage warehouses : light	6.0	4.5 ⁽⁵⁾	
	heavy	12.0	9.0	
9	Foundries	20.0	12.0	

Live load table from BNBC-2006



Typical storage area-1st floor

Observations: Building-8

Missing information in as-built drawing

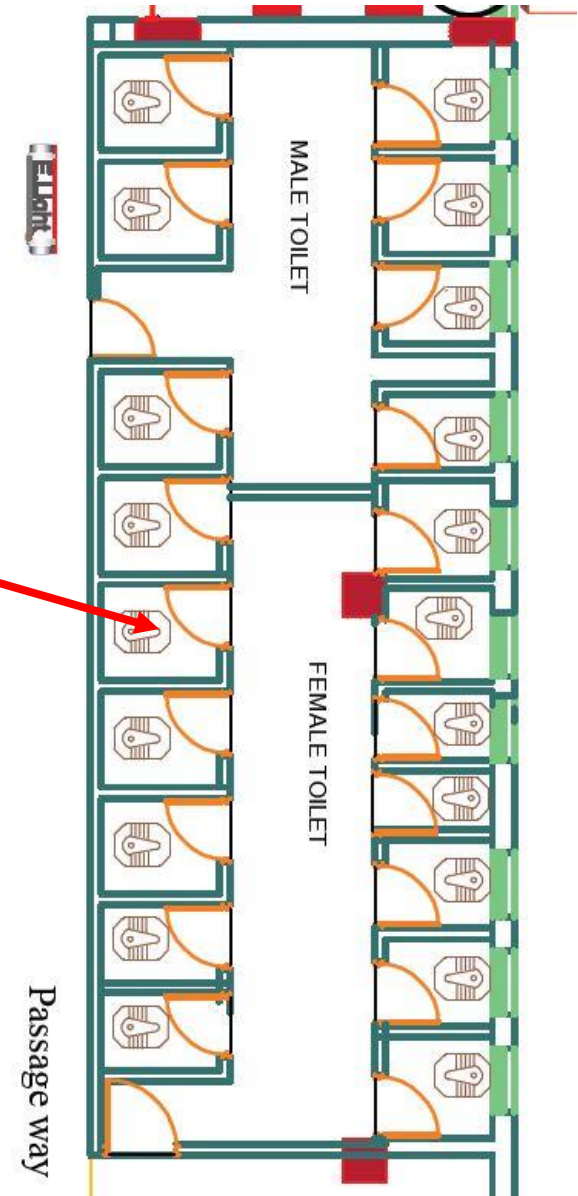


DOOR & WINDOW SCHEDULE					
SL.NO.	TYPE	MATERIAL	WIDTH	HEIGHT	NO. Per Floor
01	W1	ALUMINIUM SECTION GLAZING WINDOW	3'-0"	4'-6"	
02	W2	ALUMINIUM SECTION GLAZING WINDOW	1'-6"	1'-6"	
03	W3	ALUMINIUM SECTION GLAZING WINDOW	4'-0"	4'-6"	
04	D1	240-250mm	4'-0"	7'-0"	
05	D2	240-250mm	4'-0"	7'-0"	
06	D3	240-250mm	4'-0"	7'-0"	
07	D4	240-250mm	4'-0"	7'-0"	
08	D5	240-250mm	4'-0"	7'-0"	
09	D6	240-250mm	4'-0"	7'-0"	
10	D7	240-250mm	4'-0"	7'-0"	
11	D8	240-250mm	4'-0"	7'-0"	
12	D9	240-250mm	4'-0"	7'-0"	
13	D10	240-250mm	4'-0"	7'-0"	
14	D11	240-250mm	4'-0"	7'-0"	
15	D12	240-250mm	4'-0"	7'-0"	
16	D13	240-250mm	4'-0"	7'-0"	
17	D14	240-250mm	4'-0"	7'-0"	
18	D15	240-250mm	4'-0"	7'-0"	
19	D16	240-250mm	4'-0"	7'-0"	
20	D17	240-250mm	4'-0"	7'-0"	
21	D18	240-250mm	4'-0"	7'-0"	
22	D19	240-250mm	4'-0"	7'-0"	
23	D20	240-250mm	4'-0"	7'-0"	
24	D21	240-250mm	4'-0"	7'-0"	
25	D22	240-250mm	4'-0"	7'-0"	
26	D23	240-250mm	4'-0"	7'-0"	
27	D24	240-250mm	4'-0"	7'-0"	
28	D25	240-250mm	4'-0"	7'-0"	
29	D26	240-250mm	4'-0"	7'-0"	
30	D27	240-250mm	4'-0"	7'-0"	
31	D28	240-250mm	4'-0"	7'-0"	
32	D29	240-250mm	4'-0"	7'-0"	
33	D30	240-250mm	4'-0"	7'-0"	
34	D31	240-250mm	4'-0"	7'-0"	
35	D32	240-250mm	4'-0"	7'-0"	
36	D33	240-250mm	4'-0"	7'-0"	
37	D34	240-250mm	4'-0"	7'-0"	
38	D35	240-250mm	4'-0"	7'-0"	
39	D36	240-250mm	4'-0"	7'-0"	
40	D37	240-250mm	4'-0"	7'-0"	
41	D38	240-250mm	4'-0"	7'-0"	
42	D39	240-250mm	4'-0"	7'-0"	
43	D40	240-250mm	4'-0"	7'-0"	
44	D41	240-250mm	4'-0"	7'-0"	
45	D42	240-250mm	4'-0"	7'-0"	
46	D43	240-250mm	4'-0"	7'-0"	
47	D44	240-250mm	4'-0"	7'-0"	
48	D45	240-250mm	4'-0"	7'-0"	
49	D46	240-250mm	4'-0"	7'-0"	
50	D47	240-250mm	4'-0"	7'-0"	
51	D48	240-250mm	4'-0"	7'-0"	
52	D49	240-250mm	4'-0"	7'-0"	
53	D50	240-250mm	4'-0"	7'-0"	
54	D51	240-250mm	4'-0"	7'-0"	
55	D52	240-250mm	4'-0"	7'-0"	
56	D53	240-250mm	4'-0"	7'-0"	
57	D54	240-250mm	4'-0"	7'-0"	
58	D55	240-250mm	4'-0"	7'-0"	
59	D56	240-250mm	4'-0"	7'-0"	
60	D57	240-250mm	4'-0"	7'-0"	
61	D58	240-250mm	4'-0"	7'-0"	
62	D59	240-250mm	4'-0"	7'-0"	
63	D60	240-250mm	4'-0"	7'-0"	
64	D61	240-250mm	4'-0"	7'-0"	
65	D62	240-250mm	4'-0"	7'-0"	
66	D63	240-250mm	4'-0"	7'-0"	
67	D64	240-250mm	4'-0"	7'-0"	
68	D65	240-250mm	4'-0"	7'-0"	
69	D66	240-250mm	4'-0"	7'-0"	
70	D67	240-250mm	4'-0"	7'-0"	
71	D68	240-250mm	4'-0"	7'-0"	
72	D69	240-250mm	4'-0"	7'-0"	
73	D70	240-250mm	4'-0"	7'-0"	
74	D71	240-250mm	4'-0"	7'-0"	
75	D72	240-250mm	4'-0"	7'-0"	
76	D73	240-250mm	4'-0"	7'-0"	
77	D74	240-250mm	4'-0"	7'-0"	
78	D75	240-250mm	4'-0"	7'-0"	
79	D76	240-250mm	4'-0"	7'-0"	
80	D77	240-250mm	4'-0"	7'-0"	
81	D78	240-250mm	4'-0"	7'-0"	
82	D79	240-250mm	4'-0"	7'-0"	
83	D80	240-250mm	4'-0"	7'-0"	
84	D81	240-250mm	4'-0"	7'-0"	
85	D82	240-250mm	4'-0"	7'-0"	
86	D83	240-250mm	4'-0"	7'-0"	
87	D84	240-250mm	4'-0"	7'-0"	
88	D85	240-250mm	4'-0"	7'-0"	
89	D86	240-250mm	4'-0"	7'-0"	
90	D87	240-250mm	4'-0"	7'-0"	
91	D88	240-250mm	4'-0"	7'-0"	
92	D89	240-250mm	4'-0"	7'-0"	
93	D90	240-250mm	4'-0"	7'-0"	
94	D91	240-250mm	4'-0"	7'-0"	
95	D92	240-250mm	4'-0"	7'-0"	
96	D93	240-250mm	4'-0"	7'-0"	
97	D94	240-250mm	4'-0"	7'-0"	
98	D95	240-250mm	4'-0"	7'-0"	
99	D96	240-250mm	4'-0"	7'-0"	
100	D97	240-250mm	4'-0"	7'-0"	
101	D98	240-250mm	4'-0"	7'-0"	
102	D99	240-250mm	4'-0"	7'-0"	
103	D100	240-250mm	4'-0"	7'-0"	



Second floor plan

No dimension (length, width, height) of brick wall mentioned in as-built drawing. Also, no information available about false ceiling and floor build up at toilet area. Factory engineer is required to re-survey the whole structure and update the as-built drawings.



Toilet area

Observations: Building-8

Problems Observed

Building-8:

Item 1: Column marginally stressed above normal design limit

Item 2: Floor live load plan doesn't comply with BNBC

Item 3: Missing information in as-built drawing

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Column marginally stressed above normal design limit (Building-8)	Factory Engineer to review design, loads, columns stresses.	(within 6-weeks)
02	Column marginally stressed above normal design limit (Building-8)	Verify in-situ concrete strength (100mm dia. cores from 4 columns) from lower tier of the building.	(within 6-weeks)
03	Column marginally stressed above normal design limit (Building-8)	Produce and actively manage a loading plan for all floor plates within the factory considering floor and column capacity.	(within 6-weeks)
04	Column marginally stressed above normal design limit (Building-8)	Complete implementation of any remedial works.	(within 6-months)
05	Column marginally stressed above normal design limit (Building-8)	Continue to implement loading plan.	(within 6-months)

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Floor live load plan doesn't comply with BNBC (Building-8)	Factory engineer is required to revise the load plan as per BNBC.	(within 6-weeks)
07	Floor live load plan doesn't comply with BNBC (Building-8)	Continue to implement loading plan.	(within 6-months)
08	Missing information in as-built drawing (Building-8)	Factory engineer is required to re-survey the whole structure and update the as-built drawings in compliance with section 1.9.1.2 as per BNBC and submit to RSC for review.	(within 6-weeks)