Pretty Composite Textiles Ltd (extension of S.Suhi Industrial Park Ltd)

Oxford Colours Ltd.

Holding # Hazi Liakot Mir Road, Zamgora, Ashulia, Savar, Dhaka-1349 (Beside Fantasy kingdom).
(23.93475, 90.28995)
26 June 2022

RSC RMG SUSTAINABILITY COUNCIL

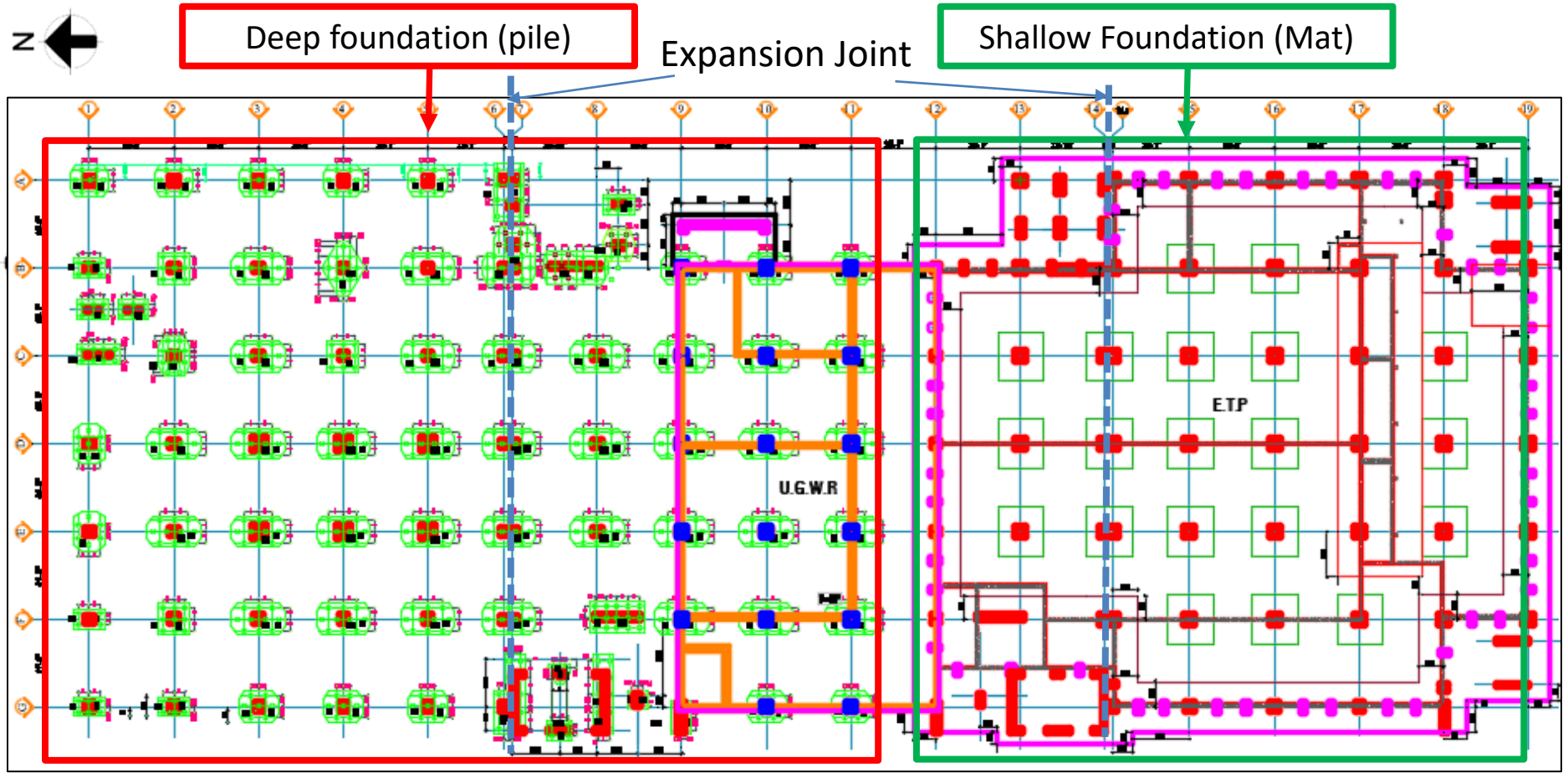
Buildings Information

1. Building-1 (Production Building): (B+G+4)
2. Building-2 (Utility Building-2): (G+1)

Observations

Settlement check for different foundation system

Observations: Building-1 (Production Building)



Foundation Layout Plan

Shallow and Deep foundations are constructed and connected with the beams. Building engineer is required to check the differential settlement issue for the deep and shallow foundation.

Structural System: Building-1 (Production Building)

Live load consideration at storage areas

Observations: Building-1 (Production Building)

Live load plan- 3rd floor (live load considered as 4 kPa and no occupancy type is mentioned)

Live load on 3rd floor is considered as 4 kPa in prepared load plan (occupancy type not mentioned). Storage was found on 3rd floor. As per BNBC live load for light storage areas is required to be considered minimum 6 kPa. However, the factory engineer is required to revise the load plan as per BNBC requirement and review the design accordingly.

৩১১৮ বাংলাদেশ গেজেট, অতিরিক্ত, ফেব্রুয়ারি ১১, ২০২১

Occupancy or Use	Uniform kN/m²	Concentrated kN
Storage areas above ceilings	1.00	--
Storage warehouses (shall be designed for heavier loads if required for anticipated storage)		
Light	6.00	--
Heavy	12.00	--
Stores		
Retail		
First floor	4.80	4.50
Upper floors	3.60	4.50
Wholesale, all floors	6.00	4.50
Vehicle barriers	See Sec 2.3.11	
Walkways and elevated platforms (other than exit ways)	2.90	--
Yards and terraces, pedestrian	4.80	--

Live load table on BNBC

Storage on 3rd floor

Observations: Woven Building

Ongoing vertical extension work

Observation: Building-1 (Production Building)

Structural Design Report of Eight Storied Factory Building of Pretty Industrial Park Ltd.

Development Design and Management

1. INTRODUCTION

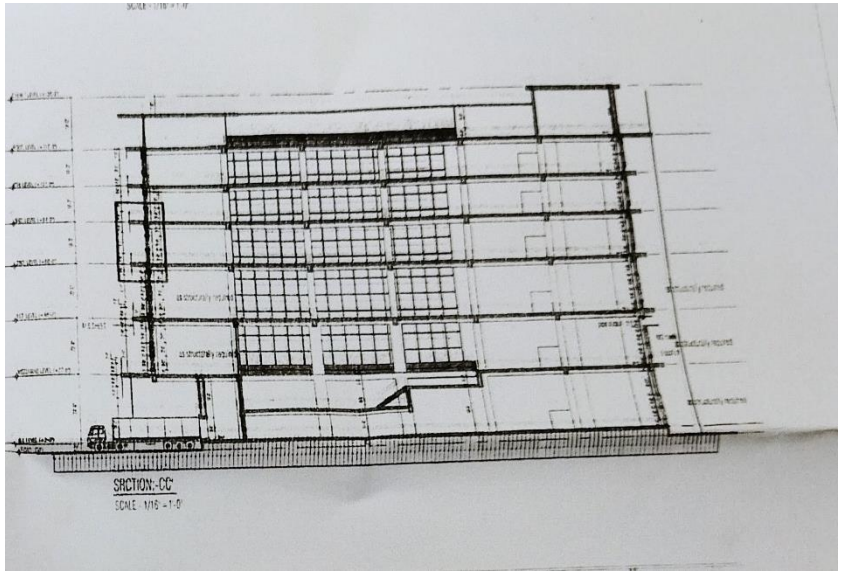
The Pretty Group authorities requested DDM to prepare a structural design for a proposed 08-storied factory building pretty industrial park ltd. at Jamgora, Ashulia, Saver, Dhaka. Bangladesh. DDM planned and prepared the design for the mentioned building as per their requirement following BNBC 2006, ACI Code 318-08, National Tripartite Committee and ACCORD Guidelines.

1.1 Proposed Structure

The proposed 08-storey structure is to be built by RCC with pile foundation. The structure is approximately 511.5 ft by 188.5 ft on the plan and 156.5 ft height. The distance between each column ranges from 13 ft to 31 ft. The structure is a beam-slab structure. A 3D view of the analytical model is provided below:

Building is designed as 8 storied

The building has permit drawing for 6 storied and factory is conducting vertical extension.



Building is permitted for 6 storied from local authority

Building is currently partially 5 storied

Observations: Building-1 (Production Building)

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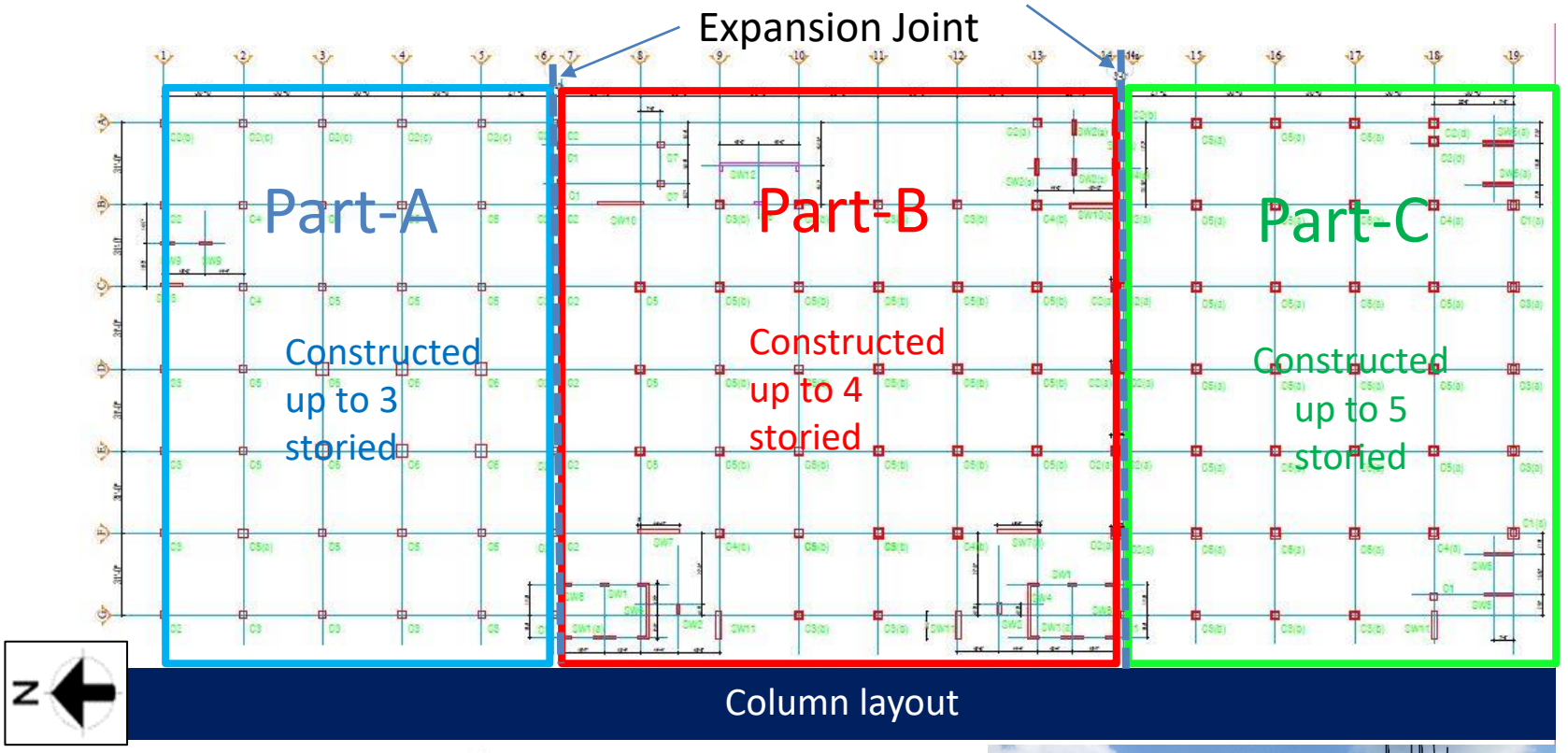

Column layout

COLUMN LAY-OUT PLAN (BELOW GL)

The building has permit drawing for 6 storied and factory is conducting vertical extension at all tree parts. Factory is required to seek approval from local authority before conducting extension above 6 storied. Also, a Detail Engineer Assessment (DEA) is required to completed before the construction above 6-storied.

Ongoing extension work

Observations: Building-1 (Production Building)

Expansion joint filled with rigid material

Observation: Building-1 (Production Building)

Expansion joint filled with rigid material at every floor

Expansion joint was found filled with rigid material which may disturbance of lateral movement during the earthquake. Factory is required to fill the gap with any flexible material suggested by the engineer.

Observation: Building-1 (Production Building)

Possible vehicle impact for column

Observations: Building-1 (Production Building)

No barrier provided for the exposed columns at ground floor

Columns at ground floor are prone to possible vehicle impact. Factory is required to provide barrier for all exposed column at ground floor to prevent from possible vehicle impact.

Observations: Building-1 (Production Building)

Absence of design documents

Observations: Building-2 (Utility Building-2)

Building-2 (Utility Building-2)

As per BNBC, every building or structure designed shall have its design documents prepared in accordance with the provision of Section 1.9.1. The design document shall include a design report, and a set of structural drawings, which shall be prepared in compliance with section 1.9.1.1 and section 1.9.1.2 as per BNBC. At the time of inspection, design report was not available which is required to be prepared in compliance with section 1.9.1 (BNBC).

Observations: Building-2 (Utility Building-2)

Building-1: Stone Aggregate

Building-2: Stone Aggregate

Ferro Scanning

Test Carried Out:

Problems Observed

Building-1 (Production Building):

Item 1: Settlement check for different foundation system

Item 2: Live load consideration at storage areas

Item 3: Ongoing vertical extension work

Item 4: Expansion joint filled with rigid material

Item 5: Possible vehicle impact for column

Building-2 (Utility Building-2):

Item 6: Absence of design documents

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Settlement check for different foundation system (Building-1: Production Building)	Building engineer is required to check the differential settlement issue for the deep and shallow foundation.	6-weeks
02	Settlement check for different foundation system (Building-1: Production Building)	Implement remediation work if required.	6-months
03	Live load consideration at storage areas (Building-1: Production Building)	Factory engineer is required to revise the load plan as per BNBC requirement and review the design accordingly.	6-weeks
04	Live load consideration at storage areas (Building-1: Production Building)	Implement remediation work if required from design review.	6-months
05	Ongoing vertical extension work (Building-1: Production Building)	Ongoing vertical extension work (Building-1: Production Building)	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Ongoing vertical extension work (Building-1: Production Building)	Also, a Detail Engineer Assessment (DEA) is required to completed before the construction above 6-storied.	6-weeks
07	Ongoing vertical extension work (Building-1: Production Building)	Implement remediation work from the DEA.	6-months
08	Expansion joint filled with rigid material (Building-1: Production Building)	Factory is required to fill the gap with any flexible material suggested by the engineer.	6-weeks
09	Possible vehicle impact for column (Building-1: Production Building)	Factory is required to provide barrier for all exposed column at ground floor to prevent from possible vehicle impact.	6-weeks
10	Absence of design documents (Building-2:Utility Building-2)	Factory engineer is required to prepare a design report in compliance with section 1.9.1 (BNBC).	6-weeks
11	Absence of design documents (Building-2:Utility Building-2)	Implement remediation work if required.	6-months