sure of one and one-half tons per square foot established. Concrete spread footings were used for the factory buildings. except the power house, the foundations of which were placed on concrete piles of the mushroom Beam type. girder construction was



LOOKING NORTH-EAST, BUILDING NO. E, OCTOBER 15TH, 1915.

used throughout. All the interior partitions are of hollow tile, the fire walls being of brick.

Square twisted reinforcing steel was used in all walls and floor systems, and round bars with spiral hooking supplied the reinforcing for the columns. The typical base bearing is twenty by twenty-one feet for live floor loads of one hundred and fifty to two hundred pounds. All concrete was of graded crushed stone and cement, the floors and walls being a one to six mix, and the columns a one to four mix. Beam stresses were taken at six hundred and fifty pounds per square inch compression for the concrete, and sixteen hundred pounds per square inch tension on the steel. Every car of cement was tested at the mills by an independent testing company, and each car of reinforcing steel inspected and tested by another company, which tests conformed for the most part to the standard of the American Society for Testing Ma-Test cylinders were taken of the terials. at the mixer at regular interconcrete Test cylinders were required to devals. velop a crushing strength of two thousand

ried on in cold weather, special precautions were taken so that when the temperature fell below twenty-three degrees Fahrenheit, artificial heat was required. The casement sills were placed as a monolith with the ground floor slab. The slabs of the upper floors were wire brushed while the concrete was green. This was found later to be a waste of labor, as all slabs had to be picked for cement or mastic finish. Railroad tracks were run parallel with the various buildings. Bottom dump cars were used for the stone and bottom dump waggons for the sand. All this material was dropped into a hopper, picked up by a bricked hoist, and deposited in an over-head hopper capable of holding four car loads. The material was drawn into measuring hoppers by gravity, and then discharged into a mixer. The mixed concrete was hoisted in half-yard batches and discharged into six feet concrete buggies.

In addition to fire escapes, all buildings have stairways of the stair tower type; in other words, to reach a stairway one has to pass across an open balcony and into a stairway separated by heavy fire walls from the remainder of



MAIN ROOF, BUILDING NO. 3, JULY 20TH, 1915. PLANT OF CANADIAN KODAK CO., LTD.

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