

for the heating season 1914-15:—

Name and No. of Building.	No. of sq. ft. of Radiation.
No. 1—Main	12,936
No. 2—Hall House (in course of construction)	5,000
No. 3—Library	10,829
No. 4—Medical	7,160
No. 5—Biological	8,271
No. 6—Engineering	9,084
No. 7—Thermodynamics	6,114
No. 8—Observatory	783
No. 9—Mining	13,721
No. 10—Chemical	6,595
No. 11—Physics	19,048
No. 12—Convocation Hall	4,880
No. 13—Men's Residences	9,336
No. 14—Household Science	10,137
No. 15—Museum	17,303
No. 16—Wycliffe College	12,371
No. 17—Victoria College	5,028
No. 18—Victoria College (Library)	1,991
No. 19—Annesley Hall	4,274
No. 20—Burwash Hall	4,300
No. 21—Knox College (not completed)	15,000

Total sq. ft. of radiation 196,534

Note: No allowance made for indirect radiation.

Piping Distribution System

The main heating pipe as it leaves the power house is 20 in. dia., and continues of this size to a point west of the Medical Building (4), where it branches north and south in 16 in. mains, and gradually reduces in size towards the end of the line.

All engines, turbines and steam pumps in the power house exhaust into this pipe, but as the lighting and power load is normally small compared with the heating load required, live steam is introduced by passing it through a pressure reducing valve in the usual way. A pressure of from one to 4 lbs. per sq. in. is carried on the main heating pipe at the power house.

The question of expansion and contraction due to change in temperature is an important one in a steam line of this length, and it is taken care of by slip expansion joints, the pipe being severely anchored at the proper points. This form of expansion gives satisfactory service if the pipe is looked after

and kept well in line, otherwise it leaks.

A question of still greater importance than that of expansion is that of con-

densation of steam, as excessive condensation means not only a loss of heat, but also introduces the problem of tak-

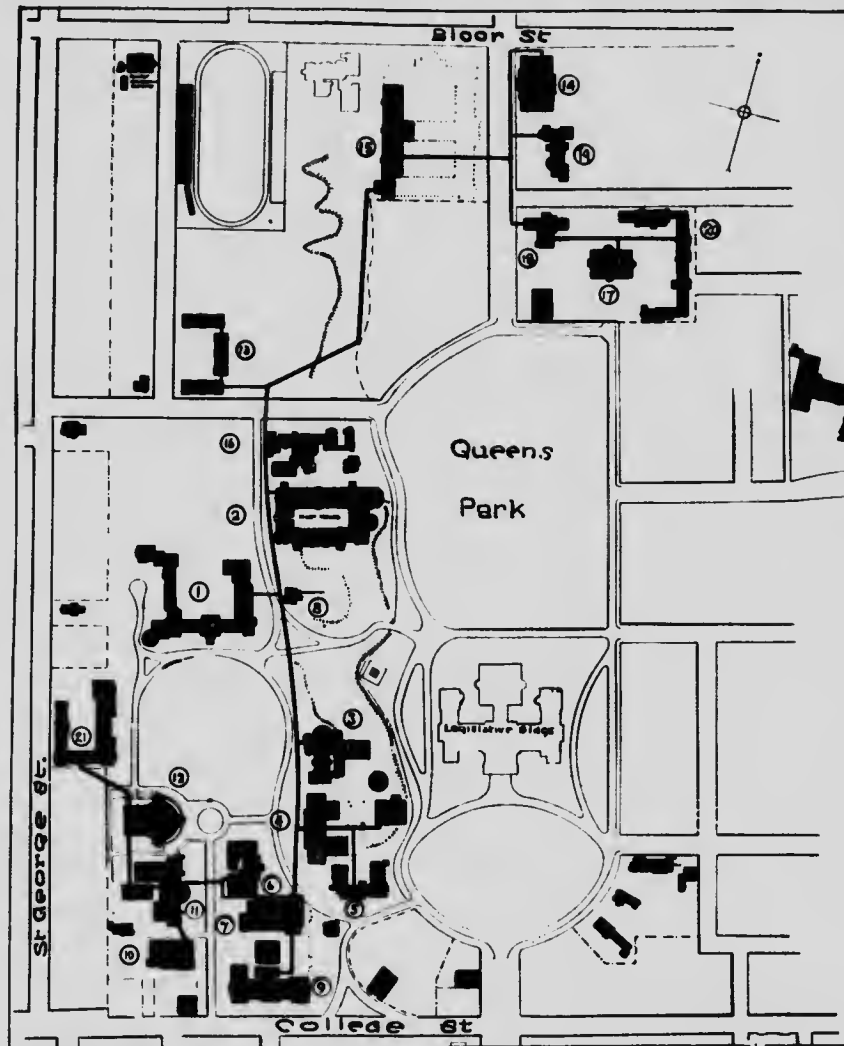


FIG. 5. GROUND PLAN SHOWING LOCATION OF VARIOUS BUILDINGS SERVED BY CENTRAL PLANT.