



BUILDING CODE COMMISSION

IN THE MATTER OF Subsection 24(1) of the *Building Code Act*, S.O. 1992, c. 23, as amended.

AND IN THE MATTER OF Sentence 3.2.9.1.(7) of Regulation 332/12, as amended, (the “Building Code”).

AND IN THE MATTER OF an application by Kingdom North York Project LP, for the resolution of a dispute with Will Johnston, Chief Building Official, to determine whether the proposal not to provide standpipe systems in all the 2-level townhouse units that extend from the third storey to the fourth storey in Blocks A to F in the six, 4 storey blocks of stacked townhouses, which are not connected to each other, provides sufficiency of compliance with Sentence 3.2.9.1.(7) of Division B of the Building Code at 71-75 Curlew Drive, Toronto, Ontario.

APPLICANT	Kun Jiao Chief Executive Officer Kingdom North York Project LP Toronto, Ontario
RESPONDENT	Will Johnston Chief Building Official City of Toronto Toronto, Ontario
PANEL	Stephen Wong, Chair Michael Egberts Leszek Muniak
PLACE	Via video conference
DATE OF HEARING	May 10, 2022
DATE OF RULING	June 7, 2022
APPEARANCES	Aleksander Antoniuk CodeNews Consulting Corporation Toronto, Ontario Agent for the Applicant

Anthony De Francesca
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Ravi Suri
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RULING

1. Particulars of Dispute

The Applicant has applied for a permit under the Building Code Act, 1992, to construct a 222 unit townhouse development at 71-75 Curlew Drive, Toronto, Ontario.

The subject building consists of a single basement level underground garage for bicycles and cars, and located above the garage level, six blocks of stacked townhouses that are not connected to each other. Four of the proposed stacked townhouse blocks will contain 40 dwelling units. One block will contain 24 dwelling units and one block will contain 38 dwelling units. Each building in question will not contain a public corridor. All proposed townhouse units consist of suites that extend through two storeys. The 1st and 2nd storey will be the lower-level townhouse suites and 3rd and 4th storey will be the upper-level townhouse suites. The six 4-storey blocks of stacked townhouses are not connected to each other and are proposed to be treated as separate buildings.

The dispute before the Commission centers on whether the proposal not to install a standpipe system with hose cabinets on the 3rd and 4th level of the stacked two-level townhouse suites, meets the building code requirements for standpipe systems described in Article 3.2.9.1. of Division B of the Building Code.

2. Provisions in Dispute

3.2.9.1. Where Required

- (1) Except as provided in Sentences (4) to (7), a standpipe system shall be installed in every *building* that,
- (a) is more than 3 *storeys* in *building height*,
 - (b) is more than 14 m high measured between *grade* and the ceiling of the top *storey*, or
 - (c) is not more than 14 m high measured between *grade* and the ceiling of the top *storey* but has a *building area* exceeding the area shown in Table 3.2.9.1. for the applicable *building height* if the *building* is not *sprinklered*.

**Table 3.2.9.1.
Building Limits without Standpipe Systems**

Forming Part of Sentence 3.2.9.1.(1)

Column 1 <i>Occupancy Classification</i>	Column 2 <i>Building Area, m²</i>	Column 3	Column 4
	1 <i>Storey</i>	2 <i>Storeys</i>	3 <i>Storeys</i>
A	2 500	2 000	1 500
C	2 000	1 500	1 000
D	4 000	3 000	2 000
F, Division 2	2 000	1 500	1 000
F, Division 3	3 000	2 000	1 000

- (7) A standpipe system is not required to be installed in a *dwelling unit* that,

- (a) extends not more than 3 *storeys* above adjacent ground level,
- (b) is completely cut off from the remainder of the *building* so that there is no access to the remainder of the *building*, and
- (c) has direct access to its interior by means of an exterior doorway located not more than 1 500 mm above or below adjacent finished ground level.

3. Applicant's Position

The Agent for the Applicant ("the Agent") submitted that the project consists of six townhouse blocks, each being considered as a separate building. Each of these buildings will contain two, 2-storey high townhouse units, stacked one on top of the other, for a total building height of 4 storeys.

The Agent explained that even though the building height is 4 storeys, Sentence 3.2.9.1.(7) of the Building Code exempts a standpipe system from being installed since none of the townhouse units extends more than 2 storeys above adjacent ground level. Each unit is completely cut off from the remainder of the building and each unit has direct access to its interior by an exterior doorway not more than 1500 mm above adjacent finished ground level.

The Agent explained that the development and inclusion in the Building Code of the permission in Sentence 3.2.9.1.(7) to waive standpipes in the dwelling unit was intended to decrease the cost of mid-rise residential construction and was not limited to 3 storey buildings.

The Agent further submitted that Sentence 3.2.9.1.(7) was intended to apply to dwelling units that did not extend more than 3 storeys in height, regardless of the number of dwelling units stacked on top of each other, provided that none of the dwelling units occupied more than 3 storeys above adjacent ground level.

The Agent noted that each dwelling unit in this project

- extends only through 2 storeys, when considering those storeys above ground level,
- is completely cut off from the remainder of the building so that there is no access to the remainder of the building, and
- has direct access to the interior by means of an exterior doorway located not more than 1500 mm above or below adjacent finished ground level.

The Agent submitted that fire hydrants are located around the property in compliance with Building Code requirements so that the ability to extend a fire hose directly from a fire hydrant to the upper-level suite is available through the ground level entrance door of each dwelling unit.

Throughout his presentation, the Agent stressed the manner in which the language used in the Building Code is intended to be understood in that the wording "extends more than 3 storeys above adjacent ground level" is not to be understood as "located more than 3 storeys above adjacent ground level". The Agent stated that given the conventions of code writing and wording, Sentence 3.2.9.1.(7) does not address building height. It only addresses the extent of the dwelling unit.

The Agent further explained that standpipe systems equipped with 38 mm hoses are not intended to be used by untrained occupants of a dwelling unit. The standpipe and hose systems installed in buildings are intended for use by trained personnel. The water flows and pressures required for 38mm hose stations can cause injury to untrained occupants attempting to use a fire hose.

4. Respondent's Position

The Designate for the Respondent ("the Designate") stated that the proposed buildings/blocks are more than 3 storeys in building height and are greater than 14 m high measured between grade and the ceiling of the top storey. As such, a standpipe system is required per Sentence 3.2.9.1.(1). In addition, the duplex units proposed on the 3rd and 4th floors do not meet the requirements of Sentence 3.2.9.1.(7) as the units extend more than 3 storeys above adjacent ground level. As such, the proposed design is required to have a standpipe system.

The Designate stated that not installing standpipe systems in the lower dwelling units of the project is not in dispute. In dispute is the absence of standpipe and hose systems installations in the upper dwelling units.

During the hearing, it was clarified that the height between grade and the ceiling of the uppermost storey was 11.5 m. The 14.9 m height noted in the Building Code matrix on the drawings was intended to reflect the height measured from grade to the highest point on the roof.

The Designate was asked questions by the Commission regarding the manner in which the fire department would fight the fire. Since no representative of Toronto Fire Services was present at the hearing, the Designate was unable to answer the question.

Subsequent to the hearing, the Commission requested additional information from the Respondent on May 12, 2022 as follows:

1. Describe how fire fighters would fight fires in the 2-level dwelling units extending from the third storey to the fourth storey where standpipe and hose cabinets are installed.
2. Describe how a standpipe and hose system installed in the 2-level dwelling units in Question 1 would enhance the life safety of the occupants in those units, in the event of a fire, as compared to when the units are not equipped with a standpipe and hose system.
3. In the event of a fire in one of the 2-level dwelling units in Question 1, describe how the presence of a standpipe and hose system in these units would impact the risk to property damage to adjacent or other dwelling units in the same building block and the risk to life safety of the occupants in those other dwelling units.

The Respondent provided the following responses to the Commission on May 24, 2022, and they are summarized as follows:

1. In fighting a fire in a dwelling unit within the scope of the project, fire fighters may or may not connect to the standpipe system and that the presence of a standpipe system within a dwelling unit is of little consequence as it is not likely to be used by fire fighters.
2. Life safety is enhanced when water application times are reduced by using a standpipe system that is properly functioning and an adequate water supply for fire-fighting purposes is provided.
3. Property damage to adjacent units or the fire unit is the same whether stretching a hose from a truck or from a standpipe system, since the water needed to suppress the fire is the same volume.

5. Commission Ruling

It is the decision of the Building Code Commission that the proposal not to provide standpipe systems in all the 2-level townhouse units that extend from the third storey to the fourth storey in Blocks A to F in the six, 4 storey blocks of stacked townhouses, which are not connected to each other, provides sufficiency of compliance with Sentence 3.2.9.1.(7) of Division B of the Building Code at 71-75 Curlew Drive, Toronto, Ontario.

6. Reasons

- i) The Commission heard evidence that the absence of the standpipe system will not adversely affect the spread of fire to the adjacent units or to the remainder of the building.
- ii) The standpipe system is intended for use only by fire fighters trained in its use and operation and should not be operated by untrained occupants of the building.
- iii) Fire hydrants are located around the building complex in compliance with Building Code requirements, and near the entrances to the suites.
- iv) The Commission heard that hoses connected to the fire hydrant would have larger water flow rates than the proposed Class II standpipe system and that fire fighters would likely not use the standpipe systems located within the upper dwelling units.
- v) Firefighters will likely not enter a burning unit without a fire hose in hand. Therefore, the Commission is of the opinion that it is not practical to have a standpipe system located in the townhouse unit as fire fighters would have to enter the fire area in order to gain access to the standpipe system.

Dated at the City of Toronto this **7th** day in the month of **June** in the year **2022** for application number **B-2022-02**.



Stephen Wong, Chair



Michael Egberts



Leszek Muniak