May 11, 2015

Anthony Hood, Chairperson
DC Zoning Commission
Office of Zoning
441 4th Street, N W. – Suite 210
Washington, D C 20001

Re: ZC Case No. 14-13--Additional DCBIA Comments regarding Rooftop Penthouse Text Amendments

Dear Mr. Hood.

During the question-and-answer session at the conclusion of the DCBIA testimony, the undersigned was requested to provide further input on the following two items

1. Additional information on minimum required elevator penthouse heights on buildings in the 50 ft. zones (principally R-5-B and C-2-A), in order to allow rooftop access.

The advertised proposal would limit penthouse heights to 10 ft for buildings in the 50 ft height zones. **An elevator penthouse height of 10 ft., regardless of the type of elevator system used, is not sufficient to allow an elevator to reach the roof level for rooftop access.** Elevator access to a rooftop terrace or other space is required for handicapped accessibility

Our April 30, 2015 letter (Ex 69, pp 1 and 2) explains why an elevator penthouse of at least 18 ft , 6 in. is generally required. The standards of the American Society of Mechanical Engineers (ASME) Section A17.1 require that all elevator penthouses must have sufficient room for a person to be able to stand on top of the elevator cab at the highest elevator stop in the hoistway There must also be a hoist beam and rail above that, plus the elevator machinery that is used

in a MRL "next-gen" traction elevator system, as further described in DCBIA's earlier letter at Ex 69, page 2. For a high-speed elevator in a class-A building of 90 ft or more, with rooftop access and one or more levels of below-grade space, the size of the machinery is such that a penthouse height of at least 18 ft, 6 in is required For a 50 ft. residential or mixed-use residential building, with rooftop access and one or more levels of below-grade space, the MRL "next-gen" traction elevator machinery can be slightly smaller in size, and the cab height may be shorter. Further consultations with architects and developers indicate that, given the variations that may exist among the four elevator manufacturers mentioned in our earlier letter, a minimum elevator penthouse height of at least 16.5 ft. above the level of the roof would be necessary in these instances.

A residential or mixed-use residential building with a height of 50 ft. (typically five stories), which has elevator access to rooftop amenity space, plus one level below grade, requires an elevator run of approximately 70 ft. If there are two below-grade levels, that number would rise to about 80 ft. Hydraulic elevators are efficient for buildings of up to 40 ft An elevator run of 50 ft would be reaching the upper limit of a hydraulic elevator's capability. They are generally not being installed in buildings above 40 ft. for several reasons, including operating difficulties above that height, and the excessive wait time due to the fact that hydraulic elevators are slower than other types of elevators Hydraulic elevators are simply not able to be used in 50 ft buildings that have rooftop elevator access and one or more levels of below-grade space

2. Comments on NCPC letter of April 29, 2015 (Exhibit 65)

We have reviewed the NCPC staff letter and have no additional comments.

Sincerely,

Christopher H. Collins
DCBIA Counsel

CHC/rcf

cc: Jennifer Steingasser, Office of Planning