CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION

c/o Department of Environmental Services
2100 Clarendon Blvd, Suite 705
Arlington, VA 22201

June 26, 2023

Honorable Christian Dorsey, Chair
Arlington County Board
2100 Clarendon Blvd, Suite 300
Arlington, VA 22201

Re: Ballston Holiday Inn (4600 Fairfax Drive)

Dear Chair Dorsey:

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for the Ballston Holiday Inn site (4600 Fairfax Drive). The project is participating in the Green Building Incentive Program for a bonus density of 0.25 FAR but the project falls short of what is necessary to address the climate crisis and Arlington's own climate goals. **Overall, we score this project's contribution to meeting Arlington County's Community Energy Plan (CEP) targets at 60, indicating the project falls below what is required to achieve the County's carbon neutrality and other sustainability goals.** Please reference the Appendix for further detail on how C2E2 has assessed this project.

The success of Arlington's CEP depends, in large measure, on the County's resolve in ensuring that all buildings are at least zero carbon-ready. In practical terms, that means four things for every new and renovated building: make it highly efficient; make it electric; make the electricity renewable; and minimize its total carbon footprint through selection of low carbon materials and responsible management of construction debris. The Applicant's energy model acknowledges the eventual need for full electrification and identifies options to achieve a highly efficient and all electric building design, which C2E2 encourages them to continue to pursue.

Green Building Certification and Carbon Reduction:

The project is targeting a LEED V.4 Gold rating, but to achieve the County's stated CEP targets, **C2E2 recommends that developers be required to explore options to achieve Zero Carbon Certification**. A Zero Carbon Feasibility study could identify a pathway to zero carbon emissions in operations and reduce embodied carbon in materials and resources used. We recommend that the Applicant seek out expertise from organizations such as the Building Decarbonization Coalition, the International Future Living Institute, or the New Building Institute to explore how to achieve these goals.

Energy Efficiency:

The LEED scorecard for this project indicates a commitment to meet the GBI minimum improvement in energy efficiency of 20 percent over the ASHRAE baseline and to achieve an Energy Star rating of 75. **Consistent with the recommendation above, C2E2 urges the Applicant to identify and adopt additional**

options capable of achieving energy efficiency performance of 25% or greater compared to the baseline case.

Electrification of Systems:

The Energy Performance Analysis submitted by the Applicant indicates that the townhouse units will be relying on electric energy for HVAC, most appliances and water heating. We are disappointed that the Applicant is considering gas ranges for cooking. Recent press reporting of the health impacts for households cooking with gas has heightened general awareness for these dangers. **We urge the Applicant to opt for all-electric cooking appliances.** Induction cooking is becoming more popular and available, and we suggest that the Applicant consider offering this alternative. We also encourage the Applicant to continue pursuing heat pump dryers over electric resistance dryers to further increase energy savings for the owners.

The larger multi-family building (Unit 1) will be relying on electric energy for HVAC and appliances, but not for water heating. The latest version of the Applicant's Energy Performance Analysis indicates that heat pump options "would yield reduced site energy, source energy, and greenhouse gas emissions both short and long term," and that the Applicant is still evaluating the feasibility of this option. **C2E2 strongly supports the Applicant's effort to move toward electrification, and urges the Applicant to pursue this approach for water heating in Unit 1.** Once Arlington achieves its goal of renewable sources for electricity use by 2035, an all-electric building would operate with zero greenhouse gas emissions.

Electric Vehicle Charging:

The Applicant has indicated that the project will have EV chargers installed in 4% of parking spots with another 15% of parking spots ready for future EV chargers. **The C2E2 strongly recommends that all projects that come to the SPRC for consideration at this time strive for 50% of parking spots to be EV ready. In addition, all of the units in the triplexes which will have garages should be wired for installation of EV chargers.** This will help meet future demand for a full transition to electric vehicles and avoid the need for much more expensive retrofitting later. The Applicant should consider 'smart charging' technology to maximize the number of vehicles that can be charged while reducing demands on the electrical capacity available at site.

Renewable Energy:

The Applicant is exploring the potential for adding rooftop solar to meet the GBIP requirement for renewable energy, and we encourage them to opt for this approach and maximize the solar potential. Even though such arrays will meet only a portion of the electricity needs of the complex, they send a strong message of long-term commitment to supporting the transition to renewable energy.

Stormwater Management:

In the later stages of SPRC review, the Applicant indicated that it will undertake stormwater management measures to reduce surface runoff from its site to neighboring property and to the County's stormwater system for Lubber Run, one of the County's high-priority watersheds for potential flooding. These measures include a retention system, a green roof linked to bioretention planters, and replacement of an existing County pipe with a larger pipe which will reduce the risk of neighborhood runoff. While the Applicant's commitment to these measures is a positive step, the Applicant has not

clarified how much stormwater would be detained or retained on-site as a result of these measures, in comparison to the stormwater inundation expected from a significant storm (e.g., the 10-year or 100-year storm, as used by the County's stormwater program.) **C2E2 recommends that the Applicant work with experts in the County's stormwater program to prepare, and share with the public, a statement regarding the portion of water from a significant storm that will be retained or detained by the planned stormwater measures.** The environmental results achieved by the Applicant's actions should be explained clearly to the public.

The latest report just released in March by the Intergovernmental Panel on Climate Change (IPCC) emphasizes the dire need for action to save our planet. The world is facing a catastrophic climate crisis that requires immediate action by individuals, governments, and businesses to avoid the worst consequences, and all future development needs to align to these goals. We urge the County to ask the Applicant to move into the forefront with this project by offering an all-electric, highly energy efficient building.

Sincerely,

Joan McIntyre
Chair, Climate Change, Energy and Environment Commission

CC: Devanshi Patel. Chair, Planning Commission
James Lantelme, SPRC Chair
Anthony Fusarelli, CPHD Director
Adam Watson, CPHD Staff

C2E2 SPRC CHECKLIST

PROJECT NAME: 4600 Fairfax Drive (Ballston Holiday Inn) **Overall Score**

COMMISSIONER REVIEWING: Joan McIntyre/Mark Greenwood **60%**

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	4600 Fairfax Drive (Ballston Holiday Inn) (Evaluation)	Recommendation / Comments	Assessment
Green Building Certification and Carbon Reduction					44%
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible			Meets
Zero Carbon*	Evaluate feasibility of Zero Carbon certification (ILFI)	Zero Carbon Certification (ILFI)--(GBI .7 FAR level)		No information	Falls short
Building materials	Meet the criteria that would earn the project at least two (2) points for LEED version 4.1 MR credit Building Life Cycle Impact Reduction.	Score at least ten (10) overall for LEED vesion 4.1 Materials and Resources.		No documentation for 4.1 MR credit	Falls short
Energy Efficiency					67%
Energy Optimization	Commercial: Min. 10% (20%) improvement LEED v 4.1 (v 4) Multi-Family: HERS Index of 65 also permissible	Commercial: Min. 20% improvement from LEED v4.1 Multi-family: HERS Index of 50 also permissible			Meets
AIRE GBI required narrative	Provide narrative on Energy Efficiency	Make available on SPRC website			Meets
Energy Star Certification	Must meet Energy Star 75 within 4 years	Meet highest possible GBI standard (differs by FAR level)		Energy Star Score at or above 80	Meets
Energy Benchmarking	Install energy meters or monitoring devices	Meet GBI Extra on Advanced Energy Metering			Meets

Electrification					58%
Building's Electrical Capacity	Electrical infrastructure allows for GBI baseline	Electrical infrastructure allows for 100% electrification			Meets
Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		Townhouses are all-electric; gas heat for multi-family building	Falls short
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		All-electric for townhouses and multi-family building	Exceeds
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.		Gas stoves in townhouses; Multi-family building to have electric appliances, although Applicant still evaluating induction ranges	Falls short
Electric Vehicle Infrastructure					67%
Electric Vehicle Charging	4% of parking spots have EV charging	10% of parking spots have EV charging			Meets
	15% of parking spots are EV-ready	50% of parking spots are EV-ready			Meets
Electricity from Renewable Sources					50%
Renewable Energy	2W/ft2 onsite solar or equivalent	On-site and/or off-site for 50% of annual load		Onsite or offsite solar obligation is prerequisite in GBI; will need to be met	Meets
Battery Energy Storage*	Battery Energy Storage ready	Battery Energy Storage as backup generation		No information	Falls short

Environmental Sustainability					73%
Biophilia / Open Space	Provide narrative addressing listed issues	Create a sense of natural environment, habitats. Keep mature trees, tree canopy, native plants, etc			Meets
Storm Water Management	Meet Virginia building code	Seek use of pervious materials; offset storm water with green roof, bio-retention or manufactured treatment device			Exceeds
Bird-friendly Material	Must minimize bird strikes by meeting GBI criteria	GBI criteria plus ground floor bird-friendly material			Meets
Light Pollution Reduction	Meet light pollution reduction in GBI	Dark Sky-approved "Friendly Fixture" certification			Meets
Water Use	WaterSense label for all toilets, bathroom faucets, and showerheads installed in residential and hotel units	In addition to Meets, must not use potable water for irrigation.			Meets
Social Equity					67%
Diversity, Equity and Inclusion	1. One company on development team with DEI program 2. LEED Social Equity Checklist completed	1. Development team presents and discusses LEED Social Equity Checklist to SPRC and AIRE 2. Develop project specific DEI plan			Meets

C2E2 Baseline Requirements