

CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION

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

September 28, 2023

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

Re: Sunrise South Glebe (716 S. Glebe Rd.)

Dear Chair Dorsey:

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for the Sunrise South Glebe (716 S. Glebe Rd) and recommends this project **not** be approved as currently proposed. The project is **not** participating in the Green Building Incentive Program – which we understand is voluntary but represents the absolute minimum in sustainability best practice – and does not meet the basic site plan condition of achieving 20 percent energy efficiency gains over the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) baseline as called for in Appendix 4 of the [Green Building Incentive Policy 2020 Update](#). **Overall, we score this project's contribution to meeting Arlington County's Community Energy Plan (CEP) targets at 39 percent – the lowest we've ever given – indicating the project falls far 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 project falls short on all key criteria, as outlined below:

- The project is striving for LEED Silver, a fairly low bar to meet, with current building practices, and the Applicant has made no effort to conduct a zero-carbon assessment to identify a pathway to zero carbon emissions and reduced embodied materials.
- The Applicant is committing to energy efficiency gains of only 16 percent over the ASHRAE baseline, although it says it will attempt to achieve 20 percent. The Applicant has not provided any energy performance modeling to demonstrate which options may have been considered to improve energy efficiency. C2E2 recommends that all projects strive for a minimum of 25 percent energy efficiency gains over baseline.
- Key HVAC, hot water, and cooking systems and appliances will be fueled by fossil gas although HVAC will include an efficient Variable Refrigerant Flow (VRF) heating and cooling system and a hybrid ventilation system with gas for auxiliary heating. The Applicant has not apparently considered a pathway to an all-electric building.

- The Applicant is planning for 5 percent of parking spaces to have EV chargers with no apparent plans for additional spaces to be EV-ready and has no plans for onsite solar panels or off-site renewable energy.

While we recognize that the overall footprint of the building and impervious surfaces will decrease with this project – which is of course positive - the project offers only mediocre plans for other sustainability elements that would help reduce urban heat island impact, give residents closer connections to nature, and manage stormwater runoff.

- The proposed surface parking adds considerably to the overall impervious surface of the site. A parking garage could reduce the overall footprint and open up more space for natural plantings, tree canopy coverage, and outdoor areas for residents. The Applicant could also consider adding solar panels to its parking area to meet at least some of its energy needs and provide more energy resiliency to the facility
- The landscaping plan relies heavily on grass and low-level plantings with only limited tree canopy coverage, which will become increasingly important if residents are to enjoy the outdoors as temperatures increase.
- The project will meet only mandatory requirements to capture stormwater before releasing it to the County’s stormwater system, foregoing any LEED points to capture and retain stormwater for a minimum 80th percentile storm.
- While it will pursue light pollution reduction, the project will not install bird-friendly glass, citing that glass options were costly and may be disorienting to seniors.

C2E2 greatly appreciates the willingness of the Applicant’s team to meet with two of our Commissioners reviewing this project to discuss their approach to environmental sustainability, particularly for energy efficiency and electrification. The primary rationale for relying on gas systems is to ensure continued operations for the benefit of seniors with medical needs during an emergency event resulting in a power outage, with fossil gas providing some energy needs and reducing demands on emergency generators. We completely understand the importance of maintaining operations under these conditions. Experts in senior housing design, however, have pointed out that net zero energy senior facilities, consisting of high-performance building envelopes, heat pumps or other efficient electric systems, and onsite solar are most resilient during an extreme climate event. According to one [article](#):

“When factoring in the number of potential extreme climate events, the total cost of owning and operating senior living communities that are net zero will be exponentially lower because these approaches create a more resilient building and positively impact risk avoidance for responding to climate events. For example, if a community has better building envelope performance, the temperature in the building changes at a slower rate during a power outage or an extreme heat wave. This not only puts less environmental stress on residents and staff, it also lessens the stress on the building’s systems to maintain occupant comfort.”

Last year, the City of Seattle completed [the first assisted living community](#) built to the green building standards for the Living Building Challenge Petal Certification and designed to be emission free and energy efficient, using solar power and rainwater. While meeting this level of excellence requires a shift in design and construction of senior living facilities (as well as other

building types), the Applicant can do much better in offering a design that will meet Arlington's climate goals and ensure resilient and healthy conditions for its residents.

We understand the special needs of assisted living facilities but believe there are design and construction alternatives that meet both these needs and climate priorities. The latest report 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 require the Applicant to improve its commitment to sustainability by addressing the shortfalls in the checklist below before approving this project.

Sincerely,

A handwritten signature in black ink that reads "Joan J. McIntyre". The signature is written in a cursive, flowing style.

Joan McIntyre

Chair, Climate Change, Energy and Environment Commission

CC: Devanshi Patel, Chair, Planning Commission and

Leo Sarli, Chair, SPRC

Anthony Fusarelli, CPHD Director

Kevin Lam, CPHD Staff

C2E2 SPRC CHECKLIST

PROJECT NAME: 716 S. Glebe Rd.--Sunrise

Overall Score

COMMISSIONER

REVIEWING: Joan McIntyre

39%

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	716 S. Glebe Rd.-- Sunrise (Evaluation)	Recommendation / Comments	Assessment
Green Building Certification and Carbon Reduction					33%
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible		LEED Silver--not participating in the GBIP	Falls short
Zero Carbon*	Evaluate feasibility of Zero Carbon certification (ILFI)	Zero Carbon Certification (ILFI)-- (GBI .7 FAR level)			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 version 4.1 Materials and Resources.			Falls short
Energy Efficiency					33%
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		16% target	Falls short
AIRE GBI required narrative	Provide narrative on Energy Efficiency	Make available on SPRC website			Falls short
Energy Star Certification	Must meet Energy Star 75 within 4 years	Meet highest possible GBI standard (differs by FAR level)		Will participate in the Energy Star program but no details on target	Falls short
Energy Benchmarking	Install energy meters or monitoring devices	Meet GBI Extra on Advanced Energy Metering		Not really clear other than Energy Star participation requirements	Falls short
Electrification					33%

Building's Electrical Capacity	Electrical infrastructure allows for GBI baseline	Electrical infrastructure allows for 100% electrification		no discussion	Falls short
Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		gas system planned	Falls short
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		gas system planned	Falls short
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.		Gas stoves planned	Falls short
Electric Vehicle Infrastructure					50%
Electric Vehicle Charging	4% of parking spots have EV charging	10% of parking spots have EV charging		5% of spaces will have EV chargers	Meets
	15% of parking spots are EV-ready	50% of parking spots are EV-ready		No plans mentioned	Falls short
Electricity from Renewable Sources					33%
Renewable Energy	2W/ft ² onsite solar or equivalent	On-site and/or off-site for 50% of annual load			Falls short
Battery Energy Storage*	Battery Energy Storage ready	Battery Energy Storage as backup generation			Falls short
Environmental Sustainability					60%
Biophilia / Open Space	Provide narrative addressing listed issues	Create a sense of natural environment, habitats. Keep mature trees, tree canopy, native plants, etc		Privdes overview of biophilic elements incorporated into the project	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		No plans for LEED rainwater management points to retain stormwater at the minimum 80th percentile storm	Meets
Bird-friendly Material	Must minimize bird strikes by meeting GBI criteria	GBI criteria plus ground floor bird-friendly material			Falls short
Light Pollution Reduction	Meet light pollution reduction in GBI	Dark Sky-approved "Friendly Fixture" certification		Plans some light pollution reduction measures	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					33%
Diversity, Equity and Inclusion	<ol style="list-style-type: none"> One company on development team with DEI program LEED Social Equity Checklist completed 	<ol style="list-style-type: none"> Development team presents and discusses LEED Social Equity Checklist to SPRC and AIRE Develop project specific DEI plan 			Falls short

***C2E2 Baseline Requirements**