



## **ENVIRONMENTAL SUSTAINABILITY GUIDING PRINCIPLES**

In recognition of the City’s declaration of a climate emergency (RESOLUTION 19-023), the Developer and the City have agreed to the following Sustainability Guiding Principles for the Aggie Research Campus (“Project”). These Guiding Principles are a means for mandating, implementing and maintaining Project features that are designed to address and mitigate identified environmental concerns, including but not limited to impacts to global climate change, and to ensure sustainability for the life of the project.

### **Measurement and Verification**

Critical to the success of the Aggie Research Campus is its ability to demonstrate continuous advancements in site sustainability during buildout and into campus operations. Many of the Sustainability Guiding Principles are designed to gradually increase site sustainability and further reduce Project impacts over time, such as improved air quality, reduced carbon emissions, greater electrical efficiency and reduced single-occupancy vehicle travel. These Guiding Principles will work in tandem with Project mitigation measures to reduce Project-related environmental impacts. To ensure accurate tracking and reporting, Developer will establish a Master Owners Association which reports to the City and is responsible for measurement, verification and assuring compliance with Project sustainability obligations and mitigation measures.

### **Building Standards**

The Project shall meet and exceed Title 24, Cal Green Tier 1 and will utilize the City of Davis’ Residential Energy Reach Code standards.

### **Energy Efficiency and Usage**

The Developer is committed to maximizing clean energy production onsite and to implementing a program within the Project to ensure that all structures consume 100 percent renewable electricity. In furtherance of this pledge, the Developer commits as follows:

- To maximize and optimize onsite solar energy generation (and future clean energy use) by mandating photovoltaics on every conducive structure and in parking areas.
- Project will enter into a purchase and sale agreement with Valley Clean Energy (or another electric utility company) to which it will sell, and through which it will distribute, all electricity generated onsite. This arrangement will ensure that all power generated onsite which is not used onsite is utilized locally.
- All onsite residential units will be all-electric.
- To achieve a Project that is fueled by 100% clean energy, Developer commits all structures, residential and non-residential, to purchase power from solely renewable sources such as Valley Clean Energy’s “UltraGreen” 100% renewable program or its equivalent, to offset any electric deficit.
- Achieve net zero for outdoor lighting.

- In anticipation of improved solar-connected energy storage, the Project will be designed and pre-wired for future microgrid capacity and energy storage.

### **Transportation Demand Management Plan**

The Project shall implement a Transportation Demand Management Plan (TDM plan) with measurable results to quantitatively shift away from single occupancy vehicle (SOV) use and incentivize a mode shift to bicycling, public transit, private transit, or car pool and to determine which traffic mitigations are needed at each phase of Project development. Prior to, or concurrent with, adoption of Final Planned Development, Developer shall finalize a TDM plan acceptable to the City which shall include, in part, the following:

- Prior to the commencement of construction of each phase, a traffic study shall be prepared which measures in- and out-flow from the Project and identifies traffic patterns. This analysis will be shared with the City to determine which traffic mitigation measures are necessary to accommodate each phase of development. This will also serve to inform the City on mode share and to trigger the need for increased transit services.
- The Project shall be designed to accommodate internal, local and regional transit. It will include a centralized transit plaza that will serve as the hub for a variety of mode shares.
- At Phase 1, Developer will implement an electric shuttle service running weekdays from the AM to PM peaks, connecting the ARC to UCD and the Amtrak station.
- Developer will participate in and support Caltrans led efforts to add HOV lanes on I-80 from West Sacramento to Davis.
- Developer will continue its relationship with Yolobus and Unitrans, both of which have bus service contiguous to the site, to increase the frequency and capacity of bus service as the Project develops. Prior to the commencement of Phase 3, Developer will petition to reroute Unitrans and Yolobus service into and through the Project site. The transit plaza shall be designed with specifications to accommodate local and regional bus service.

### **Parking Lots and Internal Streets**

To further incentivize a mode shift to bicycling, public transit, private transit, or car pool and to reduce the heat island effect, as well as visual and aesthetic impacts, Developer shall implement the following features in its parking areas and/or along the Project's internal roadway system:

- All streets and surface-level parking shall utilize low-impact development (LID) features such as bioswales to capture and filter runoff and to maximize groundwater recharge. Piping of runoff will be discouraged and only utilized when necessary.
- All parking surfaces or street-adjacent sidewalks utilizing tree shading shall use structured soil or suspended substrate to allow successful tree root development. Developer shall size pavement treatment area to accommodate the tree varietal's intended tree size.
- Landscaping shall provide 80% shading of pedestrian walkways and off-street Class I bike paths. 50% parking lot shading shall be achieved through either shade trees or photovoltaic arrays. These requirements shall be demonstrated at building permit for PV or shall be achieved within 15 years of planting for areas shaded by trees. Failure to meet shading requirements shall be considered a code violation and subject to penalty until remedied.
- Parking preference and priority will be given to high occupancy vehicles (HOV) and electric vehicles (EV). Not including handicap parking, only HOV and EV parking shall

be allowed adjacent to buildings. All stalls designated for EV will have charging stations pre-installed.

- All commercial parking areas will be designed with infrastructure to gradually phase-in the installation of EV charging stations as demand grows.
- All housing shall include one Level 2 EV charger per unit or, if a multifamily building is parked at a ratio of less than 1:1, one Level 2 EV charger per parking stall. Townhomes, if built to accommodate two vehicles, will be prewired to allow for the installation of a second charger.

### **Landscaping and Water Conservation**

To reduce Project demand on groundwater and potable water the Developer commits to the following measures:

- Native and drought tolerant plants shall predominate the plant pallet. A diversity of native habitats shall be disbursed and managed throughout the site, primarily within the agricultural buffer and along the channel, including but not limited to riparian and California oak savanna.
- Turf will be strongly discouraged and utilized only in areas programmed for activities such as the Oval.
- Developer shall engage with the Center for Land Based Learning, the Davis Arboretum, or other local expert to design and manage its open and landscaped buffer areas. Landscape plans will be subject to City review including the Open Space and Habitat Commission and the Tree Commission.
- Developer will install recycled “purple pipe” infrastructure which will convey non-potable water for use in all landscaping. Developer will convert this system to reclaimed water if and when such service is made available.
- All runoff will be captured, conveyed and detained onsite in a series of bioswales intended to filtrate and clean the run-off and maximize groundwater recharge.

### **Housing**

Housing at ARC is included to maximize the environmental benefits of mixed-use development. The inclusion of housing and an overall complementary mix of uses reduces the number and distance of project-related vehicular trips, encourages walking and bicycle trips, reduces air quality impacts and reduces the overall carbon footprint of the project. To further increase the sustainability benefits of onsite housing, the Developer commits as follows:

- Housing will be medium- and high-density with a range of 15-50 units per acre. No single-family detached housing will be permitted.
- Housing will be designed to meet the housing needs of the workforce and will not resemble student-oriented housing found elsewhere in the City. No unit will be greater than three bedrooms. Rental apartments will not exceed two bedrooms.
- Housing construction will be directly linked to the development of commercial space at a ratio of one home per 2,000 square feet of nonresidential space. This linkage will correlate the availability of housing with the creation of jobs which will maximize ARC employee occupancy of the housing.
- Housing will be all-electric and utilize the Residential Energy Reach Code.

- Multifamily rental units shall be charged separately for parking so that any resident may have the option of renting car-free housing.

### **Mitigation Measures**

The project shall comply with Mitigation Measures identified in the Approved Mitigation Monitoring Reporting Plan.