

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**  
Department of Energy and Environment



**MEMORANDUM**

**TO:** District of Columbia Zoning Commission

**FROM:** Jay Wilson, DOEE  
Green Building Program Analyst

**DATE:** November 18, 2016

**SUBJECT:** ZC CASE NO. 16-02, Consolidated Planned Unit Development (PUD), DC Stadium LLC (Square 603S, Lot 800; Square 605, Lots 7 and 802; Square 607, Lot 13; Square 661, part of Lots 804 and 805; and Square 665, Lot 25)

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The Department of Energy and Environment (DOEE) reviews planned unit development applications for environmental issues that the applicant should be aware of during early stages of planning, as well as to identify opportunities for increasing environmental and urban sustainability benefits during development.

DOEE does not have comments to the applicant's height or setback requests. Rather, the comments contained herein address issues that the applicant should be made aware of in the early stages of design and entitlement. The items mentioned below are by no means comprehensive, but are a summary of specific items related to the site in question and some common issues that come up with many development projects. DOEE is always interested in meeting with developers and construction companies early in the development process in order to identify opportunities and to help avoid future regulatory problems.

DOEE has participated in regular interagency meetings with the DC United Stadium design and development team over the last few months and notes significant progress and improvement in the design and their commitment to the environment. **DOEE recommends support and approval of the PUD Application 16-02 for the DC United Stadium with the following recommendations and conditions.**

### **Green Building & Renewable Energy**

The applicant has committed to a LEED for New Construction version 2009 Gold level certification. DOEE supports the prioritization of this goal along with their approach to integrated design through construction. If the applicant were looking to increase their commitment to sustainability, the most significant gains would be in the areas of energy efficiency and incorporation of additional on-site renewable energy generation; both of which are a priority for the District.

Per the District's Sustainable DC Plan and the recently released draft Clean Energy DC Plan, a critical goal is to increase the use of renewable energy to make up 50% of the District's energy use. As this is a major priority of the administration, legislation recently passed that increases the Renewable Portfolio Standard (RPS) to 50% through 2032 and requires a solar carve out of 5%. This bill also increases the allowable grid connected solar array to 15MW. For the business and development community, the ramification of this legislature is that DC has the best financials for solar energy in the country.

While incorporation of solar panels in the visible locations like the entry canopies is strongly supported, an opportunity exists to incorporate significantly more solar on the canopies above seating areas. The project is encouraged to incorporate the additional solar energy generation and continue investigating additional opportunities to incorporate solar electricity or other on-site renewables to help the District meet our goals.

There are a number of ways that property owners can finance or install solar power for little or no upfront cost and significant return on their investment. A power purchase agreement (PPA) may be executed for leased solar panels and zero up-front cost. Solar panels and other renewable energy technology can be financed by the DC PACE program and we are aware that DC United is investigating this option. Given the strong financial market for solar, the typical return on investment in the District is between two and five years. Through the District's Community Solar program, the energy generated can be net-metered and the residents or commercial tenants can "subscribe" into the system providing mutual benefit for both the property owner and residents.

### **Stormwater Management**

DOEE would like to acknowledge that the layout and function of the public plaza and park along Potomac Avenue to the northeast of the site is significantly improved upon earlier design concepts. In addition, the pocket parks are a good addition to the design. DOEE encourages further development of this concept using native and adaptive plant species that would reinforce the landscaping proposed as part of the Riverwalk Trail in

both areas and that these landscape areas also function as bioretention areas to filter and retain stormwater runoff.

DOEE also recommends that the project maximize opportunities to capture street runoff including engineered tree pits, bioretention facilities with curb cuts for roadway runoff, and permeable pavement. Given that this site has historic evidence of contamination, care should be taken as the design progresses to control infiltration to tested areas that show that they have either been remediated or not contaminated. In addition, DOEE recommends that the project consider rainwater harvesting for water reuse within the building, especially for non-potable uses within the ground level community or commercial space and for irrigation.

DOEE encourages an integrated system such as collection of stormwater rooftop runoff to irrigate the exterior green open space. Further details to manage stormwater on-site can be discussed in a pre-development meeting and DOEE will continue to work with the applicant throughout the design process to meet the specific regulatory requirements for stormwater retention and management.

### **Air Quality**

The reduction of on-site parking and coordination with existing parking facilities in the area may encourage use of public transit, reduce personal vehicle use and reduce greenhouse gas contributions from transportation, and is a positive attribute of the project from an air quality perspective. If air pollutant-emitting equipment (including, but not limited to, boilers and stationary generators) are installed an air quality permit to construct the equipment will be needed before they begin installation. Fuel cell and other multipurpose generation are encouraged in lieu of single purpose natural gas or diesel emergency generators.

Regarding dust and odor control, a separately submitted “Dust and Odor Control Plan” contained more commitments than this submission. DOEE is expecting the applicant to comply with that more thorough submission.

Note, that this submission has not been fully vetted or reviewed for regulatory compliance. The DOEE Air Quality Division will continue to work with the applicant through the permitting and regulatory process.

### **Resilience and Flood Preparedness**

This fall, DOEE launched two important initiatives: the Climate Ready DC Plan and Clean Energy DC, which set a strategic vision for climate resilience, greenhouse gas reduction, energy independence, and aim to create a paradigm shift toward more sustainable development. In concurrence with these efforts, we recommend that large community serving development initiatives; especially those close to flood hazard zones, such as the DC United Stadium consider the future impacts of climate change and design with that in mind.

The southern and western edge of site may intersect FEMA's 500-yr floodplain. The design team may consider elevating structure or using flood resistant materials up to the 500-yr elevation (14.0' NAVD88). At a minimum, FEMA's 100-yr flood elevation is 10.55' NAVD88 at this location. DC requires a 1.5-foot factor of safety for new construction, which means the minimum elevation for any enclosed portions of the structure should be at or above 12.05' NAVD88.

As detailed above, utilizing solar and other renewable energy technology that would allow the project to supply energy to the surrounding neighborhood when not in use would contribute toward neighborhood resilience and is also encouraged.

All projects are urged to take advantage of the strong financials for solar power in DC (two and a half- to five-year return on investment), the DC PACE program, and/or our Stormwater Retention Credit Trading program to decrease first cost and maximize operational savings. DOEE is glad to be a technical resource as the project continues forward.