

2616 Western – Design Proposal (11-17-20) (R. Gammon Review_ rev b)

Primary Observations and Comments – It is not clear that the Living Building Challenge (LBC) or the LBC Pilot programs, specifically those associated with electrical power source, should be applied or utilized for any high-rise residential buildings in the Seattle downtown or Belltown areas. It is not feasible that any significant on-site electrical power generation capability can ever be realized for any high-rise residential building on a typical **high rise** building occupying $\frac{1}{4}$ of a city block. A preliminary estimate is that on-site electrical power could only supply 5-15 apartments in the proposed 2616 Western Ave project (**approx. 186 apartments**).

Evidence of this assertion follows: A recent Seattle Times article described the **Horn Rapids** project in Richland, WA as follows: 20 acres of solar panels (11,400 panels), 4 MW (**direct current**) capability, power for 600 homes, and battery storage capability for power to 150 homes for 4 hours. The solar array (also known as photovoltaic panels) capability (**for this project**) is only a very small fraction of the Richland project capability. These estimates for the 2616 Western Ave capability can be checked with mathematical models and simulations, if not already completed.

The LBC Pilot program is allowed to use off-site electrical power sources and apply electrical power use efficiencies to minimize electrical power demands. The LBC program requires more on-site electrical power generation (but as outlined above, probably would not provide a significant capability).

Recommendation: Modify the LBC Pilot electrical power applicability, specifically for the 2616 Western Ave project. Eliminate the height bonus of an additional 25 feet. This will minimize some of the angst from neighboring dwellings, and perhaps lower the cost and the complaints to the Developer, SDIC, and the City.

Detail Comments:

p7 – Zoning Summary – Additional Height

23.40.060 Living Building Pilot Program (Table A – 25 ft additional height); and 23.49.008 Structure Height (additional 10 ft height) for a minimum of 10 dwelling units with minimum of 900 sf GFA and 3 bedrooms; and Access to outdoor amenity area located [on same story](#) as the dwelling unit

p11 – Massing Design response – (1) Basic Tower Formation – Overall Building extra 10 ft of height by adding 3-bedroom units located [next](#) to a courtyard area

p12-13 - Massing Concepts – *(EDG recognition by Board, public and staff for large size of Project and how it will fit into the neighborhood context) - with priority: A-1 physical environment, B-1 neighborhood context, B-2 transition in bulk & scale, and B-3 reinforce the positive urban form and architectural attributes.* Concerns from the Neighborhood continue to identify the bonus height of 3-4 additional floors as a key issue.

p29 – Living Building Notes - This page begs for more explanation and detail. The Sun-Path diagram shows 45.86% sun-up hours. Is Global Horizontal Radiation > 240 a best-case number? What if it is cloudy? Need to understand the diagrams with the slats – are some angled up? Where is the location and sizing for the electrical components for the LBC Pilot program (including electrical energy control, switching, and energy storage)?

p34-36 – 19 story plus another 1 ½ story for “equipment deck and other”? p36 – Solar array overhang – how big is the overhang? Why does it slope to the back (toward the East) (p35)?

p48 – Level 8 Plan – Looks too small for workable 3-bedroom units. Not clear if all are 3-BR units or common units with WD (washer dryer?). Entry access to every 3-BR unit is not clear. Do all of the units have access to the outdoor amenity area per SBC code _____? (same floor or shared with Floor 7?)

p49 – Level 19 – Roof Terrace – See page 62 & 63 comments

p50 - Living Building Challenge – Petal Requirements & Approach (Net Positive Energy)
This appears to apply for the Challenge Program. What are the goals, objectives and approaches for the LBC Pilot program?

p53 – Energy Petal – *Comply with the 2015 Seattle Energy Code; Meet the minimum energy requirements of the Living Building Pilot Program; Achieve certification of LBC Energy Petal, which requires net positive energy for the project. Also, LBPP requires project to achieve energy usage to be 25% lower than the 2015 target for the use.* **Comment:** There is a summary of the analysis and key design features – but additional information is required for on-site and off-site energy generation and allocation, seasonal variation, backup energy storage and sizing.

p56 – Integration of LBCP Strategies – Seattle Living Building Challenge Program

The pilot program provides incentives to the applicants with 25 feet additional building height for residential use and up to 25 percent more gross floor area than the maximum floor area otherwise resulting from the application of development standards. The project is currently registered under LBC 3.1

Comment: See primary comment and concern above

p62 & 63 – Space, BBQ area etc. looks inadequate for the number of units in the project

p83 - Zoning Departure Request # 2 – Design Standard (above 145 ft height) is floor size of 8800 sf, and departure requested of 9201 sf. – May be reasonable request if sculpting design is ok.

p84 - Zoning Departure Request # 3 – Lower Floor Setbacks – May be reasonable

p86 - Zoning Departure Request # 5 – Area reduction on Floor 7 area – Now using averages for 20 ft width and 1300 sf by having an average width of 19’9”. Probably reasonable approach.

p87 - Zoning Departure Request # 6 – Parking aisle width – Needs to be examined, looks too tight (see the diagram).