DATE: April 2, 2019

TO: Council Members, City of Falls Church
Carly Aubrey, Principal Planner and West Falls Church Project Manager

FROM: Environmental Sustainability Council (ESC), Cory Firestone Weiss, Chair
Tree Commission, Dennis Szymanski, Chair

SUBJECT: West Falls Church Economic Development Project Special Exception Entitlement Application

Summary

The ESC and the Tree Commission recommend significantly strengthening the sustainable landscaping of the West Falls Church Economic Development project to enhance and protect the project's long-term financial value and to better reflect Falls Church community values.

After the following discussion of three key environmental sustainability issues for the project, we propose edits to the Voluntary Concessions.

Key issues and recommendations

1. Sustainable landscaping (trees, green infrastructure, low impact design)

The project as currently envisioned does not sufficiently integrate sustainable landscaping. In addition, we are concerned about public debate on this project that has framed a false dichotomy between landscaping and financial value. Ample research demonstrates that well-designed, sustainable landscaping enhances the financial value of commercial, mixed use urban development. Tree canopy, green infrastructure and low impact design can be cost-effective investments in the long-term sustainability of this project and will enhance community acceptance. While we understand that detailed landscaping design will come later, the Special Exception Entitlement should incorporate clear objectives that ensure the neighborhood maximizes sustainable landscaping while achieving the development's financial goals.

Green infrastructure and low impact design refer to practices (primarily vegetated but also including permeable pavers and cisterns) designed to manage stormwater. We include these practices here because of the many co-benefits they provide in addition to effective stormwater management.

The business case for commercial, mixed use urban developments to integrate sustainable landscaping is supported by the following research findings:

- **People are willing to pay up to a 12% price premium to shop in retail environments with trees.** Research from the University of Washington found that *consumers will travel a greater distance, spend more time, and spend more money* – up to 12% more – to shop in neighborhoods with trees.[i]
- **Well-designed landscaping and shade can each add 7% to the average rental rate** for an office building.[ii]
- **Green roofs generate rental premiums (16% in one study), yield energy savings generally between 5% and 15%** from reduced heating and cooling, and extend the useful life of roofs[iii].
- **Green infrastructure can speed lease-up rates**. The Avenue, a mixed use project in Washington, DC with innovative green infrastructure features, leased 335 apartments in 11 months and commanded the highest residential rents for a building of its size. [iv]

- Green infrastructure can reduce costs associated with flood damage, and **reduced flood risk can improve property values by 2% - 8%.**
- **Green infrastructure is typically less expensive to construct and maintain**. The EPA compared low impact stormwater design (LID) with conventional stormwater costs in 12 projects and found that LID was cheaper (by 15% to 80%) in all but one of the projects.[v]
- Strategically located **trees reduce energy costs** from heating and cooling, with savings varying by site (estimated energy savings from trees across Virginia is over $175 million annually).[vi]

To illustrate the potential magnitude of green infrastructure's financial benefits to commercial property owners, the Natural Resources Defense Council calculated the financial value of green infrastructure for three prototype developments. Green infrastructure practices (excluding the additional value of green roofs) generated the following:

- A 53,600 square foot, 3-floor office building yielded a rental increase of over $72,000 per year.
- A 33,700 square foot, 4-story multi-family building saw increased rental income of over $77,000 per year and a one-time increased property value of $37,500 at sale.
- A 40,000 square foot retail center experienced a $27,000 increase in rental income and over $1.2 million in additional retail sales per year.[vii]

There are of course multiple co-benefits to integrating trees and more green infrastructure in this project – air quality improvements, reduction of heat island impacts, habitat and wildlife benefits, public health and well-being. We care deeply about these benefits and would be happy to provide additional resources to quantify their value. This discussion focuses on the financial benefits given the financial import of the transaction to the City.

We support increased building heights to allow more space for landscaping, and we believe this can be accomplished while balancing both project costs and the impact on neighboring schools. We recommend that any increase in building height be accompanied by increased setbacks for trees (or, at a minimum, stepped-back buildings above the second floor to ensure straight, natural, and healthy tree growth) and increased land available for green infrastructure. In addition, the Falls Church Gateway Partners (FCGP) Development team has committed to obtain LEED Neighborhood Development (ND) Gold certification. We recommend that the Voluntary Concessions include commitments to obtain the Tree-Lined Streets, Rainwater Management and Heat Island LEED ND credits, the combination of which would lead to increased sustainable landscaping in the project.[viii]

2. Stormwater management.

The project documents insufficiently address stormwater on the site. This is an infrastructural element that should be addressed at this stage of the project. The Voluntary Concessions document should incorporate the following design requirement from the project's RFDP: "Manage stormwater on the site (without purchase of nutrient credits) in a way that integrates green infrastructure, low impact and sustainable designs, and tree canopy coverage." We advise the City to follow the lead of other Virginia municipalities and model stormwater management requirements under 25-, 50- 100- and 500-year storm events.[ix] As the prospects of more severe rain events grow, we strongly encourage the City to request that the FCGP Development team at a minimum conduct a cost-benefit analysis of the stormwater management requirements of a 25-year storm, because today's 25-year storm is likely to become a 10-year storm (the current design requirement) in the next 10-20 years[x].

Lastly, we advise the City to explore coordinated stormwater management with neighboring sites, especially with the George Mason High School site, as doing so may be more cost effective.

As a general note, we recommend that the City no longer include regulatory compliance commitments in voluntary concession documents, as compliance is neither voluntary nor a concession.

3. Green buildings and neighborhood design.

We applaud the City's decision to integrate environmental sustainability into the project, including LEED certification of the neighborhood and buildings, pedestrian and bike friendly components, and electric vehicle charging stations. We are pleased to see the project team's embrace of these elements in the Special Exception Entitlement Application and the draft Voluntary Concessions. Through the process of reviewing the Founder's

Row project, we learned that the National Green Building Standard (NGBS) for residential green buildings does not address mixed use projects, and we therefore recommend that only the LEED standard be used for residential mixed use buildings. We offer minor clarifications to the draft voluntary concessions document below but are satisfied with incorporation of these elements in the project.

Proposed edits to draft Voluntary Concessions

We recommend the following edits to the Voluntary Concessions document circulated on March 21, 2019 in association with the project:

Green Building Criteria. "The Owner agrees to submit a SESP which includes the third-party certification of the following:

- LEEDv4 Neighborhood Development (ND): Gold. In the process of obtaining LEED ND certification, the Owner shall achieve the following credits:
  - Tree-Lined and Shaded Streetscape,
  - Rainwater Management, and
  - Heat Island Reduction
- Office: LEED Gold Core and Shell, or equivalent green building standard
- Residential and Senior Housing: LEED Gold or equivalent green building standard, secured by bond or letter of credit, not to exceed $50,000 per building, which can be used by City if the Owner is only able to achieve LEED Silver. For any residential building, including senior housing, that includes a mixed use component, only the LEED standard shall be used.
- Hotel: LEED Silver, or equivalent green building standard

Storm Drainage and Runoff. The Owner ~~agrees that the development will meet the water quantity and quality requirements required by the State of Virginia, effective July 1, 2018.~~ will manage stormwater on the site (without purchase of nutrient credits) in a way that integrates green infrastructure, low impact and sustainable landscape designs, and tree canopy coverage. Owner will conduct a cost-benefit analysis comparing stormwater management requirements for the site under a 10-year storm against the same requirements under a 25-year storm.

Conclusion

The West Falls Church project presents the City of Falls Church with an unparalleled opportunity to create Northern Virginia's great green neighborhood. We are confident that the City can create a commercially successful development that also embodies one of our community's core values: environmental sustainability. The City's 2040 Vision, adopted in 2017, confirmed our community's abiding support for sustainability and environmental protection. We urge Council, staff and the FCGP Development team to thoroughly weave sustainability into the DNA of the project.

Our community has already deeply embraced sustainability in our new – and adjacent – George Mason High School project, which features Net Zero readiness and LEED Gold certification. As it takes on one of the largest development projects in Falls Church history, the City has a chance to maximize the West Falls Church project's commercial success while also making an enduring, highly visible contribution to a sustainable future and healthy, walkable community. The City aspires that this project will become the western "gateway" into our community. We urge City Council to ensure that this project fully embodies our values and our community's financial *and* sustainability goals.

Thank you again for the opportunity to comment on this project. Please do not hesitate to reach out with any questions.

End notes / resources

[i] For a 2-page summary, see http://www.naturewithin.info/CityBiz/Sml%20Tn%203P_FS17.pdf. For more in-depth research on consumer response to trees in retail environments, see http://www.naturewithin.info/New/2014.City-Trees-and-Consumer-Response.Bk%20Chapt.Wolf.pdf

[ii] http://depts.washington.edu/hhwb/Thm_Economics.html

[iii] https://www.nrdc.org/sites/default/files/commercial-value-green-infrastructure-report.pdf

[iv] https://uli.org/wp-content/uploads/ULI-Documents/HarvestingtheValueofWater.pdf

[v] https://www.epa.gov/sites/production/files/2015-10/documents/2008_01_02_nps_lid_costs07uments_reducingstormwatercosts-2.pdf

[vi] https://www.nrs.fs.fed.us/news/release/resources/trees-reduces-building-energy-use-state-summary/

[vii] https://www.nrdc.org/sites/default/files/commercial-value-green-infrastructure-report.pdf

[viii] https://www.usgbc.org/resources/leed-v4-neighborhood-development-current-version

[ix] https://www.vbgov.com/government/departments/public-works/comp-sea-level-rise/Documents/slr-policy-adapt-draft-rpt-1-14-19.pdf

[x] https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/CRDC-Report-FINAL-Web.pdf