



DONOHUE & STEARNS, PLC

January 25, 2018

VIA IZIS

Chairman Anthony Hood
D.C. Zoning Commission
441 4th Street, N.W., Suite 200S
Washington, D.C. 20001

Re: ZC Case 16-23 – Valor Development, LLC – Voluntary Design Review
CRD Supplemental Expert Witness Resumes; Presentation Materials; Transfer of Density
Calculation Summary
Hearing Date January 25, 2018

Chairman Hood:

On behalf of our clients, Citizens for Responsible Development (CRD), we hereby submit the following documents for the Commission's consideration in the above-referenced matter:

1. The resume for Mr. Stephen Hansen. Mr. Hansen is an expert in District and Federal historic preservation issues. Mr. Hansen has previously been qualified as an expert in this area by the Mayor's Agent for historic preservation.
2. The resume for Mr. Curt Westergard, President, Digital Design & Imaging Service, Inc. Mr. Westergard is an expert in visual impact studies. He has been qualified as an expert witness twice by the Virginia State Corporation Commission and once by Maryland National Capital Park and Planning Commission.
3. Mr. Westergard's Power Point presentation.
4. The one-page transfer of density summary and explanatory chart for Lot 807.

Thank you for your consideration of these materials.

Sincerely,

A handwritten signature in blue ink, appearing to read "E. Donohue", written over a white background.

Edward L. Donohue

Cc:

Christopher Collins (via email)
Advisory Neighborhood Commission 3E (via email)
Advisory Neighborhood Commission 3D (via email)
Jeff Kraskin, Spring Valley Opponents (via email)
William Clarkson, Spring Valley Neighborhood Association (via email)
John H. Wheeler, Ward 3 Vision (via email)

Curriculum Vitae

STEPHEN A. HANSEN

2323 Ashmead Place, NW • Washington, DC 20009

Cell: 202-355-4503 • Work: 202-596-1961

Email: stephen@preservationmatters.net

CAREER SYNOPSIS

Stephen Hansen has over 30 years of experience in historic preservation, cultural resource management, and archaeological fieldwork and analysis. His professional career in historic preservation began in 1985, working with the Cultural Resources Division of the National Park Service.

In 2006, Stephen founded Preservation Matters, LLC (originally DC Historic Designs, LLC), where he serves as principal. In addition to conducting architectural history research, the firm's work includes: preservation planning; eligibility determinations and nominations for National Landmarks and the National Register of Historic Places; advising clients on historic preservation policies; Section 106, 110, and 111 consultations; and representing clients before such bodies as the DC Historic Preservation Review Board, the U.S. Commission on Fine Arts, the Old Georgetown Board, and the Virginia Department of Historic Resources.

Stephen is also a published author and columnist. He has published two books on the architectural and social histories of two DC neighborhoods and is currently working on a third book. He was the creator and first author of the monthly architectural and social history focused column, "What Once Was in Washington, DC," for the *Intowner* newspaper and serves as the paper's historic preservation editor.

Mr. Hansen is an expert in District and Federal historic preservation matters and was accepted as an expert before the Mayor's Agent for Historic Preservation in September 2017.

EXPERIENCE

Selected Testimony:

- Expert Witness in Historic Preservation, Remand Hearing on McMillan Park Reservoir before the Mayor's Agent (Case No. 13-14). (September 2017)
- National Register-listed Spring Valley Shopping Center. DC Historic Preservation Review Board (HPA 15-252) on behalf of ANC 3D. (Oct. 2015)
- St. Thomas Church Project on behalf of Church Street Neighbors. DC Historic Preservation Review Board (HPA 14-530, 2014-15, multiple)
- Carnegie Library, Washington, D.C. D.C. Historic Preservation Review Board (HPA 17-415) on behalf of the Committee of 100 on the Federal City. July and October 2014.
- Council of the District of Columbia Committee of the Whole Oversight Hearing on the Historic Preservation Office, DC Office of Planning on behalf of the Committee of 100 on the Federal City. (March 2014)
- "The Effects of Changes to Washington, DC's Historic Heights of Buildings Act." U.S. Commission of Fine Arts. (November 2013).
- Downing-Vaux (Hammond Court) Condominiums, Georgetown. Development and representation of restoration plans to the Old Georgetown Board (Oct. 2013)

- 2012-14 Kalorama Road. D.C. Historic Preservation Review Board (HPA 12-625). (January 2013)

Historic Preservation:

- National Register Nomination: Commanding General's Quarters, Quantico, VA. Listed July 17, 2009
- National Register Nomination: Congressional Club, Washington, DC. Listed October 2011
- Architectural survey for Historic District Nomination for East Cleveland, Cleveland, OH (2011)
- Holt House, Washington, DC. Historic structure report, use study, and conceptual designs for the rehabilitation of the Smithsonian Institution's historic Holt House on the grounds of the National Zoological Park, Washington, DC (2009)

Restoration:

- Downing and Vaux Condominiums, 2914 Q Street, NW, Washington, DC. Restoration plan for windows, doors, and other architectural details (2013).
- Restoration and rehabilitation designs of selected storefronts in the Anacostia Historic District, Washington, DC. Arch Development Corporation. (2011-14)
- Park Tower Condominium Building, 2440 16th Street, NW. Lobby restoration and rehabilitation (2012-13)
- Eber Dudley Howe House, Westlake, OH. Architectural plans for the restoration of an 1840's Greek Revival house

Archaeological Fieldwork and Analysis:

- Jefferson Patterson Park. St. Leonard, Calvert County, Maryland (volunteer). 1992
- Ballweber and Associates, Inc. 1992-93
 - Schifferstadt, Frederick Maryland. Phase I Archaeological and data analysis.
 - Site spatial data and material analyses for various excavations.
- Greenhorn & O'Mara. Greenbelt, MD. Staff archaeologist. 1993
- Parsons Engineering Science. Washington, DC. Projects included:
 - Verizon (MCI) Center – Phase I and II level surveys (1993). In addition to excavations, oversaw work by contracted archaeologists and volunteers and served as the resource for site's architectural and social history
 - Phase I Archaeological survey. Waldorf, Maryland. 1993

Virtual Architectural Archaeology Project:

The Virtual Architect Archaeology Project uses historical documentation, photographs, drawings, archaeological data, and artifacts combined with the latest in computer technologies to virtually model Washington's lost built environment. The project web site was voted Best of the Blogs 2014 by *Washington History* magazine and featured on WAMU's Metro Connection (June 1, 2012). Web site: washingtonarchitecture.blogspot.com

SELECTED PRESENTATIONS

- C-SPAN/Book TV: Anderson House, Washington, DC. Book talk on *A History of Dupont Circle*. January 13, 2015
- U.S. Capitol Historical Society. War of 1812 Lecture: “The Virtual Archaeology of Three Washington D.C. War of 1812 Sites.” April 2013.
- Washington Historical Studies Conference. “Virtual Architectural Archaeology – Recreating Washington’s Lost (or Nearly Lost) Built Environment.” October 2012.
- Friends of the Washingtoniana Division. “The History of Kalorama Triangle.” March 2012.
- “Options for the Restoration and Rehabilitation of Holt House.” A presentation of an adaptive reuse study to the director of the National Zoological Park, the board of the Friends of the National Zoo (FONZ), and Smithsonian staff. October 2010
- “Restoring Holt House: Removing the Layers of Time.” National Trust for Historic Preservation. 2010

WRITING/PUBLICATIONS

- “Developers Take Aim at the Comprehensive Plan in Arguments for Affordable Housing.” *The InTowner* newspaper. March 2017. Vol. 48, No. 9.
- Dupont Circle: Center of High Society in the Capital. The History Press: London & Charleston. 2014.
- Kalorama Triangle: The History of a Capitol Neighborhood. The History Press: London & Charleston. 2011.
- *What Once Was in Washington, DC*. Monthly column for *The InTowner* newspaper. 2012 to 2015.
- *Historic Homes*. Monthly historic preservation column for *Georgetown Patch*. 2010-11.
- “Reconstructing Historic Holt House.” *The InTowner* newspaper. March 2010.

EDUCATION

- B.A., Anthropology, Oberlin College (1984)
- M.A., Anthropology (Concentration in Archaeology), The George Washington University (1988)
 - Graduate teaching assistant. 1985-87
 - George Washington University Fellow. 1985-87
- Professional Certificate in Historic Preservation, Goucher College, Towson, MD (2008)

ORGANIZATIONAL POSITIONS

- Committee of 100 on the Federal City:
 - Chair (2017-)
 - Historic Preservation Subcommittee (2013 to present)
- Advisory Council, Woodrow Wilson House, Washington, DC (National Trust site) (2015)
- DC Historical Studies Conference. Program committee (2011 – 2014)

MEMBERSHIPS

- Historical Society of Washington
- National Trust for Historic Preservation
- Kalorama Citizens Association

Resumes:

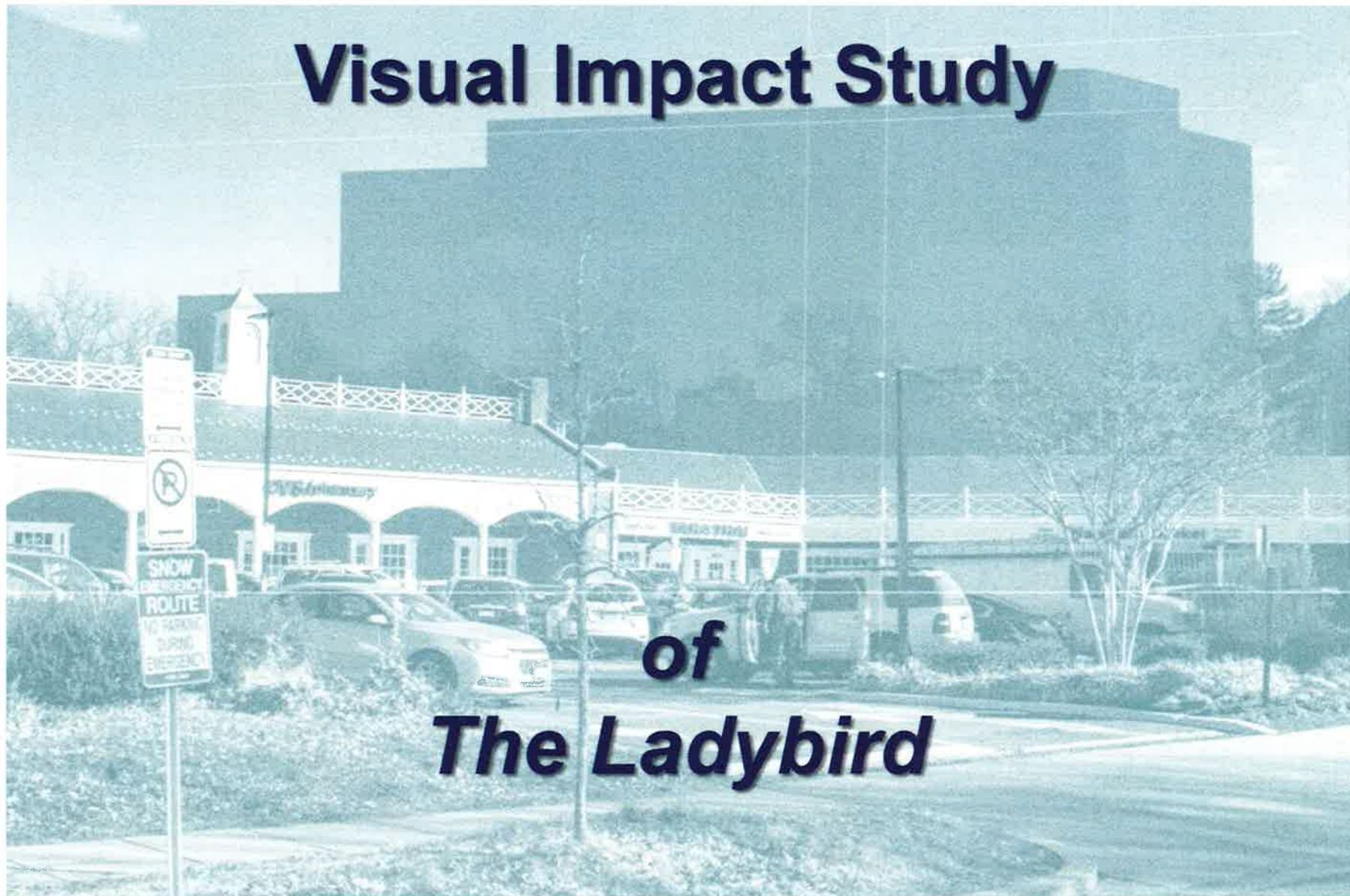
Curt Westergard

President / Director of Research

Curt Westergard is a licensed landscape architect, aerial photographer, illustrator, educator, and President of Digital Design & Imaging Service, Inc. He has designed, built, and tested various custom surveillance balloons, launch trailers, optics platforms, used to support drones and aerostats. His long term research focus has been on design and building equipment for time lapse aerial visualizations of tall engineering projects. He has 26 years experience creating visual impact simulations of proposed water tanks, skyscrapers, noise walls, landscape screening berms, power lines, and cell towers in the US & Europe. Curt has taught landscape design at Michigan and Morgan Universities, given guest critiques and a professional development course at Harvard University, a photography seminar at Yale, and design visualization courses in Belgium, Germany, and Switzerland. He is a member of the Explorers Club and former Chairman of the American Institute of Aeronautics and Astronomics Lighter than Air Technical committee. He enjoys free time with his wife, Inge, and two sons. His hobbies are drawing, studying Flemish and French, playing with sling shots and balloon powered sailing.

Education: BA—Ithaca College, Masters in Landscape Architecture from Cornell University, & Ph.D. (coursework only) in the perception of 3D Visualizations from the University of Michigan.

Visual Impact Study



of *The Ladybird*



Digital Design & Imaging Service Inc

Qualifications:

DDIS has performed balloon tests, line of sight studies, created simulations, designed camouflage strategies and given expert testimony for various tall structures over the last 19 years.

The National Park Service and NCPC has participated with DDIS on several high profile cell towers projects in Rock Creek Park, Great Falls Virginia National Park, Camp David, Great Falls Maryland. DDIS was charged with producing accurate, replicable simulations of various disguised cell towers using the standard NPS/BLM simulation methodologies. Clients include Verizon Wireless, AT&T, Crown Castle, US Border Patrol, T-Mobile, Sprint.

The DC Height Study, conducted by the National Capital Planning Commission, hired DDIS to plan, capture and simulate the visual effects of raising the height limits of buildings in downtown Washington DC. DDIS abided by the NCPC's defacto graphic standards for choosing fair vantage points and a standard magnification lens for cameras and virtual cameras.

Water tank visual impact, growth and mitigation studies at St. Elizabeths Hospital for Hatch Mott, Loudoun Water towers, Pump Stations for and various simulations of tall engineering structures for Michael Baker Intl, Denning, Hatchmott Macdonald, and Urban-LTD. Verizon Wireless, and Dewberry.

Powerline visual impact study and expert testimony for the State Corporation Commission, Dominion Virginia Power, PHI, James City County and Allegheny Power.

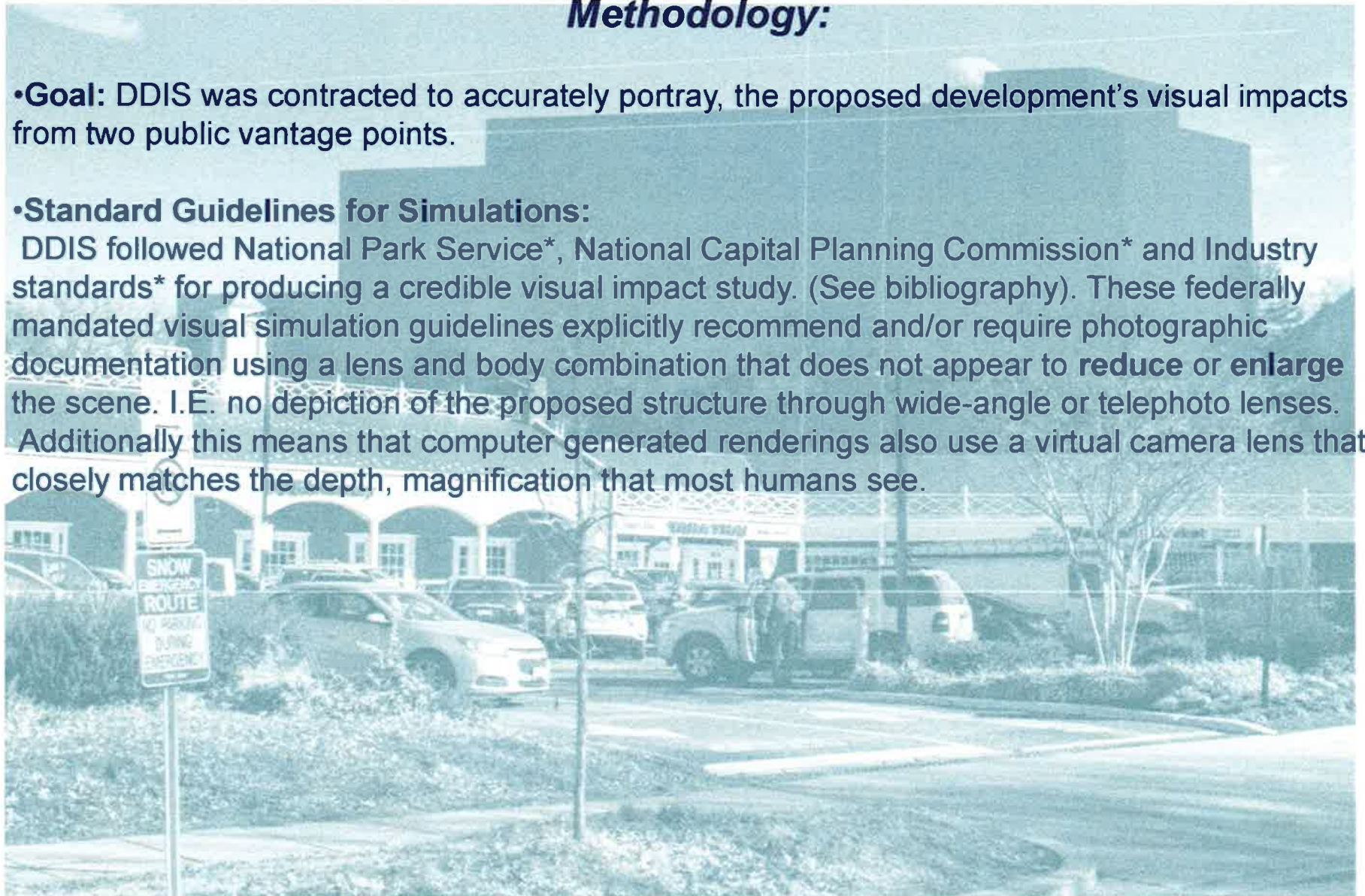
Skyscrapers, mid-rise buildings, smoke stack, power lines, cooling towers studies have been performed for DVP, Vepco, Cove Point LNG, Flour Federal Services, AECOM and SOM.

Methodology:

- Goal:** DDIS was contracted to accurately portray, the proposed development's visual impacts from two public vantage points.

- Standard Guidelines for Simulations:**

DDIS followed National Park Service*, National Capital Planning Commission* and Industry standards* for producing a credible visual impact study. (See bibliography). These federally mandated visual simulation guidelines explicitly recommend and/or require photographic documentation using a lens and body combination that does not appear to **reduce** or **enlarge** the scene. I.E. no depiction of the proposed structure through wide-angle or telephoto lenses. Additionally this means that computer generated renderings also use a virtual camera lens that closely matches the depth, magnification that most humans see.



Methodology:

Data Collection:

DDIS employed several photogrammetric strategies to mock up the proposed building's rooftop height width and depth. One involves extensive laser rangefinder measurements of nearby fixed objects. It also includes horizontal and height distances of a 25 ft surveyors rod placed on the proposed building corners and façade faces. DDIS's calculations of true height lines represented the existing topography. Critical in these photogrammetric measurements was to previewing the camera's cone of vision in the field and the building's roof top heights.

- DDIS used the elevations, cross sections and plan views supplied by Valor, via our client. Included in this their Nov 15th 2017 package, were four renderings showing the view of the project as seen from the community.
- For supplemental height and depth references on the Mass Ave side DDIS conducted several balloon tests. A purpose built surveillance aerostat balloon 12.5 ft wide, 9 ft wide was lofted to key reference points to portray the proposed façade and rooftop. Documentary, ground-based photography was taken with a full-frame DSLR camera sensor and a prime Canon 50mm lens. This lens-body combination is the industry standard for scientific studies needing to replicate the human eye's proper magnification.

Digital Design & Imaging Service, Inc.

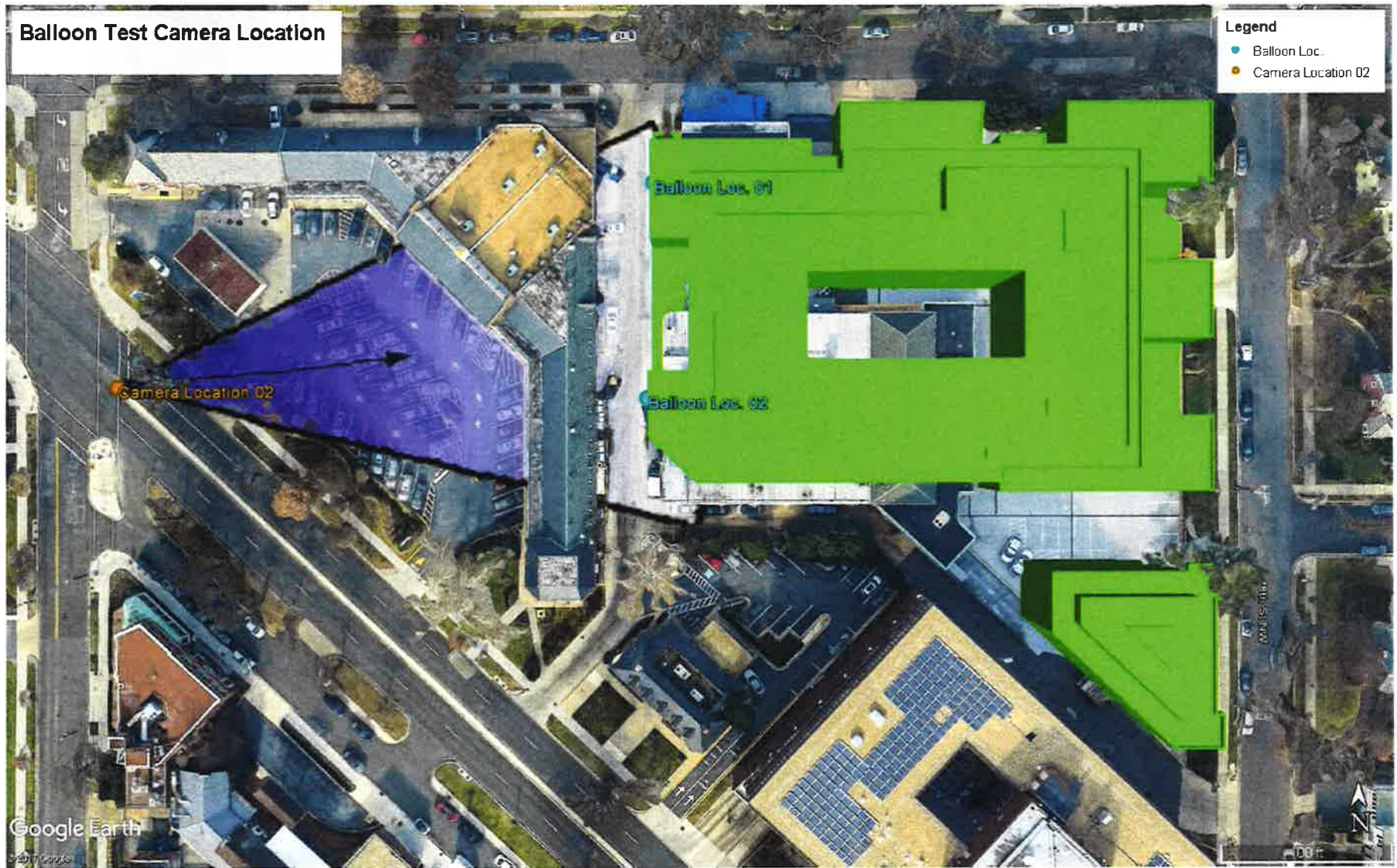
Methodology:

3D modeling and photo simulations :

DDIS created an electronic (Sketch Up Pro) 3D model massing of the two proposed buildings. The use and focus of both the field mock ups and the electronic massing model was to accurately portray the building's roofline as seen from the two key public vantage points.

In studio, DDIS project manager and photo analyst, Ryan Shuler, replicated and matched the actual camera's view with the virtual camera's height, location, bearing, and field-of-view.

These renderings were then integrated into the original photograph to maintain an accurate understanding of the impact of the structure's height and width from the camera's perspective. This also meant accurately reintroducing the foreground screening elements such as trees, telephone poles, power lines, topography, and buildings.



Mass Ave Vantage Point

Camera Location2 is shown in Orange, Balloon locations above Public Alley shown in Blue.



Laser Measurements of the existing structures (in yellow) were taken to use as references when verifying the 3D Model's placement and scale.



Time lapse photo montage showing the DDIS surveillance balloon relative to key points of the proposed Lady Bird roof line. Note: Due, to access the balloon does not show set backs.



The blue transparent 3D massing model represents the Ladybird's height and width relative to the historic shopping center.



Windom Place Camera Location Map: Camera Loc. 01 shown in Orange .



Laser measurements of the existing structures were taken to use as references. These fixed objects were used when verifying the 3D model's placement and scaling. www.AirPhotosLIVE.com



Physical Measurements along the property line were used as references when verifying the 3D Model placement and scale. A 25ft tall survey ruler is shown above.

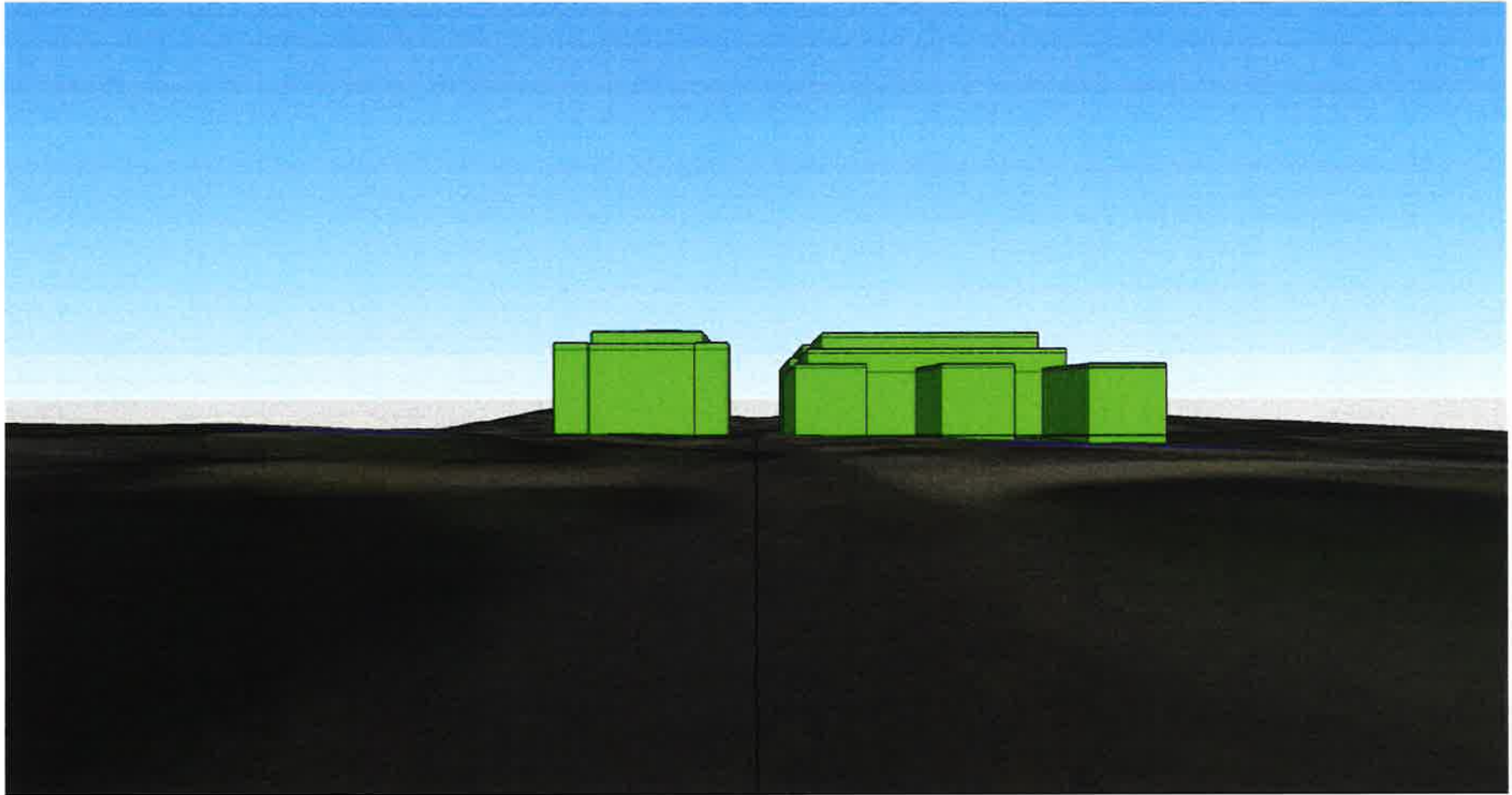


The blue transparent 3D massing model represents the Ladybird's actual height and width as seen from the middle of Windom Place.



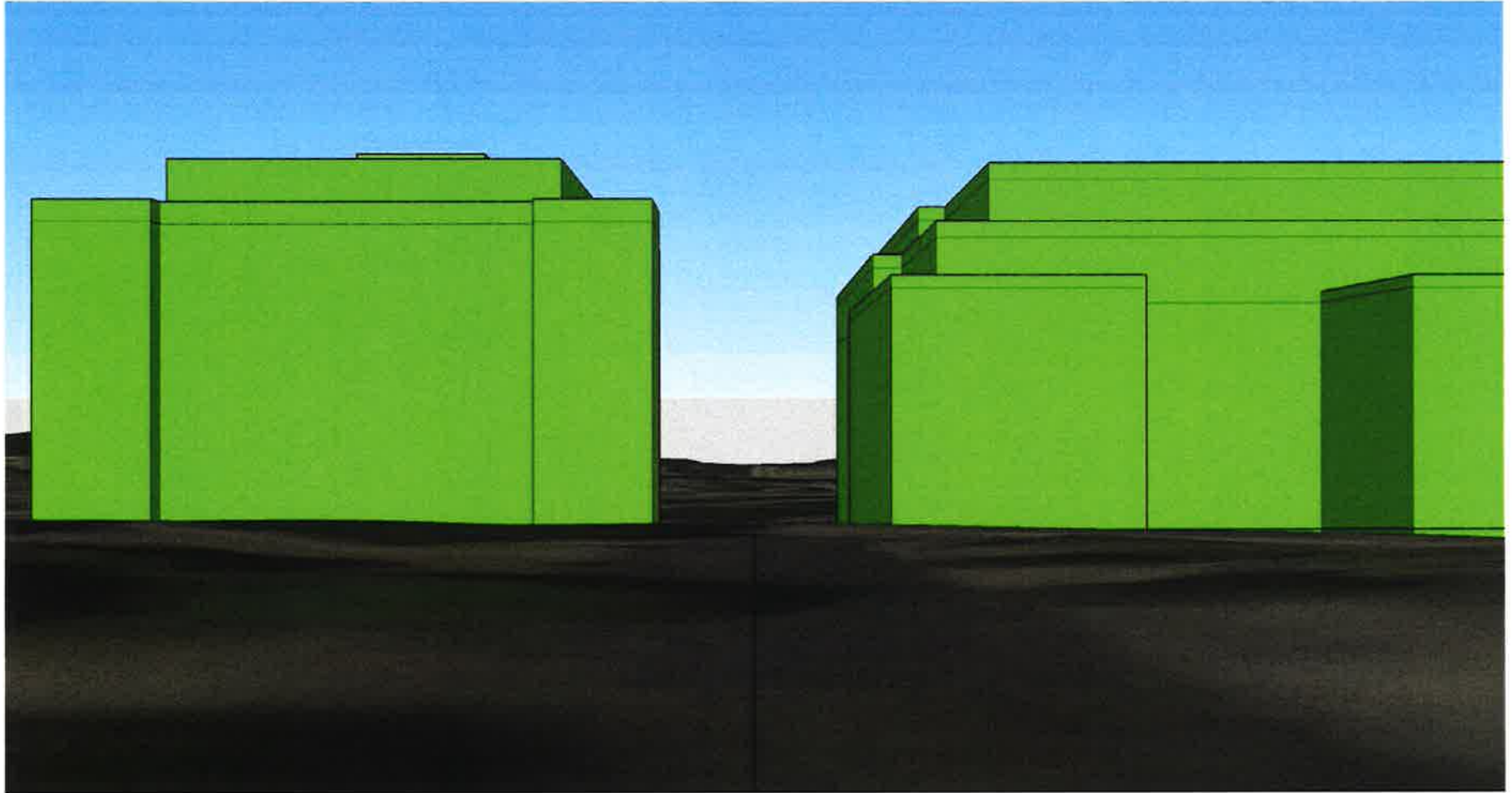
If these buildings are the exact same size,
why does the Valor depiction (top) look so small and distant?

Optical Distortions...



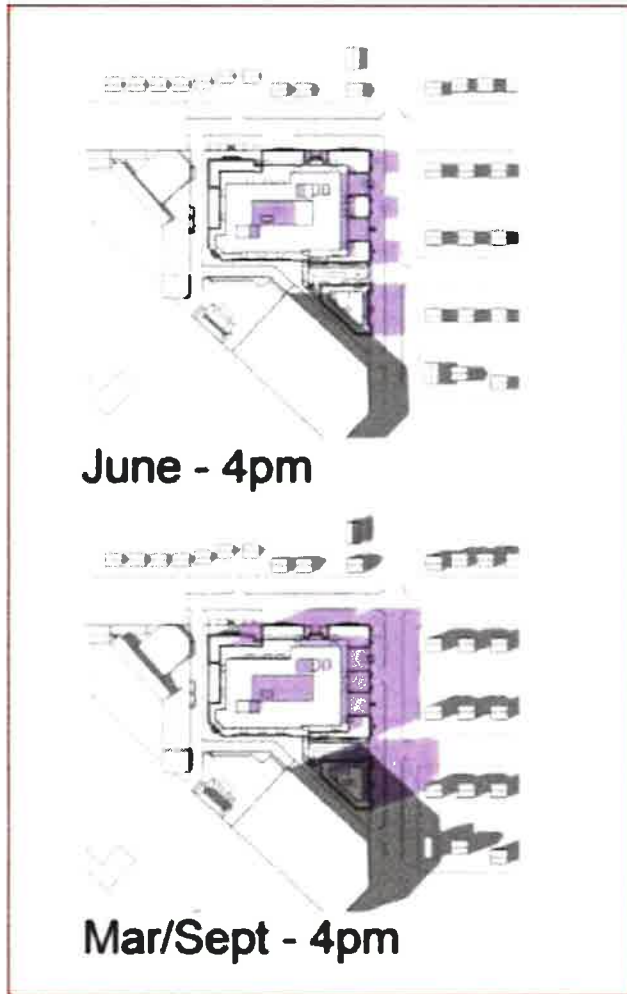
View from Camera Location 1, as seen with the 14mm lens on a full-frame DSLR. This perspective was used by Valor for their Windom Place simulation. Note the misleading size and height and distance of the proposed development

Optics...



View from Camera Loc. 01 as seen with a 50mm Lens on a Full-frame DSLR. This most closely represents Human Eye Magnification. DDIS used this lens-body combo for all simulations.

Shadows Omitted

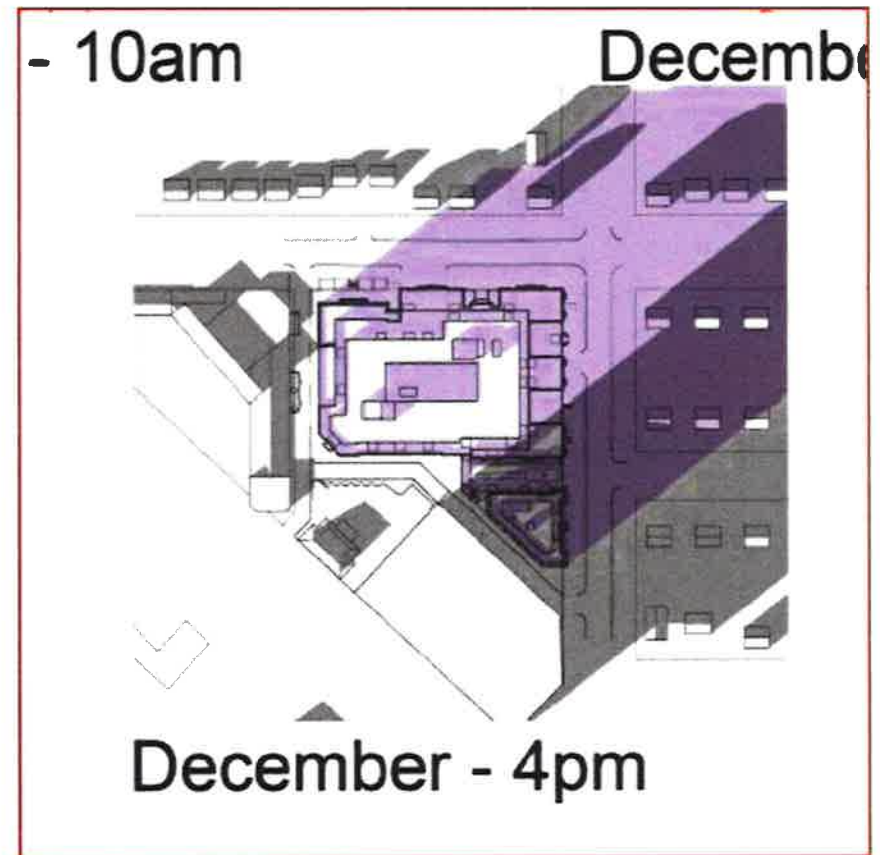


SOLAR STUDY Critique:

Per industry standards, including those of the National Park Service, the Bureau of Land Management, and the Department of Energy, accurate solar studies should clearly depict the shadow cast by a proposed building at typical times of day. In residential areas, this implies the shadow pattern from sunrise to sunset. In the Valor documents of 12/21/2017 the earliest time presented is 9am, and the latest time is 4pm. 7 hours does not represent the 14.7 hrs of daylight the Yuma community currently enjoys during Summer months. Omitted are the long shadows the proposed building casts on neighbors to the WNW in the morning. The Valor study omits sun blockage for the neighbors to the East and ESE every late afternoon.

Missing Shadows

The Valor Solar Study illustration above crops off those shadows falling on neighbors living along Yuma St to the NE. The study also does not calculate those shadows cast after 4pm in the summer.



References:

Landscape Design That Saves Energy, by Marc Schiller, Anne Moffatt, tree shadow data contributed by Curt Westergard—Research Assistant Cornell University . Landscape Architect in MD and VA

Site Planning for Solar Access, US Department of Housing and Urban Development, with the US Department of Energy. A guidebook for Residential Developers and Site Planners.



Guide To Evaluating Visual Impact Assessments for Renewable Energy Projects

Natural Resource Report NPS/ARD/NRR—2014/836



"For visual simulations based on photographs, viewing the simulation from the incorrect viewing distance may result in the project appearing to be larger or smaller than would be observed in the field, which could result in an over- or under-estimation of the project's visual contrast (Sheppard 1989)"

Industry Standards for Simulations...

5.6.2 **Spatial Inaccuracy in Simulations**

Spatial inaccuracy in simulations results from omitting elements that would be visible in the real landscape; showing elements that would not be visible; and showing objects in the wrong locations, at the wrong sizes, or in the wrong visual perspective. There are many potential sources of spatial inaccuracy in simulations. Some may introduce potentially large errors in contrast assessment; others typically result in minor errors in the assessment.

Inaccuracies potentially resulting in significant over- or under-estimation of visual contrast include:

- Changes to the project design after the simulations are prepared.
- Incorrect locations for the KOP or project elements, resulting in potentially significant location errors; however, large errors would likely be corrected prior to simulation development.

90

-
- Incorrect setup of viewing parameters in the visualization software, such as incorrect focal length specification.
 - Errors in elevation data used to develop the simulation that occur near the KOP, potentially resulting in large-scale incorrect concealment or exposure of landforms and project elements.
 - Failure to account for screening elements, such as vegetation and structures, that would be present or would be removed if the project were built.

Sources of Errors in Simulations...

5.6 Sources of Error and Inaccuracy in Simulations

As noted, the development of spatially accurate and realistic simulations to support a VIA is a complex technical process that requires a high degree of skill, appropriate technology, accurate data, and rigorous methods. If improperly selected or prepared, simulations may be misleading, and the errors may not be apparent to casual observers. The following discussion examines major sources of errors and inaccuracy in simulations.

5.6.1 *Improper Selection of KOPs and Simulation Parameters*



Request for Quotations NCPC 14-07

Digital Aerial Oblique Photography and Visual Analysis Services

Requested by:

National Capital Planning Commission

Office of Administration

**401 9th Street, NW
Suite 500
Washington, DC 20004**

**"A 50mm lens is the defacto standard for visual simulations"
Contracting Officer NCPC**

Bibliography

9.5.3 Limits to field of view

Photographs also have a limited and predetermined field of view. They only show what is shown “within the frame,” and the visual context provided by that part of the landscape that would be visible in real life but is outside of the field of view of the photograph is lost (Sheppard 1989, 2005). The visual context may in some cases be very important to determining the full effect that the addition of the project to the visible landscape would have. Panoramic simulations are often used to expand the field of view of simulations in order to show more of the surrounding landscape; however, unless the image size at which the simulation is displayed is dramatically increased, the use of panoramic images may result in a loss of detail in the image. Furthermore, correct viewing of panoramic images is more complicated than for “normal” views, in part, because of apparent distortions that are observed when a panoramic image is projected onto a flat surface such as a screen or a printed page.

DDIS Methodology

E N D

Ladybird Project Comprises Impermissible Increase in Density- The Facts

Design Review Prohibits Increase In Density (§§ 600.1 (c) and (e) and §600.5)

According to the Applicant, the maximum amount of Gross Floor Area available as a matter-of-right on the Valor Lot is 184,514 square feet. At the January 11th hearing, the Applicant stated that project comes in at a GFA of 277,278 square feet and therefore far exceeds the density allowed as a matter-of-right.

Matter-of-Right GFA Calculation - History

The current owner of the SuperFresh site, Paul S. Burka Apex Real Estate, originally owned both Lots 806 (4801 Massachusetts Ave. – lot area of 41,650 sq. ft.) and Lot 807 (the SuperFresh site – lot area of 79,622 sq. ft.). The two Lots together compose Lot 9 (121,272 sq. ft.).

In the early 1970s, to facilitate the construction of a large building at 4801 Massachusetts Avenue (now owned by American University), the owner received City approval to close the public alley separating the two Lots. At the time, the allowable FAR for the site was 2.0 – this allowed for a maximum GFA on Lot 9 of 242,544 sq. ft. (121,272 times 2). In a Declaration of Easement and Agreement, recorded in 1979, the property owner transferred some of the density allowed for Lot 807 to the adjoining Lot 806. The maximum available GFA was allocated as follows: 179,302 sq. ft. for Lot 806, and 63,242 sq. ft. for Lot 807.¹

At 277,278 GFA, The Project Utilizes 92,764 More GFA Than Allowed As A Matter-of-Right

The current Zoning Regulations allow a FAR of 3.0 (assuming IZ requirements are satisfied). With the additional 1.0 in FAR, there is a total increase in allowable GFA of 121,272 for the entire Lot 9 (1.0 x size of total Lot 9). Assuming that Valor has an agreement with American University to use the entirety of the increase for Valor's building, the current maximum GFA for Lot 807 is the original amount allocated to that Lot – 63,242 sq. ft. – plus the additional amount now allowed for both lots – 121,272 sq. ft. – for a total of 184,514 sq. ft. This is precisely the density the Applicant claims it can build as a matter-of-right.

Bottom line: The Application calls for an increase in density, which is not permitted under sections 600.1 (c) and (e) and section 600.5 of the Design Review Regulations.

The Project Seeks More Relief Than Could Be Secured Under A PUD In violation of §600.2

Under a PUD, a developer may add up to 20% in GFA. Assuming that this increase applies to Lot 807 in the abstract, the Applicant could add up to 47,773 in GFA through a PUD (the 79,622-square foot lot area of Lot 807 times a 3.0 FAR times 20%). [It would be less if the calculation were based on the reduced GFA available for Lot 807.] The Applicant, therefore, could pursue a PUD of no more than 232,287 GFA (184,514 GFA plus 47,773 GFA). At 277,278, the proposed Valor project would utilize 44,991 more GFA than could be secured under a PUD on Lot 807. This violates section 600.2 of the Design Review Regulations, which states that design review allows *less* deviation from matter-of-right than a PUD.

Conclusion

The attached table shows that the Valor project not only far exceeds the density allowed as a matter-of-right, but also includes more floor area than would be available for a PUD.

¹ See *American University Park Citizens Assoc. v. David Burka, et al.*, 400 A.2d 737, 739 (D.C. App. 1979) and *Paul S. Burka, et al. v. Aetna Life Insurance Co., et al.*, 945 F.Supp 313, 315 (D. D.C. 1996)

Ladybird Project Comprises Impermissible Increase in Density- The Facts

**Matter-of-Right Calculation for
SuperFresh Site (Lot 807)**

Lot size	79,622 sq. ft.
Allowable GFA (Gross Floor Area) after 1979 reallocation of GFA to Lot 806 (assumes 2.0 FAR)	63,242 GFA
Matter-of-Right (allocates the 1.0 additional FAR for both Lots - 121,272 GFA - to Lot 807)	184,514 GFA
Maximum GFA for a PUD (Matter-of-Right + 20%)	232,287 GFA
Valor's Proposed Project	277,278 GFA

DISTRICT OF COLUMBIA ZONING COMMISSION

SUPPLEMENTAL FILING

Z.C. Case 16-23

CERTIFICATE OF SERVICE

I certify that on January 25, 2018, I emailed a true copy of the foregoing resumes, presentation and summary to Advisory Neighborhood Commissions 3E and 3D (3E@anc.dc.gov; 3D@anc.dc.gov), Jeff Kraskin (Jlkraskin@rcn.com) for Spring Valley Opponents, William Clarkson (wclarksonv@gmail.com) for Spring Valley Neighborhood Association, John H. Wheeler (johnwheeler.dc@gmail.com) for Ward 3 Vision and counsel for the Applicant, Christopher H. Collins (chris.collins@hklaw.com).



Edward L. Donohue (Bar No. 412301)
ATTORNEY FOR
CITIZENS FOR RESPONSIBLE DEVELOPMENT

Dated: January 25, 2018

DONOHUE & STEARNS, PLC
117 ORONOCO STREET
ALEXANDRIA, VIRGINIA 22314
TELEPHONE: (703) 549-1123