White Flint Substation Project

pepco®

An Exelon Company

White Flint Sector Plan Implementation Committee meeting
May 14, 2018

Project Background

- Pepco is planning to construct a new substation at 11650 Nebel Street, near the corner of Nebel Street and Marinelli Road in Rockville.
- We are building this new substation to meet the anticipated load growth in the White Flint area. Without this substation, it is anticipated that the current Parklawn substation will exceed its capacity by 2% in 2022.
- The new substation will increase area capacity, thereby improving reliability and operational flexibility.
- The White Flint substation will be both a 69/13.8 (kilovolt) distribution-class substation with an ultimate total capacity of 120 megavolt ampere of power.

Activity	Anticipated Start Date	Anticipated End Date
Substation Building Construction	June 2019	June 2022
Underground and Overhead line work (in Public Space)	January 2020	January 2023
Project complete		January 2023

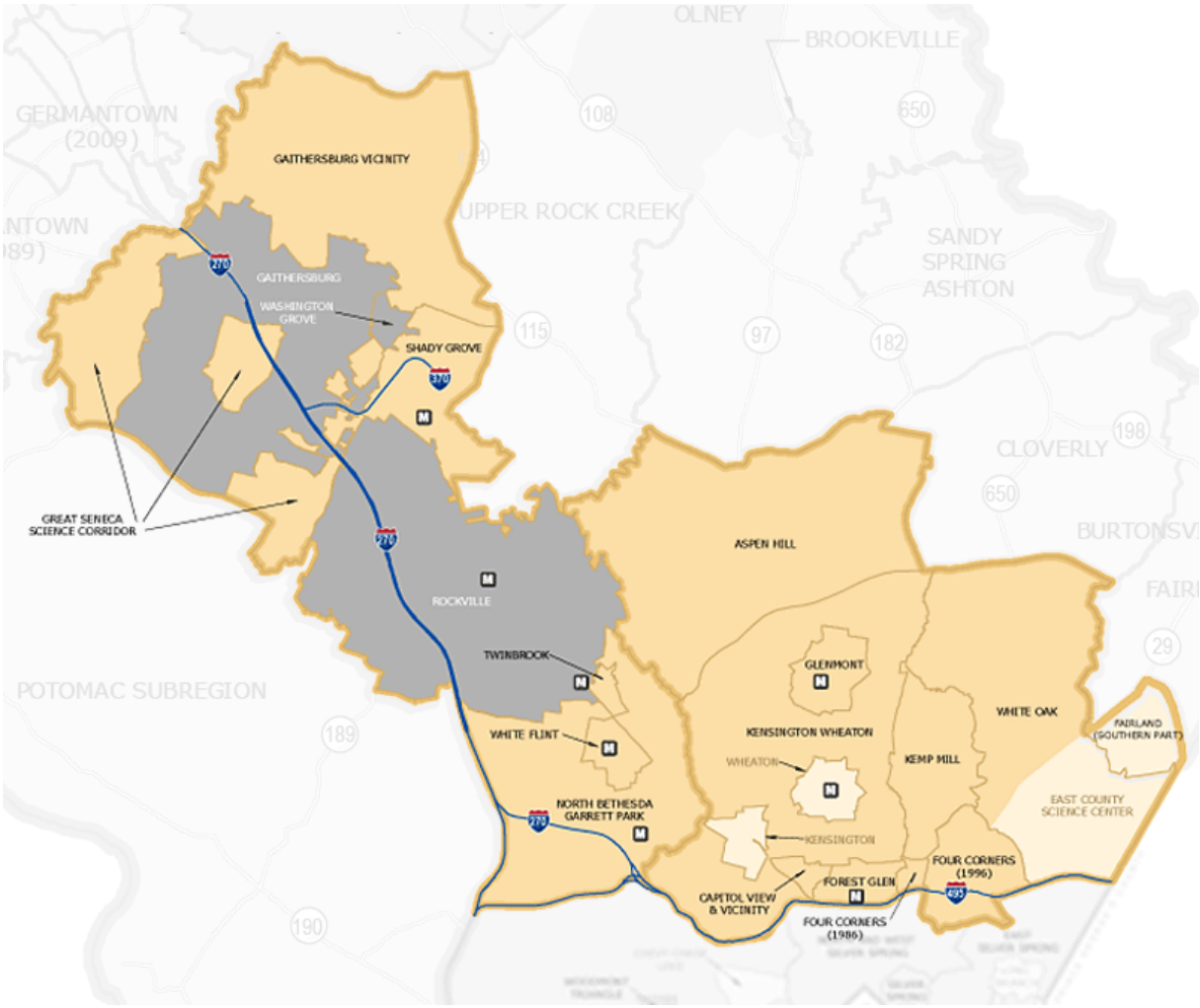
Global Perspective

Rockville & North Bethesda are quickly becoming centers for economic development.

The area is transitioning from a suburban to an urban environment.

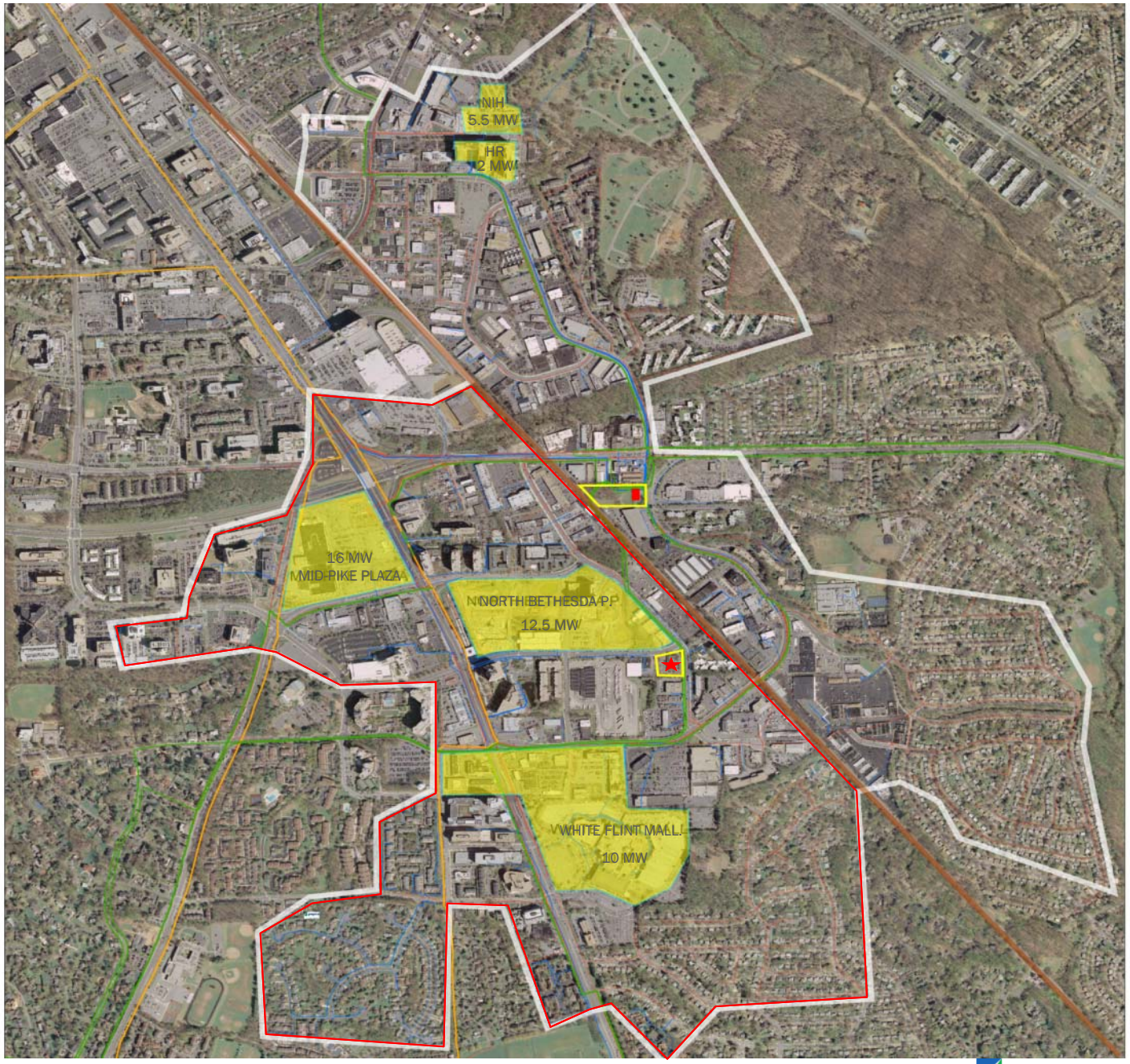
Major development is occurring along the I-270 corridor and the White Flint Area

Significant load growth is expected in the region



Pepco Holdings
An Exelon Company

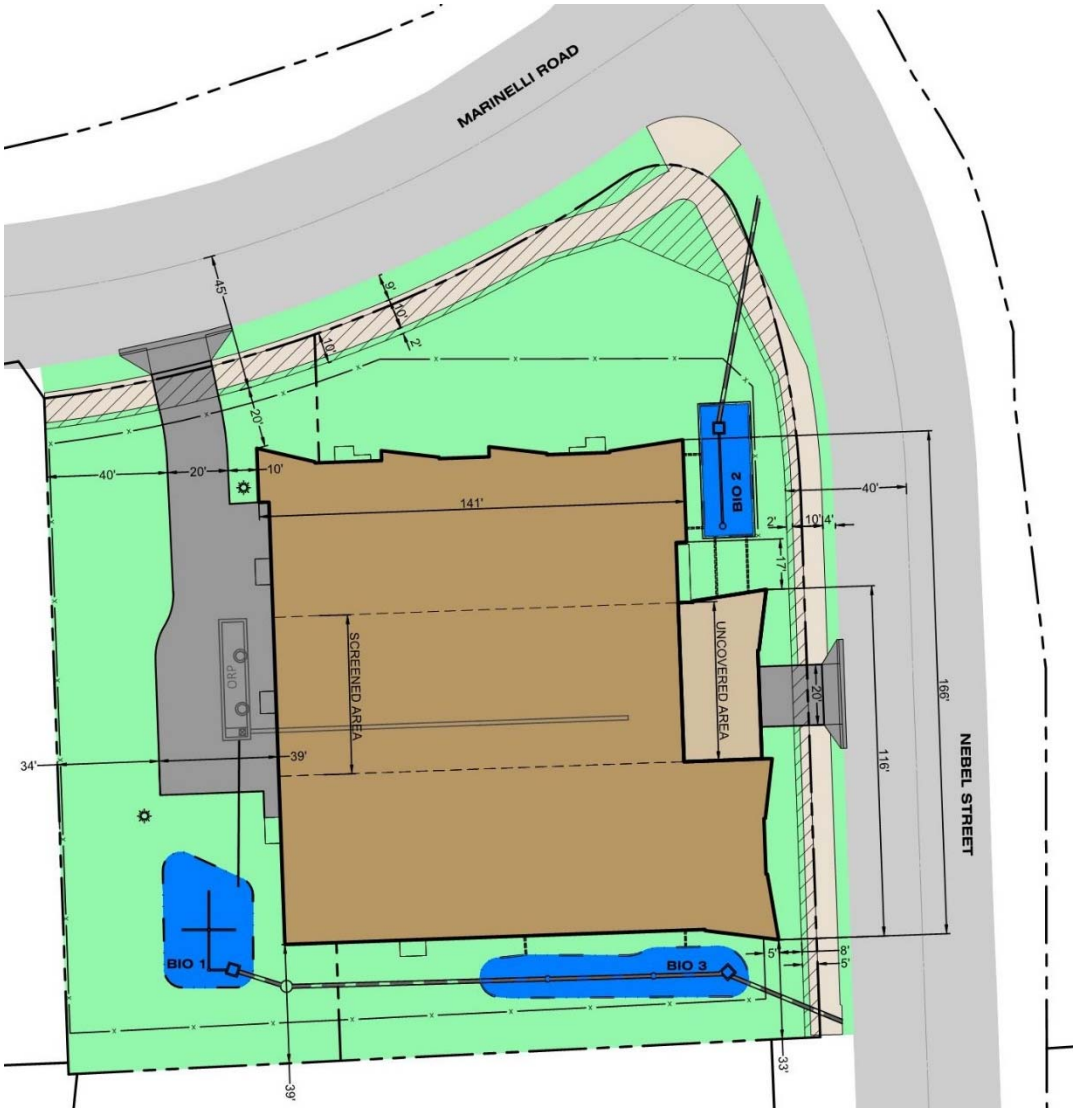
White Flint Sub
Supply Area



- Parklawn Sub supply area
- White Flint Sub supply area
- Future New load

Pepco Holdings
An Exelon Company

White Flint New Substation 69/13kV
Site Development



LEGEND

- BUILDING (UNDER ROOF)
- BUILDING (NOT UNDER ROOF)
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED SIDEWALK
- PROPOSED STORMWATER MANAGEMENT
- PROPOSED GREEN AREA
- PROPOSED 8" WATER
- PROPOSED 4" SEWER
- PROPOSED FENCE
- PROPOSED LIGHT POLE/FIXTURE
- EXISTING PROPERTY LINE
- PROPOSED DEDICATION

Pepco Holdings
An Exelon Company

White Flint New Substation 69/13kV

Existing condition – Aerial at Marinelli Road & Nebel Street

Pepco Holdings
An Exelon Company

White Flint New Substation 69/13kV (Cont.)

Existing condition **Intersection at Nebel & Marinelli**

White Flint New Substation 69/13kV (Cont.)

Existing condition **View from Nebel Street**

Existing condition **View from Marinelli Road**

Pepco Holdings
An Exelon Company

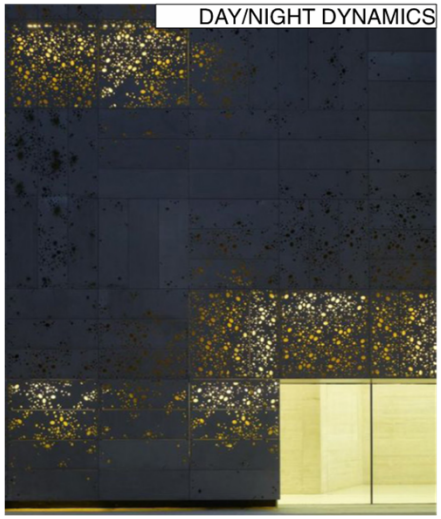
White Flint New Substation 69/13kV

Architectural concept

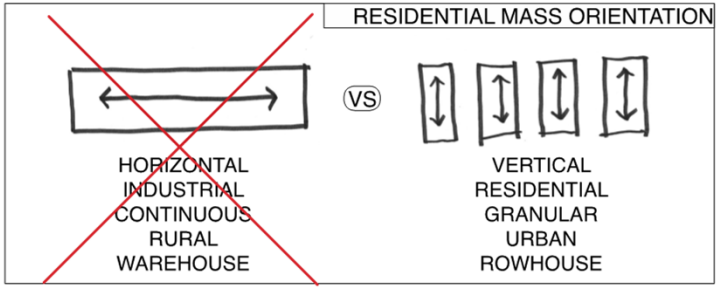
MASSING & MATERIALS: "ART BOX" CONCEPT

PERFORATED SCREEN

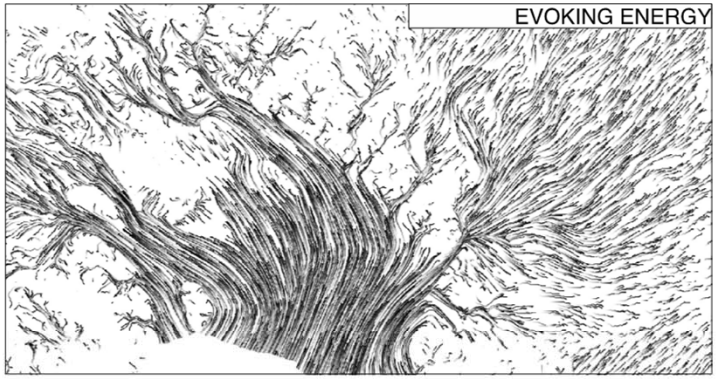
DAY/NIGHT DYNAMICS



RESIDENTIAL MASS ORIENTATION

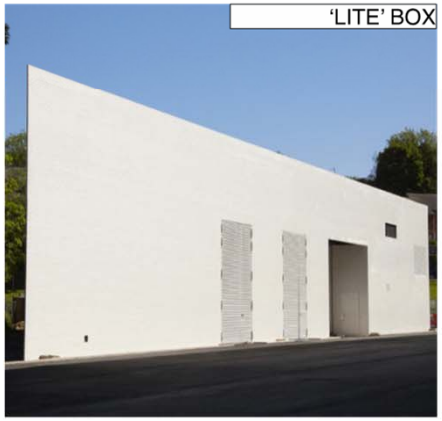


EVOKING ENERGY



'LIGHT' BOX

'LITE' BOX



DYNAMIC PATTERNING

From discussions with the County, it was desired for the design to have a modern, "jewel-box" character. Rather than attempt to camouflage itself by mimicking an alternate use, the building is viewed as a public art piece, a landmark & a visual asset to the neighborhood. The building highlights & engages an active street corner planned for mixed-used, multi-family residential development.

Pepco Holdings
An Exelon Company

White Flint New Substation 69/13kV

Proposed Rendering - Intersection at Marinelli Road and Nebel Street

To signify a more urban, residential character, the mass of the substation is broken down into 'bays' that emphasis the verticality of the façade rather than the horizontal, rural warehouse proportions. There is strong importance of creating visual 'life' to the windowless façade of an industrial use building.

White Flint New Substation 69/13kV

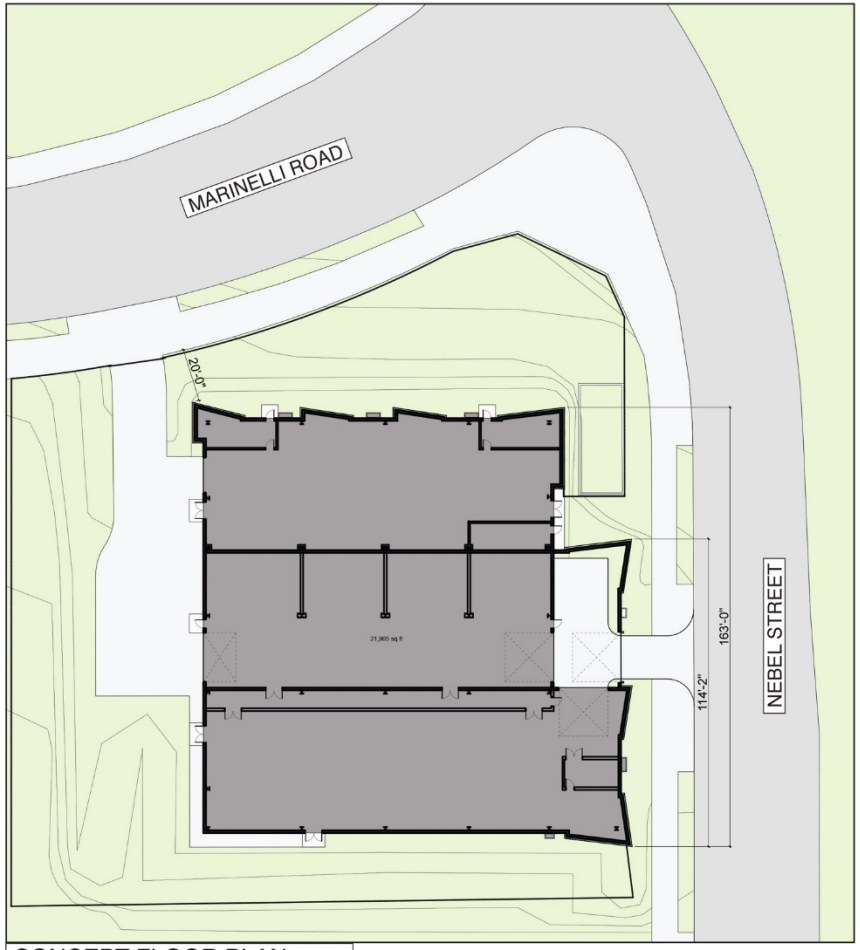
Proposed Rendering - Intersection at Marinelli Road and Nebel Street

In lieu of fenestration, the use of backlit perforated Trespa laminate panels creates a visually light scrim over the concrete shell. A CNC-routed pattern depicting waves of energy is applied to the panels, which has a subtle daytime quality and becomes an illuminated nighttime feature facing the streets. Vertical channel glass 'lanterns' between the bays animate the building with light and introduces glass to the project material pallet without using traditional windows.

Pepco Holdings
An Exelon Company

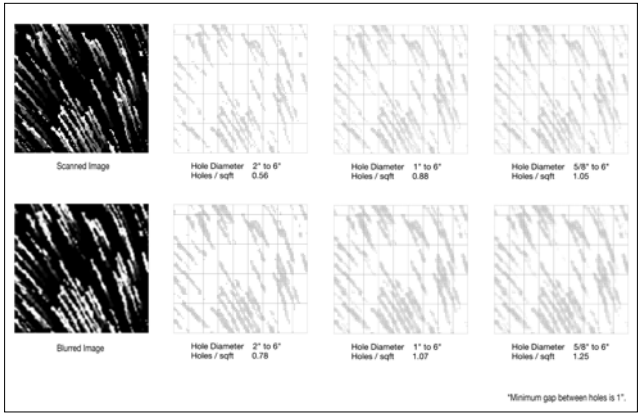
White Flint New Substation 69/13kV

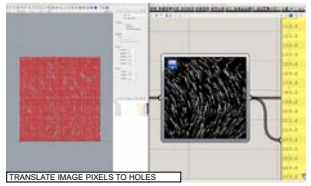
Proposed – Digital Patterning & Scale

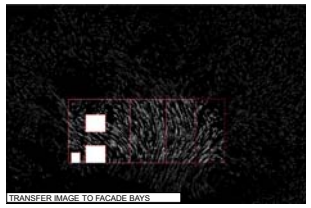


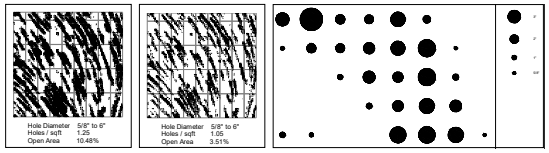
CONCEPT FLOOR PLAN

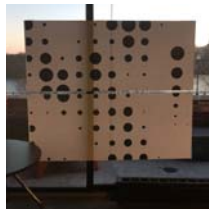
MATERIAL TESTING: PANELIZATION, PERFORATION SPACING & MOCK-UPS











DAY RENDERING - NON-PUBLIC VIEW

On the Nebel Street elevation, the primary façade engages the sidewalk directly to maintain the urban-edge. An over-sized, 1' x 3' running bond grid diminishes the appearance of the building mass by using a monumental-scale module proportion. The result is a building that is visually light in color and bulk, and dynamically but subtly illuminated at night evoking liveliness in an otherwise unoccupied infrastructure building.

Pepco Holdings
An Exelon Company

White Flint New Substation 69/13kV

Proposed Renderings – Marinelli Street & Nebel Street Approaches

Pepco Holdings
An Exelon Company

Questions?