

## **George's Hill Pump Station Project**

Submission to City of Philadelphia Art Commission

Cover Letter

December 19, 2023

To whom it may concern,

### **Existing Conditions**

The proposed site for the George's Hill Pump Station (GHPS) is currently an undeveloped area within Fairmount Park, located at the northeast corner of the intersection of N George's Hill Drive and S George's Hill Drive. This area is primarily characterized by natural vegetation, including trees and brush, which will require careful management during the construction phase. The site's proximity to existing infrastructure, particularly the Mann Center and Belmont High Pump Station, and its integration within the park's landscape are key considerations for the project's design and execution.

### **Purpose of the Project**

The GHPS project involves constructing a new pump station, yard piping and valves, electrical switchgear, a standby engine-driven generator, retaining wall with ornamental fence, and an access road. The Philadelphia Water Department will bring the new facility into service, significantly contributing to the city's infrastructure. With a firm capacity of 16.5 million gallons per day, GHPS will operate in parallel with the existing Belmont High Pump Station (BHPS), crucial for maintaining clean potable water supply for the residents of west Philadelphia.

The project aims to establish a redundant water service source for the Belmont High Service Pressure District to maintain uninterrupted service during maintenance or rehabilitation activities. The design and operational plans for the new facility will be aligned with the existing BHPS to enhance the district's overall service efficiency and will be executed with a focus on minimal environmental impact and be aligned with Philadelphia's green initiatives.

### **Contact Information**

Contact for questions and comments:

**Jimena Larson**

215-751-1400 ext. 250

[jl Larson@nspiregreen.com](mailto:jl Larson@nspiregreen.com)

1520 Locust St #401, Philadelphia, PA 19102

Contact who should receive the commission's decision:

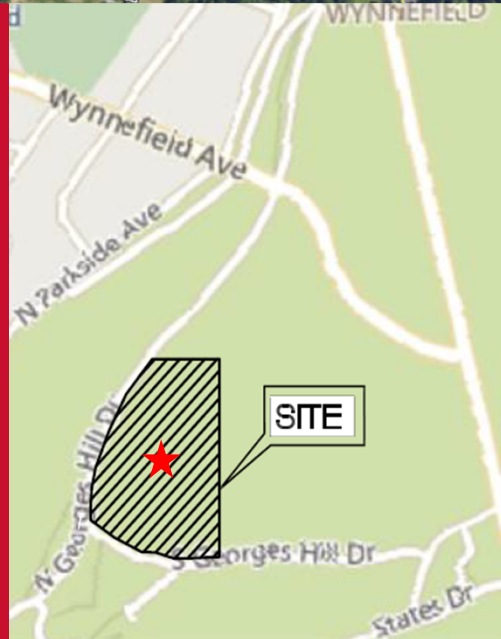
**Troy Belcher**

215.845.6775

Troy.belcher@hdrinc.com

1515 Market St, Suite 2020 Philadelphia PA, 19102





## Art Commission Review - George's Hill Pump Station



January 10, 2024



© 2019 HDR, Inc., all rights reserved.



**01** Background

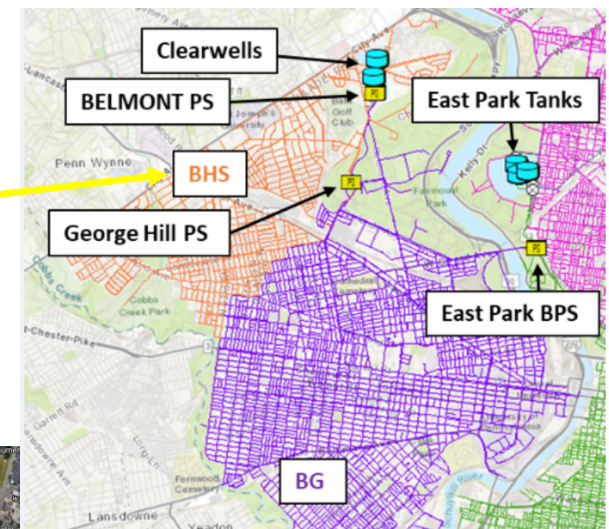
**02** Existing Site Photos

**03** Proposed Work and Examples

**04** 3D Image Renderings

# Background

- Potable Water Service
- Project in Belmont High Service Area (BHS)
  - BHS is currently only served by existing Belmont High Service Pump Station, which does not meet PWD Level of Service Goals for 100% redundant water supply.
- George's Hill PS to supplement existing BH PS
  - New 16.5 Million Gallon Per Day Pump Station
  - Redundant Source Connection
  - Redundant Discharge Connection
  - Surge tank for Pressure Balance
  - On-Site Generator and Electrical Yard



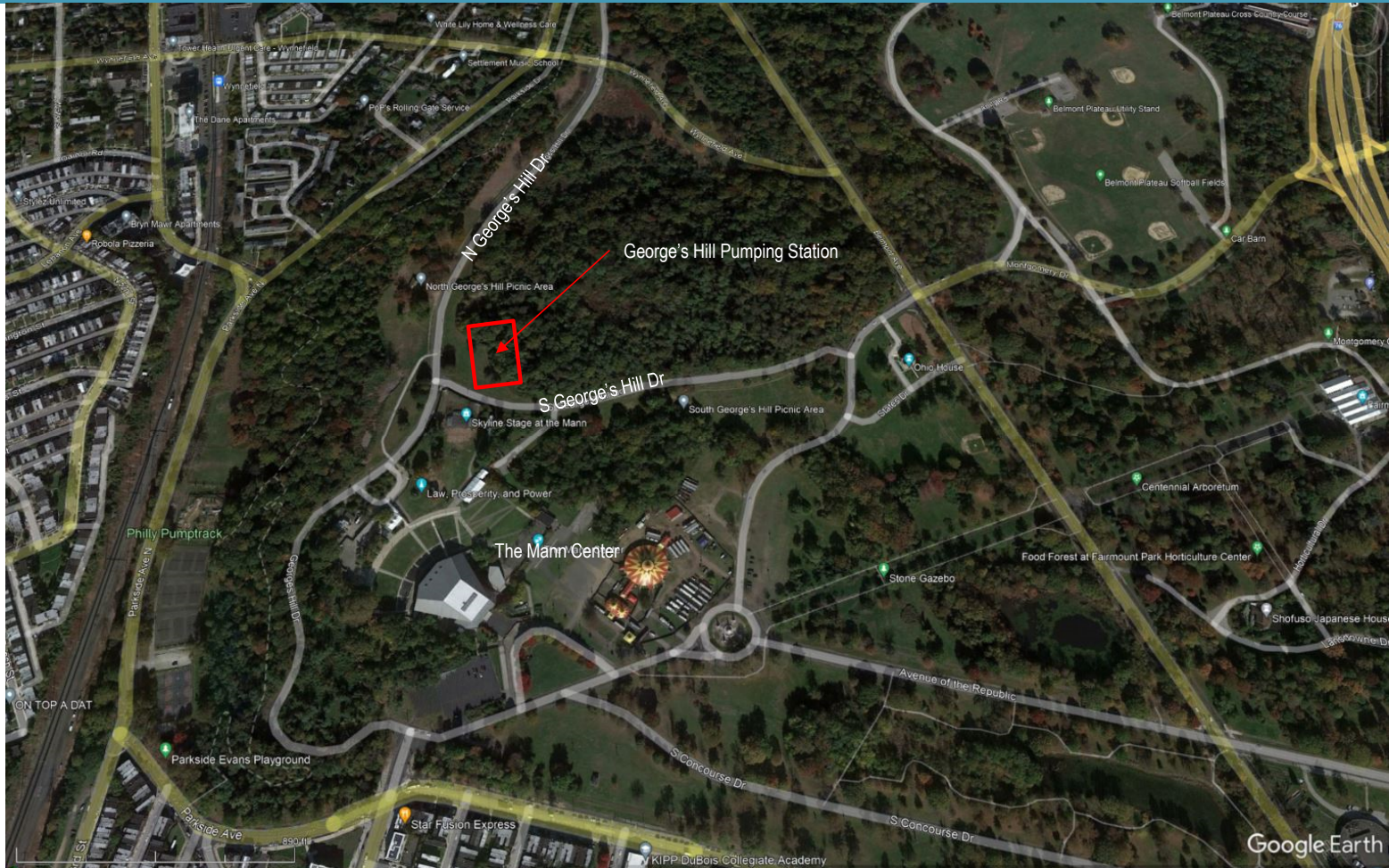


# Project Location

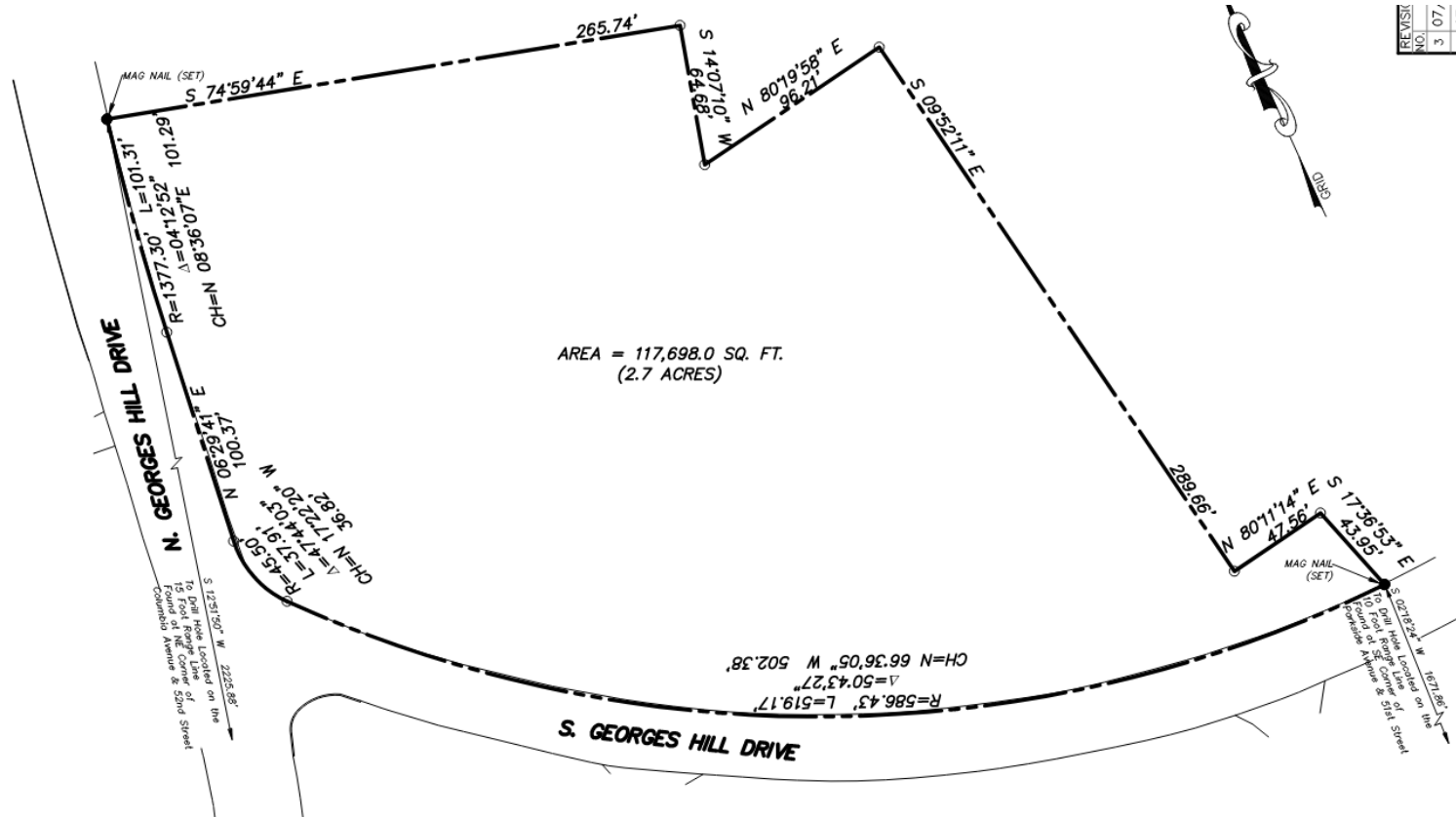




# George's Hill - Site Location



# Boundary Survey



REVISION	NO.	DATE
1	07	17
2	07	17



# Existing Site Photos – Looking West





# Existing Site Photos – Looking East





# Existing Site Considerations



- Heavy vegetation to be removed for new site development
- Tree at corner of N. and S. Georges Hill to be protected in place.

# Existing Site Disturbance



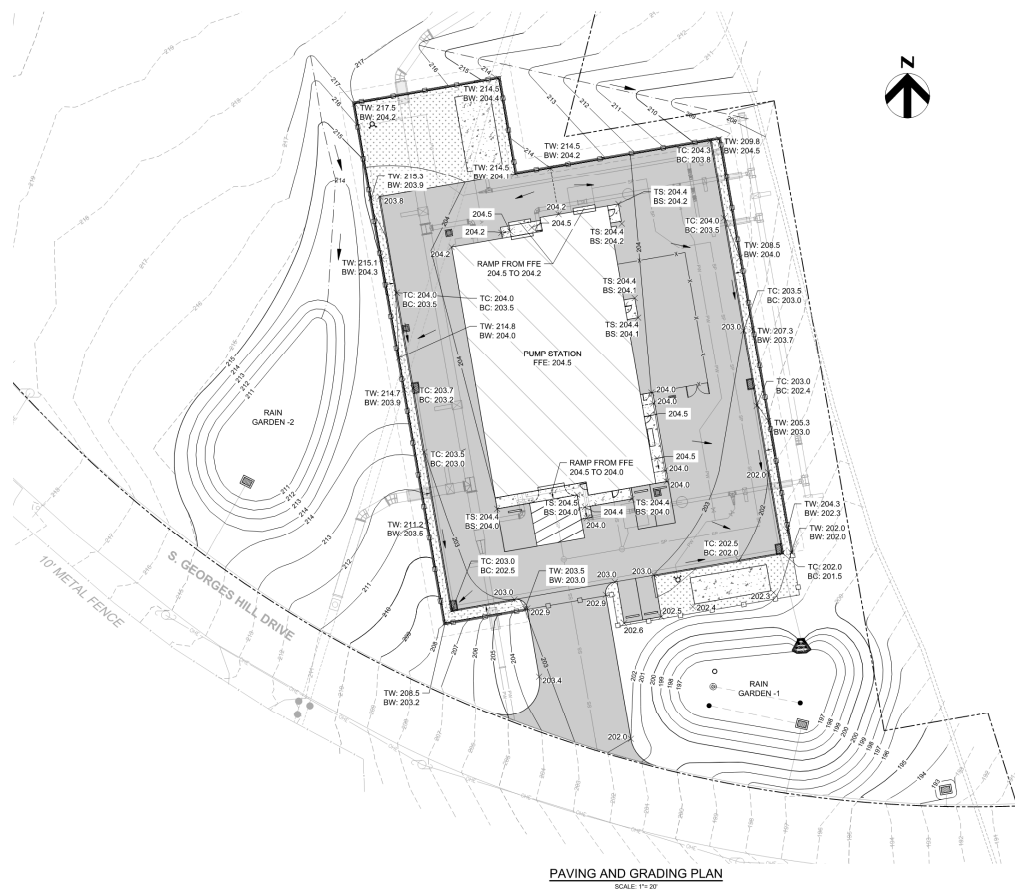
- Tree survey completed by ISA certified arborist.
- 149 Trees to Be Removed
  - 61 trees are in “Good” or “Excellent” condition and require replacement. Trees have a total DBH of 522.7 caliper inches.
    - » Species: American Beech, Basswood, Black Cherry, Box elder, European Horse Chestnut, Norway Maple, Silver Maple, Sycamore, Tree of Heaven, Tulip Tree
    - » Three Heritage Trees (red dots) - all in “Good Condition”
      - Basswood: 28.4 DBH
      - American Beech: 36.2 DBH
      - Silver Maple: 53.2 DBH
  - Trees that do not require replacement:
    - » 6 Ash (Emerald Ash Borer)
    - » 12 invasive species
    - » 70 trees that are in “Dead”, “Very Poor”, “Poor”, or “Fair” condition.

# Site Restoration



- Maximized tree potential within new site:
  - 46 trees to be planted (2.5" Caliper Inches Each)
  - 163 trees still required.
  - Request has been filed to request a waiver for remaining trees that cannot be planted on-site. Alternatively, remaining trees can be located on nearby park land identified by PPR as part of the project.
- All proposed plants will be native per PWD GSI guidelines.
- Vegetation and plantings designed to limit site visibility.

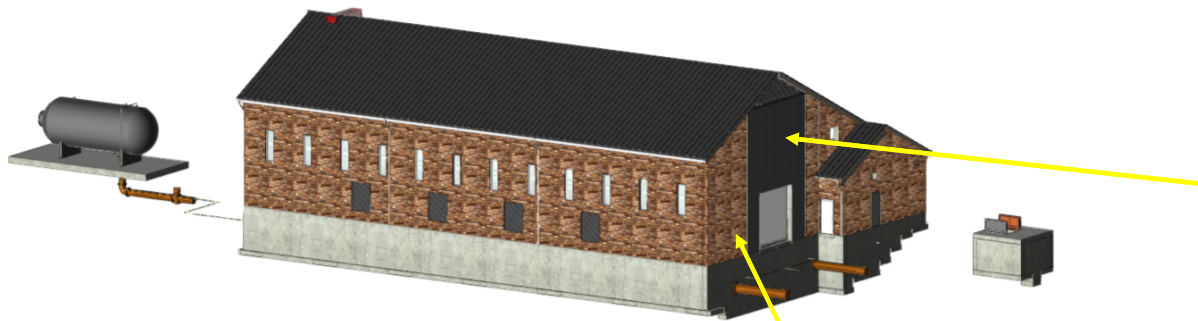
# Site Layout



- New Pump Station
  - Electrical yard on East side of site
  - Surge Tank (not seen from street)
  - Rain Garden Ponds
  - Standby Generator for Continuous Electrical Service
- Heavy excavation required
- Concrete Retaining Wall
  - Levels site for construction of new facility.
  - Lowers facility below view slightly to help minimize visual impact
- Stormwater basins at south end
- Site to be paved
  - Grass around the edges and surrounding the Hydropneumatic Tank/generator.
- Main entrance connects to existing S. Georges Hill Road
- No historical archeologic impacts identified
- No adjacent structures



# Finishes – Building Face



Stone Veneer:  
Wissahickon Schist



Horizontal Corrugated Metal Siding:  
Material: Aluminum  
Assumed Color: Sandstone (To be Provided by Owner)



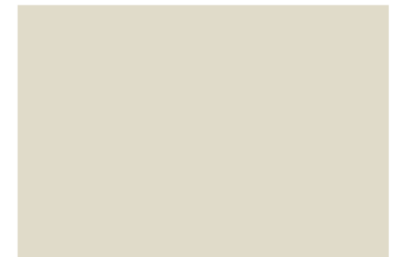
HWP  
WITH OR WITHOUT CLIP

#### MATERIALS

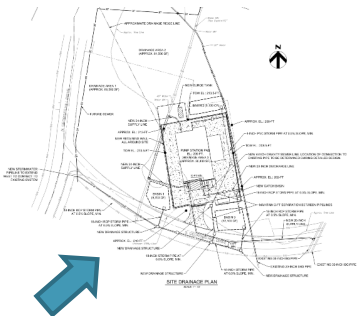
.032 aluminum 24 gauge steel  
.040 aluminum 22 gauge steel  
.050 aluminum

#### SPECS

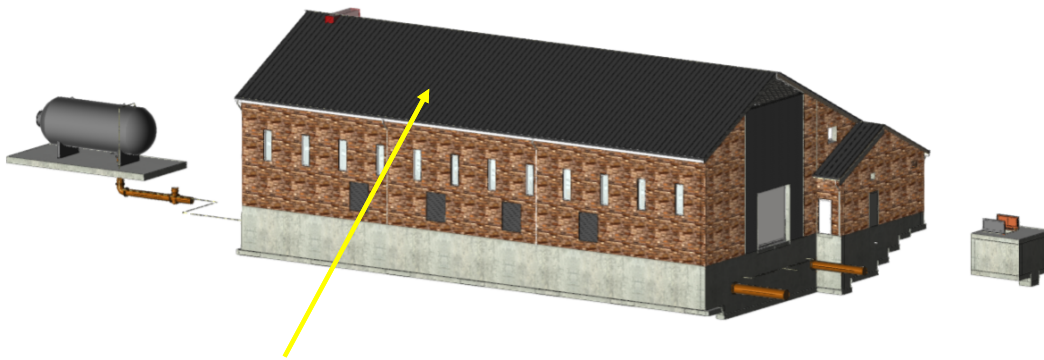
12" or 16" Wide 7/8" High



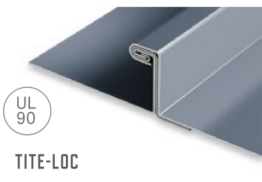
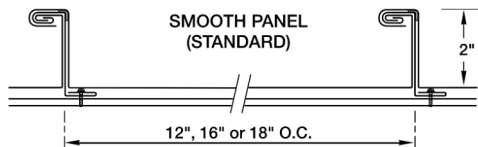
SANDSTONE



# Finishes – Roof

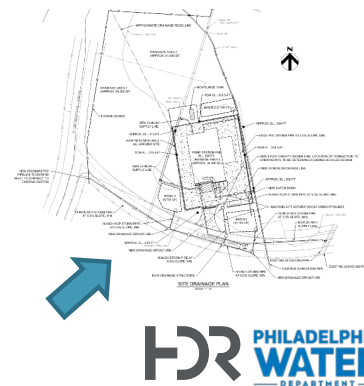


Standing Seam Metal Roof Panels:  
Material: Aluminum, Smooth Panel (18" O.C.)  
Assumed Color: Musket Gray (To be Provided by Owner)

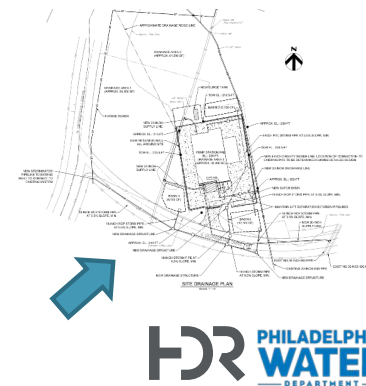
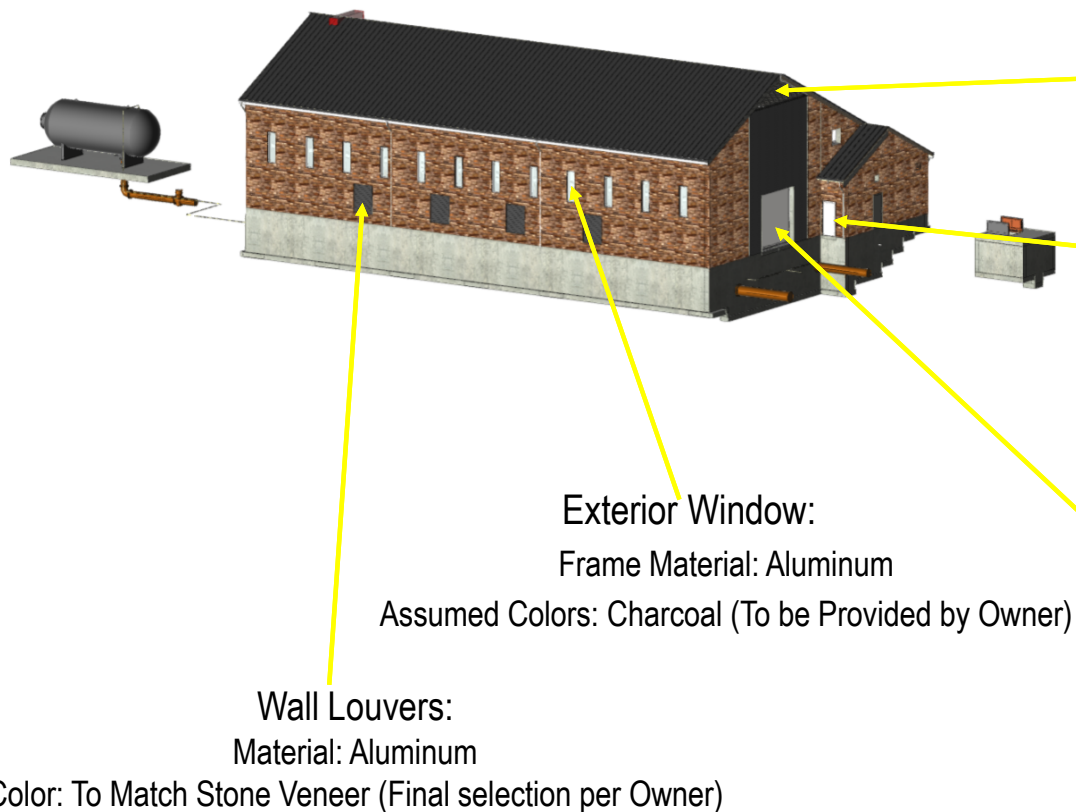


MUSKET GRAY

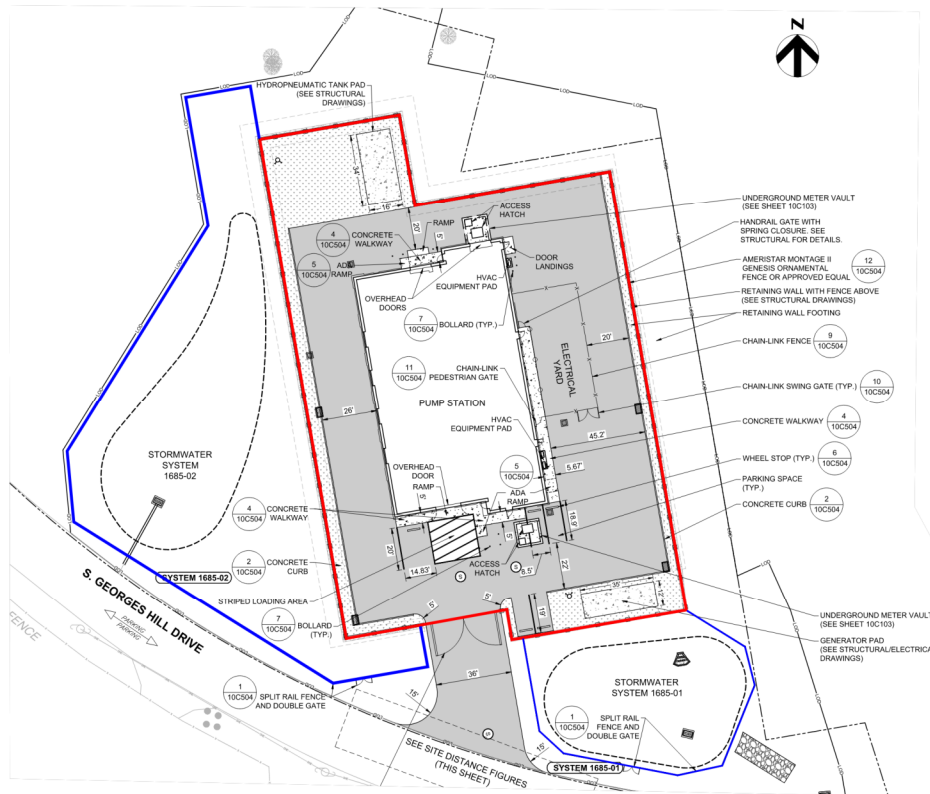
- Eaves, Facia, Trim:
  - Aluminum
  - Color to Match Roof Panels
- Gutters and Downspouts
  - Aluminum
  - Color to Match Roof Panels



# Finishes – Exterior Openings



# Fencing – Ornamental Fence

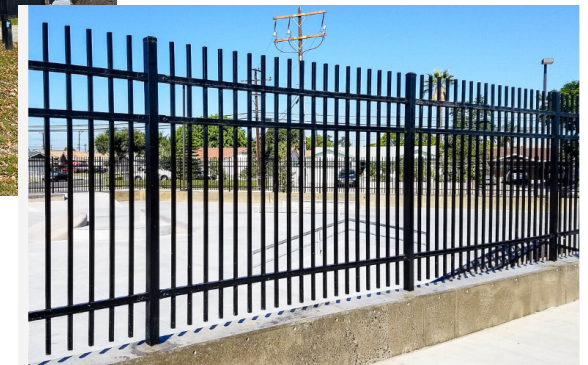


## ○ Site Fence (Red):

- Black 6-ft tall decorative metal fence to match Mann Center
- Mesh provided to limit view
- Mounted to top of retaining wall



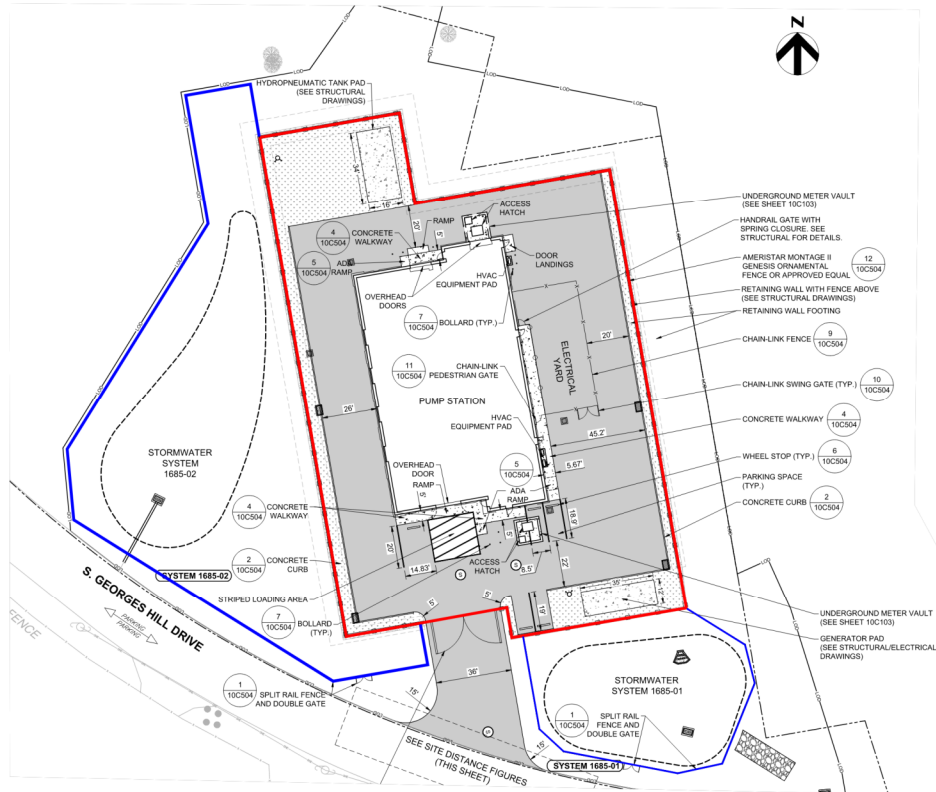
MANN CENTER



EXAMPLE FROM MFR



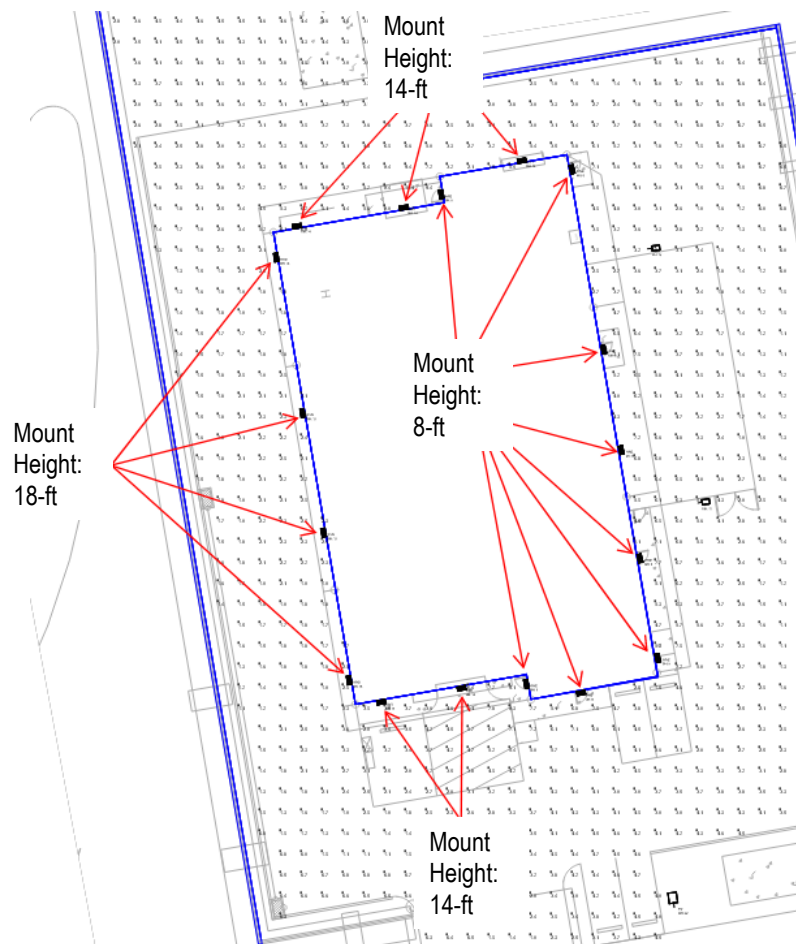
# Fencing – Split Rail GSI Fence



- Retention Pond Fence (Blue):
  - Split Rail Fence to Match PWD GSI Standards



# Site Lighting – Building Mounted Lights



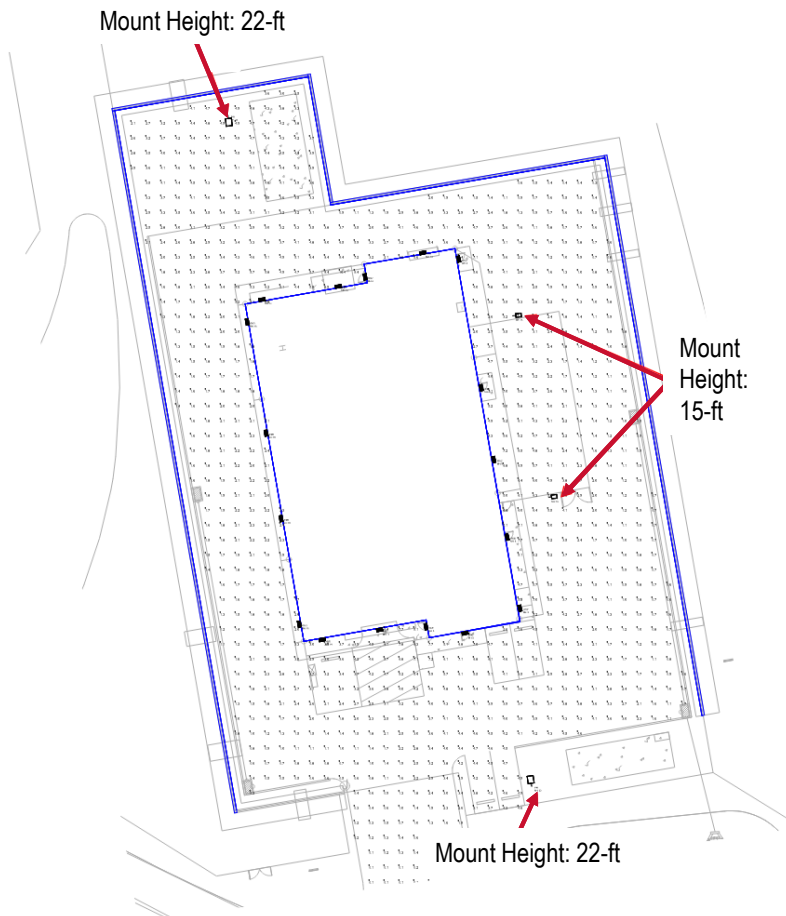
Wall Mounted LED Lights on Building Face

Housing: Aluminum

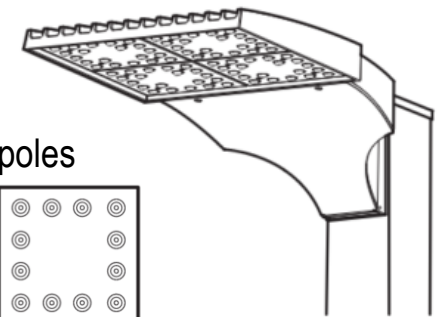
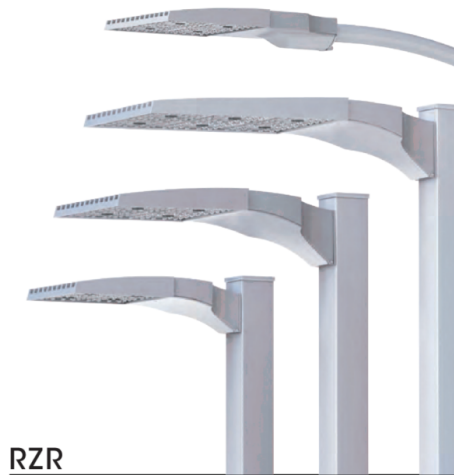
Color: Black



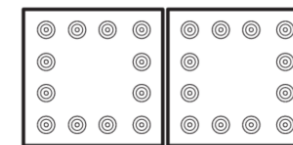
# Site Lighting – Light Poles



LED Pole Mounted Lights on Concrete Foundation  
Housing: Heavy Cast Low Copper Aluminum  
Finish: Powder Coating

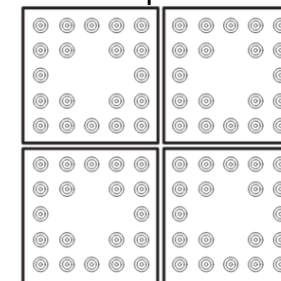


15-ft poles



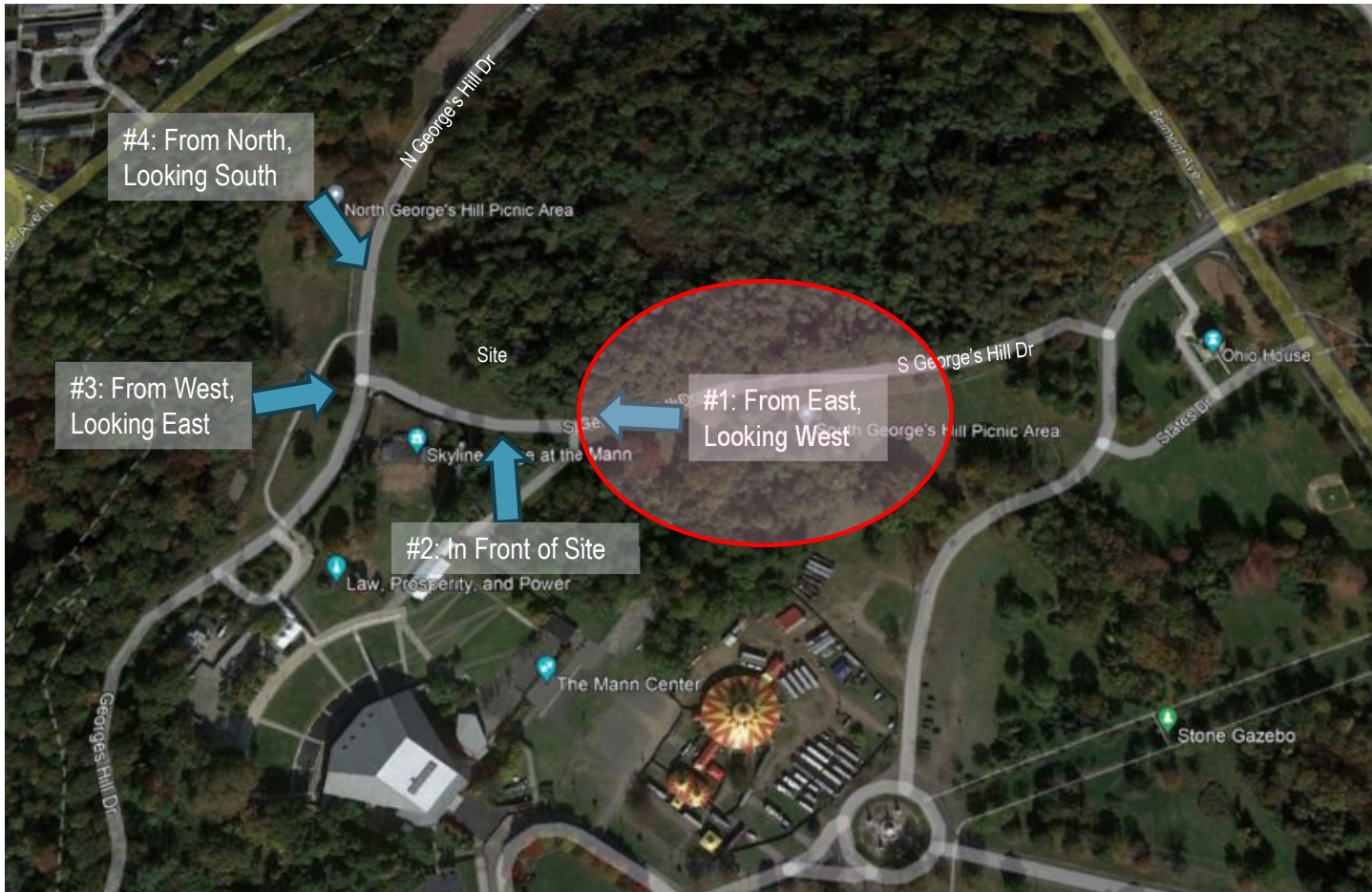
24 LED Module

22-ft poles



80 LED Module

# Site Renderings





#1: From East, Looking West: Existing - Day - Spring



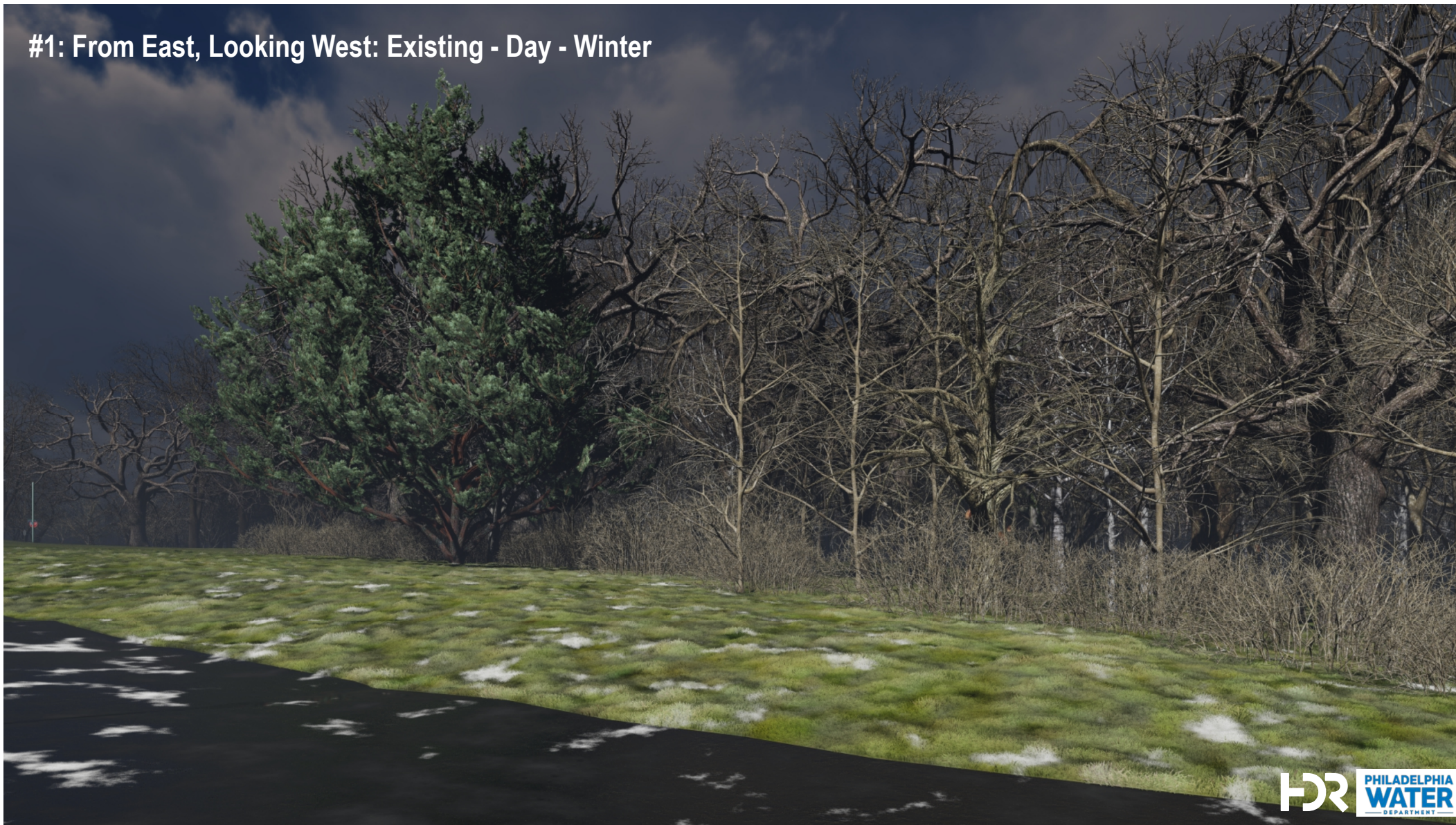


#1: From East, Looking West: New - Day - Spring





#1: From East, Looking West: Existing - Day - Winter





#1: From East, Looking West: New - Day - Winter





#1: From East, Looking West: Existing – Night



#1: From East, Looking West: New - Night



# Site Renderings





#2: In Front of Site: Existing - Day - Spring





#2: In Front of Site: New - Day - Spring





#2: In Front of Site: Existing - Day - Winter





#2: In Front of Site: New - Day - Winter



#2: In Front of Site: Existing – Night

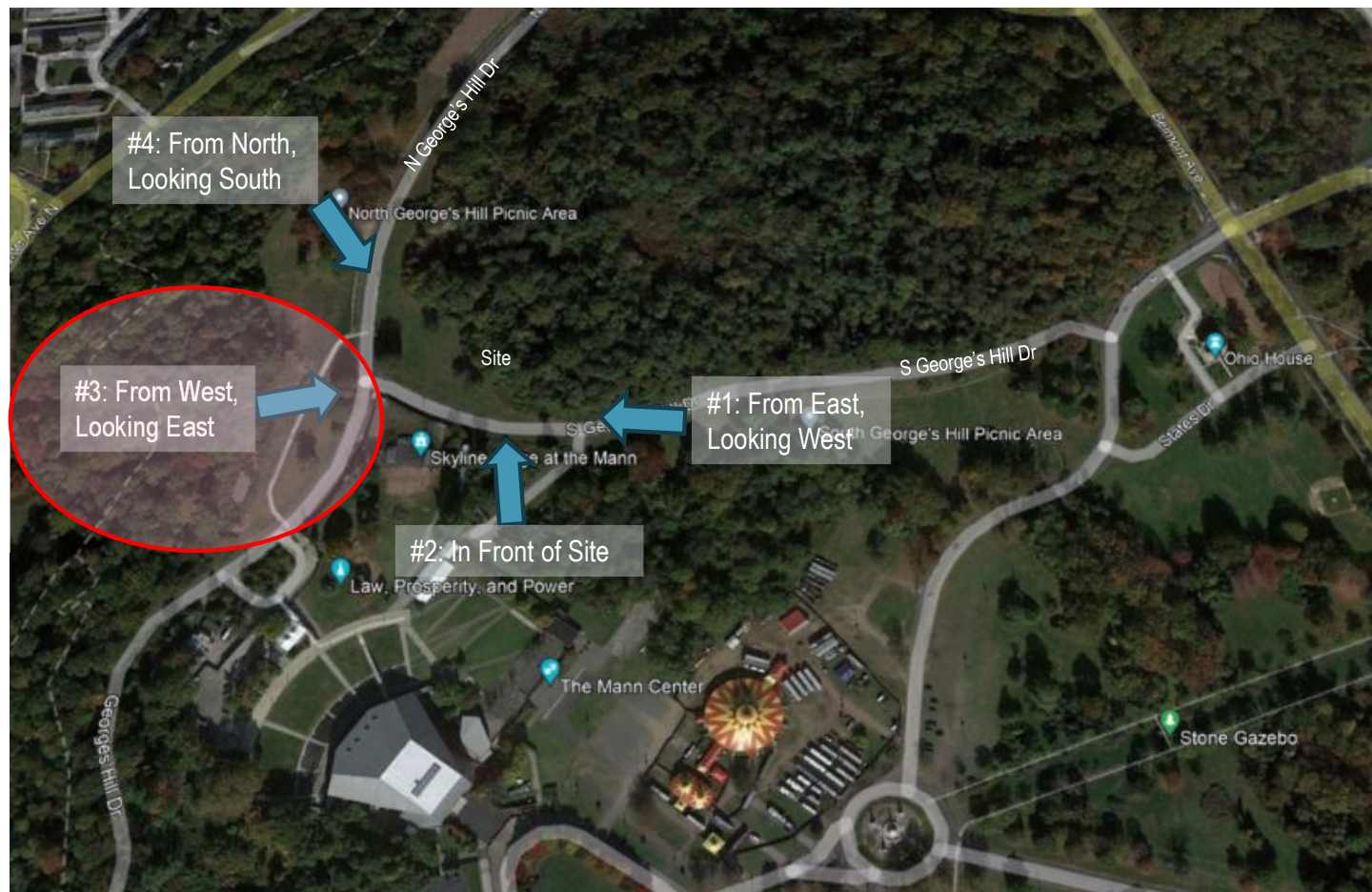




#2: In Front of Site: New - Night



# Site Renderings





#3: From West, Looking East: Existing - Day - Spring





#3: From West, Looking East: New - Day - Spring





#3: From West, Looking East: Existing - Day - Winter





#3: From West, Looking East: New - Day - Winter





#3: From West, Looking East: Existing – Night

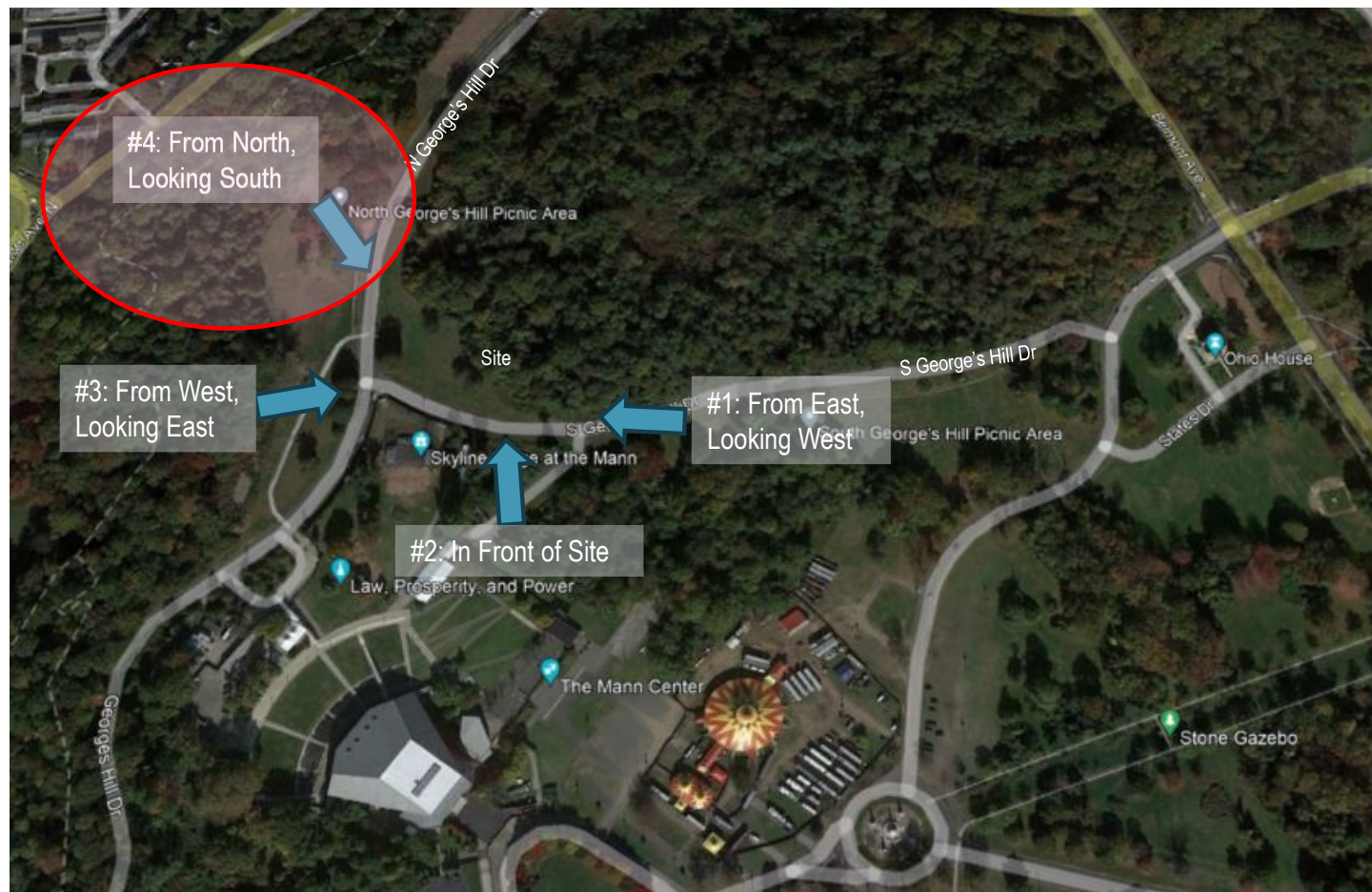


#3: From West, Looking East: New - Night





# Site Renderings





#4: From North, Looking South: Existing - Day - Spring





#4: From North, Looking South: New - Day - Spring





#### #4: From North, Looking South: Existing - Day - Winter



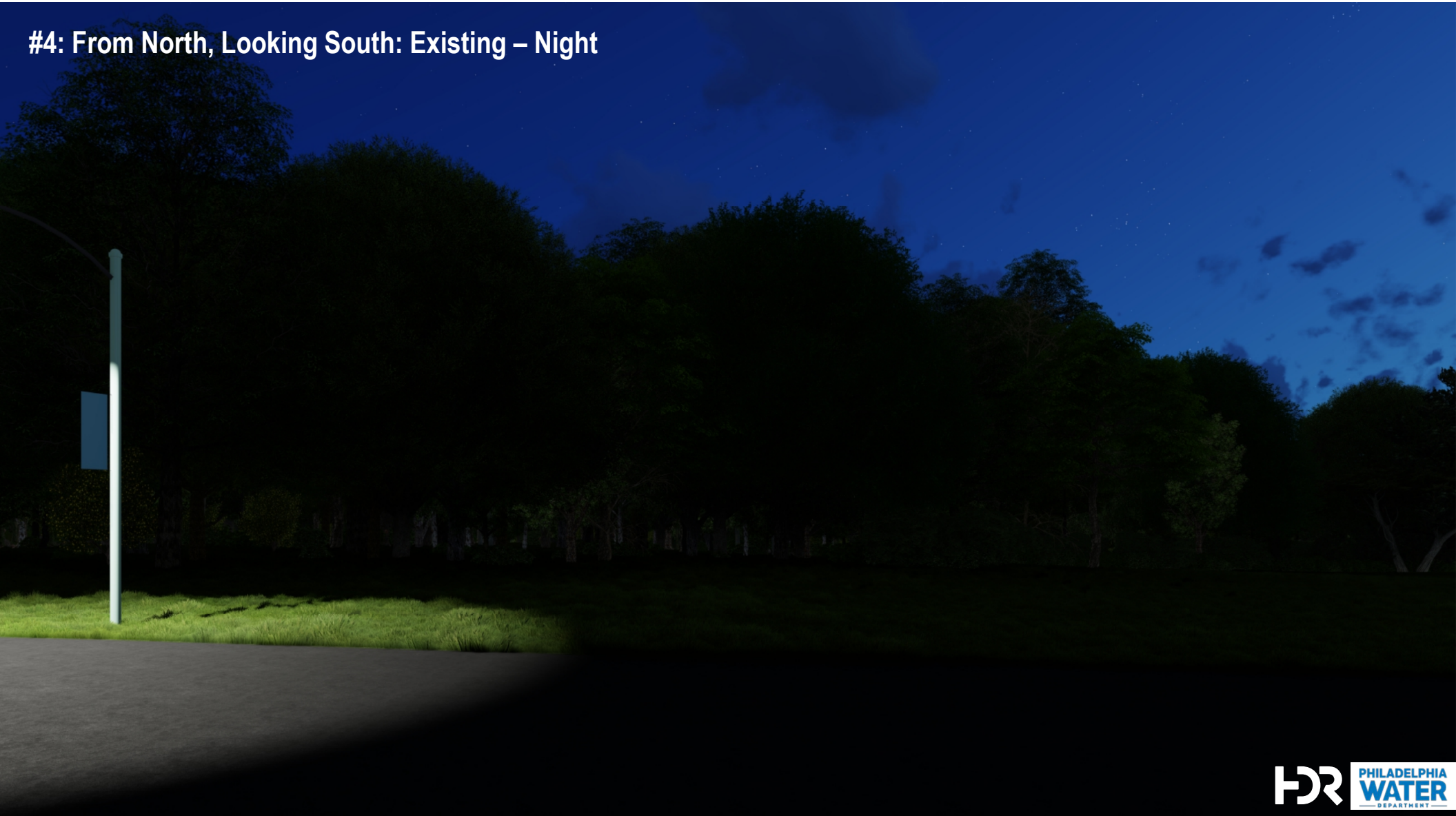


#4: From North, Looking South: New - Day - Winter





#### #4: From North, Looking South: Existing – Night





#4: From North, Looking South: New - Night





# Questions?

