



**Bull Run**  
TREATMENT  
PROJECTS

*Our water: Safe and abundant  
for generations to come*

PORTLAND WATER BUREAU  
**Bull Run Filtration Project**

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**Site Advisory Group  
Facility Layout & Environment**

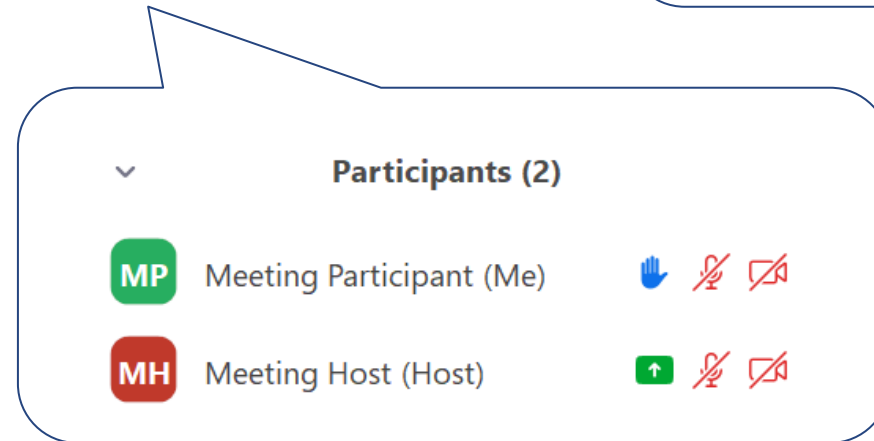
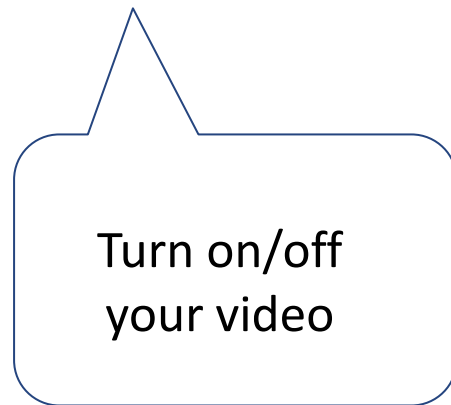
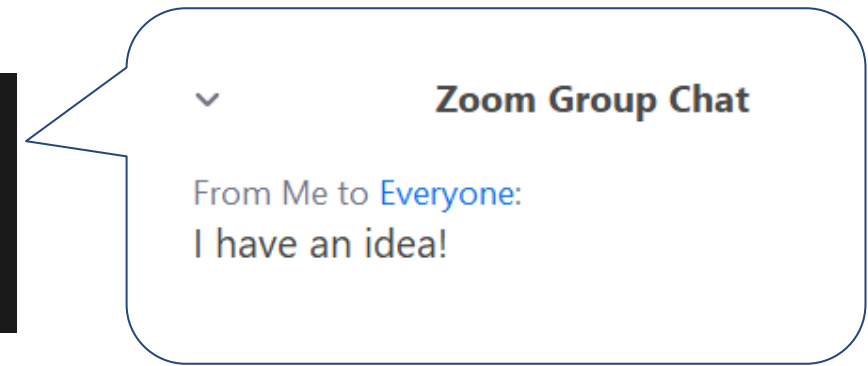


# Agenda

1. Introductions
2. Project Update
3. Facility Design Progress
4. Landscape Design Progress
5. Facility Site Layout Concepts
6. Site Advisor Discussion
7. Next Meeting

# Conference call meeting tips

Using the Zoom tool bar, you can:



✓ We'll post the meeting recording on the website with a summary

# Who's on the line?



- Introduce yourself
- What was your favorite subject in school?

# Project Update

- Planning an online open house Sept. 3-17 to gather community feedback on design topics
- Completing additional field studies along potential pipe routes, including upcoming work Aug. 18
- Working to identify preferred pipe routes later this year as the pipeline designer comes on board
- Negotiating WIFIA loan agreement
- Working on contract negotiation with our pipeline designer and filtration facility contractor
- Working on upcoming reports: Project Definition Report (PDR) and Basis of Design Report (BDR)

# Meeting Recap: Provided insights on preliminary pipeline route alternatives



Site Advisor and community input included preferences for:

- Avoiding Alternative 3C based on anticipated impacts to property owners and local traffic along Carpenter Ln
- If possible, not adding sidewalks to existing roadways
- Located potential new easements along property boundaries where possible



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# Facility Design Progress

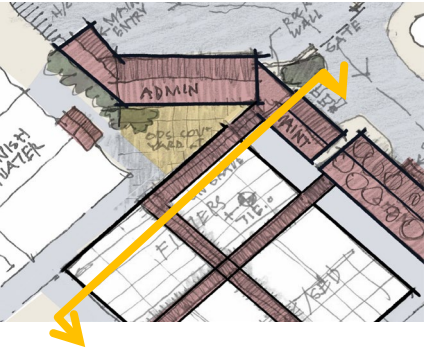
Casey Hagerman

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# Architectural Design Update

- Shared Site Advisor preferences for Agrarian and Pacific Northwest styles (Water Bureau in agreement)
- No decisions yet on roof forms
- Using ideas from *Columbia Gorge Design Guidelines* (building colors, materials, screening, windows)
- Working on facility design guidelines
- Lighting design using Dark Sky Standards as guide





# Strategies to Reduce Off-site Sound Impacts

## Pumps and Electrical Equipment

- Enclosed in buildings where possible
- Sound walls for electric transformers and exterior pump equipment

## Building HVAC Equipment

- Roof enclosures for fans and equipment
- Acoustic louvers for intake/exhaust

## Truck Traffic

- Limited delivery times
- Landforms where possible to absorb sound, and sound walls if near property line

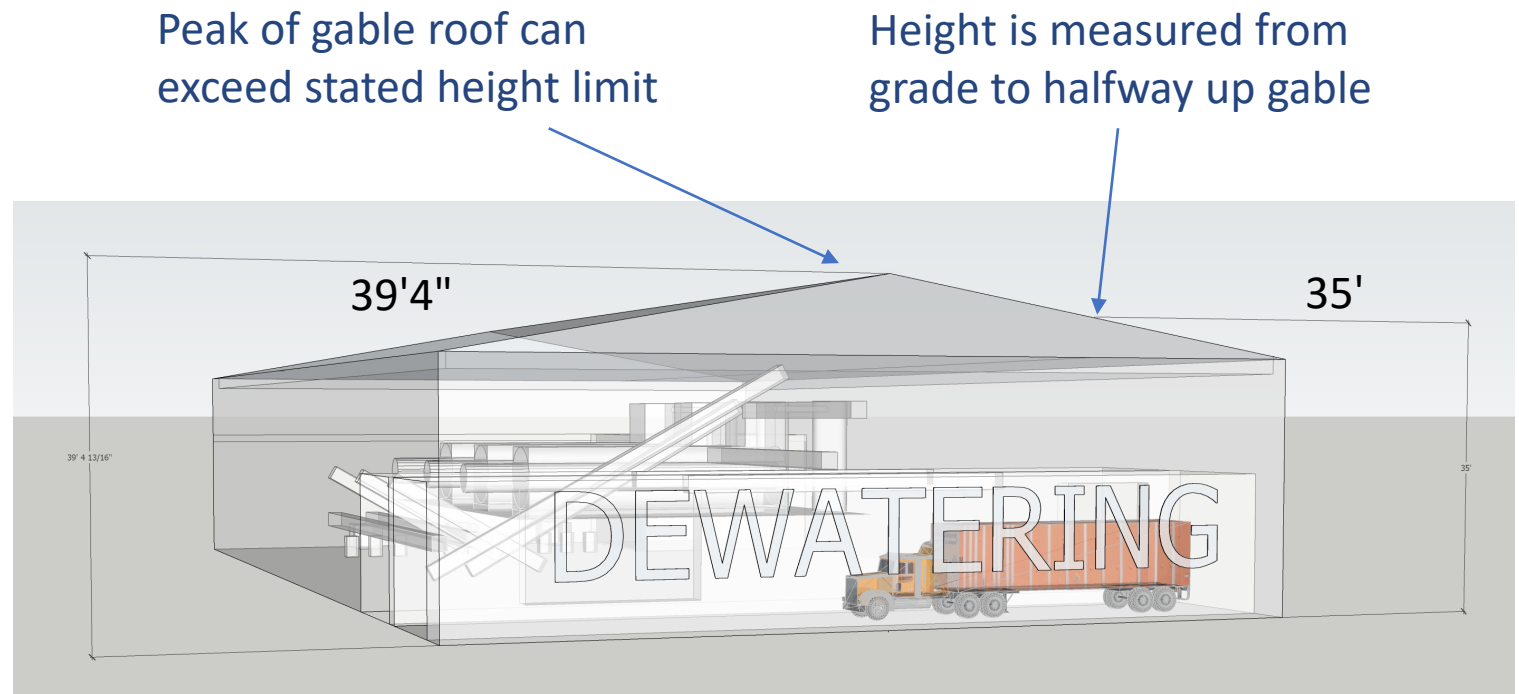
## Next Steps

- Identify noise sources, then design using best practices to meet code limit at property lines
- Evaluate potential design options beyond best practices to further mitigate noise

# Anticipated Height of Facility Structures

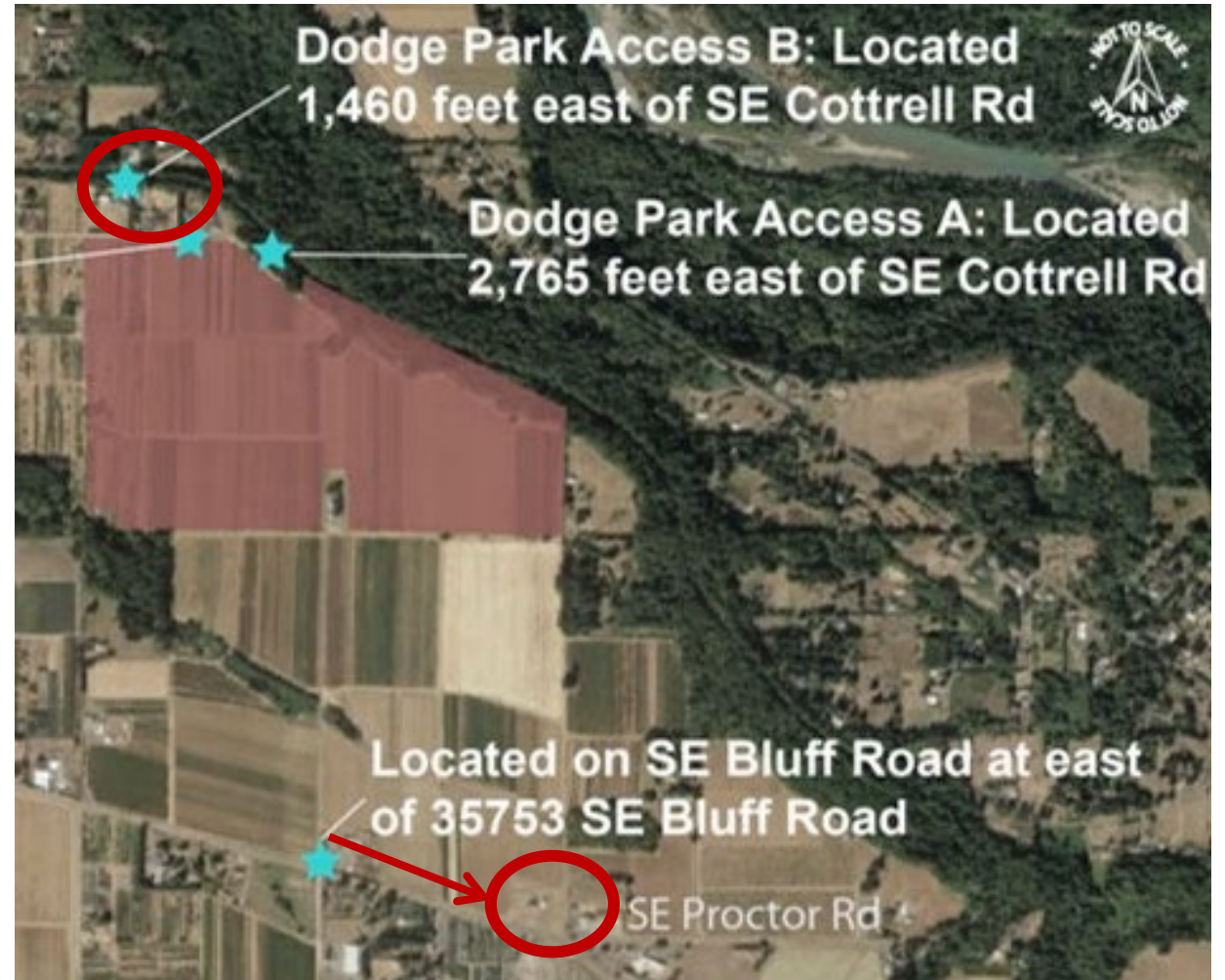
## Multnomah County Code

- 35 ft height limit
- Measured to average height of sloped roof from grade (i.e., halfway up)
- Barns, silos, antennas may exceed height limit
- Dewatering and chemical buildings will be tallest, likely at height limit



# Site Access Update

- Two site accesses (north and south) are preferred
- Working on specific access requirements
- Identifying design challenges (access conflicts, grading issues, county requirements, neighbor impacts)
- Continuing discussions with neighbors about property uses and easements





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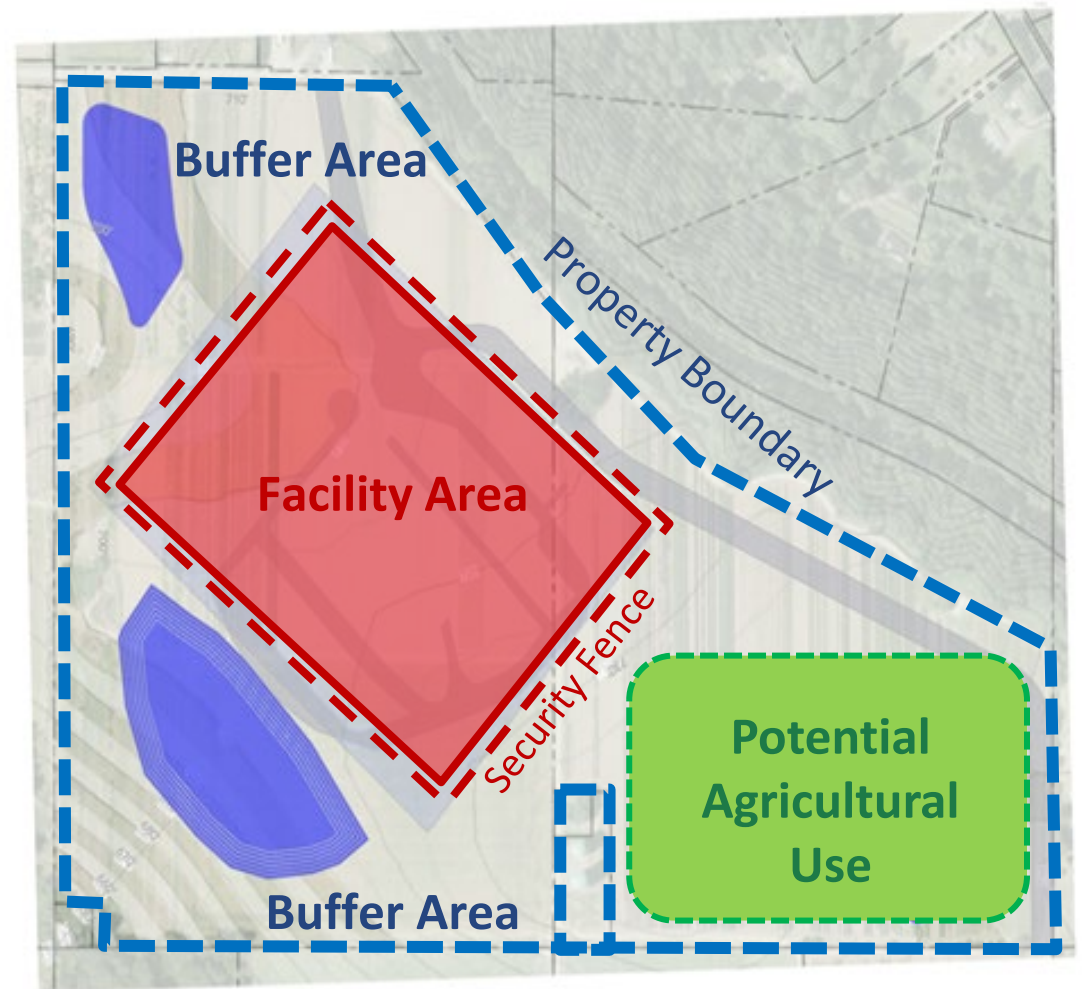
# Landscape Design Progress

Ben Ngan, Jason Hirst

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# Site Landscape Design Considerations

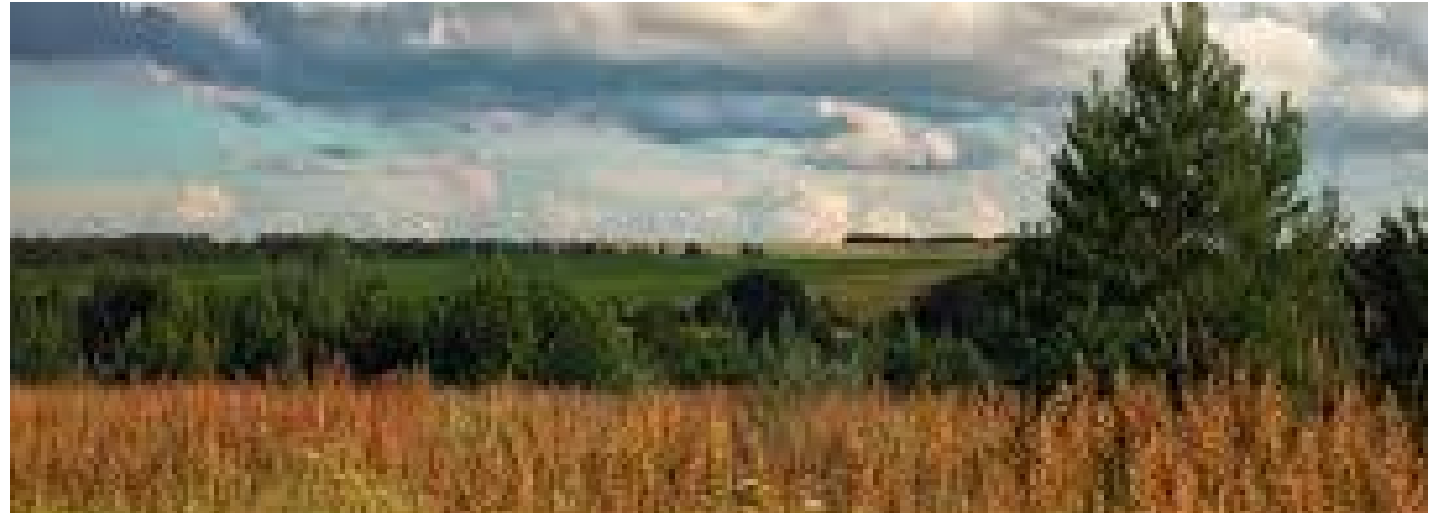
- **Facility Area - "Inside the Fence"**
  - Secure process area (8' fence)
  - Landscape and stormwater swales where appropriate
- **Buffer Areas**
  - Screen views of Facility Area
- **Potential Agricultural Use**
  - Reintroduce agriculture
- **Property Boundary**
  - Some locations marked with similar fencing type found in community





# Screening at Site Edges and Buffers

- **Berms/Landforming**
  - Assessing location, height, slope
- **Landscape**
  - Native trees/understory and native meadow
  - Denser vegetation where appropriate to screen facility
- **Stormwater**
  - Possibly use constructed wetlands
  - Maintain current levels of runoff to Johnson Creek



# Landscape Character "Outside the Fence"

- **Native forest** with plant understory
- **Meadow** with stands of native trees

## Considerations

- ✓ Suited to regional character, Bull Run Watershed
- ✓ Potential habitat support
- ✓ Varied based on location on site





# Landscape Character "Inside the Fence"

## Native-style Planting

- Fir forest and understory
- Meadow plantings

## Managed Landscape

- Trees, shrubs, groundcover
- Lawn and alternatives

## Considerations

- ✓ Maintenance needs
- ✓ Appearance
- ✓ Sustainability
- ✓ Fire safety and preparedness
- ✓ Stormwater management



# Landscape Character "Inside the Fence"

- Facility Area is largely buildings or paving, landscape is integrated where needed and at perimeter
- Likely a hybrid of initial arrangement alternatives

## Considerations

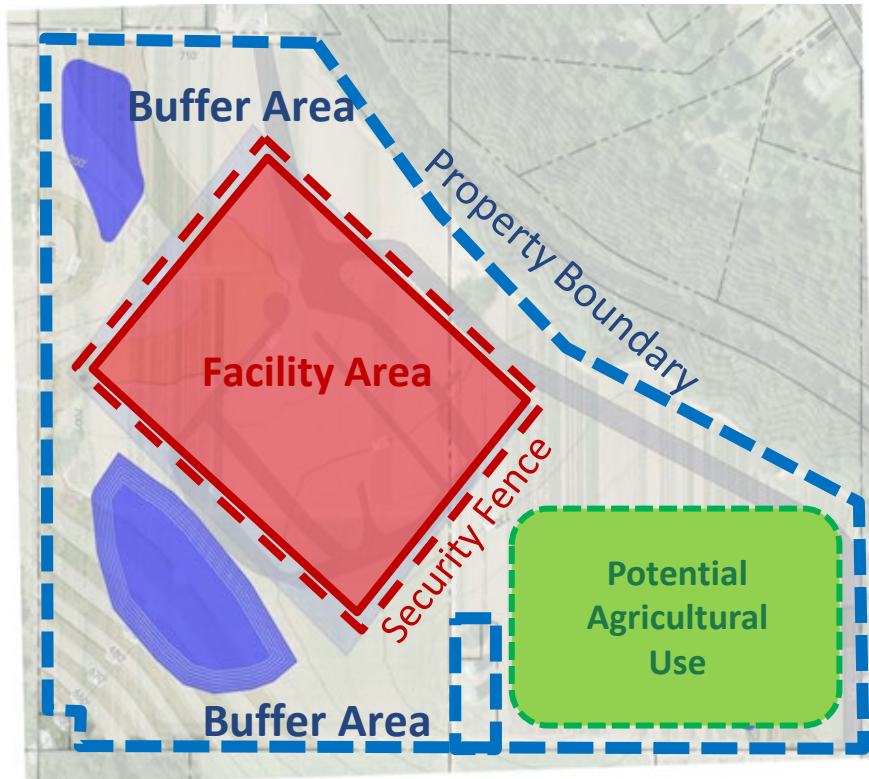
- ✓ Include buffers between buildings and dense landscaping to reduce fire risk
- ✓ Incorporate efficiencies: low water, low maintenance, LEED considerations





# Fencing Concepts

- Fencing types will vary depending on location on site
- Extent of fencing at property boundary is still being considered



**For Property Boundary, considering wire fencing type typical of local farming**



**For Facility Area, anticipate sturdier, secure fencing type (8' minimum height)**



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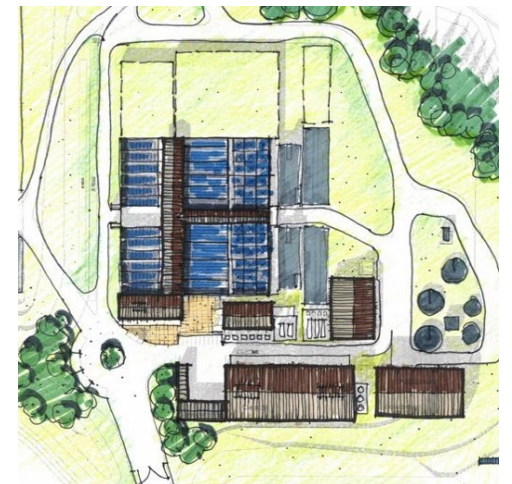
# Facility Site Layout Concepts

Jeff McGraw, Casey Hagerman

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# Preliminary site layout concepts incorporate initial preferences shared by the Water Bureau and community

- ✓ Setting facilities and gates back from the site edges
- ✓ Screening the facilities where possible using landforms and tree plantings
- ✓ Keeping the site close to the current grade to limit construction excavation and truck trips
- ✓ Providing site access from the north or south
- ✓ Integrating stormwater and overflow basins into landscape
- ✓ Reserving eastern area of property for other uses (potentially, agriculture)
- ✓ Allowing for potential community uses along site edges





# Preferred features from initial site layout concepts will be re-packaged into updated options

## North Campus Initial Layout Concept

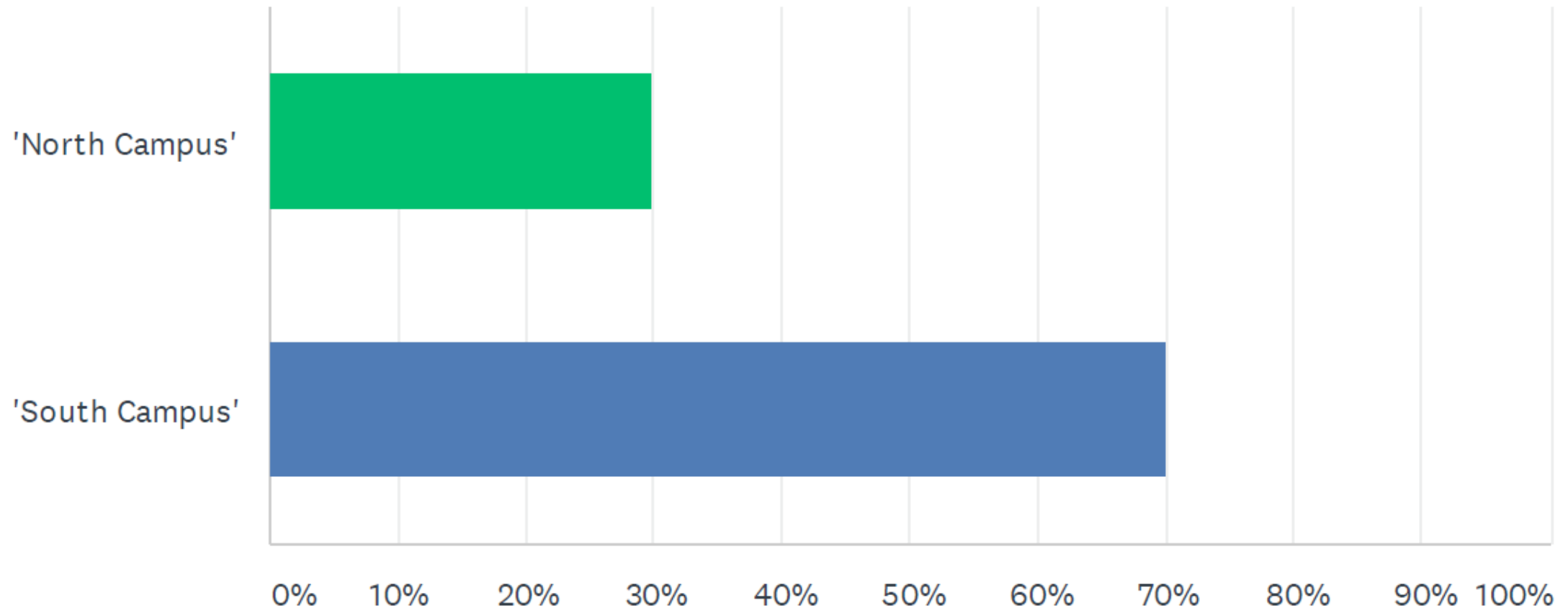


## South Campus Initial Layout Concept



# Site Advisor Input: Layout Concept Preferences

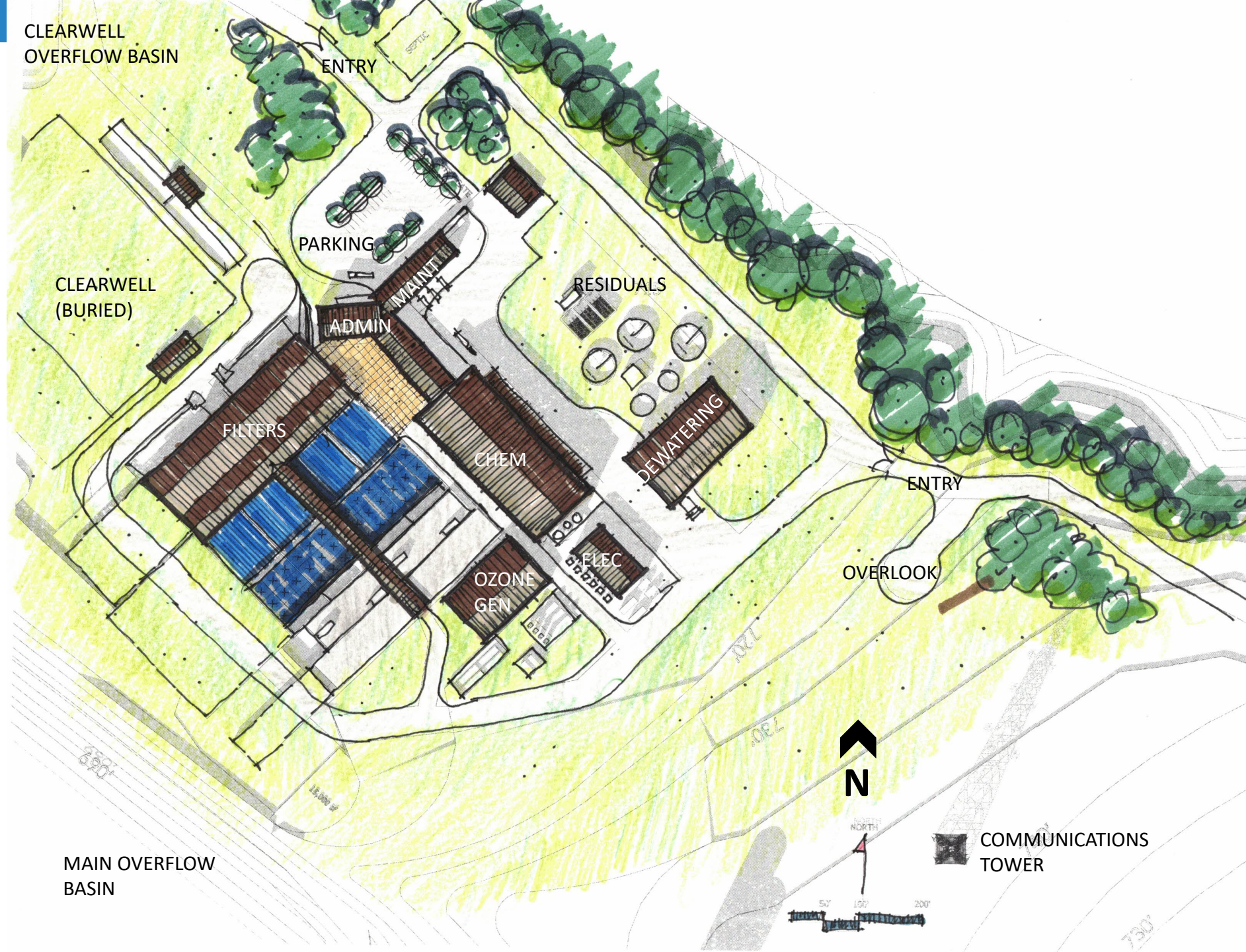
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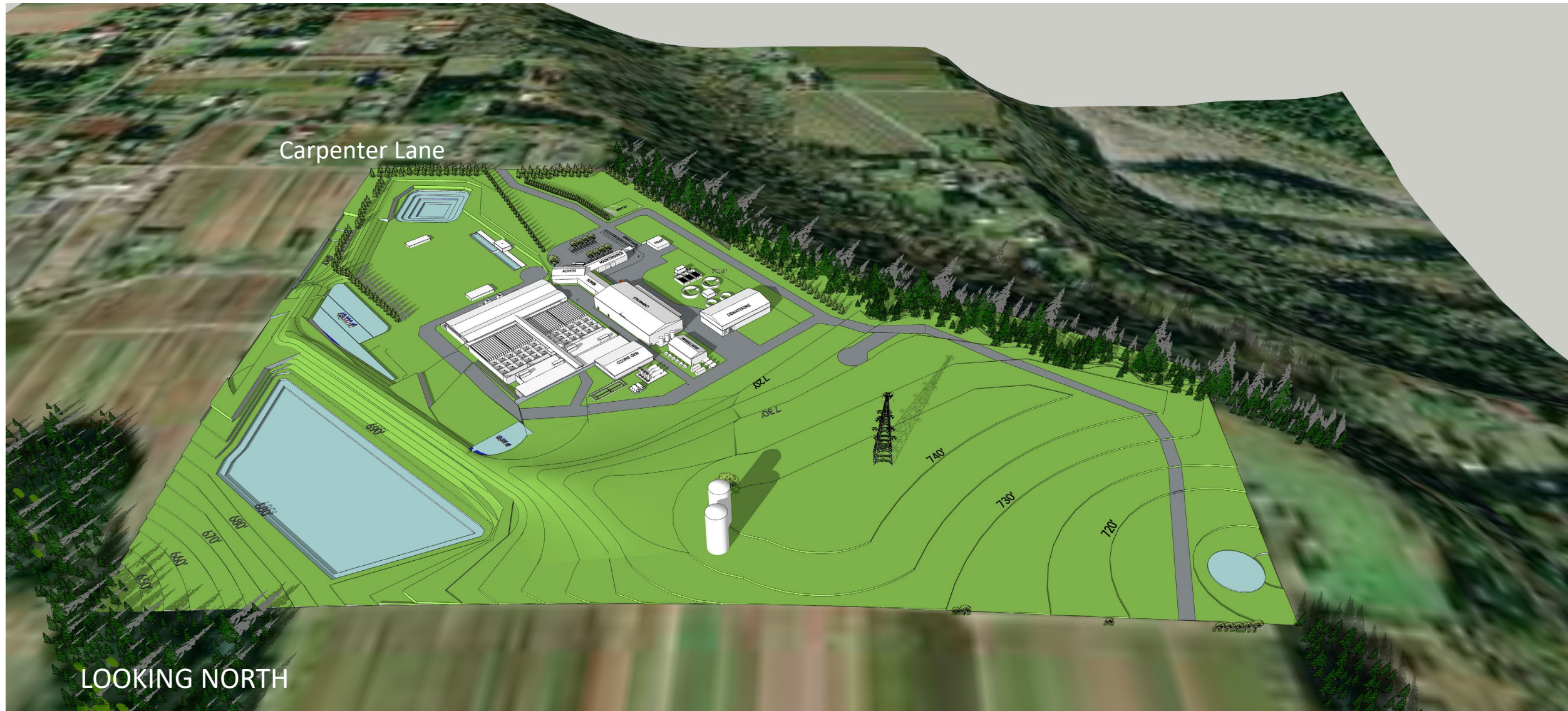
# North Campus

- ✓ Diagonal layout
- ✓ Separated parking
- ✓ Covered filters
- ✓ North or south site access (north priority)
- ✓ Potential communications tower
- ✓ Places taller buildings nearer eastern tree line
- ✓ Places overflow basins at lower corners of site
- ✓ Includes trees and berms to screen views



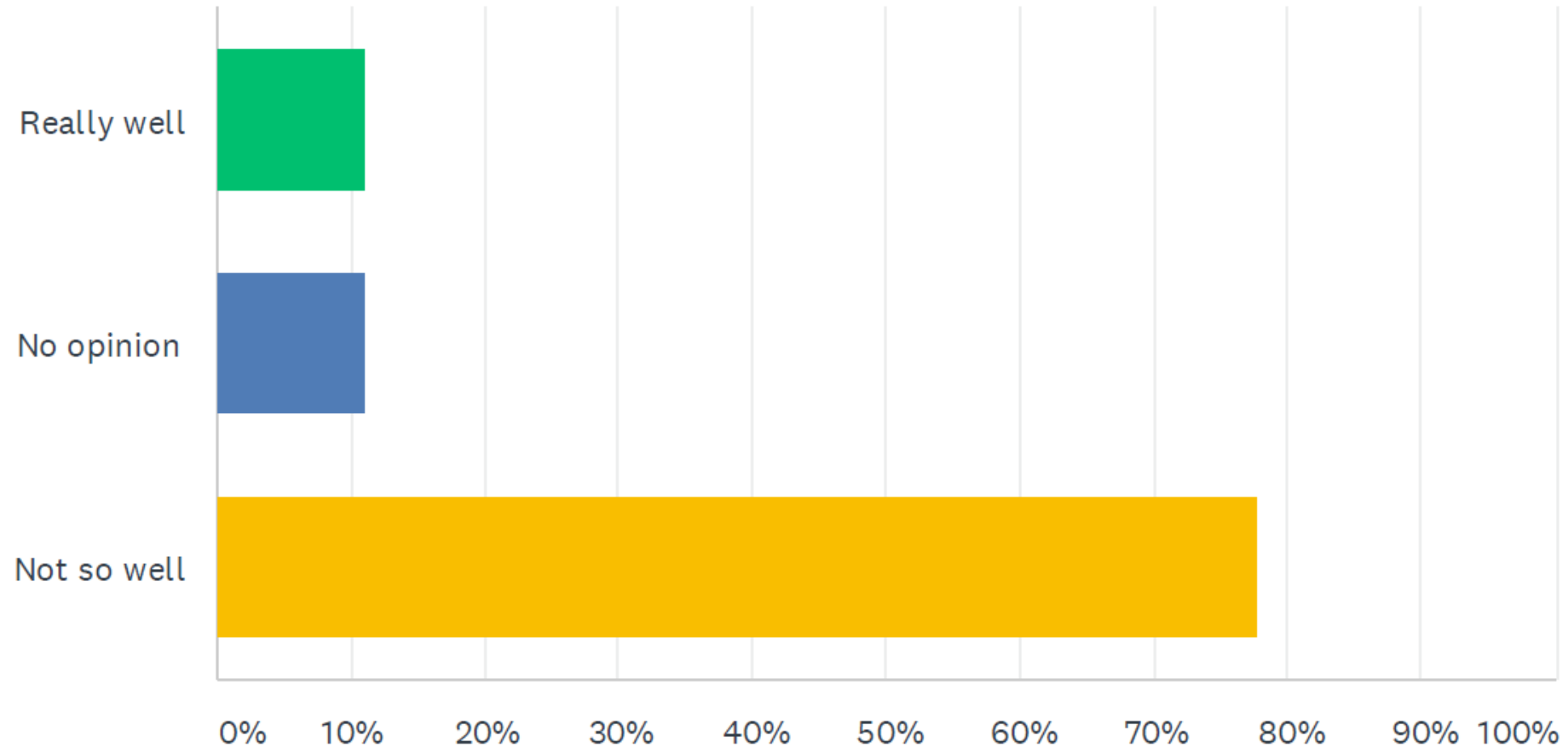


# North Campus: Birds-eye Perspective



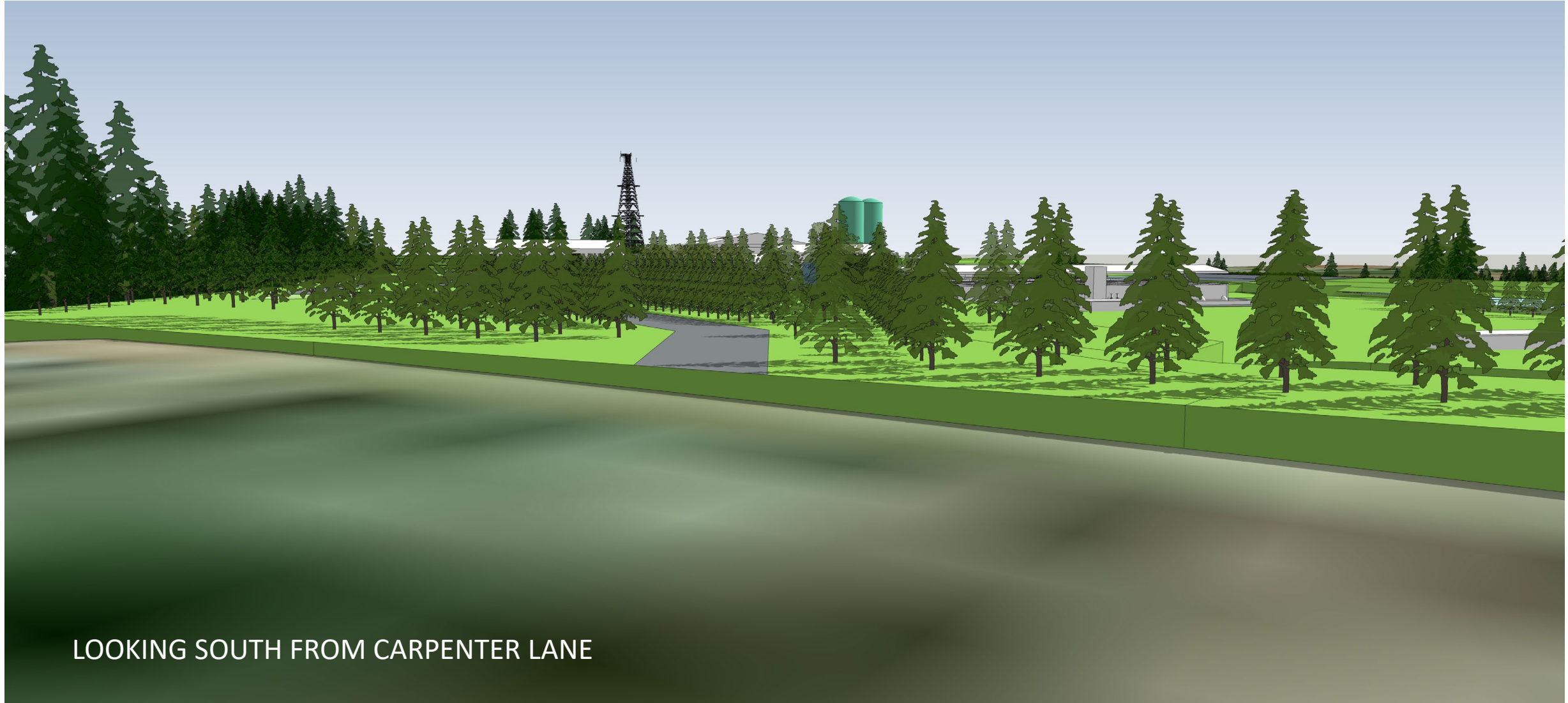
# Site Advisor Input: Effectiveness of North Campus Concept Screening

Answered: 9   Skipped: 1



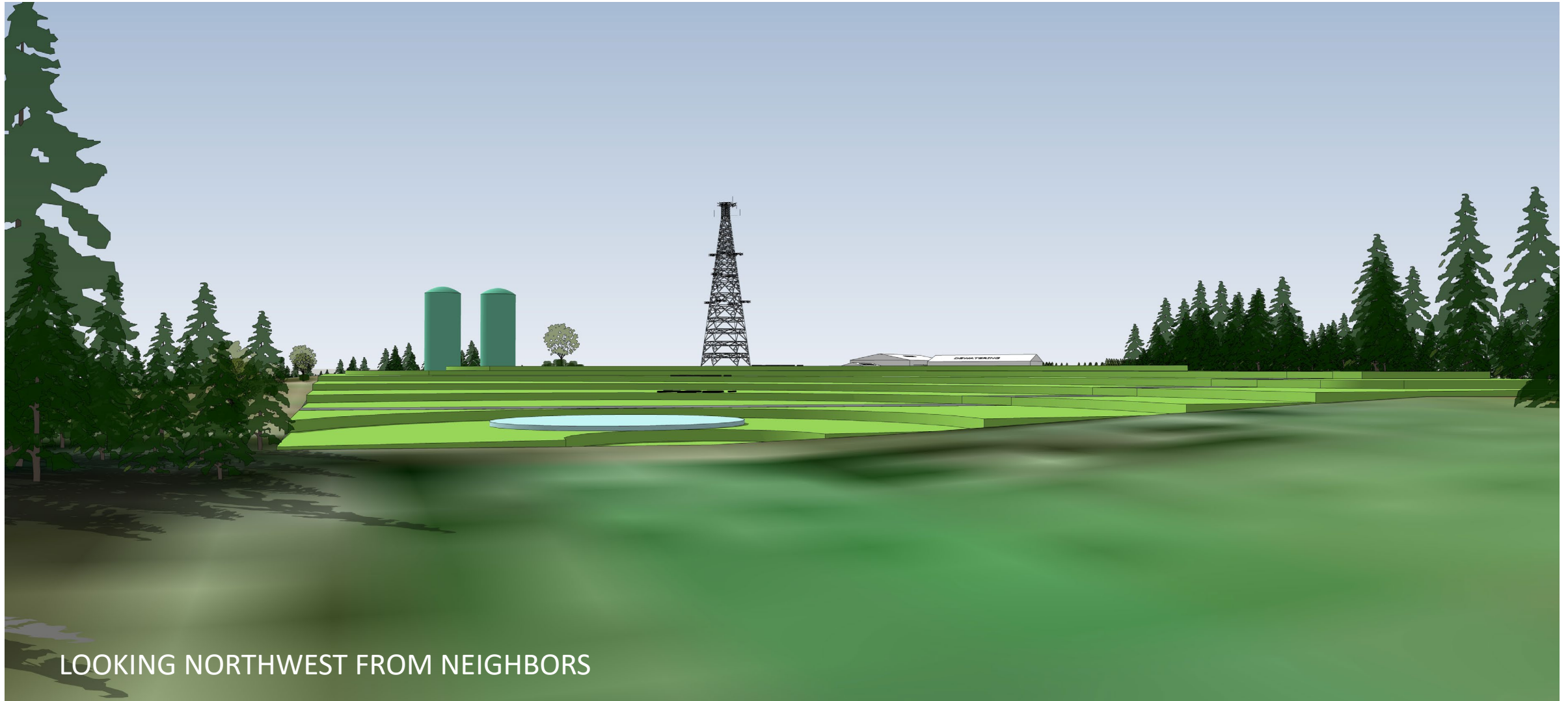


# North Campus: Ground-Level Perspectives

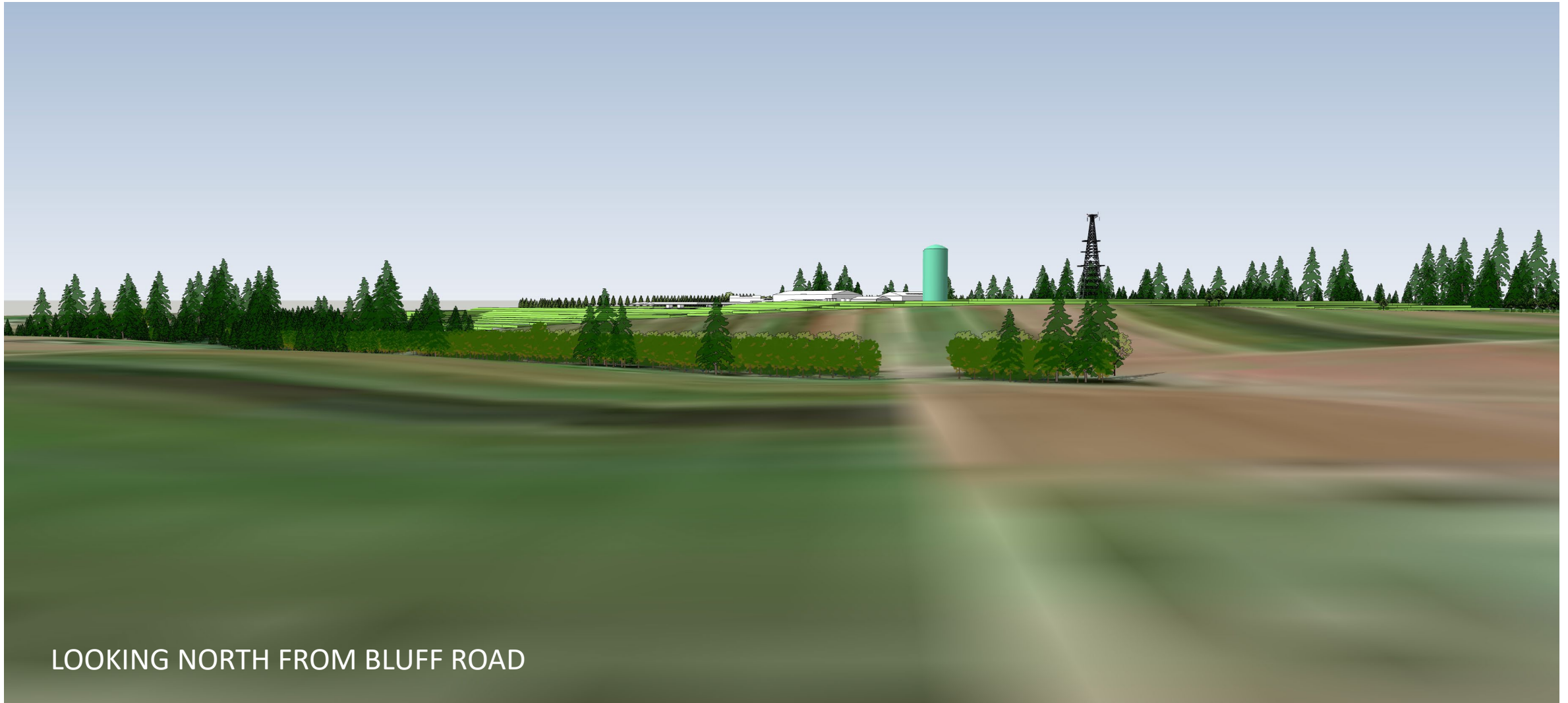


LOOKING SOUTH FROM CARPENTER LANE

# North Campus: Ground-Level Perspectives

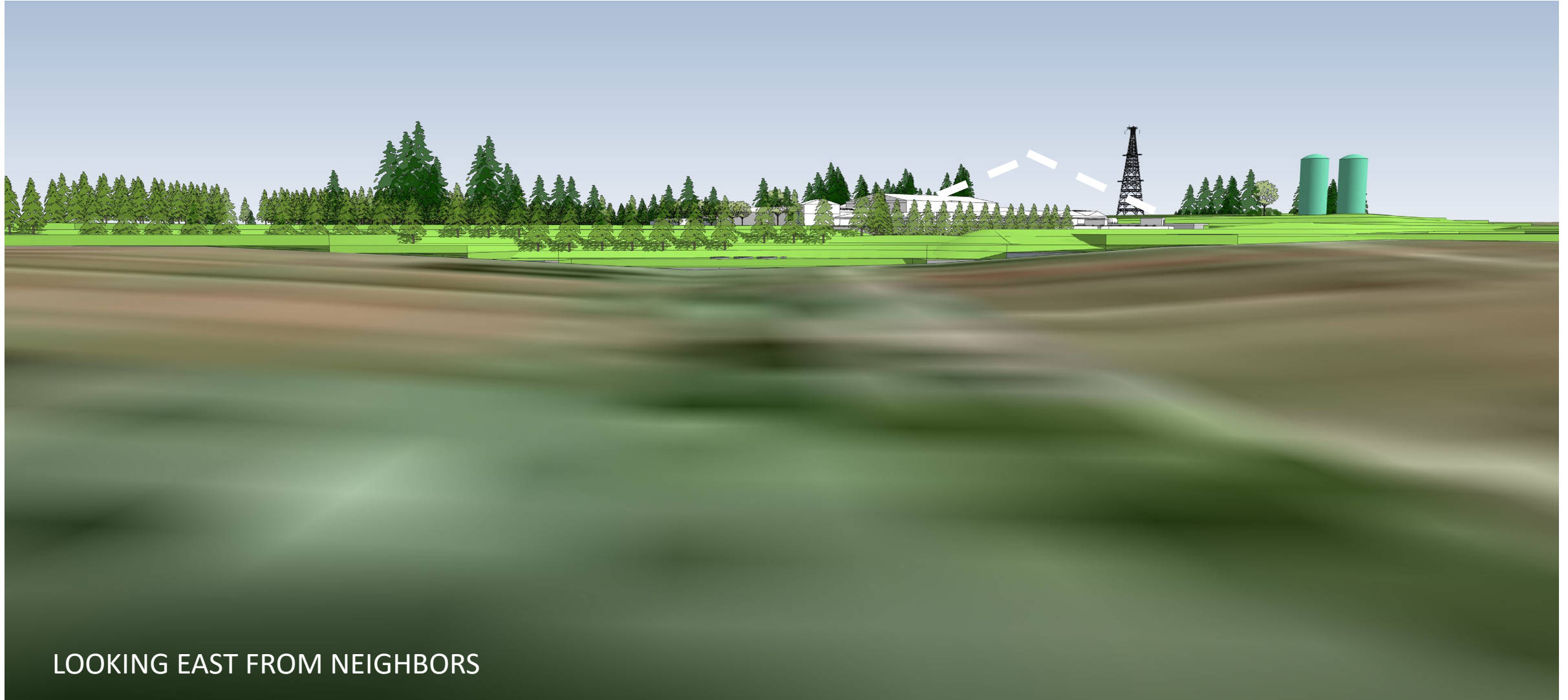


# North Campus: Ground-Level Perspectives



LOOKING NORTH FROM BLUFF ROAD

# North Campus: Ground-Level Perspectives



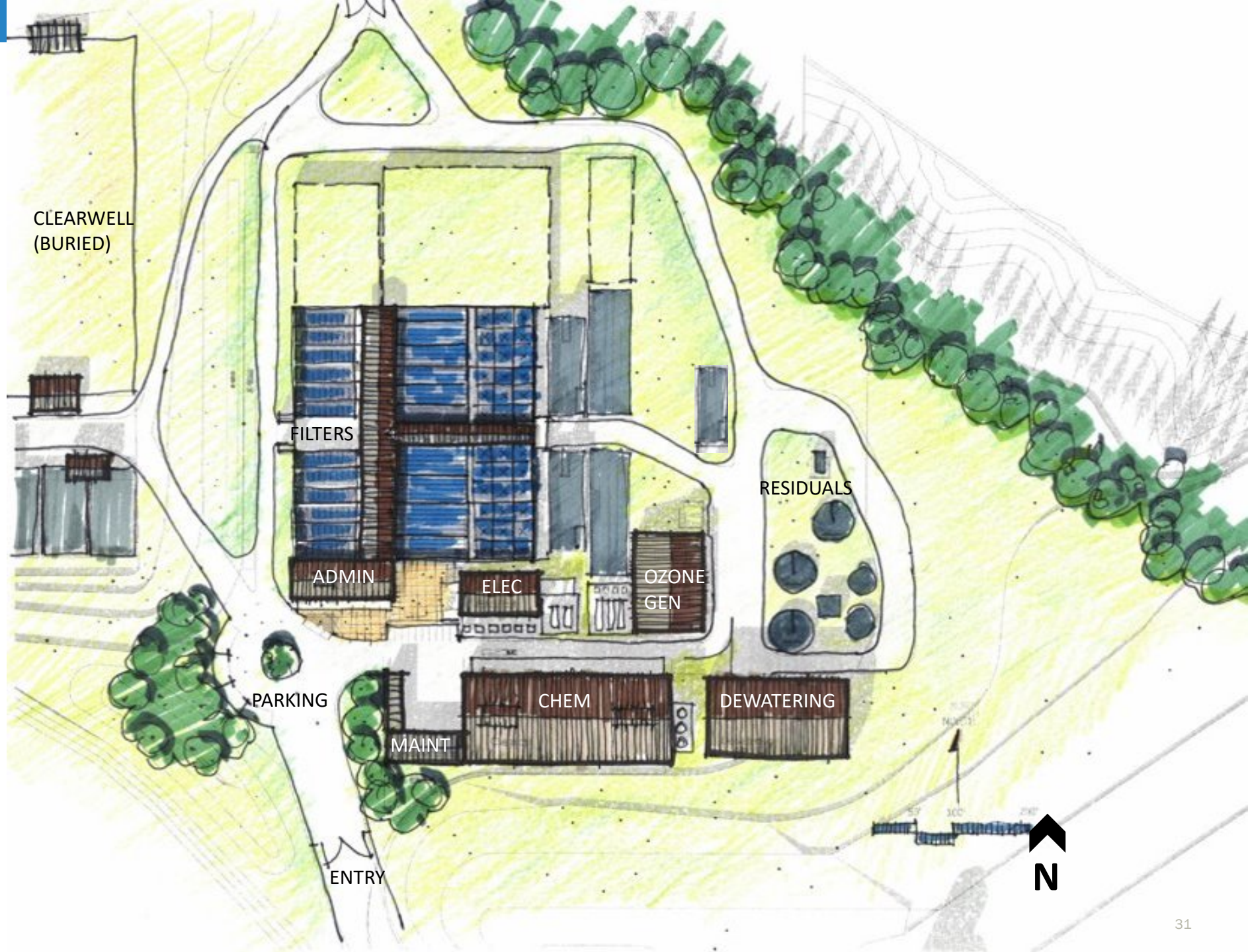


# Site Advisor Comments: North Campus

- Like the **abundance of trees**. Wish there was **more cover looking north** from Bluff and the school. **From Carpenter looks good. More trees looking West. View from the west can be more shielded.**
- Dislike more spread out layout.
- What is the communications tower and why is it so far east? Dislike how **prominent the tower is** and how it **blocks the mountain view**. Would tower **benefit neighbors** as well?
- Dislike use of eastern lot without including **room for agriculture**.
- **Would change south access road design/location**. Dislike paved road so close to **neighbors and school**. Remove spur paved stub road east of main campus.
- Dislike reliance on **North access road** via Carpenter Lane. Prefer **entrance further west**.
- Like **covered filtration** units.
- Prefer **irregular shaped ponds** over square ones. **No ponds at Carpenter Ln.**
- They both look about the same.

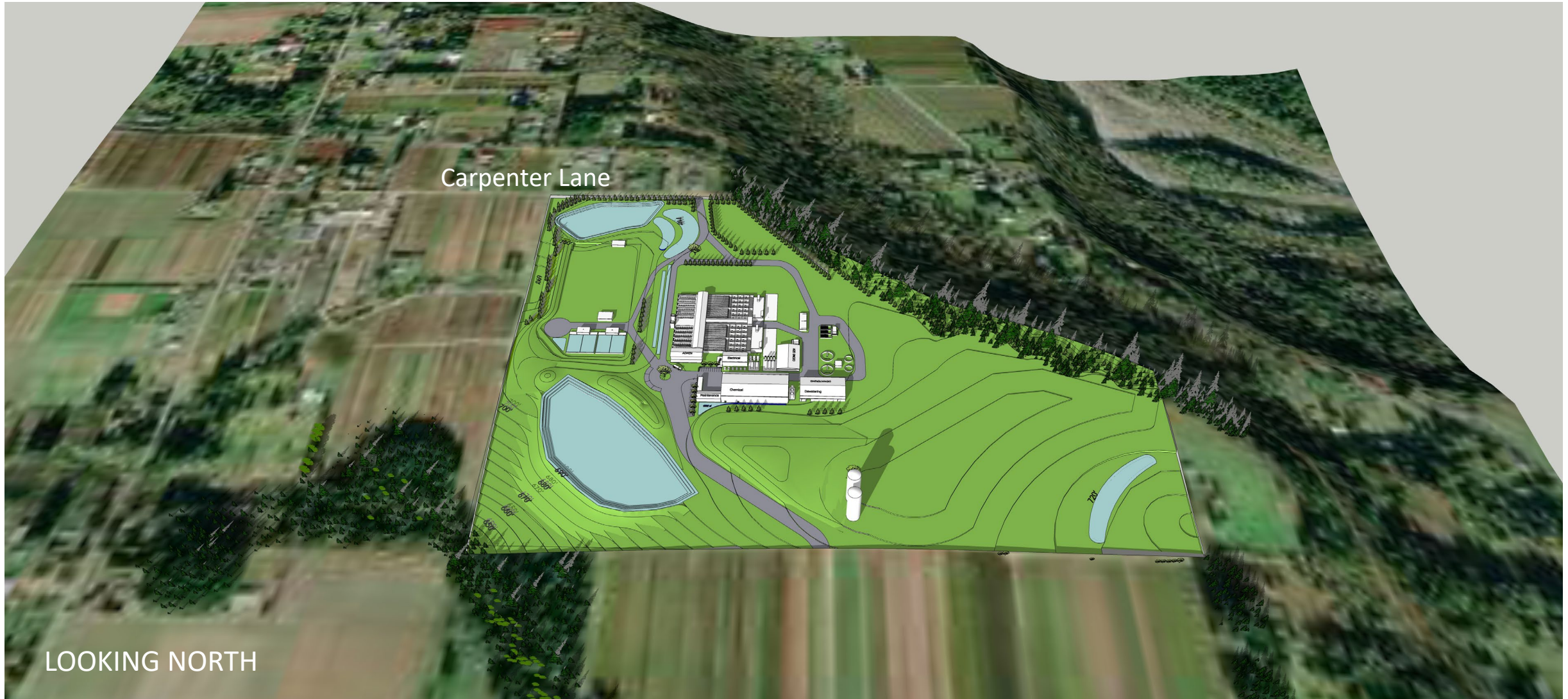
# South Campus

- ✓ More compact layout
- ✓ Traffic circle parking
- ✓ Uncovered filters
- ✓ North or south site access (south priority)
- ✓ Places taller buildings against hillside
- ✓ Places overflow basins at lower corners of site
- ✓ Includes trees and berms to screen views





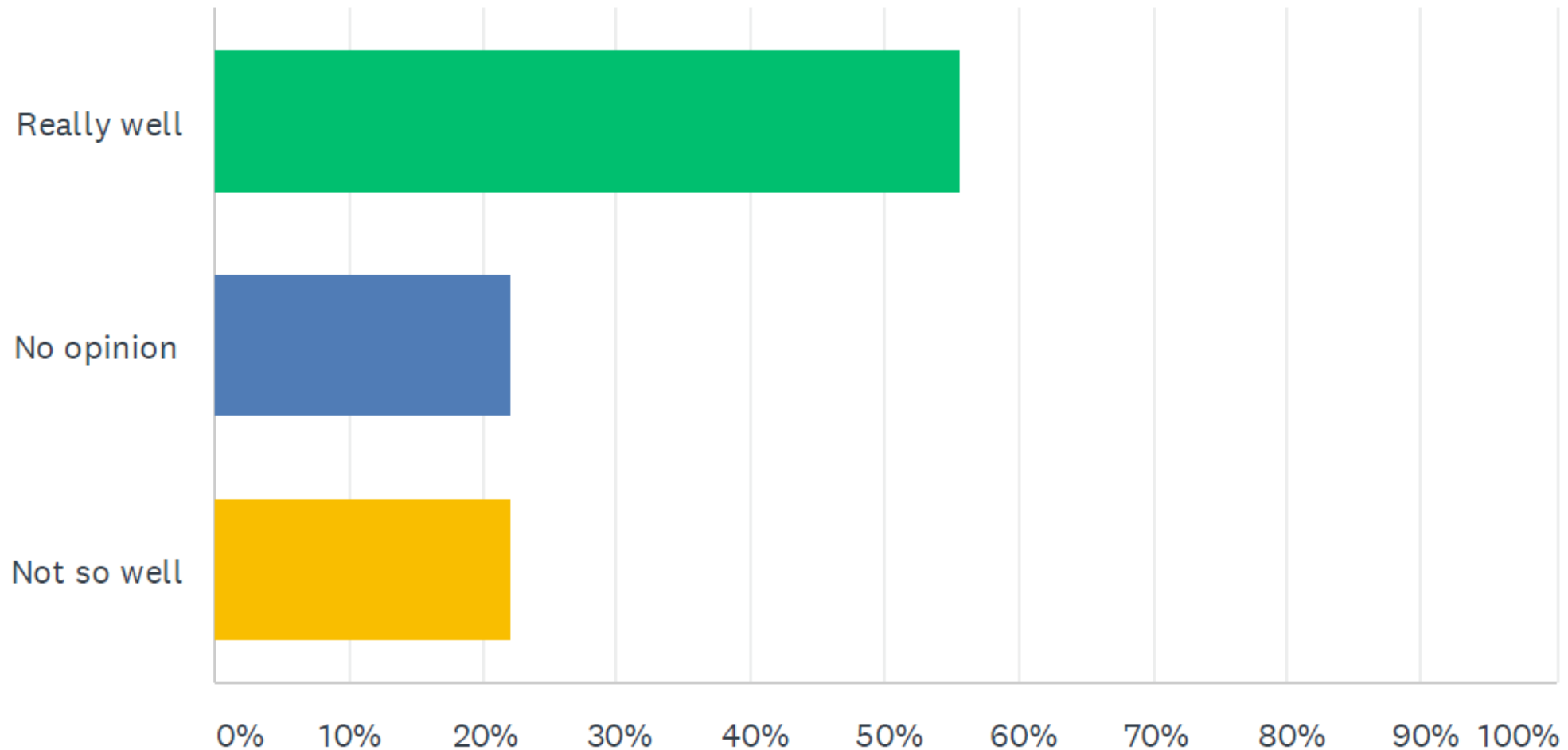
# South Campus: Bird's Eye Perspective



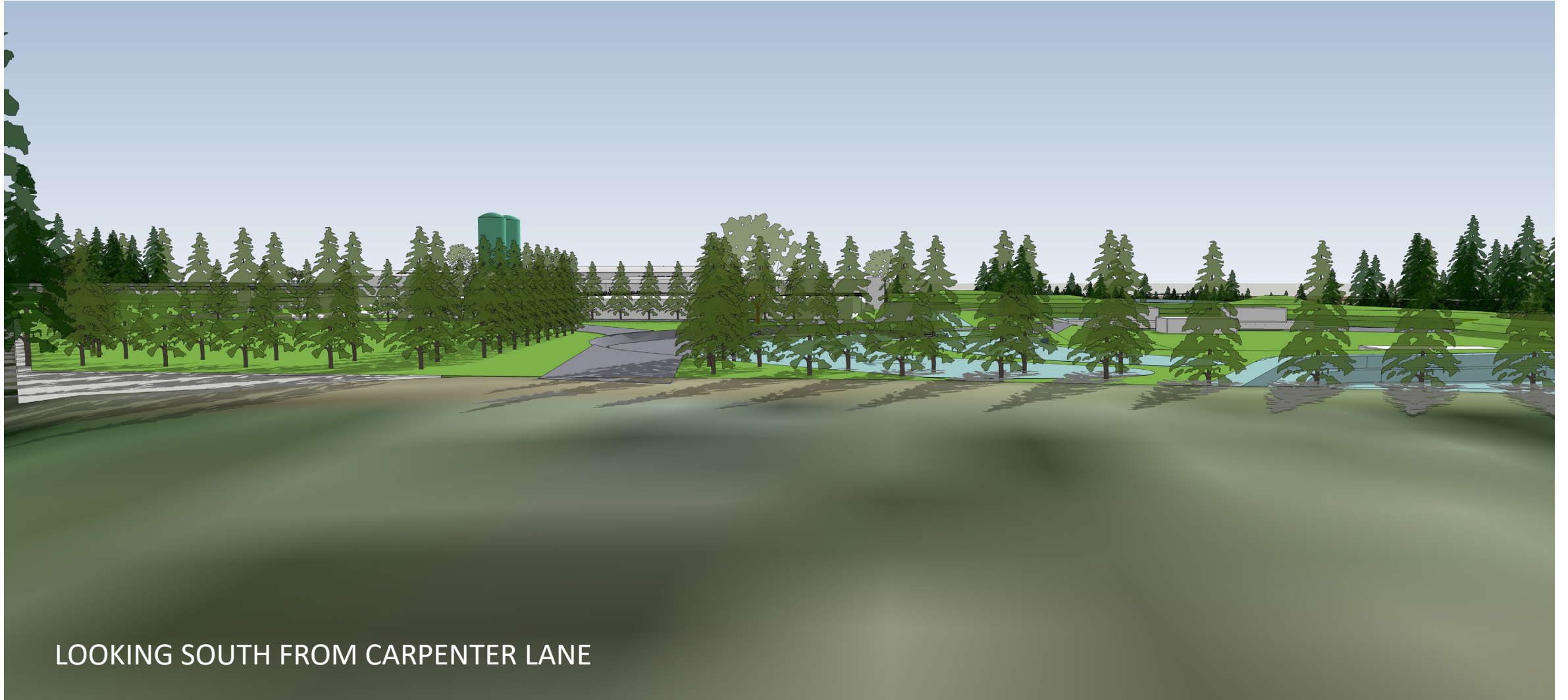


# Site Advisor Input: Effectiveness of South Campus Concept Screening

Answered: 9   Skipped: 1



# South Campus: Ground-level Perspectives



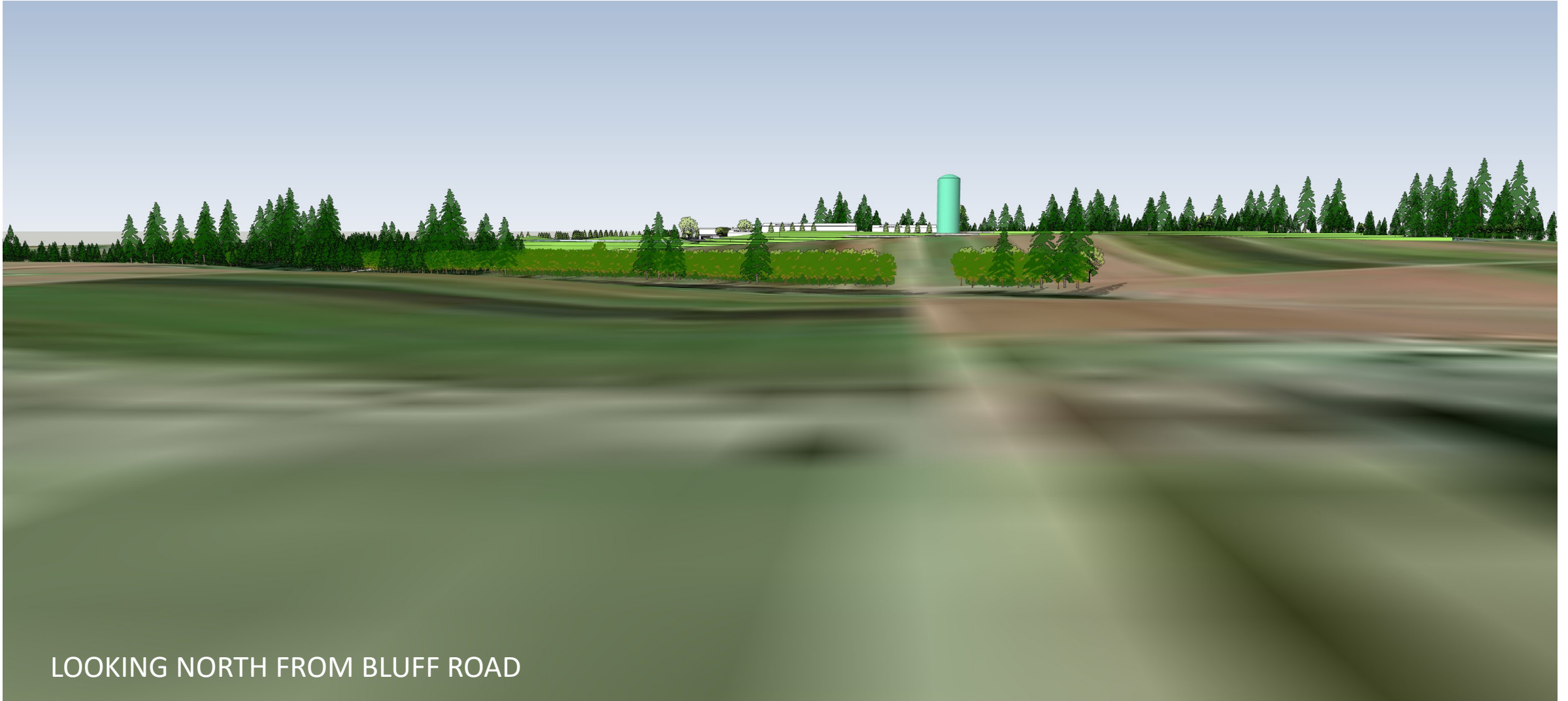
# South Campus: Ground-level Perspectives



LOOKING NORTHWEST FROM NEIGHBORS

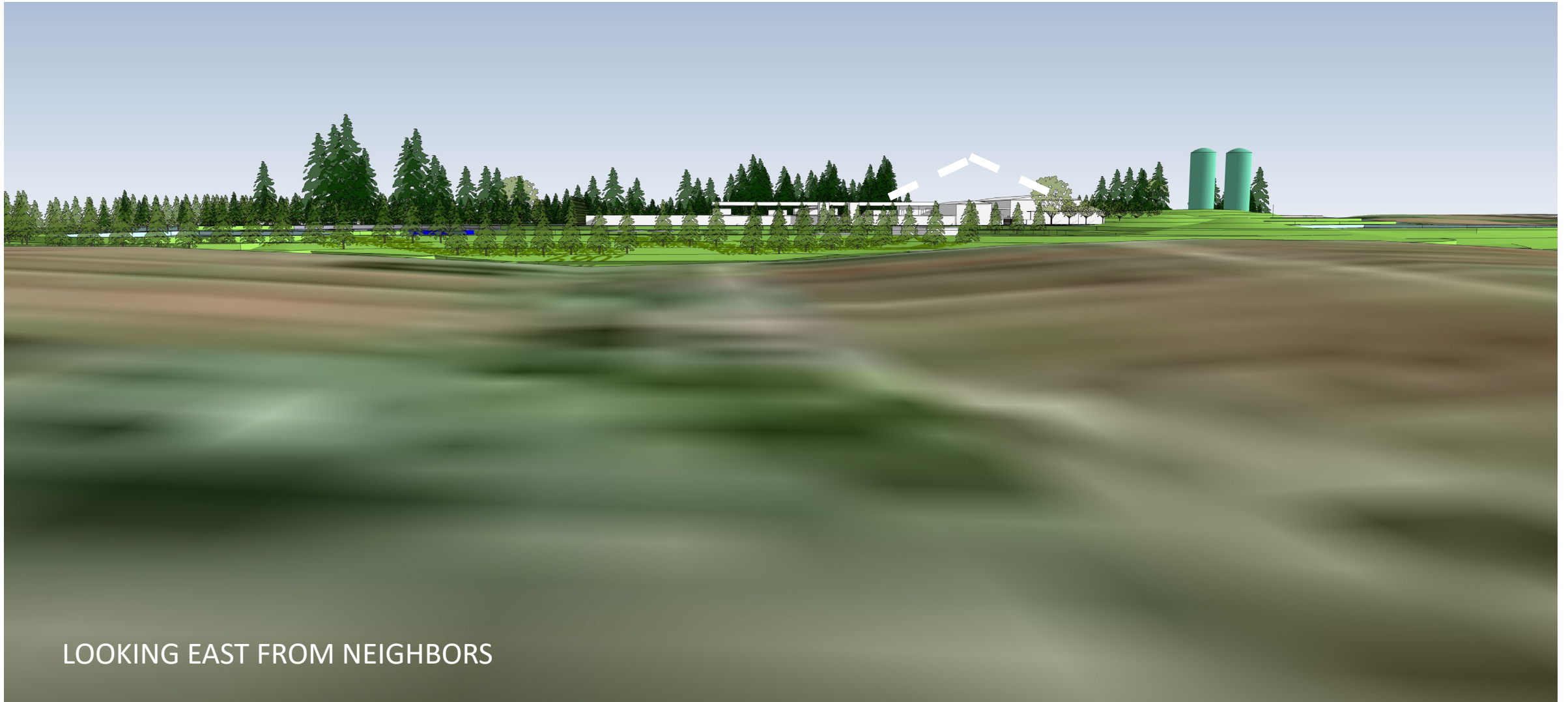


# South Campus: Ground-level Perspectives



LOOKING NORTH FROM BLUFF ROAD

# South Campus: Ground-level Perspectives



LOOKING EAST FROM NEIGHBORS

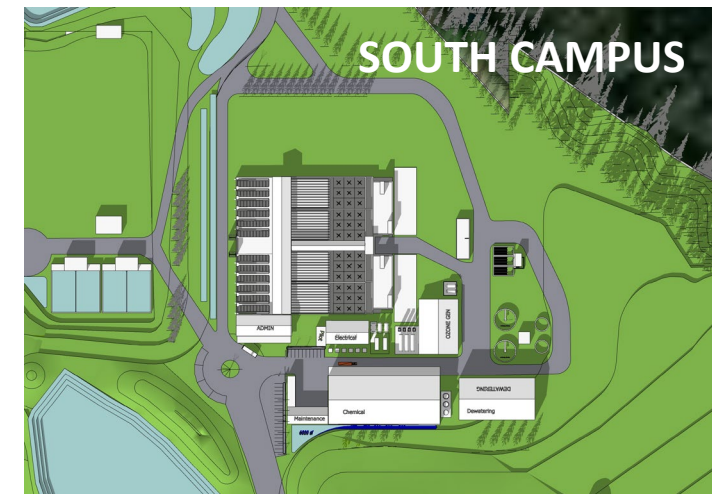
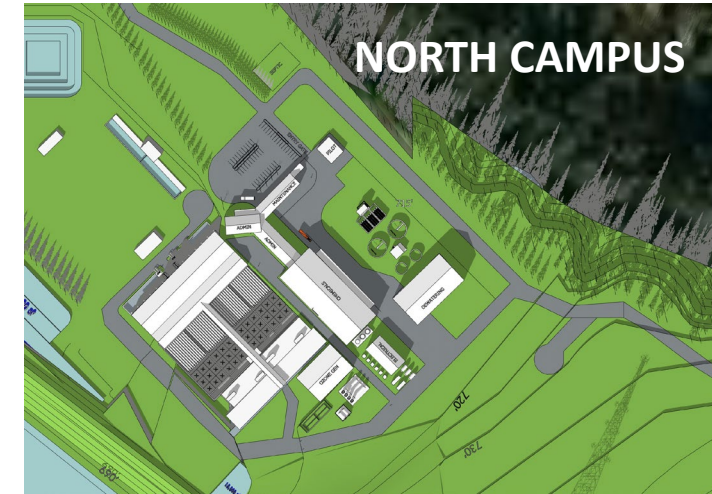
# Site Advisor Comments: South Campus

- *I like all of it.*
- *Enjoy how **covered** the site is through trees. **Need trees looking East.** Would like more information in the future regarding trees and shrubs.*
- *Like **less mountain obstruction.** Would like **trees to obscure the plant but not the view.***
- *Buildings are denser, so more open space preserved. More area for agriculture. Like the idea of **agricultural use** with an 8 ft. fence to keep out deer and elk.*
- *Allowing for potential **community use along site edges.** Walking path?*
- *Like **more compact layout**, but **don't want taller buildings.** Keep roofs as low as possible.*
- *Would add **tower along northern most common border** of the two parcels.*
- *Would like more info about **pond on eastern side.** **Ponds are too close to Carpenter Ln.***
- *Like **access from Bluff Road** and **far enough from school.** Like **set back further from Dodge Park bluff/hillside.***
- *North entrance appears to be right in front of our home.*
- *Dislike **proximity of chemical building to administration and maintenance buildings.***



# Next Steps to Advance Layout Options

- Gathering feedback on features using multiple layouts
  - Engineering input (favors north primary access)
  - Community input (now and Sept. open house)
- Design team will use input to develop an updated concept plan for the Basis of Design Report
- Community feedback will also help shape the Good Neighbor Agreement
- Design team will continue to develop and refine site layout during detailed design



# Communications feedback and advice?



- How do you feel about the current format?
- What suggestions do you have to help share opportunities for input with other neighbors?

# What's next?



## **Online Open House**

September 3-17, 2020

## **Operations Phase**

Thursday October 8, 6-8 pm

## **Construction Phase**

Thursday November 12, 6-8 pm





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# Thank you!

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