



Wilson Hill Solar – Hoosick, NY

February 2024

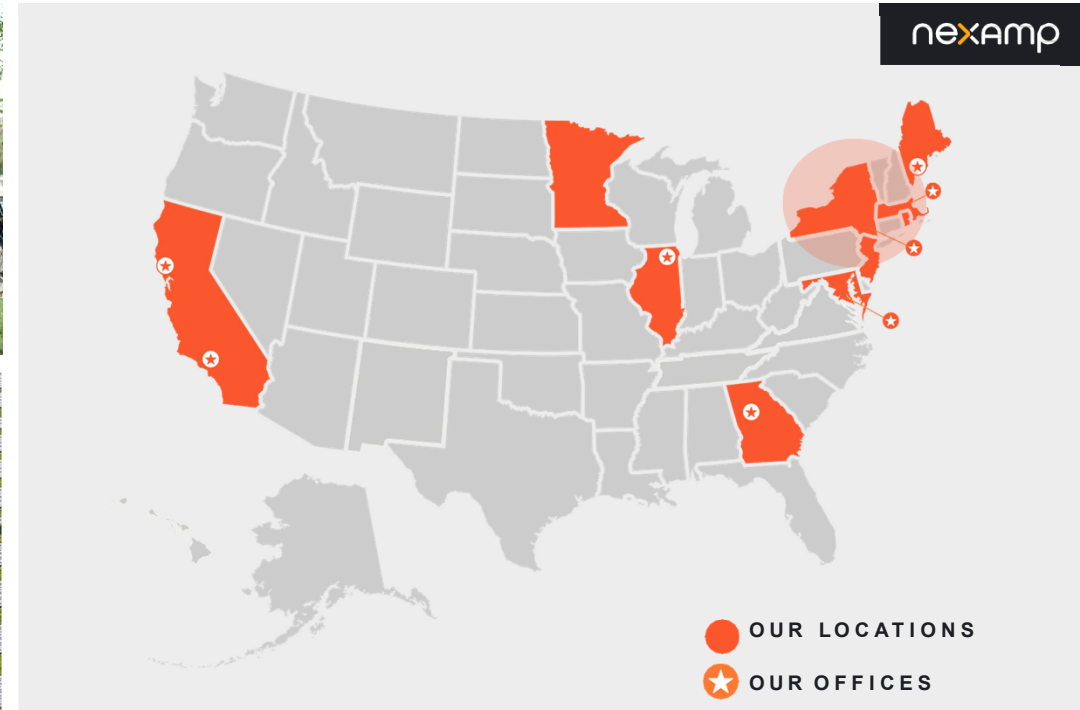
We're making decarbonization easy
and accessible for generations to come.

nexamp



| Get To Know Us

Founded in **2007** by two United States Army Veterans



Nexamp is harnessing positive power and funneling it back into communities across the country, maximizing our social and environmental impact daily.

- National company headquartered in Boston
- Vertically integrated solar energy and storage company
- Develop, manage, and maintain community solar farms nationally
- Lead with inclusivity and equity

Achieving growth across all business units.

**TOP SOLAR
CONTRACTOR**

 9 years running

200%

employee growth



A+ 

rating on BBB

1,700+

 acres of solar farms

1.15+ million

 solar modules
deployed

350

 gigawatt hours

being produced on all
Nexamp farms

+282% growth since 2018

1GW

operational
and
construction
projects



+372% growth since 2018

400MW

distributed generation



a growing customer base of:

40,000+



12.5%

average annual savings
per community solar customer

Regional Experience.

In the State of NY Nexamp has over **600 MW** of projects either operating or in development.

Currently operational or under construction in NY:

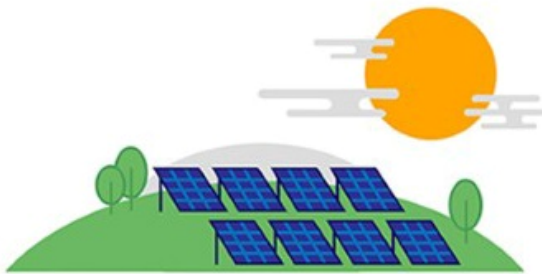
- 5 Rooftop Projects
- 11 Energy Storage Projects
- 4 Brownfield Sites
- 37 Traditional Sites



How Community Solar Works

What is Community Solar?

subscribe to a local
Nexasamp solar farm



add clean, solar energy
to your utility grid



receive credits from your
utility and save on your
annual electricity cost



Substation Data

Feeder Level Hosting Capacity for PV

Feeder	36_31_31451
Substation/Bank Name	HOOSICK TB 2
Feeder Voltage (kV)	13.20
Feeder Maximum Hosting Capacity (MW)	1.20
Feeder Minimum Hosting Capacity (MW)	0.00
Anti-Islanding Hosting Capacity Limit (MW)	1.22
Feeder DG Connected (MW)	0.91
Feeder DG in Queue (MW)	9.98
Feeder DG Connected Since Last HCA Refresh Date (MW)	0.00
Feeder DG Connected/In Queue Refresh Date	12/26/2023
HCA Refresh Date	9/29/2023
Substation Backfeed Protection	No
NYISO Load Zone	F
Operating Company	National Grid
Notes	No more DG can be interconnected until necessary station rebuild work has been completed. (Estimated completion October 2024), Possibility for Significant Upstream Constraints

Wilson Hill Power Output

- The Average home in New York State uses 6,864 kilowatt-hours (kWh) of electricity per year
- The specific production for this facility will be 8,715,589 kWh
- On average, this facility will produce enough **power for 1,269 homes.**



Pros and Cons of Community Solar

PROS:

- Energy produced without carbon emissions
- Savings for subscriber energy bills – everyone is eligible to become a subscriber
- Increase in tax income to municipality and county
- Lowers average energy rates – as solar is one of the cheapest forms of electricity per the PSC's rate chart.
- Electricity will be produced for community consumption
- Grid Reliability
- Energy independence
- Building expertise and economies of scale

CONS:

- Visual Impact (mitigation strategies are available)
- Temporary removal from agricultural use



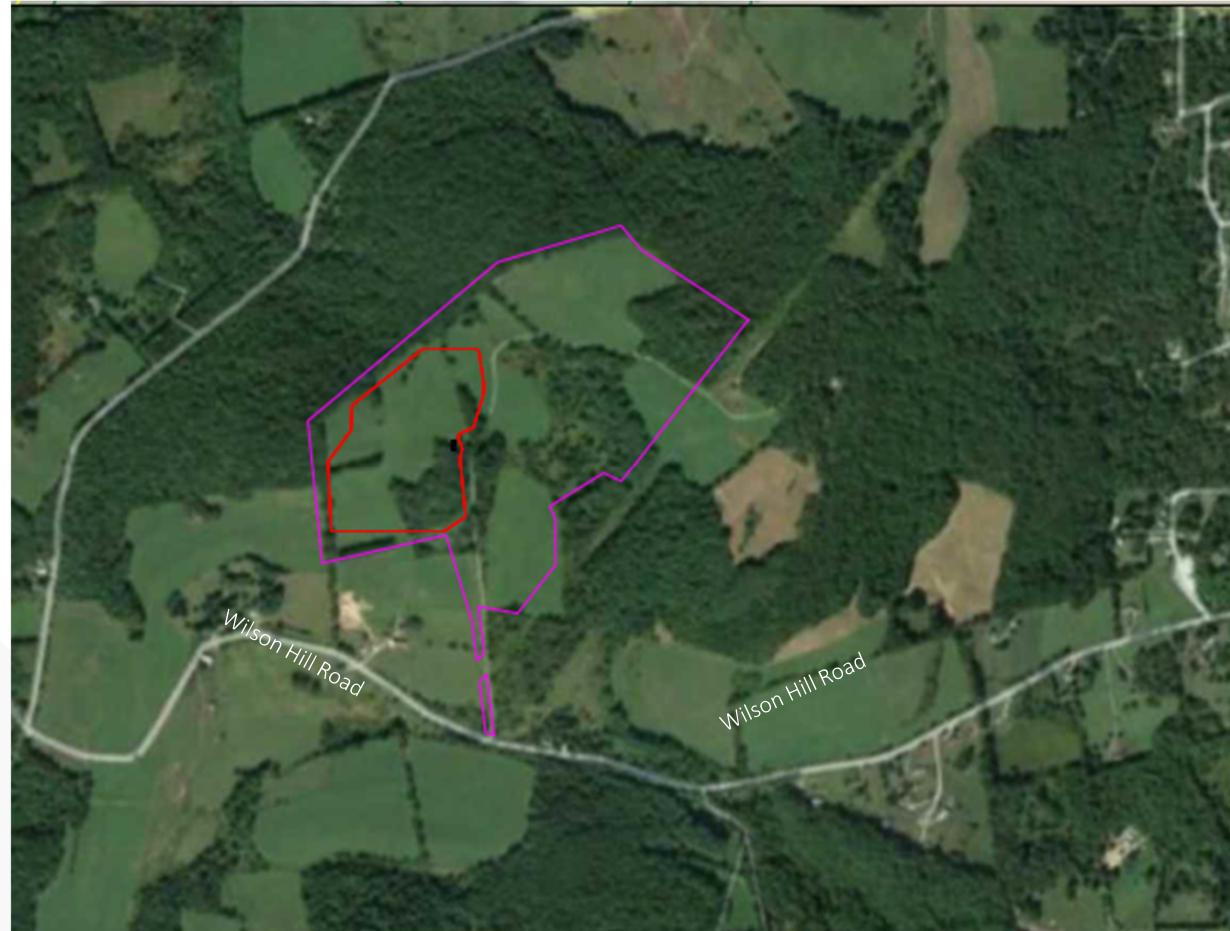
Project Timeline



Introduction

Wilson Hill Solar is a 5 MW ac generating facility occupying 19.19 acres of a 99.52 acre parcel at 469 Wilson Hill Road, owned by Larry Bugbee. The project has been studied and approved by National Grid for interconnection, and the first payment has been made.

The southern facing slope is well obscured by existing foliage, and visual impacts are expected to be minimal. Access to the site will be from the existing cell tower road, which will be expanded and improved. A temporary access road will be utilized during construction near the interconnection point located on an adjacent parcel owned by Mike Mattison.



Current Site Condition

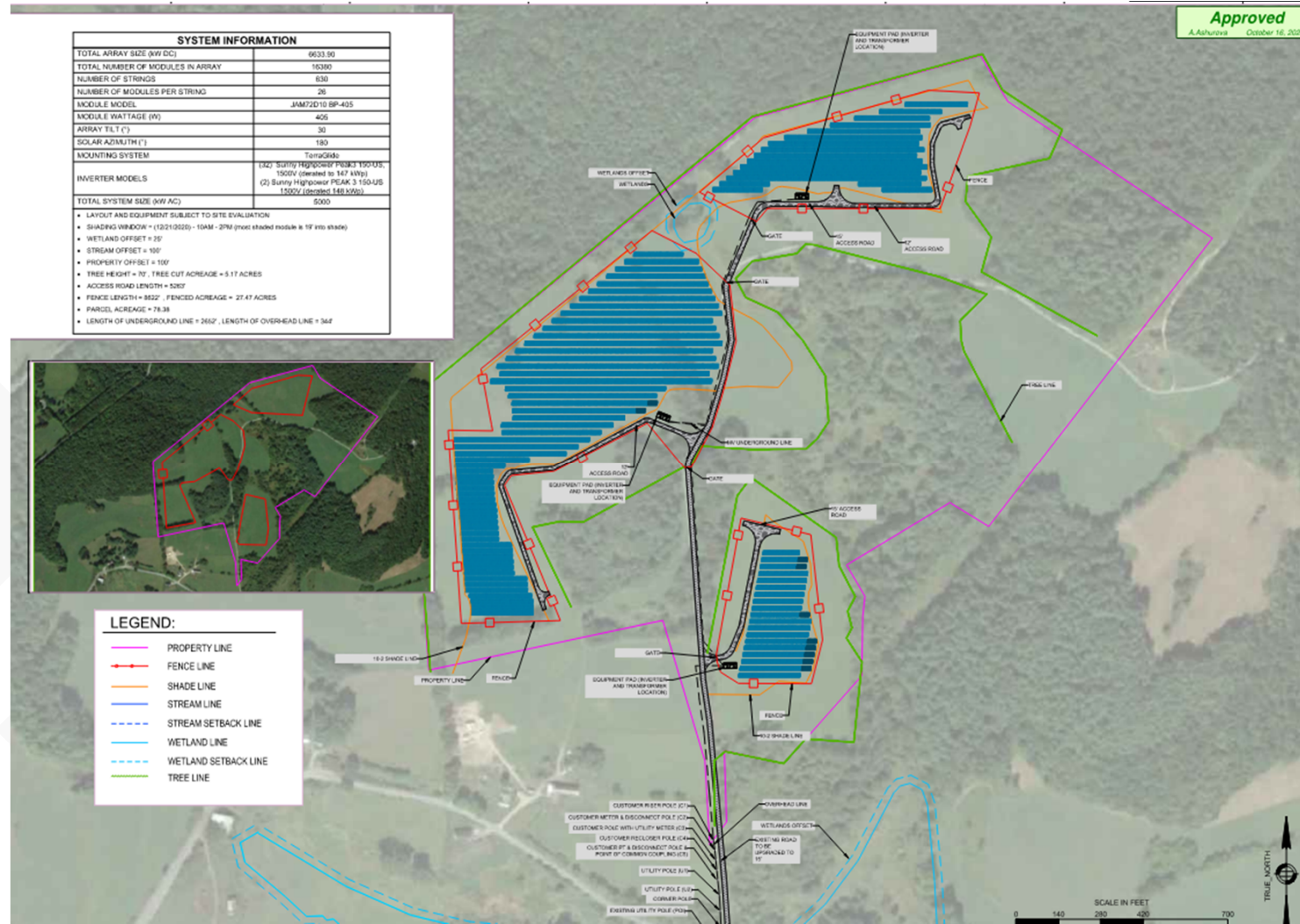
The properties are zoned agricultural/residential under the Town of Hoosick's zoning code, and solar is an allowed use subject to special permit approval under the jurisdiction of the Town's Zoning Board.

The parcel is predominantly cleared, with minimal tree removal required. The parcel has been used primarily for agricultural uses, and sites a cellular tower at the far east end of the property, away from the array. The surrounding land uses include agricultural residential and utility-owned transmission lines.



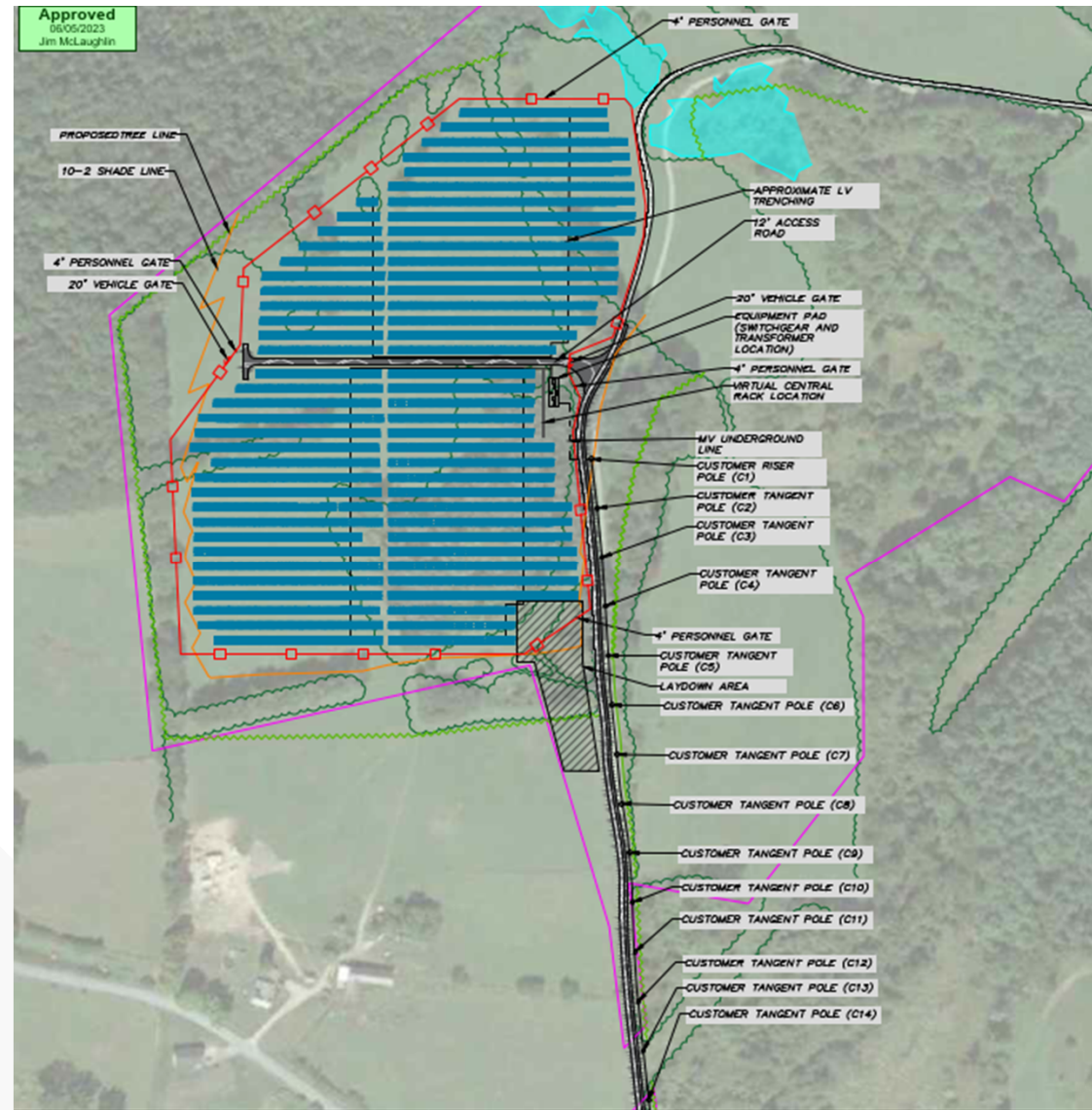
First Pass

Our initial design prior to survey had the project sited deeper onto the site. However, after obtaining the topographical survey, we found that there was a much more limited footprint available for the project.



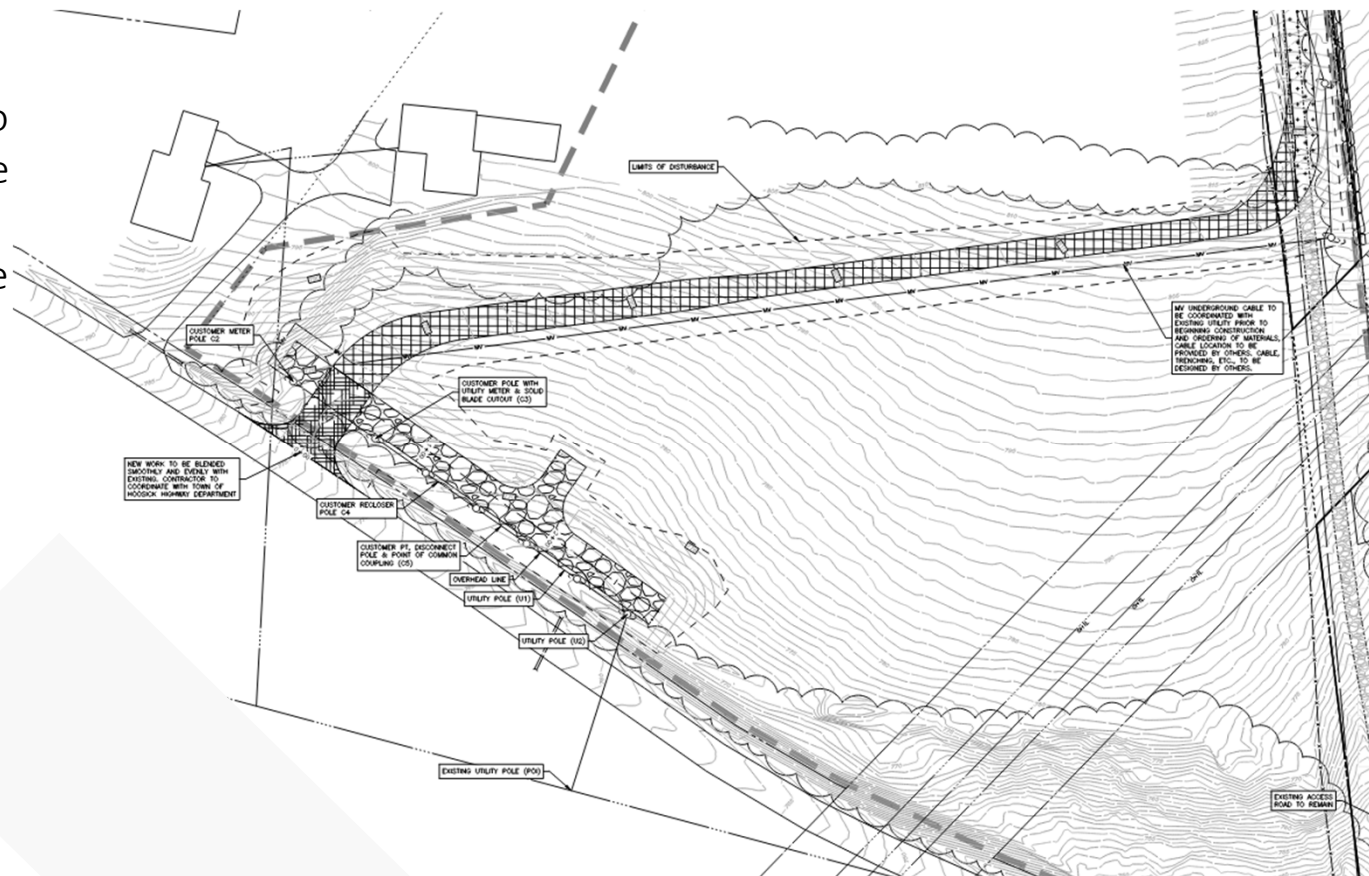
Second Pass

After Survey, we settled on a plan that would best suit the site, while still preserving natural foliage coverage on many sides of the project.



Site Development

The design team has worked hard to protect the natural conditions of the property. The project avoids any wetland disturbance, minimizes tree clearing, and is utilizing existing roads for long term access. Temporary construction access will be created via an adjacent property, with only a portion remaining permanent for utility access to interconnection equipment. The design also has strived to most appropriately site stormwater management features to not upend the site's character.



Timeline

June '23

Our first meeting with the ZBA was an introductory meeting, before submitting any formal documents. We utilized the ZBA feedback and revised and strengthened our application.

Sept '23

Our submission was made in August ahead of the September meeting. After hearing the concerns regarding the Hawthorn project, we amended our application to better satisfy anticipated comments for October.

Nov '23

Received comments from the board:

- SEQR coordinated review notice started on 10/15 – to be complete by 11/15
 - Planting buffer requested
 - Request for assessment studies
 - Request for visual simulations
 - Request for toxicity study
 - Request for voltage information
 - Laberge notes that this is a very complete application and that we've produced an extensive amount of information.
-

Dec '23

The requested materials were prepared from November were submitted ahead of this meeting. Due to FOIL allegations, the meeting was postponed.

Jan '24

The board did not have sufficient time to review the submitted documents. Additional comments were provided and additional materials were requested. I will address these over the following slides.

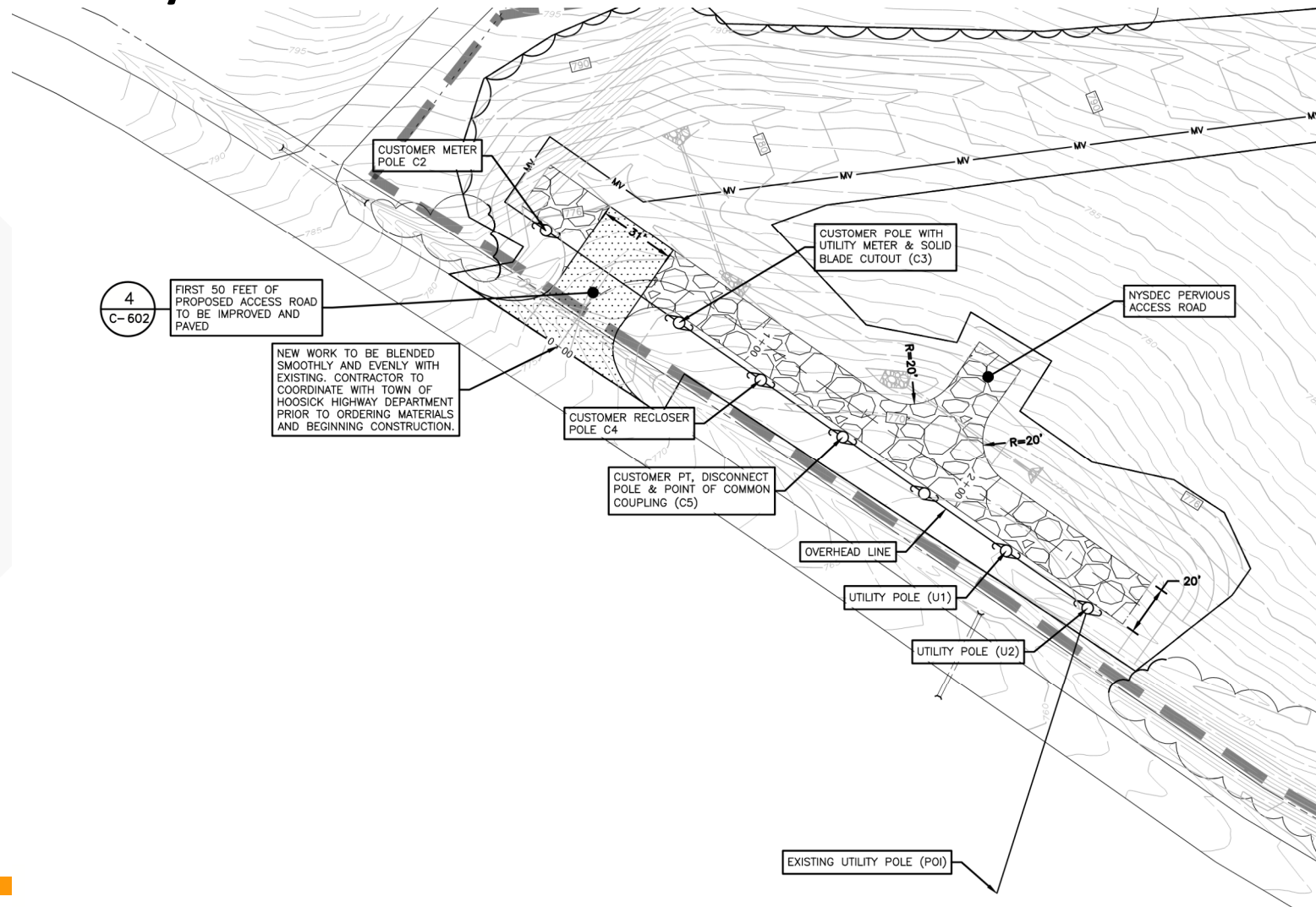


Addressing Comments

Comments from January

IX

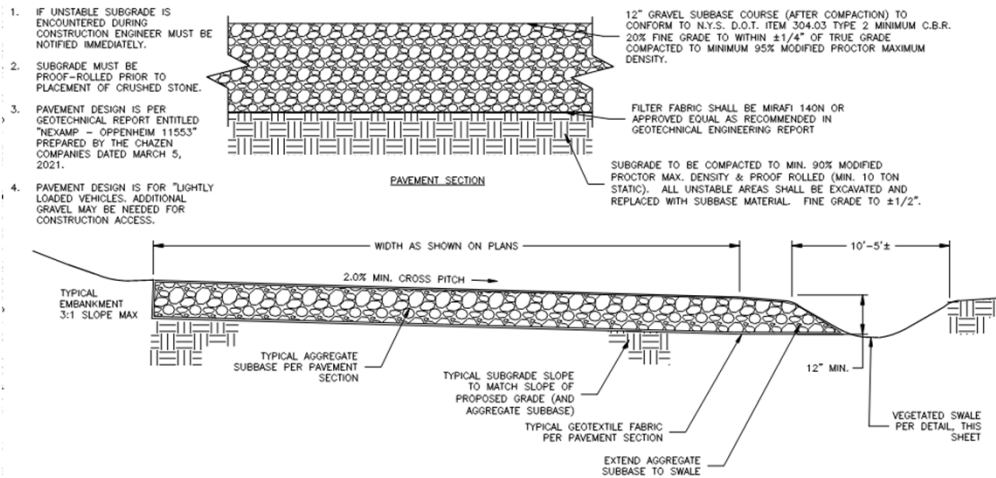
Detailed drawings of the power interconnection plans including visual representations of the above ground planned infrastructure on the site (wires, poles, transformers, etc). Plans were provided in December, 2023, visual analysis has been included with this submission.



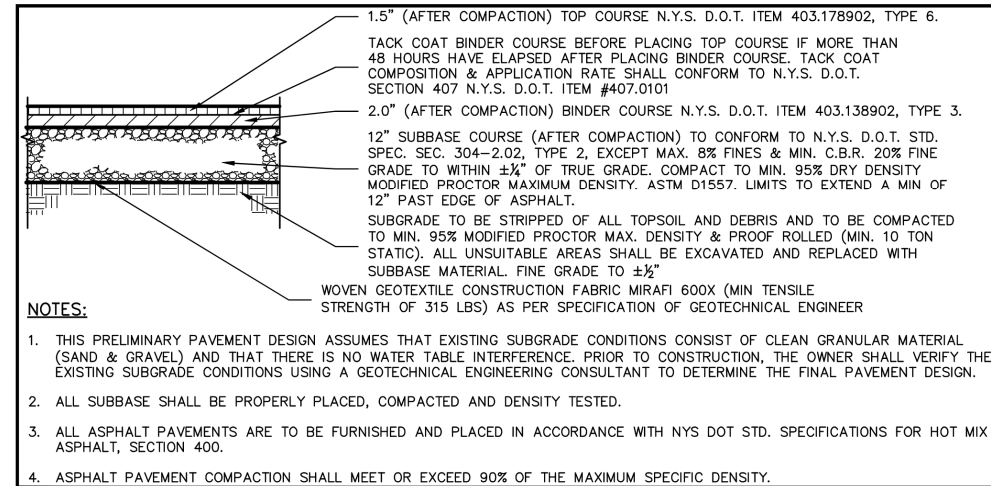
Comments from January

Access

- An engineered plan for the road to include type and depth of gravel for 15 ft width road with fabric at base and finished with vibratory roller: [Included in plan submission from December, 2023; portions of the proposed access road will be paved as indicated on the site plans.](#)

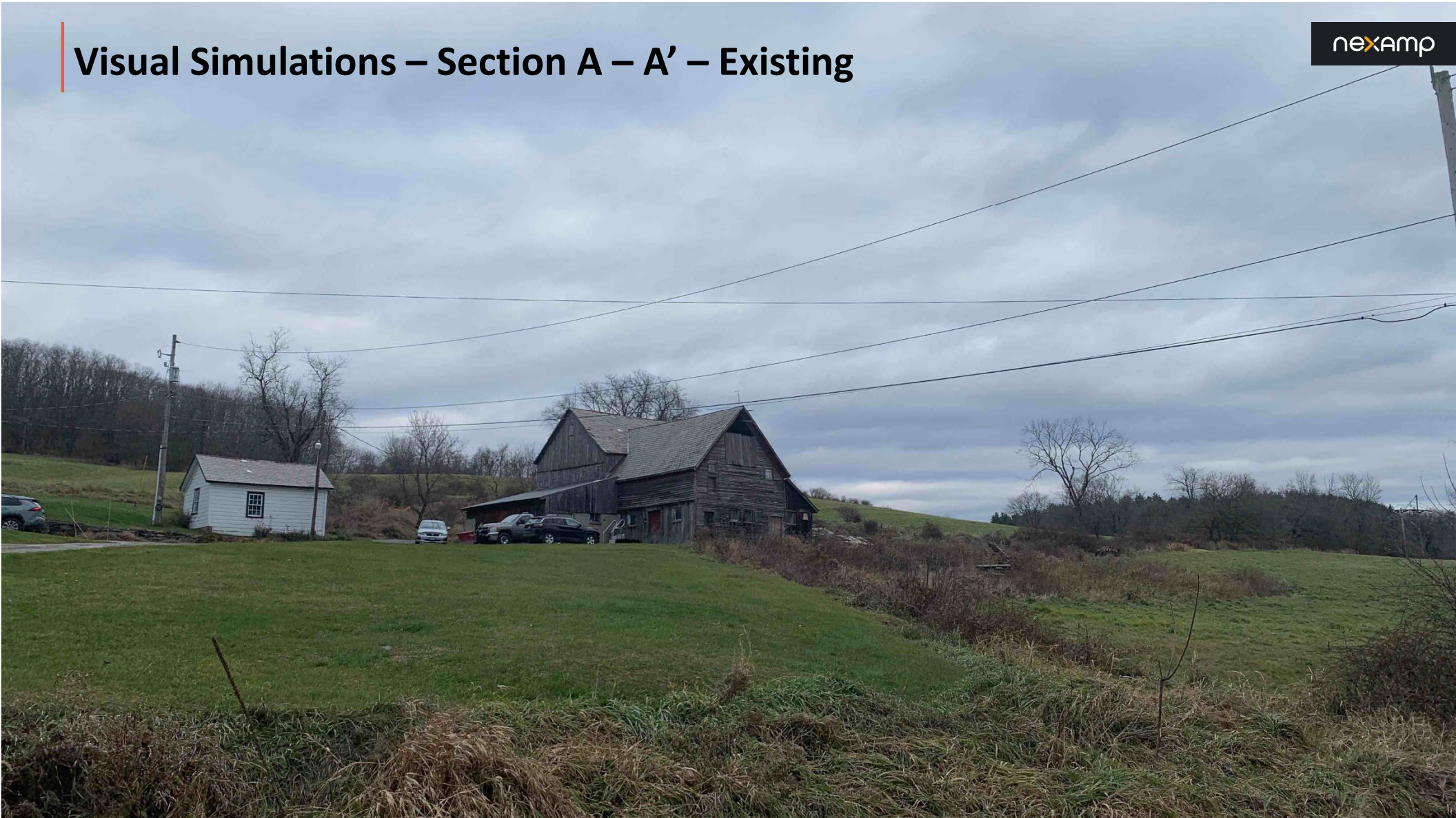


2
C-600
GRAVEL ACCESS DRIVE SECTION
NOT TO SCALE



4
C-602
MEDIUM DUTY PAVEMENT SECTION
NOT TO SCALE

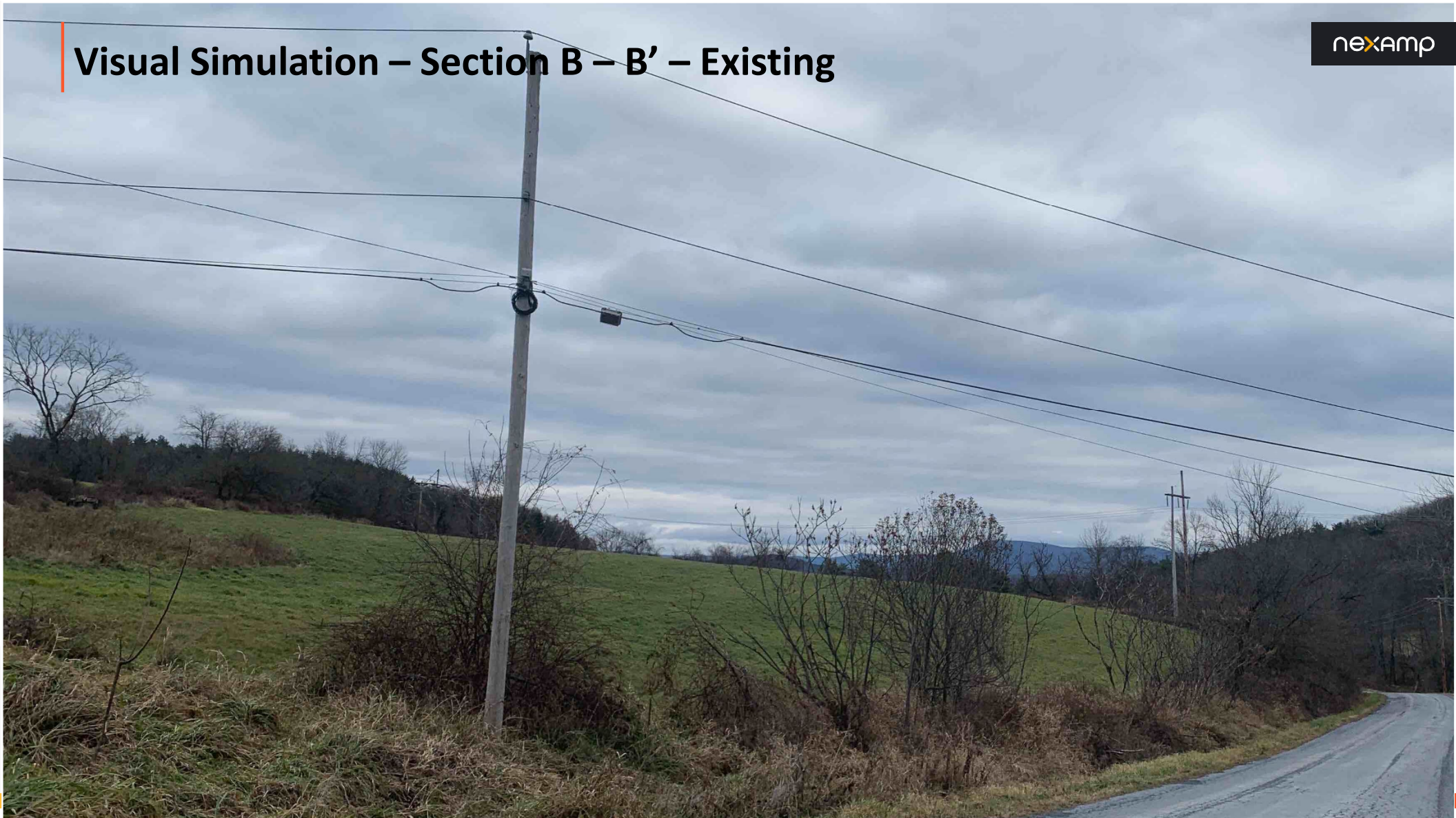
Visual Simulations – Section A – A' – Existing



Visual Simulation – Section A – A' – Proposed



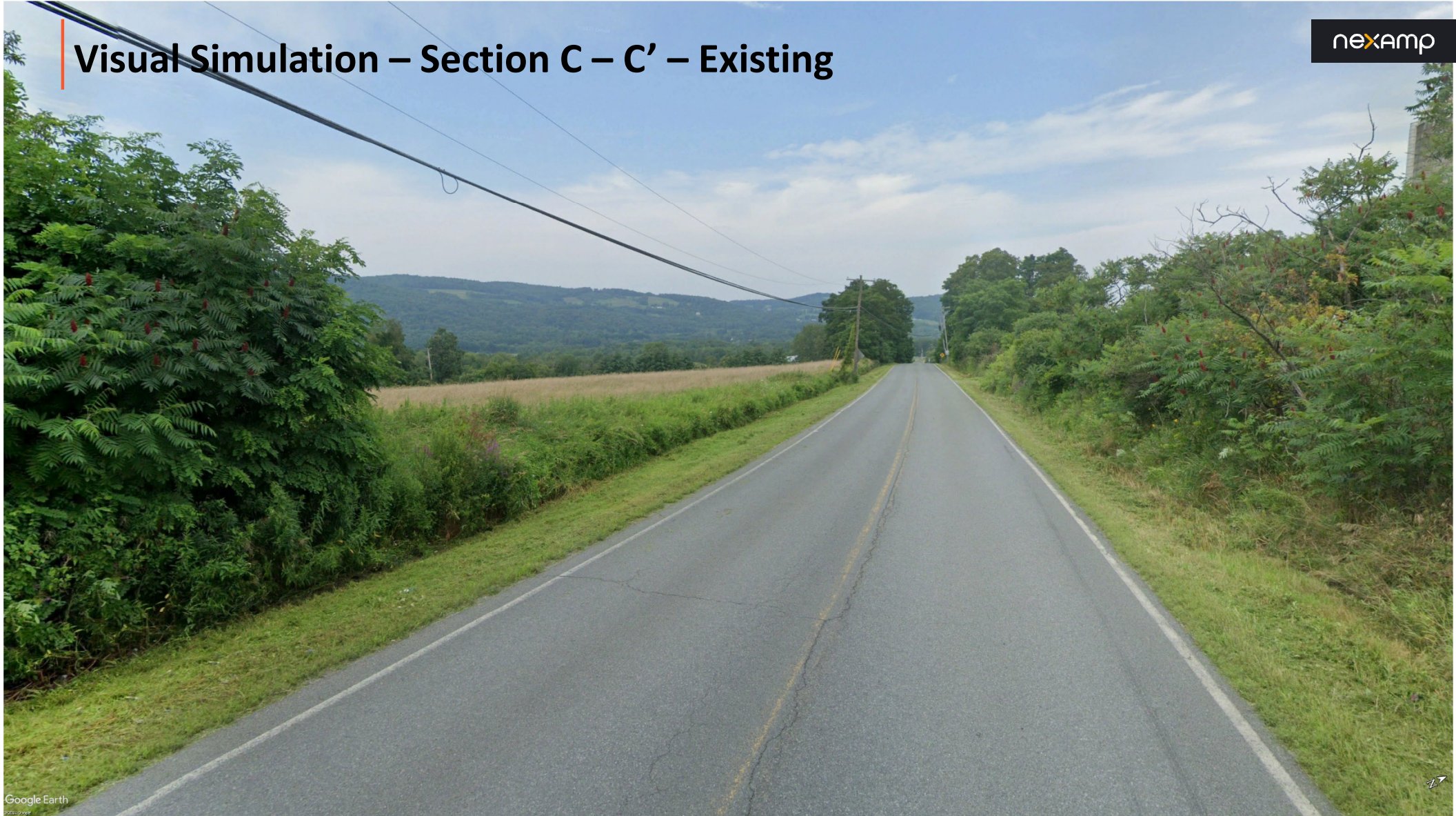
Visual Simulation – Section B – B' – Existing



Visual Simulation – Section B – B' – Proposed

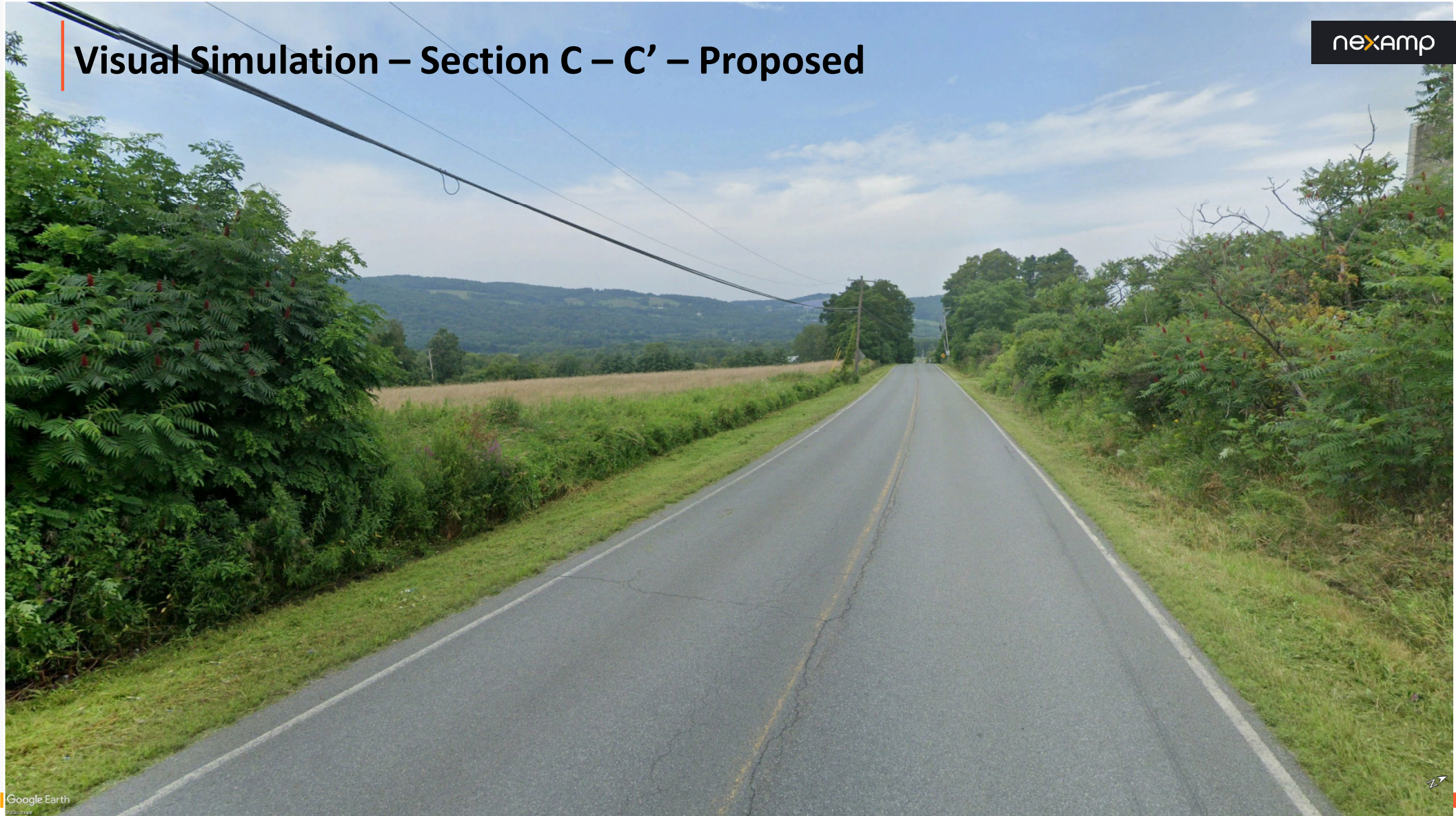


Visual Simulation – Section C – C' – Existing



Visual Simulation – Section C – C' – Proposed

nexamp



Comments from January – Section D – D' - Existing

nexamp



Comments from January – Section D – D' Proposed

nexamp



Comments from January – Visual Cross Sections



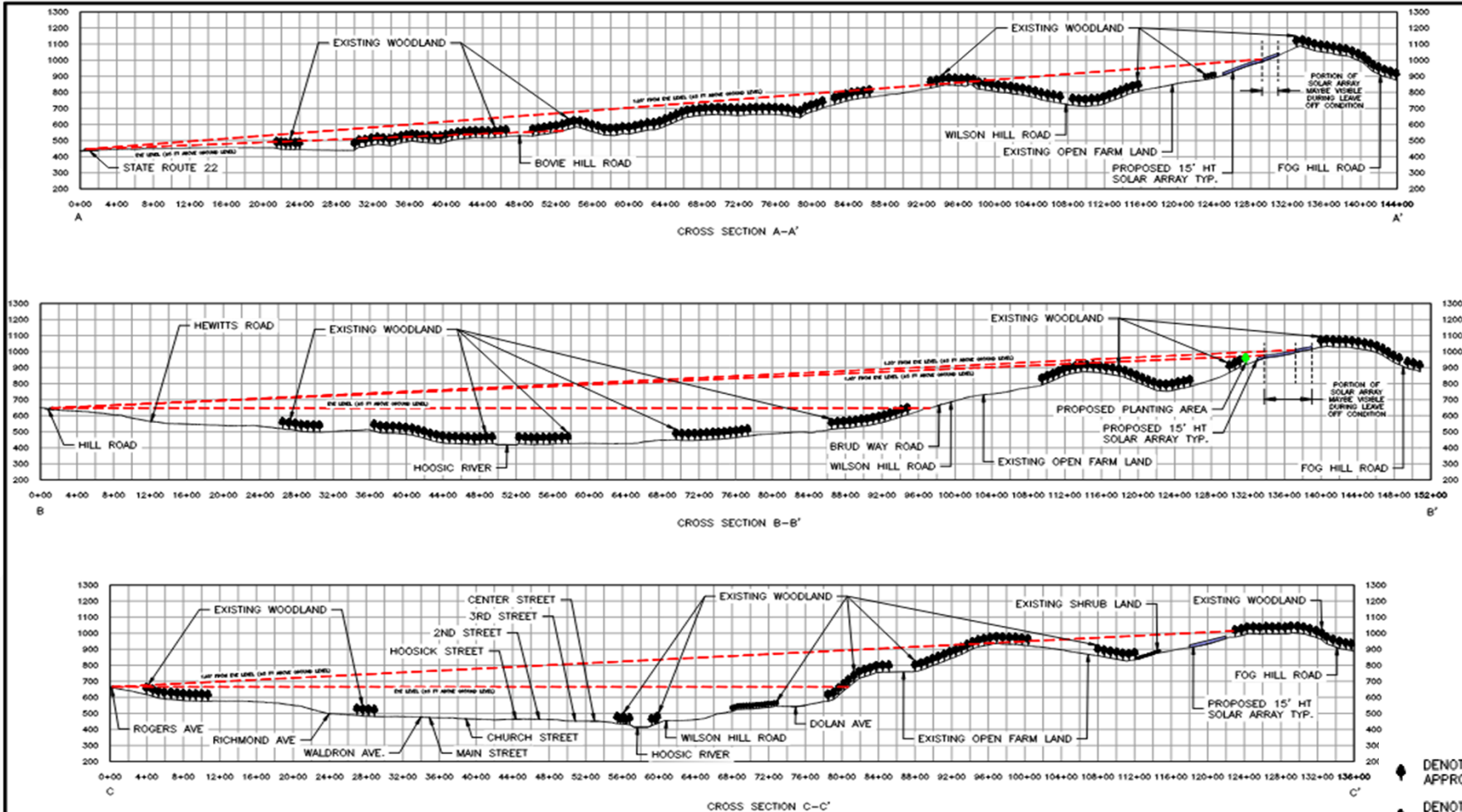
Comments from January – Visual Impact

Guidance from "Assessing and Mitigating Visual and Aesthetic Impacts" – NYS Dept. Of Env. Conserv. 2019

Evaluators should assess “the potential significance of the impact using magnitude and importance, the qualities of the resource, and the juxtaposition (use viewshed or line-of-sight profiles, or both) of the project to the inventoried resource as the guide for determination.” Aesthetic impact must be evaluated in terms of designated resources, whether town, state or federally so. “While private individuals or landowners are members of the public, aesthetic impacts to a non-publicly accessible scenic or aesthetic resource do not rise to the level of significance [for purposes of SEQRA].”

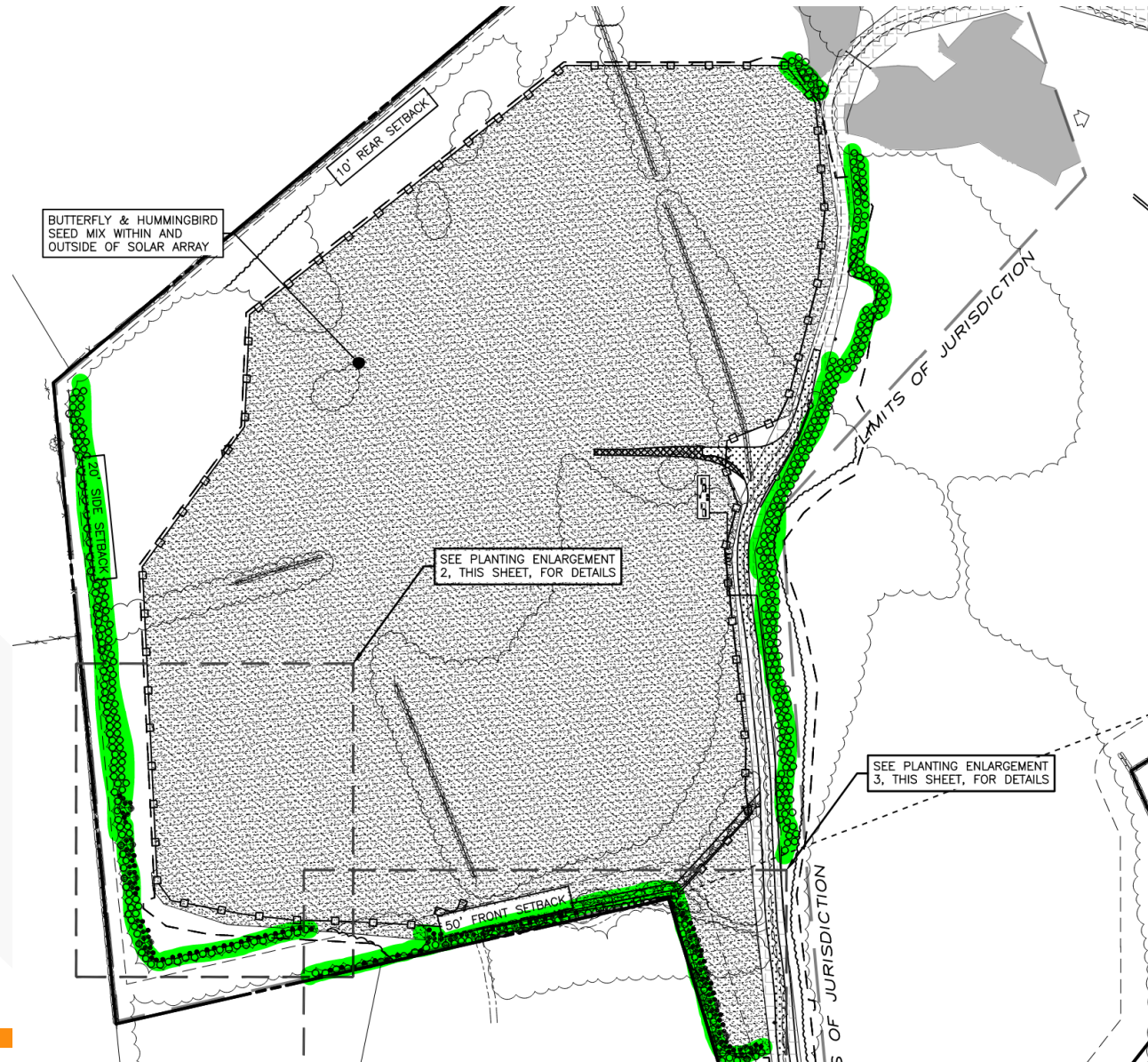
Magnitude assesses factors such as severity, size, or extent of an action. Importance relates to how many people are going to be impacted or affected by the project, its geographic scope, and other social and environmental consequences the project proceeds or doesn’t proceed. Evaluators must consider the setting of a proposed building or structure and its impact on a designated resource – not just size alone. Context is a key element of significance especially when evaluating visual impact. The fact a project is large, by itself,” is not determinative.

Comments from January – Visual Cross Sections



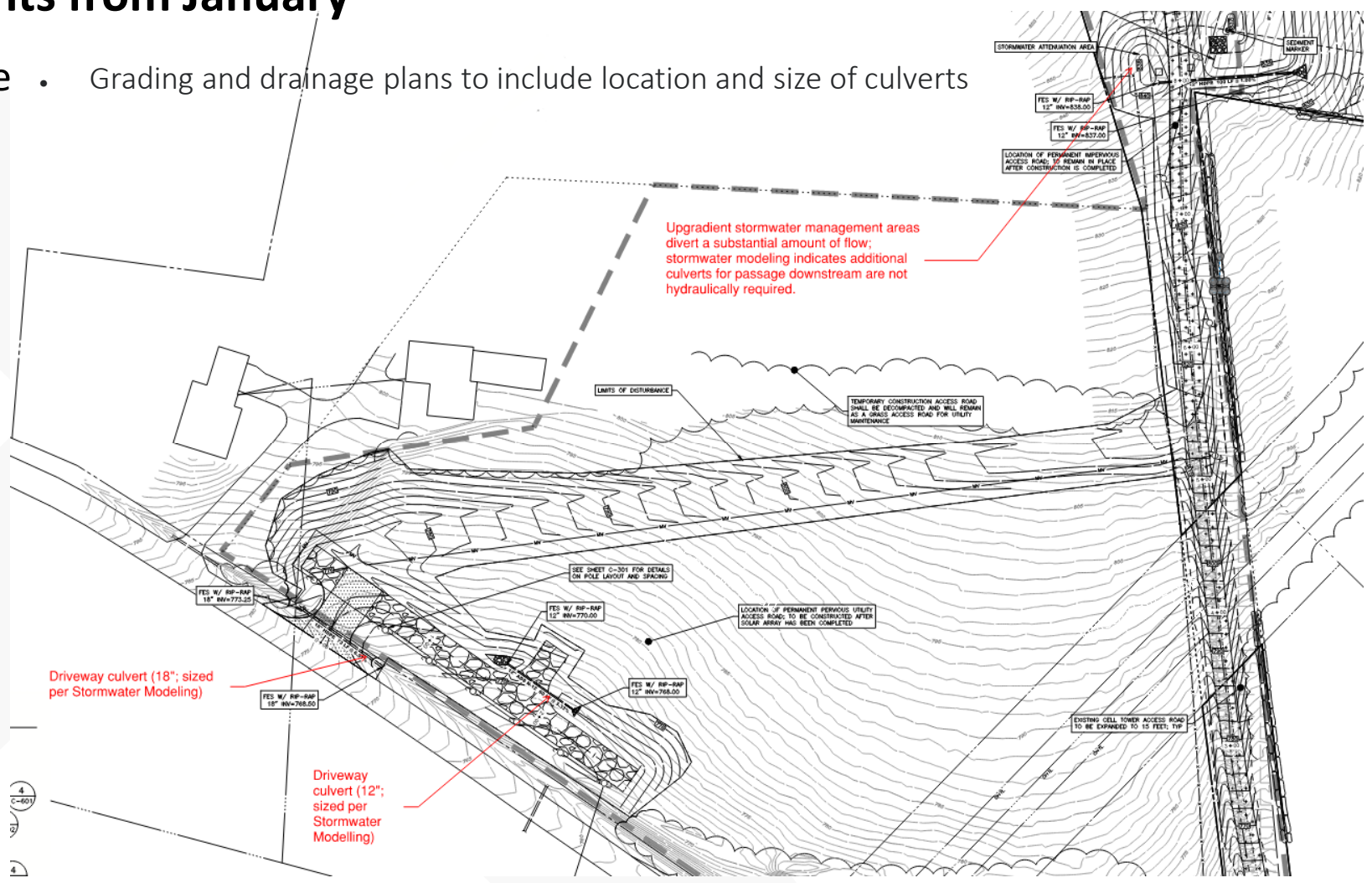
Comments from January

- Trees
- Plans for expanding the visual buffer on 3 sides of project to include a minimum of double row of 7ft evergreen trees along with other species and a minimum depth of six feet. The revised plans incorporate the requested landscaping buffer (highlighted in green for reference).



Comments from January

Drainage • Grading and drainage plans to include location and size of culverts



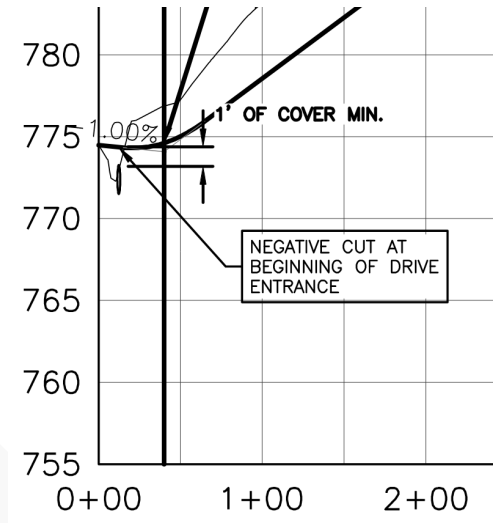
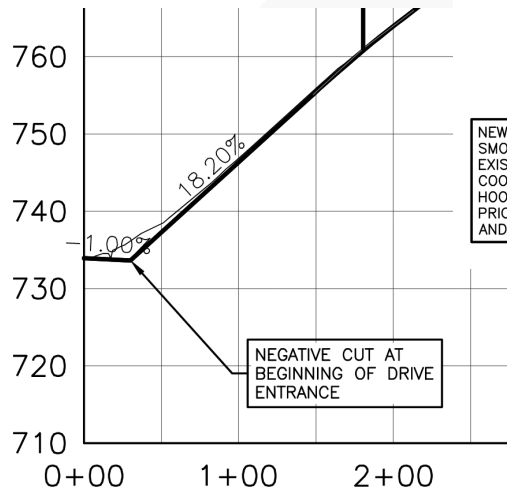
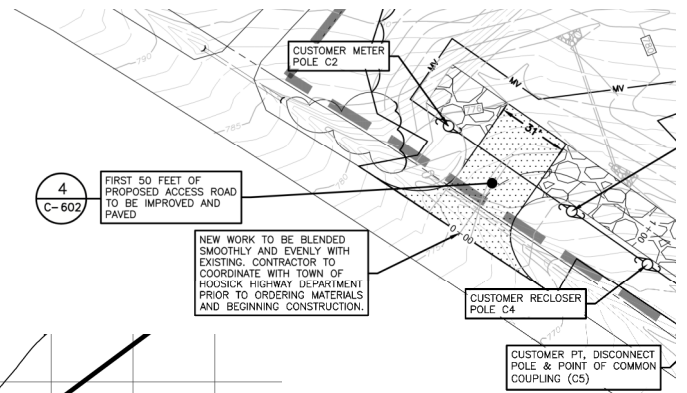
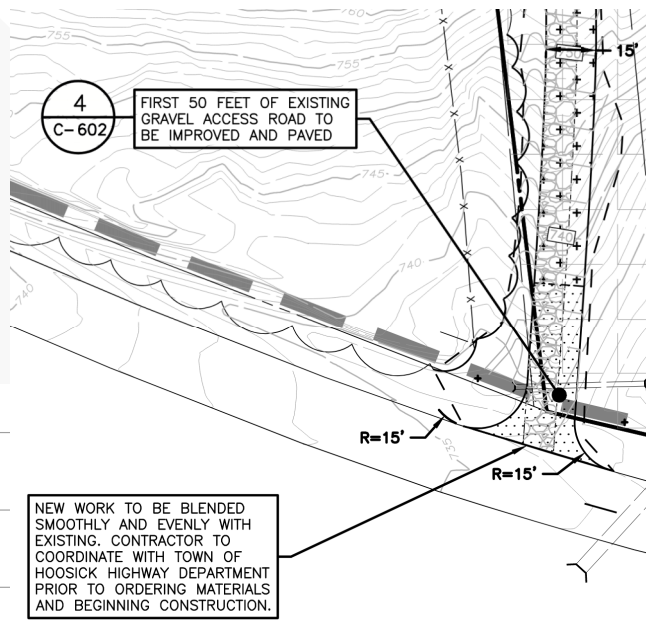
4
C-603
4

Comments from January

Jan '24

- Road plan to include negative cut as discussed with Town Highway Department
- Road plan to widen and maintain the existing cell tower access road

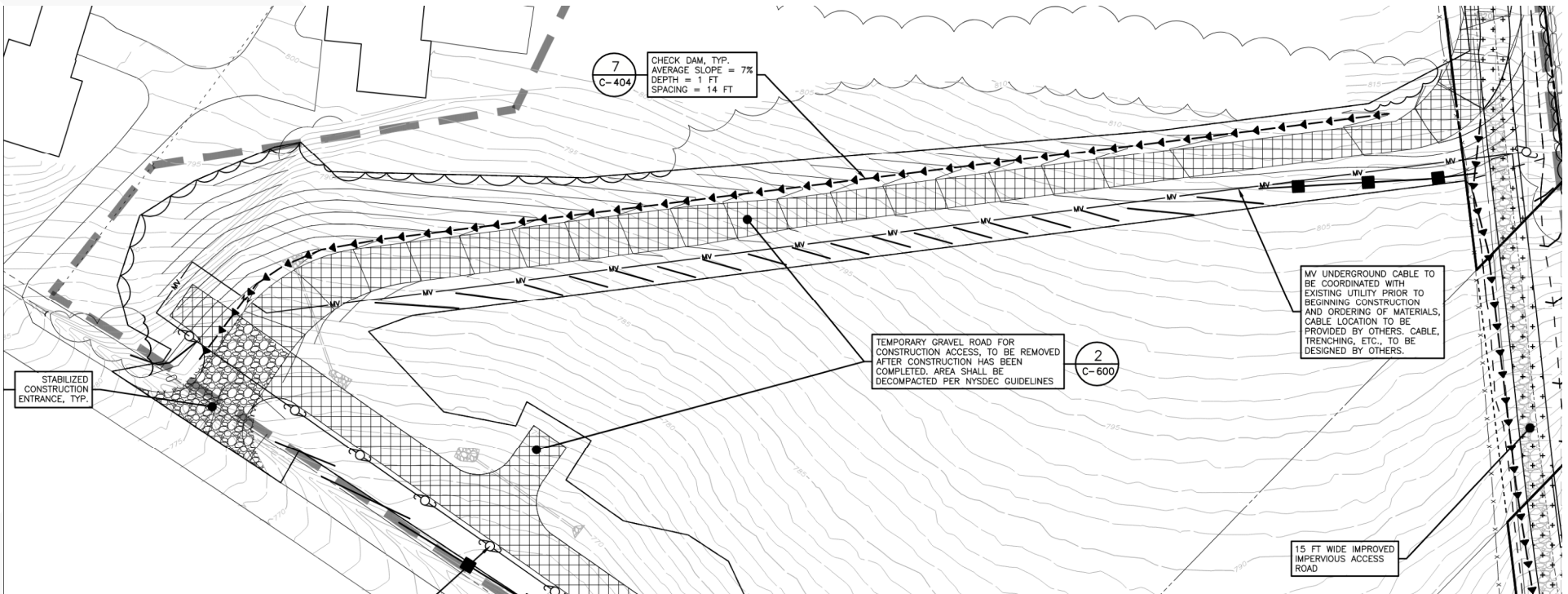
Site Plans have been revised to show this



Comments from January

Jan '24

- Road plan to insure proper water runoff control on temporary road. Site Plans have been revised to show this



Comments from January

Jan '24

- Runoff control materials to be used to insure mud and dirt don't track onto public highway
Stabilized construction entrance and weekly SWPPP inspections; construction entrance to be maintained as needed to ensure no tracking on to public roads – also road use agreement covers this.
- Plans to maintain Wilson Hill Road during construction This is covered in our road use agreement.

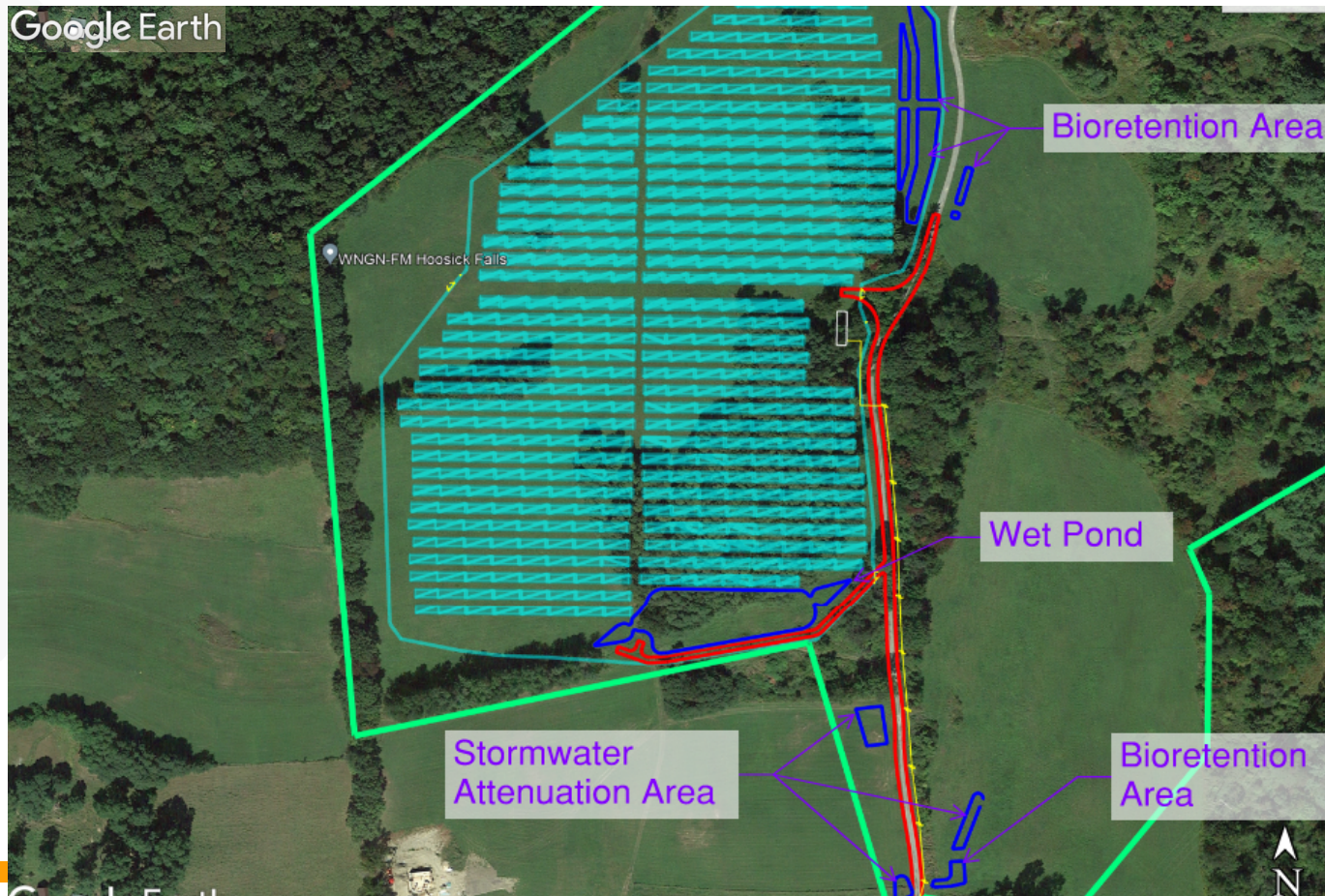
(i) At all times during the Project and Repair Work (as defined in Section 4(a)) performed on Town Roads, Developer shall ensure that Town Roads being utilized by the Development Group are free and clear of mud, dirt, debris, garbage, obstructions or hazards. Upon request of the Town Highway Superintendent, Developer shall clear any mud, dirt, debris, garbage, obstructions or hazards from the Town Roads' right-of-ways arising from any of the Development Group's transportation for the Project within a reasonable time after the Town's request.

Section 4. Developer's Payment and Obligation to Repair Town Roads.

the Date of Final Acceptance, it shall, at its expense, repair, or cause to be repaired, any damage to the Town Roads caused by oversize or overweight vehicles or other material deliveries in connection with the Project (the "**Repair Work**") whether such damage is caused by Developer or the Development Group or their respective successors or assigns. "**Damage**" shall include damage to the road surface, subsurface, culverts, bridges, guardrail, drainage tiles, drainage facilities, signs and adjacent ditches. All Repair Work shall be constructed in a good and workmanlike manner and place the Town Roads in the same or better condition than the condition shown in the Pre-Project Roadway Condition Survey.

Comments from January

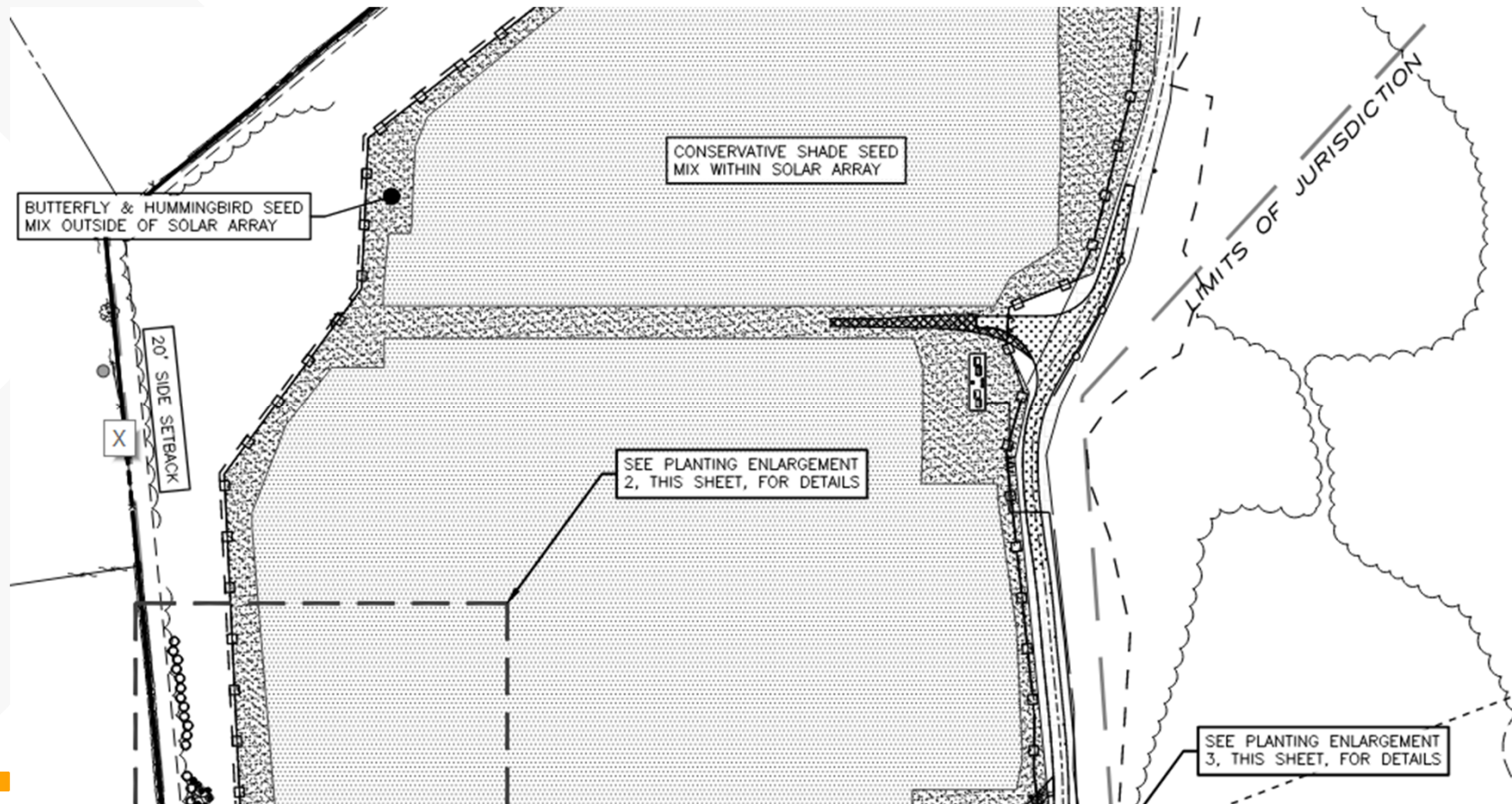
- Jan '24
- Robust stormwater runoff plan reflective of all site plan revisions per LaBerge Group and Town Comments
 - Plans show a conservative stormwater management plan.



Comments from January

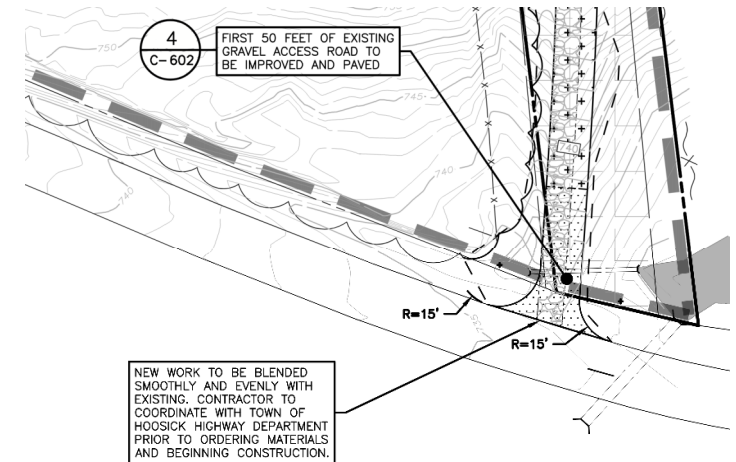
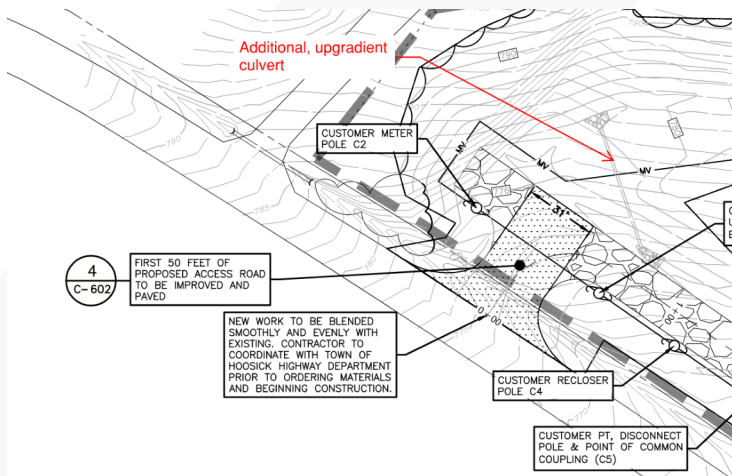
Jan '24

- Plans for seeding with pollinating grasses and vegetation management. Plans include provisions for a pollinator mix. Additionally, after meeting with adjacent landowner last month, we have amended our operations and maintenance plan to not use any herbicides or pesticides.



Comments from January

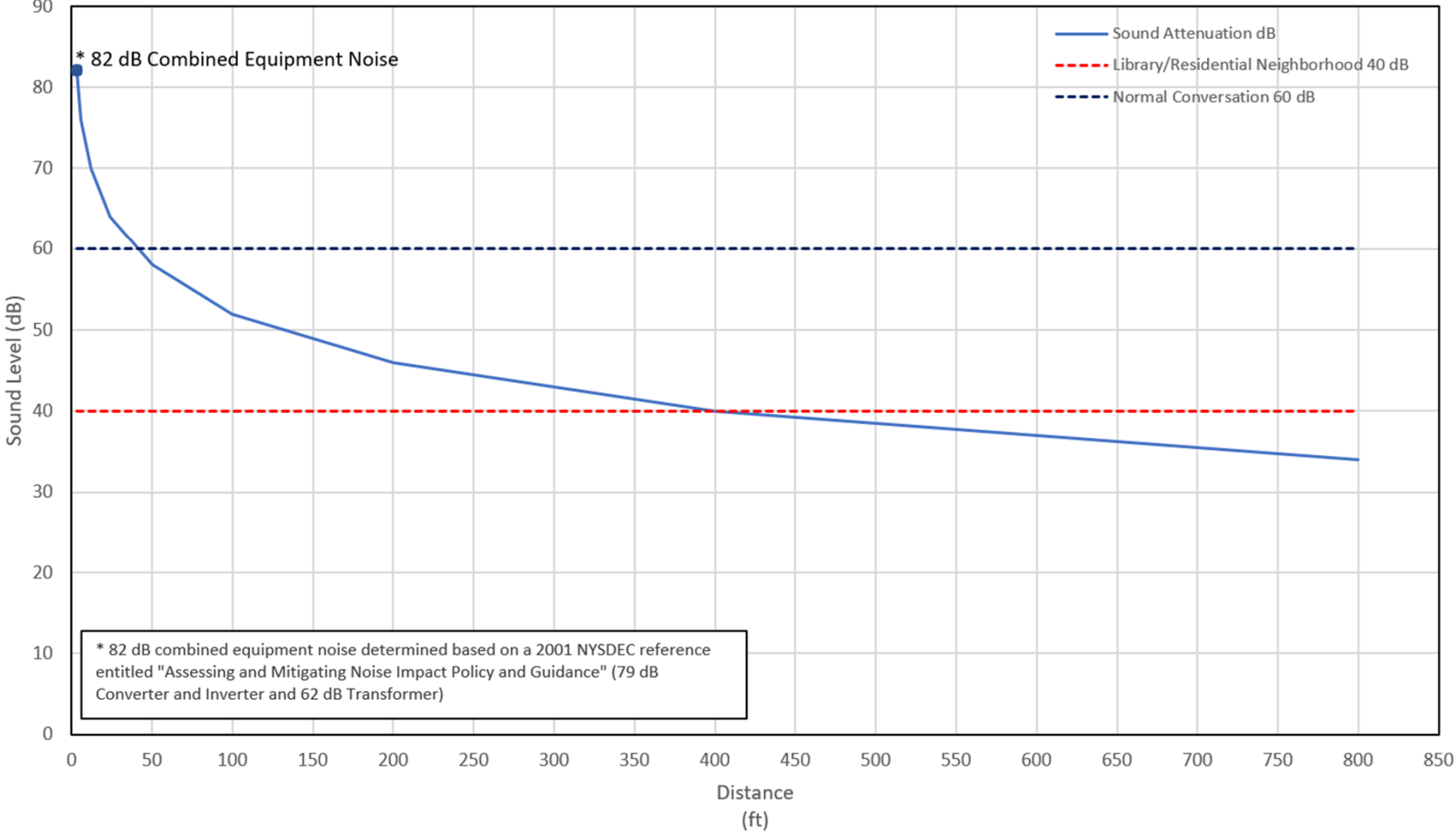
- Jan '24
- Vegetation Management Plan: [The Operations and Maintenance plan has been revised to include language regarding ongoing maintenance of vegetation.](#)
 - Road plan to include paving the first 50 feet of the existing access road and proposed stub road: [The plans have been revised to reflect this request](#)
 - Inclusion of additional culvert under the stub road - [An additional culvert has been added as requested](#)
 - Evaluation of upgradient need for additional culverts – [Stormwater modelling indicates the additional upgradient culverts will not be required; the stormwater management areas to the north of the access road will divert stormwater away from the access road and reduce flows.](#)





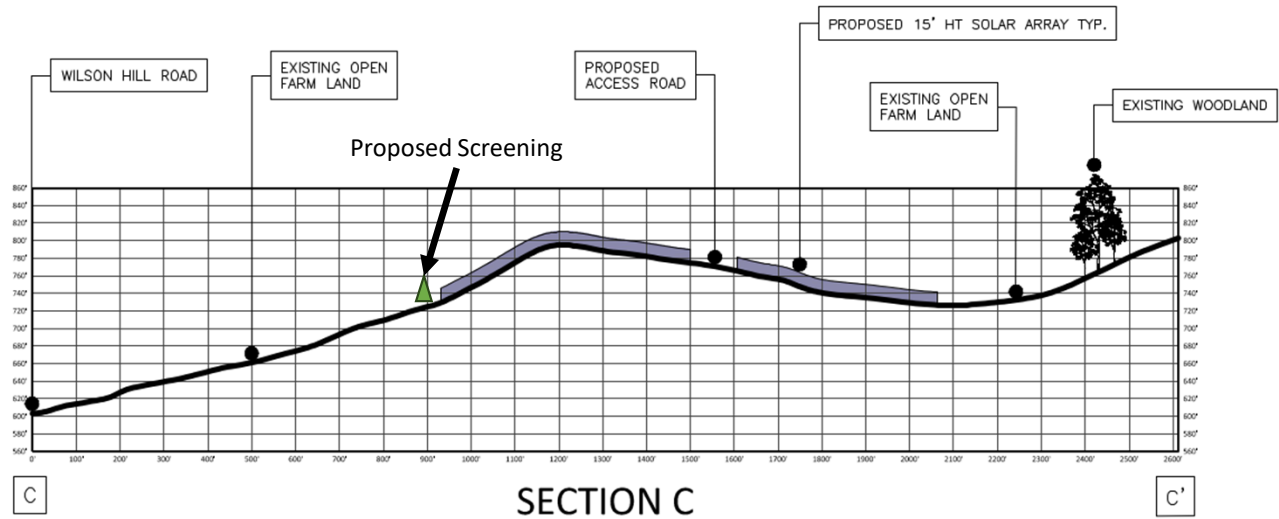
Older Comments

Electrical Equipment Sound Attenuation



Viewshed Analysis

From the visual impact study, only one section, Section C (“receptor 3” in comments) was shown to have potential visual impact. While this section does show potential visibility, it is in fact very limited. The section cuts through a ~100ft break in the existing mature foliage that otherwise obscures the array along Wilson Hill Road.



Landscaping Measures

The foliage areas around the array will largely be conserved, providing screening for the project from most viewsheds. Post-construction, areas will be planted with a pollinator supportive seedling mix. Within the fence and under the panels will be planted with low growing vegetation that prevents erosion. Outside the fence, taller growing pollinator friendly mix will be planted, and provide a greater variety for those species.



Operations + Maintenance

As a nationwide owner operator, Nexamp provides operations and maintenance in house. We actively monitor and provide preventative, corrective, and condition based maintenance, with 100 of MWs in plants across NY. As one company that provides wrap around services for the duration of the project, Hoosick should feel confident knowing that they have one partner in the operation of this facility.

Decommissioning

The Facility will be decommissioned by completing the following major steps: Dismantlement, Demolition, and Recycle or Disposal; and Site Stabilization, as further described below. Nexamp will post a decommissioning bond with the Town to ensure proper decommissioning in any scenario. Nexamp will remove all equipment and material from the site, and strive to recycle and reuse as much as commercially practicable – as part of a commitment to a sustainable grid.

Town Permitting

The applicant is seeking Special Use Permit approval from the Town of Hoosick Zoning Board. Through that process, the applicant will also seek a SEQR declaration. Other approvals outside of Hoosick's jurisdiction include:

- 239-m referral to Rensselaer County – Received, November, 2023
- NYS Agriculture and Markets NOI – To be submitted prior to construction
- NYS DEC SPDES water permit – To be submitted prior to construction
- NYS SHPO consultation – Received, April, 2023
- FAA no impact determination – Notice Criteria Not Exceeded, February, 2023
- USFWS no impact letter – Received, February, 2023

Zoning Board:
SEQR Type I
Special Permit



NC CLEAN ENERGY TECHNOLOGY CENTER

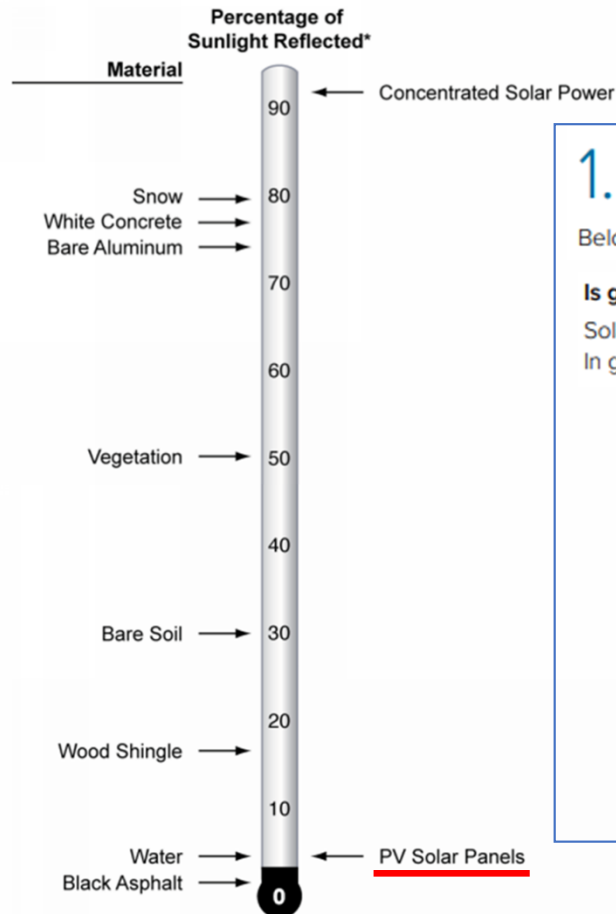
Health and Safety Impacts of Solar Photovoltaics MAY 2017



2. Electromagnetic Fields (EMF)

PV systems do not emit any material during their operation; however, they do generate electromagnetic fields (EMF), sometimes referred to as radiation. EMF produced by electricity is non-ionizing radiation, meaning the radiation has enough energy to move atoms in a molecule around (experienced as heat), but not enough energy to remove electrons from an atom or molecule (ionize) or to damage DNA. As shown below, modern humans are all exposed to EMF throughout our daily lives without negative health impact. Someone outside of the fenced perimeter of a solar facility is not exposed to significant EMF from the solar facility. Therefore, there is no negative health impact from the EMF produced in a solar farm. The following paragraphs provide some additional background and detail to support this conclusion.

The strength of ELF-EMF present at the perimeter of a solar facility or near a PV system in a commercial or residential building is significantly lower than the typical American's average EMF exposure.^{73,74} Researchers in Massachusetts measured magnetic fields at PV projects and found the magnetic fields dropped to very low levels of 0.5 mG or less, and in many cases to less than background levels (0.2 mG), at distances of no more than nine feet from the residential inverters and 150 feet from the utility-scale inverters.⁷⁵ Even when measured within a few feet of the utility-scale inverter, the ELF magnetic fields were well below the International Commission on Non-Ionizing Radiation Protection's recommended magnetic field level exposure limit for the general public of 2,000 mG.⁷⁶ It is typical that utility scale designs locate large inverters central to the PV panels that feed them because this minimizes the length of wire required and shields neighbors from the sound of the inverter's cooling fans. Thus, it is rare for a large PV inverter to be within 150 feet of the project's security fence.



* Sunlight is measured as watts per squared meter (W/m²). The amount of incoming sunlight is generally considered to be 1,000 W/m². The percentage of sunlight reflected from each surface can be calculated from this baseline.

National Academies of Sciences, Engineering, and Medicine 2011.
Investigating Safety Impacts of Energy Technologies on Airports and Aviation. Washington DC.

1. Frequently Asked Questions (FAQs)

Below are some of the most frequently asked questions regarding the Model Solar Energy Local Law process.

Is glare a concern for solar panel systems?²³

Solar panels are constructed of dark-colored (usually blue or black) materials and designed with anti-reflective coating(s). In general, solar panels are less reflective than window glass or water surfaces.

**Model Solar Energy
Local Law**

For local governments to utilize when drafting local laws and regulations for solar development.



Solar Panel Glare

SEQRA Process

1. ~~Classify the Action~~

- ~~• Type I – Full Environmental Assessment Form (EAF)~~
 - ~~• Projects that could require further review~~
 - ~~• Nonresidential project disturbing more than 10 acres~~
 - ~~• Full EAF Part 1 Submitted~~
- ~~• Type II Actions – Short EAF~~
- ~~• Unlisted Actions – Short / Full EAF~~

2. ~~Initiate Coordinated Review~~

- ~~• Notify Potentially Involved / Interested Agencies~~

Requesting to set Public Hearing tonight and begin SEQRA Parts 2 & 3 Review

2. Review Potential Project Impacts – Full EAF Part 2

3. Determine Project Significance – Full EAF Part 3

SEQRA Process



Department of Environmental Conservation





Thank you
