



## **Area Variance Presentation to the Zoning Board of Appeals**

9/12/2023

# With you today...

## Contents

- Site Update
- Variance Request Overview
- Review Individual Variance Requests
  - Fence/Berm in Buffer Area
  - Building Height (Silo and ASRS Warehouse)
  - Decorative Fence in Buffer Area

## Project Team



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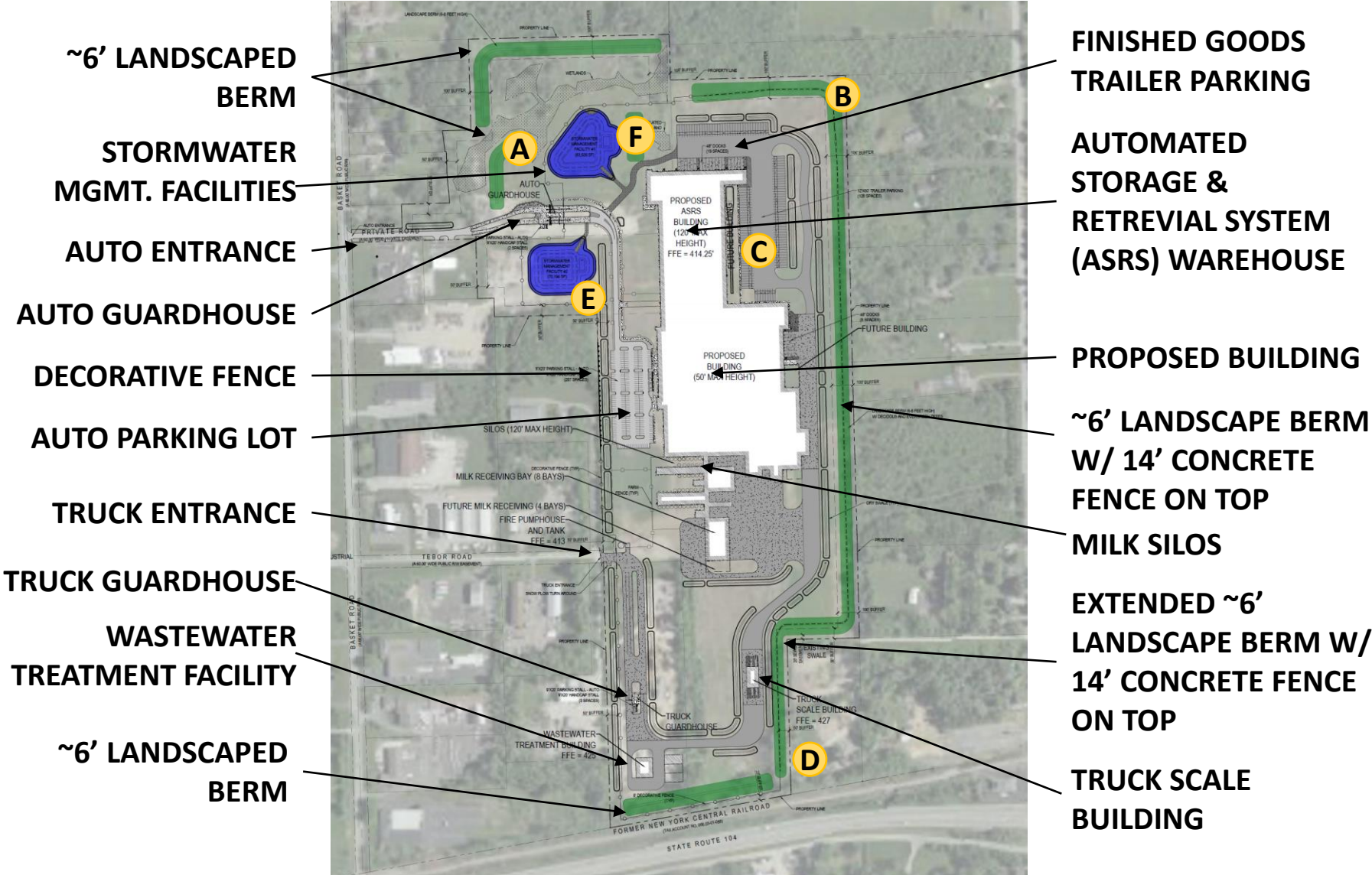
# Background

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- Ahead of the Zoning Board of Appeals Meeting on September 12, 2023, the fairlife team first submitted an application on May 24, 2023 (substantially revised on August 11, 2023)
- fairlife's application and supplement included the following:
  - ZBA Application for Area Variances
  - Owner's Affidavit, Non-Collusion Disclosure, Tax Incentive Form, and Description of Property Ownership
  - Statement of Difficulty for each Area Variance being sought
  - Because SEQRA was not completed at the time, fairlife's application was technically incomplete
- The objective for this evening's presentation is to provide a high-level summary of the requested variances, our reasoning for the variance, and share alternative analysis conducted

# Since the last meeting on 6/13, the team has incorporated several updates to the design

PRELIMINARY – SUBJECT TO CHANGE

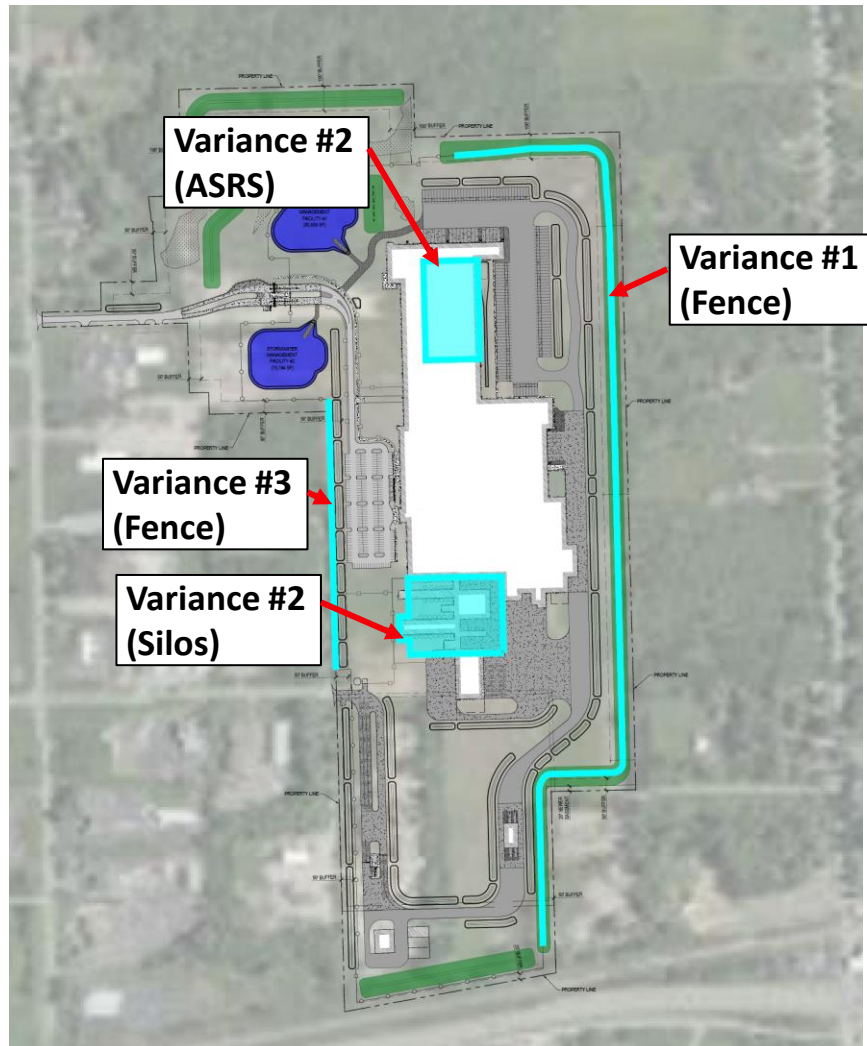


## Design Updates

- A** Extended berm on northwest portion of the property parallel to the wetland
- B** Confirmed height of precast concrete fence to be ~14' (initially set at 6')
- C** Trailer parking moved further away from County Line Rd property line
- D** Extended berm and wall on southeast portion of the property
- E** Confirmed size, location, and number of stormwater management ponds
- F** Erect sound barrier wall west of loading docks

# Three variances are requested relating to height and placing a fence within buffer area adjoining the property line

## Site Plan:



## Variance Request Summary:

- **Variance #1:** Request to place the 14' precast concrete wall comprised of acoustical deadening concrete in a pattern that absorbs sound in the Buffer Area on the east side of the parcel
- **Variance #2:** Request to increase the building height from
  - 50' to 120' for the ASRS
  - 50' to up to 102' for 13 Silos
  - 50' to up to 113' for 36 Silos
- **Variance #3:** Request to place the 8' horizontal wood slat fence with 8' decorative aluminum posts within the Buffer Area on the west side of the parcel



# Variance #1: Fence and Berm in Buffer Area

## Summary:

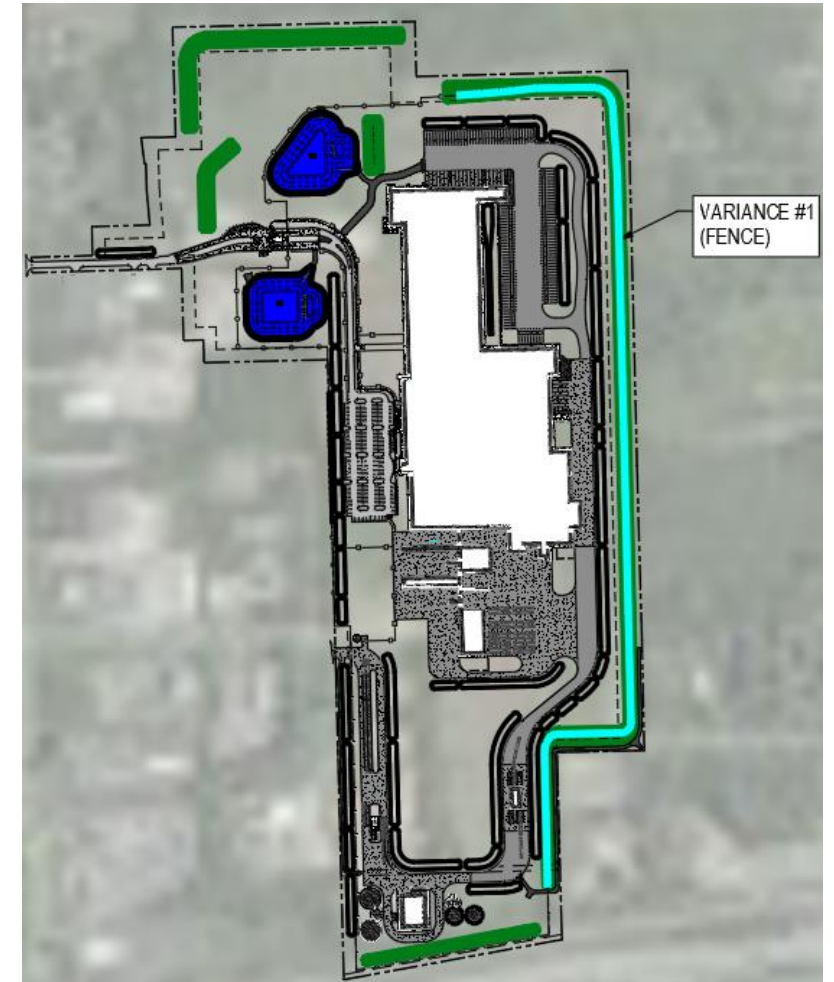
- Request to place the 14' precast concrete wall comprised of acoustical deadening concrete in a pattern that absorbs sound in the Buffer Area on the east side of the parcel

## Purpose of Decorative Fence & Berm:

- Minimize facility impact to neighbors bordering the eastern property line
  - Reduce line of sight to the facility
  - Prevent light spillage at property line
  - Minimize sound at the property line (to stay within 5dB(A) of ambient noise)

## Supporting Analysis:

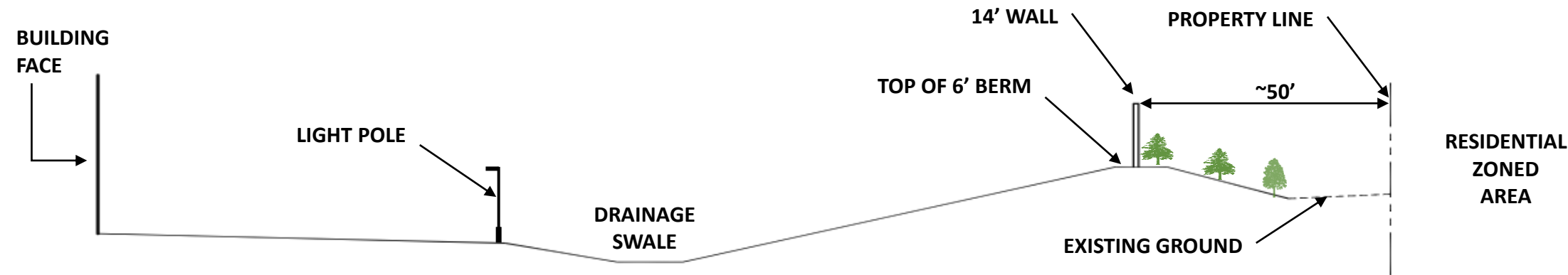
- Several studies were conducted to determine the placement and height of the berm and wall, including line of sight visuals, a photometric study and an acoustic study







# Variance #1: Fence and Berm in Buffer Area

## Mitigation to Neighbors

### Conceptual Line of Sight Profile:



### Mitigating Aspects

Area	Description	Area	Description
 <b>Visual</b>	<ul style="list-style-type: none"><li>The berm and fence placement and size minimizes line of sight to the facility</li><li>Existing and new evergreen and deciduous foliage will reduce the view of the fence from the neighbors' yards</li></ul>	 <b>Lighting</b>	<ul style="list-style-type: none"><li>The lights are designed to be shorter than the height of the berm and wall to prevent spillage at the property line</li></ul>
 <b>Noise</b>	<ul style="list-style-type: none"><li>The 14' fence height keeps noise to less than a 5 dB(A) difference at the property line than current ambient noise and 15-25 dB(A) below the industrial zone noise ordinance</li></ul>	 <b>Berm/Wall Design</b>	<ul style="list-style-type: none"><li>The precast concrete fence is decorative and designed in a pattern that absorbs and disperses sound</li></ul>

# Variance #1: Fence and Berm in Buffer Area

## *Line of Sight Analysis (1 of 4)*



### Key Discussion:

- Actual photos were taken of the line of sight from several vantage points
- This slide illustrates the locations for each line of site, capturing the surrounding residential areas
- Slides 9-11 will show the individual line of site photos for locations 1, 2, and 4
- Because photos were taken in the summer, winter views were computer generated to evaluate impact of the deciduous foliage



# Variance #1: Fence and Berm in Buffer Area

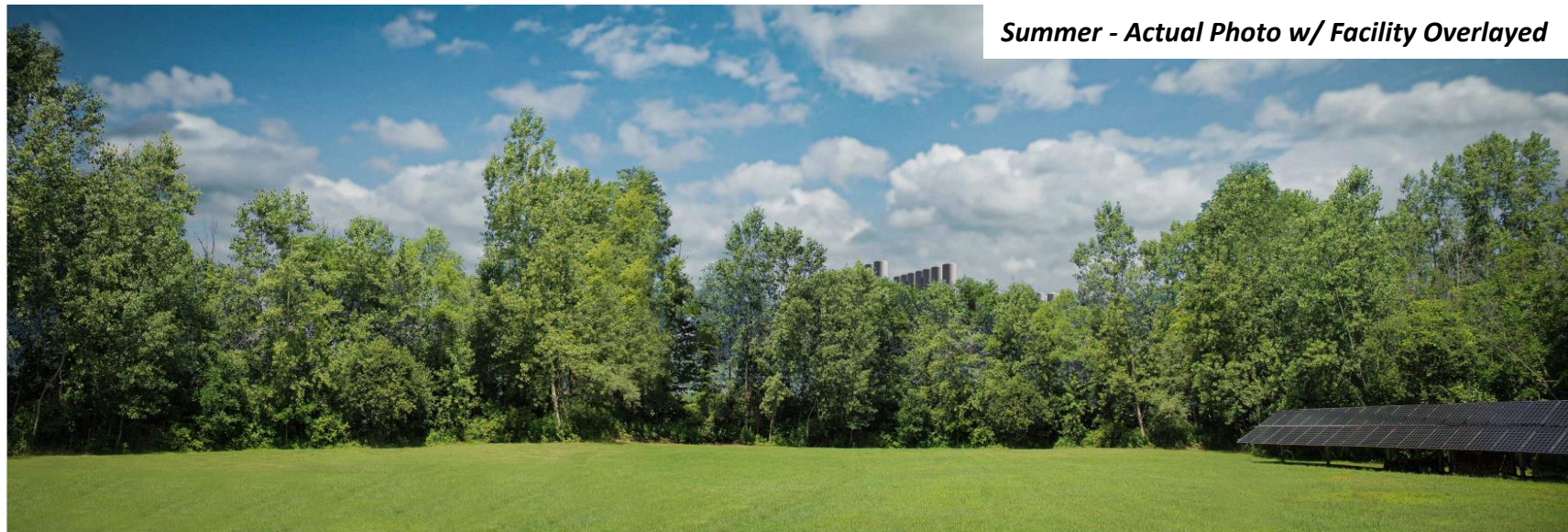
## Line of Sight Analysis (2 of 4)



1



Winter - Foliage Computer Generated w/ Facility Overlayed



Summer - Actual Photo w/ Facility Overlayed



# Variance #1: Fence and Berm in Buffer Area

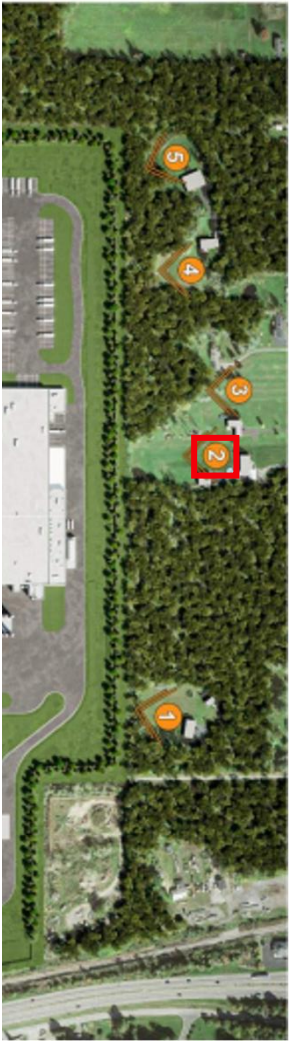
## Line of Sight Analysis (3 of 4)

2

Winter - Foliage Computer Generated w/ Facility Overlayed



Summer - Actual Photo w/ Facility Overlayed





# Variance #1: Fence and Berm in Buffer Area

## Line of Sight Analysis (4 of 4)

4

Winter - Foliage Computer Generated w/ Facility Overlayed



Summer - Actual Photo w/ Facility Overlayed





# Variance #1: Fence and Berm in Buffer Area

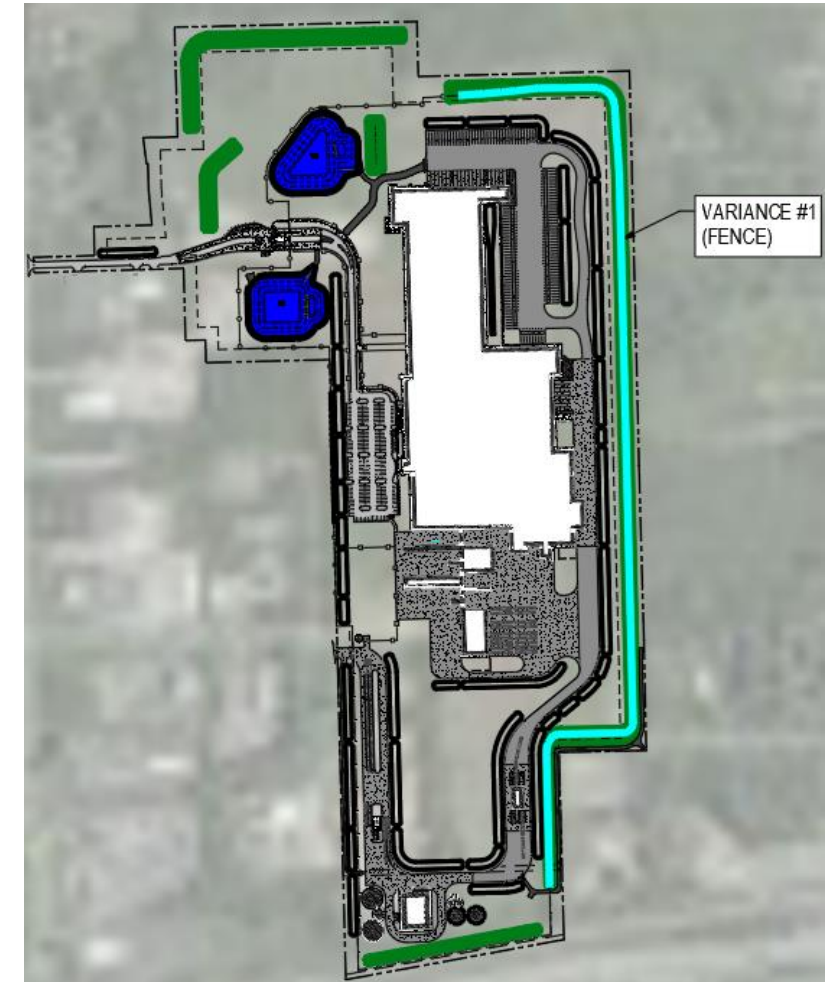
## *Proposed Layout & Design*

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Decorative Sound Wall Basis of Design (both sides of fence):



Location of Variance:





# Variance #2: Increase Building Height (Silos and Warehouse)

## Summary:

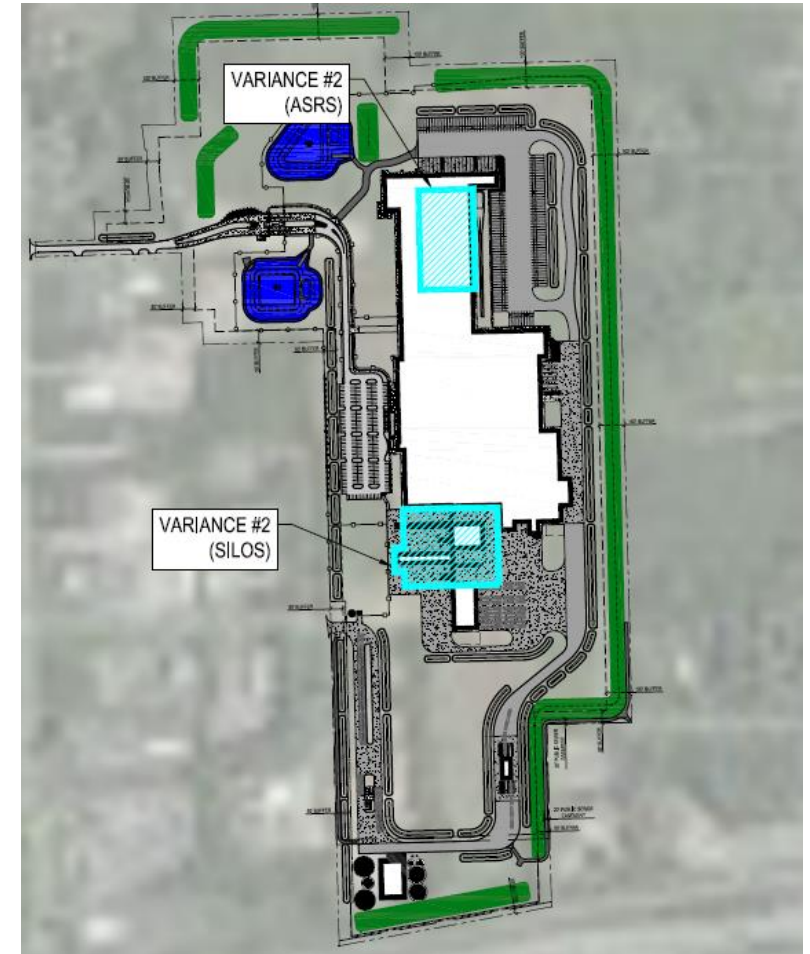
- Request to increase the building height from 50' to 120' for the ASRS, from 50' to up to 102' for 13 Silos, and from 50' to up to 113' for 36 Silos

## Purpose of Height Variance Request:

- **Milk Silos:** The current proposed height of the silos optimizes storage for raw materials and finished goods while minimizing water usage and milk loss
- **ASRS Warehouse:** The proposed height allows for the use of an Automated Storage & Retrieval System (ASRS) which reduces the building footprint size and maximizes the distance of the warehouse to the neighbors

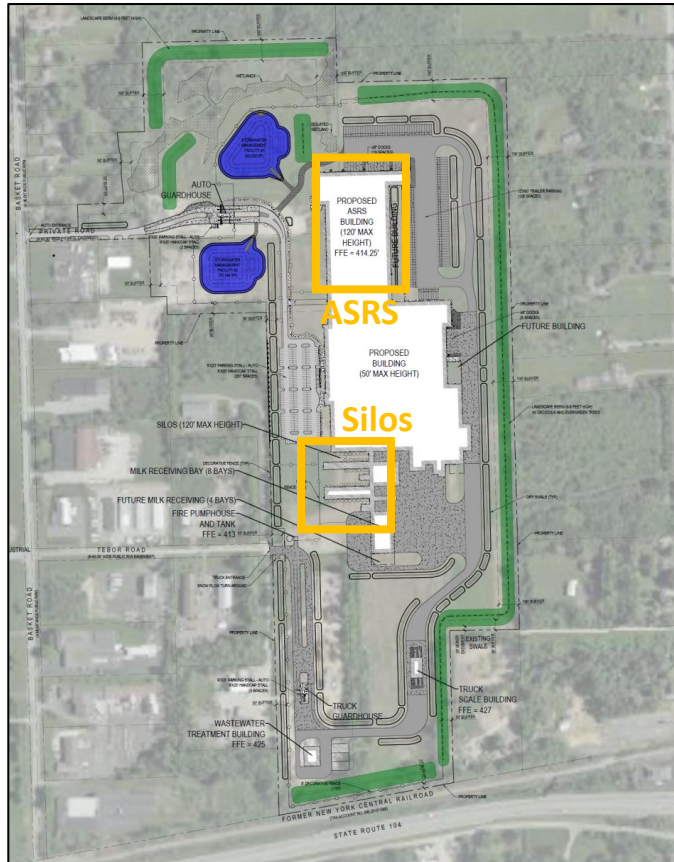
## Supporting Analysis:

- **Milk Silos:** Comparative analysis on the impact of installing silos closer to the height of the existing building code vs. silos optimized for scale of production
- **ASRS Warehouse:** Comparative analysis on the impact of building a traditional warehouse at the building code height vs. an ASRS warehouse (high density storage system that maximizes vertical space)



# Variance #2: Increase Building Height (Silos and Warehouse) Mitigation to Neighbors – Placement of the Silos & ASRS

## Location of Silos & ASRS on Site Plan:



## Silos

- Located in the middle and along the western side to maximize distance to residential neighbors
- Closest neighbor is >800' away from the silos

## ASRS Warehouse

- Located in the middle of the property to maximize distance neighbors on both sides
- Height allows for a smaller building footprint, keeping a maximum distance from neighbors
- Closest neighbor is >800' away on County Line Rd. and >1200' away on Basket Rd.



# Variance #2: Increase Building Height (Silos and Warehouse)

## *Mitigation to Neighbors - Design & Finish of the Building Materials*

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### Conceptual Design & Finish of the Silos and ASRS Warehouse:



### Silos

- The silos will be designed with a 2B matte steel finish



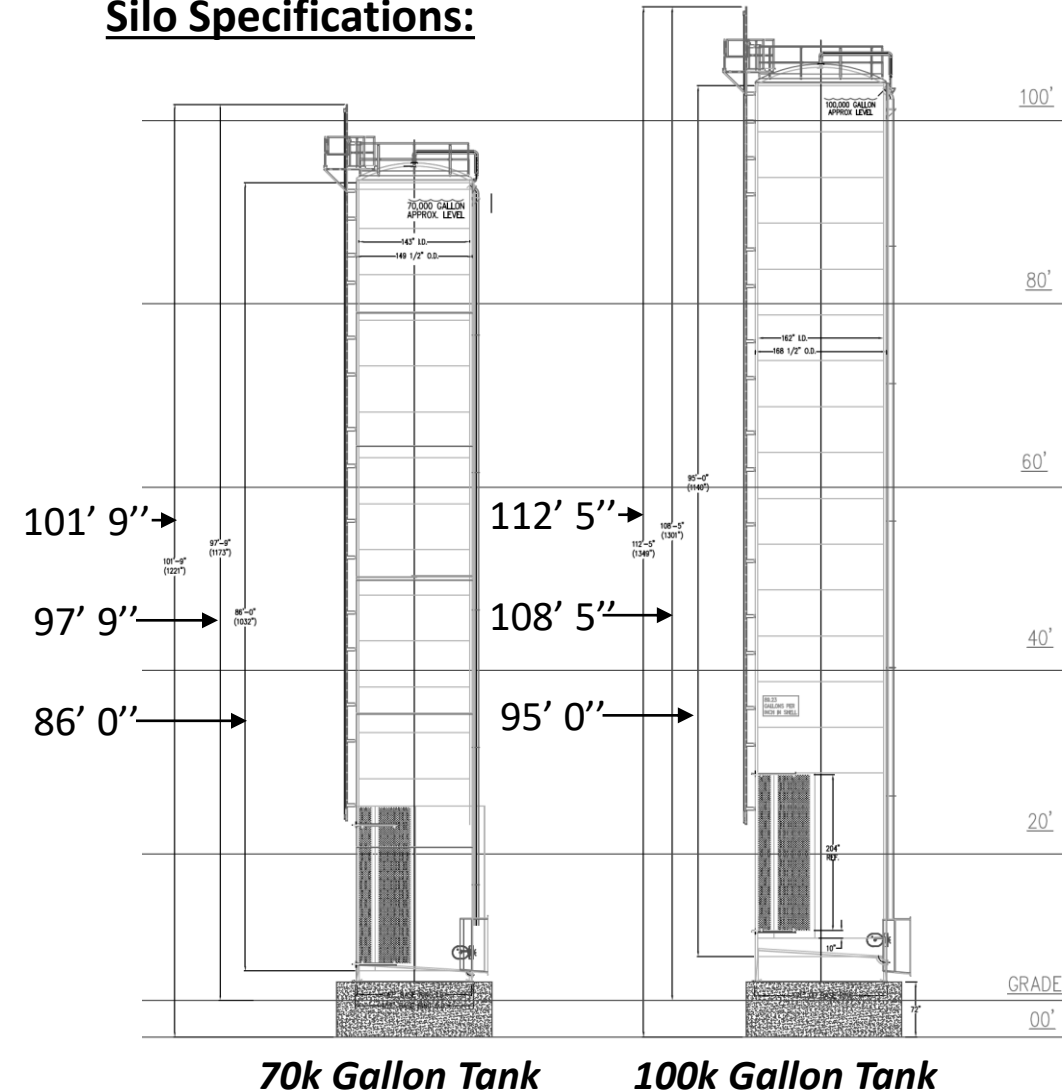
### ASRS Warehouse

- The warehouse will be aesthetically consistent in form, height, and color with other existing industrial facilities in the area
- The design includes a neutral gray-blue in color and largely unbroken rectangles in form

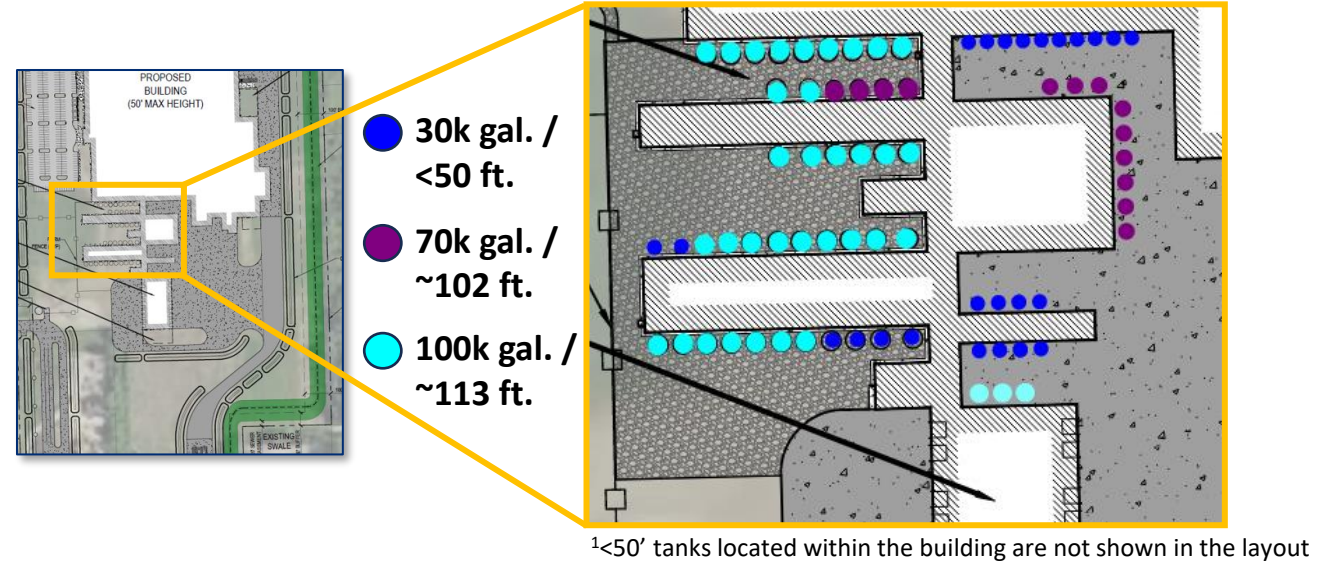
# Variance #2: Increase Building Height (Silos and Warehouse)

## Silos - Proposed Layout & Design

### Silo Specifications:



### Silo Location and Directional Placement<sup>1</sup>:



### Proposed Silo Layout & Design Summary:

- Proposed installation of 36 silos at ~113', 13 silos at ~102', and ~32 silos that meet the building code of 50'
- Note, actual height of the silos will vary based on the grading of the site. Height requested is the maximum height to include concrete footing and any difference in land elevation
- Finish of the silos to be 2B matte steel

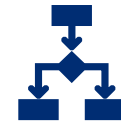


# Variance #2: Increase Building Height (Silos and Warehouse)

## Silos - *Comparison of building silos to height code (50')*

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Estimated impact of installing 98 silos ~60' silos<sup>1</sup> versus 13 silos at 102' and 36 silos at 113':



### ***Additional Infrastructure Required:***

- 49 additional silos
- 49 additional pump stations and cleaning in place stations
- 12,000 square feet of building
- 14,000 square feet of concrete footings
- 28,000 lineal feet of piping, and increase distance between process areas by 200'
- Estimated Cost - \$50M+

### ***Footprint Impact:***

- ~2x water and wastewater usage for cleaning and sanitizing (~100k gals/day inbound and outbound)
- ~2x electrical, gas and steam
- ~2x chemicals for cleaning & sanitizing
- Increased energy used in the jacket of the silos for temperature control
- Milk loss with additional silos – ~10,000 gallons/day = (2 tankers)
- Estimated Annual Cost - \$5M+

### ***Operational Complexity:***

- 2x maintenance (pumps, spray balls, agitators, valves, etc.)
- Valve matrix would increase exponentially doubling the number of valves to over 100

<sup>1</sup> While over the 50' building code, a 44,000 gallon tank at ~60' in height is the closest standard configuration to the code (and logical for comparison purposes)

# Variance #2: Increase Building Height (Silos and Warehouse)

## ASRS Warehouse - Proposed Design

### ASRS System Driving Height Requirement:

#### Proposed ASRS Warehouse:

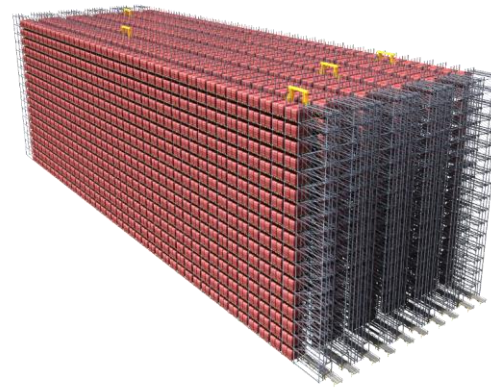
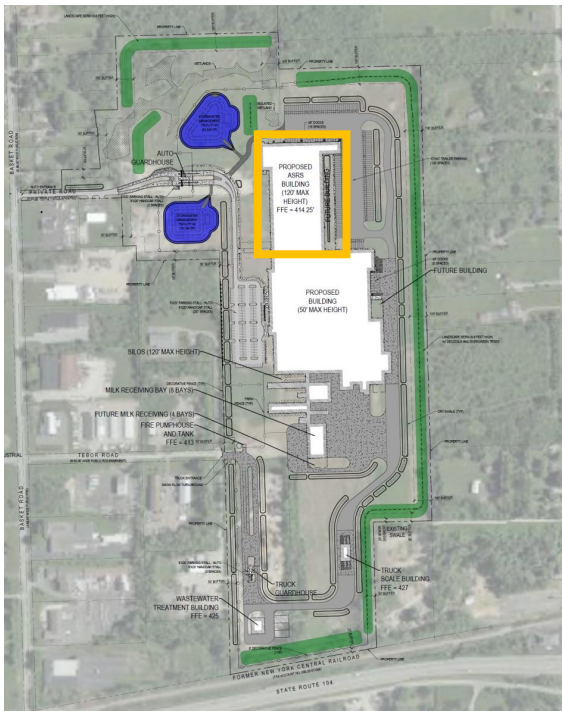


Image source: E80

- The ASRS system allows for **high-density storage**
- The system uses **stacker cranes equipped with devices for the automatic handling of products**
- **120' height is the optimal design for operating the cranes** (if lower than 120', additional cranes and building footprint required for the same storage capacity)
- The use of the ASRS increases product traceability in the warehouse, reduces loss of product, and **increases safety by reducing forklift traffic**

### Warehouse Building Illustrative Exterior Texture and Color (120' height):

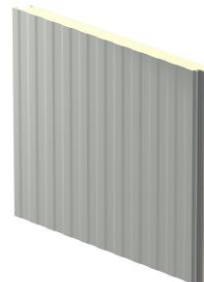


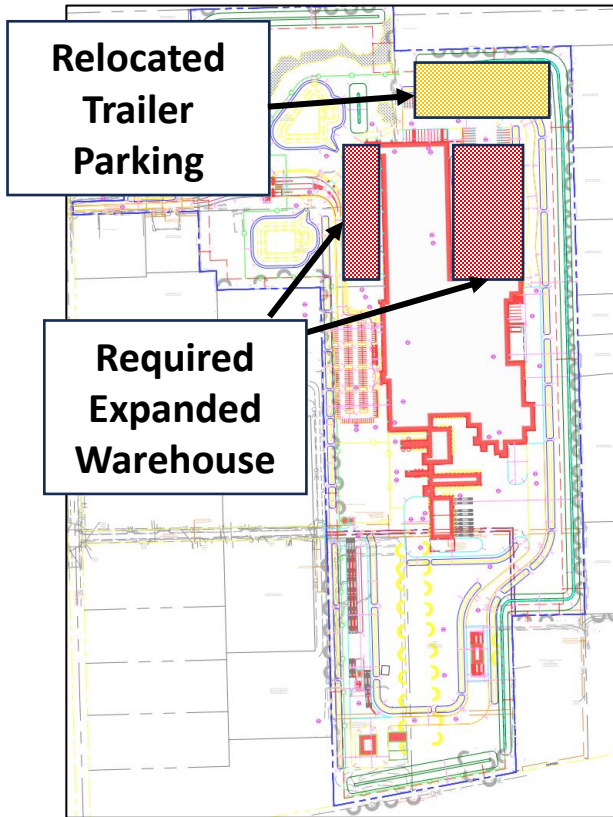
Image source: METL SPAN

- The warehouse will be **aesthetically consistent in form, height, and color with other existing industrial facilities** in the area
- The design includes a **neutral gray-blue in color and largely unbroken rectangles in form**

# Variance #2: Increase Building Height (Silos and Warehouse)

## *ASRS Warehouse – Comparison to traditional warehouse*

Conceptual Site Plan:



Comparison of building a traditional warehouse (<50' tall; 4 pallet high/ 6 deep drive in racking):

- Incremental space required for a traditional warehouse is 278,117 sq. ft. to accommodate the same storage capacity as the current ASRS design (storage capacity for 3 production lines)
- If a 4<sup>th</sup> production line is installed, an additional 72,640 sq. ft. of warehousing space will be required at a future point in time (totaling an incremental 350,757 sq. ft. of warehousing space)
- Given constraints with the wetlands on the northwest portion of the site and shape of the overall parcel (when considering the layout for upstream receiving and processing), **the warehouse would have to be expanded on both sides and trailer parking relocated to the northeast corner of the site**
- As a result, **the warehouse, trailer parking, and truck movement would be closer to neighbors on County Line Rd and Basket Rd**

# Variance #3: Wood Slat Fence in Buffer Area on the West Side of the Site (Bordering an Industrial Neighbor)

## Summary:

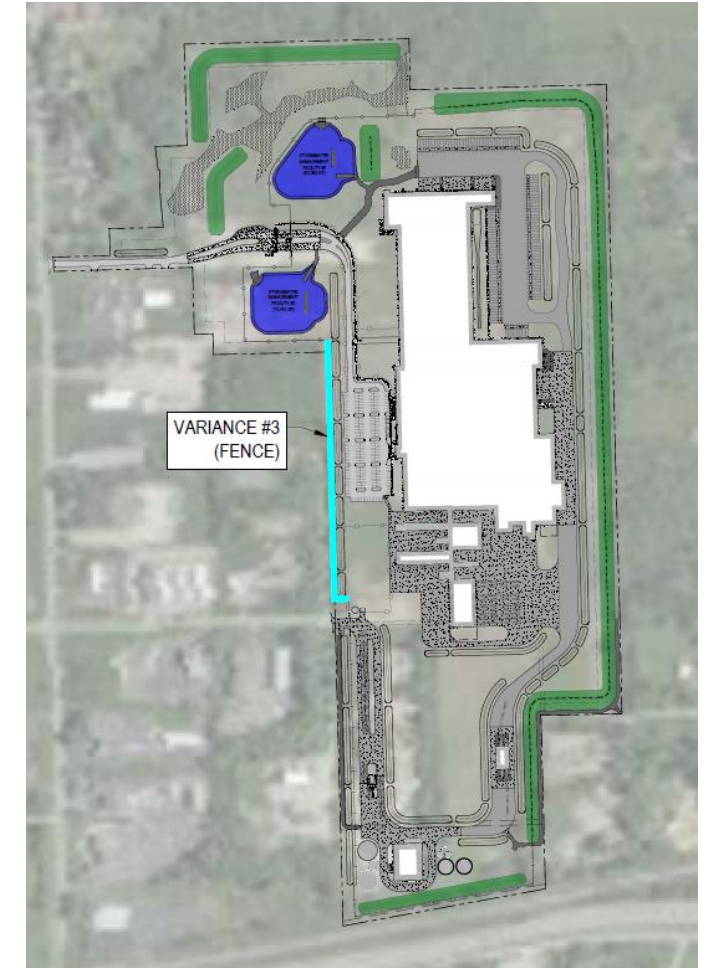
- Request to place an 8' horizontal wood slat fence with exposed 8' decorative aluminum posts within the Buffer Area on the west side of the parcel

## Purpose of Decorative Fence:

- Minimize visual impact of the facility and provide additional security to an industrial neighbor on the western border of the property

## Request for Building in the Buffer Area:

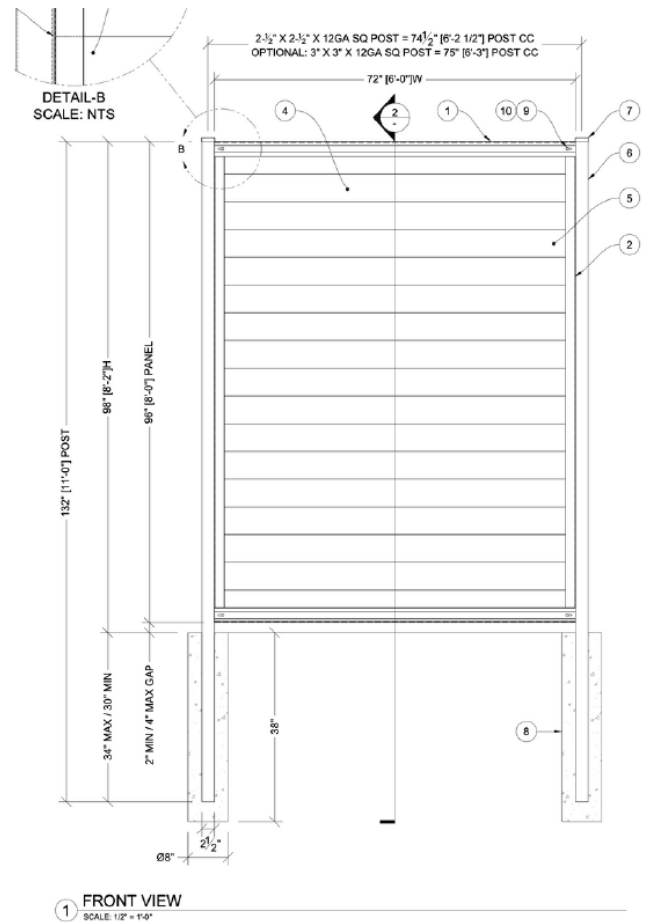
- The required buffer for this area of the property is 20'/50' depending on whether it is viewed as the front or side yard of the building.
- If the fence is not placed within the buffer, this leaves 20'/50' of an unsecured area between the adjacent properties.
- The use of alternate methods such as landscaping or a berm would not provide enough security between the two properties to satisfy the neighbor, nor entirely screen the neighbor's view from the proposed parking lot



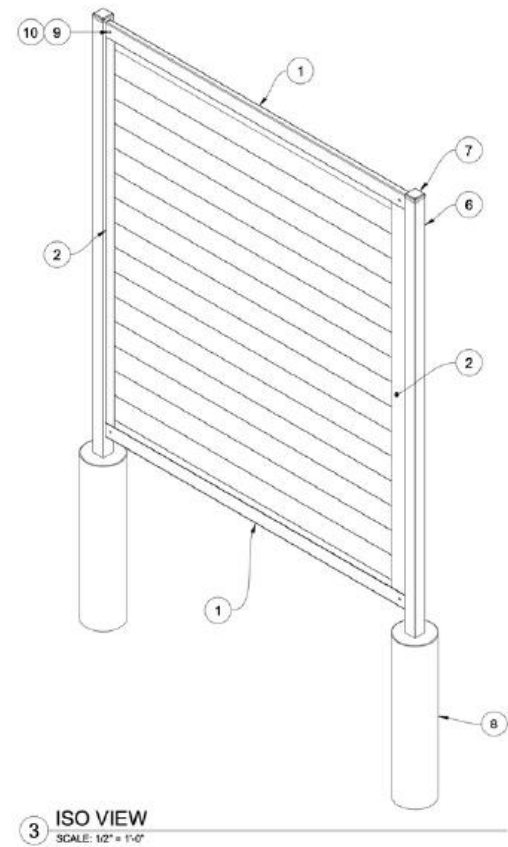


# Variance #3: Wood Slat Fence in Buffer Area on the West Side of the Site (Bordering an Industrial Neighbor) - *Design*

**Front View of Fence:**



**ISO View of Fence:**



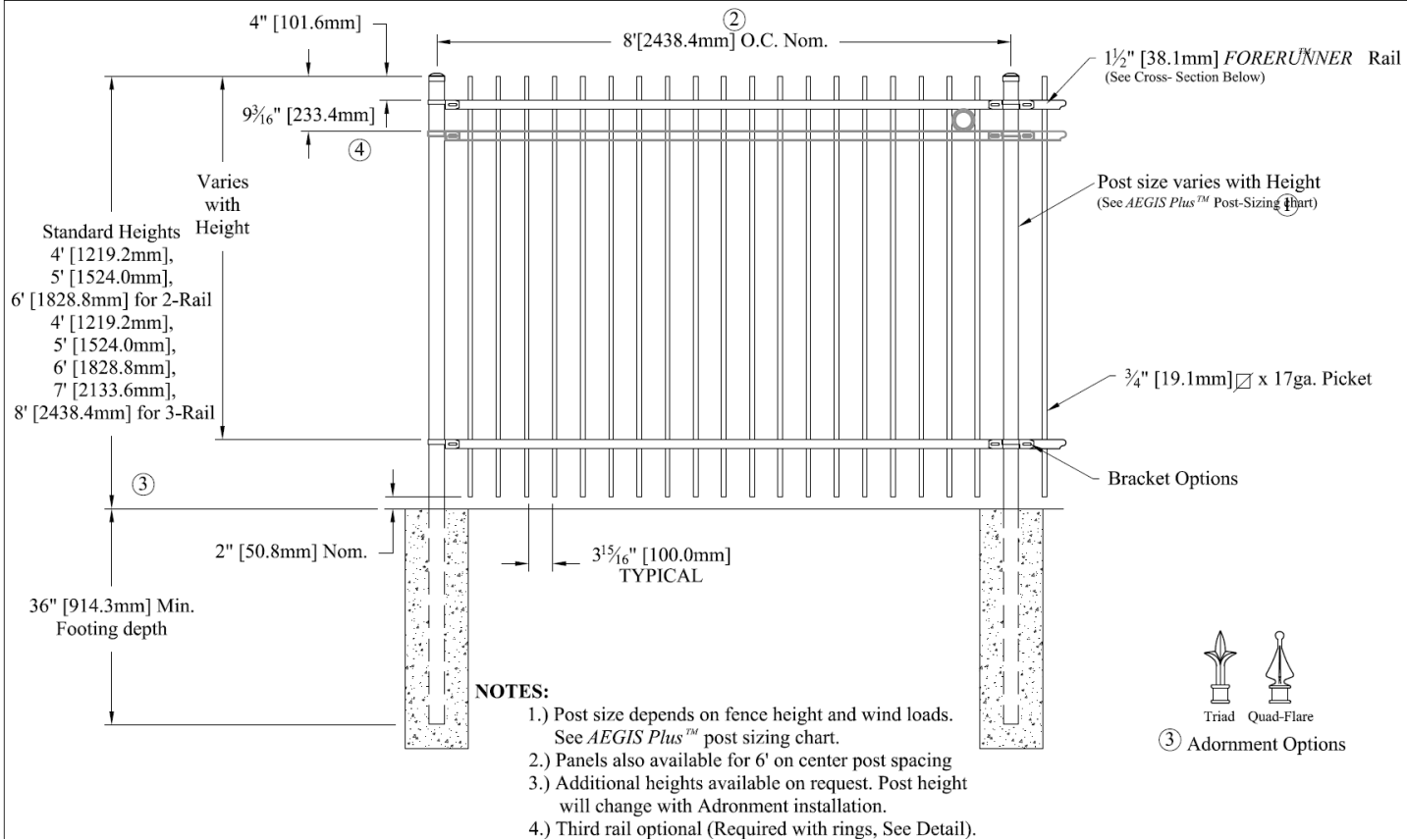
**Basis of Design (fence finishes part of site plan approval):**



Source: Perimtec

# Variance #3: Decorative Fence in Buffer Area on the West Side of the Site - *Design*

## Front View of Fence:



Source: AMERISTAR

## Basis of Design (fence finishes part of site plan approval):



# Variance Request Summary

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- **Variance #1:** The request to place in the middle of the 100' district buffer area a 14' decorative concrete fence designed with acoustical deadening concrete in a pattern that absorbs and disperses sound poses no detriment to but rather benefits fairlife's neighbors along County Line Road by partially blocking views of the facility, decreasing noise, and shielding lighting
- **Variance #2:** The request to build the ASRS warehouse to 120', 13 milk silos up to 102' and 36 silos up to 113' poses some detriment to the neighbors because they will be partially visible. The benefit to fairlife is that the facility will be state-of-the-art in terms of efficiency. Without these variances, the facility would be rendered non-economic
- **Variance #3:** The request to place an 8' fence along the common boundary line with an adjoining industrial property poses no detriment to the neighbor but rather benefits the neighbor by visually screening fairlife's employee parking lot from view