



**RE:** Village of Libertyville, IL Architectural Review Commission (ARC) Submission Narrative

**Property Location:** 901 Technology Way, Libertyville, Illinois

**Submitted by:** AHEAD

**Submission Date:** October 24, 2025

The prior ARC submission made May 9, 2025, has been superseded by this new application for an evolved design for a liquid cooling solution. These new exterior improvements include the installation of a containerized chiller plant, evaporative cooling tower, and thermal ice storage tanks at the southwest and west sides of the building. The addition of thermal ice storage tanks along the west property set-back will include installation of a 10'-0" opaque wall to screen the tanks from the west, south, north and on the east side that extends north up until the building line. Refer to attachments for additional details.

An ice storage system, is a type of cooling and conditioning system that creates and stores ice at night when electricity demand and rates are lower. we are installing one primarily to reduce peak electrical demand on the utility grid and lower operating costs. By using the stored ice to provide cooling during the day when the grid is under maximum stress and electricity is most expensive (peak hours), the system shifts a significant portion of the cooling load from day to night. This strategy of load shifting helps stabilize the grid, avoids high peak-demand charges, and utilizes less expensive off-peak energy, leading to substantial utility savings and a more balanced community grid.

Following prior discussions with Village staff (Tony Repp and Wil Richardson), the proposed screening wall requires referral to the Appearance Review Commission and approval by the Village Board. The Village Municipal Code does not explicitly identify this type of screening for staff review, making ARC review necessary to ensure compliance and consistency.

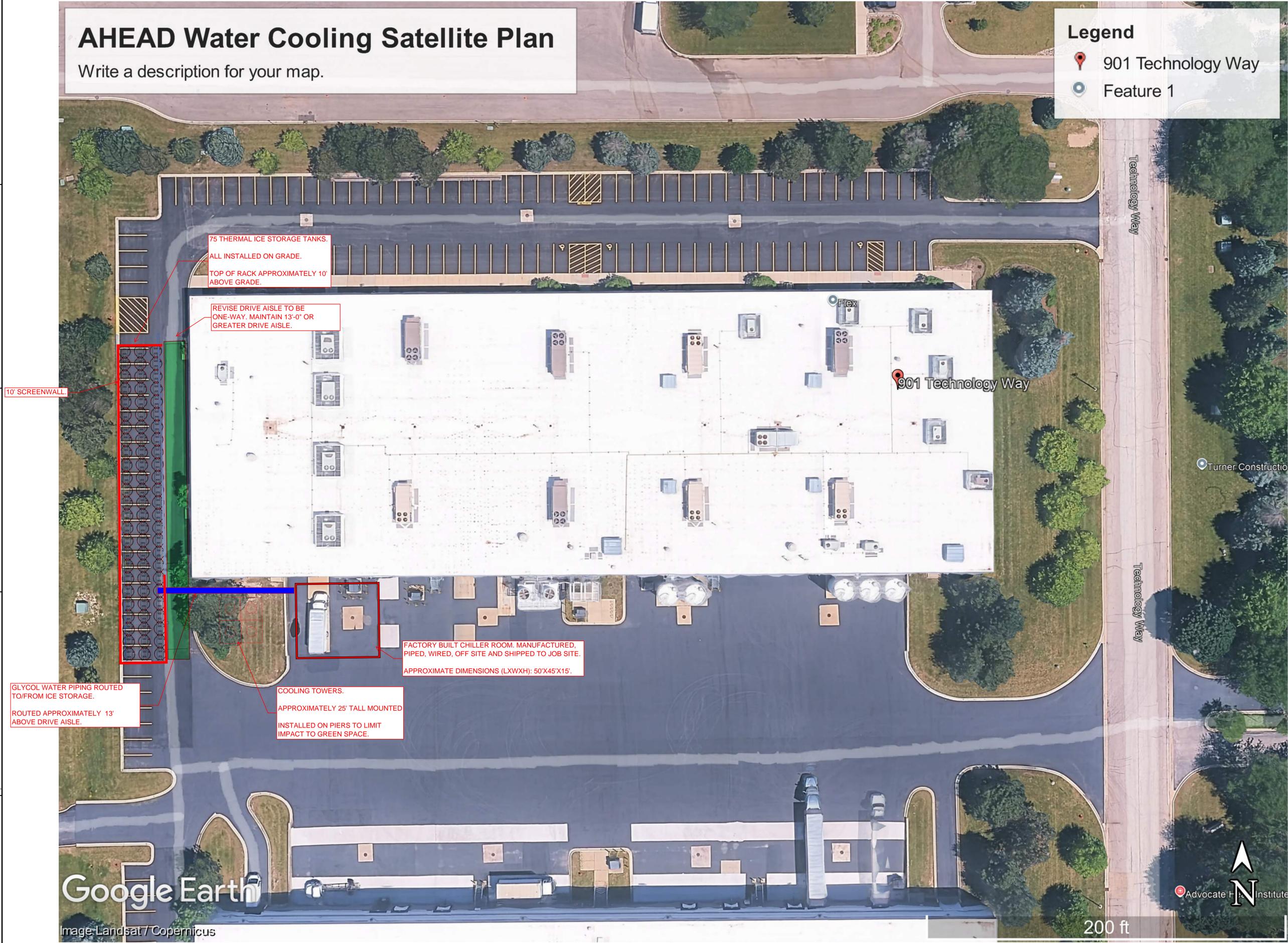
These improvements support AHEAD's operational needs while mitigating visual and community impacts through appropriate screening. We understand that any tree removals need to be replaced like for like. Approval of this submission will allow AHEAD to proceed with the evolved liquid cooling design safely and efficiently.

# AHEAD Water Cooling Satellite Plan

Write a description for your map.

## Legend

-  901 Technology Way
-  Feature 1



75 THERMAL ICE STORAGE TANKS.  
ALL INSTALLED ON GRADE.  
TOP OF RACK APPROXIMATELY 10'  
ABOVE GRADE.

REVISE DRIVE AISLE TO BE  
ONE-WAY. MAINTAIN 13'-0" OR  
GREATER DRIVE AISLE.

10' SCREENWALL

901 Technology Way

FACTORY BUILT CHILLER ROOM. MANUFACTURED,  
PIPED, WIRED, OFF SITE AND SHIPPED TO JOB SITE.  
APPROXIMATE DIMENSIONS (LXWXH): 50'X45'X15'.

GLYCOL WATER PIPING ROUTED  
TO/FROM ICE STORAGE.  
ROUTED APPROXIMATELY 13'  
ABOVE DRIVE AISLE.

COOLING TOWERS.  
APPROXIMATELY 25' TALL MOUNTED  
INSTALLED ON PIERS TO LIMIT  
IMPACT TO GREEN SPACE.

Google Earth  
Image Landsat / Copernicus

200 ft

**WARE MALCOMB**  
ARCHITECTURE  
PLANNING  
INTERIORS  
CIVIL ENGINEERING  
BRANDING  
BUILDING MEASUREMENT  
100 E. 14th Ave  
Irvine, CA 92614  
P: 949.660.9128

**901 TECHNOLOGY WAY,**  
LIBERTYVILLE, ILLINOIS, 60048

MECHANICAL SITE COORDINATION	
DATE	REMARKS

P.A.P.M.:	Approver
DRAWN BY:	Author
JOB NO.:	CHI24-6137-00

SHEET  
**MC101**  
27.03.2025 17:28:07

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF WARE MALCOMB PRIOR TO THE COMMENCEMENT OF ANY WORK.





