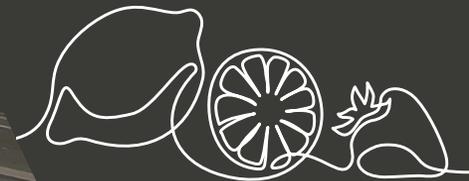




ARCTIC
COLD



FISHER
CONSTRUCTION GROUP







ARCTIC COLD

Cold Storage & Lemon Processor



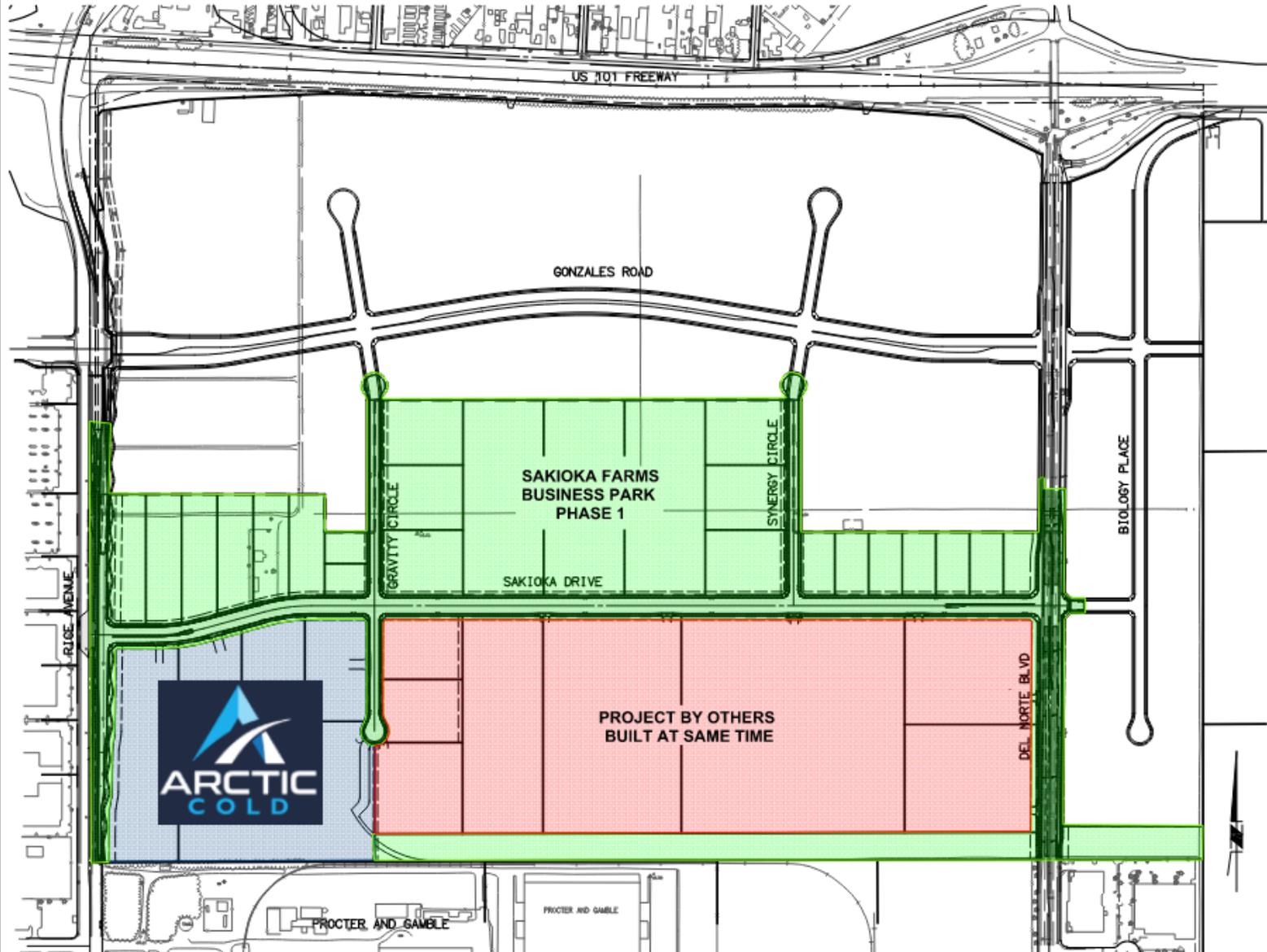
Arctic Cold | Oxnard, CA
575,000 SF

- CLIENT
 - Arctic Cold – Tim Dayton President/CEO
 - Ventura Pacific – Tenant (Lemon Processor)
- DESIGN-BUILD PROJECT BY FISHER CONSTRUCTION GROUP
 - Fisher Construction Group – Architect & General Contractor
 - GEM Buildings - Structural Engineer
 - JF Ahern Fire Suppression – Fire Protection Design
 - AE Group – Plumbing & HVAC
 - APCCO & Logix – Refrigeration and Controls Design
 - A.N.E. – Electrical Engineering



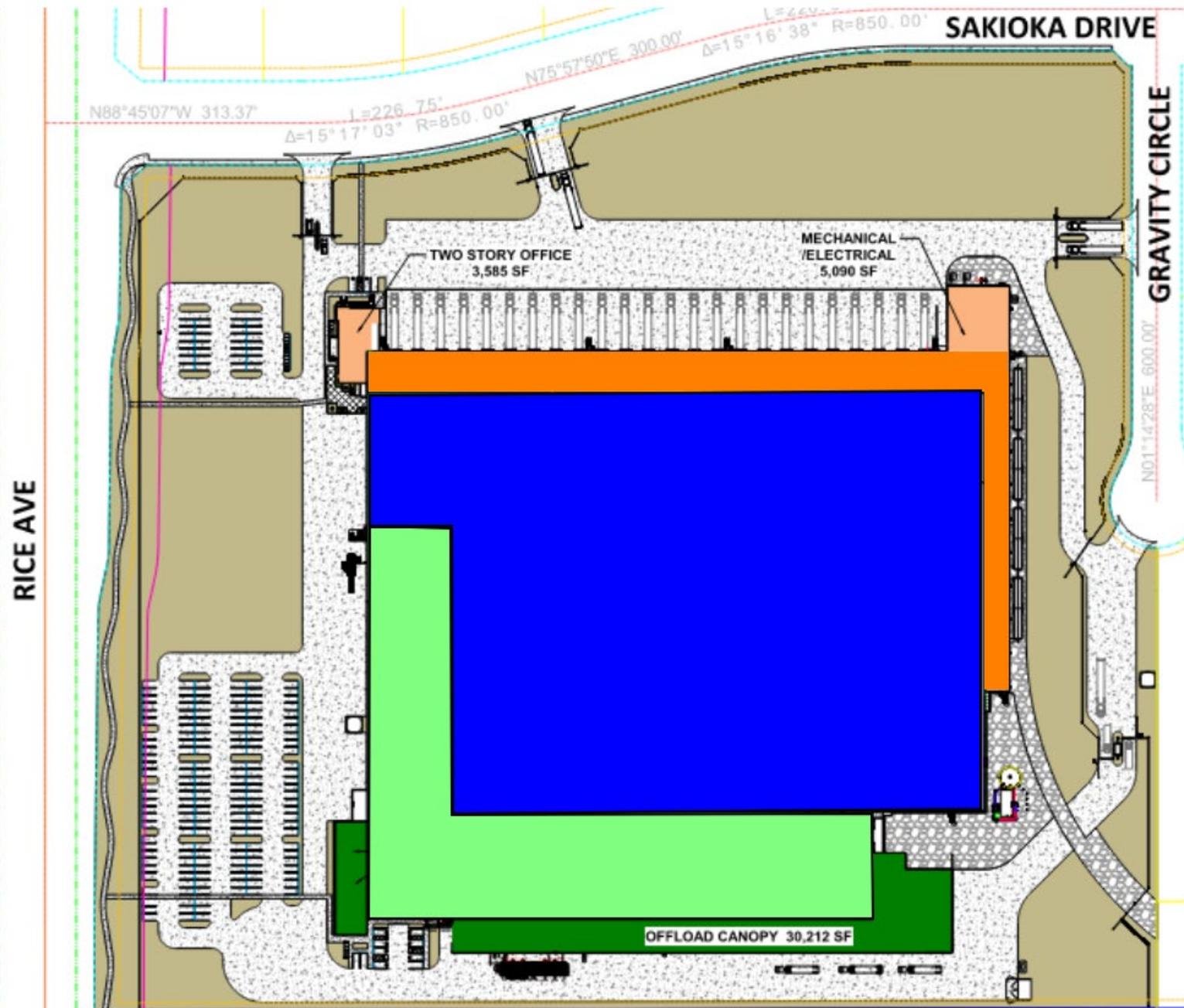
Project Site

- Sakioka Business Park Phase 1
97 Acres Developed
- Arctic Cold
32 Acres Developed
- Project By Others
74 Acres Developed
- Total of 203 Acres
Developed in the Business Park.
- Construction Duration
12/22/2020-1/11/2022 Substantial
Completion 12.5 Months



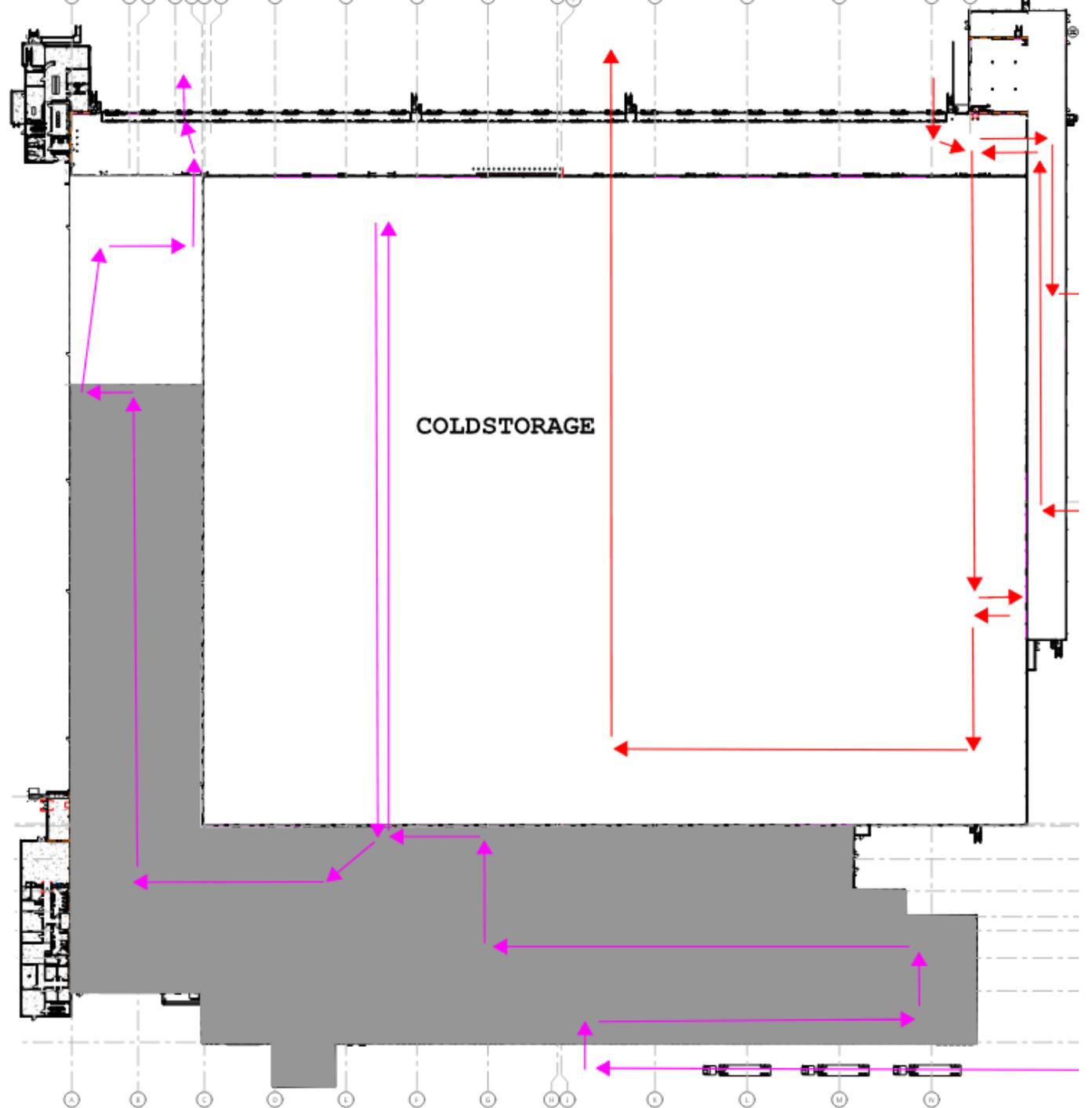
Arctic Cold Building Summary

- 32 Acre Site
- Entrances & Exits
 - Arctic Cold Dedicated Truck Entrance and Truck Exit.
 - Dedicated Employee Entrance and Exit.
 - Tenant Dedicated Entrance and Exit with Guard Shack.
- Truck Dock & Rail Dock–
 - 26 truck dock positions with space to expand positions in the future.
 - Provisions for Future Rail Dock.
- Mechanical / Electrical Room –
 - Electrical Room
 - Fire Pump Room
 - Refrigeration Electrical Room
 - Electrical Mezzanine



Building Summary

- Approximately 575,000 Useable SF
- Lemon Processor (Areas In Grey)
 - Washing, Sorting, Packaging, Palletizing
- Cold Storage
 - Bulk Lemon Storage Coolers – 17 Individually Climate Controlled Storage Rooms
 - Finished Goods Coolers – Climate Controlled Storage Space with Five Deep Push Back Racking and 12 Deep Flow Through Racking
 - Cold Storage Freezer – Freezer with 7 Deep Drive in Racking
 - Blast Cells – Blast Cells with 7 Deep Drive in Racking. Each Blast Cell Four Pallet Position wide
- Office Space
 - Two, 2-Story Offices



Refrigeration System

Key Facts & Design Parameter

- Ammonia Refrigeration System (0 GWP)
- Two Stage Ammonia System:
(-30°F SST/+30°F SST) utilizing a flash intercooler and liquid recirculator packages on both levels at a low 1.2:1 recirculation rate to minimize the ammonia charge.
- 1,726 Tons of Refrigeration:
1,006 Tons at -30°F
720 Tons at +30°F
- Efficiency:
Low Stage efficiency is 0.9549 KW/Tr
(1.6139 KW/Tr Total)
High Stage efficiency is 0.659 KW/Tr



Refrigeration System

Key Facts & Design Parameter

- 38,000 pound Ammonia charge
- All low side liquid supply is being sub-cooled by the high side system thus maximizing the energy efficiency of the system.
- Using the latest ammonia pump technology to transfer any high-level liquid straight back to the high-pressure receiver



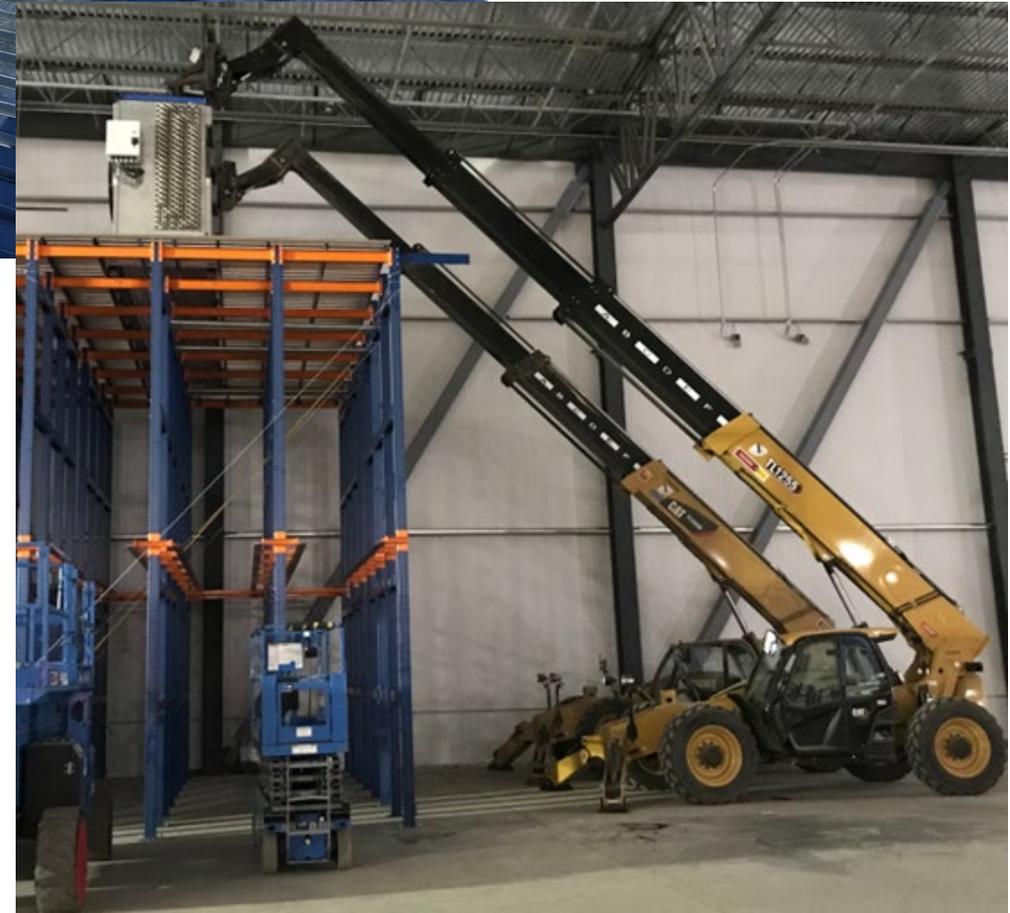
Refrigeration Unique Design Features

- **Adiabatic Condensers:** Due to water restrictions this facility was designed with Adiabatic Condensers to save roughly 24,000,000 gallons of water per year over traditional Evaporative Condensers.
- **Underfloor Warming:** Using Ammonia Hot Gas for freezer underfloor warming to maximize energy efficiency
- **Dual Purpose:** Two Lemon Cooler Rooms were setup for dual-purpose cooling/de-greening with ammonia hot gas as the heat source to maximize energy efficiency of the facility.



Refrigeration Unique Design Features

- **Aluminum Pipe Racks:** To minimize corrosion from the coastal environment the roof top ammonia pipe racks were constructed out of aluminum.
- **Evaporator Placement:** The evaporators were located with a view to minimizing the length of the ammonia pipe routes thus reducing the ammonia charge.



FISHER

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Partners*

Our Success Is Not Possible Without You!





Wear Slab

6" Thick Twintec Freeplan Slab | 504,000 SF



Dock Equipment & Doors



LiftMaster



RITE-HITE
ALWAYS LOOKING AHEAD

Storage

Drive In, Push Back & Flow



NUCOR
WAREHOUSE SYSTEMS





Fire Protection

QUELL K-17



Climate Control

NH3 System





Thermal Envelope



