



QORVO – BUILDING D
7908 PIEDMONT TRIAD PKWY
GREENSBORO, NC



BINSWANGER

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QORVO BUILDING D CAMPUS 7908 PIEDMONT TRIAD PKWY GREENSBORO, NC, 27409

SIZE: Approximately 239,716 square feet total, consisting of one multi-story fabrication / clean room / office facility plus three outbuildings

Main building: approximately 236,475 SF

- 125,090 SF first floor
- 100,172 SF second floor
- 7,845 SF basement
- 3,368 SF sub-basement

- 47,753 SF Fabrication/Clean Rooms (ISO class 4 to 7)
 - 17,597 SF – Fab 3, Side A(West)
 - 27,851 SF – Fab 3, Side C(East)
 - 2,305 SF – Fab 3, Bay X
 - Side A and Side C are separated by firewall
- 26,369 SF Office
 - 8,238 SF - First floor (not renovated)
 - 18,131 SF - Second floor (renovated in 2021)
- 9,946 SF AWN
- 152,407 SF – Other (Mechanical/Maintenance space, Chem rooms, docks, etc.)

R & M storage building: approximately 1,969 SF

Remote flammable gas storage building: approximately 194 SF

Pump/wellhouse building: approximately 1,078 SF

GROUND: Approximately 13.77 acres

DIMENSIONS: See drawings

CONDITION OF PROPERTY: Outstanding

DATE OF CONSTRUCTION: The main building was constructed in 2000. The Side C internal fab was constructed from 2004 - 2006

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CONSTRUCTION:	<u>Floor:</u> 6" reinforced concrete. 3' raised floor in fab areas with typical rating of 1250lbs
	<u>Walls:</u> Masonry
	<u>Columns:</u> Steel
	<u>Roof:</u> TPO membrane installed in 2013
COLUMN SPACING:	See drawings
CEILING HEIGHT:	Total clear height is approx. 35' In fab areas, slab to mechanical deck: 18' <ul style="list-style-type: none">• Fab cleanroom to grid (independent of lighting fixtures): 10'• Fab ceiling to mechanical deck: 5'<ul style="list-style-type: none">○ Plenum above cleanroom ceiling: 3'• Mechanical deck (bottom of steel minimum) – 9'• Mechanical deck (bottom of steel maximum) – 13'• Tunnel – 7'• Facilities – exposed to steel deck• Offices – 9'• Cafe / breakroom – 10'• HPM Rooms – 12'
LIGHTING:	LED and T8
WATER:	Supplied by City of Greensboro 4" city water meter 3" well water meter
SEWER:	Supplied by City of Greensboro
GAS:	Supplied by Piedmont Natural Gas

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POWER:

Supplied by Duke Energy

- Two 23.9kV feeder lines provide redundant underground services
- Total of four 5,000 kVA transformers (two are in use and two are connected backups)
- 4.16kV Generator Paralleling Switchgear (Double bus with closed transition)
 - Four 2.2MW/4.16kV Generators with 20,000 gallons of diesel fuel, capable of sustaining 48 hours runtime at full manufacturing load
- Four 4.16kV/480V substations
- One single bus substation with 750kVA transformer
- Three double bus substations with 2,500kVA transformers per side
- Six 750kVA 480V and three 400kVA 480V UPS systems provide constant power to all critical process equipment systems, including exhaust and makeup air
- One 50 kVA Emergency Lighting UPS

PROCESS HVAC:

Six Cleanroom Make-up Air Units (MUA)

- Three West Side and three East Side units
- VFD Controlled Fans
- Preheat coil, Pre-Cooling coil, Evaporative humidifier, final cooling coil, reheat coil
- Coils heated and cooled with water

Forty-nine Recirculating Air Handling Units (RAHU) used to condition air to their respective cleanroom bays

Clean room environment:

- Temperature: 67.5F +/- 1
- Humidity: 45% RH +/- 2%

Two MUA's conditioning chemical storage areas

Ten air handling units (AHU) supply conditioning to office and support areas

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CHILLERS:

Three Trane chillers:

- Voltage 4160
- Total Capacity = 3790 tons
 - Chillers 1,2,3 = 910 tons each (Chiller #2 rebuilt in April-2024)
 - Chiller 4 = 1060 tons
 - Refrigerant: R-123

HOT WATER GENERATORS:

Three Cleaver Brooks hot water generators

- Fuel = NG/Diesel
- 460 VAC
- Input Capacity = 16,329,500 BTU/hr per boiler
- Plant Input Capacity = 48,988,500 BTU/hr

CONTROLS:

Over 4,000 facility parameters are being monitored through the BMS system

The building has three sets of Rockwell PLC 5s that control all systems

The three scrubbers, RODI system, fuel pump / fuel skid, RO Brine Recovery System, Acid Waste Neutralization (AWN) were all purchased with their own Rockwell SLC (small PLC).

Network infrastructure for the control system is Controlnet, which is converted to ethernet via gateway.

The chiller system has its own Compact Logix (PLC) that communicates via BACNET I/P

Redundant UPS installed on BMS in 2008

Plan to separate Building Management System and well house controls.

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- SPRINKLER:** 100% wet system
- COMPRESSED AIR:** Three Kobelco 100HP Compressors (Compressor #1 Purchase Date 5-2-2016)
413 CFM Max capacity each @150 psi
- OFFICE:** Approximately 26,369 SF office area
- 8,238 SF - First floor
 - 18,131 SF - Second floor (renovated in 2021)
- TRUCK LOADING:** Three loading positions in the rear
- OUTBUILDINGS:**
- Building Q - R & M Storage Building
- Approximately 1,969 SF
 - Built by Qorvo in 2019
 - 480Y/277V Panelboard fed by a 150A Circuit
 - 208Y/120V Panelboard fed by 75kVA transformer
 - Air-conditioned
 - Used for process storage only
- Remote Flammable Gas Storage Building
- Approximately 194 SF
 - Built by Qorvo in 2019
 - Class 1 Div. 1 explosion-proof construction
 - Fed by 15kVA transformer (480V to 208Y/120V)
 - Chemical cabinets
 - One exhaust fan
 - Air Conditioned
- Pump/Wellhouse Building
- Approximately 1,078 SF
 - Built in 2000
 - Fed by a 250A 480V circuit from building C
 - Seven pumps in Motor Control Center (two are in bldg. C)

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ADDITIONAL INFORMATION:

Exhaust segregation

- Acid / Solvent / Ammonia / General
- Solvent Exhaust
 - Volatile – 10,200 CFM(2 Fans)
 - General – 41,900 CFM(3 Fans)
- Acid (Scrubbers) - 41,100 CFM (3 Fans)

Make-up Air Handlers

- Eight units totaling 205,000 cfm
 - Six units (MUA 1-6) at 30,000 cfm
 - One unit (MUA-09) at 14,000 cfm
 - One unit (MUA-10) at 11,000 cfm

PVAC

- Two process vacuum skids - 796cfm @ 29.9" Hg

UPW (ultra purity water) - DI Water

- RO (100 GPM Make-up)
 - 4x 25 GPM Units
 - 14,000 gal. Storage tank

Fab loop flow:

- GPCW – 670 GPM
- PCW – 525 GPM
- DI – 440 GPM
- Process hot water - 100 GPM

RO Brine Recovery system installed in Aug 2022 saved 2.07M gal/yr with Fab at peak water usage

Typical Performance:

- Resistivity: > 17.8 M-Ω
- TOC: < 10 ppb
- <100 @ 0.2-0.5µm size <5 above; 0.5 µm
- Silica: < 5 ppb average

Bulk Gasses:

- Ar, O2, and N2
- Purifiers used for all bulk gas systems
- On-site LN2 storage owned and maintained by Air Products
- Max N2 capacity: 18000 gal.
- Max CDA capacity:

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Wafer Technologies fabricated in Building D

- **GaAs (Gallium Arsenide)**
 - HBT (Heterojunction bipolar transistor)
 - pHEMT (Pseudomorphic High Electron Mobility Transistor)
 - BiHEMT/BiFET - HBT integrated with Phemt
 - IPD (Integrated Passive Devices)

- **GaN (Gallium Nitride)**
 - HEMT (High Electron mobility Transistor) on 75mm, 100mm and 150mm SiC substrates

- **SAW (Surface Acoustic Wave)**
 - Filter technology fabricated on LiTaO3 and LiNbO3 150mm substrates

PARKING: Paved and marked parking for approximately 254 vehicles

ZONING: BP – Business Park (City of Greensboro)

TAXES: Parcel Numbers: 98344 and 98350

2022 Assessed Value (next assessment 2026)

Buildings:	\$9,764,700
Misc improvements:	\$208,100
<u>Land:</u>	<u>\$1,377,000</u>
Total:	\$11,349,800

2025 Guilford County tax rate:	\$.7305/\$100
2025 City of Greensboro tax rate:	\$.6725/\$100

TRANSPORTATION: The property is located less than 5 minutes south of Interstate 40 and 10 minutes south of Piedmont Triad International Airport.

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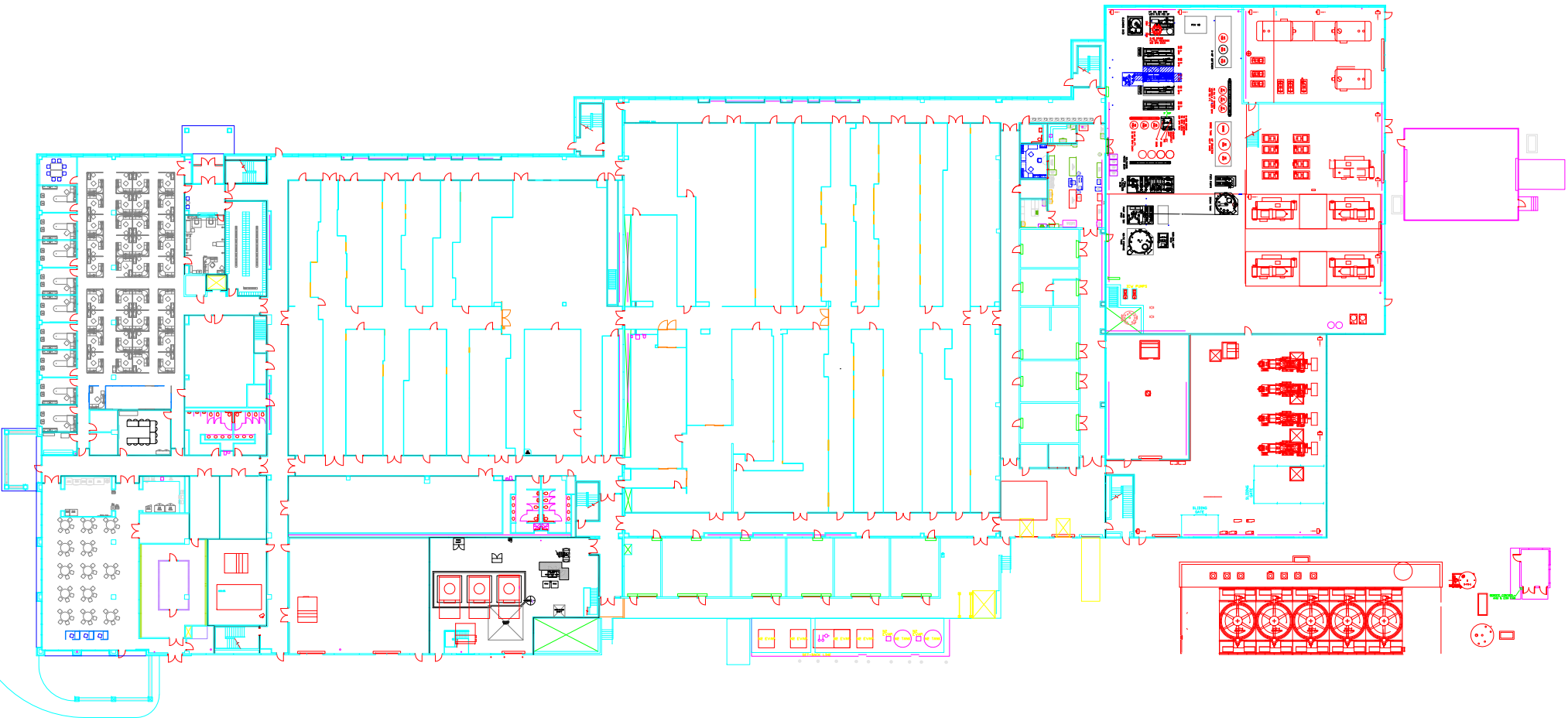
MISCELLANEOUS:

Property is part of the Deep River Corporate Center
Thorndike Road Association

\$2.3M in renovations/improvements to the site since 2013

- \$265k – 1st Floor Restroom Renovations (2024)
- \$1M – second floor office remodel (2021)
- \$385k – scrubber fan steel deck replacement (2024)
- \$200k – LED light upgrades (2024 / 2025)
- \$150k – cooling tower pump replacements (2024 / 2025)
- \$40k – 4 EV chargers (2023)
- \$283k – entire building roof re-covering (2013)

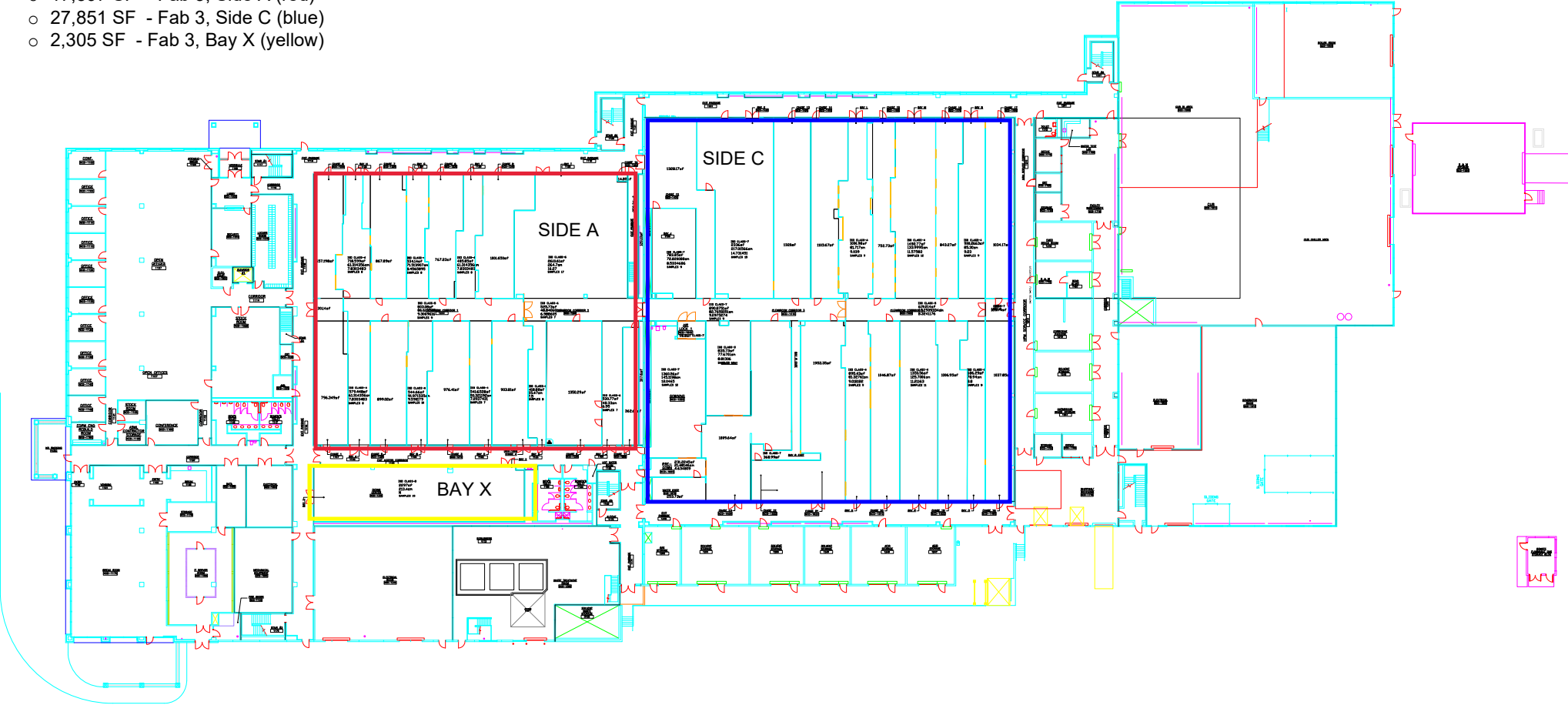
Approximately 86,134 SF fenced area with secure gate
access to rear of the building for shipping/receiving and
facilities systems access



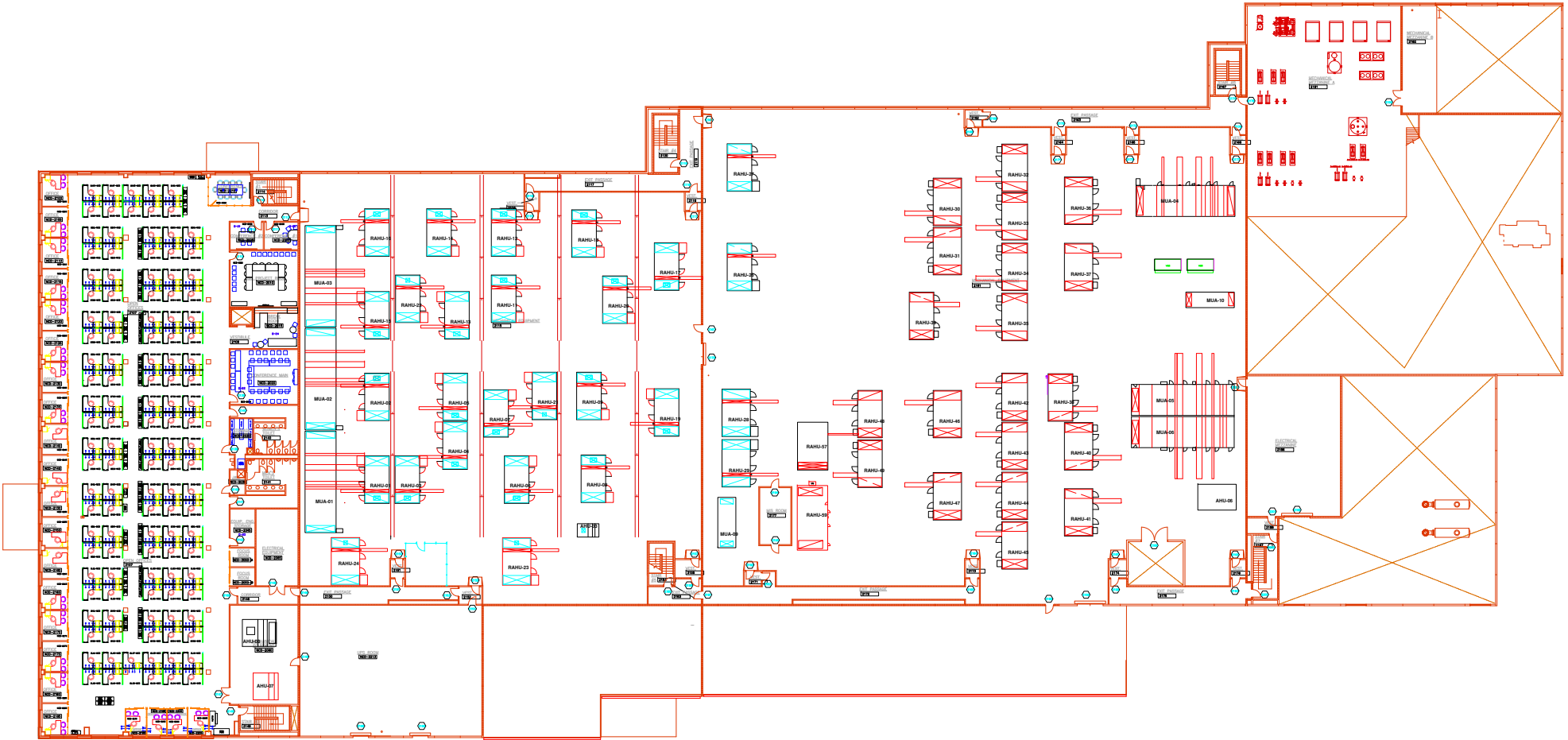
Building D 7908
FIRST FLOOR

47,753 SF Fabrication/Clean Rooms (ISO class 4 to 7)

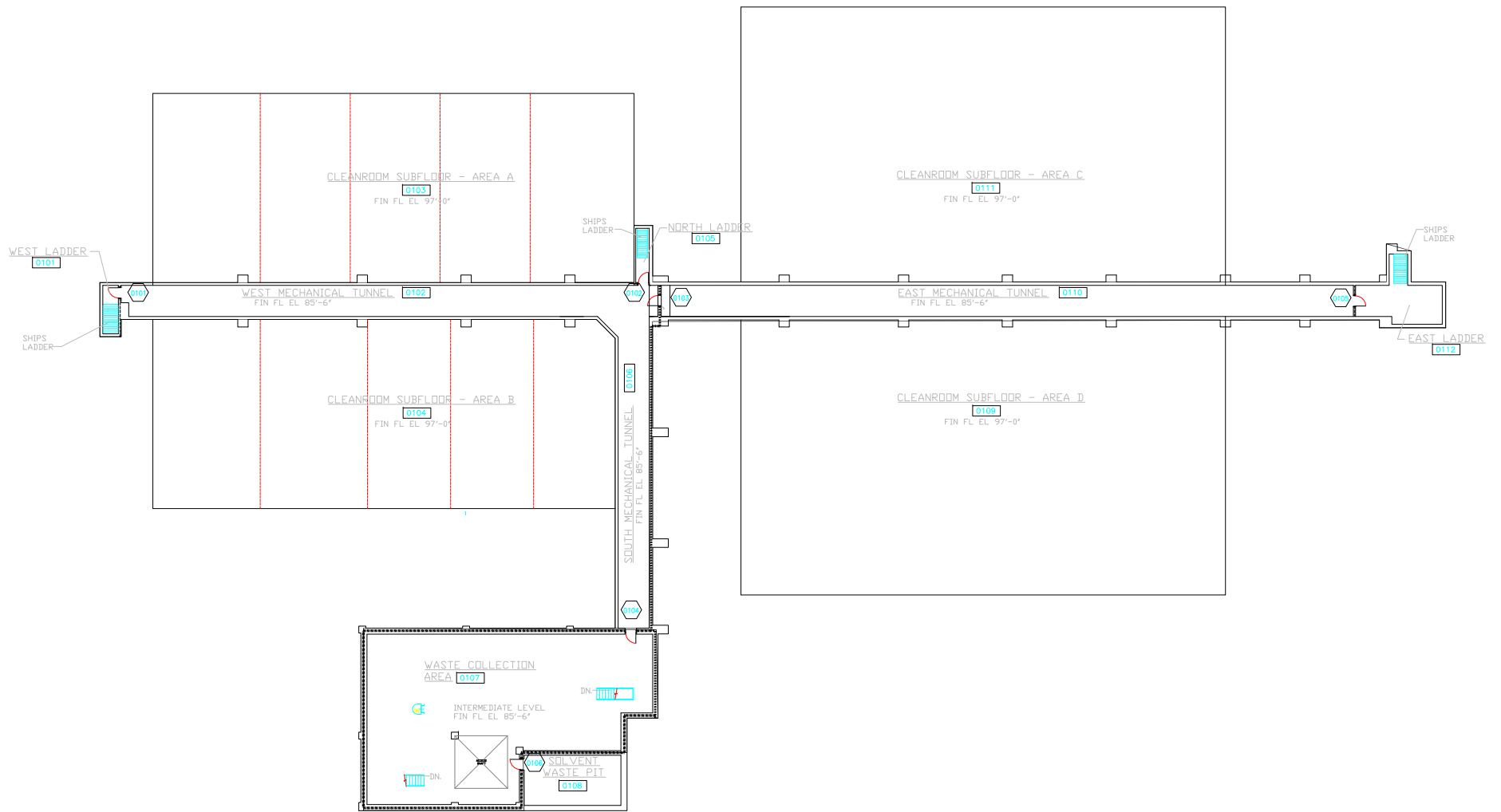
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- 27,851 SF - Fab 3, Side C (blue)
- 2,305 SF - Fab 3, Bay X (yellow)



Building D 7908
FIRST FLOOR



Building D 7908
SECOND FLOOR



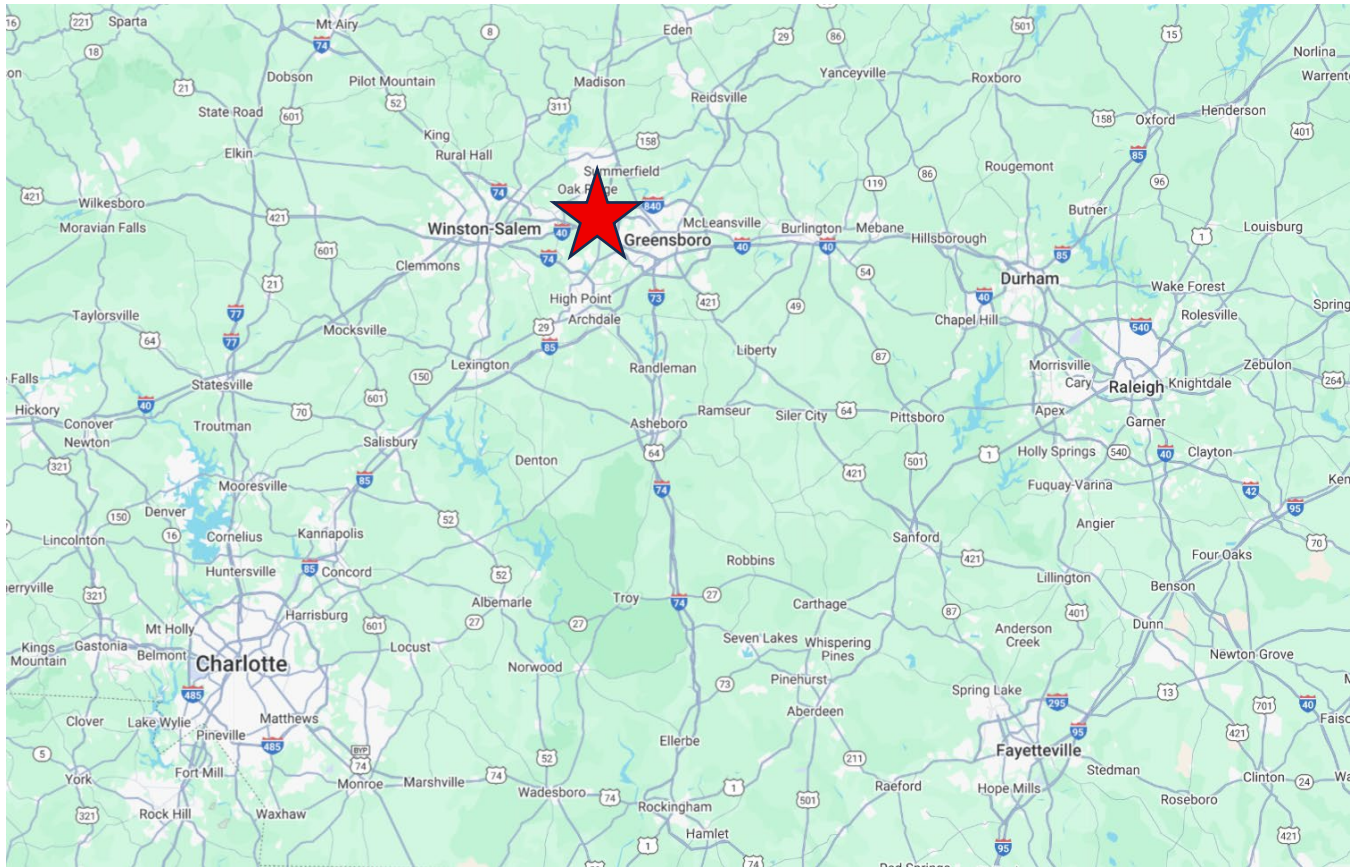
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TUNNEL LEVEL



GIS AERIAL





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