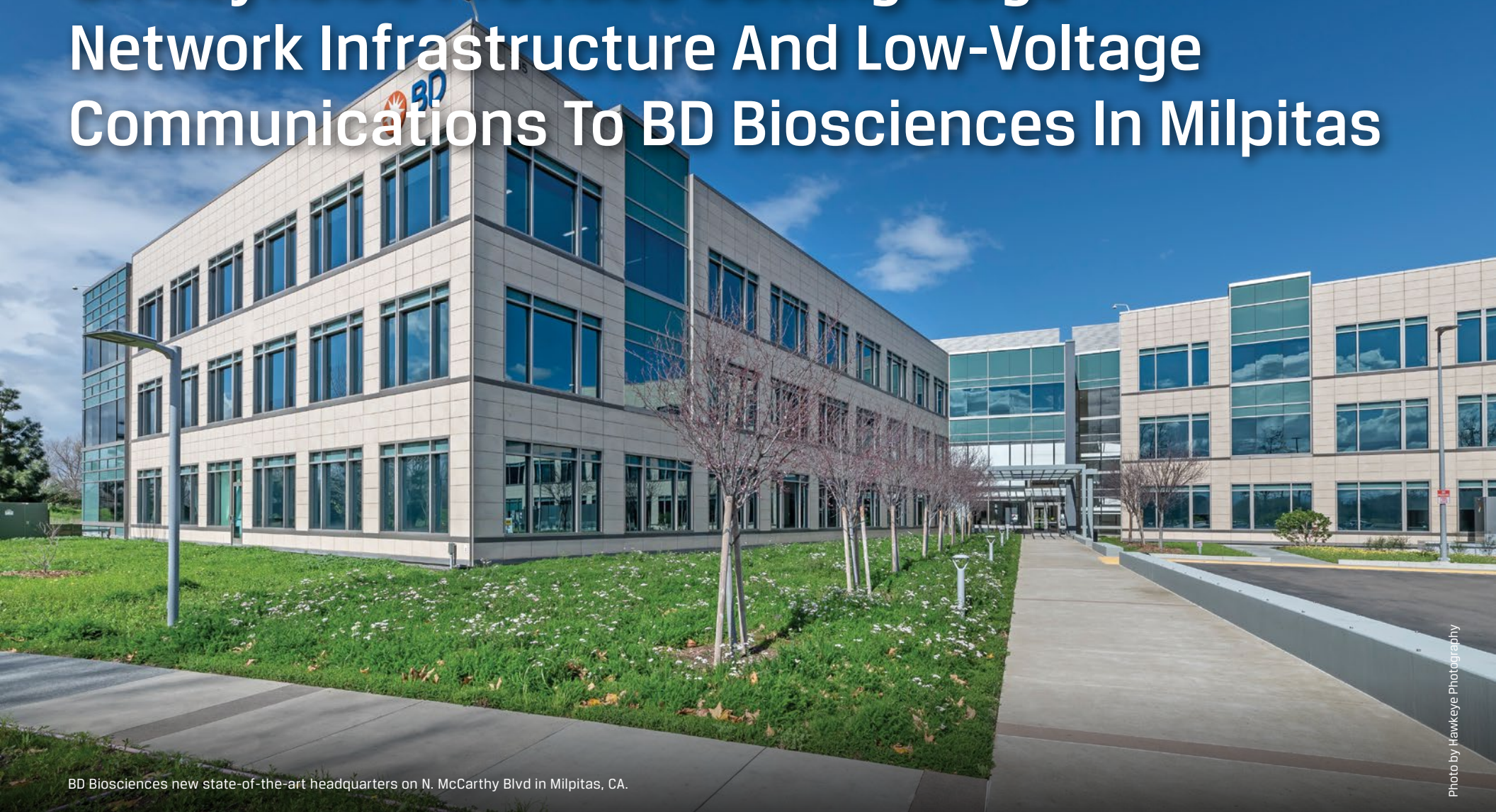


The Silicon Valley Wire

The latest news from the electrical industry in Silicon Valley

2nd Quarter 2024

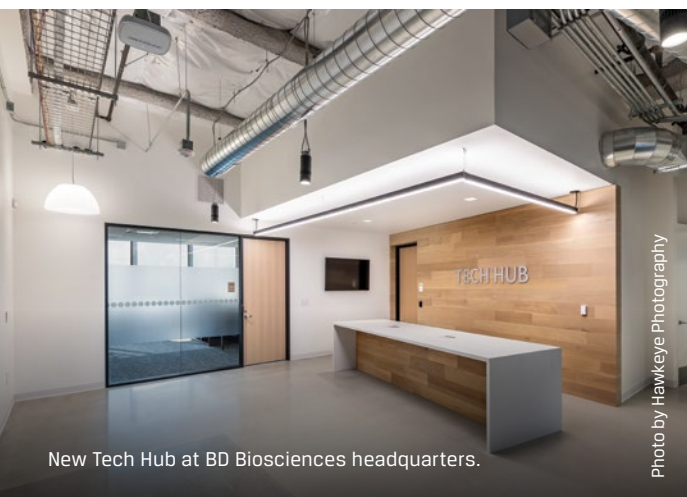
CH Reynolds Provides Cutting-Edge Network Infrastructure And Low-Voltage Communications To BD Biosciences In Milpitas



BD Biosciences new state-of-the-art headquarters on N. McCarthy Blvd in Milpitas, CA.

Photo by Hawkeye Photography

Becton, Dickinson and Company (BD), one of the world's largest medical technology companies, is moving its BD Biosciences business to the Park Point tech complex in Milpitas from its long-time Silicon Valley campus in San Jose.



New Tech Hub at BD Biosciences headquarters.

Photo by Hawkeye Photography

BD Biosciences brought-in CH Reynolds (CHR), a leading data and electrical infrastructure services provider in Silicon Valley, to drive the design and installation of a cutting-edge fiber-optic network infrastructure and low-voltage cabling system throughout the facilities.

BD Biosciences' new headquarters stands as a beacon of innovation, where its Instruments R&D and Operations unite

in one location. Designed to support the company's diverse and expanding work styles and needs, the campus serves as a vibrant hub for enhanced collaboration and future growth. Featuring modern labs and workspaces in 240K square feet of office, research and manufacturing space, the complex includes two freshly updated buildings: 'CP-2' at 135 N. McCarthy Blvd and 'CP-3' at 155 N. McCarthy Blvd.

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Photo by Hawkeye Photography

CH Reynolds Provides Cutting-Edge Network Infrastructure and Low-Voltage Communications to BD Biosciences in Milpitas

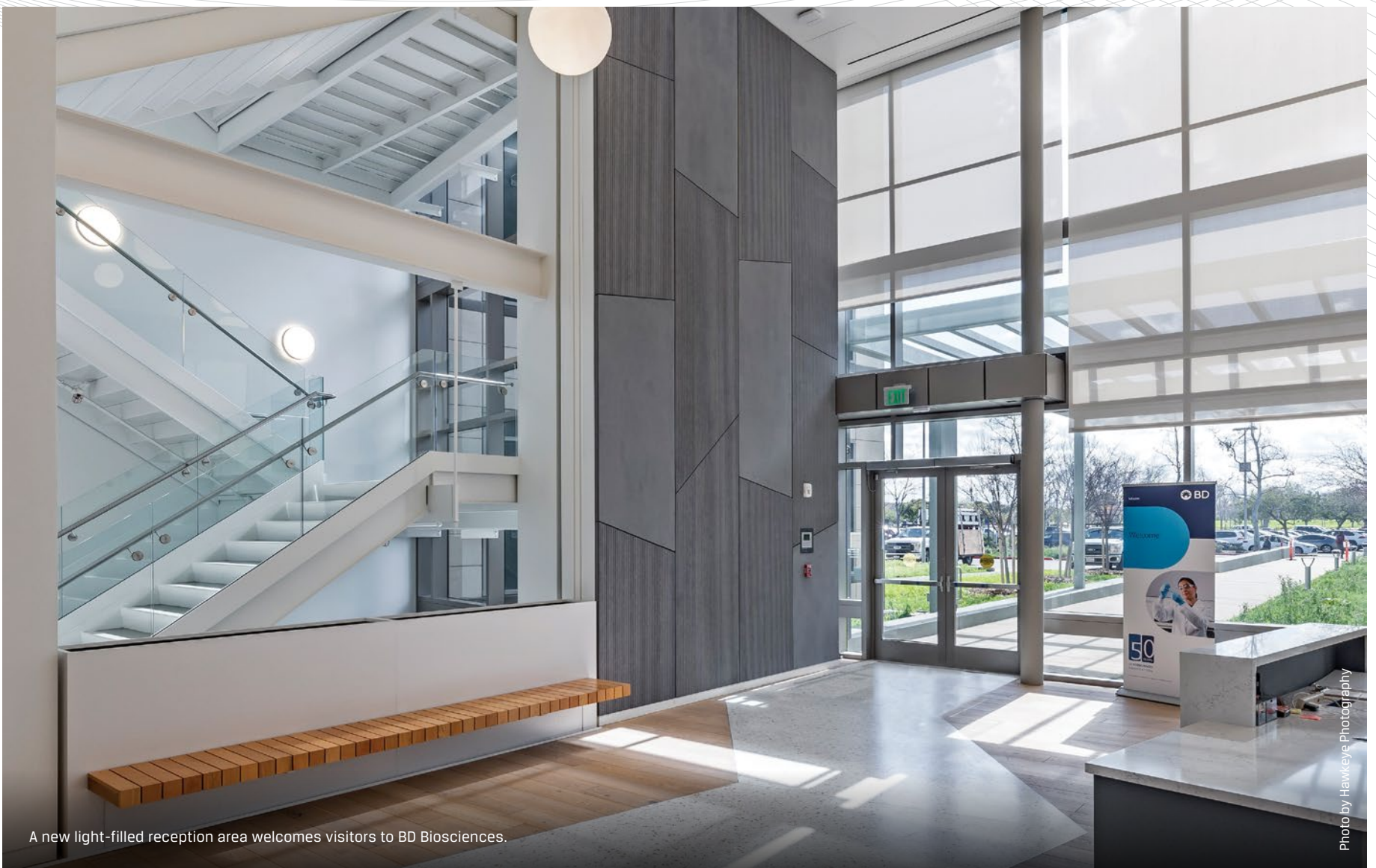
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Photo by Hawkeye Photography

Mid-State Electric, Inc. Leads Electrical Re-Design and Installation for the Ongoing Transformation of Cadence Headquarters Buildings

4



A new light-filled reception area welcomes visitors to BD Biosciences.

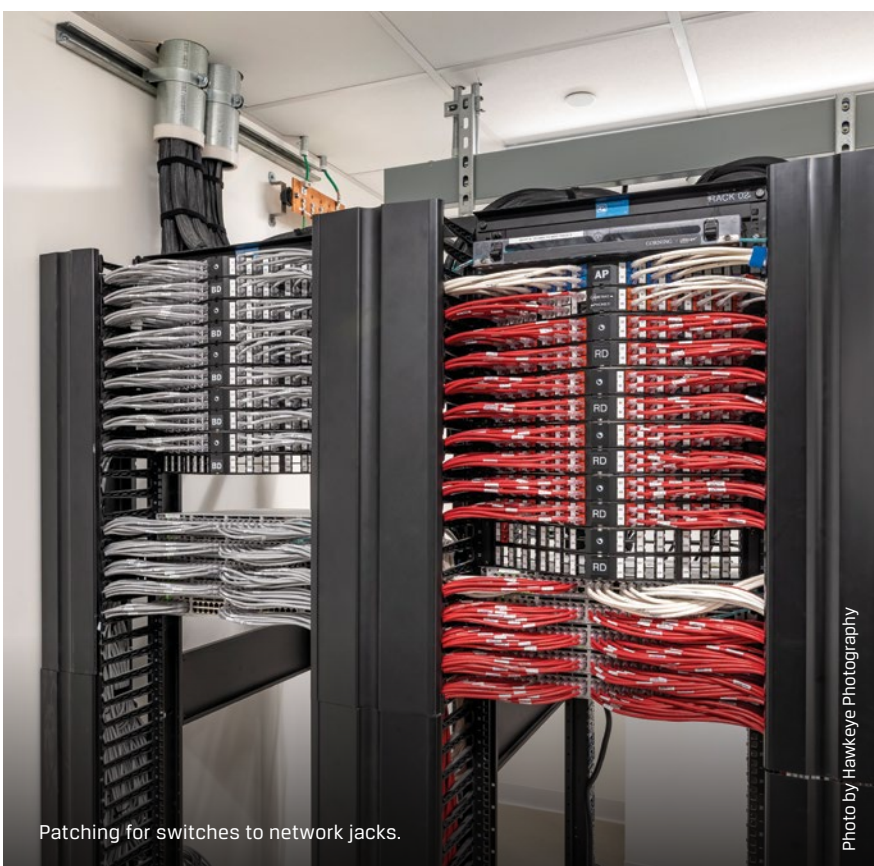
Photo by Hawkeye Photography

The CH Reynolds team was supported by the highly skilled journeymen from the International Brotherhood of Electrical Workers (IBEW) Local 332 in San Jose, who ensured a high standard of quality.

The project demanded thorough planning and execution to meet BD Biosciences' stringent standards. From conception to completion, CH Reynolds' project engineering team collaborated with BD Biosciences' IT team to ensure the seamless integration of infrastructure to meet all of BD Biosciences' complex requirements. CHR determined where to put all the different networks in the racks, strategized closet layouts, and developed all the locations and pathways to supply 600 network cable locations in CP-2 and approximately 1500 cables in CP-3, as well as 100 composite cables supporting security card readers throughout the two buildings.

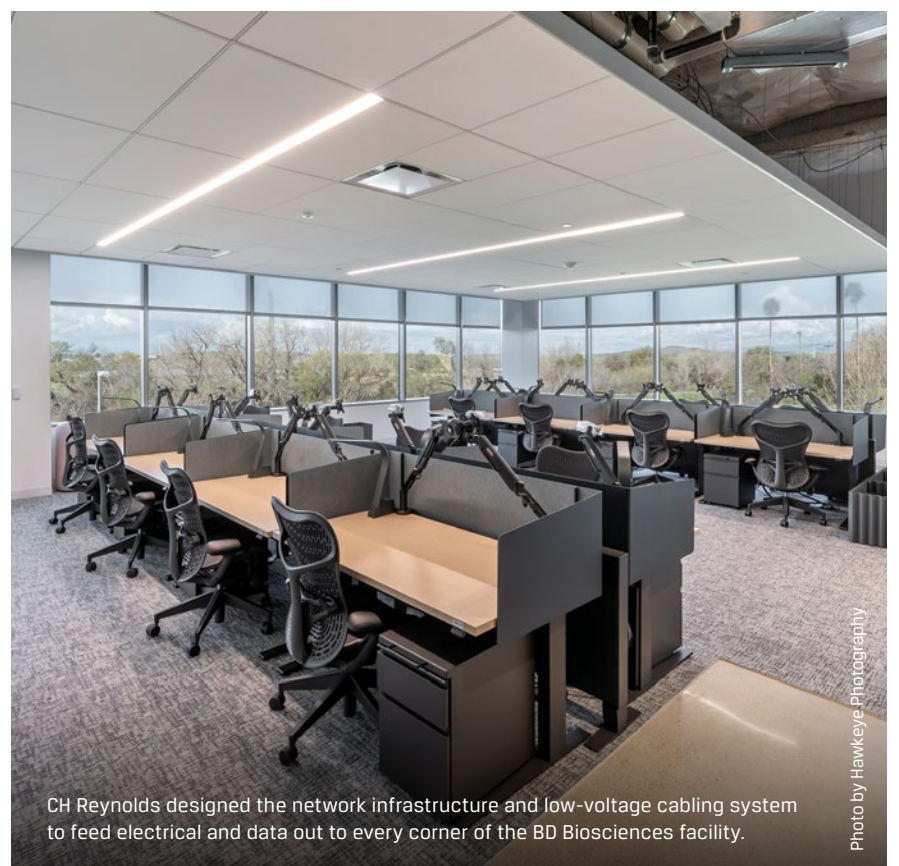
CH Reynolds installed all the low voltage communication with a fiber-optic

backbone connecting the buildings to their networks. The installation features a small data center and eight communication closets (IDFs). The fiber optic backbone connects the eight IDFs and the data center, enabling all of them to talk to each other and with all the servers throughout the buildings. The meticulously planned design feeds low-voltage cabling out to every corner of the facility, supporting the scientific endeavors of BD Biosciences employees in sophisticated lab environments and at their desktops, as well as TV screens, digital displays, cameras and a state-of-the-art security system located throughout the buildings. The installation included various electrical and data delivery challenges, including some



Patching for switches to network jacks.

Photo by Hawkeye Photography



CH Reynolds designed the network infrastructure and low-voltage cabling system to feed electrical and data out to every corner of the BD Biosciences facility.

Photo by Hawkeye Photography



Photo by Hawkeye Photography

CH Reynolds installed custom ceiling mounts in a Cell Culture Lab to provide electrical and data from above.

BD BIOSCIENCES PROJECT TEAM

OWNER
Embarcadero Capital Partners

ARCHITECT
HGA

GENERAL CONTRACTOR
Iron Construction

LOW-VOLTAGE CONTRACTOR
CH Reynolds Electric Inc.
Jason Bright, Project Manager
Gary Slater, Superintendent
John Deana, Foreman

SECURITY SYSTEM INTEGRATOR
Care Security Systems, Eli Ribowsky
Netronix, Kyle Naylor

AUDIO-VISUAL COMMUNICATIONS
Kindly

ELECTRICAL CONTRACTORS
Prime Electric (Building CP-3)
Blue Arc (Building CP-2)

S&C TECHNICIANS
12 union workers from International Brotherhood of Electrical Workers (IBEW) Local 332, San Jose
Local 332 Core Crew: Julian Morrison, Brandon Aragon and Jesus Zarate

locations that required custom ceiling mounts to provide electrical and data from above.

The budget for CH Reynolds' work was \$1.6 million. CH Reynolds began preconstruction in January 2023, and the project was completed on a compressed schedule. The buildings are now complete and BD Biosciences is in the process of moving its workforce and operations over into the new buildings. BD Biosciences' move will enable the company to speed product development and deliver best-in-class quality to its customers while continuing advancing the world of health™.

Behind every successful project lies a dedicated team. CHR's Jason Bright

was the Project Manager, Gary Slater was Superintendent, and John Deana was Foreman. The CH Reynolds team was supported by the highly skilled journeymen from the International Brotherhood of Electrical Workers (IBEW) Local 332 in San Jose, who ensured a high standard of quality. The primary Local 332 union crew members on-site were Julian Morrison, Brandon Aragon and Jesus Zarate. The team from Local 332 also included an additional nine union workers who contributed their expertise throughout the course of the project.

Iron Construction was the General Contractor, and HGA were the Architects. Prime Electric, a member of the National Electrical Contractors Association (NECA) Santa Clara Valley Chapter, provided the

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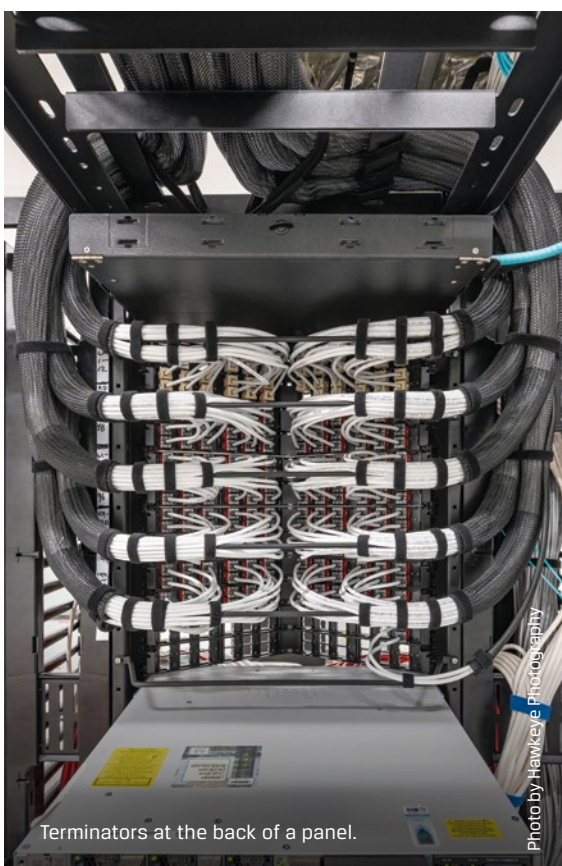


Photo by Hawkeye Photography

Terminators at the back of a panel.



Photo by Hawkeye Photography

New conference room at BD Biosciences features network-connected digital displays.



Cadence visitors will check-in at the sophisticated new main reception area.

Photo by Hawkeye Photography

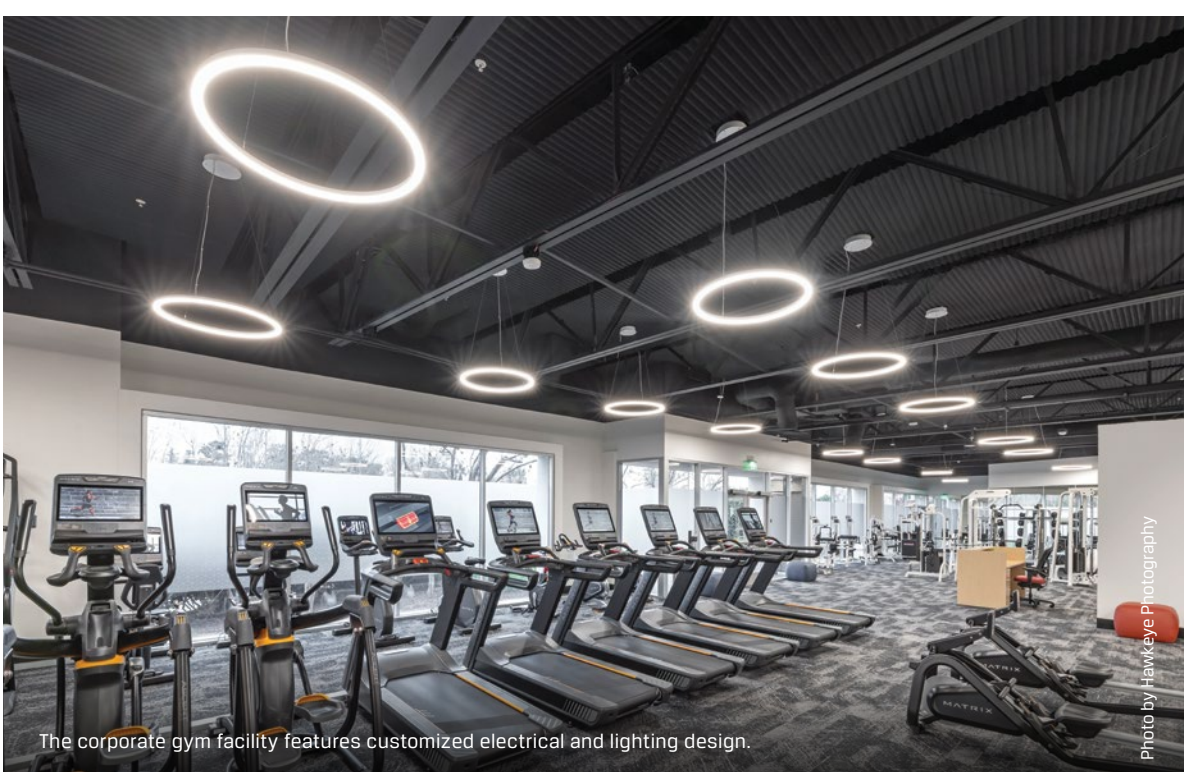
Mid-State Electric, Inc. Leads Electrical Re-Design and Installation for the Ongoing Transformation of Cadence Headquarters Buildings

Cadence Design Systems is a leading global provider of electronic design automation (EDA) software, hardware, and services.

Based in San Jose, CA, Cadence is one of the most prominent technology companies in the Silicon Valley ecosystem, working with companies across industries to turn design concepts into reality and drive advancements in everything from aerospace to mobile devices to automotive systems. Cadence began

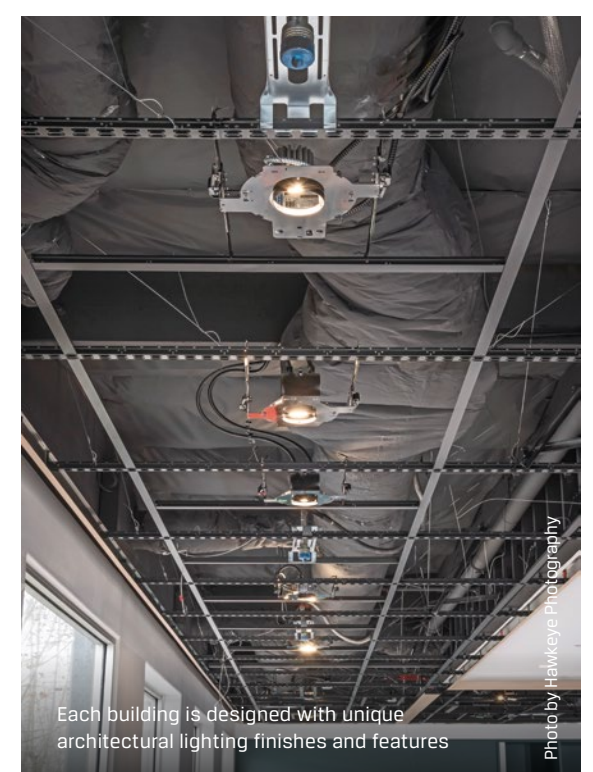
the intensive process of overhauling every building on its San Jose campus in late-2019, just before the Covid-19 pandemic hit. The project has been approached in phases to minimize workforce disruption.

Cadence brought-in Mid-State Electric, Inc. as an essential part



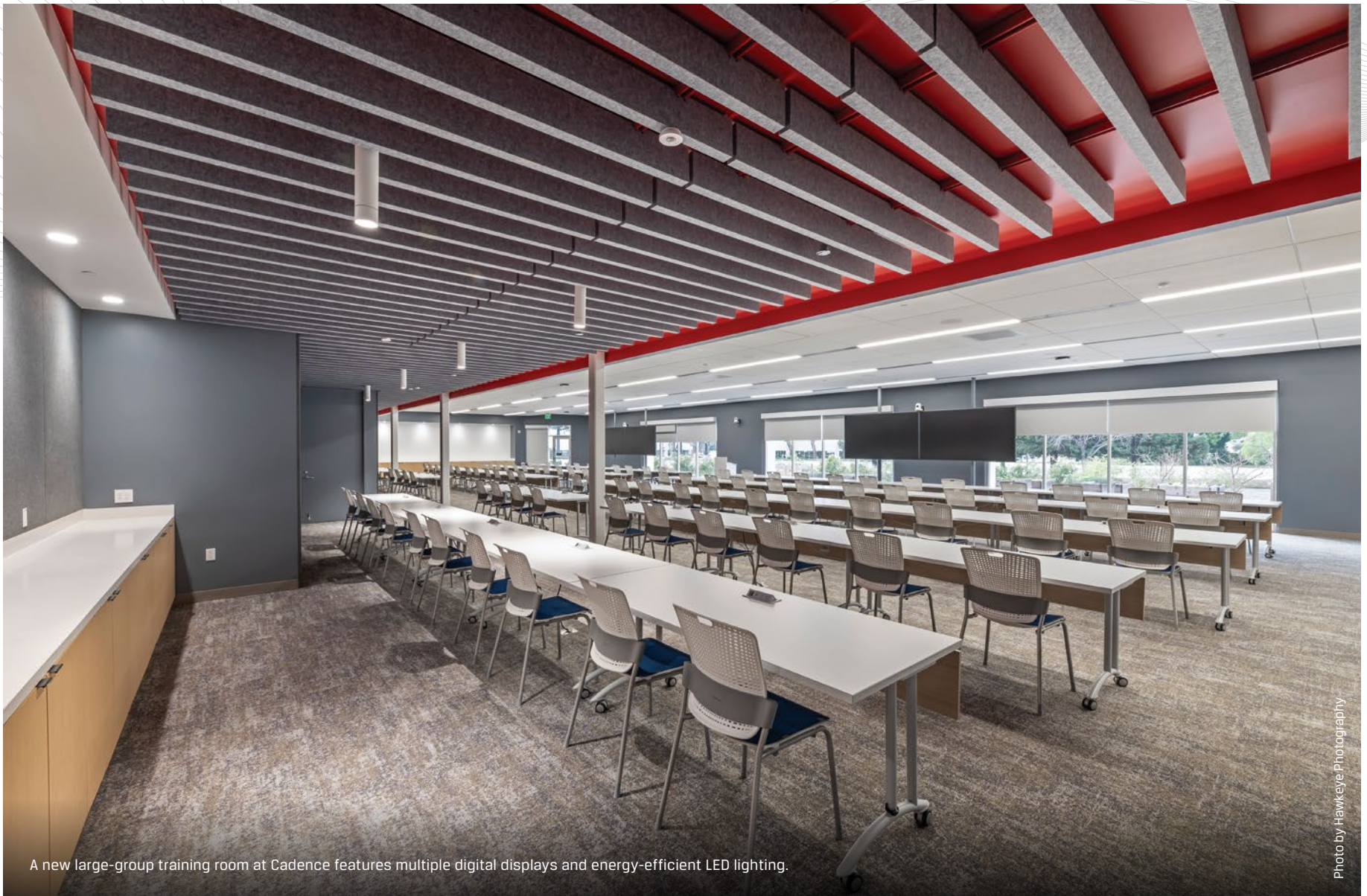
The corporate gym facility features customized electrical and lighting design.

Photo by Hawkeye Photography



Each building is designed with unique architectural lighting finishes and features

Photo by Hawkeye Photography



A new large-group training room at Cadence features multiple digital displays and energy-efficient LED lighting.

Photo by Hawkeye Photography

of the construction team at the beginning of the campus renovation project to lead the complete design-build of the electrical systems. They have maintained a consistent core team throughout the multi-year project, with Gilbane Building Company as the General Contractor.

The campus features seven separate and distinct buildings, each with its unique history and challenges. To date, Mid-State Electric, Inc. has completely redesigned and installed customized electrical systems for four buildings on the Cadence Campus. The first two buildings to undergo renovation were completed in 2021 and 2022. The scope of work has been extensive, involving

complete interior demolitions down to the core, followed by the meticulous reconstruction of power distribution to every corner of the buildings to meet all of the diverse needs of the facilities.

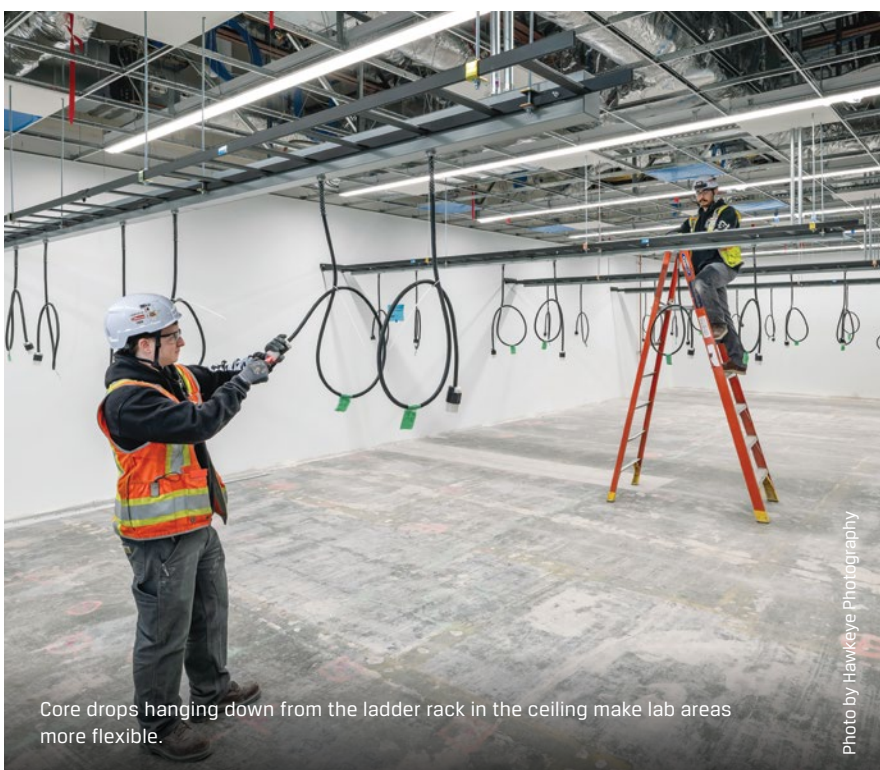
Mid-State Electric, Inc. recently completed two additional buildings on the campus. The buildings are 70,400 and 84,700 square feet and include 33 main lab spaces. The build-outs for the labs include core drops hanging down from the ladder rack in the ceiling making the lab areas more flexible and enabling lab cells to move around to meet the changing needs of the customer. Mid-State Electric's budget for the buildings was \$8M.

Both buildings required Mid-State to

THE MID-STATE ELECTRIC, INC. TEAM PROVIDED COMPLETE DESIGN-BUILD SERVICES INCLUDING:

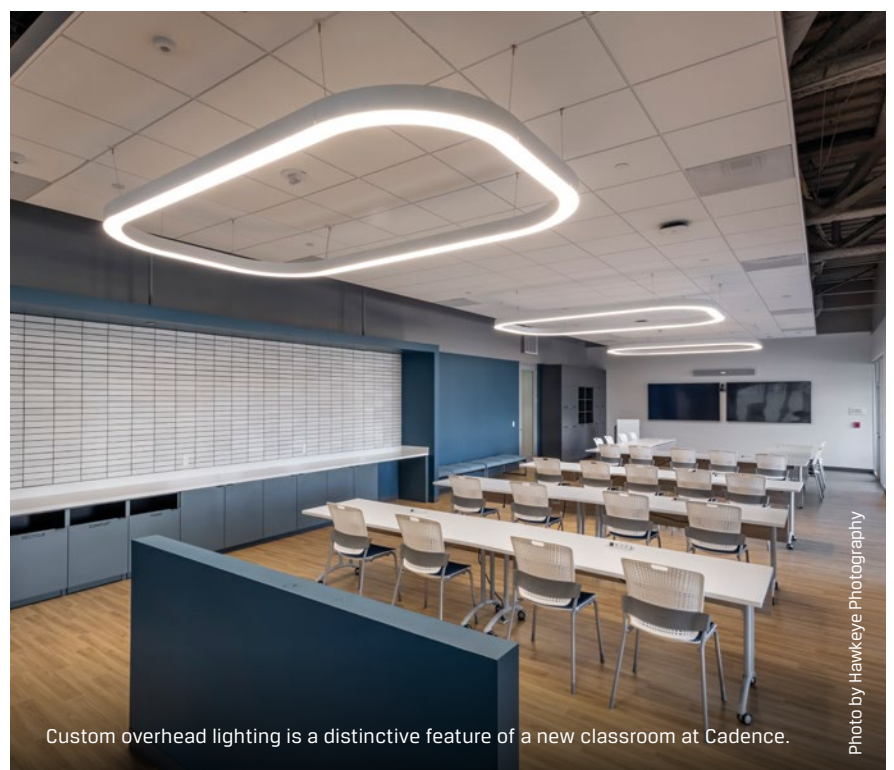
- New power distribution systems; power and conduit system pathways
- Overhauling lighting
- New office layouts, lab spaces, break areas, shared workspaces, conference rooms
- New IT and AV infrastructure
- Updated HVAC, fire alarm systems, and more

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Core drops hanging down from the ladder rack in the ceiling make lab areas more flexible.

Photo by Hawkeye Photography



Custom overhead lighting is a distinctive feature of a new classroom at Cadence.

Photo by Hawkeye Photography



Interior Cadence reception space features a prominent living green wall designed to reduce environmental impact.

Photo by Hawkeye Photography

identify and remove all pre-existing electrical systems so the buildings could be completely wiped clean, all the way back to the source. Temporary power and lighting were established throughout the buildings to support the entire construction team.

Mid-State Electric, Inc. designed all of the lighting in the buildings to be energy efficient and Title 24 compliant. The lighting is all LED and designed for lighting reduction, dimming and daylight harvesting throughout the space. There are photo cells near the windows that accommodate for more sunlight by automatically lowering the lighting to reduce energy consumption.

Each building is also designed with

different architectural lighting finishes and features, giving each building its own signature look. Mid-State Electric, Inc. used varied installation techniques to integrate lighting into decorative ceilings and long cove style accent lighting down corridors to add depth.

Living green walls are a prominent feature in each of the Cadence buildings, serving to reduce environmental impact. The living walls require power for the irrigation systems as well as mounted grow lights. The Mid-State Electric, Inc. team coordinated with the plant team to design and build support systems to keep all the plants healthy, watered and growing in their vertical environment.

As the Cadence campus project

progresses, Mid-State Electric, Inc. remains dedicated to delivering exceptional results while navigating evolving challenges. Despite facing industry-wide hurdles like fluctuating labor costs, supply chain disruptions, and delays in securing equipment, they continue to successfully complete the Cadence buildings on time and on budget. Mid-State Electric, Inc. has used creativity and resourcefulness to avoid major delays and save costs, at times by re-using some existing main utility infrastructure already in place when possible.

Mid-State Electric, Inc. will start work on two more buildings in 2024, with exterior site work and the seventh and



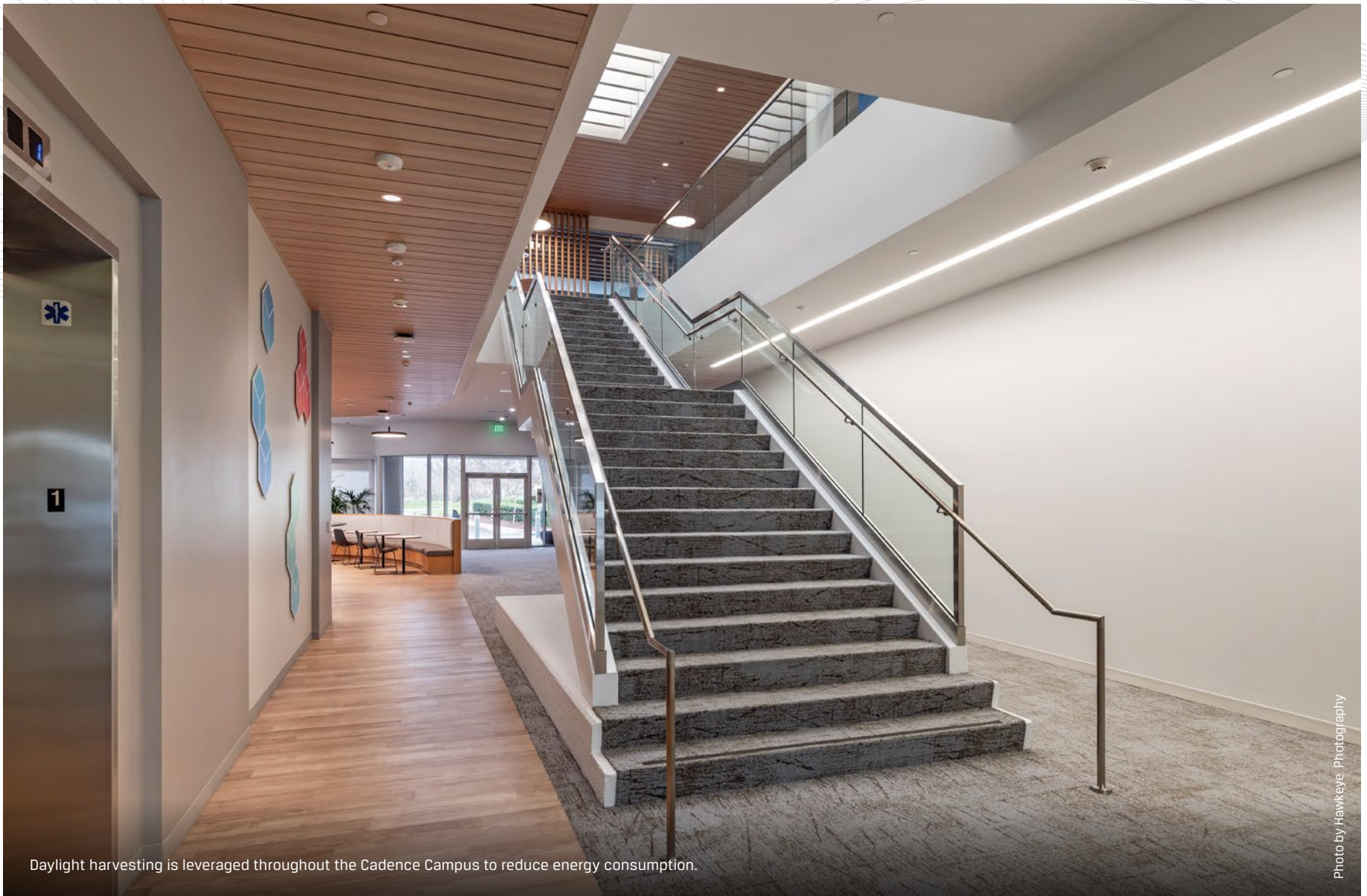
Aerial view of the Cadence Campus in San Jose, CA.

Photo by Hawkeye Photography



Living green walls are kept healthy, watered and growing with custom irrigation systems and mounted grow lights.

Photo by Hawkeye Photography



Daylight harvesting is leveraged throughout the Cadence Campus to reduce energy consumption.

Photo by Hawkeye Photography

final building on the campus to follow. All total, Mid-State Electric, Inc.'s overall budget for the campus is around \$20M.

The expertise of the team is the foundation for Mid-State Electric, Inc.'s ongoing success at the Cadence campus. The Mid-State Electric, Inc. Project Management team is led by Vince Latona, with Paul Escobar, General Superintendent, and Joe Lovecchio, General Foreman, leading the field installations.

The Mid-State Electric, Inc. team is supported by the most professional and highly trained electricians in the construction industry from the International Brotherhood of Electrical Workers (IBEW) Local 332 in San

Jose. The Cadence project team includes up to 25 union technicians and electricians from Local 332.

Mid-State Electric, Inc. is a premier electrical contracting organization serving San Jose and the greater Bay Area. Founded in 1999, Mid-State Electric, Inc. has more than 25-years of experience providing complete electrical service compliance for all types of construction projects. Mid-State Electric, Inc. is a proud member of the National Electrical Contractors Association (NECA) Santa Clara Valley Chapter. For more information about Mid-State Electric, Inc. and its services, contact Vince Latona at (408) 890-9641 or vince@midstateelectricinc.com. <http://www.midstateelectricinc.com/>

CADENCE CAMPUS PROJECT TEAM

OWNER

Cadence Design Systems

GENERAL CONTRACTOR

Gilbane Building Company
Travis Cotti, Project Manager

ELECTRICAL CONTRACTOR

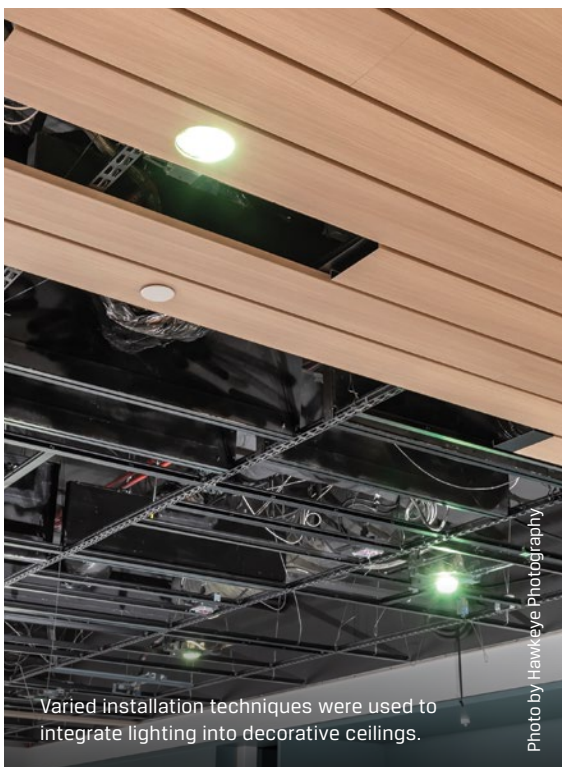
Mid-State Electric, Inc.
Vince Latona, Project Manager
Paul Escobar, General Superintendent
Joe Lovecchio, General Foreman

FIRE ALARM SYSTEM

Integrated Communications Systems (ICS)
Amir Mohammadian, Project Manager

ELECTRICIANS AND TECHNICIANS

25 union workers from International Brotherhood of Electrical Workers (IBEW) Local 332, San Jose



Varied installation techniques were used to integrate lighting into decorative ceilings.

Photo by Hawkeye Photography

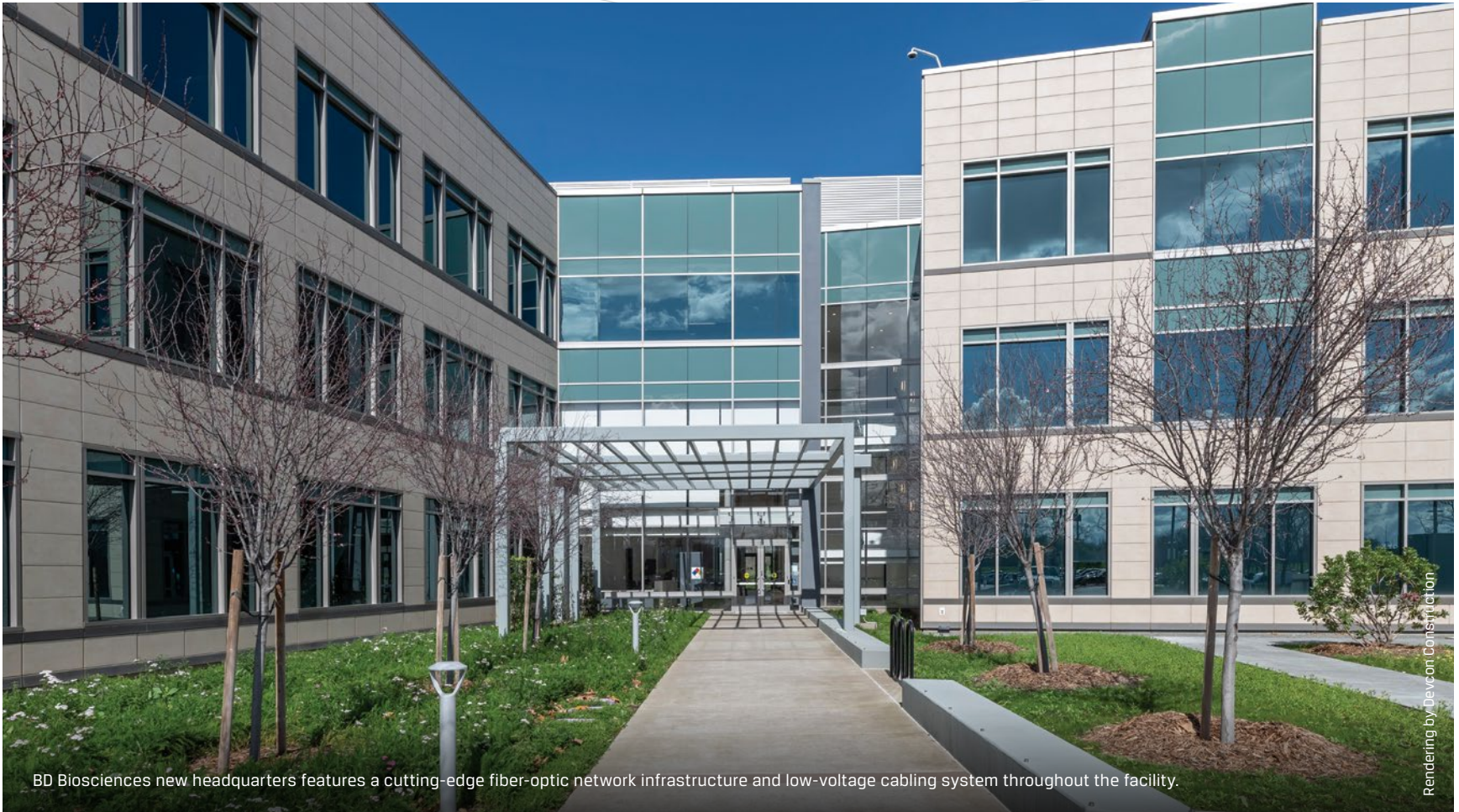


Employee break area on Cadence Campus

Photo by Hawkeye Photography

CH Reynolds Provides Cutting-Edge Network Infrastructure and Low-Voltage Communications to BD Biosciences in Milpitas

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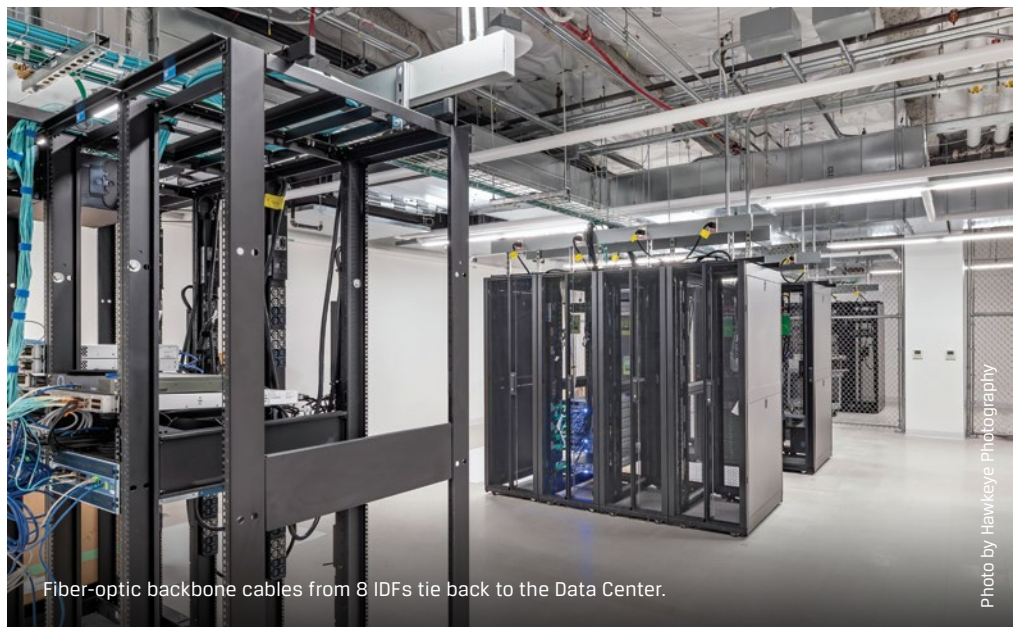
BD Biosciences new headquarters features a cutting-edge fiber-optic network infrastructure and low-voltage cabling system throughout the facility.

Rendering by Devcon Construction

electrical for CP-3. Blue Arc provided electrical for CP-2. Care Security Systems and Netronix were the security system integrators, Kindly provided AV and Silicon Mechanical provided mechanical on site.

"We greatly value our decades-long partnership with BD Biosciences and were thrilled to be an integral part of creating the critical infrastructure for their new Silicon Valley facilities," said Gary Slater, Project Superintendent, CH Reynolds. "We look forward to continuing to power BD Biosciences' technology innovations, as more changes come to the BD Biosciences campus in the future."

Founded in 1983 in Silicon Valley, CH Reynolds provides electrical, data construction and managed IT services to clients across a diverse range of business sectors. CH Reynolds is a proud member of the National Electrical Contractors Association (NECA) Santa Clara Valley Chapter. For more information about CH Reynolds and its services, contact Jason Bright, COO and Project Manager, at 1.408.436.9280 x2121 or jbright@chreynolds.com. <http://www.chreynolds.com>



Fiber-optic backbone cables from 8 IDF's tie back to the Data Center.

Photo by Hawkeye Photography



Wireless access point allows wireless devices to connect to the network.

Photo by Hawkeye Photography