



ONSITE QUALITY CONTROL

Helping the Best Build Better



WHAT ONSITE QUALITY CONTROL MEANS



We hired VEC to perform Trimble on this job and they have done nothing but perform at a very high level from day one. This project, like many others here in the San Francisco Bay Area, has tight deadlines and adverse conditions. With that said, VEC has gone above and beyond to accommodate every need we've had thus far. They are an integral part of this project. They've provided solutions to problems that are above and beyond their scope of work. I would not hesitate to use VEC on all of our Projects moving forward. I highly recommend VEC and the services they offer. Their friendly Staff and Management are top-notch!

Testimonial from Justin Lewis, General Foreman

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COMPANY OVERVIEW

-  200+ Employees
-  350+ Projects; Nationwide territories
-  HQ in San Francisco; 6 offices worldwide
-  14+ Years of Experience

OUR SERVICES

Onsite Quality Control

VDC Coordination Management

Electrical BIM & VDC

Mechanical BIM & VDC

Civil Underground BIM & VDC

Concrete BIM & VDC

Enhanced Design

CORE MARKET SECTORS


Mission Critical


Healthcare & Life Science


Public Works


Commercial


Aviation

CERTIFICATIONS

 MBE

 SF-LBE

 CA-DBE



[Learn more about VEC qualifications](#) >

LEADERSHIP TEAM



Shane Saltzgiver

Founder & CEO

- 23 years of AEC industry experience — 14 years as BIM/VDC consultant (Founder of VEC in 2011), 6 years as electrical subcontractor (St. Francis Electric), 3 years as general contractor (Pankow, Straub)
- BS Degree: Construction Management, Cal Poly San Luis Obispo
Minor Degree: CRP Real Property Development



Ivana Gery

Director - Finance & Administration

- 13 years of AEC industry experience — 5 years in Financing (VEC), 8 years in Financing (St. Francis Electric)
- BS Degree: Masters of Business Administration, California State University of East Bay



Oleg Osadchy

Vice President of VDC Operations

- 13 years of AEC industry experience — 6 years as BIM/VDC consultant (VEC), 4 years as GC (James R. Thompson, Inc.), 3 years of field experience (Tufco Flooring LLC)
- BS Degree: Construction Management, Northern Kentucky University
Minor Degree: Business Administration



Kharlo Barcenas

Head of Sales & Marketing

- 17 years of AEC industry experience — 3 years as BIM/VDC consultant (VEC), 14 years as GC (Turner, BCCI, STO Build Group)
- BS Degree: Civil Engineering, San Jose State University



Don Interdonato

Director of Development

- 25 years of AEC industry experience — 9 years as BIM/VDC consultant (VEC, Microdesk), 11 years as MEP Engineering Consultant (WSP Group Lincolne Scott), 5 years as electrical subcontractor (Cupertino Electric Inc.)
- BS Degree: Business Administration, Centenary University



Kevin Williams

Senior Project Manager - VDC Coordination Management

- 14-years in the Construction Industry — <1 year as BIM/VDC consultant (VEC), 4 years as general contractor (McCarthy Building Company), 10 years as GC (MATT Construction)
- BS Degree: Construction Management, Cal Poly San Luis Obispo



Britton Eberts

Project Executive - Electrical VDC

- 9 years of AEC industry experience — 6 years as BIM/VDC consultant (VEC), 2 years as GC (Tutor Perini Building Corp.), 1 year as architect (Crockett Architects Inc.)
- BS Degree: Architecture, University of Miami
Minor: Human and Social Development

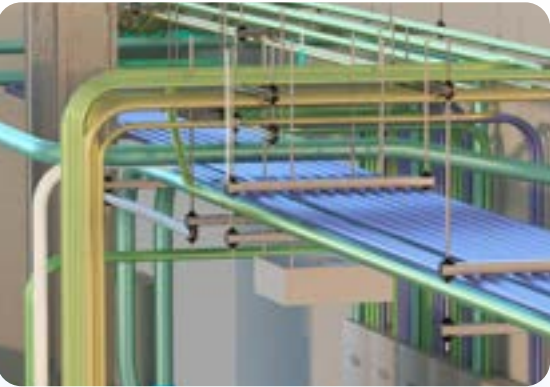


Rob Ohata

Senior Project Manager - Onsite Quality Control

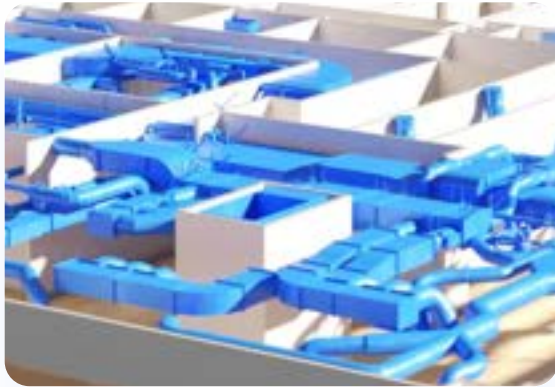
- 13 years of AEC industry experience — 5 years as BIM Coordinator & BIM/VDC consultant (VEC), 8 years of scanning survey technology experience (DPSI, Stantec, Sandis)
- BS Degree: Industrial Design, California State University of Long Beach

CORE SERVICES



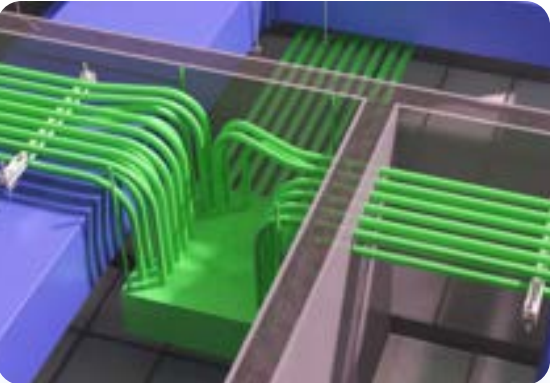
Electrical BIM & VDC

Since the electrical scope presents one of the most significant challenges regarding design and installation, our BIM electrical specialists always do their best to eliminate risks and deliver projects successfully. From kickoff to Trimble Installation, we provide customers with the leanest system possible, coordinating our electrical 3D modeling with their project teams.



Mechanical and Plumbing BIM & VDC

We keep the installer in mind at each design stage, 3D modeling, coordination, and drawing production. This policy enables our mechanical BIM specialists to reduce different productivity deterrents. Bringing the field forward also allows for significant savings in various activities.



VDC Coordination Management

VEC recognizes the demand for better processes. So, we focus on leveraging our construction background and tech expertise to provide all stakeholders with a project-specific BIM Execution Plan (BEP). We manage BIM coordination on a simple platform, providing our clients with precise data to keep them updated on progress.



Onsite Quality Control

Despite the project stage or type, there can always be some critical gaps to realize. But with our onsite quality service and onsite technologies, clients can obtain the clarity they need. By establishing a streamlined process, VEC's specialists can effectively assess the existing site conditions, identify potential issues or risks, recommend solutions, and work collaboratively with your team.



Enhanced Design

You will benefit from predictive construction technology during design by partnering with us early. That helps produce an enhanced design product that can deliver accurate material quantities at bid time, identify and resolve installation risk during preconstruction, and accelerate installation to deliver incredible project results.



Civil Underground BIM & VDC

VEC offers both Wet and Dry Utility Modeling & Coordination, both of which are complex in their own right. It is important to make sure what is going into the ground is coordinated properly to avoid costly field rework. Once coordinated, your team can utilize our model to create layout points for installation. We can also provide installation drawings which your team can use in the field to verify the installation is going to plan.

ONSITE QUALITY CONTROL OVERVIEW

Stage of Development	Design	Pre-Construction	Construction, Fabrication, & Installation	Close-Out
Project Timeline	- Schematic Design (SD) - Design Development (DD) - Construction Documents (CD)	- Bidding & GMP - Demo - Horizontal Construction: Siteworks/ Underground/Grading - Vertical Construction: Core & Shell - Building Interior Pre-Con	- Vertical Construction: Tenant Improvement (TI) - Fit Out - Interior Building Systems	- Commissioning - Startup - Punchlists - As-Builts - O&M - Owner Occupancy
Onsite Technology Services	- As-Built Scanning for Design & Construction Risk Management (Retrofit Projects) 360 Photos for Design & Construction Planning (Retrofit Projects) - UAV for Design & Site Construction Planning - Scan to BIM for Design Validation & Construction Risk Management - Horizontal Construction MEP Layout	- As-Built Scanning for Installation QA/QC (New & Retrofit) 360 Photos for Early Construction Documentation - Scan to BIM for Design Validation & Construction - Install QA/QC - Construction MEP Layout	- As-Built Scanning for Installation QA/QC (New & Retrofit) 360 Photos for Early Construction Documentation - Scan to BIM for Design Validation & Construction - Install QA/QC - Construction MEP Layout	- As-Built Scanning for Installation QA/QC 360 Photos for As Built Documentation - UAV for Site Post Construction As Built - Scan-to-BIM for Pre Design Concepts & Post Construction As-Builts - Construction MEP Layout

3D LASER SCANNING

3D Laser Scanning is a critical component to understanding the existing conditions of any job site. By utilizing 3D laser scanning technology, we are able to capture the conditions of a space accurately and precisely in a non-destructive and safe manner.

Approximately 100,000 sq ft / day

The VEC Way

- Understanding the purpose through streamlined coordination and improved collaboration on any construction site.
- Enhanced communication of job status through color-coordinated progress reports.
- Superior understanding of construction from years of experience in electrical and mechanical services.
- Providing quality data every time by NEVER cutting corners to get a job done. Safety is our top priority for our team and yours!

Value

- Improves accuracy and quality to reduce the need for rework.
- Improves planning and design to be more efficient.
- Increases efficiency by capturing data faster than traditional methods.
- Reduces schedule and cost.



SCAN TO BIM

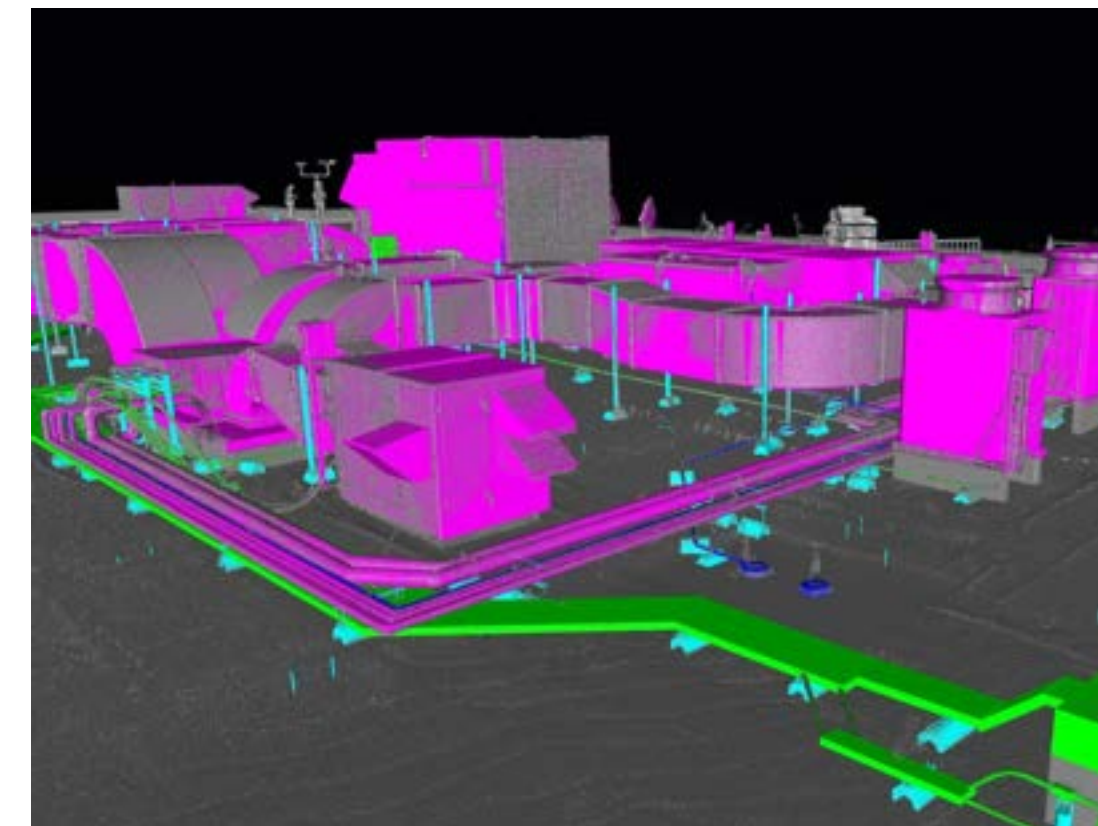
Scan to BIM allows for more effective visualization and understanding of the existing conditions captured in the point cloud. The 3D model becomes a valuable tool that VEC and your team can reference throughout the project's life cycle, from design to construction to sustainability.

The VEC Way

- Understanding the purpose of the model and how we will use it to support the project needs.
- Experienced and well-trained team of professionals with a high attention to detail and a focus on quality.
- Commitment to understanding accuracy requirements when converting points clouds to 3D models.
- Quality assurance processes to ensure an accurate existing conditions model every time.

Value

- Improves transparency, communication, and collaboration.
- Provides greater performance, quality assurance, and reliability.
- Accessibility for all by reducing complexities and file sizes.
- Clearly conveys information to assist in faster decision-making.
- Accurate existing conditions model to help eliminate costly mistakes.

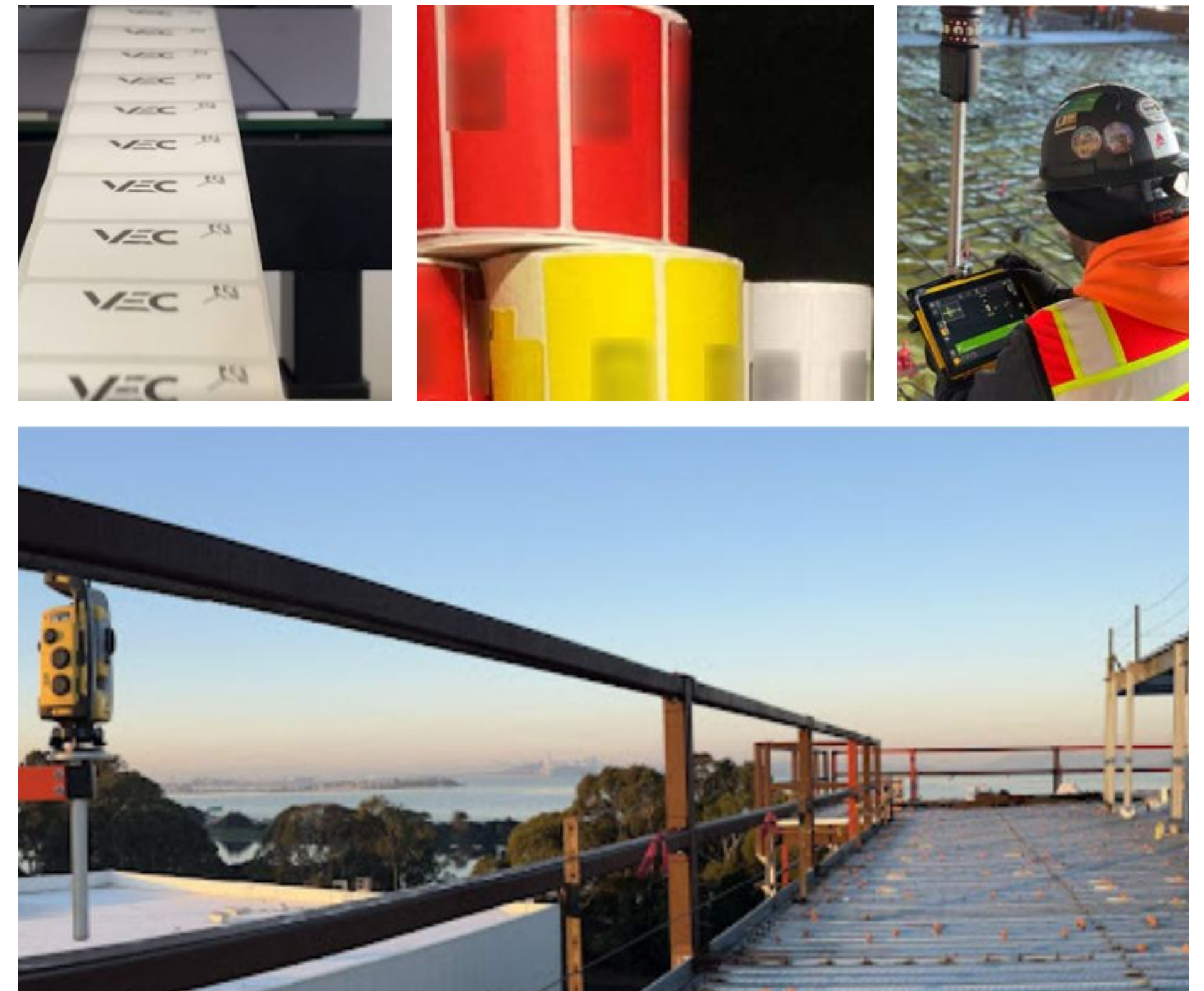


TRIMBLE POINT LAYOUT

Trimble Layout is a critical component of any turn-key BIM service, ensuring data is accurately transferred from the Coordinated BIM model to the field.

Our approach:

- VEC provides MEP BIM/ VDC Trimble Point Layout services in-house, greatly streamlining the process.
- Quality assurance process to ensure BIM model is accurately transferred to the field.
- Experienced and well-trained team of professionals equipped with the knowledge to handle any job site.
- Enhanced communication of job status through color-coordinated layout progress reports.
- Customized color-coded labeling system to match installation drawings enables better organization and reduces confusion during the installation process.
- Safety is our top priority for our team and yours.



LABELING

One day, during a routine job walk, one of our electrical BIM Project Managers saw something that piqued his curiosity: why is it that tape and permanent markers are often the industry standard for labeling conduits, devices, and equipment during construction? Now more than ever, due to BIM, there are countless labels and IDs being assigned to the material used throughout the installation process, meant to ease the transitions between crew activities. “There must be a better way”, the PM thought.

The following week, our label printing and binder system was born, aligned with the BIM labeling system already used on drawings. We provided this solution to our client’s field team, delivering immediate value, not to mention impressing various stakeholders walking the project. Our system has additionally led to fewer mistakes in reading IDs and information written with permanent markers on tape. Small changes can have a huge impact.

The VEC Way

- Automated labeling process straight from Revit model.
- Produce labels and deliver them to the job site.
- Align with the BOM.
- Labeling makes your installation look sharp.

Value

- Improves wire installation time.
- No handwriting notes.
- Eliminates mistakes that come with reading IDs written with permanent markers.



BOX NUMBER:
8N1d

CIRCUIT NUMBERS:
1/3, 5/7,
9,11,13N,
15N,G

BOX TYPE:
8"x8"x4"

PANEL ORIGIN:
LP-1E

BOTTOM OF BOX:
12'-0"

VOLTAGE:
120/208V

BOX NUMBER:
12S6d

CIRCUIT NUMBERS:
(#8) 2/4/6,
(#8) 8/10/12,
(#8) 14/16/18,G

BOX TYPE:
12"x12"x4"

PANEL ORIGIN:
SH1

BOTTOM OF BOX:
12'-0"

VOLTAGE:
277/480V

GMP MANUFACTURING - 19307
3100 WEST WARREN AVE, FREMONT
LEVEL 01 - AREA D

POWER LABELS

CONDUIT ID
N7c-1

PANEL NAME
LP-1D SEC2

CIRCUIT NUMBERS
54N,56N,58N,G

WIRE SIZE: #10
GROUND SIZE: #10
CONDUIT LENGTH: 130'

1 1 1 3

CONDUIT ID
S8d-1

PANEL NAME
SH1

CIRCUIT NUMBERS
25,27,29N,31,33,35N,37N,G

WIRE SIZE: #10
GROUND SIZE: #10
CONDUIT LENGTH: 54'

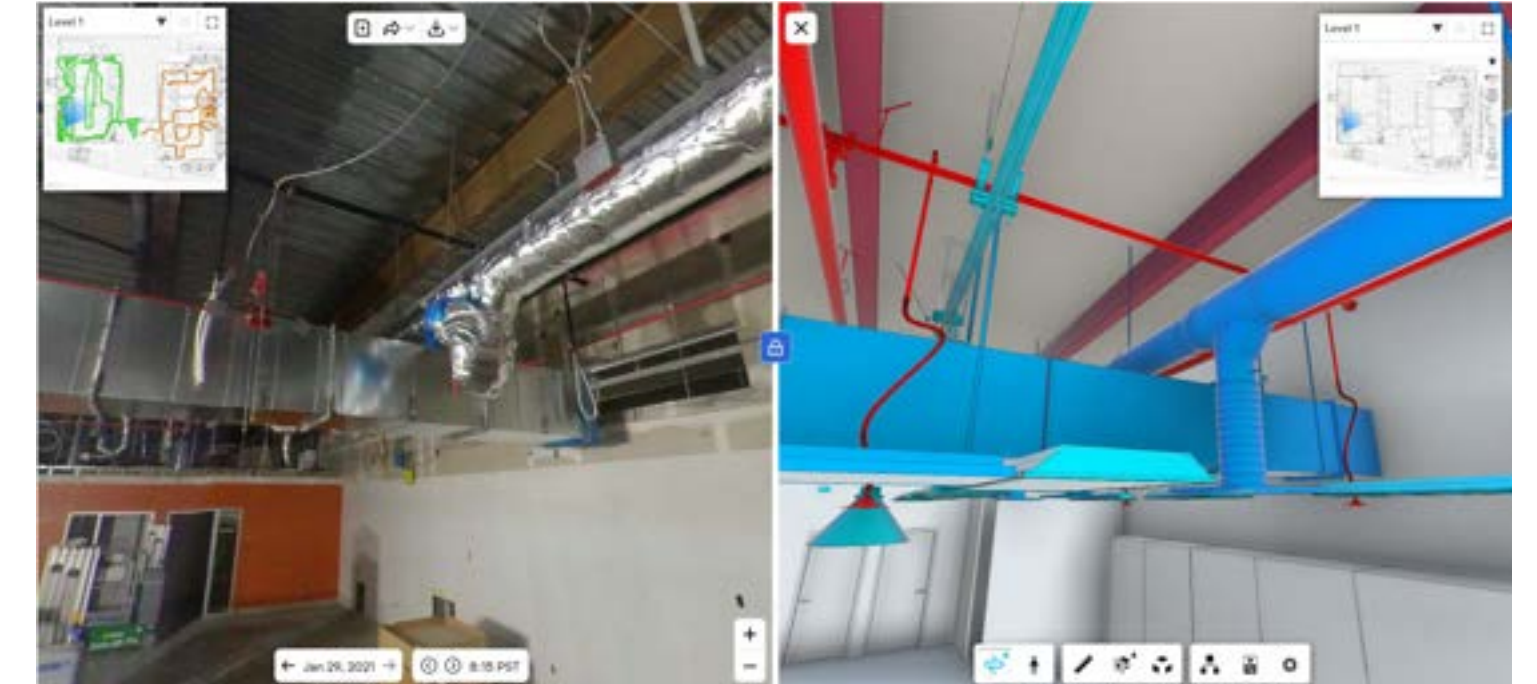
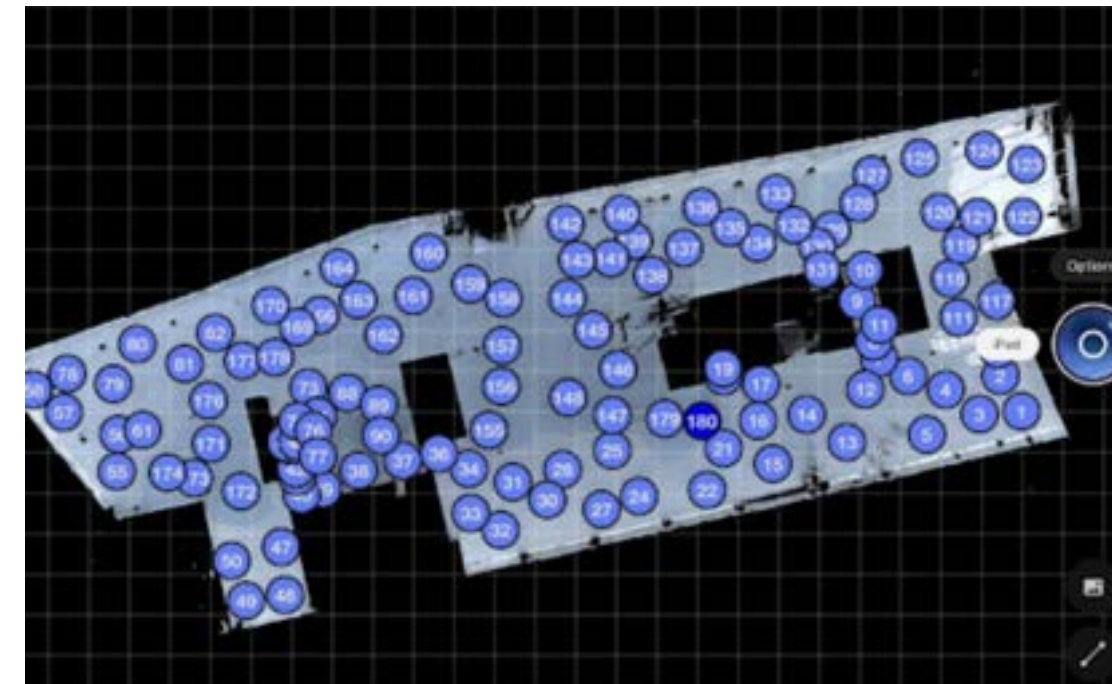
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360° VIDEO/PHOTO DOCUMENTATION

Our Process Sets Us Apart

Documentation on any job site has its challenges, but with 360° technology, we can capture site conditions and construction progress quickly and efficiently. By assessing the job site, we can deploy the right technology for the job, whether it is walking the site or flying it utilizing our drone technology. This photo/video documentation of the job site provides you with a virtual walkthrough at your fingertips.

- Eliminates unnecessary trips to the field.
- Faster communication.
- Reduces the misunderstanding and challenges with traditional phone photography, such as remembering where you took photos were taken and having incomplete info due to only one or two reference images.
- Takes measurements in the virtual field.
- 20,000 sq.ft. in 3 hours.
- Low-level point clouds (when needed and usable).
- Fully stitched walkthroughs.
- An instant field walk right on your screen.
- Captures a history of field conditions.





PROJECT EXPERIENCE



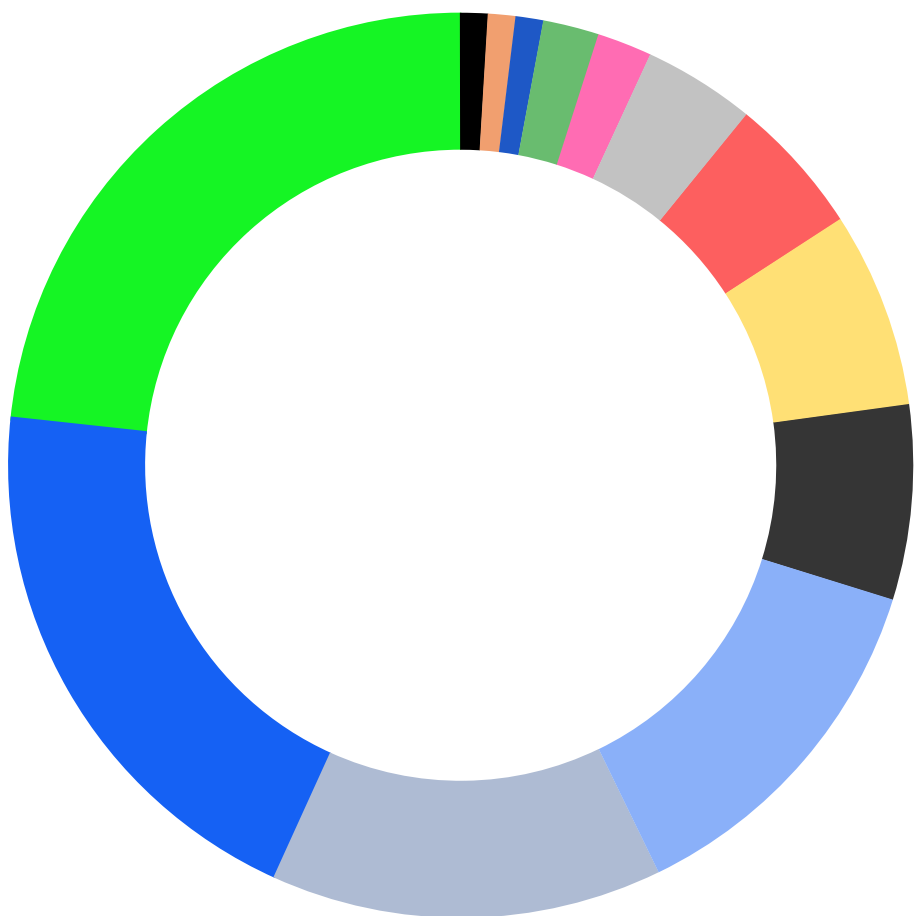
PROJECT EXPERIENCE

Nationwide territories

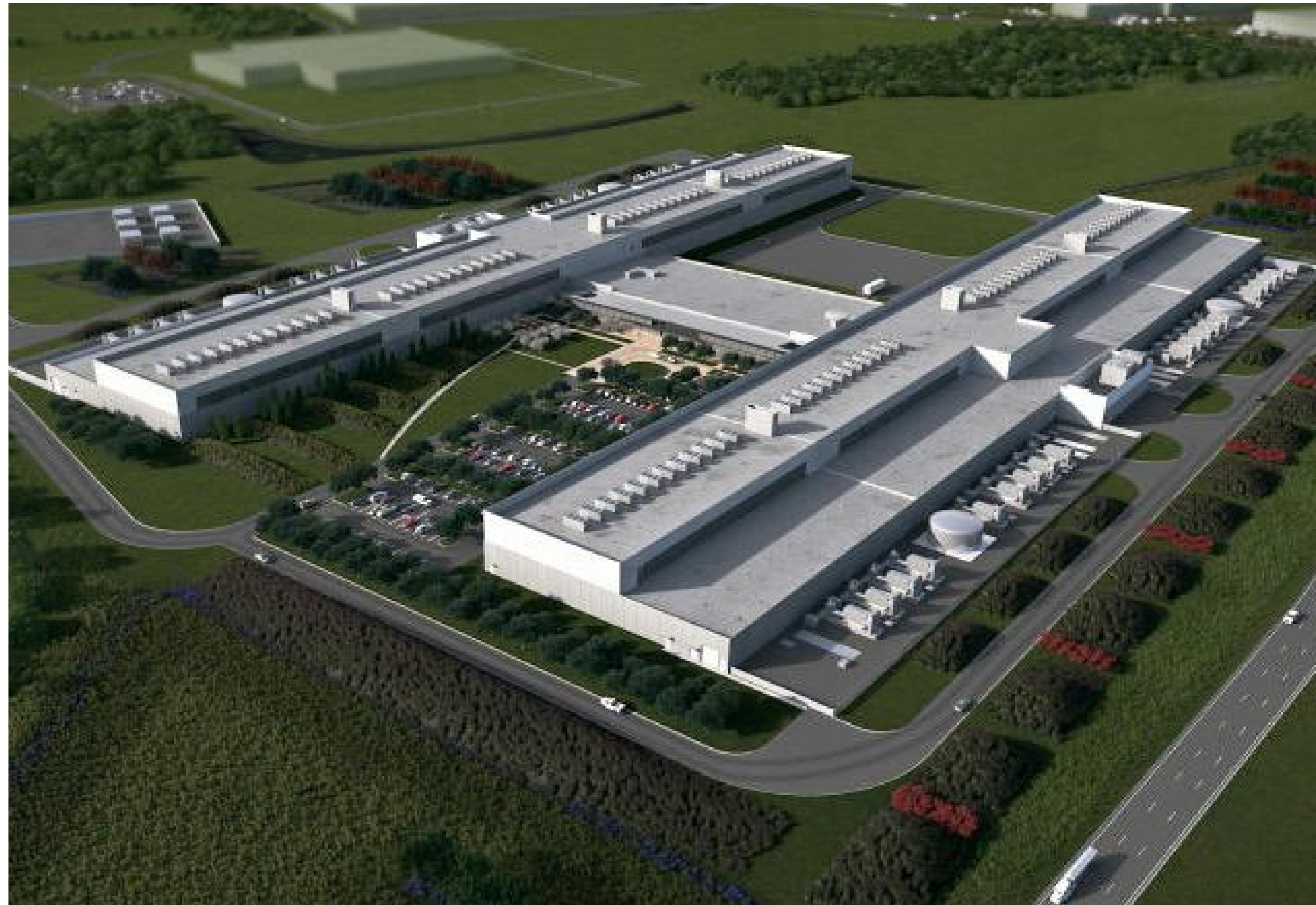


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|-------------------|-----------------|------------|------------------|------------|
| ■ Arizona | ■ Illinois | ■ Virginia | ■ North Carolina | ■ Oklahoma |
| ■ California | ■ Massachusetts | ■ Georgia | ■ New Jersey | ■ Hawaii |
| ■ Colorado | ■ Missouri | ■ Maryland | ■ New Mexico | ■ Nevada |
| ■ Washington, D.C | ■ Oregon | ■ Kansas | ■ New York | ■ Utah |
| ■ Iowa | ■ Texas | ■ Ohio | ■ Washington | |

Diverse project types



- | | | | |
|-----------------------|-------------------|-----------------------------|---------------------|
| Data Center
21% | Aviation
20% | Healthcare
14% | Commercial
13% |
| Public Works
7% | Residential
7% | Pharma & Life Science
5% | Energy
4% |
| Tech-Commercial
2% | Education
2% | Education/Health Care
1% | Institutional
1% |
| | | Residential
1% | |



Confidential Client Data Center

Market Sector:

Mission Critical

Type:

Data Center

Year:

2019-2022

Size:

1,000,000 sq. ft.

This five-part undertaking involved constructing and placing several mission-critical facilities, site infrastructure, medium voltage/ site communication underground pathways, utility-grade medium voltage distribution switchgear, and 3000kVA transformers. The interior portion utilized pre-manufactured electric room skids, heavy underground distribution, multiple remote power panels, an overhead data center rack busway, and a unique penthouse air delivery system consisting of several electrical connections.





UCSF Child, Teen & Family Center and Department of Psychiatry Building

Market Sector:

Healthcare

Type:

Medical Office Building

Year:

2018-2020

Size:

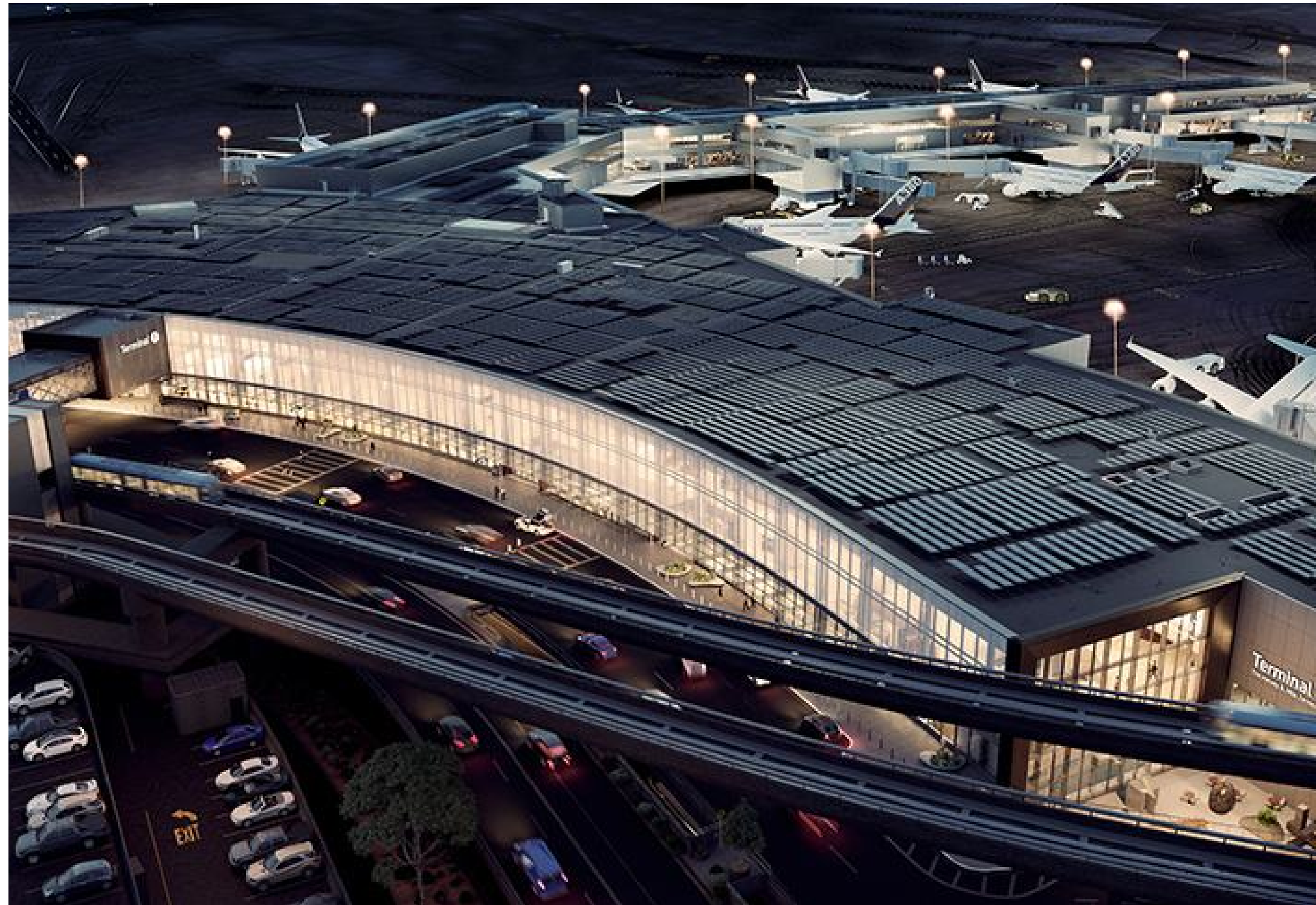
170,000 sq. ft.

Location:

San Francisco, CA

UCSF Child, Teen, & Family Center and Department of Psychiatry Building is a medical office building leased to the University of San Francisco, California (UCSF). This object is a place to do collaborative research and provide clinical care. It integrates departments like pediatrics, neurology, neurosurgery, psychiatry, etc. That makes it one of the first facilities in the United States to combine high-quality mental and physical health services, academic disciplines, and pioneering research. The facility represents patient-centered design principles that optimize patient care and destigmatize mental health treatment.





SFO Terminal 1

Market Sector:

Aviation

Type:

Aviation Building

Year:

2017-2022

Size:

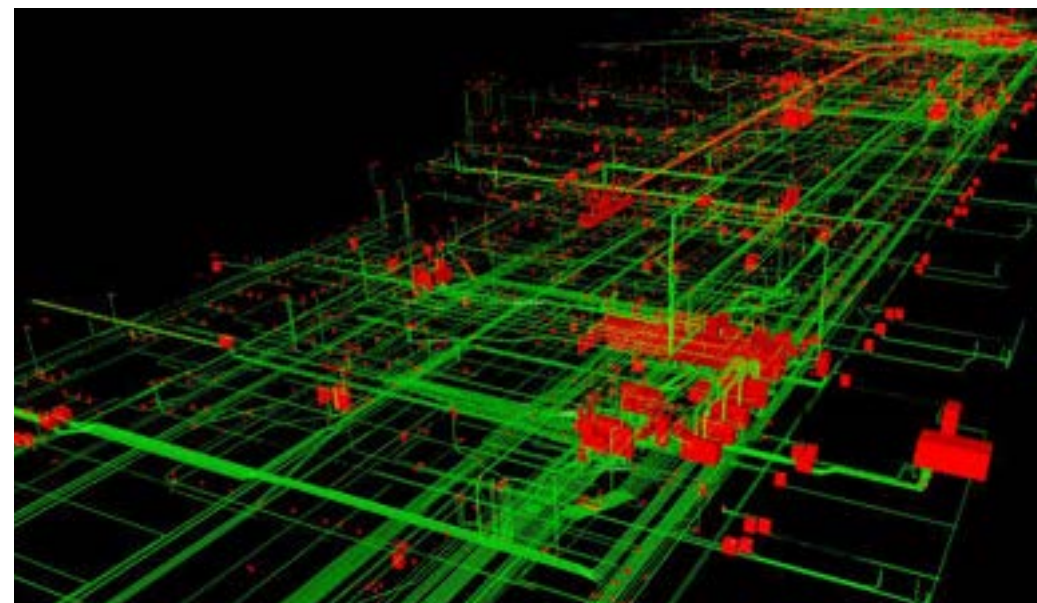
325,240 sq. ft.

Location:

San Francisco, CA

The newest renovation projects of San Francisco International Airport (SFO) include updating one of the oldest terminals — Terminal 1 Center, and its Boarding Area B (BAB). The new area covers passenger circulation space with access to the aircraft gates, 24 gates with holding rooms for domestic and international flights, modern passenger loading bridges, and concession spaces.

The project incorporates next-generation building systems, anticipates the potential leads in traffic, and considers future aviation trends and the impact of rising sea levels. Being true to the region's values, Terminal 1 is the world's first Leadership in Energy and Environmental Design (LEED) Platinum terminal.





Confidential Client Data Center

Market Sector:

Aviation

Type:

Data Center

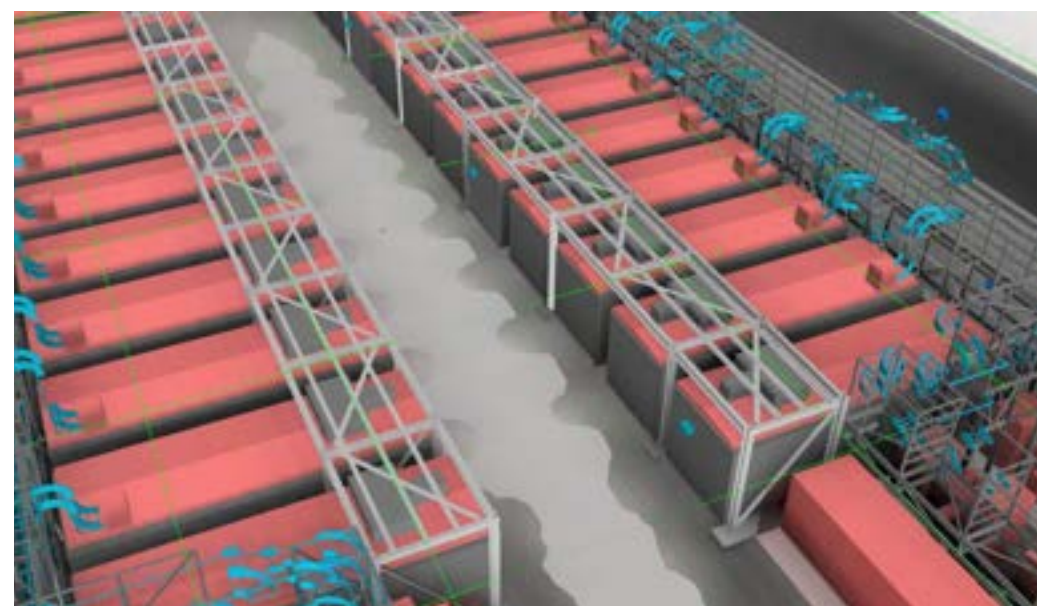
Year:

2020-2022

Size:

322,000 sq. ft.

For this critical data center renovation project, VEC deployed our Site Technology team to 3D laser scan and verify the as-built locations of the structural beams, column layout, bracing, and penetrations within the Colos. With this crucial data, VEC led the construction BIM coordination team and provided Electrical Modeling and Detailing for deep construction coordination. We resolved clashes, optimized electrical and communication routing, and ultimately ensured constructible installation plans would be delivered to our long-standing client. Once construction began, VEC ensured installation went as smoothly as possible by preparing thousands of MEP layout points and a model-based MEP construction layout at the site.





Helping the best build better.

[Contact for more](#)

sales@vec-us.com

vec-us.com

[+1 \(415\) 888-1832](tel:+14158881832)