



CIVIL UNDERGROUND

Statement of Qualifications



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VEC BUSINESS PROFILE

VEC is a **BIM/VDC service provider with first-hand construction and engineering project delivery backgrounds**. VEC was born out of a passion for solving long-standing issues and industry inefficiency through a blend of technology and experience. We have a **construction-first, technology-second mindset**, and believe this is **essential to delivering effective VDC and helping the best build better**. Our versatile departments are capable of handling a wide range of projects, from mission critical and commercial to infrastructure and public works.

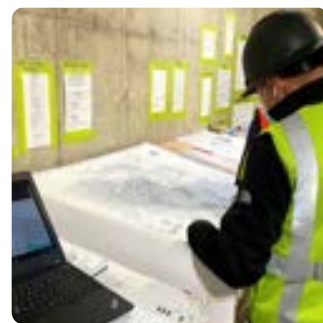
200+ Employees

350+ Projects; Nationwide territories

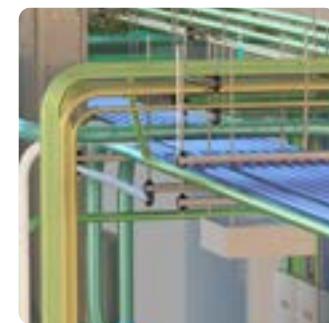
HQ in San Francisco; 6 offices worldwide

14+ Years of Experience

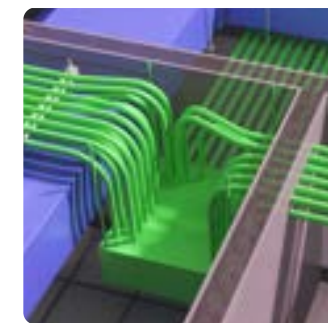
SERVICES



Enhanced Design



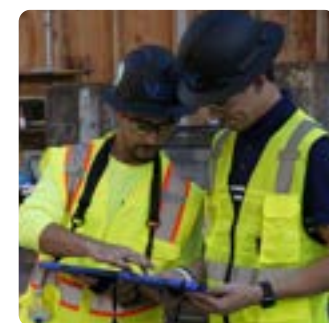
Electrical BIM & VDC



VDC Coordination Management



Mechanical BIM & VDC

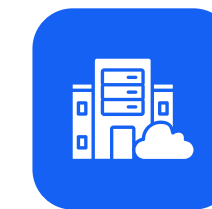


Onsite Quality Control



Civil Underground BIM & VDC

CORE MARKET SECTORS



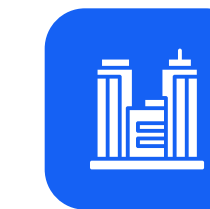
Mission Critical



Healthcare & Life Science



Public Works



Commercial



Aviation

CERTIFICATIONS



Minority Business Enterprise



SF Local Business Enterprise



Disadvantaged Business Enterprise

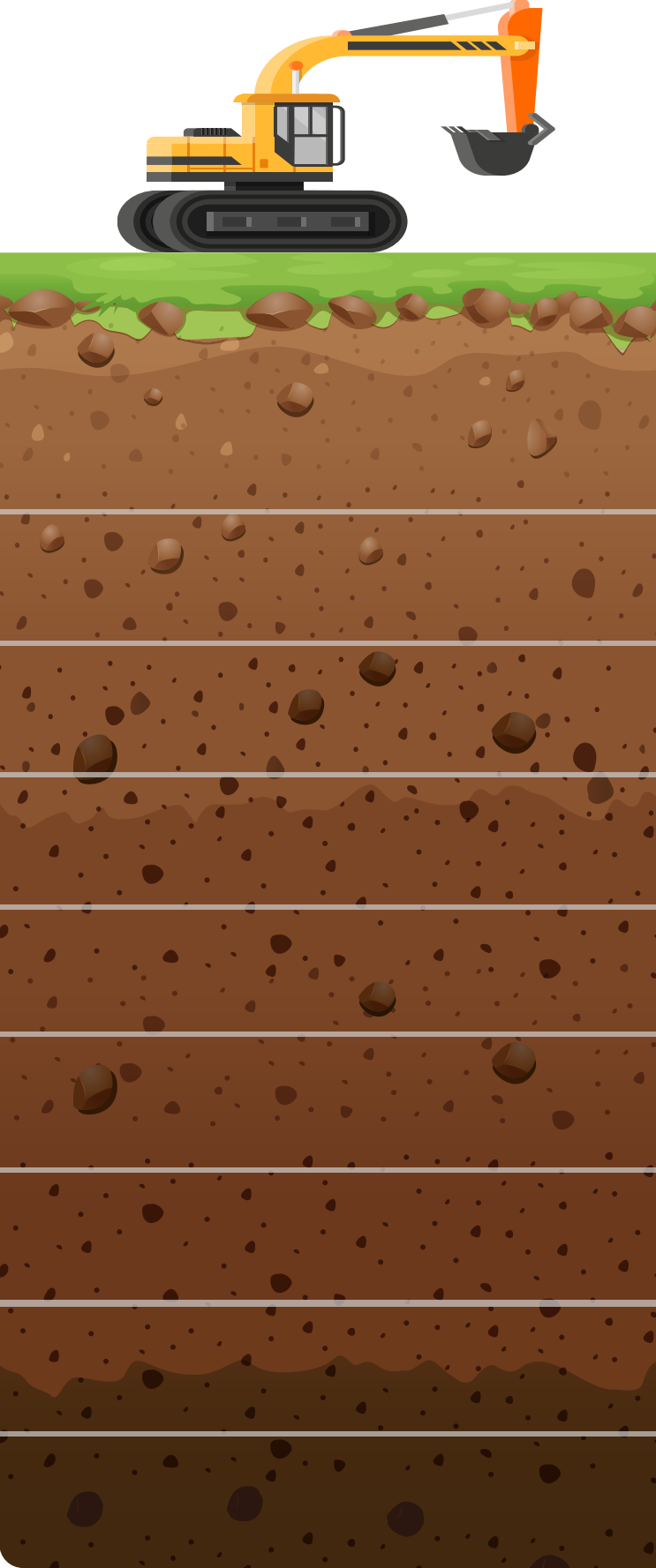


Small Business Enterprise



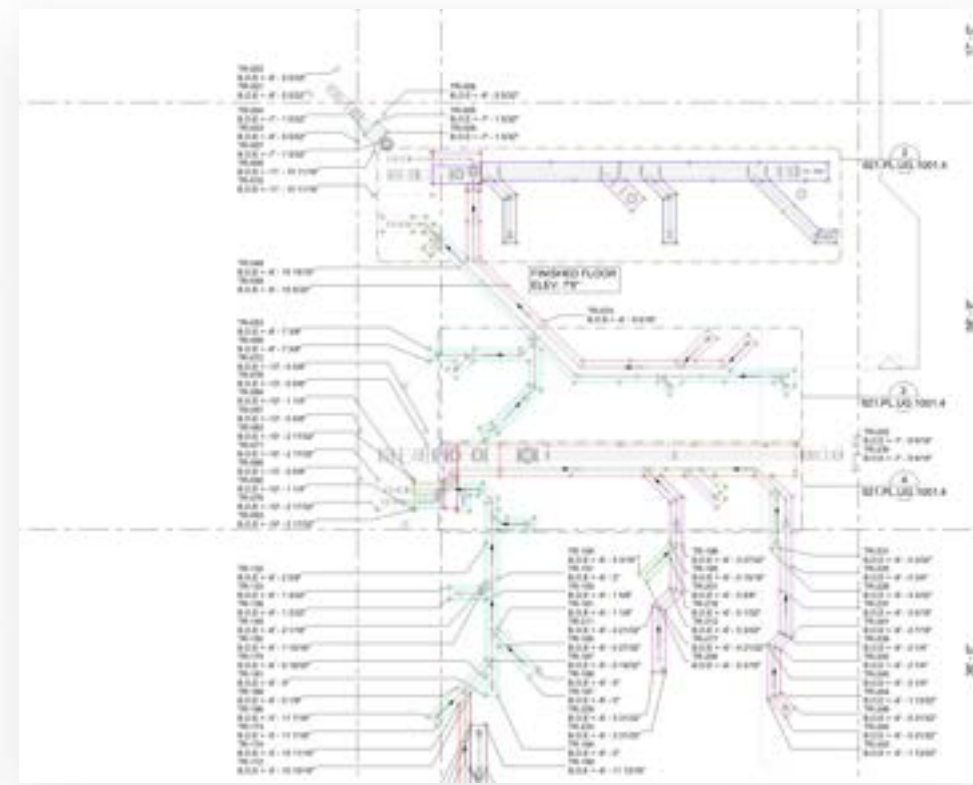
MBE Certified By COBID (Oregon)

PACKAGE SHEET - WE DIG DEEPER

	Lite Duty Package	Medium Duty Package	Heavy Duty Package	Extreme Duty Package	Package Features*:
	✓	✓	✓	✓	Project Management
	✓	✓	✓	✓	Spec & Design Review
	✓	✓	✓	✓	Modeling & Detailing
	✓	✓	✓	✓	BOM (Bill of Materials)
		✓	✓	✓	Constructability & Optimization
		✓	✓	✓	Issues Management
		✓	✓	✓	BIM Coordination
			✓	✓	RFI Management
			✓	✓	Shop Drawings
				✓	Construction & Installation Support
			✓	Submittal Tracking & Management	
			✓	Layout Point Creation	

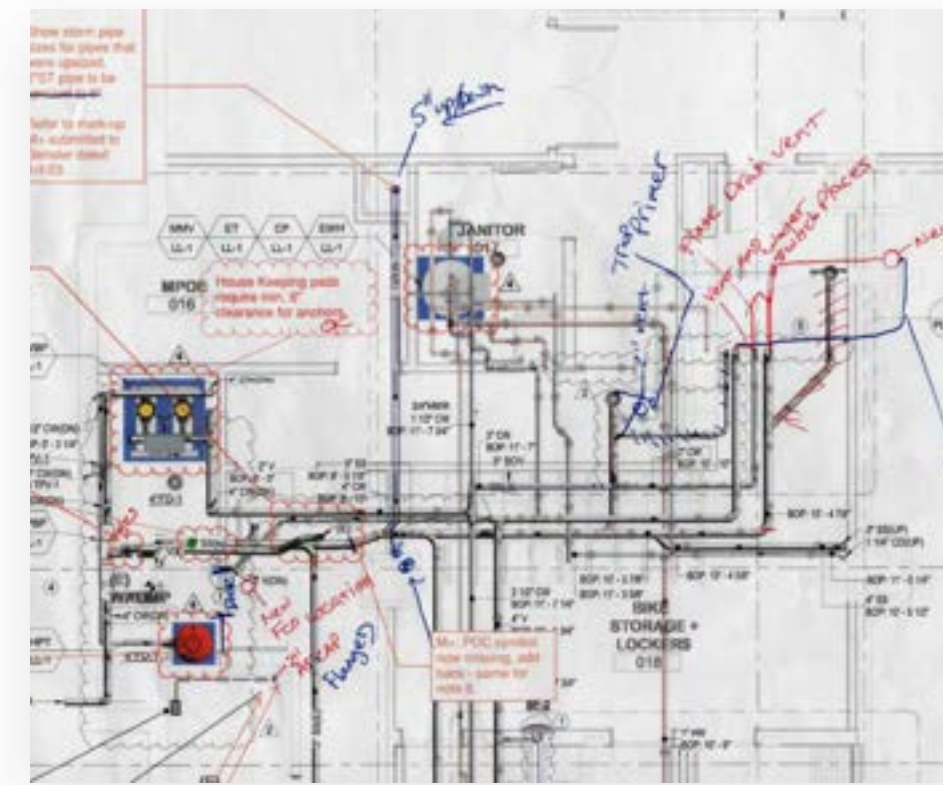
*See Page 8-11 for Package Feature Details

ADDITIONAL ADD-ON SERVICES



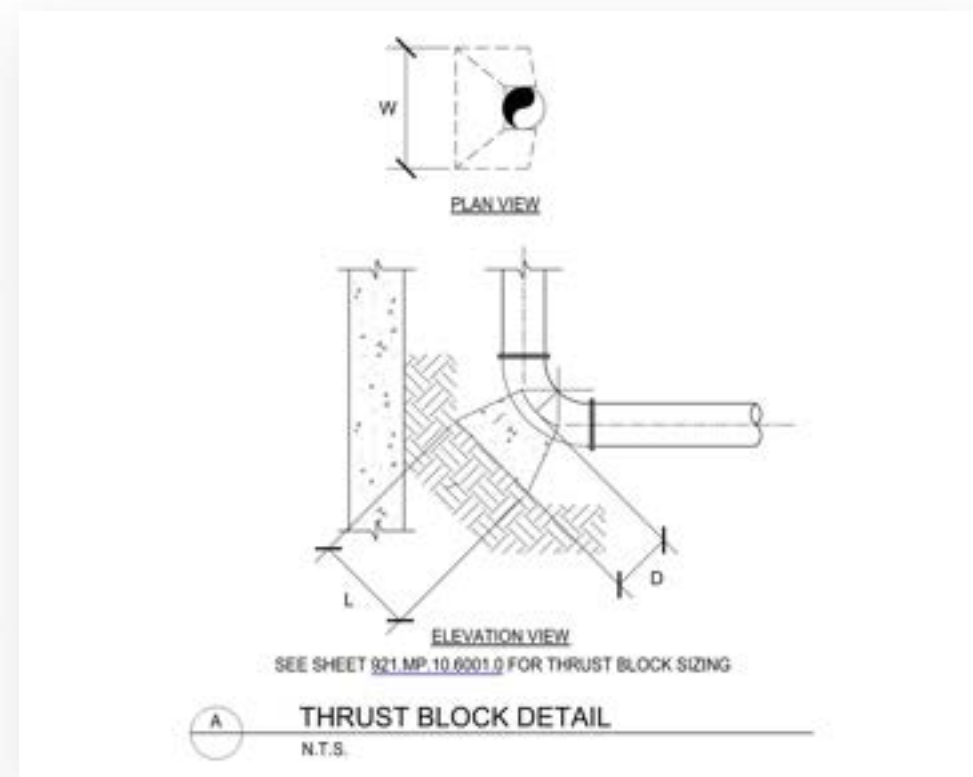
Survey Layout

- ✓ Layout Points Generated From Coordinated Mode
- ✓ Onsite Support while layout takes place
- ✓ Layout reports generated after mobilization
- ✓ Points laid out quickly and efficiently



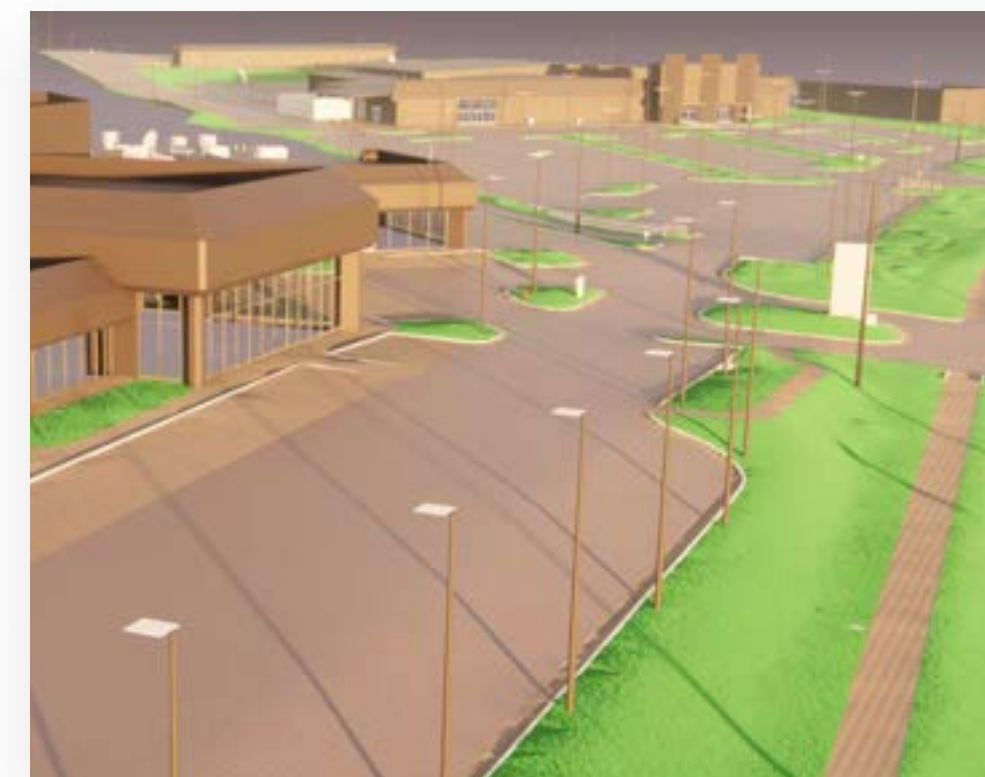
As-Built Documentation

- ✓ Accuracy and accountability
- ✓ Facilitates facility management and asset lifecycle management
- ✓ Improved communication and collaboration among stakeholders
- ✓ BIM for Operations/Facility Management (OM/FM)



Engineering

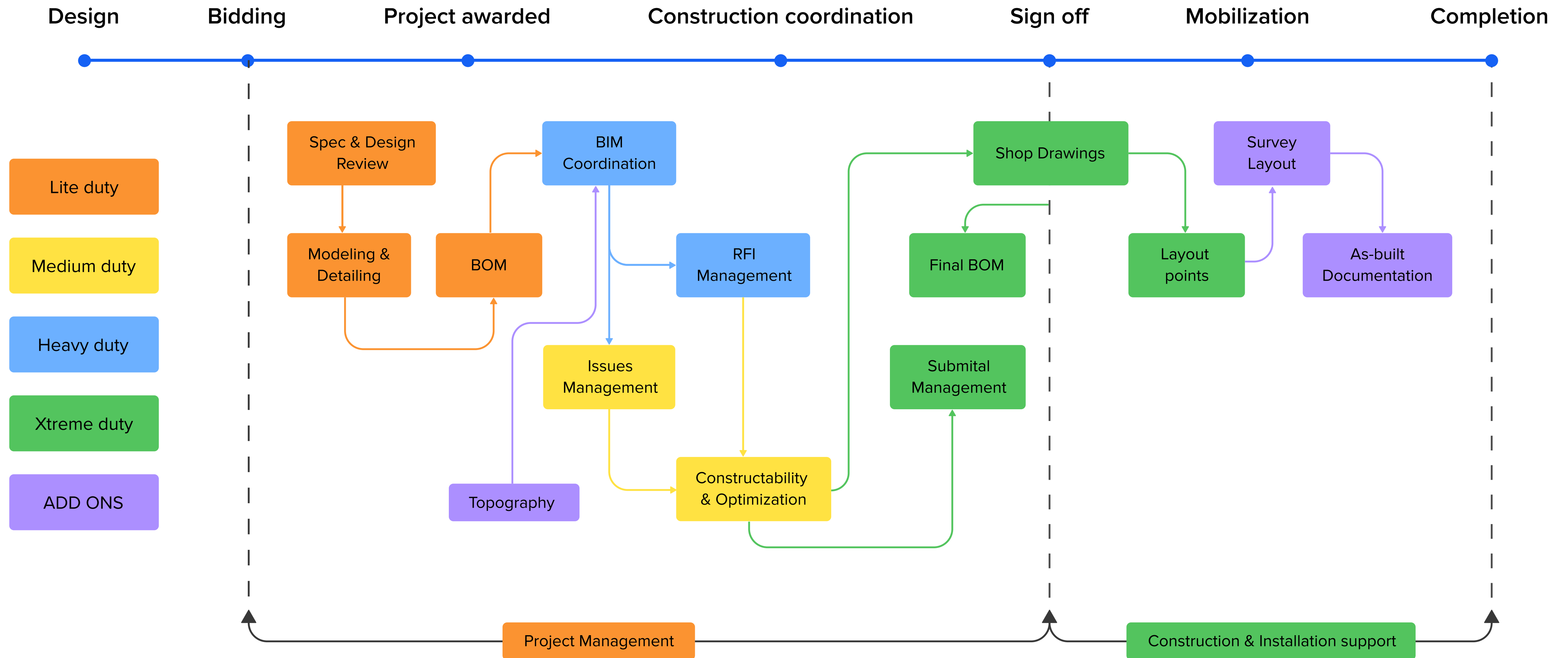
- ✓ Cost-effective and sustainable engineering solutions
- ✓ Compliance with regulatory standards and safety requirements
- ✓ 15+ years of Civil Engineering experience



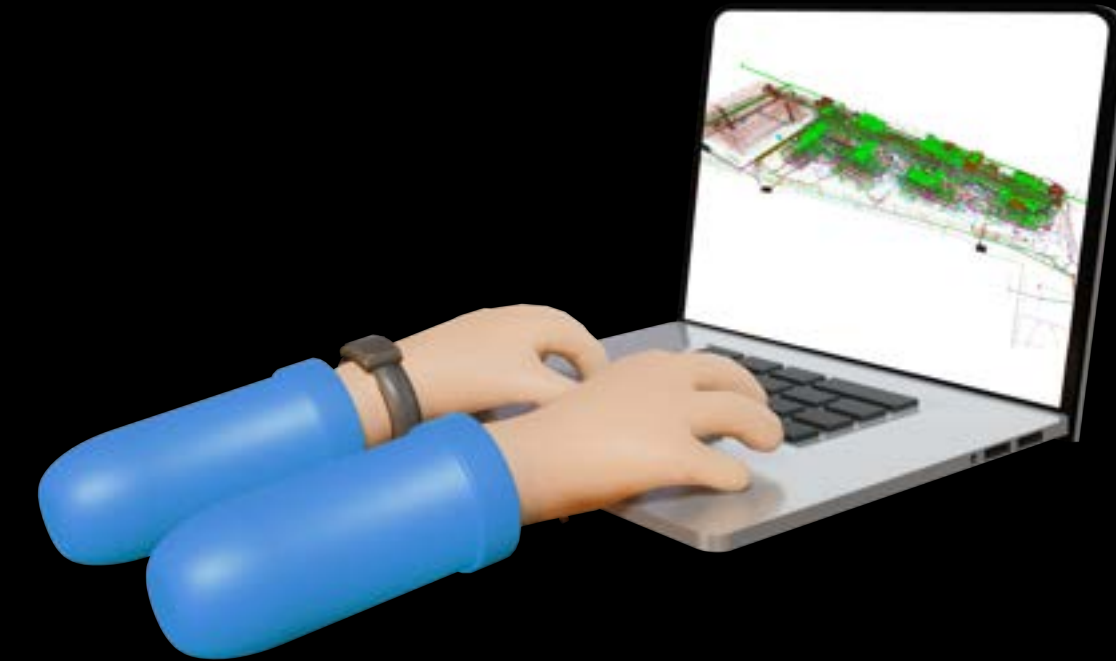
Topography

- ✓ Improved visualization and analysis of topographic data, facilitating better understanding and interpretation of the terrain.
- ✓ Accurate and detailed representation of the terrain, enabling precise engineering and design decisions.
- ✓ Advanced analysis capabilities, such as slope analysis, cut and fill calculations, and drainage simulations, enabling optimized design solutions and efficient construction planning.

CIVIL UNDERGROUND PROJECT FLOW



PACKAGE FEATURES



Project Management

- ✓ Our Construction Project Management ensures that your project is completed on time, on budget, and to your exact specifications.
- ✓ We work closely with you to understand your needs and goals. We keep you informed at every stage of the project to ensure that you are satisfied with progress and outcome.
- ✓ We use the latest technology and tools to streamline the project management process, including project scheduling, cost tracking, and document management.

Spec & Design Review

- ✓ Spec and Design Review is a critical step in the BIM process that ensures the plans and specifications are accurate, complete, and met in the model.
- ✓ Reviewing the Spec and Design helps to identify potential conflicts in constructability, clashes with trades or systems, and to develop solutions to resolve these conflicts.
- ✓ By conducting a thorough review minimizes the risks and ensures that your project is completed to the highest standards, while avoiding costly mistakes and delays.

Modeling & Detailing

- ✓ Our BIM team uses the latest 3D modeling technology to create accurate and detailed models of your project, from concept to construction.
- ✓ Our experienced modelers and detailers work closely with you to understand your needs and goals, and to ensure that the models and details are accurate, complete, and feasible.
- ✓ By choosing our Civil Underground BIM service you will save time, reduce costs and minimize risk, while ensuring that your project is completed to the highest standards.

PACKAGE FEATURES

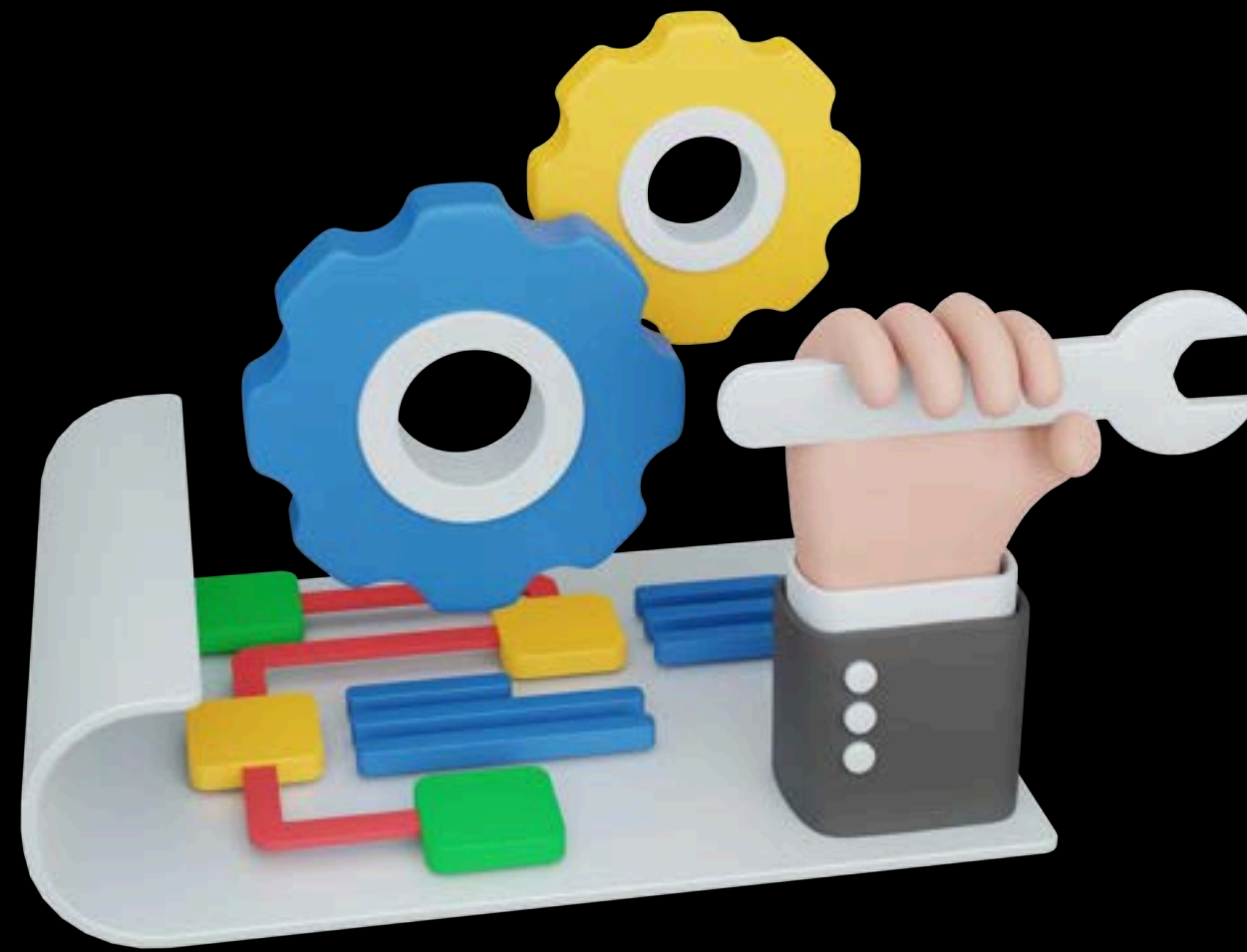
Bill of Materials (BOM)

- ✓ The Bill of Materials (BOM) we provide is directly from the coordinated model. This provides accurate and detailed lists of all the materials needed for your project from start to finish.
- ✓ The Bill of Materials (BOM) we create will help you to identify potential cost savings by comparing different materials and suppliers and by identifying opportunities for recuperating costs for additional fittings or pipe based on coordination and design changes.
- ✓ Because the BOM comes from the coordinated model this will help you to manage your inventory more effectively, by providing you with accurate information on the quantity and type of materials you need at each stage of your project.



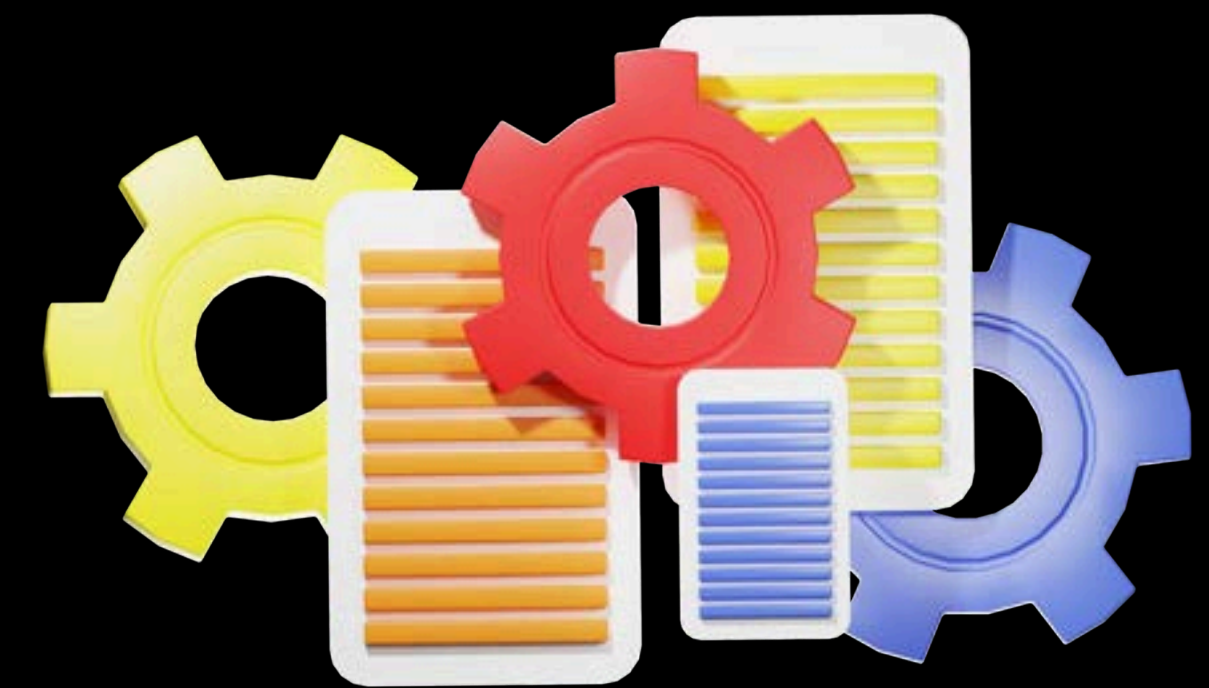
Constructability & Optimization

- ✓ Design is not always constructible, so we help you to identify potential issues or conflicts and to develop solutions to address these issues.
- ✓ Our constructability and optimization process will help you save time, reduce or recuperate cost due to design changes during coordination.
- ✓ Our experienced team can also help you to optimize your construction schedule, by identifying critical paths and developing strategies to reduce delays and improve efficiency.

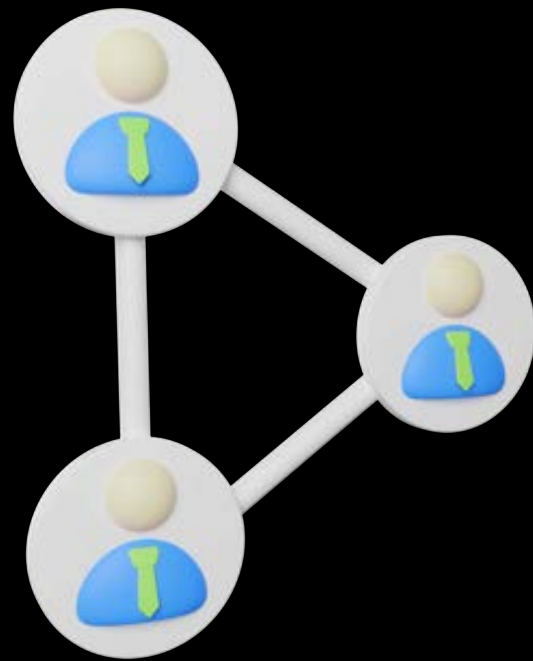


Issues Management

- ✓ Our Issues Management Services will help you to minimize risks and reduce delays, by identifying potential issues early and developing strategies to address these issues quickly and efficiently.
- ✓ We use the latest technology and software to create detailed and accurate documentation of issues found. This minimizes risks by providing a clear and concise record of all issues and their resolution.
- ✓ Your project will be completed to the highest standards, and you will have a clear and concise record of all issues and their resolution throughout your project.



PACKAGE FEATURES



BIM Coordination

- ✓ Using software like Navisworks and Revit, BIM coordination can help to reduce construction costs by identifying potential clashes and conflicts early on in the design phase, avoiding costly changes during construction.
- ✓ We will collaborate on your behalf with architects, engineers, and contractors, improving communication and reducing misunderstandings.
- ✓ BIM coordination streamlines the design and construction process, reducing the number of errors and changes, which saves time and money.



RFI Management

- ✓ RFI management ensures that communication is clear and efficient between all parties involved, reducing misunderstandings and errors.
- ✓ All RFI's we produced are documented and tracked, providing a clear record of communication and ensuring that all issues are resolved in a timeline manner.
- ✓ Our RFI Management ensures that RFI's are addressed quickly and efficiently, reducing delays and improving productivity.



Shop Drawings

- ✓ Once the model is finalized through the BIM coordination process we will then take the model and produce highly detailed drawings that can be used for installation.
- ✓ Model sign off does not always mean all RFI's were answered, our drawings note all RFI's that were accepted and those that were pending at sign off. This will help guide your installation process and save cost of installing incorrectly if an RFI was denied or an alternative routing was specified.
- ✓ Shop Drawings produced can also be submitted formally for final review and implementation to the official drawing set of record.

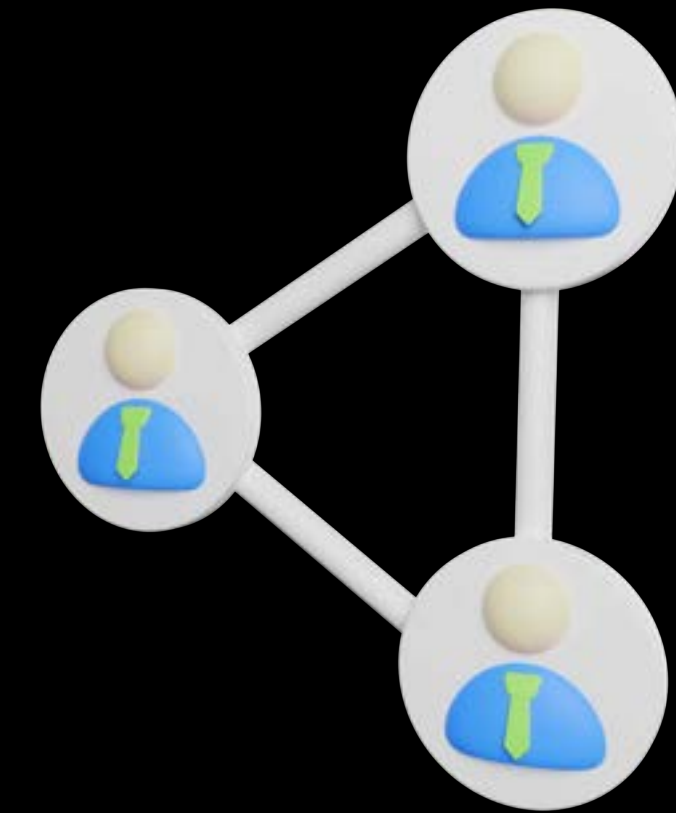
PACKAGE FEATURES



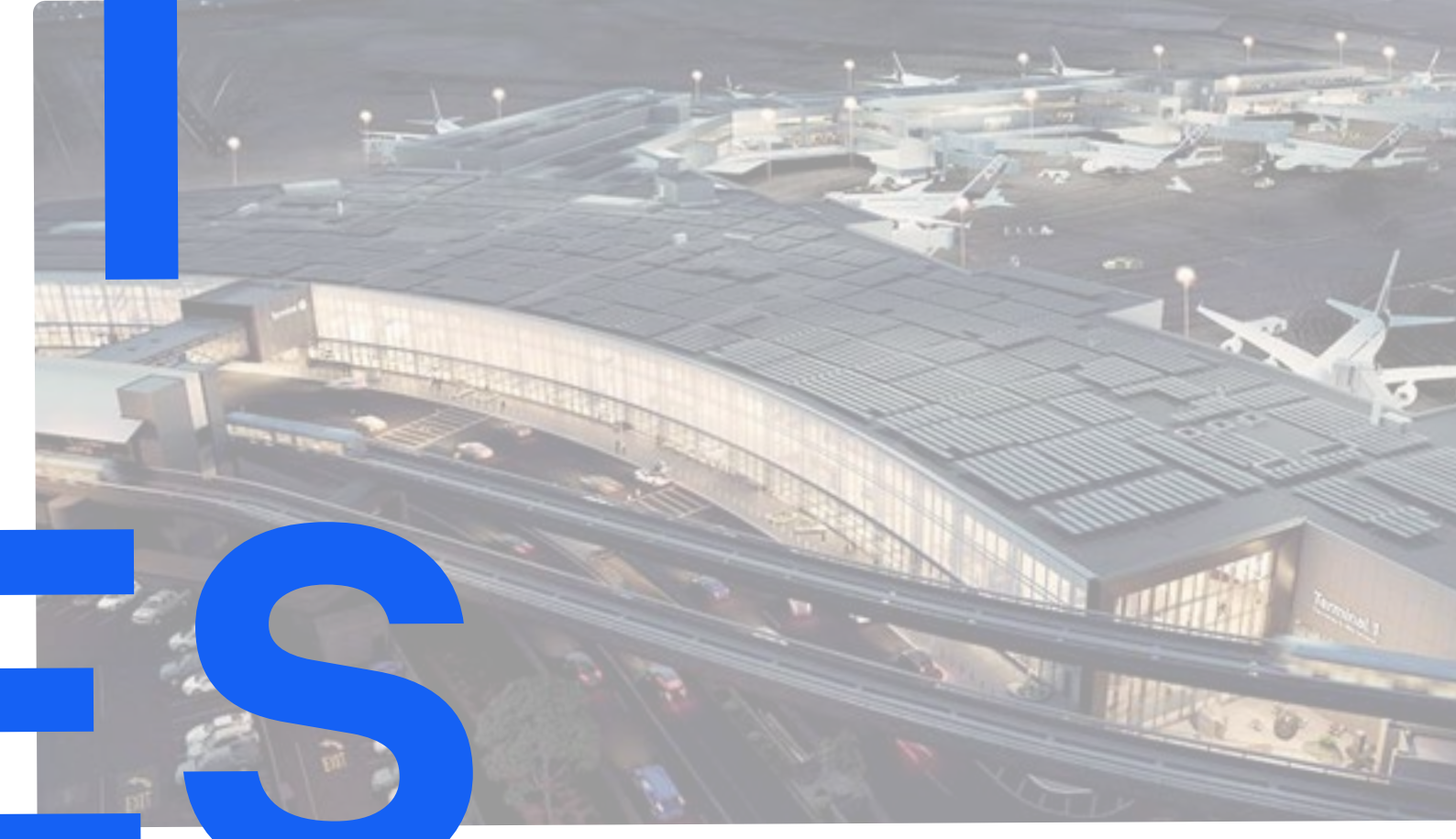
Construction & Installation Support



Submittal Tracking & Management



Layout Point Creation



PROJECT EXAMPLES





Google Landings

Market Sector:

Commercial Office

Size:

1,089,435 sq. ft.

Year:

2022

Location:

Mountain View, CA

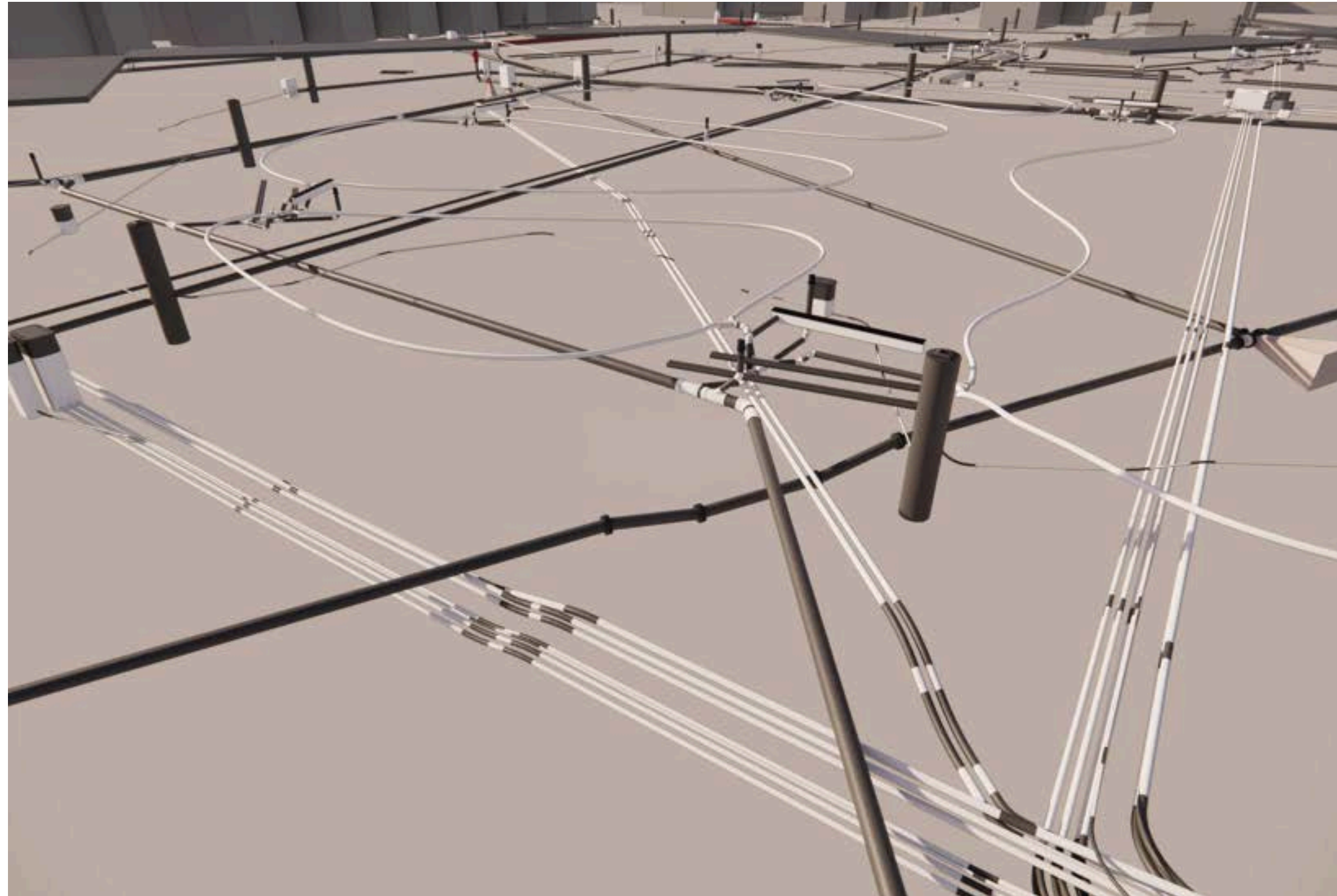
Services Provided:

BIM Coordination Support

Civil Underground Wet Utilities Modeling

Dubbed the Google Landings project, Google is seeking to build out a large part of its tech park in a series of cascading office buildings linked together with a sawtooth roof between Rengstorff Avenue and Permanente Creek. The search giant would also provide publicly accessible open spaces, trails and paths for walking and biking on the site, as well as a pedestrian and bike bridge across Permanente Creek.





South Valley Middle School

Market Sector:

Education

Size:

70,000 sq. ft.

Year:

2021

Location:

Gilroy, CA

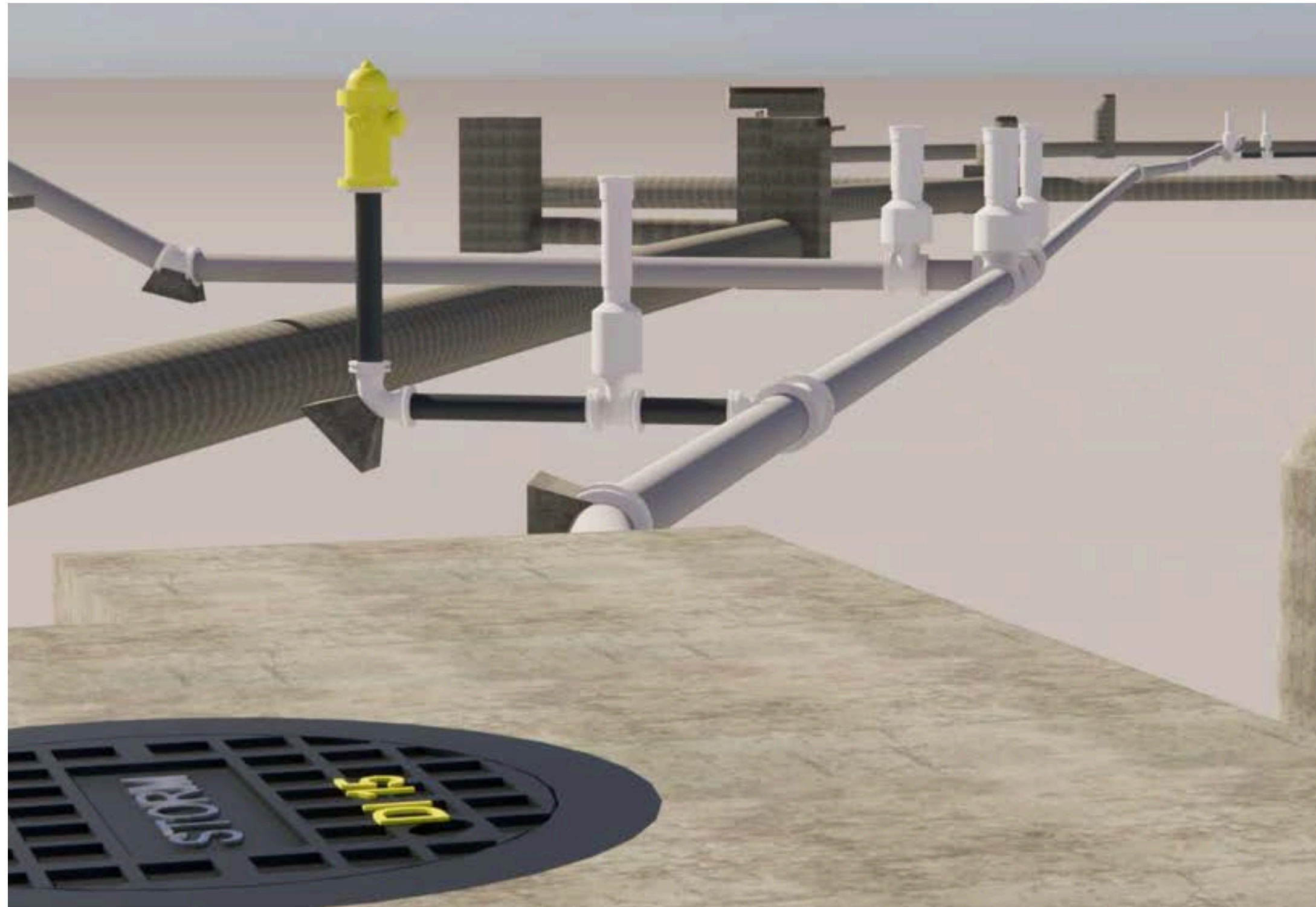
Services Provided:

Onsite Scanning Verification

Civil Underground Wet & Dry Utilities Modeling

South Valley Middle School Modernization campus is approximately 22 acres and consists of 19 buildings that will be reconfigured into a new campus for the existing middle school. Replacement buildings include all new construction for new learning communities, administration, gymnasium, multi-use, food service, library/media center and other academic programs. New construction will consist of approximately 70,000 square feet.





Yondr Allegro South

Market Sector:

Data Center

Size:

1,300,000 sq. ft.

Year:

2022 — 2023

Location:

Northern Virginia

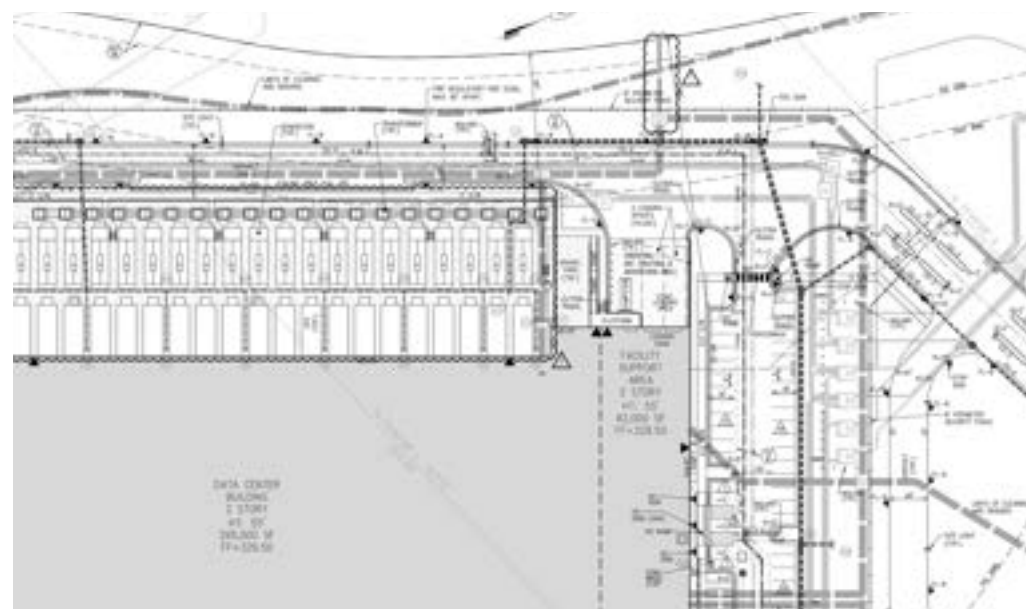
Services Provided:

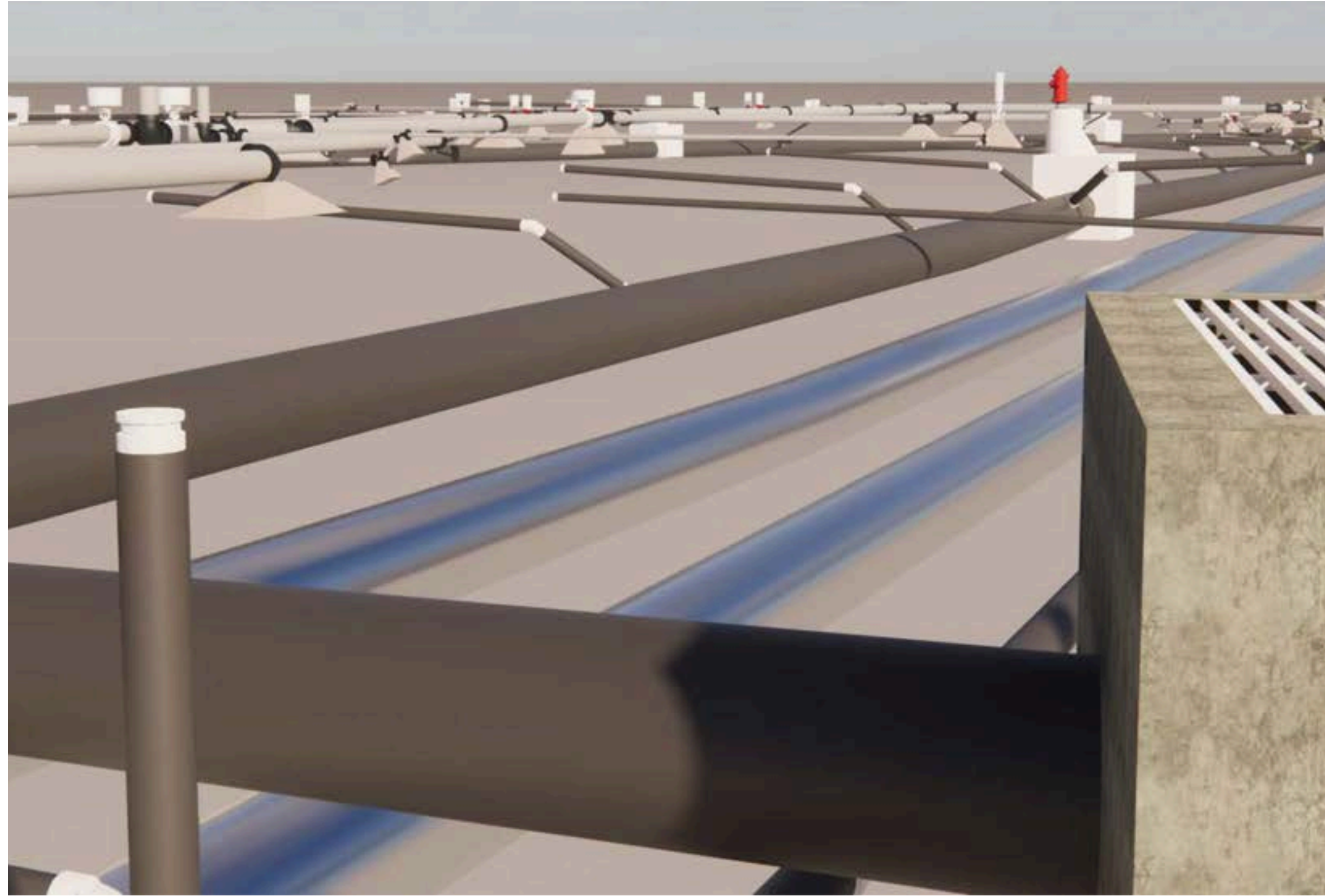
BIM Coordination Support

Civil Underground Wet Utilities Modeling

Upon completion, the Yondr Allegro South Data Center, located in Northern Virginia, will be part of the global data center infrastructure developed by Yondr Group.

“Northern Virginia is the nation’s data center corridor and a strategic metro where we see some of the largest cloud capacity demands,” said Eanna Murphy, COO, Global Design and Construction at Yondr Group





LAX Metro Connector

Market Sector:

Transportation

Size:

460,000 sq. ft.

Year:

2022

Location:

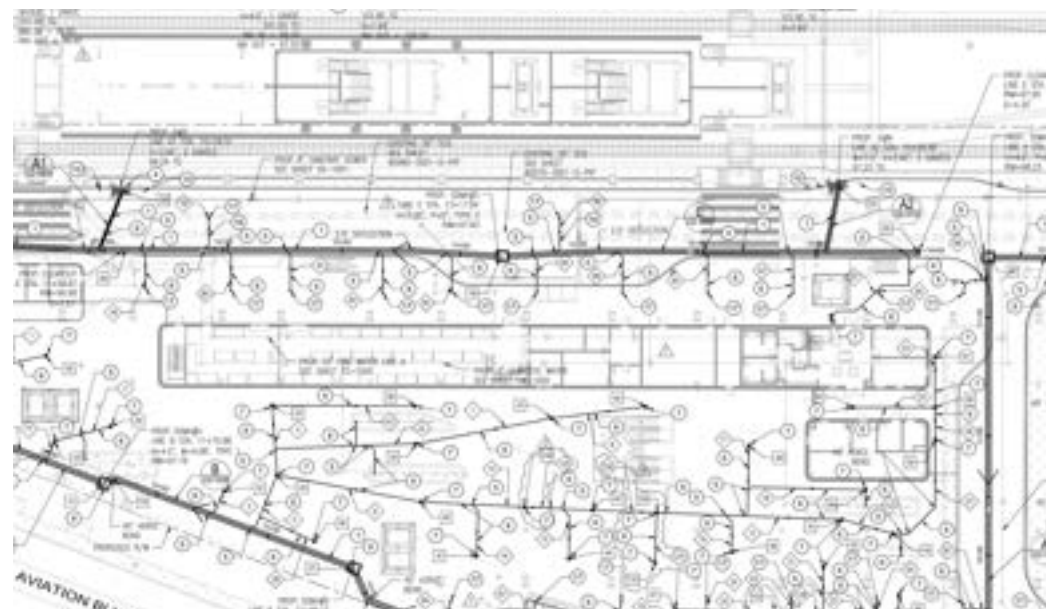
Los Angeles, CA

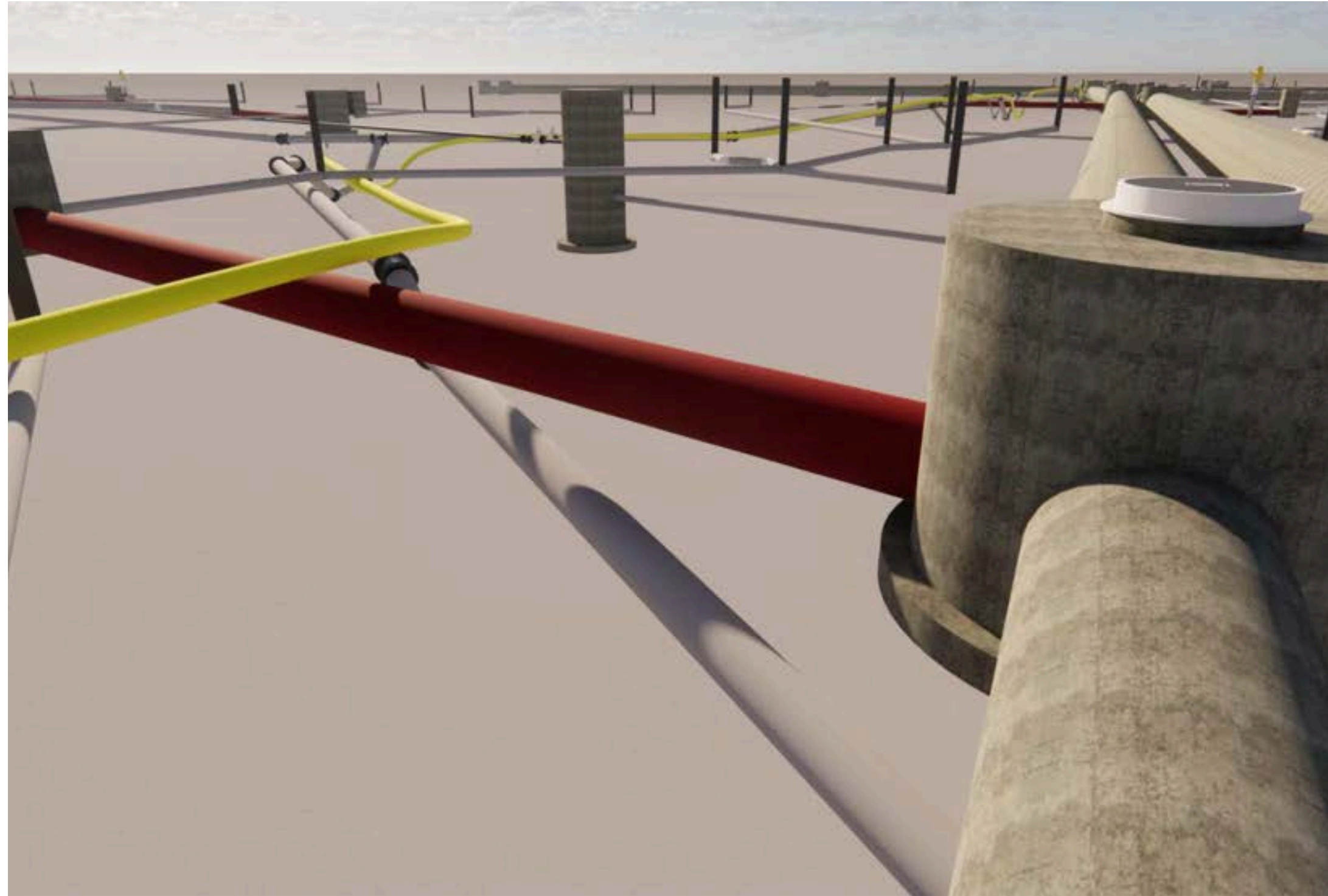
Services Provided:

BIM Coordination Support

Civil Underground Wet Utilities Modeling

Metro's plan for better transit includes a connection to Los Angeles International Airport (LAX) with the Airport Metro Connector Transit Station (AMC) at Aviation BI/96th Street. Once in operation, this new station will let riders transfer quickly and easily between LAX and Metro's network.





Confidential Client Campus Building 22

Market Sector:

Commercial Office

Size:

457,000 sq. ft.

Year:

2019-2020

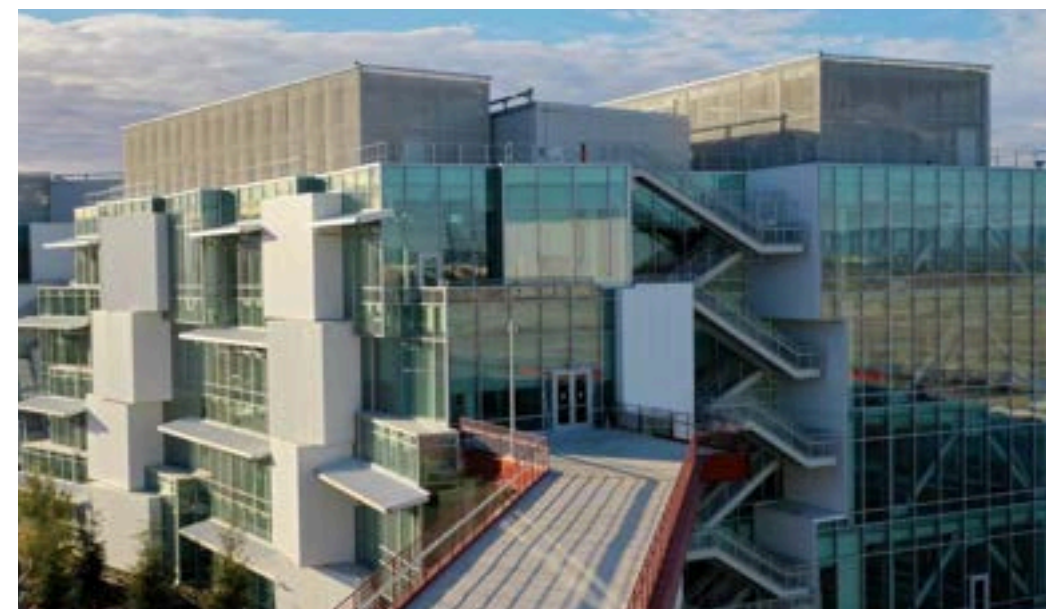
Location:

Menlo Park, CA

Services Provided:

Civil Underground Wet & Dry Utilities Modeling

The commercial office project for a confidential client involved constructing a massive 457,000 sq. ft. campus. The facility includes a 4-story office building, an 8-story parking garage with one underground level, and collaborative spaces like offices, conference halls and cafes. Our team provided civil underground services, like 3D modeling, project management & BIM coordination, civil underground wet & dry, and onsite quality control. Thanks to our contributions, the customer brought its vision for a cutting-edge campus with a great parking garage to life.





Helping the best build better.

[Contact for more](#)

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