SHAPING FUTURES

MT. SAN ANTONIO COLLEGE

BUSINESS & COMPUTER TECHNOLOGY COMPLEX

Tilden-Coil CONSTRUCTORS™

Building with Integrity Since 1938

About Mt. San Antonio College

Mt. San Antonio College (Mt. SAC) is consistently listed among the top 10 colleges in California that transfers students to 4-year institutions. Serving a diverse population of over 60,000 students in the beautiful rolling hills of Walnut, California, Mt. SAC is one of the the largest community colleges in the state. Founded in 1945, Mt. SAC's vision is to "provide access to quality educational programs and services, focusing on student success within a climate of integrity and respect."

Tilden-Coil Constructors has been serving Mt. SAC since 2012 under the Measure RR and Measure GO Facilities Bond Programs, and has served under multiple delivery methods including Lease-Leaseback, Design-Build and CM Multi-Prime.

BCT Complex - The Facts

Architect: HPI Architecture
Delivery: CM Multi-Prime
Size: 100,000 sf
Value: $51 Million
Completion: January 2018
Instructional Space: (28) general classrooms; (17) computer labs; (5) special labs; (1) 80-seat lecture hall

The BCT Complex

Three two-story buildings were constructed into the sloped site at varying elevations. The design team utilized the sloping site to create entrances and lobbies at multiple levels. The buildings were connected through bridges and elevated walkways which provide ease of access within the complex and improved connectivity to the greater campus.

The 100,000 square foot BCT Complex is the campus hub for:

- accounting
- business management
- computer information systems
- consumer studies
- language learning
- culinary arts
- economics
- fashion design and merchandising
- hospitality management
- interior design
- paralegal studies
- nutrition and foods
- real estate

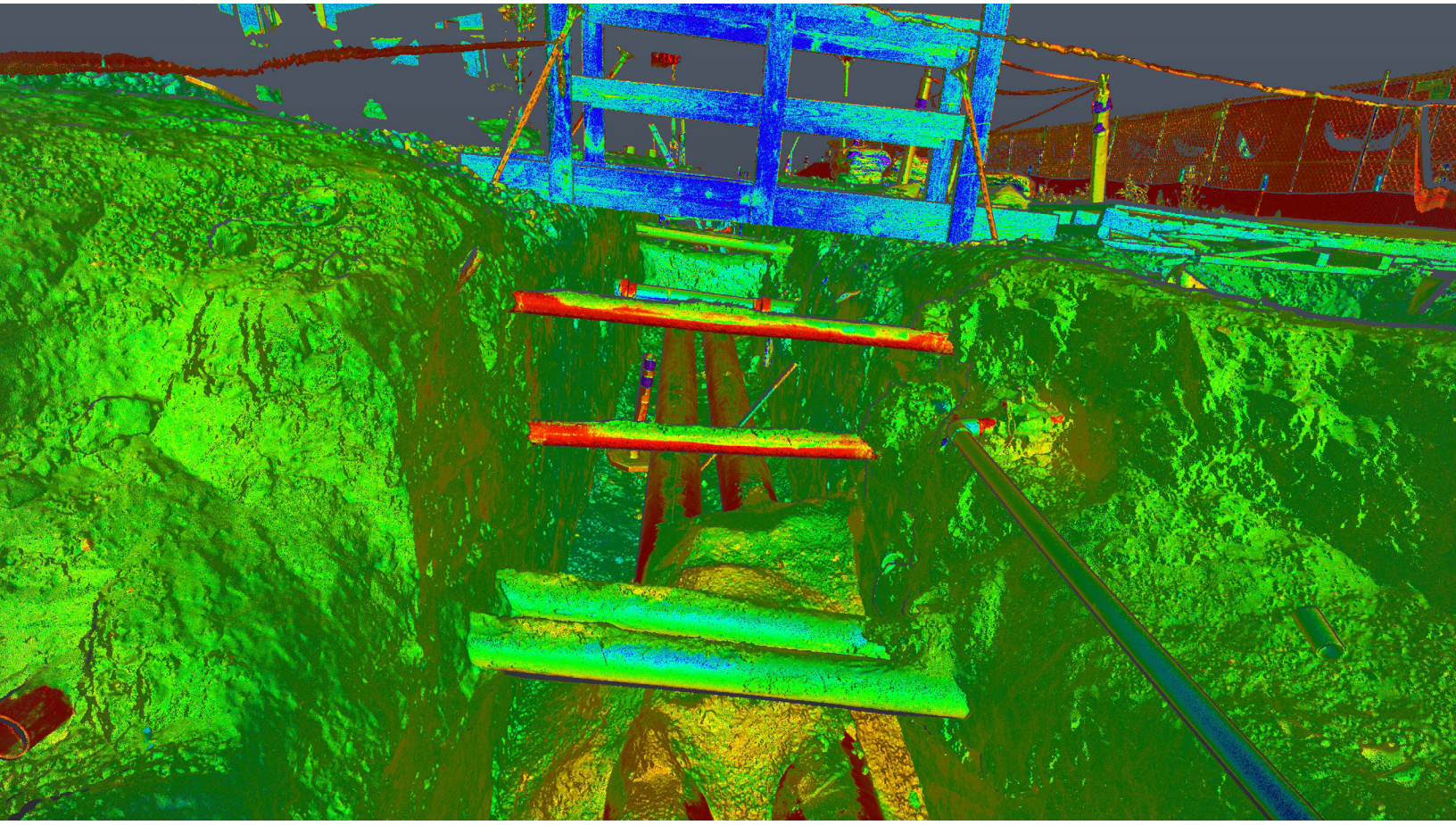
The new complex also includes a variety of dynamic indoor and outdoor learning environments, maximizing student interaction. Within the exterior metal panel veneer are twenty-eight general classrooms, seventeen computer labs, five special purpose labs, an 80-seat lecture hall, conference facilities, division and faculty offices, student club meeting space, campus store, and a student run café.

The café includes indoor and outdoor areas, a commercial kitchen and teaching lab for the culinary arts program where students learn all aspects of restaurant hospitality from pastry classes to managing a dining room.

Tilden-Coil, HPI Architecture and the College worked together in partnership to develop a work plan that fostered communication and aligned activities with expectations of the College and project stakeholders. This collaborative work plan allowed the team to proactively manage schedule, cost and quality elements of the project with the expectations of the College. The new BCT Complex ultimately finished within budget and on-schedule; ready for students in the Spring 2018 Semester.

Building Information Modeling

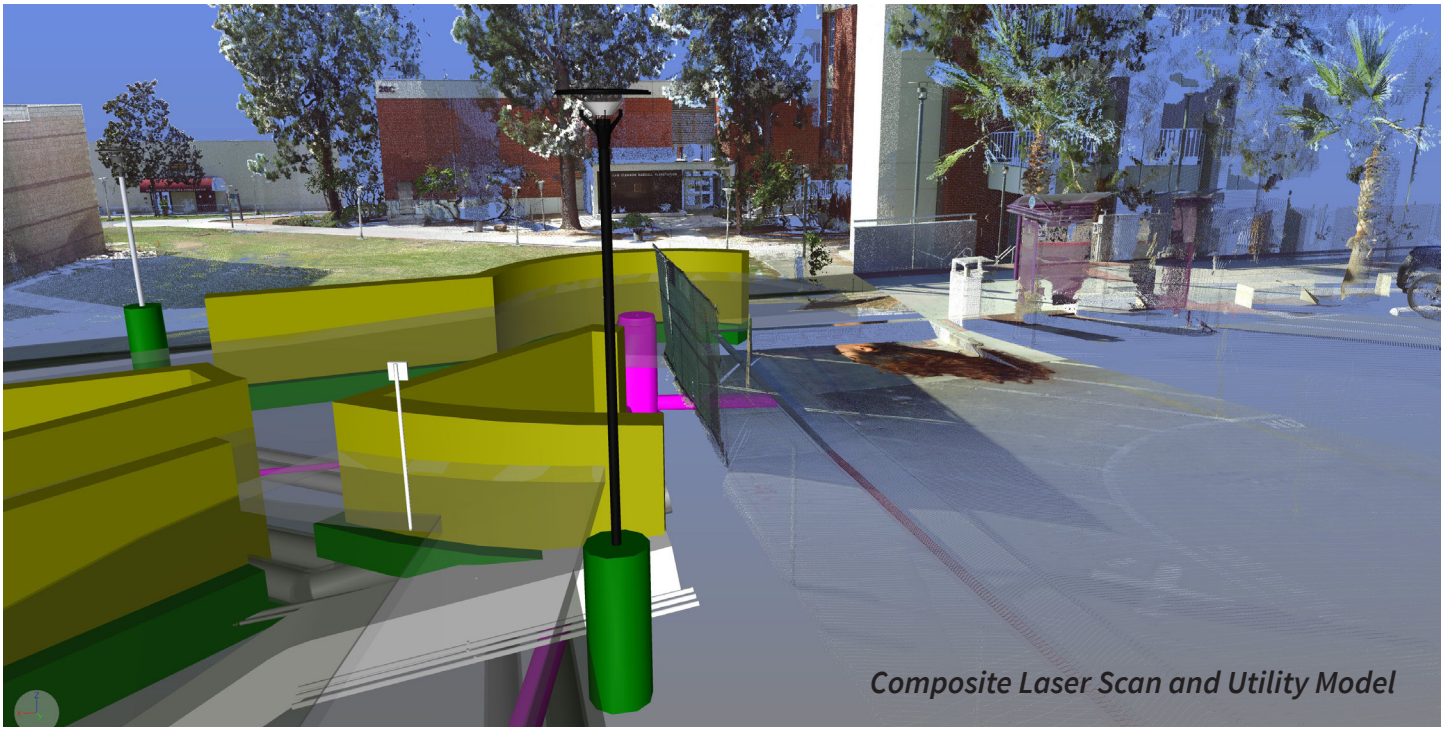
Tilden-Coil utilized their in-house Building Information Modeling (BIM) Team to effectively coordinate the extensive rerouting of site utilities within the tightly constricted site.



3D Laser Scan of Pipe Trench

During the grading and excavation of the project site, the team used a 3D high definition laser scanner and robotic total station to document underground utilities as they were uncovered and subsequently re-buried shortly thereafter. Laser scanning the precise location of these utilities allowed the team to integrate the precise location of all uncovered utilities into the BIM coordination model and leverage this data later on during construction.

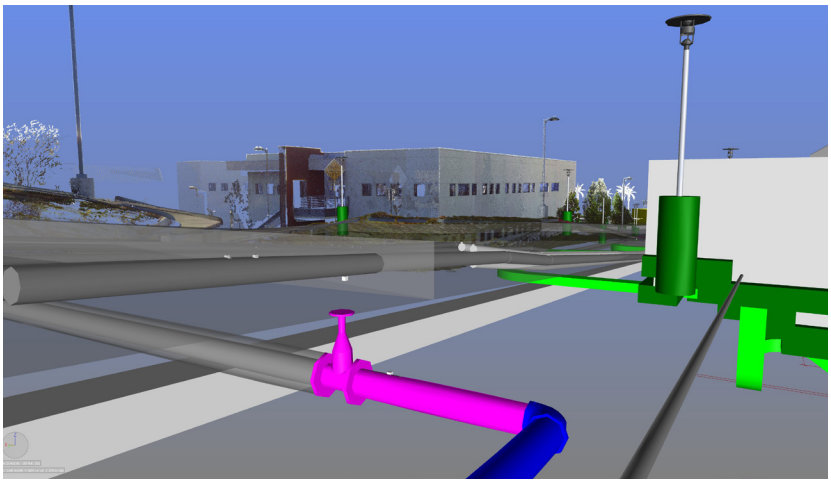
Survey of Uncovered Utilities



Composite Laser Scan and Utility Model

Working closely with the design team, the BIM Team was able to recommend alternate routing that would avoid future conflicts with existing conditions and the new utilities serving the BCT complex while maintaining design intent. This also eliminated the need for subcontractors to pothole for locations of utilities they had to connect to, because these locations were precisely located in the 3D model and shop drawings. Having the coordinates of these utilities meant that the team could provide pin-point accuracy of the location and depth below current grade as needed.

When constructing the adjacent two million gallon underground thermal energy storage tank (pictured to the right), Tilden-Coil coordinated and laid thermal energy storage lines to accommodate the three building BCT Complex. Utilities, pedestrian access ways and site retaining walls were coordinated simultaneously to deliver road access for faculty parking a month earlier than scheduled.



Composite Laser Scan and Utility Model

Two Million Gallon Thermal Energy Storage Tank

"Much of the construction work has taken place at the heart of our very active campus, and Tilden-Coil has navigated these logistical challenges with skill and expertise. The importance of this cannot be understated, as Mt. San Antonio College is amongst the largest community colleges in California."

Gary Gidcumb, Senior Manager, Construction Projects Facilities Planning and Management, Mt. SAC

During construction, Mt. SAC was developing a state-of-the-art campus standard for audio visual and information technology. Tilden-Coil facilitated these advancements into the BCT Complex for study and inclusion into future campus buildings while still delivering on-time completion for the Spring semester. Tilden-Coil Constructor's relationship with Mt. San Antonio College and HPI Architecture is a living example of a highly valued partnership that seeks to shape futures!

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