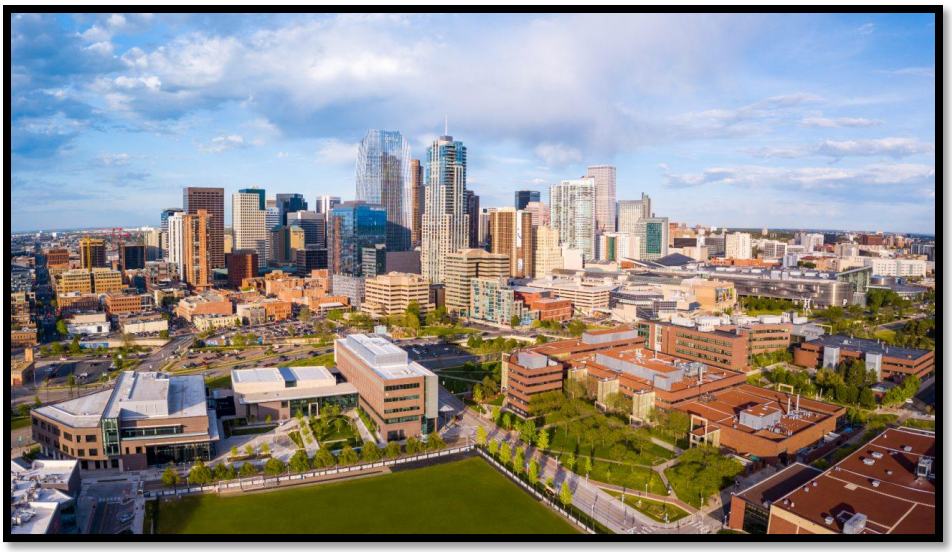
ASSOCIATED SCHOOLS OF CONSTRUCTION COMPETITION

College of Engineering, Design and Computing
UNIVERSITY OF COLORADO **DENVER**



CU Denver Contracting

Cory Stanek

Ryan Thomson

Jacob Donaldson

Merlina Montalvo Campos

A report submitted to the University of Colorado at Denver, Civil Engineering Department in partial fulfillment of the Senior Design course

CVEN 4067 | SENIOR DESIGN | SPRING 2021

Submitted May 11, 2021

DEDICATION & ACKNOWLEDGEMENT

Our team would like to dedicate this project to and acknowledge key mentors, advisors, and sponsors that were integral to the team's participation, preparation, and performance in the 2021 Associated Schools of Construction competition.

Team faculty advisor and coordinator Heidi Brothers provided the vision for the involvement of the University of Colorado at Denver to represent the school in the competition. She was critical in the formulation of our team and connection with our coaches. We offer a special thanks to you for your support and furthering the value and experience of the Construction Engineering and Management program, Civil Engineering department, College of Engineering, Design, and Computing, and the University of Colorado at Denver as a whole.

Our team would also like to thank two employees of construction company Milender White, Michael Friedler and Aaron Peterson, who were crucial to our preparations for the competition. Their leadership and mentorship to our team proved invaluable when we began the competition with familiarity in softwares, analysis procedures, team roles, and construction methods that were vital to fulfilling our responsibilities assigned to us. Thank you for your guidance and encouragement to accomplish this assignment.

We would also like to thank Layton Construction who provided the teams competing in the Region 6 Mixed-Use competition with our project assignment. They have shared their work and personnel to provide teams with a very real and practical problem and to provide feedback for our edification. Thank you for providing us the opportunity to work on one of your projects.

We also place on record our sense of gratitude to everyone who, directly or indirectly, helped us prepare and finalize this project.

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May 11, 2021

Layton Construction
8961 Research Drive Suite 100
Irving, California 92618

Re: Request to Bid
ASC Mixed Used Competition Team
11850 Whittier Boulevard
Whittier, California 90601

Dear Selection Committee,

Thank you for your interest in CU Denver Contracting as a partner in Phase One of the Groves at Whittier. We want to not only share our expertise in this product type but also express our true commitment and desire to be a part of this important project. Our proposal includes safety, risk, management, cost estimating, and scheduling plans. In addition, we include value engineering ideas based on this constructability analysis.

We look forward to the opportunity to discuss, in more detail, your team's goals and visions and how we can creatively meet them while also meeting critical milestones and targeted schedule dates.

Our team is an outstanding match for the Groves at Whittier. Merlina Montalvo, Project Manager, has led several construction projects that totals $350 million in construction volume. Ryan Thomson, Project Superintendent, has a decade of experience and has worked in several historic restoration and renovation projects. Raynard Jokie, Scheduler, he has completed more than sixty-five construction schedules in his career, thirty-two of those were mixed use projects. Iran Chacon Duarte, Project Engineer, brings outstanding proactive vision, team-based skills, and attention to detail. Cory Stanek, Building Information Modeling (BIM) Specialist, creates an effective plan by modeling the schedule and phases in a five-dimensional analysis. Jacob Donaldson, Chief Estimator, ensures cost-quality-time balance and creates possible alternate to guarantee schedule and cost is not impacted by these types of unforeseen conditions.

Finally, we hope our proposal narrative expresses the depth of our commitment as an experienced builder. It is our practice to negotiate each preconstruction and construction contract to meet specific client and project needs, and we look forward to an opportunity to do this together. We also hope we can meet soon to discuss our proposal in more detail. In the meantime, please contact us with any questions.

Sincerely,

CU Denver Contracting

University of Colorado Denver, School of Engineering, Design, and Computing.
P: (303) 315-7170
1201 Larimer Street
Denver, Colorado 80204

Competition Background

The Associated Schools of Construction organization sponsors regional competitions each year to provide university students with an opportunity to work as a team to tackle a real construction management and engineering problem and to deal with issues as part of submitting a proposal and giving a presentation. Some of the specialized tasks include quantity take-off, cost estimating, value engineering, risk mitigation, and problem-solving. The team will prepare a request for qualification (RFQ), request for proposal (RFP), and give a presentation on the proposal on a mixed-use project. The mixed-use project is an actual construction project that is a multi-use development with public amenity spaces and retail stores. The team is assisted in the competition preparation by an industry coach. This project requires skills and planning related to construction management, construction engineering, and other engineering disciplines to complete the estimate. This project is part of the Associated Schools of Construction (ASC) regional competition.

Sponsor Information:

There are several sponsors for this project/competition. There are several regions in the United States of America; however, ASC Region 6 sponsors the annual competition that embodies this competition. The Associated Schools of Construction is the professional association for the development and advancement of construction education, where the sharing of ideas and knowledge inspires, guides, and promotes excellence in curricula, teaching, research, and service. Layton Construction is sponsoring the Region 6 Mixed Use competition in 2021. Layton provides the problem with all the real-life information, the judges for the competition, and has several meetings with the competing teams before and during the competition. The Denver office of Milender White Construction company is supplying the coaches for the team. The two coaches started working with the team in October 2020 for about two hours a week and will increase their time as the competition deadline approaches.

Rules for 2021 Competition

Summary:

i. School must have a good standing with the Associated Schools of Construction, and a membership needs to be paid by competition day.

ii. For the Mixed-Use competition, the teams need to have six currently enrolled undergraduate students.

iii. There cannot be any contact to advisors, alternates, or industry coach during the competition, only communication between team members is allowed.

iv. Memorandum of Understanding (MOU) needs to be signed by every team member.

v. Questions may only be directed to the problem sponsor (i.e., Layton Construction), and it shall be the discretion of the judges whether a response can be given to any question.

The rules applicable to the 2021 competition were last revised September 18, 2020. They comprise of nine categories. The first category discusses school eligibility. In addition to the first point in the summary, schools must be members of the Associated Schools of Construction as a prerequisite for registration.

The second category is about team size, makeup, and eligibility. The parameters are expressed in the second point of the summary. Additionally, substitutions are permitted until the release of the competition problem. Written notice must be provided by the team coach if any changes are made after registration closes.

Thirdly, teams must conduct themselves in the spirit of fair competition and professionalism. The competition period this applies begins when the sponsoring company issues their problem packet and continues until the team presents its problem solution. The third point of the summary dictates the parameters of communication during this time. The team must be isolated (physically or virtually) during the competition with the exception of the faculty coach in the case of an emergency.

The fourth category of the rules discusses conflict of interest. It must be brought to the attention of the Competition Manager if a team member has specific prior knowledge of the competition problem.

The fifth category concerns the problem statements and conditions. The materials presented to the team represent the problem statement and scope of work. Questions are to be directed to the judges as indicated in the fifth point of the rule's summary. When it comes to the team's presentation, only the team members, faculty coach, judges, and individuals authorized by the competition are allowed to attend.

Category six involves new parameters related to the online format of the 2021 competition. During the problem solution phase all team members should be signed into the sponsor's meeting platform with cameras on. The Memorandum of Understanding has more details related to online etiquette.

The seventh category of the rules has been described in the schedule events; it is the registration and timeline of the competition. By October 5th, 2020 teams must be registered to indicate their intent to compete. Withdrawal should be done by December 11th, 2020. Problem sponsors should submit their problem statements by October 5th, 2020. October 19th, 2020 was the opening for schools to register additional teams in the same category, depending on the space available. December 11th, 2020, in addition to being the withdrawal deadline as mentioned earlier, is the day registration closes and no other teams can be added to the competition. Names of team members, the faculty coach, and alternates must also be provided by this date. The signed Memorandum of Understanding was due February 1st, 2021 and check-in to the competition was February 3rd, 2021.

The eighth component of the rules concerns disqualification. It is simple; at the discretion of the competition manager and regional directors a team may be disqualified upon violation of any of the mentioned rules.

The ninth and final section of the rules describes feedback procedures. Problem sponsors will provide each team with feedback based on their performance. Areas of strength and improvement are identified. It is not required for sponsors to reveal team rankings aside from the top three teams. Final scores are also not required to be disclosed; the purpose of the competition is for "student educational development" and the Associated Schools of Construction deem the individual feedback satisfactory to this objective.

Schedule

Monday January 4th, 2021

Email out the Request for Qualifications (RFQ) to teams and put in Box account

Wednesday January 27th, 2021

Have a Zoom introduction meeting with all teams

Wednesday, February 3rd, 2021

11:00 a.m. – Request for Qualifications due (submitted in Box Account)

11:30 a.m. – Layton Construction to introduce Request for Proposal Phase One

12:30 p.m. – 2:00 p.m. Visits by the judges to the teams zoom rooms (virtually)

3:00 p.m. – Request for Information due to Layton Construction (Box Account)

3:15 p.m. - Captain's meeting via Zoom

5:00 p.m. – Request for Proposal Phase One is due - must be uploaded to Box Account

Thursday, February 4th, 2021

8:00 a.m. - Pre-proposal conference (mandatory for all team members)

8:30 a.m. – Layton Construction to introduce Request for Proposal Phases Two and Three to teams

10 a.m. to 11 a.m. - Possible visits by the judges to the team's rooms (virtually)

1:00 p.m. – Request for Information due to Layton Construction (Box Account)

1:30 p.m. - Captain's meeting via Zoom

2:00 p.m. – Addendum issued

6:00 p.m. – Request for Proposal Phase Two and Three are due - must be uploaded to Box Account

Friday, February 5th, 2021

7:00 a.m. – Turn in presentation materials

8:00 a.m. – Presentations begin

4:00 p.m. – Layton Construction to provide debriefing and review of project

Saturday, February 6th, 2021

8:00 a.m. – 12:00 p.m. Associated Schools of Construction Regions 6 & 7 Job Fair

12:30 a.m. Region 6 Awards Ceremony

Team Member Names and Positions

Merlina Montalvo: Project Manager

Ryan Thomson: Project Superintendent

Jacob Donaldson: Chief Estimator

Cory Stanek: Building Information Modeling Specialist

Raynard Jokie: Scheduler

Iran Chacon Duarte: Project Engineer

Nicole Medrano: Team Alternate

Michael Friedler: Associated Schools of Construction Coach (Milender White)

Aaron Peterson: Associated Schools of Construction Coach (Milender White)

Job Descriptions

Merlina Montalvo: Project Manager

As Project Manager, Merlina is responsible to coordinate and oversee the completion of construction projects by managing relevant employees, setting deadlines, communicating with owners, contractors, architects, designers, etc., and ensuring the project is developing according to schedule and budget. She also monitors staff development and safety protocols while assessing risks.

Ryan Thomson: Superintendent

As Superintendent, Ryan has a strong background in supervision of large, complex projects. Responsibilities include site logistics, cost and risk analysis. Job tasks include negotiate contractor prices, establish labor budgets, schedule subcontractors, cost estimating and bid proposal development. He also coordinates and schedules team building, and leadership training.

Iran Chacon Duarte: Office Engineer

As Office Engineer, Iran is responsible for project activities including product data coordination, creating a site logistics plan, and stormwater pollution protection plan, maintaining records of submittals and approvals, mitigating risks in all scopes, and ensuring that material received conforms to contract documents. He also coordinates and schedules punch list and warranty work once a project is substantially complete.

Raynard Jokie: Project Scheduler

As Project Scheduler, Raynard is responsible for developing a Work Breakdown Structure (WBS) for project activities. Scheduling duties also include defining work packages and activities. Using diverse types of logic for each project to ensure milestones are achieved with quality and safety in mind. Raynard also fulfills scheduling duties regarding the executive summary, preconstruction, construction, close out, Gantt chart production, and critical path method (CPM).

Jacob Donaldson: Chief Estimator

As Chief Estimator, Jacob is responsible for project activities including compiling bid forms using information obtained through self-performed quantity take-offs and analysis of subcontractor bids. Jacob also completes value engineering to ensure clients are receiving individual attention where the cost-quality-time balance is considered. In case of failure of subcontractors to complete work as expected, Jacob evaluates possible alternates to ensure the schedule is not impacted by these types of unforeseen conditions.

Cory Stanek: Building Information Modeling Manager

As Building Information Modeling Manager, Cory is responsible for coordinating mechanical, electrical, plumbing, and fire systems. Other responsibilities include modeling the schedule and phases in a five-dimensional analysis, preparing field implementation of the building information model, creating renderings for marketing purposes, as well as a general systems integration and file documentation.

Nicole Medrano: Team Alternate

As a team alternate Nicole was required to cross train in all jobs assuming she might be called in to compete if issues arise with any of the other six team members. Additionally, the alternate competes in a separate single day competition assuming a semi random role with other alternates from separate schools.

Team Preparation

Team building began October 1st, 2021 and groups were formed October 13th. Group meetings were held once a week through December 5th and twice a week through the competition date; February 3rd, 2020. Additional, one on one meetings were held with industry coaches and team members throughout the planning and practice period. Meeting in person also occurred multiple times between October 1st and February 3rd. Each day prior to the competition team members gathered one hour prior to organize as well as prepare for the event. After the competition additional weekly meetings continued to discuss project details as well as compile information.

Analysis Procedures

- **Schedule**
  - Create activity list
    - Phase 1
    - Phase 2
    - Phase 3
  - Estimate activities duration
    - Using RSMeans the daily output of activities is provided
  - Identify resources needed for schedule
    - Using RSMeans the crews can be determined
    - Earthwork
    - Building Construction
    - Renovation
  - Create final schedule

- **Site Logistics** (refer to Exhibit 2, RFP #2 for Site Logistics map)
    - Primary focuses were accessibility and the flow of the site
    - COVID-19 measures
        - Check-in station with temperature checks
            - This would not cause a significant traffic delay as trades would be arriving at different times
        - Entrances and exits in separate locations to keep foot traffic flowing in one direction
    - Delivery truck routes
        - Separate exit from entrance to keep traffic flowing in one direction
        - Goes to material lay down area and back out of the site without obstructing other activities
    - Material lay down area
        - Located near field office, subcontractor area, and all construction activity
        - Large area for delivery access and the storage of some machinery
    - Field Office
        - Placed along truck delivery path to ensure easy access for directing and signing of deliveries
        - Near employee entrance while still also near all construction work
            - Central location allows view of entire site and short walking times to get to any part of the site
    - Restrooms
        - Two per region located conveniently next to offices and construction locations

- Dumpsters
    - Placed adjacent to each construction area on the site

- **Cost Estimate**
    - Review relevant materials provided by Layton
        - General conditions
        - Bid form
        - Subcontractor bids
        - Drawings and specifications
    - Establish activities that require subcontractor selection or quantity take-off
    - Evaluate and compare subcontractors for each activity
        - Identify services performed (and associated cost), any exclusions, alternates, value engineering options, additional fees and liability costs
        - Select best contractor and input cost into bid form
    - Perform quantity take-off on lath & plaster work
        - Phase One: monument sign
            - Use Bluebeam to approximate surface area
            - Apply typical unit cost for lath & plaster installation in Whittier, California
        - Phases Two & Three: Exterior finish of Buildings 1, 4, and 8
            - Use Bluebeam to approximate surface area
            - Refer to RSMeans for unit cost of gypsum plaster on walls, two coats to 7/8” (scaled from data for 3/8”), including overhead and profit expenses
        - Input cost into bid form
    - Complete general conditions

        - For each phase:
            - Identify duration (from schedule)
            - Input staffing requirements (weekly/daily personnel needs)
            - Consider all other administrative and overhead expenses
        - Input cost into bid form
    - Refer to contract and company standards for additional contracting fees such as contingency and insurance
        - Input percentage into bid form

Pre-Problem Statement

As part of Layton Construction's proposed "Mixed-Use Construction" problem, your team will act as a "General Contractor" responding to a multistage Request for Proposal (RFP) for Layton Construction "Owner". It is important that you shed your individual priorities and come together as a team. Your "firm" will be required to respond to the various requirements and will be judged as a cohesive unit as you turn in your deliverables and present to the "owner" in a Virtual interview.

The "owner" (judges) will evaluate all required deliverables and will then compare the responses in an impartial way based on industry knowledge and understanding, to select the best overall team for the project. The judging panel will consist of construction professionals who span the following roles: Superintendent, Project Manager, Estimator, Scheduler, Building Information Modeling Manager, and Senior Manager. These judges will be acting in an assigned role within an owner's "typical" project selection committee.

This year's "Mixed -Use Construction" problem will be a multi-use development with public amenity spaces, and Retail which will be divided into three phases for the Request of Proposal. A Request of Qualification is also required prior to the competition day and after all Request for Proposals have been submitted, there will be a presentation and interview.

Request for Qualifications: This component of the response will be completed by the teams prior to beginning the on-line competition. The teams will act as "construction firms" and will turn in a prequalification packet, which represents their firm, their firm's experience and the specific personnel (with accompanying resumes) they intend to assign to the project. The Request for Qualification response will be due Wednesday February 3rd, 2021.

Request for Proposal: Once they have uploaded or turned in their Request for Qualifications, teams will receive the Request for Proposal electronically (Wednesday, February 3rd, 2021 and Thursday, February 4th, 2021). Just prior to the issuance of the Request for Proposal Layton Construction will conduct a virtual Pre-proposal meeting. This will reflect the official start time of the competition. This Request for Proposal will require response to various aspects of the project as described in this document. Further instructions will be provided at the preproposal meeting, as well as within the addenda issued during the competition.

Presentation & Interview: Teams will be required to formally present their response and qualifications during a virtual interview before a selection committee. The format of the interview will be outlined in the official Request for Proposal. Teams will randomly be assigned presentation / interview times for Friday, February 5th, 2021. Interviews will run for 40 minutes per team. Interviews will consist of 25 minutes of formal presentation and 15 minutes of question and answer. During the Question-and-Answer period, the judge's “Owners” will ask each team specific questions pertaining to the project and clarifications regarding the team’s Request for Proposal response.

Problem Statement

The problem for this year's competition for Mixed Use Construction originates from the Irvine, California office of Layton Construction. Two Request for Proposals were requested this year, Request for Proposal #1 included Phase One and Request for Proposal #2 included Phases Two and Three.

This project is currently in progress by Layton Construction for an established client (this is the second project performed to date with the client). The project is a fourteen-acre Retail Mixed Use Development comprised of sitework, underground utilities, pad preparation, four new buildings, and three renovations of historic buildings. The site is located on the corner of Whittier Boulevard and Sorenson Avenue in Whittier, California and the project consists of:

- Site work including utilities, excavation and cement treated pad preparation for all buildings including the Major tenants.
- Delivery of parcels at specific dates for construction by others (Restaurants, Grocery Store, and Fitness Center)
- Includes four new ground up buildings with mixed tenants including restaurant, food hall, retail, finance, and personal services.
- Includes three historic buildings that are to be preserved and renovated.
- Complete buildout of all spaces to a core and shell condition
- Exterior finishes include Plaster, Precast, Masonry, Glazing Systems, and mixed roofing materials.
- Significant site elements including landscape features, gathering areas, outdoor seating, and decorative exterior carpentry elements
- Project is phased and should be broken down per the provided phasing plan but in general:

- Phase One – Site Utilities, Site Paving, Landscaping, Site Concrete, Building Pad Preparation

- Phase Two – Buildings 1 & 4 (including adjacent sitework and landscaping)

- Phase Three – Buildings 6, 6A, 7, 8, & 9 (including adjacent sitework and landscaping)

Addendum

Each year an addendum to the competition is added with the intention to simulate a change in contract. This year's addendum was given last minute, adjusting the requirements regarding Building 5 as well as soil management.

- Provide protective fencing for Building 5 including all mark up costs.
- Develop a management plan for containing contaminated soil on the project site and illustrate what activities will be performed including mark ups.
- If contractor Rick Hamm was chosen for any part of the contract find and implement an alternative subcontractor.
- Inspections in the City of Whittier are 2-3 weeks behind schedule. Develop a plan to address this set back as to not impact the project schedule.

Competition Components

Request for Qualifications Response. Teams will act as construction firms and will have to provide the following:

- Firm name and contact information
- Key personnel that will be on the project
- Firm and Personnel Qualifications
- Financial Information
- Tangible benefits
- References

Request for Proposal Response. The RFP may contain the following requirements:

- Project Estimate (including specific quantity take-offs as described below, as well as subcontractor bid evaluation)
- Specific Quantity take-offs (General Conditions, Concrete, and other self-performed work)
- Project Schedule – discuss some of the key schedule milestones during construction.
- BIM & Site Technologies
  - Building Information Modeling (BIM)
  - Procore
  - Primavera P6 Scheduling
  - Drone Documentation
  - 360° Photo Documentation
- Site Plan and management

    - Site access
    - Trailer locations
    - Dumpster locations
    - Employee parking
    - Fencing
    - SWPPP
    - Overall Construction Sequencing
    - Coordination with residential general contractor
    - COVID-19 Measures
  - Team Resumes with picture included
  - Discuss members' roles on the project
  - Discuss your safety plan for the project
    - Emergencies
    - OSHA 10-hour training
    - Safety Manager Monthly Visits
    - Subcontractors Safety Qualifications
    - Weekly Safety Audit
    - Personal Protective Equipment (PPE)
    - Vehicular and Public Safety
    - On-site Injuries
    - Concrete Pour Plan
    - Noise Mitigation
    - Dust Control
    - Steel Erection Sequencing and Staging

- Identify potential value-engineering and other cost-saving options
- Describe “lessons learned” from some of your previous similar projects
- Discuss any significant design/construction decisions that you would change with regard to past projects your team has highlighted.
- Discuss potential problems and solutions with regards to building on an active site
- Identify “Risks” and propose “Mitigation” for project-specific problems.
- Uses of Building Information Modeling on this project

Presentation and Interview

- Highlights to your RFP response
- Brief analysis of submitted budget
- How the construction (including site) will be managed
- Possible value engineering
- Identified project risks with planned mitigation methods

Value Engineering

The implementation of value engineering is a critical expectation from the owners in the request for proposal. Cost alone is not a sole concern as the owner values functionality and longevity. With much of the construction at 11850 Whittier Boulevard Whittier, California 90601 including preserving land and restoring historic buildings, the developers are looking for ways to improve the overall site while maintaining a competitive cost.

Opportunities:

- Integrated approaches to contract phases reducing time as well as costs.
- Choosing contractors that optimize cost and value
- Sourcing products such as stucco independently to reduce subcontractor bids.
- Added reinforcement for historical buildings including leveling.
- Offering epoxy injections on concrete showing deterioration.
- Cutting damaged concrete, filling, and adding fiber wraps

Recommendations

After having completed the competition, our team was able to evaluate our own experience to formulate recommendations that would improve the experience for future team members as well as improve the team's ranking in future competitions. Firstly, as CU Denver's Construction Management program grows so too should the promotion of this competition. If students become aware of the competition within their first year of school, they are then provided more time to learn about the competition and, more importantly, take classes that would prepare them for it. A list of competition-relevant classes should be compiled, such as classes on Site Layout or Reading Plans, and they should be advised on general timeframes to take these courses so that the knowledge is acquired before the competition.

Early involvement has other additional benefits. Students that plan on competing could begin meeting each other long before they take the competition; this would allow them to begin assigning roles, in order to know which classes to take, and more importantly begin developing a group dynamic with smooth communication. Early involvement also allows time for students to become familiarized with needed computer programs. Even if students do not take classes that teach them how to use Bluebeam, Revit, or Primavera P6 they could begin practicing on their own time to build proficiency over time that would greatly aid productivity and performance on the day of the competition.

The single greatest factor that prepared our team for the 2021 ASC competition was the involvement of our professional mentors. As the company, Milender White, was sponsoring our CU Denver team they also provided two employees to help equip us in any way they were able. Leading up to the competition, they met with us on a weekly basis to fill in the gaps of our construction management knowledge. They also informed us how the competition would likely be formatted, what topics we should emphasize in our reports, and how to spend our time, how to communicate, etc.; all this information proved to be extremely beneficial on competition day. We strongly recommend that every future team have professional mentors, especially ones that genuinely care about the team's success and are invested in their growth.

Lastly, we recommend a solid structure for the six months of preparation leading up to the competition. Establishing a set time every week to meet in person is crucial. These meetings should be in a quality room on campus with quality resources (such as computers with needed programs for each individual). There should be two half-length practice competition days and one full-length. These days should be a mock run-through that mirrors what the actual day of competition would be like. There should be thorough analysis after these practice days to reflect on needed areas of improvement and general takeaways. Applying these recommendations will greatly improve every aspect of this competition and give CU Denver a greater presence amongst its competitors.

Conclusion & Summary

This report serves to disclose and analyze our team's experience in the 2021 Associated Schools of Construction (ASC) competition. The months preceding the competition consisted of extensive preparation: We deepened our understanding of the construction management process and how to use it for the competition, we developed individual roles with corresponding responsibilities, and we formed a cohesive group dynamic. The competition itself consisted of two long days of analyzing plans and specifications, identifying problems and solutions, and forming all of the information into two separate Requests for Proposal (RFP). After submitting our RFP's, we presented the information to Layton Construction, one of the companies sponsoring the competition and also serving as competition judges. After the judging process was concluded, rankings were announced and eventually our team was given specific feedback on our deliverables.

We are grateful for all the time, resources, and knowledge invested in us to prepare us for this competition. Our experience provided us with invaluable knowledge and hands-on learning of the responsibilities individuals face within the construction industry that will surely benefit us throughout our careers. All of our accomplishments would not have been possible without the support of friends and family as well as the aid of Michael Friedler, Aaron Peterson, Heidi Brothers, and the University of Colorado Denver.

Sincerely,

Jacob Donaldson

Merlina Montalvo Campos

Cory Stanek

Ryan Thomson

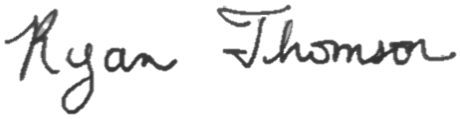


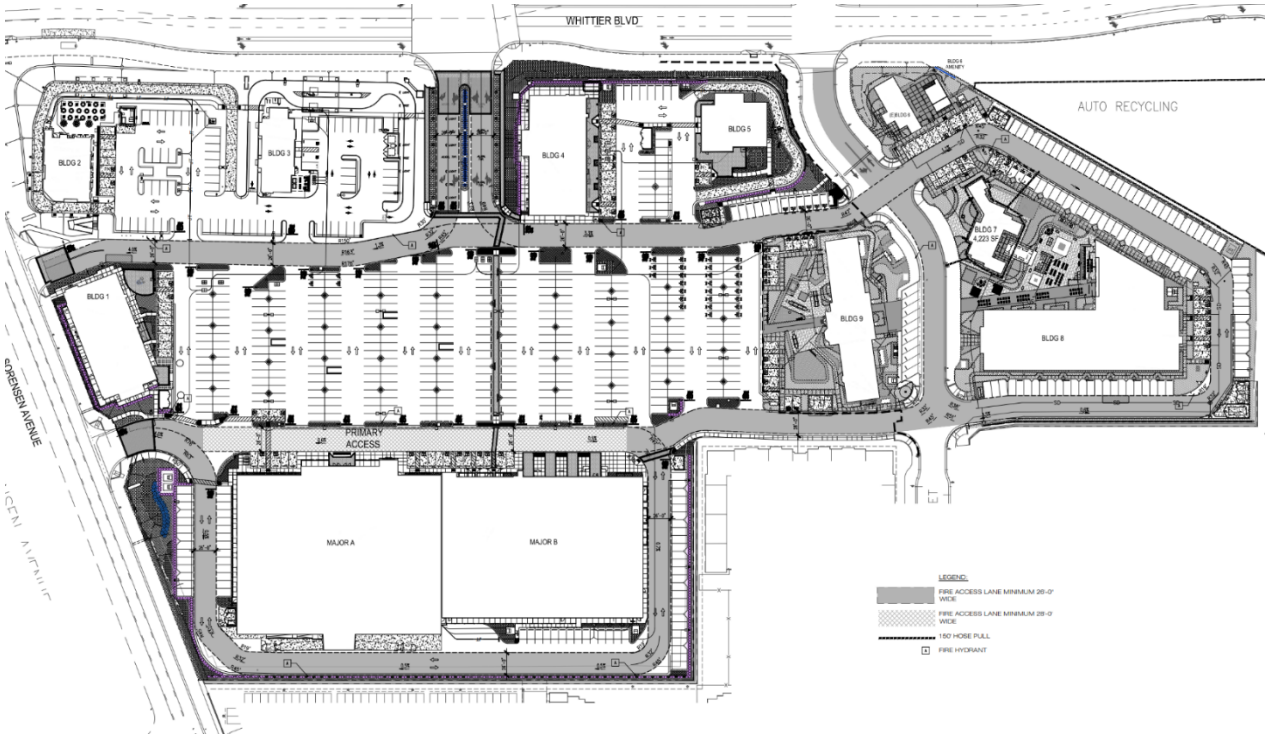
Exhibit 1: Relevant Maps

Layton Construction Site Location

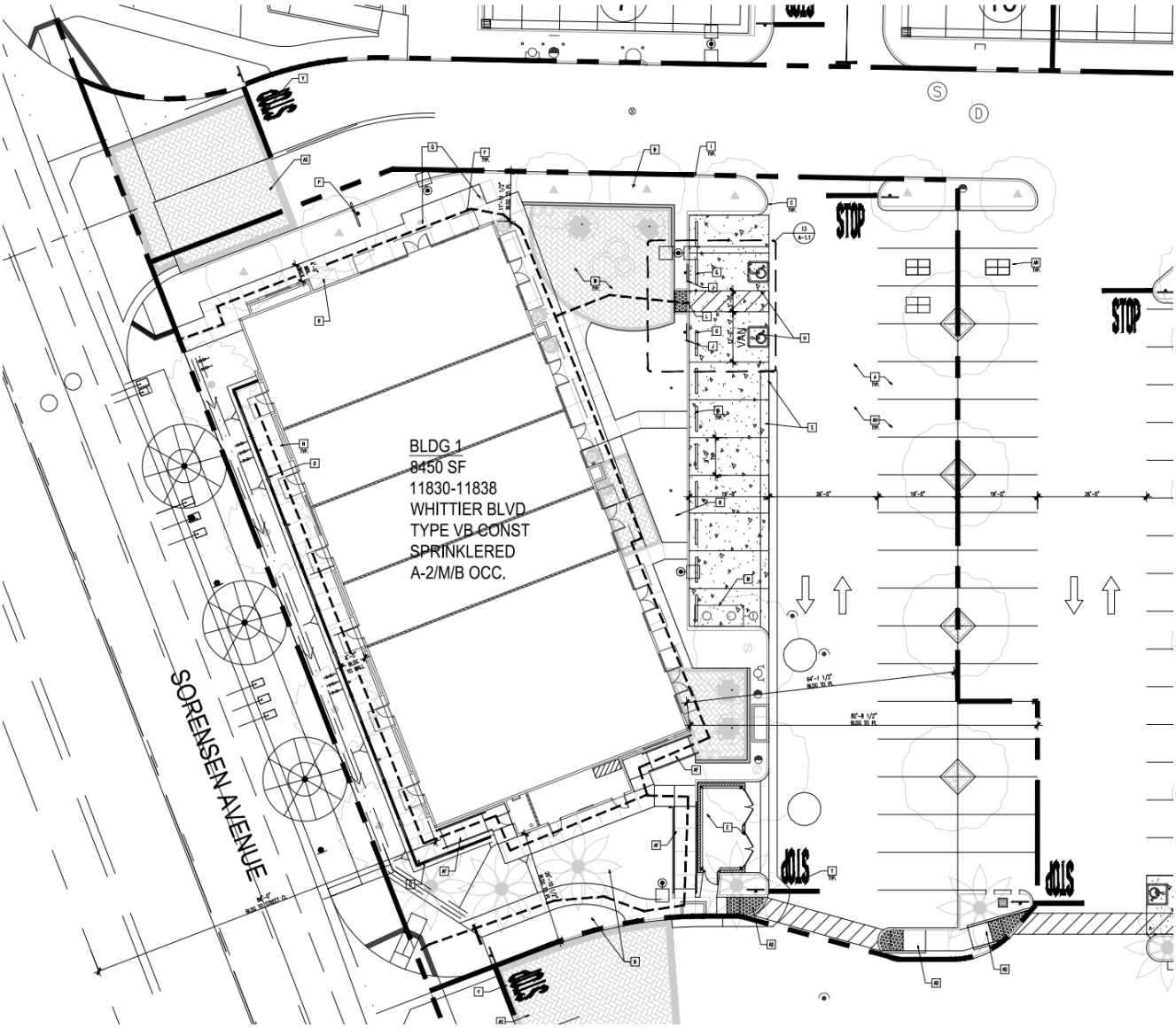
12103 Summer Lane

Whittier, California 90602

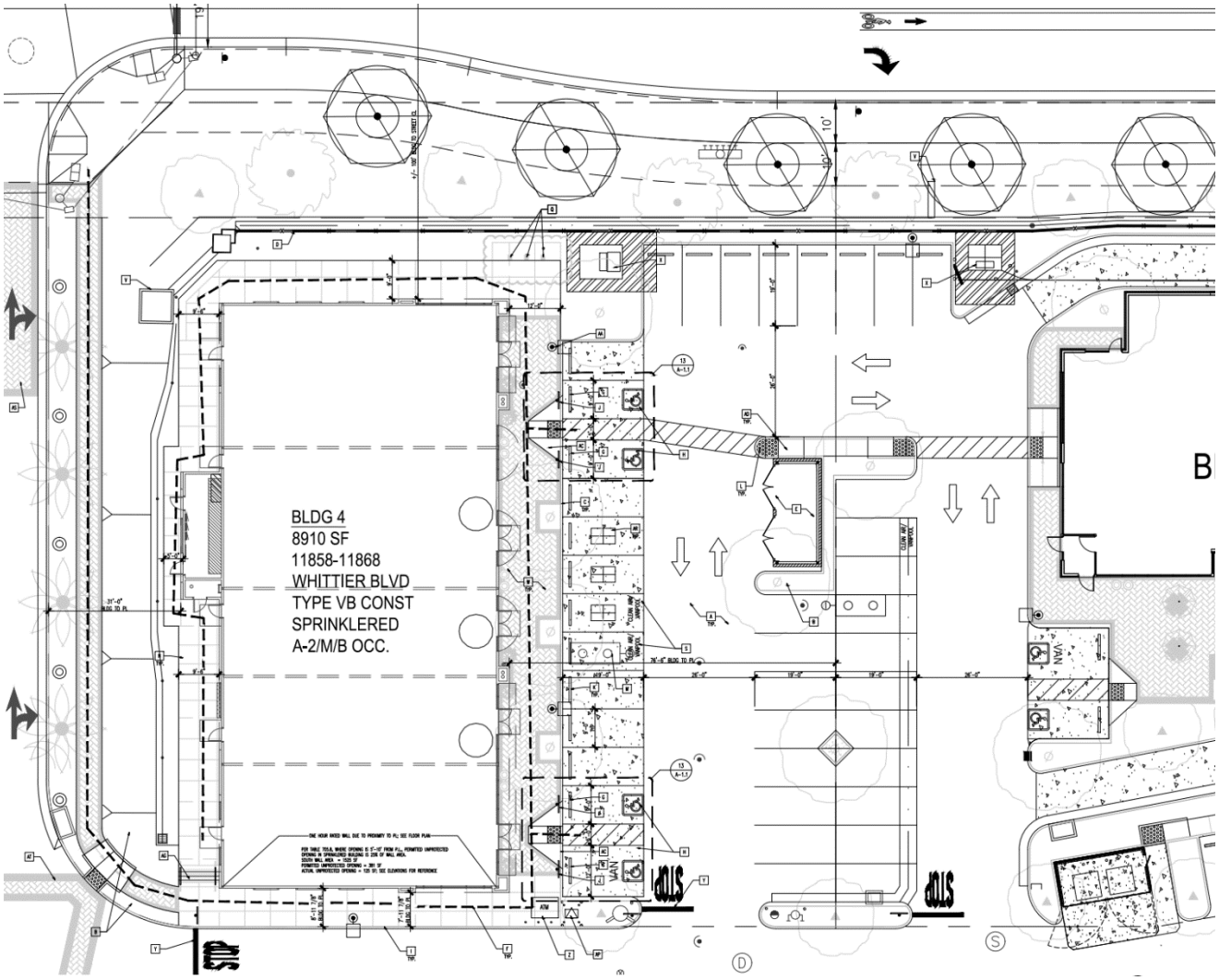
Construction site images from Google Earth



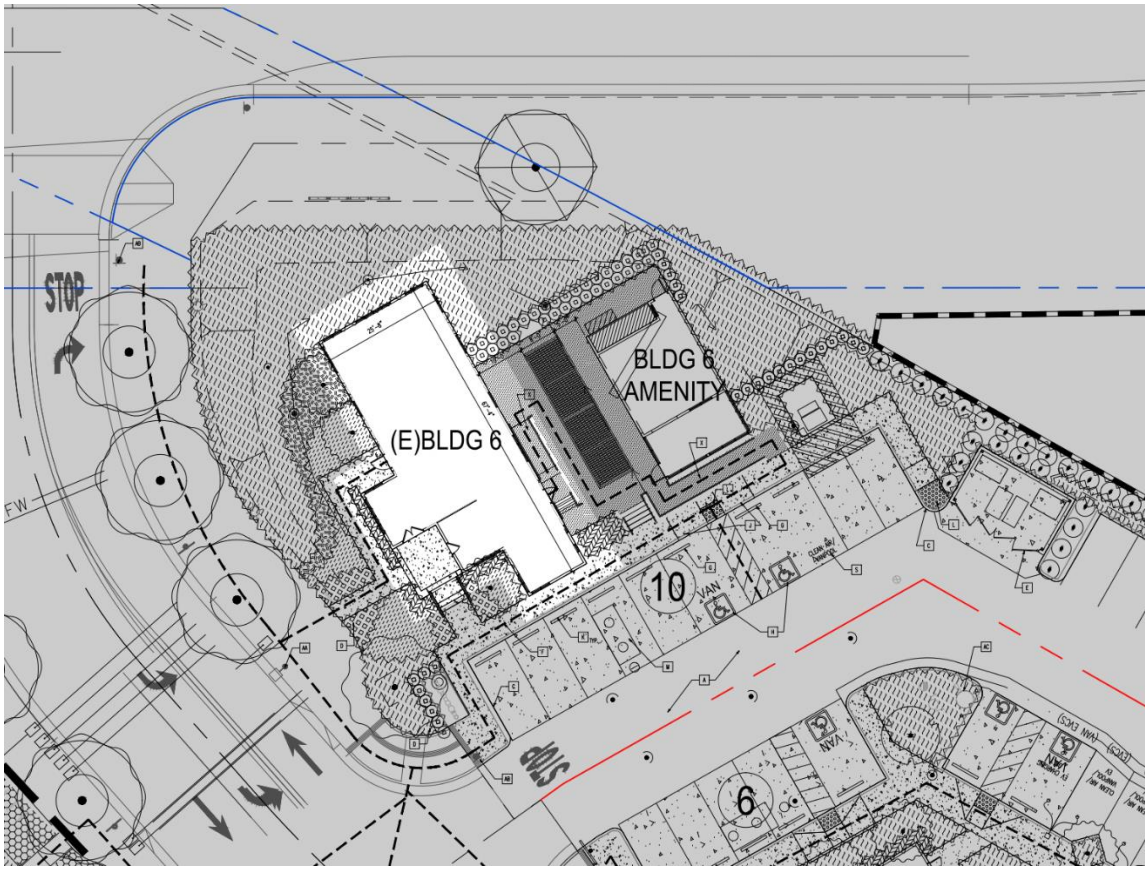
Overall Architectural Drawings



Building 1 from Architectural Drawings

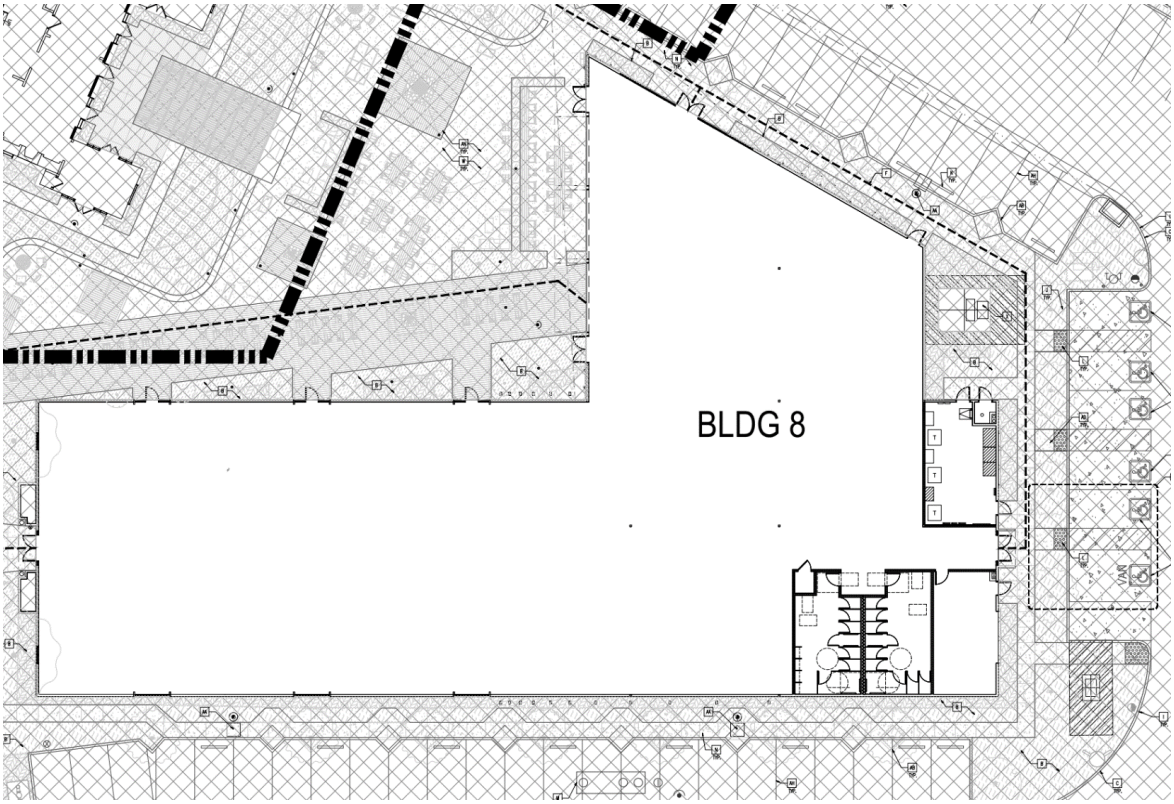


Building 4 from Architectural Drawings

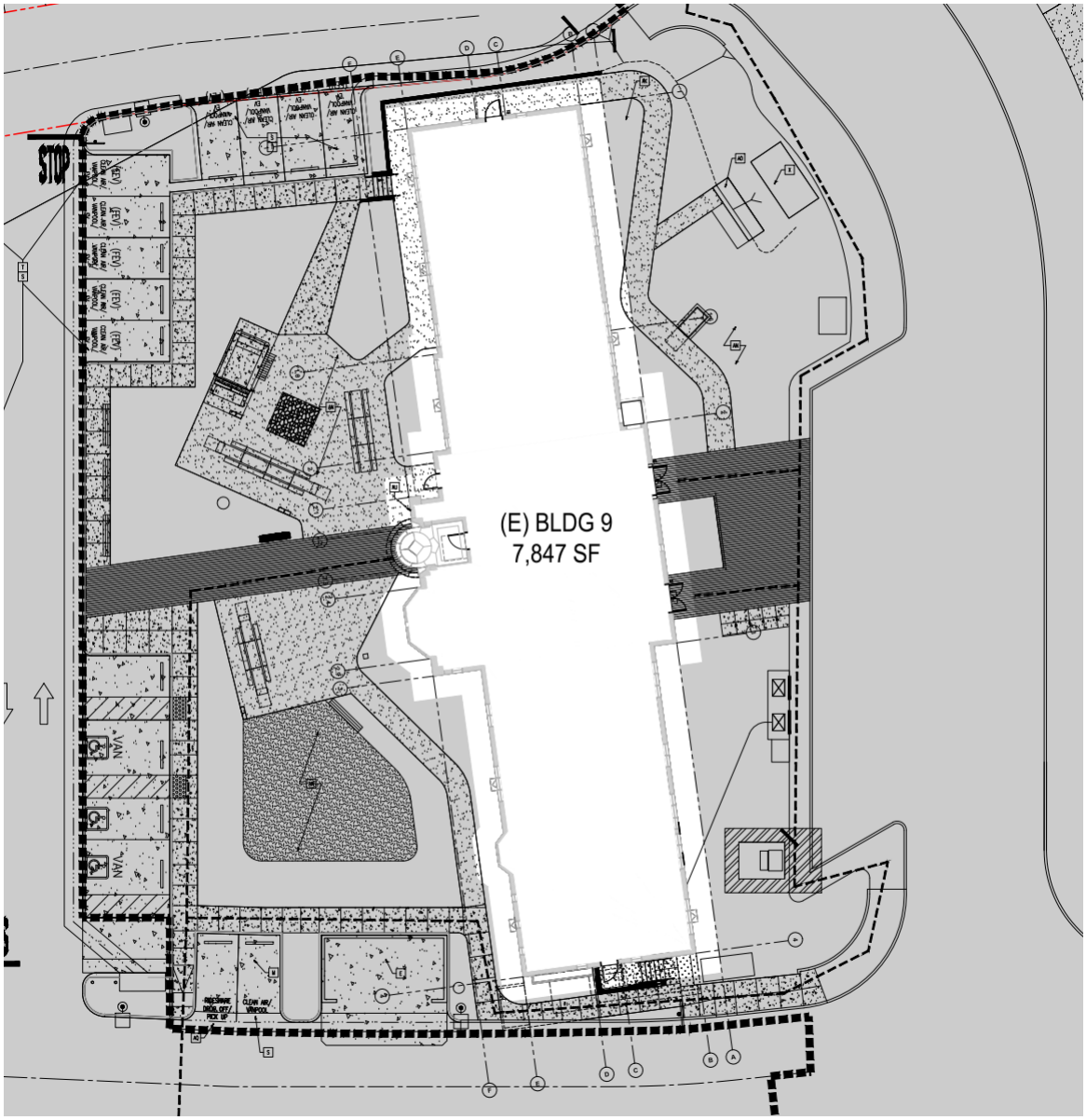


Buildings 6 and 6A from Architectural Drawings

Building 7 from Architectural Drawings



Building 8 from Architectural Drawings



Building 9 from Architectural Drawings

Exhibit 2: Competition Documents (ASC Competition 2021)

Request for Qualifications

2020 ASC

COMPETITION

~~REGION 6~~

MIXED USE CONSTRUCTION PROBLEM

Prepared by Layton Construction Company, LLC
January 6th, 2020

CONTENTS

NOTICE TO CONTRACTORS

Layton Construction is requesting RFQ submissions for the following project:

Project Name: Mixed Use Construction Problem

Project Description: Mixed Use Development; Healthcare Campus Mixed Use

Building Area Square Footage: 500,000 sf total

Layton Construction is pleased to receive completed RFQ documents from firms for the above referenced project. This notice and documentation for RFQ's supersedes all previous information posted on the ASC competition website. Please note that dates may have changed from the original "pre-problem" statement, and it is up to the individual firms (teams) to understand and turn material in as instructed.

Completed RFQ's will be accepted from teams at the ASC Competition on Thursday, February 6, 2020. Teams will turn in their RFQ response to the Layton Construction conference room by 6:30 a.m. Only teams that submit a RFQ will be given the RFP document for the competition.

As stated in the pre-problem statement, Layton Construction will evaluate all teams based on the following three criteria:

1. Response to RFQ
2. **Response to RFP**
3. **Interview**

This document constitutes the RFQ requirement. Teams will be graded on completeness and quality of information submitted. It is important to remember, that all three criteria are important in the competition. It is possible that a firm may score high in the RFQ or RFP, yet score low in the interview and vice versa. With value based selection processes such as this, it is also important to remember that cost is only a small portion of the overall grade, and quite often, cost does not decide the eventual winner.

So with that being said good luck in this first stage of the competition

*** Please note: As a prerequisite to move on to the RFP stage of the project, each
Contractor must submit a response to this pre-qualification package.***

For questions regarding this project, please e-mail Matt Miller, Senior Project Manager, mcmiller@laytonconstruction.com by the time indicated on the schedule.

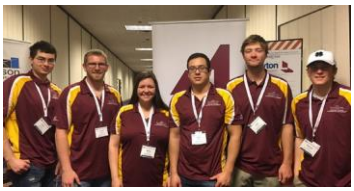
Interested Contractors shall submit their RFQ response to Layton Construction by February 6th, 2020 at 6:30 a.m.
Responses shall be delivered to the Layton Construction conference room located at Nugget Casino Resort in Sparks, NV. Late responses will be marked down as follows

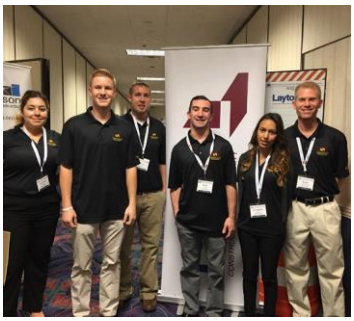
1 to 5 minutes late .....deduct 10%
6 to 10 minutes late.....deduct 20%
11 to 15 minutes late.....deduct 30%
Over 15 minutes late ..... deduct 40%

Only Contractors, who submit the completed RFQ document, will be given the RFP document the morning of the competition.

The contractors shall comply with the license laws as required by the State of Idaho.

DESCRIPTION OF WORK





1. GENERAL DESCRIPTION:

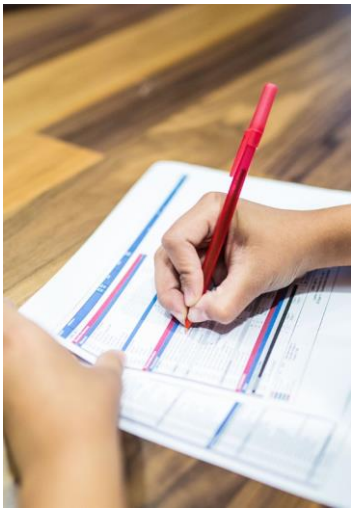
The problem for this year's competition for Mixed Use Construction originates from the Boise, Idaho office of Layton Construction. The full project information, including plans and specifications will be given to each team the morning of the competition in Sparks, NV. For purposes of completing your RFQ requirement, the following preliminary information is being released.

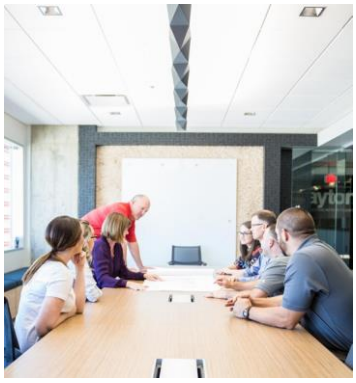
This project is currently in progress by Layton Construction for an established client (upgrading their campus with a mixed-use project). The project is located in the State of Idaho. Several key elements include:

- Site work including utilities, excavation and shoring.
- Includes (2) Buildings with a mix of programs to support hospital services and (1) standalone Parking Garage

  - *Complete buildout of all spaces*
  - *Exterior finish includes Precast, Masonry, Metal Panels, Glazing Systems*
  - *Parking Garage*

Please keep in mind that the description above identifies the project in general. Full plans and specifications along with greater detail will be released to the teams at the competition in Sparks, NV. While putting your response together for the RFQ you need to understand that the evaluating committee is looking to see how qualified your team is with this type of project.





2. SCHEDULE OF DELIVERABLES

Tuesday January 14, 2020

RFQ available on ASC website

Wednesday January 29, 2020

Questions regarding RFQ due to Layton Construction	5:00 p.m.

Monday February 3, 2020

Addendum issued for RFQ questions – posted to ASC website	5:00 p.m.

Thursday February 6, 2020

RFQ due *(Redwood 5 Conference Room)*	6:30 a.m.
Pre-proposal Conference. *(Mandatory for all team members)*	6:45 a.m.
Layton to introduce Problem Statement and RFP to teams	7:00 a.m.
Possible visits by the Judges to the team rooms	7:30 a.m. – 11:00 a.m.
RFI's due to Layton *(Redwood 5 Conference Room)*	11:00 a.m.
Group meeting to discuss RFI's *(one member per team)*	11:15 a.m.
Team Competition and Addendum issued *(all team members must be present. Teams that do not have full attendance during this time will be penalized 10% off their total score.)*	11:30 a.m.
Possible visits by the Judges to the team rooms	1:30 p.m. – 5:30 p.m.
RFP due *(Redwood 5 Conference Room)*	10:00 p.m.
Teams draw presentation times *(first come first draw)*	10:00 p.m.

Friday February 7, 2020

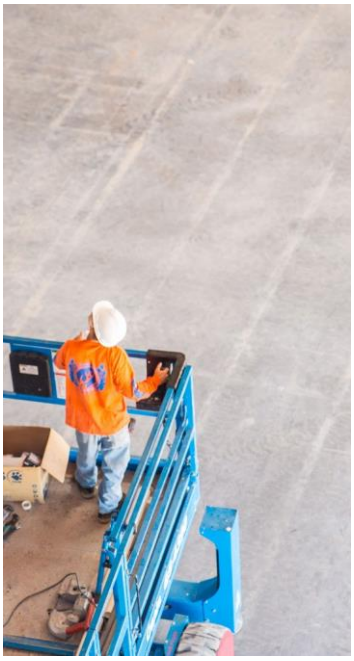
All teams turn in presentation materials 6:30 a.m.

Presentations begin	8:00 a.m.
Layton Construction to provide debriefing and review of project	5:30 p.m.

Saturday February 8, 2020

Career fair 8:00 a.m. – Noon

Region 6 Awards Ceremony	10:00 a.m.



3. SUBMITTAL DUE DATES AND TIMES

All required submittals must be delivered to, and be received by, Layton Construction prior to the time indicated in the Schedule of Deliverables. Submittals received after the specified time will be marked down as noted above. Please allow adequate time for delivery. The contractor is responsible for ensuring that delivery will be made directly to the required location. It is your responsibility to allow for the time needed to ensure your submission is on time.

4. LAST DAY TO SUBMIT QUESTIONS

All questions must be received by the time and dated listed on the Schedule of Deliverables. Questions must be submitted in writing.

5. ADDENDUM

All responses to questions and requests for clarification will be in writing and issued as addenda to the teams. Responses will be posted on the ACS website as indicated.

Any addenda issued prior to the submittal deadline shall become part of the Request for Qualification and any information required shall be included in your proposal.

6. SELECTION COMMITTEE

The selection committee for the competition will include the following Layton Construction employees:

Matt Miller – *Senior Project Manager*

Kevin Olsen – *Estimator*

Adam Rasmussen – *BIM Manager*

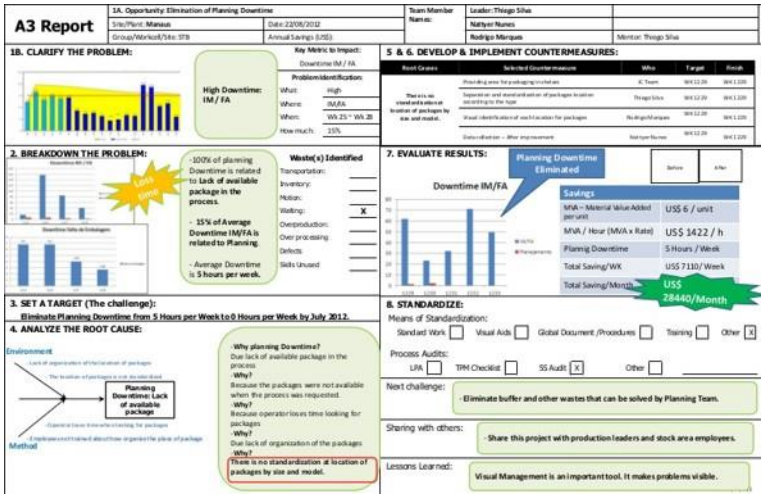
Jacob Calobeer – *Project Superintendent*
Brandon Howell – *Director of Scheduling*
Ross Marchant – *Project Engineer*

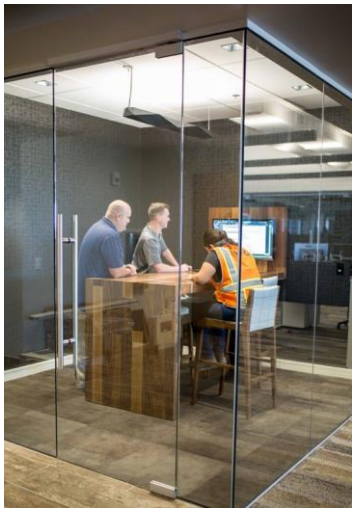
SUBMITTAL

REQUIREMENTS

7. RFQ SUBMITTAL

Teams are requested to turn in the following information by the due date indicated. RFQ responses will be slightly different than in years past and shall be in the following format. Teams will be limited to one (1) 11”X 17” sheet or two (2) 8 ½”X11” sheets. Please include the information below. Remember, this is your first opportunity to show the client that you are qualified to complete this project. Extra points will NOT be allocated for information that has not been requested. **One hard** and digital copy of the proposal shall be provided by the time and date indicated on the project schedule. A rough example of this format is below.





SUBMITTAL FORMAT

Teams are requested to submit the response to the RFQ in an "Executive Summary" style on one sheet of paper no larger than 11"X 17" however, two sheets of 8½"X 11" may be used instead if the project team so chooses. Proposals which are stapled, paper clipped, submitted in any sort of binding medium, or exceed the page size or limit will not be accepted. RFQ should include the following information:

1. Firm name and contact information

2. Key personnel that will be on the project

3. Firm and Personnel Qualifications

Indicate the experience and qualifications of the firm. Include information on similar projects that have been completed by the firm. Include the following items:

a. Firm's past similar experience and brief synopsis including; location, square footage, contract amount, duration, etc. (how many projects?)

b. Separate from this document, please provide your real current resume in normal 8 ½ x 11 format for Layton's use.

4. Financial Information

Teams are requested to provide the following financial information about your firm

a. Bonding company name, contact information, and current maximum single project bonding capacity.

b. Current workload

c. Documentation identifying your firms past five-year revenue averages

5. Tangible benefits

Provide information highlighting some of the benefits to be had by selecting your firm. This should not include common elements of every construction firm, but should be used to set your firm apart from others. Items that could be identified may include the following:

a. EMR Rate

b. Emerging technologies used by your firm

c. Safety and Quality control program "Best Practices"

6. References

a. Include names and contact information of 3 references from previous projects.

1

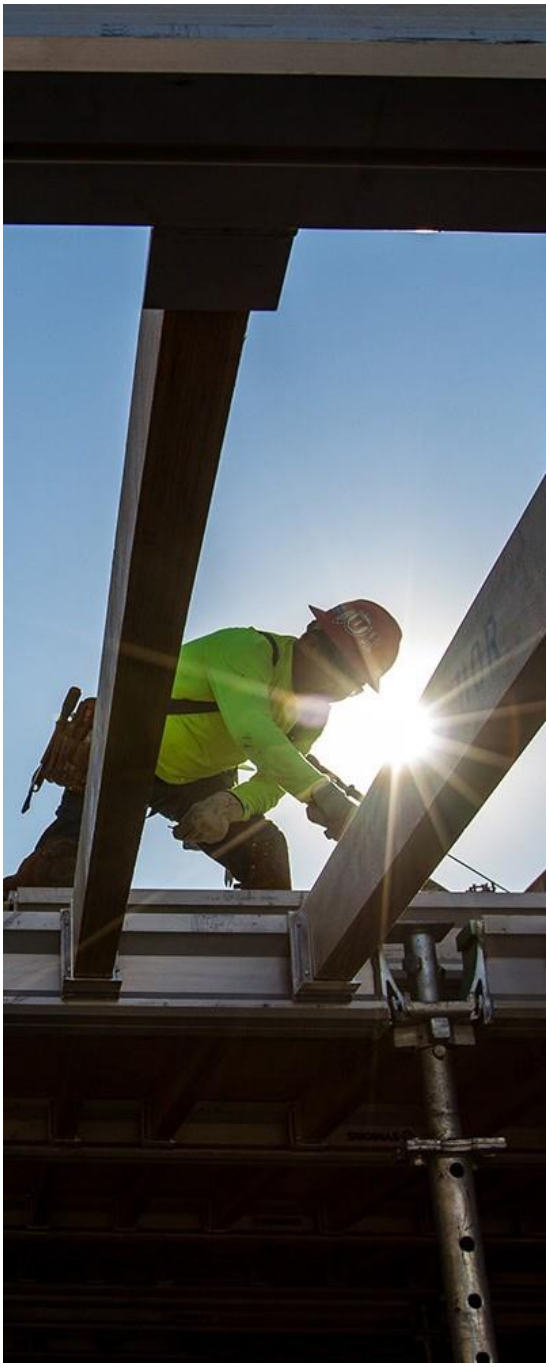
ASC competition

REQUEST FOR PROPOSALS #1 & #2

REGION 6

MIXED USE
CONSTRUCTION PROBLEM

Layton
CONSTRUCTING WITH INTEGRITY



February 3, 2021

Competition Participants,

Welcome to the 2021 ASC student competition. We thank you for your interest in participating in the Mixed-Use problem at this year's competition. Your experience here will be both challenging and rewarding as you expand your knowledge and understanding of the exciting construction career path that you have chosen.

The problem we selected for this year's competition includes typical elements that our company is faced with when responding to an RFP. In fact, this year's problem is based on a project we were awarded which is currently under construction. These experiences will test your skills, teamwork, and ability to work under pressure in an exciting and challenging way.

Best of luck.

Sincerely,

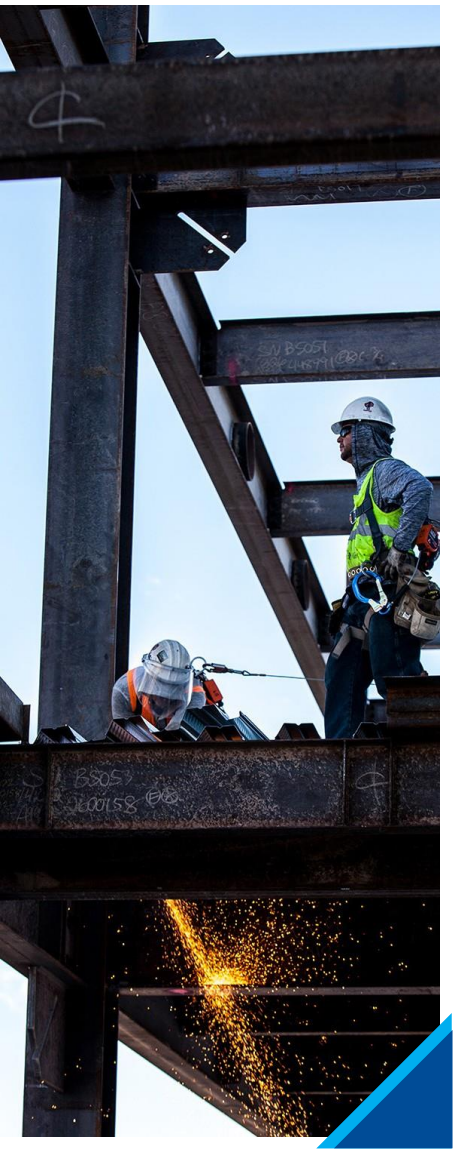
Cory Rhodes

Senior Project Manager

Layton Construction Company, LLC

CONTENTS

NOTICE TO CONTRACTORS



Layton Construction is requesting RFP submissions for the following project:

Project Name: Mixed Use Construction Problem

Project Description: Mixed Used Development, Retail Commercial Development, 14 Acre Site, 140,000 SF New Construction, Historic Renovation Of 3 Buildings

Layton Construction is pleased to receive completed RFP documents from firms for the above referenced project. This notice and documentation for RFP supersedes all previous information posted on the ASC competition website. Please note that dates and times may have changed from the original "Pre-Problem Statement" and the RFQ Stage process, and it is up to the individual firms (teams) to understand and to submit material as instructed.

Completed RFPs (there will be three Phases) will be accepted from teams during the ASC competition on Wednesday and Thursday, February 4th and 5th 2021. Teams will turn in their RFP responses via their Box accounts.

As stated in the Pre-Problem Statement, Layton Construction will evaluate all teams based on the following three criteria:

1. Response to RFQ	15 points
2. Response to RFP	
3. Interview	55 points

This document constitutes the RFP requirement as well as the outline for the Interview stage. Teams will be graded on overall completeness, quality of information, and professionalism.

Responses to the RFP's shall be delivered to the Layton Construction Box accounts at the appointed time. Late responses will be marked down as follows:

1 to 5 minutes late	Deduct 5%
6 to 10 minutes late	Deduct 10%
11 to 15 minutes late	Deduct 15%

COMPETITION SCHEDULE

The RFP and Interview schedule will be as follows. Changes to the schedule will only be made through addenda.

WEDNESDAY FEBRUARY 3, 2021 *(PHASE 1)*

RFQ due (Box Account)	PDT
11:00 a.m.	
Pre-proposal Conference (Mandatory for all team members)	11:30 a.m.
Layton to introduce RFP Phase 1	11:30 a.m.
Possible visits by the Judges to the team rooms (Virtually)	12:30 p.m. – 2:00 p.m.
RFI's due to Layton (Box Account)	3:00 p.m.
Group meeting to discuss RFI's (one member per team)	3:15 p.m.
RFP phase 1 due (Box Account)	5:00 p.m.

THURSDAY FEBRUARY 4, 2021 *(PHASE 2 & 3)*

Pre-proposal Conference (Mandatory for all team members)	8:00 a.m.
Layton to introduce RFP Phases 2 and 3 to teams	8:30 a.m.
Possible visits by the Judges virtually	10:00 a.m. – 11:00a.m.
RFI's due to Layton (Box Account)	1:00 p.m.
Group meeting to discuss RFI's (one member per team)	1:30 p.m.
Team Competition and Addendum issued (all team members)	2:00 p.m.
RFP's 2 and 3 due (Box Account)	6:00 p.m.

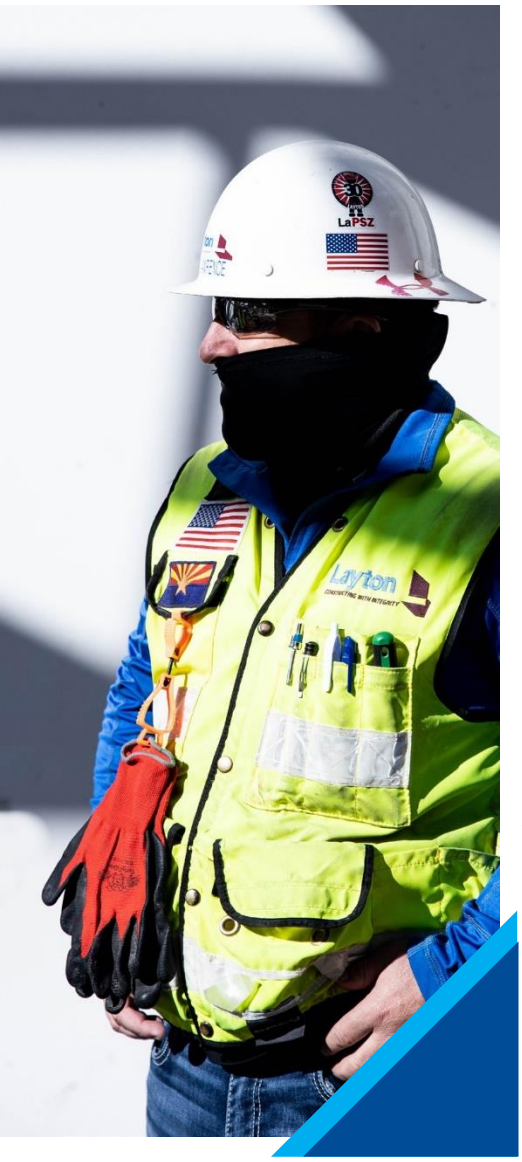
FRIDAY FEBRUARY 7, 2020

Turn in presentation materials	7:00 a.m.
Presentations begin	8:00 a.m.
Layton Construction to provide debriefing and review of project	4:00 p.m.

SATURDAY FEBRUARY 8, 2020

Career Fair	8:00 a.m. – Noon
Region 6 Awards Ceremony	10:00 a.m.

DESCRIPTION OF WORK



The problem for this year's competition for Mixed Use construction comes from the Southern California Office of Layton Construction. We are requesting 2 RFP's this year and will be releasing documents based on when they are required for the respective RFP's.

The project is located in the state of California and includes the following key elements:

- 14 Acre Retail Mixed Use Development comprised of sitework, underground utilities, pad preparation, (4) new buildings, and (3) renovations of historic buildings. The site is located on the corner of Whittier Blvd. and Sorenson Ave. in Whittier, CA.
  - **Phase 1** – Site Underground Utilities, grading/earthwork, building pads preparations, site electrical/lighting, site concrete, asphalt paving, retaining walls, monument signs, and landscaping.
  - **Phase 2** – Buildings 1 and 4 totaling ~17,350 SF of mixed occupancy including adjacent site concrete and landscaping.
  - **Phase 3** – Buildings 6, 6A, 7, 8, and 9 totaling ~34,551 SF of mixed occupancy including retaining walls, outdoor pavilions, adjacent site concrete, and landscaping.

Please keep in mind that the description above identifies the project in general. The Bid Set of plans and specifications are included with this package for your review and use.

All plans, specifications, and bid material are to be deleted or returned to Layton Construction at the conclusion of the competition.

ITEMS SUPPLIED FOR

THIS RFP COMPETITION

As a student team (General Contractor), make sure you receive the following items for use during this competition:

WEDNESDAY FEBRUARY 3RD, 2021

- Project Phasing Plan & Narrative
- Bid Form – RFP #1
- Construction Documents (Phase 1) – RFP #1
- RFI Form – RFP #1
- Subcontractor Bids – RFP #1

THURSDAY FEBRUARY 4TH, 2021-

- ASC Competition Questions
- Contract
- General Conditions Template – RFP #2
- Bid Form – RFP #2
- Construction Documents (Phase 2 & 3) – RFP #2
- General Conditions Template – RFP #2
- RFI Form – RFP #2
- Subcontractor Bids – RFP #2

It is each team's responsibility to make sure that you have the above listed items, please notify us immediately if there are any items missing. Layton will outline and discuss all of the included project documents when the RFP is issued to finalize the list of documents.

RFP SPECIFICS

1. *SUBMITTAL DUE DATES AND TIMES*

All required submittals must be delivered to, and be received by, Layton Construction prior to the time indicated in the Competition Schedule. Submittals received after the specified time will be marked down as noted above. Please allow adequate time for delivery. The contractor is responsible for ensuring that delivery will be made directly to the required location. It is your responsibility to allow for the time needed to ensure that your submission is received on time.

2. *RFIS AND ADDENDA*

All responses to questions and to requests for clarification will be in writing and issued as addenda to all teams. Responses will be distributed as noted in the schedule.

3. *SELECTION COMMITTEE*

The selection committee for the competition will include the following Layton Construction employees:

Cory Rhodes
Senior Project Manager

Jacob Zufelt
Estimator

Jacob Calobeer
Project Superintendent

Drewby Wagnarian
Scheduler

Kevin Cruz
Project Engineer

SUBMITTAL

REQUIREMENTS

Teams are requested to turn in the following information by the indicated due date. RFP responses shall be in the following format. Teams are not constrained by any page limit but are requested to consider the importance of concise information for the reviewing panel. Please only include information for the areas listed below. Extra points will NOT be allocated for information that has not been requested. One electronic copy of the proposal shall be provided by the time and date indicated on the project schedule.

Teams are requested to submit their response to the RFP to their dedicated BOX.com folder, there will be two separate RFP's which will be submitted in accordance with the dates and times in the schedule above. As a general reminder, Phase 1 will be submitted as RFP #1 and Phase 2 and 3 will be submitted as RFP #2, each RFP should contain the following TABs in the format below. There should be two complete RFP's submitted to the selection committee.

The cover page should include the project title, your company logo, pictures as appropriate, date of submission, and any other information deemed necessary.

The Cover Letter should be addressed to the 'Selection Committee' and should highlight your response to the RFP. Please limit the Cover Letter to one page. The Cover Letter is a place where teams should try to highlight a couple of key areas of your RFP response.

The Table of Contents will outline your response.

TAB 1 – TEAM INFORMATION

This section should include a project organization chart, project team members (including project specific qualifications, team member roles/responsibilities, and any other information your team feels will add value).

TAB 2 – BID FORM

Teams are required to complete the bid form provided after careful evaluation and review. This is your official budget associated with this RFP.

As part of this tab the following items should be included for review of the owner:

- General Conditions

- The general conditions for the project will need to be all inclusive, but will be separated by Phase, in other words, the total duration of the schedule will need to be accounted for but the project teams will need to break out the general conditions by phase according to the template provided.
- The general conditions form is provided for your review and use. The general conditions template is not necessarily all inclusive but meant to provide guidance in your estimate. Include the detail in your RFP response. The project team should review the provided template and adjust as necessary to provide adequate coverage for the work.

- Provide a daily rate for General Conditions that can be used for owner caused delays, be prepared to explain this rate to the selection committee.

- *Take-offs*

- Each firm is required to do their own take-offs for the lath and plaster which will be input in the blue cells of the bid forms. Please include the type of finish material, the quantity, and a printout of your takeoffs. Your take-offs must be included as a back up to the bid form.

- *Bids from Subcontractors*

- Each firm is required to submit a complete bid form. You will prepare a number for RFP #1 (Phase 1) and RFP #2 (Phase 2 and Phase 3). You will notice that the bid form contains dollar amounts in most areas but has blank yellow cells that will require you to fill in. Your task is to evaluate the bids provided and put the number and subcontractor name that you would use on the bid form. Please fill out all yellow cells including fee and general conditions. You may provide subcontractor evaluations as backup if desired.

- *Alternates*

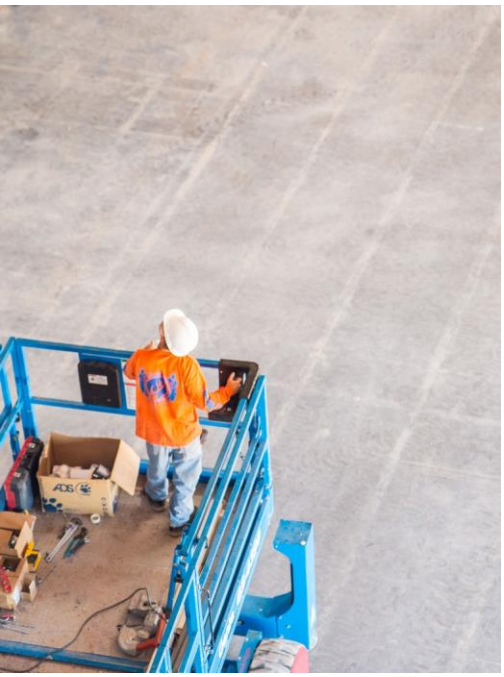
- Firms are encouraged, after a review of the documents, to offer up any appropriate alternates or value engineering options.

TAB 3 – MANAGEMENT PLAN

This tab should include a short write up of how your firm plans to manage the project. Items under this section might include:

- Specific definitions of roles and responsibilities of each team member
- Focus on Site Management
- Include a Site Logistics Plan that shows at a minimum, the following items:
  - Site access
  - Trailer locations
  - Dumpster locations
  - Employee parking
  - Fencing
  - Coordination with residential general contractor
  - COVID-19 Measures
- Management plan should include how you plan to handle the following:
  - Emergencies
  - Concrete pour plan
  - Noise mitigation
  - Dust control
  - SWPPP
  - Steel Erection Sequencing and Staging
  - Overall Construction Sequencing

TAB 4 – SCHEDULE



Each team is required to include a proposal schedule as part of their RFP which should include activities for:

- Executive Summary (Key Milestones)
- Phase 1, 2, & 3 Notice to Proceed Milestones
- Preconstruction (Submittals/Permitting/Procurement – Long Lead Items ONLY, etc.)
- Construction – WBS elements should include: Sitework, Foundations, Structure, Exterior Finishes, Interior Finishes, Closeout, etc.) Broken down into Phase 1, 2, and 3)
- Dates Building Pads Will Be Ready for Major A (Stater Bros.), Major B (EoS), In-N-Out, and Raising Canes
- Closeout (Final Closeout Documentation, Substantial Completion, Final Punchlist, etc.)

The schedule should be in a Gantt chart format with detailed activity description, durations, start/finish dates, total float, and various key milestones as defined below. The entire proposal schedule should not be less than three pages, and no more than six total pages. The following are required for your project schedule:

<u>General requirements</u>:

- CPM *(Critical Path Method)* with critical path activities shown in red
- Activities arranged according to phase *(Preconstruction, Construction & Closeout)*
- Within the Construction phase, further organization by WBS will be required.

Included in the RFP schedule, please produce an Executive Summary at the very top of the first page. This summary will indicate all of the critical milestone dates and durations requested below and any others you deem important to the project. Please include in the Executive Summary a summary bar activity that shows the overall duration for the Building construction and one for the Parking Garage construction.

<u>Predetermined critical dates</u>:

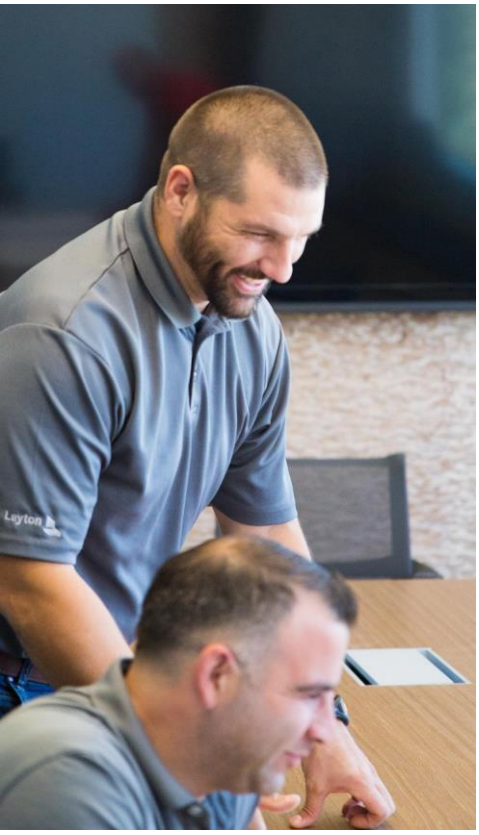
- Mobilization / Start Construction: March 1, 2020

TAB 5 – BIM & SITE TECHNOLOGY

The Owner and Design Team have requested that the General Contractor use Software Tools to ensure that information is conveyed in an efficient manner to the project team. While the owner has not specifically requested Building Information Modeling (BIM) services the General Contractor should prepare a technology execution plan detailing the programs and processes that will be utilized including the added value to the Owner and Design Team.

Provide a detailed Site Technology plan which could include BIM. Explain how your team plans to implement technology on this project. In addition, discuss the feasibility and the advantages of using technology on this project. Your plan should discuss the following but should not be limited to only the specific topics below.

- Continuity and efficiency of information to all Project Team Members
- Site Utility coordination
- Architectural coordination and document control
- Systems integration and file documentation



- Model uses and purposes
- Field Implementation
- Phasing and Scheduling
- Format for Weekly Progress Updates & Jobsite Pictures

The use of modeling and other technology during the team presentation is left to the discretion of each contractor.

TAB 6 – SAFETY, DISEASE, & INECTION CONTROL

Teams are requested to identify and discuss their firm's response to safety concerns as it relates to the construction of this project. Specifically: What is your safety philosophy/policy and how do your field personnel implement it on site?

- How will you protect both the vehicular and pedestrian public?
- What is your firm's EMR rate for the past three years?
- What is your procedure for accident response and reporting?
- What measures are being implemented to protect the craft workers during the construction process?
- How will you keep on good terms with your existing neighbors?
- What procedures will be implemented to prevent the spread of COVID-19 on the project?
- How will subcontractors be held accountable if COVID-19 orders are not followed? What if the project is shut down for a period of time due to this?
- What if the State and Local authorities decide to stop construction?

Please identify the 5 Major Risks you see and how your firm intends to mitigate those risks. Explain how a potential risk would affect the integrity or outcome of the project and the proposed solution that would be acceptable to both the general contractor and Owner.

Teams are required to answer the general questions about the project and include their answers under this tab. Please use the file issued to you in your BOX.com folder.

This concludes the formal requirements of the RFP. Please enjoy the challenge of this problem. If you have questions, ask through an official RFI. All questions from all teams will be issued to all teams through formal addenda process. Remember, we are all here first and foremost to learn from this experience. If something does not make sense, ask. The Layton Team has been assembled to offer expertise in many areas of both construction and the RFP submission process. Our goal, at the end of the competition, is for each and every one of you to leave with a greater desire to pursue your career in commercial construction

INTERVIEW

REQUIREMENTS

As part of the selection process, teams are required to present their qualifications and response to the RFP to the selection committee. To keep the competition as fair as possible, we have implemented the following rules and procedures:

- All teams will submit all interview/presentation material in the morning when interview times are announced. (As shown on schedule). Any items that are not turned in during this time will not be allowed during the interview. Teams should plan on uploading these prestation's to their box account
- Teams will be given 25 minutes for their interview. Interview times will break down as follows:
  - 25 minutes presentation
  - 10 minutes question & answer
  - 10 minutes breakdown
- Time will be strictly enforced. Teams will be given a "one-minute left" warning during the presentation.

TEAM INTERVIEW FORMAT

Layton (The owner) is not requiring a specific format for your presentation. You may use the 25 minutes as your firm sees fit. Remember it is your time to clarify and present what you have submitted in your RFP and RFQ proposals. Each element should be addressed but teams may want to follow some basic interview suggestions:

- Don't spend too much time selling us on your company. Remember, in a real world situation, you have already made the short list and we are satisfied that you can perform the work.
- Spend time on project specifics:
  - How are you going to keep the project and personnel safe?
  - How you are going to protect me as the owner?
  - How you are going to manage the project?
  - Howyou are going to stage the project?
- Have those that are actually going to interact with the owner on a day to day basis during construction do the talking. We are less interested in how many Presidents and Vice Presidents you bring to the interview as we are about who the Project Manager, Superintendent, Project Engineer, Scheduler, BIM Coordinator and Estimator are.
- Do spend time talking about your bid number.
- Tell us why we should hire your firm.
- Tell us things that might differentiate your firm from the others (what are some of the proprietary things your firms does that others might not).

Above all in the interview, be yourselves. The interview is usually the only place that an owner can get a sense of how well you will work together as a team.

Good luck and have fun.

Exhibit 3: Documents Submitted

Request for Qualifications (RFQ)

CU DENVER CONTRACTING

P: (303) 315 - 7170
civilengineering@ucdenver.edu
Location: 1201 Larimer St
Denver, CO - 80204

University of Colorado **Denver**
CU IN THE CITY

Team Personnel

Merlina Montalvo
Project Manager - 15 years of experience
$350MM volume completed in PM role
Master's in construction management, University of Colorado

Ryan Thomson
Superintendent - 10 years of experience
B.S., Civil Engineering, University of Colorado
PE Civil – Construction

Jacob Donaldson
Chief Estimator - 8 years of experience
Master's in Accounting, University of Colorado Denver
Certified Management Accountant

Cory Stanek
BIM Manager - 9 years of experience
B.S., Information Technology, University of Colorado Denver
BIM and REVIT Certified

Raynard Jokie
Project Scheduler - 8 years of experience
65+ Construction Project Schedules Completed
32 Mixed Use Project Schedules

Iran Chacon Duarte
Project Engineer - 3 years of experience
B.S., Construction Engineering and Management, University of Colorado

Financial Information

Mile High Bonding LLC | P: (888) 447 - 5594
$1.5 billion maximum single project limit

Current workload: Arrimus Capital, 14.5-acre mixed use project
Orbis Business Center, warehouse/distribution buildings located in Ontario, CA.

Five-year revenue averages: 5.2 billion

Tangible Benefits

EMR Rate: 0.73

Emerging Technologies:
- *Drone Photo Documentation:* tracks progress and provides resource for end-user
- *QR Codes and Procore*: All information on QR codes goes to Procore facilitating communication between client, architect, subcontractors, etc.
- *Virtual Reality*: Future technology of the company, allowing clients to walk through building.
- 4D *Building Information Modeling (BIM)* : creates schedule visualization according to each phase of construction process
- *Primavera P6*: reduces risks of delay by increasing planning efficiency

Best Practices:

Safety Control
- OSHA 10-hour training required
- Safety Manager Monthly Visits
- Subcontractors Safety Qualification
- Weekly Safety Audit

Quality Control
- 6-step process with third party inspectors for high risk areas
- Interior and exterior mock-up
- Efficient planning using BIM
- *360°* photo documentation

Relevant Experience

The Gramercy
Las Vegas, NV
187,000 SF mixed use residential and retail project including a hotel and restaurants with duration of 2 years.
Cost: $330 million.
Client: Koll Company

San Marcos Town Center
San Marcos, CA
10-acre project combining civic, commercial, retail, office, and recreational uses finished 2 months early.
Original Schedule: 2.5 years.
Cost: $200 million.
Client: City of San Marcos

One Santa Fe
Los Angeles, CA
2 year project completed in 2017 with 438 residences, 25 retail shops, restaurants, and art spaces.
Overall cost: $160 million.
Size: 500,000.
Client: Canyon Partners, LLC

References

Jerry C. Guevara, Current Client
Arrimus Capital | **P:** (714) 647-5481 | **e-mail:** jguevara@santa-ana.org

Gerald Yahr, Past Client
Koll Company | **P:** (949) 261-2499 | **e-mail:** g.yahr@koll.com

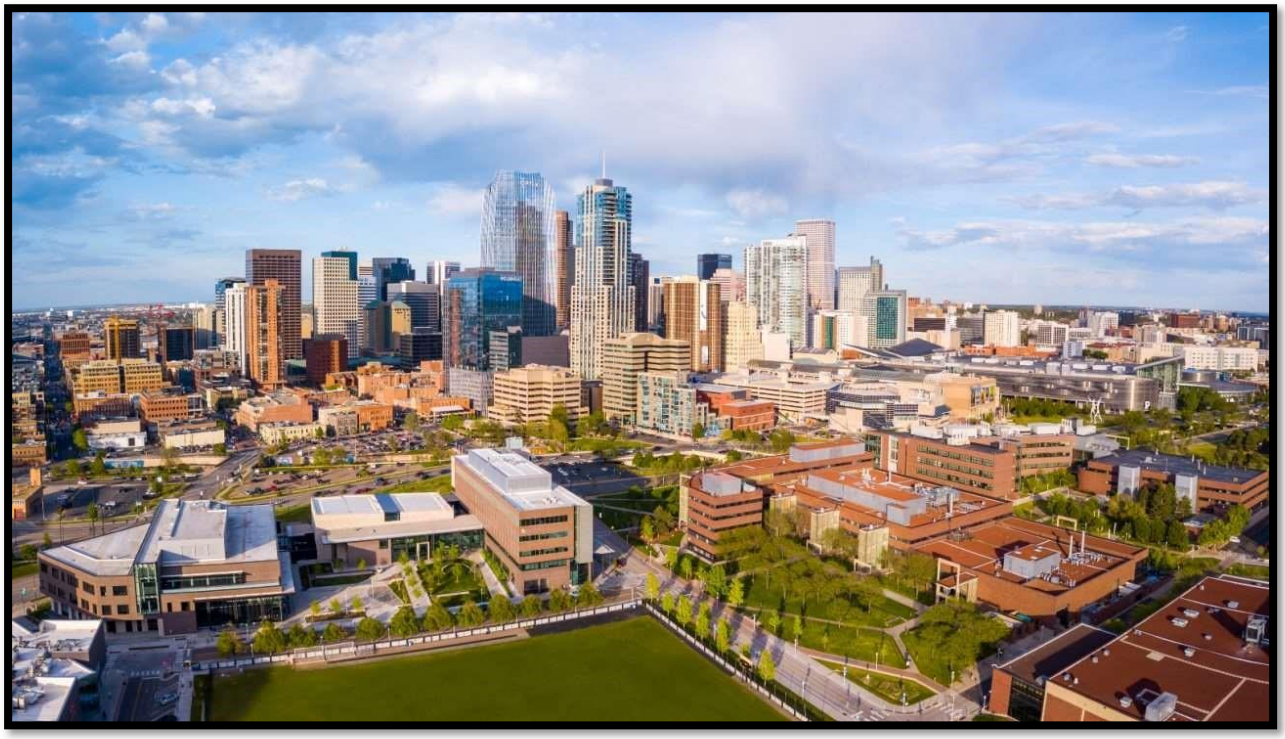
Jonathan Roth, Architect
Landry Design Group Inc. | **P:** (310) 272-1200 | **e-mail:** j.roth@landrydesign.com

Request for Proposal (RFP #1)

<u>CU Denver Contracting</u>

ASC | February 3, 2021

College of Engineering, Design and Computing
UNIVERSITY OF COLORADO **DENVER**



Selection Committee,

Thank you for your interest in CU Denver Contracting as a partner in phase 1 of the Groves at Whittier. We want to not only share our expertise in this product type but also express our true commitment and desire to be a part of this important project. Our proposal includes safety, risk, management, cost estimating, and scheduling plans. In addition, we include value engineering ideas based on this constructability analysis.

We look forward to the opportunity to discuss, in more detail, your team's goals and visions and how we can creatively meet them while also meeting critical milestones and targeted schedule dates.

Our team is an outstanding match for the Groves at Whittier. Merlina Montalvo, Project Manager, has led several construction projects that totals $350M in construction volume. Ryan Thomson, Project Superintendent, has a decade of experience and has worked in several historic restoration and renovation projects. Raynard Jokie, Scheduler, he has completed more than 65 construction schedules in his career, 32 of those were mixed use projects. Iran Chacon Duarte, Project Engineer, brings outstanding proactive vision, team-based skills, and attention to detail. Cory Stanek, BIM Specialist, creates an effective plan by modeling the schedule and phases in a 5dimensional analysis. Jacob Donaldson, Chief Estimator, ensures cost-quality-time balance and creates possible alternate to guarantee schedule and cost is not impacted by these types of unforeseen conditions.

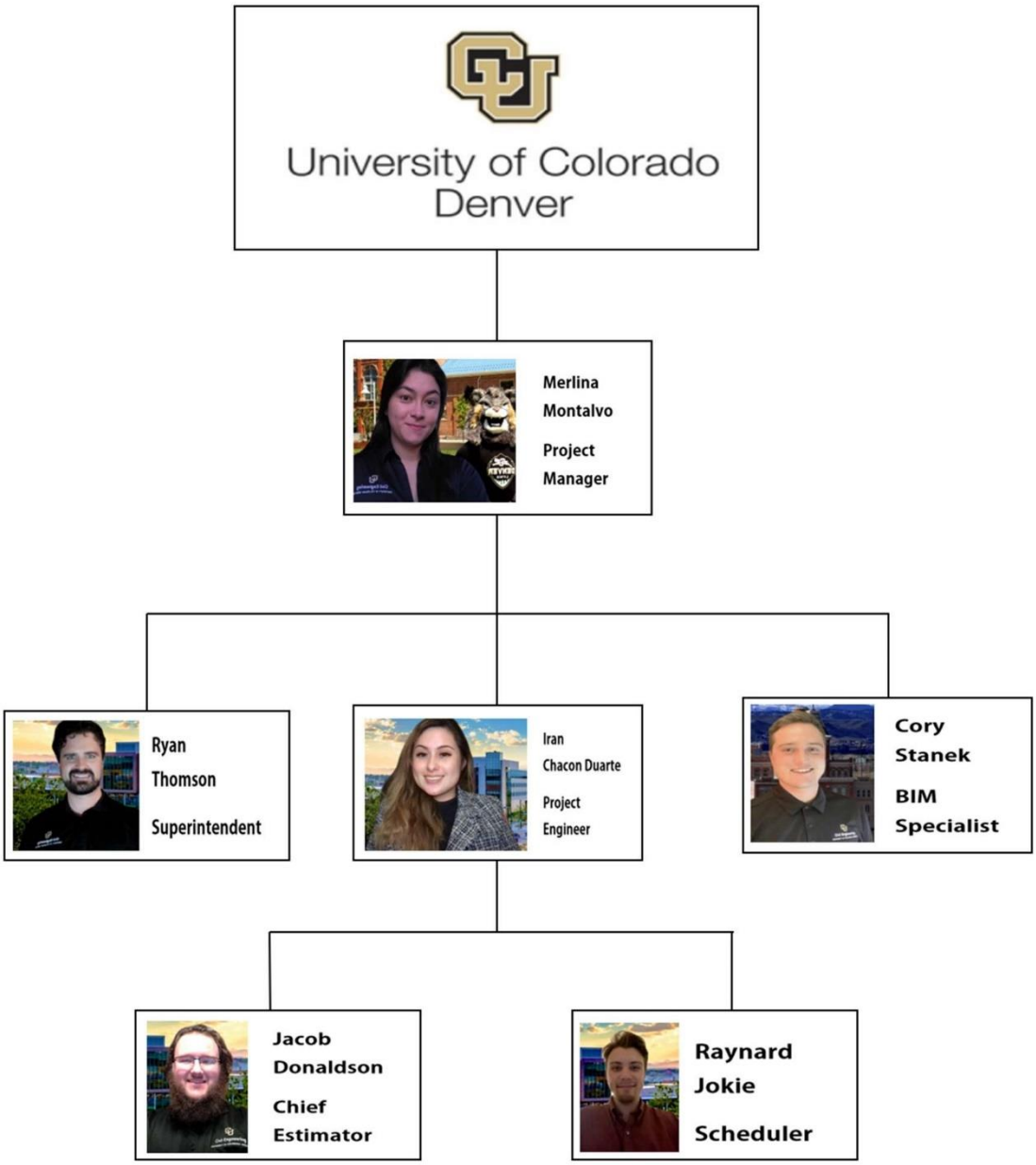
Finally, we hope our proposal narrative expresses the depth of our commitment as an experienced builder. It is our practice to negotiate each preconstruction and construction contract to meet specific client and project needs, and we look forward to an opportunity to do this together. We also hope we can meet soon to discuss our proposal in more detail. In the meantime, please contact us with any questions.

Sincerely,

CU Denver Contracting

University of Colorado Denver, School of Engineering, Design, and Computing.
P: (303) 315-7170
1201 Larimer Street
Denver, Colorado 80204

Team Composition



Merlina Montalvo: Project Manager

15 Years of Experience

As Project Manager, Merlina is responsible to coordinate and oversee the completion of construction projects by managing relevant employees, setting deadlines, communicating with owners, contractors, architects, designers, etc., and ensuring project is developing according to schedule and budget. She also monitors staff development and safety protocols while assessing risks.

Ryan Thomson: Superintendent

10 Years of Experience

As Superintendent, Ryan has a strong background in supervision of large, complex projects. Responsibilities include site logistics, cost and risk analysis. Job tasks include negotiate contractor prices, establish labor budgets, schedule subcontractors, cost estimating and bid proposal development. He also coordinates and schedules team building, and leadership training.

Iran Chacon Duarte: Office Engineer

3 Years of Experience

As Office Engineer, Iran is responsible for project activities including product data coordination, creating a site logistics plan, and stormwater pollution protection plan, maintaining records of submittals and approvals, mitigating risks in all scopes, and ensuring that material received conforms to contract documents. He also coordinates and schedules punch list and warranty work once a project is substantially complete.

Raynard Jokie: Project Scheduler

5 Years of Experience

As Project Scheduler, Raynard is responsible for developing a Work Breakdown Structure (WBS) for project activities. Scheduling duties also include defining work packages and activities. Using different types of logic for each project to ensure milestones are achieved with quality and safety in mind. Raynard also fulfills scheduling duties regarding the executive summary, preconstruction, construction, close out, Gantt chart production, and critical path method (CPM).

Jacob Donaldson: Chief Estimator

Years of Experience

As Chief Estimator, Jacob is responsible for project activities including compiling bid forms using information obtained through selfperformed quantity take-offs and analysis of subcontractor bids. Jacob also completes value engineering to ensure clients are receiving individual attention where the cost-quality-time balance is considered. In case of failure of subcontractors to complete work as expected, Jacob evaluates possible alternates to ensure the schedule is not impacted by these types of unforeseen conditions.

Cory Stanek: BIM Manager

Years of Experience Years of Experience

B.S., Civil Engineering with Construction Management Minor, University of Colorado Denver As BIM Manager, Cory is responsible for coordinating mechanical, electrical, plumbing, and fire systems. Other responsibilities include modeling the schedule and phases in a 5-dimensional analysis, preparing field implementation of the BIM model, creating renderings for marketing purposes, as well as a general systems integration and file documentation.

Bid Form

The Groves at Whittier - RFP #1

DETAILED SITE REQUIREMENTS BREAKDOWN

Ref	Item	Duration	Unit	Rate Per Unit	Total
2.00	**Site Requirements Line Items**				
2.01	Field Office Enclosure	8.00	MO	$ 750	$ 6,000
2.02	Field Office Computers, Copier & Printers	8.00	MO	$ 250	$ 2,000
2.03	Field Office Internet Connection & Service	8.00	MO	$ 400	$ 3,200
2.04	Field Office Supplies	8.00	MO	$ 375	$ 3,000
2.05	Field Office Project Team Furniture	2	LS	$ 425	$ 850
2.06	First Aid Supplies and Safety Signage	8.00	MO	$ 50	$ 400
2.07	Trailer Holding Tanks and Maintenance	8.00	MO	$ 175	$ 1,400
2.08	Postage and FedEx Expense	40.00	WK	$ 25	$ 1,000
2.09	Construction Photography & Finished Photos	8.00	WK	$ 25	$ 200
2.10	Drinking Water & Coffee	32.00	WK	$ 50	$ 1,600
2.11	Copying and Blueprinting	32.00	WK	$ 75	$ 2,400
2.12	Online Billing Service Fee (Textura)	40.00	WK	$ 100	$ 4,000
2.13	Mobile Technology (BIM360)	4.00	WK	$ 225	$ 900
2.14	Mobilization	1.00	LS	$ 5,000	$ 5,000
2.15	Demobilization	1.00	LS	$ 5,000	$ 5,000
2.16	Storage containers	4.00	WK	$ 75	$ 300
2.17	Temp Power Set-up	32.00	WK	$ 250	$ 8,000
2.18	Temp Water Set-up	1.00	LS		$ 5,000
2.19	Temp Power Usage	32.00	WK	$ 25	BY OWNER
2.20	Temp Water Usage	32.00	WK	$ 25	BY OWNER
2.21	Temp Toilet and Handwash Rental	32.00	WK	$ 750	$ 24,000
2.22	Temp Lighting	32.00	WK	$ 20	$ 640
2.23	Forklift	0.00	WK		$ -
2.24	Forklift fuel, 25 gal/ day	0.00	WK		$ -
2.25	Radio	32.00	WK	$ 50	$ 1,600
2.26	Misc Tools	32.00	WK	$ 250	$ 8,000
2.27	Project Signage	1.00	LS	$ 2,000	$ 2,000
2.28	Security Services	32.00	WK	$ 1,000	BY OWNER
2.29	Temp Fencing, set-up take down	8.00	MO	$ 150	$ 1,200
2.30	Temp Fencing, Rental per month	8.00	MO	$ 425	$ 3,400
2.31	Periodic Clean-up	16.00	WK	$ 1,250	$ 20,000
2.32	Field Labor	16.00	WK	$ 750	$ 12,000
2.33	Dumpsters	32.00	WK	$ 550	$ 17,600
2.34	Street Barricades	1.00	WK		$ 22,899
2.35	Traffic Control	32.00	WK		$ 11,766
2.36	Pedestrian Control	32.00	WK	$ 15	$ 480
2.37	Environmental protection	30.00	WK	$ 245	$ 7,350
2.38	Street Sweeping	5.25	WK	$ 150	$ 788
2.39	Parking	31.00	WK	$ 20	$ 620
2.40	Milestone Events	16.00	WK	$ 100	$ 1,600
2.41	Final Clean-up	1.00	WK		$ 450
2.42	Window Washing	1.00	WK		$ 100
2.43	O&M Expense	1.00	LS	$ 3,500	$ 3,500
2.44	Warranty Expense	1.00	LS	$ 7,500	$ 7,500
2.45	Travel	40.00	WK	$ 150	$ 6,000
2.46	Fuel (propane/ diesel)	40.00	WK	$ 250	$ 10,000
2.47	Tarp/ Visqueen	32.00	WK	$ 40	$ 1,280
2.48	Safety Labor	32.00	WK	$ 600	$ 19,200
2.49	Safety Supplies	32.00	WK	$ 75	$ 2,400
2.50	Pest Control	32.00	WK	$ 26	$ 847
2.51	Safety Lunches	32.00	WK	$ 90	$ 2,880
2.52	First Aid Supplies	32.00	WK	$ 50	$ 1,600
2.53	Safety Signage	32.00	WK	$ 15	$ 480
2.54	Fire Extinguishers	32.00	WK	$ 25	$ 800
2.55	Eye Protection (spares/ visitors)	32.00	WK	$ 15	$ 480

2.56	Ear Protection	32.00	WK	$	15	$	480
2.57	Hard Hats (spares/ visitors)	32.00	WK	$	40	$	1,280
2.58	Dust Protection	32.00	WK	$	175	$	5,600
2.59	Drug/ Alcohol Testing	5.00	LS	$	50	$	250
2.60	Safety training	32.00	WK	$	45	$	1,440
2.61	Badging	32.00	WK	$	50	$	1,600
2.62	Jobsite BIM stations	1.00	LS	$	12,000	$	12,000
2.63	SWPPP	32.00	LS	$	200,000	$	200,000
2.64	Admin support	40.00	LS			$	10,150
2.65	Incident review	4.00	LS	$	2,000	$	8,000
2.66	Insurance	40.00	LS	$	1,500	$	1,500
2.67							
2.68							
2.69							
	TOTAL						**$484,509**

Project: The Groves - RFP #1
Location: Whittier, CA
Date: Wednesday, February 3, 2021

Bid Package #	DESCRIPTION	Subcontractor Bid PH1	Exposure Holds Alocation 1	Allowances PH1	Total Cost NTP 1	Low Subcontractor
	Survey	$ -		$ 2,000	$ 2,000	Allowance
01 57	SWPPP Monitoring	$ 11,025			$ 11,025	MVM Environmental
01 57	SWPPP Set Up and Maintenance	$ 45,393	$ 8,262		$ 53,655	BMP Solutions
02 00	Historic Restoration				$ -	
02 40	Demolition (Structural/Roofing/Site)				$ -	
03 30	Concrete and Rebar				$ -	
03 40	Architectural Precast				$ -	
04 20	Masonry	$ 787,135	$ 12,500		$ 799,635	GBC Concrete and Masonry
05 10	Structural Steel & Misc. Metals	$ 326,406	$ 14,169		$ 340,575	Advanced Concepts Construction
06 10	Rough Carpentry				$ -	
06 41	Exterior Finish Carpentry	$ 132,000			$ 132,000	Amort/Herron
07 10	Waterproofing	$ 74,238	$ 4,648		$ 78,886	Proulx
07 20	Building Insulation				$ -	
07 50	Roofing				$ -	
07 62	Flashing and Sheet Metal				$ -	
08 10	Doors, Frames and Hardware				$ -	
08 33	Overhead Coiling Doors				$ -	
08 80	Glass and Glazing				$ -	
09 20	Metal Stud Framing and Drywall	$ 37,700			$ 37,700	G Brothers
09 22	Lath & Plaster	$ 3,200			$ 3,200	TAKEOFF
09 30	Tile				$ -	
09 90	Paint	$ 12,418			$ 12,418	Sanders and Wohrman
10 21	Toilet Partitions & Accessories				$ -	Sierra West Finish
10 53	Awnings and Canopies				$ -	
21 00	Fire Protection				$ -	
22 00	Plumbing				$ -	
23 00	HVAC				$ -	
26 00	Electrical and Dry Utilities	$ 798,082	$ 49,700		$ 847,782	Safeway Electric
31 00	Earthwork	$ 368,200	$ 67,020		$ 435,220	Qwest Engineering, INC
31 31	Termite Control				$ -	
32 10	Paving, Striping & Paving Specialties	$ 871,016		$ 44,242	$ 915,258	Ben's Asphalt
32 13	Site Concrete	$ 980,028	$ 19,000	$ 22,367	$ 1,021,395	Mark Company
32 14	Unit Pavers	$ 176,737			$ 176,737	Marx Brothers
32 90	Landscape and Irrigation	$ 404,379			$ 404,379	Park West
33 00	Site Utilities	$ 1,280,561	$ 55,858		$ 1,336,419	Shofiett
	Site Requirements				$ 484,509	
	Subguard Insurance			1.20%	$ 79,275	
Subtotal Direct Costs		**$ 6,308,518**	**$ 231,157**	**$ 68,609**	**$ 7,172,068**	
Construction Contingency				4.50%	$322,743	
Fee				5.00%	$358,603	
General Conditions					$3,286,059	
General Liability				1.00%	$111,395	
Builders Risk				0.00%	Excluded	
Total Indirect Costs					$4,078,800	
TOTAL PROJECT COST					$11,250,868	
					$ 11,250,868	

PROJECT: **The Groves**
LOCATION: Whittier, CA

Denver
CU IN THE CITY

Layton
CONSTRUCTING WITH INTEGRITY

Allowances

	Title:	Amount:
1.1	Survey	2,000
1.2		
1.3		
1.4		
1.5		
1.6		
1.7		
1.8		
1.9		
1.10		
1.11		
1.12		
1.11		
1.12		
1.13		
1.14		
1.15		
1.16		
1.17		
1.18		
1.19		
	Allowance Subtotal:	**2,000**

PROJECT: **The Groves**
LOCATION: **Whittier, CA**

Denver
CU IN THE CITY

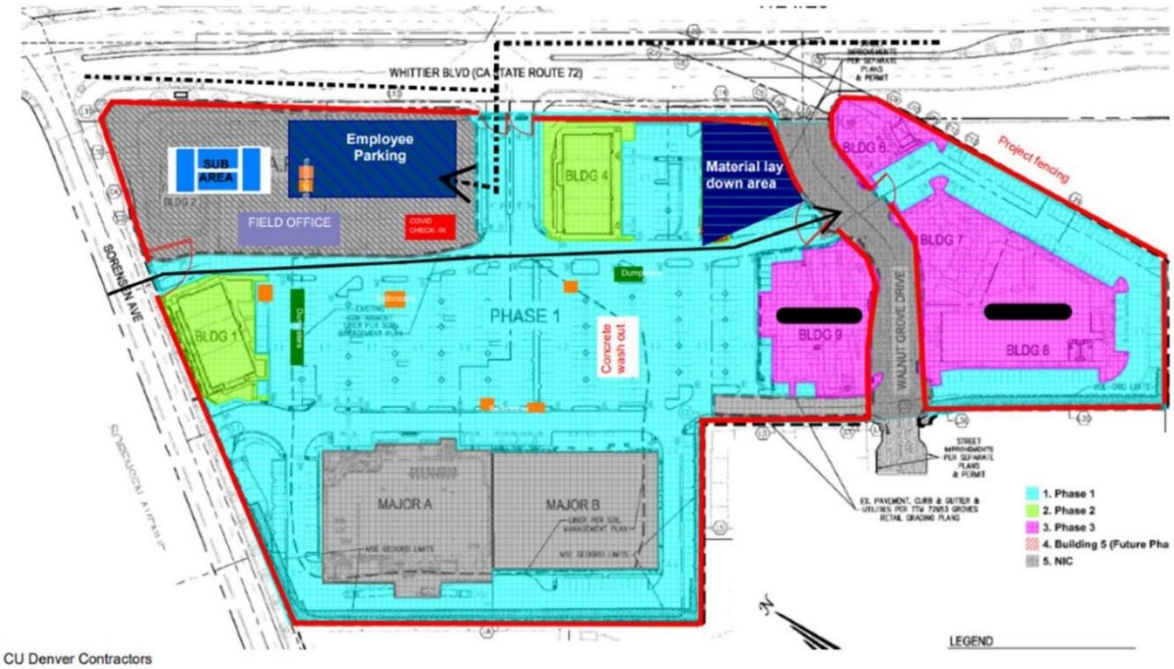
Layton
CONSTRUCTING WITH INTEGRITY

Value Engineering

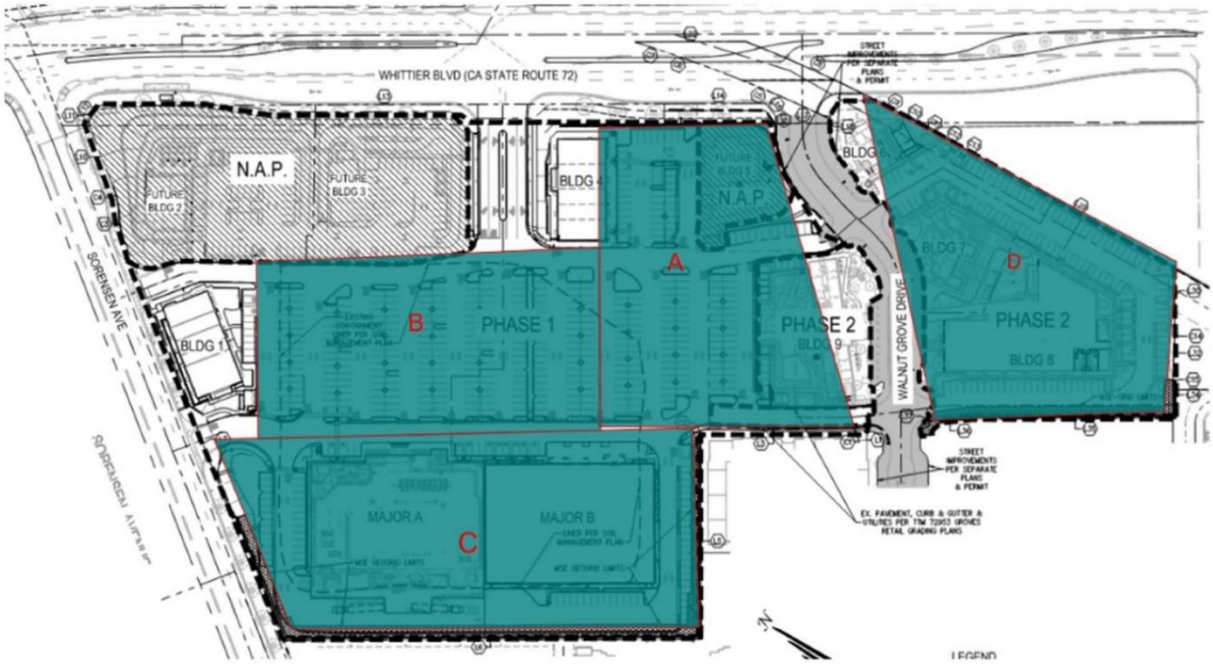
	Title:	Amount:
1.1	EarthWork(31.00) Erosion Control	24,900
1.2	EarthWork(31.00) Temporary Entrance with Rock plate	6,700
1.3	Steel/Misc Metals (05.10) Steel posts for fireplace control pedestal	7,646
1.4	Steel/Misc Metals (05.10) Bollards	282
1.5	Paving etc. (32.10) Seal Coat ~ phases 1&2	25,331
1.6	Paving etc. (32.10) Restripe ~ phases 1&2	16,050
1.7	Paving etc. (32.10) Sweeping	40,950
1.8	Site Utilities (33.00) Commercial Fire Hydrants	9,000
1.9		
1.10		
1.11		
1.12		
1.11		
1.12		
1.13		
1.14		
1.15		
1.16		
1.17		
1.18		
1.19		
	Value Engineering Subtotal:	**130,859**

Management Plan

Site Logistics | Phase 1



CU Denver Contractors



Schedule

Executive Summary (Key Milestones):

1. Receive and Review Permits
2. Complete Grade Work
3. Construct Underground Systems
4. Site Paving
5. Final Closeout (Landscape/Sitework)

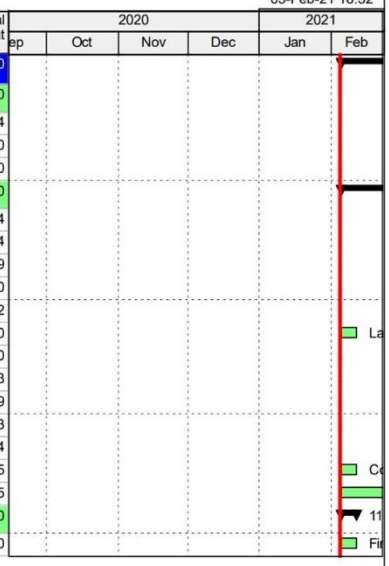
Preconstruction: - For this section we determined the timeline for Permitting and Submittals. Other portions of preconstruction could not be completed as they pertain to Phases Two and Three of the construction processes.

Construction: - Diving into the actual construction of Phase One, our team scheduled specific work breakdown structure (WBS) elements such as the grading of the site and concrete installation. Again, certain portions regarding the construction for this project are not included because they do not pertain to Phase One.

Closeout: - To complete Phase One, our team included a final clean up and sitework plan into our schedule. Here, we can determine that Phase One is finished and prepare for Phase Two.

ASC Phase 1 Schedule | Classic Schedule Layout | 03-Feb-21 16:52

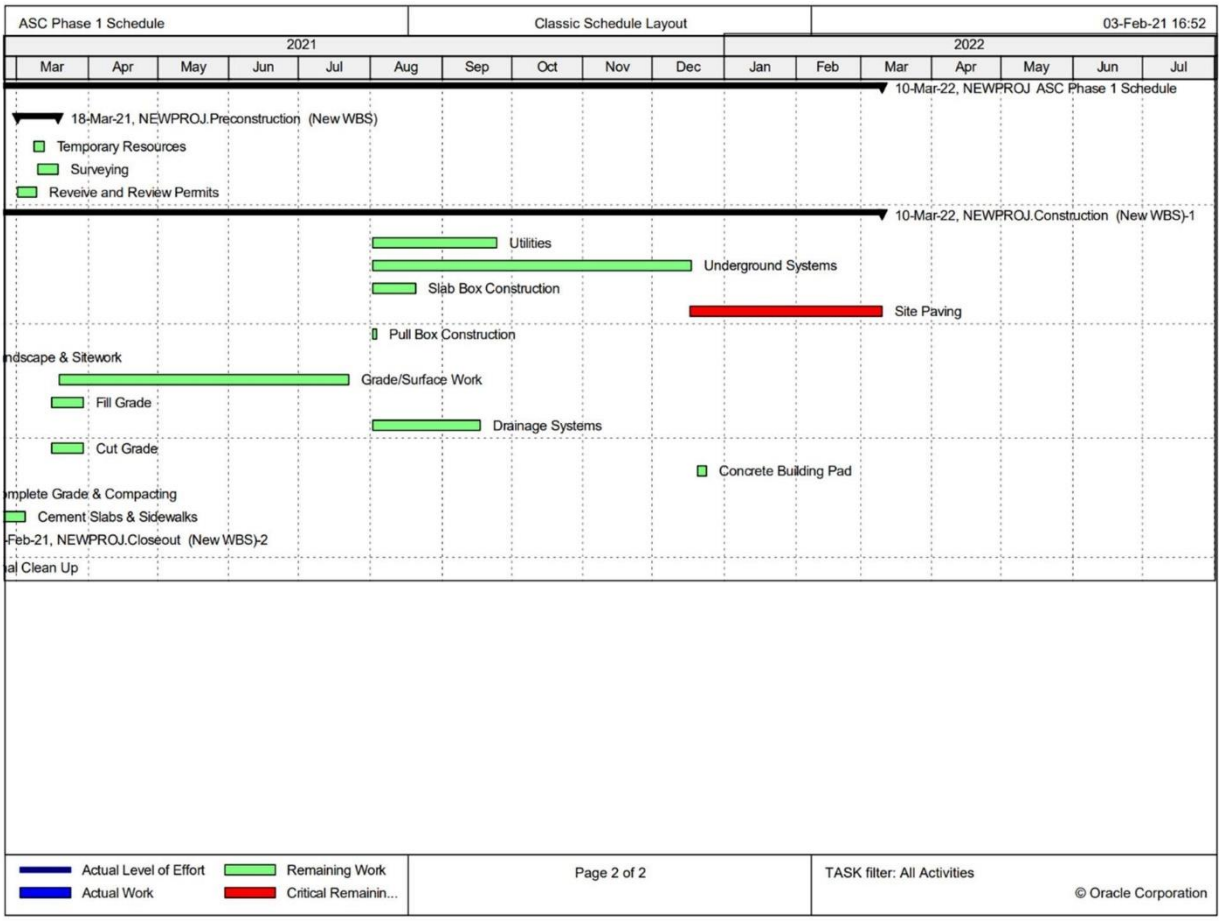
Activity ID	Activity Name	Planned Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float
NEWPROJ ASC Phase 1 S		285	285	0%	05-Feb-21	10-Mar-22	0
NEWPROJ.Preconstructior		14	14	0%	01-Mar-21	18-Mar-21	210
A1020	Temporary Resources	5	5	0%	08-Mar-21*	12-Mar-21	214
A1010	Surveying	7	7	0%	10-Mar-21*	18-Mar-21	120
A1000	Reveive and Review Perm	7	7	0%	01-Mar-21*	09-Mar-21	120
NEWPROJ.Construction (I		285	285	0%	05-Feb-21	10-Mar-22	0
A1080	Utilities	40	40	0%	02-Aug-21*	24-Sep-21	114
A1060	Underground Systems	100	100	0%	02-Aug-21*	17-Dec-21	54
A1090	Slab Box Construction	15	15	0%	02-Aug-21*	20-Aug-21	139
A1120	Site Paving	60	60	0%	17-Dec-21*	10-Mar-22	0
A1100	Pull Box Construction	2	2	0%	02-Aug-21*	03-Aug-21	152
A1160	Landscape & Sitework	5	5	0%	05-Feb-21	11-Feb-21	280
A1030	Grade/Surface Work	90	90	0%	19-Mar-21*	22-Jul-21	120
A1050	Fill Grade	10	10	0%	16-Mar-21*	29-Mar-21	203
A1110	Drainage Systems	35	35	0%	02-Aug-21*	17-Sep-21	119
A1040	Cut Grade	10	10	0%	16-Mar-21*	29-Mar-21	203
A1150	Concrete Building Pad	5	5	0%	20-Dec-21	24-Dec-21	54
A1070	Complete Grade & Compa	5	5	0%	05-Feb-21	11-Feb-21	275
A1140	Cement Slabs & Sidewalks	20	20	0%	05-Feb-21	04-Mar-21	265
NEWPROJ.Closeout (New		5	5	0%	05-Feb-21	11-Feb-21	280
A1130	Final Clean Up	5	5	0%	05-Feb-21	11-Feb-21	280



Actual Level of Effort | Remaining Work
Actual Work | Critical Remainin...

Page 1 of 2

TASK filter: All Activities


ASC Phase 1 Schedule
Classic Schedule Layout
03-Feb-21 16:52
2021
2022
Mar
Apr
May
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Nov
Dec
Jan
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Mar
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May
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Jul
10-Mar-22, NEWPROJ ASC Phase 1 Schedule
18-Mar-21, NEWPROJ.Preconstruction (New WBS)
Temporary Resources
Surveying
Reveive and Review Permits
10-Mar-22, NEWPROJ.Construction (New WBS)-1
Utilities
Underground Systems
Slab Box Construction
Site Paving
Pull Box Construction
ndscape & Sitework
Grade/Surface Work
Fill Grade
Drainage Systems
Cut Grade
Concrete Building Pad
mplete Grade & Compacting
Cement Slabs & Sidewalks
-Feb-21, NEWPROJ.Closeout (New WBS)-2
al Clean Up
Actual Level of Effort
Remaining Work
Actual Work
Critical Remainin...
Page 2 of 2
TASK filter: All Activities
© Oracle Corporation

BIM & Site Technologies

Building Information Modeling will be heavily utilized to increase communication and increase efficiency in other tasks. BIM 360 allows for the smooth collaboration of all parties with all information updated instantly. Revit allows for visualizations and renderings to catch unforeseen areas of improvement. Whether it be a solar study, a walkthrough, or a 4D model, BIM creates a unique perspective to identify issues that may have been otherwise missed until that area of construction had already begun; these issues could be in regard to safety, quality, or desired aesthetic. There are many programs categorized as BIM that create monumental benefits to smooth the construction process. Navisworks not only identifies any clashes between MEP systems pre-construction, it also is used to create a five-dimensional model of the project. This simulation follows the project being built, viewed in three spatial dimensions over the timeframe of the project with cost displayed at each point in time. Building Information Modeling also eases all future maintenance required for the structure during its lifespan, creating a single space with all the information of each system within a building.

Procore is used to increase organization and accessibility of all documents and information. This platform provides a standardized location for the information used by all parties on a project and is easily navigated. Procore stores and allows the organization of all plans, specifications, models, etc. QR codes are placed throughout the project site that direct users to Procore to easily allow access to RFIs and submittals related to the area or connected object. Procore serves as a database that can view all files within their original context or in a categorized view.

Primavera P6 Scheduling creates a smooth and accessible platform that maximizes needed capabilities to increase scheduling efficiency. This program allows all trade partners to provide input on the scheduling process as it is being formed, streamlining communication and boosting project quality. P6 displays the critical path and milestones to increase productivity and achieve completion by the required date. Primavera P6 also allows simple and immediate updates/modifications of the schedule even after it has been distributed to all parties.

Drone documentation captures quality visuals of the project site at various points within each phase. The data recorded from drones can be used in preconstruction surveying, site reviewing, and mapping. During the construction, these visuals allow the owner and the public to conceptualize the project progression and identify potential areas of concern or needed improvement. Drones are used in a project when an area needs to be analyzed and it is not safely accessible for individuals.

Safety, Disease and Infection Control

OSHA 10-hour training

Safety Manager Monthly Visits

Subcontractors Safety Qualification

Weekly Safety Audit

COVID 19 REGULATIONS & Measures:

MUST WEAR MASK AT ALL TIMES (Medical Masks Not required)

Checking for temperatures and symptoms daily

Keeping all trades on given schedule (Minimizing contact between trades)

Committing to all new protocols including circulation within buildings, elevator and stair usage, restroom occupancy, queueing procedures in and out of buildings

Enforce the requirement for use of PPE and social distancing everywhere On-Site.

CU Denver Construction is focused on awareness, preventative training, and stringent worksite enforcement that supports our Zero Injury Culture. Our current EMR is 0.73 and as of today, we are proud to have worked over 2532 consecutive days without a lost time injuries or accidents.

We are an industry-leader that assures high-quality performance every step of the way. The enthusiasm to eagerly jump into the design development phase to provide design-assist services, value engineering, and critical lessons learned from our many similar projects. A strong team of construction professionals with substantial hospitality and historic restoration and renovation experience. Proven success in helping design projects deliver architectural intent, cost-savings, and best features for project goals and type. Our team provides job coaching and case management support for employees, including providing members with job tools, safety equipment PPE, and all necessary supports for a successful return to work. We are organized to help employ laborers, craftspeople, and trade interns at our project sites.

Request for Proposal (RFP #2)

CU Denver Contracting

ASC | February 4th, 2021

College of Engineering, Design and Computing
UNIVERSITY OF COLORADO **DENVER**

February 4th, 2021

Selection Committee,

Thank you for your interest in CU Denver Contracting as a partner in Phase One of the Groves at Whittier. We want to not only share our expertise in this product type but also express our true commitment and desire to be a part of this important project. Our proposal includes safety, risk, management, cost estimating, and scheduling plans. In addition, we include value engineering ideas based on this constructability analysis.

We look forward to the opportunity to discuss, in more detail, your team's goals and visions and how we can creatively meet them while also meeting critical milestones and targeted schedule dates.

Our team is an outstanding match for the Groves at Whittier. **Merlina Montalvo**, Project Manager, has led several construction projects that totals $350M in construction volume. **Ryan Thomson,** Project Superintendent, has a decade of experience and has worked in several historic restoration and renovation projects. **Raynard Jokie,** Scheduler, he has completed more than sixty-five construction schedules in his career, thirty-two of those were mixed use projects. **Iran Chacon Duarte,** Project Engineer, brings outstanding proactive vision, team-based skills, and attention to detail. **Cory Stanek,** BIM Specialist, creates an effective plan by modeling the schedule and phases in a five-dimensional analysis. **Jacob Donaldson,** Chief Estimator, ensures cost-quality-time balance and

creates possible alternate to guarantee schedule and cost is not impacted by these types of unforeseen conditions.

Finally, we hope our proposal narrative expresses the depth of our commitment as an experienced builder. It is our practice to negotiate each preconstruction and construction contract to meet specific client and project needs, and we look forward to an opportunity to do this together. We also hope we can meet soon to discuss our proposal in more detail. In the meantime, please contact us with any questions.

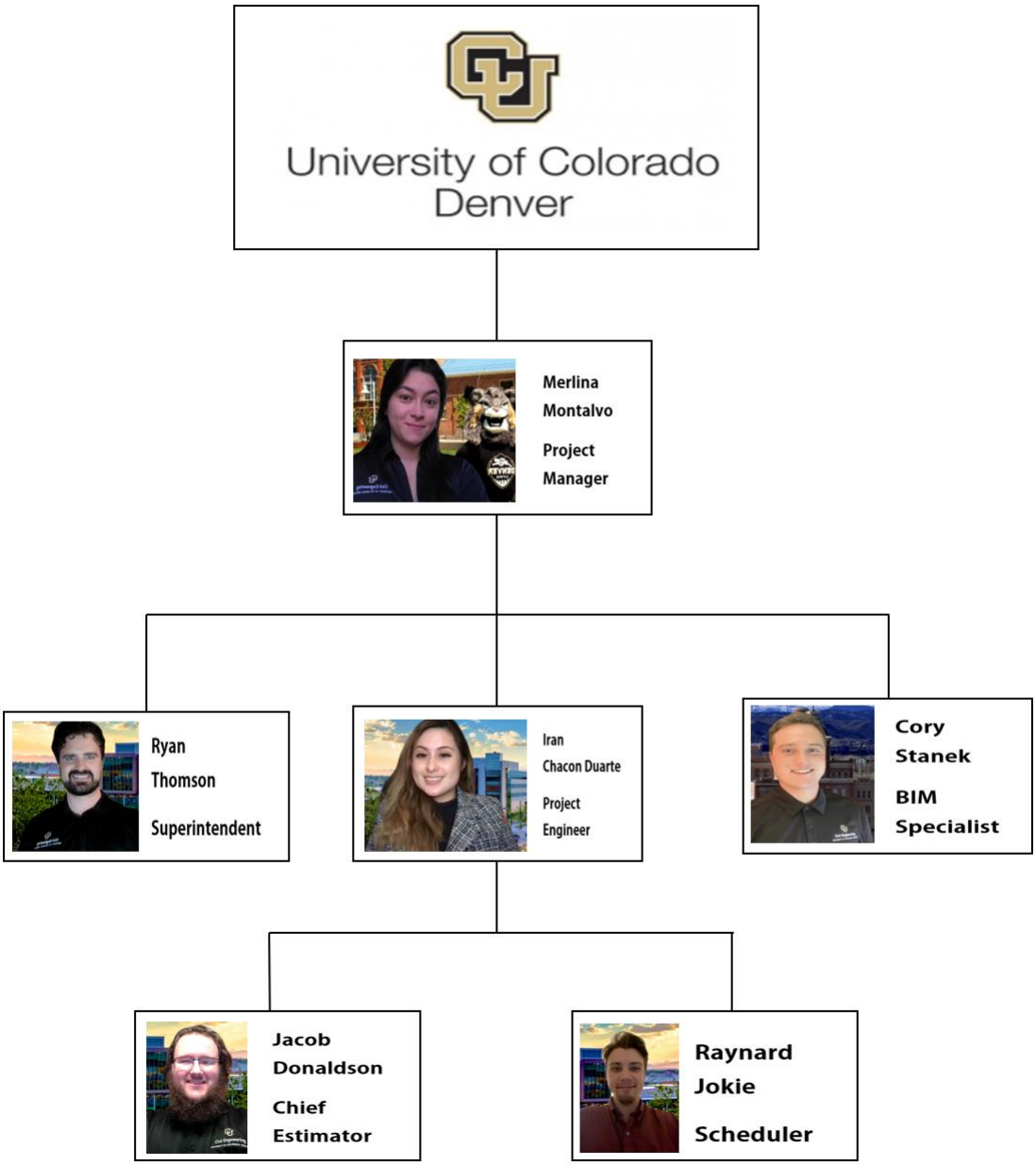
Sincerely,

CU Denver Contracting

University of Colorado Denver, School of Engineering, Design, and Computing.
P: (303) 315-7170
1201 Larimer Street
Denver, Colorado 80204

Contents

Team Composition



Merlina Montalvo: Project Manager

15 Years of Experience

As Project Manager, Merlina is responsible to coordinate and oversee the completion of construction projects by managing relevant employees, setting deadlines, communicating with owners, contractors, architects, designers, etc., and ensuring project is developing according to schedule and budget. She also monitors staff development and safety protocols while assessing risks.

Ryan Thomson: Superintendent

10 Years of Experience

As Superintendent, Ryan has a strong background in supervision of large, complex projects. Responsibilities include site logistics, cost and risk analysis. Job tasks include negotiate contractor prices, establish labor budgets, schedule subcontractors, cost estimating and bid proposal development. He also coordinates and schedules team building, and leadership training.

Iran Chacon Duarte: Office Engineer

3 Years of Experience

As Office Engineer, Iran is responsible for project activities including product data coordination, creating a site logistics plan, and stormwater pollution protection plan, maintaining records of submittals and approvals, mitigating risks in all scopes, and ensuring that material received conforms to contract documents. He also coordinates and schedules punch list and warranty work once a project is substantially complete.

Raynard Jokie: Project Scheduler

5 Years of Experience

As Project Scheduler, Raynard is responsible for developing a Work Breakdown Structure (WBS) for project activities. Scheduling duties also include defining work packages and activities. Using different types of logic for each project to ensure milestones are achieved with quality and safety in mind. Raynard also fulfills scheduling duties regarding the executive summary, preconstruction, construction, close out, Gantt chart production, and critical path method (CPM).

Jacob Donaldson: Chief Estimator

8 Years of Experience

As Chief Estimator, Jacob is responsible for project activities including compiling bid forms using information obtained through self-performed quantity take-offs and analysis of subcontractor bids. Jacob also completes value engineering to ensure clients are receiving individual attention where the cost-quality-time balance is considered. In case of failure of subcontractors to complete work as expected, Jacob evaluates possible alternates to ensure the schedule is not impacted by these types of unforeseen conditions.

Cory Stanek: BIM Manager

9 Years of Experience

As BIM Manager, Cory is responsible for coordinating mechanical, electrical, plumbing, and fire systems. Other responsibilities include modeling the schedule and phases in a five-dimensional analysis, preparing field implementation of the BIM model, creating renderings for marketing purposes, as well as a general systems integration and file documentation.

Bid Form

Project: The Groves - RFP #2
Location: Whittier, CA
Date:

Bid Package #	DESCRIPTION	Subcontractor Bid Building 1	Subcontractor Bid Building 4	Subcontractor Bid Building 5 (Drive Through Foundations Only)	Phase 2 Site	Exposure Holds Alocation 2	Total Cost NTP 2
	Survey	$ 500	$ 500				$ 1,000
01 57	SWPPP Monitoring						$ -
01 57	SWPPP Set Up and Maintenance						$ -
02 00	Historic Restoration						$ -
02 40	Demolition (Structural/Roofing/Site)						$ -
03 30	Concrete and Rebar	$ 115,404	$ 123,663	$ 64,726			$ 303,793
03 40	Architectural Precast						$ -
04 20	Masonry						$ -
05 10	Structural Steel & Misc. Metals	$ 44,590	$ 55,725				$ 100,315
06 10	Rough Carpentry	$ 182,625	$ 203,433				$ 386,058
06 41	Exterior Finish Carpentry						$ -
07 10	Waterproofing					$ 2,906	$ 2,906
07 20	Building Insulation	$ 16,500	$ 17,900				$ 34,400
07 50	Roofing	$ 58,639	$ 56,369				$ 115,008
07 62	Flashing and Sheet Metal	$ 43,950	$ 42,200				$ 86,150
08 10	Doors, Frames and Hardware	$ 25,369	$ 22,425				$ 47,794
08 33	Overhead Coiling Doors						$ -
08 80	Glass and Glazing	$ 122,710	$ 130,568				$ 253,278
09 20	Metal Stud Framing and Drywall	$ 53,300	$ 62,600				$ 115,900
09 22	Lath & Plaster	$ 52,246	$ 58,892				$ 111,138
09 30	Tile	$ 5,929	$ 5,744				$ 11,673
09 90	Paint	$ 15,267	$ 16,268			$ 4,132	$ 35,667
10 21	Toilet Partitions & Accessories						$ -
10 53	Awnings and Canopies	$ 13,422	$ 15,021				$ 28,443
21 00	Fire Protection	$ 24,800	$ 26,500				$ 51,300
22 00	Plumbing	$ 79,750	$ 91,250				$ 171,000
23 00	HVAC	$ 89,905	$ 98,880				$ 188,785
26 00	Electrical and Dry Utilities	$ 74,360	$ 78,408	$ 3,779		$ 40,000	$ 196,547
31 00	Earthwork				$ 88,100		$ 18,909
31 31	Termite Control	$ 3,718	$ 3,916				$ 7,634
32 10	Paving, Striping & Paving Specialties						$ -
32 13	Site Concrete				$ 57,427		$ 57,427
32 14	Unit Pavers				$ 53,636		$ 53,636
32 90	Landscape and Irrigation				$ 146,436		$ 146,436
33 00	Site Utilities						$ -
	Site Requirements	Included in Total Cost NTP 2					$ 161,219
	Subguard Insurance	$12,270	$13,317	$822	$4,147		$ 30,961
Subtotal Direct Costs		**$ 1,035,254**	**$ 1,123,579**	**$ 69,327**	**$ 349,746**	**$ 47,038**	**$ 2,717,377**
Construction Contingency						4.50%	$122,282
Fee						5.45%	$148,097
General Conditions							$412,813
General Liability				1.00%			$34,006
Builders Risk				0.00%			Excluded
Total Indirect Costs							$717,198
TOTAL PROJECT COST							$3,434,575
							3,400,121

Subcontractor Bid Building 6	Subcontractor Bid Building 6A	Subcontractor Bid Building 7	Subcontractor Bid Building 8	Subcontractor Bid Building 9	Subcontractor Bid Phase 3 Site	Exposure Holds NTP 3	Total Cost NTP 3	Low Subcontractor
	$ 500		$ 500		$ 500		$ 1,500	Allowance
							$ -	MVM Environmental
							$ -	BMP Solutions
$ 492,837		$ 654,796		$ 554,168			$ 1,701,801	Spectra
$ 10,300		$ 19,400		$ 55,550	$ 30,000		$ 115,250	Precision
	$ 63,105	$ 174,000	$ 170,290	$ 345,000			$ 752,395	A.G. Construction
			$ 50,093				$ 50,093	GBC Concrete and Masonry
					$ 15,515		$ 15,515	GBC Concrete and Masonry
	$ 12,879		$ 298,893		$ 24,447	$ 4,593	$ 340,812	Advanced Concepts Construction
	$ 64,000		$ 777,017				$ 841,017	Amort/Herron
					$ 592,576		$ 592,576	Amort/Herron
					$ 6,723	$ 1,437	$ 8,160	Proulx
$ 900	$ 2,200	$ 9,300	$ 30,900	$ 20,600			$ 63,900	
$ 70,662	$ 8,966	$ 71,587	$ 103,767	$ 146,920			$ 401,903	Armstrong and Aceves
$ 1,000	$ 24,750	$ 3,332	$ 64,375	$ 1,800			$ 95,257	M&D Contracting
		$ 7,868	$ 24,486	$ 77,400			$ 109,754	Advantage Door
	$ 19,160		$ 150,400				$ 169,560	Superior Door
	$ 69,574		$ 399,958				$ 469,532	Summit Glass
$ 6,700	$ 2,100	$ 14,700	$ 88,200	$ 13,700	$ 6,700		$ 132,100	OCP
			$ 55,365				$ 55,365	TAKEOFF
			$ 34,124				$ 34,124	Tangram
	$ 3,405		$ 27,877			$ 13,500	$ 44,782	Sanders and Wohrman
			$ 40,650				$ 40,650	Sierra West Finish
							$ -	B&C Awnings, Inc.
		$ 21,500	$ 44,000	$ 27,500			$ 93,000	Neptune Fire
$ 17,300	$ 14,300	$ 34,200	$ 155,500	$ 73,600	$ 9,000		$ 303,900	
$ 35,050	$ 13,775	$ 59,805	$ 197,645	$ 138,910			$ 445,185	Alliance Heating & Air Conditioning
$ 17,028	$ 6,160	$ 37,162	$ 175,666	$ 69,054	$ 538,359	$ 339,908	$ 1,183,337	Safeway Electric
					$ 232,500		$ 232,500	Qwest Engineering Inc.
$ 1,092	$ 433	$ 652	$ 8,683	$ 1,456			$ 12,316	Western Exterminator Company
							$ -	
					$ 224,808		$ 224,808	Mark Company
					$ 34,150		$ 34,150	Marx Brothers
					$ 705,555		$ 705,555	Park West
$ -							$ -	
Included in Total Cost NTP 3							$ 214,958	
$7,834	$3,658	$13,300	$34,775	$18,308	$29,044		$ 114,197	
$ 660,704	**$ 308,964**	**$ 1,121,602**	**$ 2,933,164**	**$ 1,543,966**	**$ 2,449,877**	**$ 359,438**	**$ 9,599,952**	
						4.50%	$431,998	
						5.45%	$523,197	
							$550,418	
					1.00%		$111,056	
					0.00%		Excluded	
							$1,616,669	
							$11,216,621	
							10,640,366	

General Conditions

The Groves at Whittier - RFP #2

DETAILED SITE REQUIREMENTS BREAKDOWN

Ref	Item	Duration	Unit	Rate Per Unit	Total
		14			
2.00	**Site Requirements Line Items**				
2.01	Field Office Enclosure	14.00	MO	$ 750	$ 10,500
2.02	Field Office Computers, Copier & Printers	14.00	MO	$ 250	$ 3,500
2.03	Field Office Internet Connection & Service	14.00	MO	$ 400	$ 5,600
2.04	Field Office Supplies	14.00	MO	$ 375	$ 5,250
2.05	Field Office Project Team Furniture	2	LS	$ 425	$ 850
2.06	First Aid Supplies and Safety Signage	14.00	MO	$ 50	$ 700
2.07	Trailer Holding Tanks and Maintenance	14.00	MO	$ 175	$ 2,450
2.08	Postage and FedEx Expense	61.00	WK	$ 25	$ 1,525
2.09	Construction Photography & Finished Photos	31.00	WK	$ 25	$ 775
2.10	Drinking Water & Coffee	60.00	WK	$ 50	$ 3,000
2.11	Copying and Blueprinting	60.00	WK	$ 75	$ 4,500
2.12	Online Billing Service Fee (Textura)	61.00	WK	$ 100	$ 6,100
2.13	Mobile Technology (BIM360)	8.00	WK	$ 225	$ 1,800
2.14	Mobilization	1.00	LS	$ 5,000	$ 5,000
2.15	Demobilization	2.00	LS	$ 5,000	$ 10,000
2.16	Storage containers	4.00	WK	$ 75	$ 300
2.17	Temp Power Set-up	60.00	WK	$ 250	$ 15,000
2.18	Temp Water Set-up	60.00	WK		In Trades
2.19	Temp Power Usage	60.00	WK		BY OWNER
2.20	Temp Water Usage	60.00	WK		BY OWNER
2.21	Temp Toilet and Handwash Rental	60.00	WK	$ 750	$ 45,000
2.22	Temp Lighting	60.00	WK		In Trades
2.23	Forklift	40.00	WK		In Trades
2.24	Forklift fuel, 25 gal/ day	30.00	WK		In Trades
2.25	Radio	60.00	WK	$ 50	$ 3,000
2.26	Misc Tools	60.00	WK	$ 250	$ 15,000
2.27	Project Signage	1.00	LS	$ 2,000	$ 2,000
2.28	Security Services	60.00	WK		BY OWNER
2.29	Temp Fencing, set-up take down	14.00	MO	$ 150	$ 2,100
2.30	Temp Fencing, Rental per month	14.00	MO	$ 425	$ 5,950
2.31	Periodic Clean-up	30.00	WK	$ 1,250	$ 37,500
2.32	Field Labor	60.00	WK	$ 750	$ 45,000
2.33	Dumpsters	60.00	WK	$ 550	$ 33,000
2.34	Street Barricades	60.00	WK		In Trades
2.35	Traffic Control	60.00	WK		In Trades
2.36	Pedestrian Control	60.00	WK		In Trades
2.37	Environmental protection	60.00	WK		In Trades
2.38	Street Sweeping	30.00	WK	$ 150	$ 4,500
2.39	Parking	60.00	WK	$ 20	$ 1,200
2.40	Milestone Events	10.00	WK	$ 100	$ 1,000
2.41	Final Clean-up	6.00	WK		In Trades
2.42	Window Washing	2.00	WK		In Trades
2.43	O&M Expense	1.00	LS	$ 3,500	$ 3,500
2.44	Warranty Expense	1.00	LS	$ 7,500	$ 7,500
2.45	Travel	60.00	WK	$ 150	$ 9,000
2.46	Fuel (propane/ diesel)	60.00	WK	$ 250	$ 15,000
2.47	Tarp/ Visqueen	32.00	WK	$ 40	$ 1,280
2.48	Safety Labor	60.00	WK	$ 600	$ 36,000
2.49	Safety Supplies	60.00	WK	$ 75	$ 4,500
2.50	Pest Control	32.00	WK	$ 26	$ 847
2.51	Safety Lunches	60.00	WK	$ 90	$ 5,400
2.52	First Aid Supplies	60.00	WK	$ 50	$ 3,000
2.53	Safety Signage	60.00	WK	$ 15	$ 900
2.54	Fire Extinguishers	60.00	WK	$ 25	$ 1,500
2.55	Eye Protection (spares/ visitors)	60.00	WK	$ 15	$ 900
2.56	Ear Protection	60.00	WK	$ 15	$ 900
2.57	Hard Hats (spares/ visitors)	60.00	WK	$ 40	$ 2,400
2.58	Dust Protection	50.00	WK	$ 175	$ 8,750
2.59	Drug/ Alcohol Testing	0.00	WK	$ -	Not Required
2.60	Safety training	60.00	WK	$ 45	$ 2,700
2.61	Badging	60.00	WK		Not Required
2.62	Jobsite BIM stations	8.00	WK		Not Required
2.63	SWPPP	60.00	WK		In Trades
2.64	Admin support	60.00	WK		In Trades
2.65	Incident review		WK		In Trades
2.66					
2.67					
2.68					
2.69					
	TOTAL				**$376,177**

The Groves at Whittier - RFP #2

DETAILED GENERAL CONDITIONS BREAKDOWN

4/1/2020

Ref	Item	Duration	Unit	Rate Per Unit	Total
		14 Months			
1.00	**General Conditions Line Items**				
1.01	Project Executive / Gen. Superintendent	60.00	WK	$ 4,327	$ 259,620
1.02	Senior Project Manager	32.00	WK	$ 2,596	$ 83,072
1.03	Superintendent	32.00	WK	$ 2,405	$ 76,960
1.04	Assistant Superintendent	20.00	WK	$ 1,673	$ 33,460
1.05	Assistant Project Manager	20.00	WK	$ 1,077	$ 21,540
1.06	Project Engineer	61.00	WK	$ 1,769	$ 107,909
1.07	Project Administrator	60.00	WK	$ 1,327	$ 79,620
1.08	Pre-Construction Manager	4.00	WK	$ 2,040	$ 8,160
1.09	Senior Estimator	10.00	WK	$ 2,500	$ 25,000
1.10	Pre-Construction Engineer	4.00	WK	$ 1,445	$ 5,780
1.11	BIM Manager	4.00	WK	$ 1,769	$ 7,076
1.12	Safety Manager	14.00	WK	$ 1,634	$ 22,876
1.13	Safety Engineer	12.00	WK	$ 2,039	$ 24,468
1.14	Project Accountant	61.00	WK	$ 1,230	$ 75,030
1.15	Project Scheduler	60.00	WK	$ 2,211	$ 132,660
	TOTAL				**$963,231**

In reviewing the general question during phase one we identified in trade context to be determined through trade standard costs. This led us to implement large cost items such as SWPPP in which we identified a cost of $200,000 to adequately mitigate stormwater pollution through property drainage, erosion control blankets, silt fence, pipe outlet sediment trap, and above-grade concrete washout. Additional trade costs such as administrative support, incident review, and others were calculated in similar fission based on trade standards of costs in the area. Overall, our phase one Site requirements pricing of $471,519 was incorrect and should reflect the correct amount of $227,824.

Take-off

Building 1

W: 3,241.48 sf
S: 1,640.023 sf
N: 1,218.008 sf
E: 2,428.129 sf

Total: 8,527.64 sf
= 947.5 SY

@ $45.34/SY = $42,960.36
@ $55.14/SY = $52,246.01

RSMeans Data

GYPSUM PLASTER ON WALLS & CEILINGS
↳ 2 COATS ON & INCL. 3/8" GYPSUM LATH ON STEEL, ON WALLS

TOTAL O&P = $45.34/SY
+ $9.80/SY FOR 7/8"

Building 4

E: 2,741.851 sf
S: 1,558.471 sf
N: 1,687.361 sf
W: 3,624.691 sf

Total: 9,612.374 sf
= 1,068.04 SY

@ $45.34/SY = $48,425.00
@ $55.14/SY = $58,891.81

Building 8

W: 1,838.997 sf
N: 2,122.1194 sf
E: 1,013.29 sf
S: 4,062.34 sf

Total: 9,036.746 sf
= 1,004.08 SY

@ $45.34/SY = $45,525.12
@ $55.14/SY = $55,365.13

Alternates

PROJECT: **The Groves**
LOCATION: **Whittier, CA**

Allowances

	Title:	Amount:
1.1	Survey	500 per bldg/site
1.2		
1.3		
1.4		
1.5		
1.6		
1.7		
1.8		
1.9		
1.10		
1.11		
1.12		
1.11		
1.12		
1.13		
1.14		
1.15		
1.16		
1.17		
1.18		
1.19		
	Allowance Subtotal:	**0**

PROJECT: **The Groves**
LOCATION: **Whittier, CA**

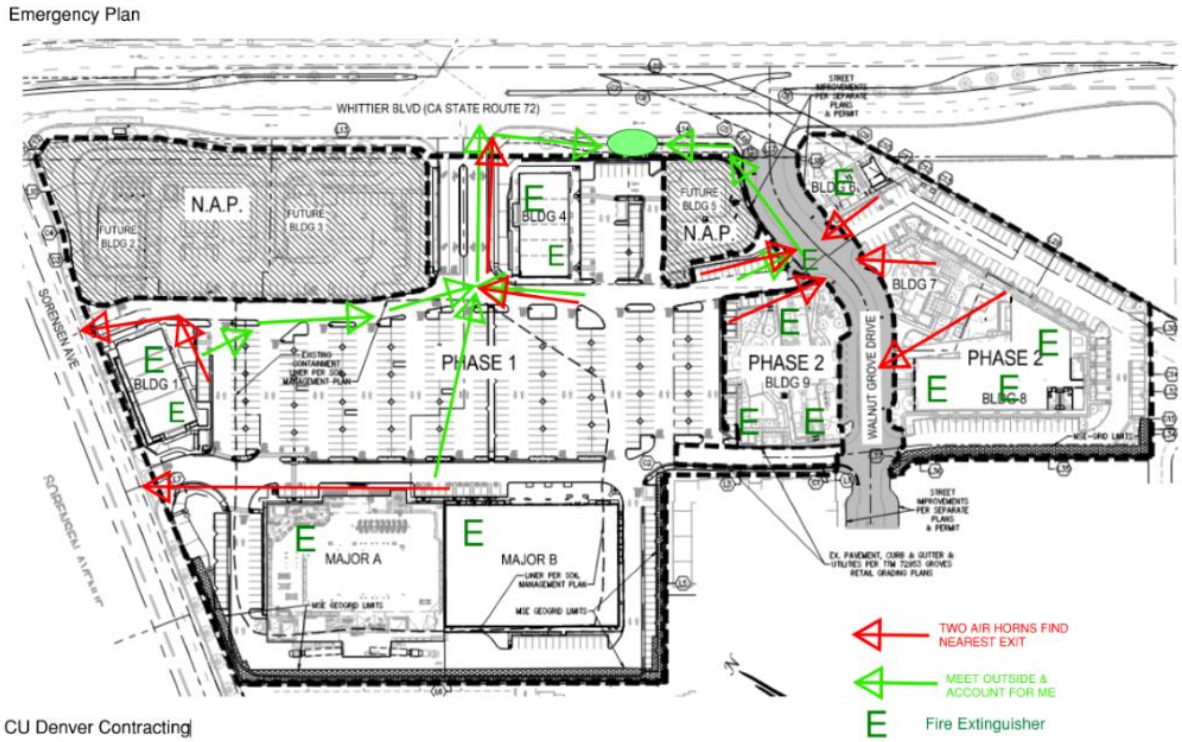
Value Engineering

	Title:	Amount:
1.1	Glass & Glazing (08.80) IGU with Flat Grids	(9,340)
1.2	Glass & Glazing (08.80) Door Hardware	(12,360)
1.3	Awnings & Canopies (10.53) Firesist Fabric	3,220
1.4	Awnings & Canopies (10.53) Civil Engineering	1,800
1.5	Awnings & Canopies (10.53) Structural Engineering	2,800
1.6	Concrete & Rebar (03.30) alt. Phase 1 & historic renovation price	3,625,934
1.7	Earthwork (31.00) Additional mobilizations	3,500
1.8	Earthwork (31.00) Trade spoils	36/CY
1.9	Earthwork (31.00) Temporary entrance	6,500
1.10		200/plate/mo rental
1.11	Earthwork (31.00) Erosion control setup	24,900
1.12	*Carbon-fiber reinf. For deteriorating conc. Bldg 9*	
1.11		
1.12		
1.13		
1.14		
1.15		
1.16		
1.17		
1.18		
1.19		
	Value Engineering Subtotal:	**3,646,954**

Management Plan

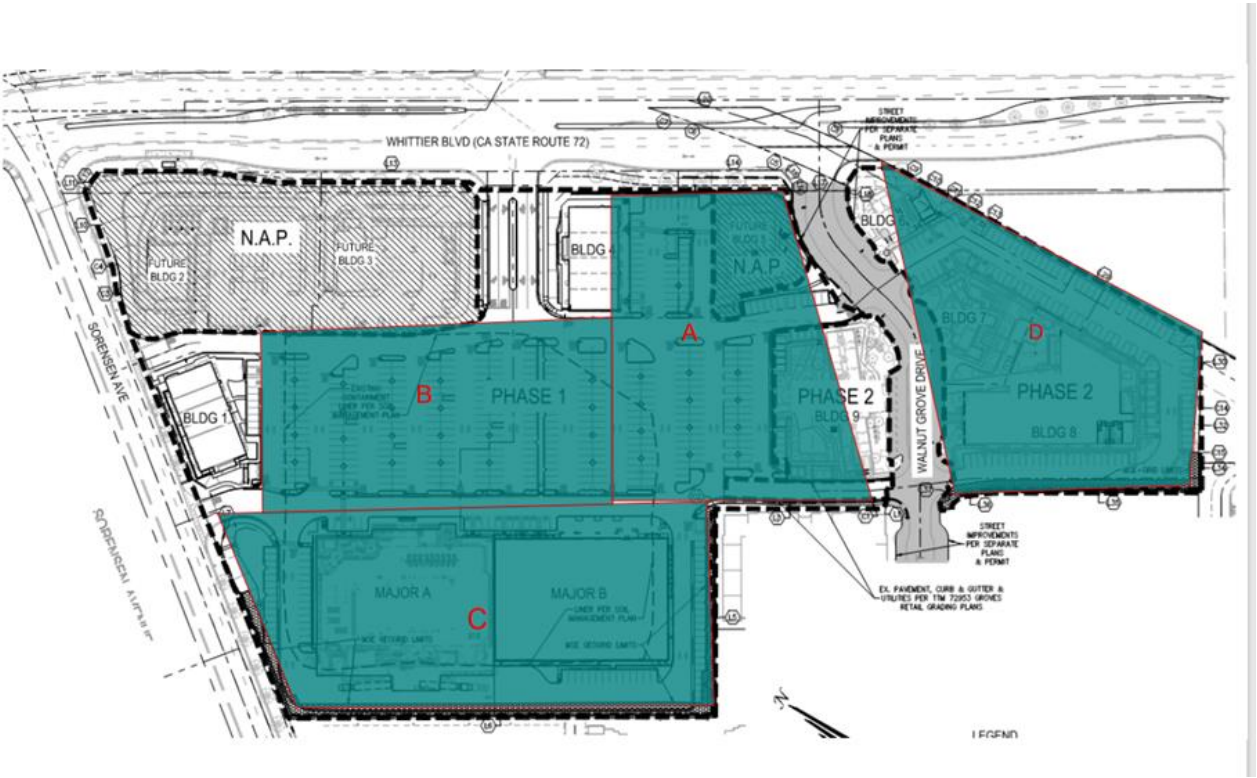
Emergencies:

To ensure the safety of all employees, we will have an air horn that determines what level of emergency there is and how everyone should react next**. One horn** will mean evacuate the building and meet at the field office with your foreman. **Two air horn blows** will signify evacuate the premises immediately and find the nearest exit **and meet and designated location. Everyone** on site must have **the address of the site** memorized or saved somewhere in case they ever need to call 911. There will also be fire extinguishers on every floor in each building; larger buildings will have more to comply with California occupancy guidelines.



Concrete Pour plan:

Concrete will be bored in chronological order in sections A-C for Phase One of the project and will pick up were left off for Phase Two where “D” will be the focus concrete pour. The General Contractor will assume any financial risk if Phase One was incomplete and therefore delaying the start of the concrete pour in section “D”. While they would also be willing to move forward if phase one is completed early for an extra fee. The sections are in this order because it allows the concrete contractor to finish section A so we can mobilize out of section “N.A.P” after the first four months.



Noise Mitigation:

Our noise mitigation plan is to ensure we minimize the construction noise on surrounding establishments. Residential, commercial etc. All Construction equipment will have mufflers (ex: intake silencers).

We will also begin construction n**o earlier than 7:00AM and no later than 6:00 PM.** This includes **ALL impact tools,** equipment and any other items that need to be interpreted in the noise mitigation plan. There will also be a phone number and a Noise Disturbance Coordinator Alex Ramirez 303-890-8423 who is required to report the complaint to the city and implement new resolutions to address this problem.

Dust Control:

To manage Dust Control, we will implement fugitive dust control measures. We will minimize the surface area that can be disturbed by the wind and water them down. We will also limit work activities (ex: minimizing earthwork on windy days). "Any Abrasive blasting must be done on days with winds not exceeding 20 MPH. All hauling vehicles will require a tarpaulin."

Storm Water Pollution Prevention Plan:

The primary SWPPP subcontractor contractor will fulfill permit requirements, implement proper site drainage, take steps to limit erosion using erosion control blankets, pipe out any site sediment through a sediment trap, and monitor above grade concrete washout locations. The project manager will verify a construction general permit order 2009-0009-DWQ is obtained by the SWPPP contractor as well as check to see if the SWPPP subcontractor is a certified Qualified SWPPP Developer (QSD). The person responsible for the SWPPP will have to ensure that there is a stabilizes construction entrance per detail on sheet 21) They are required to install double gravel bags "Armor Gravel bag Heavy Duty 14"X18"" protection around the perimeter fence and drainage. The subcontractor will also street sweep once every two weeks and put-up signage a day before. They will also be required to implement. Strom Drain inlet Protection, to make sure sediment does not flow into the drain. Storm water Control: They will also provide earthen embankments and similar barriers in and around excavations and sub grade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

Steel Erection Sequencing and Staging:

SECTION 05120 - STRUCTURAL STEEL “Erect structural steel accurately in locations and to elevations indicated and according to AISC specifications referenced in this Section. Base and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen surfaces before setting base and bearing plates. Clean bottom surface of base and bearing plates and set on wedges, shims, or setting nuts as required. Maintain erection tolerances of structural steel and architecturally exposed structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges’. Install and tighten high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."E. Weld Connections: **Comply with AWS D1.1 for procedures, appearance and quality of welds, and methods used in correcting welding work.”**

Overall Construction Sequencing:

Our sequencing of the overall site was agreed upon after determining the extent of each phase. With Phase 1 being so much layout of concrete and the other phases incorporating the buildings each with their own restrictions and accommodations. Our team created a plan in which we could minimize the space we took up depending on the phase we were in. We wanted phase 1 to operate in sections in accordance to what we prioritized. Because Section NPA needed to break ground 4 months after we started on phase 1 meaning we had to mobilize everything we had in that section to concrete pour plan 1 to avoid having to mobilize a second time.

Site Utilization

When we started out site Logistics plan we were faced with a restriction. The owner wanted for the site to "Allow for Owner occupancy of site and use by the public. The Driveways and Entrances: driveways and entrances had to be clear and available to Owner, Owner's employees, and emergency vehicles **at all times**. They did not want this area to be used for parking or storage of materials. The owner also wanted scheduled deliveries to minimize space and time requirements for storage of materials and equipment on-site. All very valid and reasonable restrictions. As a GC, we also wanted scheduled deliveries because with a project so big it would be safer to not have so much material on site as it's easy to lose track of what's on-site. Keeping the truck entry gates closed also ensures we can keep track of who's on site and it's safer as it is a main and trafficked street.

Field Offices:

"Prefabricated, mobile units, or job-built construction with lockable entrances, operable windows, and serviceable finishes; heated and air conditioned; on foundations adequate for normal loading." We placed our field office on the truck delivery path because we wanted to ensure easy access to direct and sign for these deliveries. These positions for the field offices also promote a sense of security as they give everyone in the office a clear view of the entire project.

Employee Parking/Entrance Route

We placed our employee parking somewhere on site because we want to minimize the effect that our construction site had on surrounding establishments. Many trades must carry their tools daily, so it was important to place them somewhere close to the site. Phase One including a parking lot made parking and relocating the field office a lot easier for Phase Two.

In Phase Two we switched from a walk-up COVID-19 check in station to a drive-through one. This would allow for everyone to be checked as they come into the jobsite. While this could cause traffic, it is not expected as construction site gates open at 6:00 AM and every trade works at a different time. However, in case this problem did arise we moved our project entrance to a smaller street rather than off the main street; causing main street traffic would only cause more problems.

Laydown Areas:

Our laydown areas had to be large not because we always wanted to have a lot of material on site but rather because when we are doing site utilities and foundations, we need a lot of machinery to do the earth work and we wanted to ensure they were not laying around the site unwatched. Having a larger laydown area also allowed for our truck deliveries to go more smoothly without disturbing anyone working.

Restrooms:

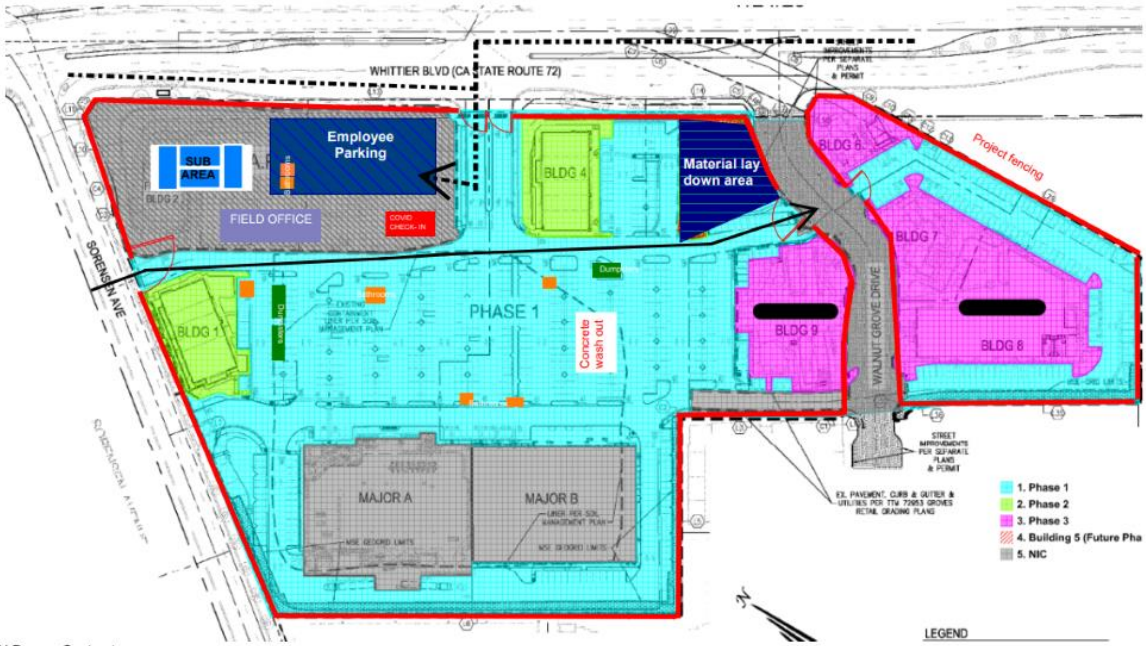
We included two restrooms per colored square. Because of COVID-19 we have scheduled the bathrooms to be cleaned twice a week and female bathrooms have been placed near Building 1,7, and 9.

Dumpsters:

Dumpsters were placed strategically on the truck route to ensure that they were easily accessible to anyone working on the site and for pick up/delivery. (12-yard roll-off dumpster)

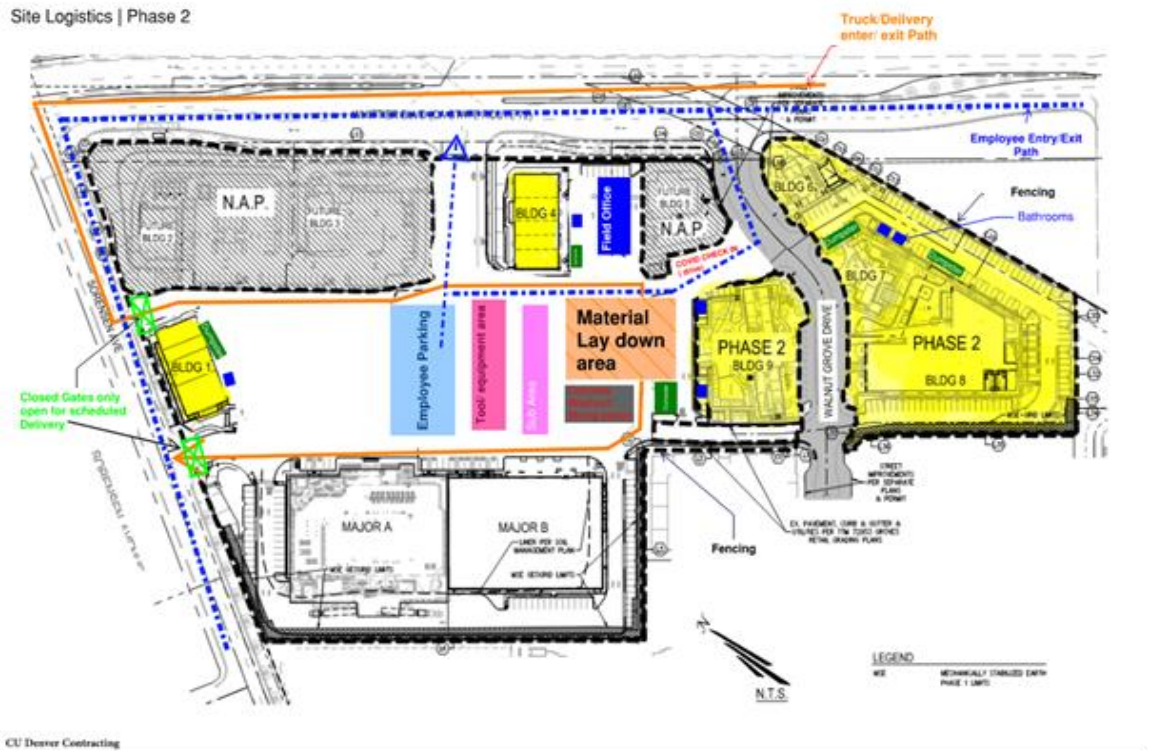
Truck Paths: we placed our truck paths to where they had designated entrances and exits on the site to where they could place material down or take material away. Accessibility played a big role when building our site logistics plan.

Site Logistics | Phase 1



CU Denver Contractors

Phase - Two


Site Logistics | Phase 2
Truck/Delivery enter/ exit Path
Employee Entry/Exit Path
Fencing
Bathrooms
N.A.P.
BLDG 4
Field Office
N.A.P.
BLDG 6
BLDG 7
Material Lay down area
Employee Parking
Tool equipment area
PHASE 2
BLDG 9
PHASE 2
BLDG 8
WALNUT GROVE DRIVE
BLDG 1
Closed Gates only open for scheduled Delivery
MAJOR A
MAJOR B
Fencing
N.T.S.
LEGEND
CU Denver Contracting

Schedule

Executive Summary (Key Milestones)

Phase II

For the second phase of this project, we determined the following events to be the most significant milestones. This portion required the construction of three new buildings. This is the reason for including more time spent on sitework.

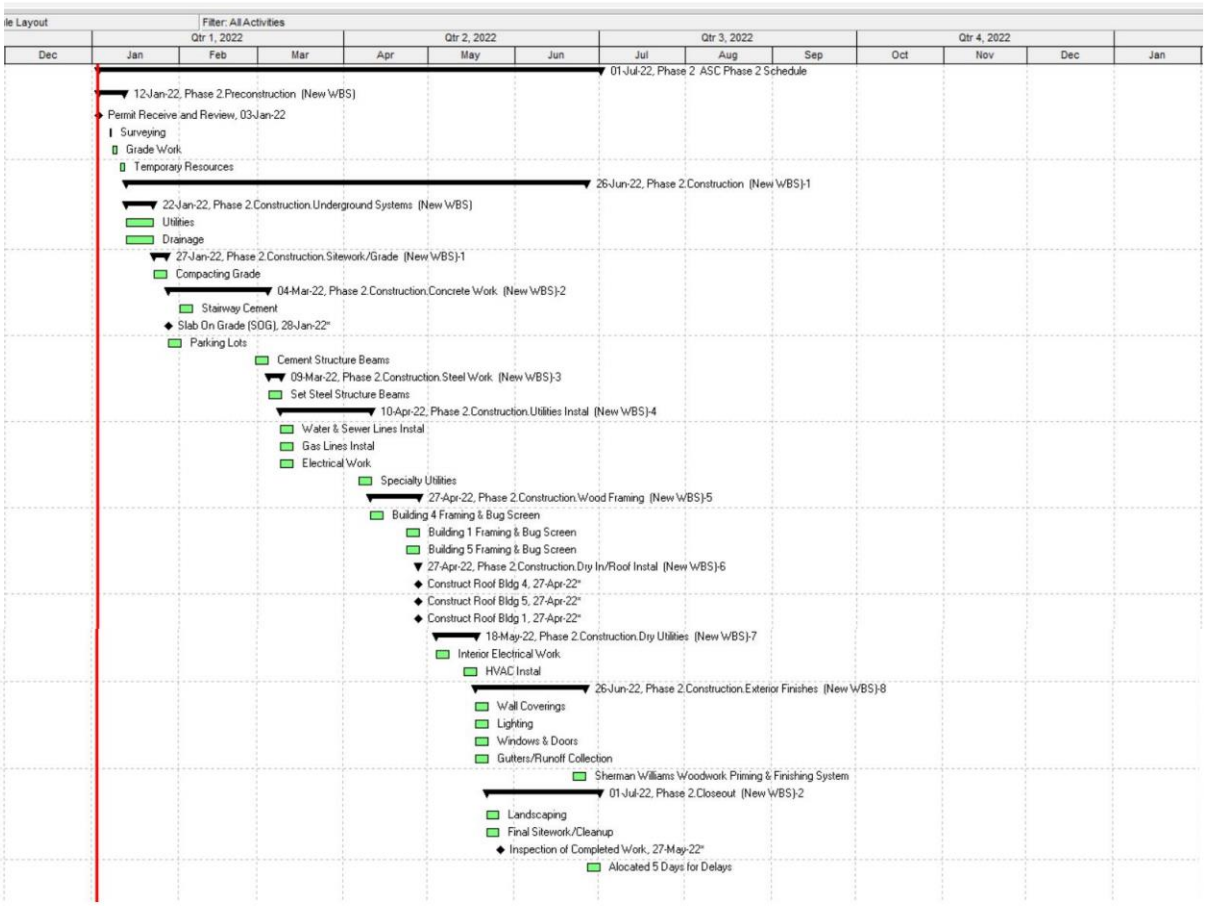
- Permit Receive and Review
- Complete Sitework & Underground Systems
- Complete Core & Shell for Buildings 1, 4, & 5
- Roof Install/Dry In
- Exterior Finishes

Phase III

During the third phase, we determined the following events to be the most significant milestones.

- Extract All Decomposing/Weathered Material from Historical Buildings
- Repair/Replace Roofing on Old Buildings
- Reconstruct & Refinish Concrete Floors with Epoxy
- Repair/Replace Decomposing Masonry Work
- Construct Buildings 6A and 8 to Core and Shell Condition

Phase II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Jan
01-Jul-22, Phase 2 ASC Phase 2 Schedule
12-Jan-22, Phase 2.Preconstruction (New WBS)
Permit Receive and Review, 03-Jan-22
Surveying
Grade Work
Temporary Resources
26-Jun-22, Phase 2.Construction (New WBS)-1
22-Jan-22, Phase 2.Construction.Underground Systems (New WBS)
Utilities
Drainage
27-Jan-22, Phase 2.Construction.Sitework/Grade (New WBS)-1
Compacting Grade
04-Mar-22, Phase 2.Construction.Concrete Work (New WBS)-2
Stairway Cement
Slab On Grade (SOG), 28-Jan-22*
Parking Lots
Cement Structure Beams
09-Mar-22, Phase 2.Construction.Steel Work (New WBS)-3
Set Steel Structure Beams
10-Apr-22, Phase 2.Construction.Utilities Instal (New WBS)-4
Water & Sewer Lines Instal
Gas Lines Instal
Electrical Work
Specialty Utilities
27-Apr-22, Phase 2.Construction.Wood Framing (New WBS)-5
Building 4 Framing & Bug Screen
Building 1 Framing & Bug Screen
Building 5 Framing & Bug Screen
27-Apr-22, Phase 2.Construction.Dry In/Roof Instal (New WBS)-6
Construct Roof Bldg 4, 27-Apr-22*
Construct Roof Bldg 5, 27-Apr-22*
Construct Roof Bldg 1, 27-Apr-22*
18-May-22, Phase 2.Construction.Dry Utilities (New WBS)-7
Interior Electrical Work
HVAC Instal
26-Jun-22, Phase 2.Construction.Exterior Finishes (New WBS)-8
Wall Coverings
Lighting
Windows & Doors
Gutters/Runoff Collection
Sherman Williams Woodwork Priming & Finishing System
01-Jul-22, Phase 2.Closeout (New WBS)-2
Landscaping
Final Sitework/Cleanup
Inspection of Completed Work, 27-May-22*
Alocated 5 Days for Delays

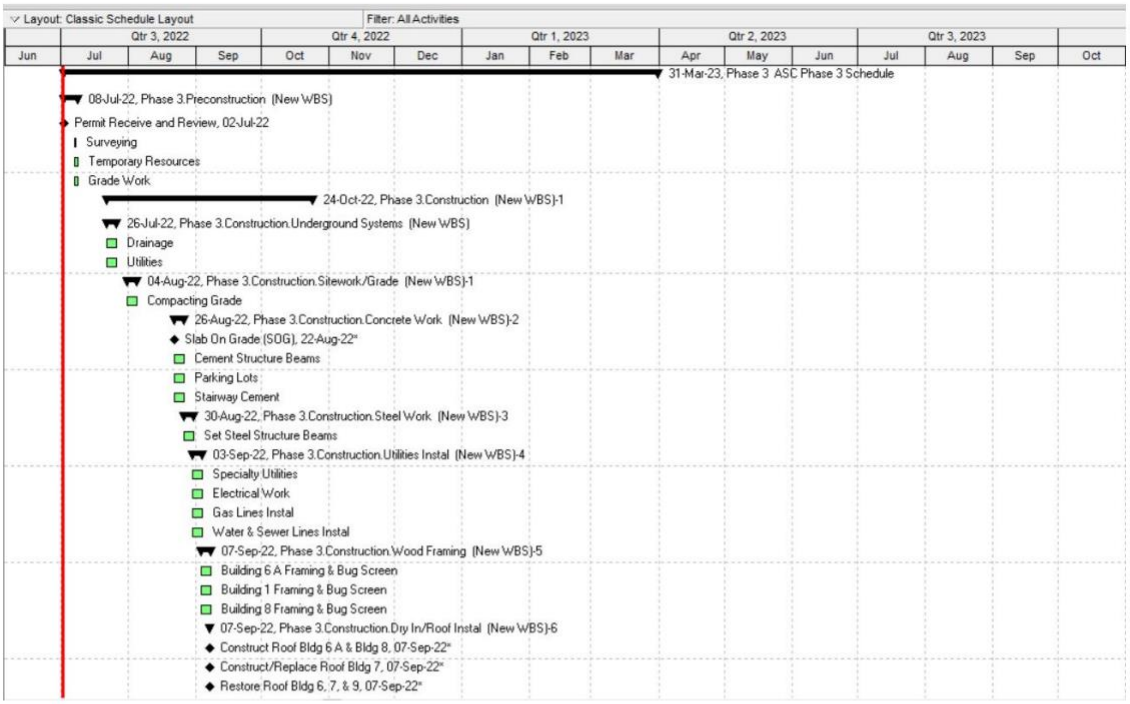
ASC Phase 2 Schedule	Classic Schedule Layout					04-Feb-21 16:38	
Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float
Phase 2 ASC Phase 2 Schedule		180	180	0%	03-Jan-22	01-Jul-22	2
Phase 2.Preconstruction (New WBS)		10	10	0%	03-Jan-22	12-Jan-22	172
A1030	Surveying	1	1	0%	07-Jan-22*	07-Jan-22	177
A1000	Permit Receive and Review	0	0	0%	03-Jan-22		177
A1040	Grade Work	2	2	0%	08-Jan-22*	09-Jan-22	175
A1050	Temporary Resources	2	2	0%	11-Jan-22*	12-Jan-22	172
Phase 2.Construction (New WBS)-1		165	165	0%	13-Jan-22	26-Jun-22	7
Phase 2.Construction.Underground Systems (New Wl		10	10	0%	13-Jan-22	22-Jan-22	162
A1020	Drainage	10	10	0%	13-Jan-22*	22-Jan-22	162
A1010	Utilities	10	10	0%	13-Jan-22*	22-Jan-22	162
Phase 2.Construction.Sitework/Grade (New WBS)-1		5	5	0%	23-Jan-22	27-Jan-22	157
A1060	Compacting Grade	5	5	0%	23-Jan-22*	27-Jan-22	157
Phase 2.Construction.Concrete Work (New WBS)-2		36	36	0%	28-Jan-22	04-Mar-22	121
A1090	Parking Lots	5	5	0%	28-Jan-22*	01-Feb-22	152
A1080	Slab On Grade (SOG)	0	0	0%	28-Jan-22*		152
A1070	Stairway Cement	5	5	0%	01-Feb-22*	05-Feb-22	148
A1100	Cement Structure Beams	5	5	0%	28-Feb-22*	04-Mar-22	121
Phase 2.Construction.Steel Work (New WBS)-3		5	5	0%	05-Mar-22	09-Mar-22	116
A1110	Set Steel Structure Beams	5	5	0%	05-Mar-22*	09-Mar-22	116
Phase 2.Construction.Utilities Instal (New WBS)-4		33	33	0%	09-Mar-22	10-Apr-22	84
A1140	Electrical Work	5	5	0%	09-Mar-22*	13-Mar-22	112
A1130	Gas Lines Instal	5	5	0%	09-Mar-22*	13-Mar-22	112
A1120	Water & Sewer Lines Instal	5	5	0%	09-Mar-22*	13-Mar-22	112
A1150	Specialty Utilities	5	5	0%	06-Apr-22*	10-Apr-22	84
Phase 2.Construction.Wood Framing (New WBS)-5		18	18	0%	10-Apr-22	27-Apr-22	67
A1300	Building 5 Framing & Bug Screen	5	5	0%	23-Apr-22*	27-Apr-22	
A1160	Building 4 Framing & Bug Screen	5	5	0%	10-Apr-22*	14-Apr-22	80
A1170	Building 1 Framing & Bug Screen	5	5	0%	23-Apr-22*	27-Apr-22	67
Phase 2.Construction.Dry In/Roof Instal (New WBS)-6		0	0	0%	27-Apr-22	27-Apr-22	0
A1320	Construct Roof Bldg 1	0	0	0%	27-Apr-22*		
A1310	Construct Roof Bldg 5	0	0	0%	27-Apr-22*		
A1180	Construct Roof Bldg 4	0	0	0%	27-Apr-22*		60
Phase 2.Construction.Dry Utilities (New WBS)-7		15	15	0%	04-May-22	18-May-22	46
A1190	Interior Electrical Work	5	5	0%	04-May-22*	08-May-22	56
A1200	HVAC Instal	5	5	0%	14-May-22*	18-May-22	46
Phase 2.Construction.Exterior Finishes (New WBS)-8		40	40	0%	18-May-22	26-Jun-22	7
A1240	Gutters/Runoff Collection	5	5	0%	18-May-22*	22-May-22	42
A1230	Windows & Doors	5	5	0%	18-May-22*	22-May-22	42
A1220	Lighting	5	5	0%	18-May-22*	22-May-22	42
A1210	Wall Coverings	5	5	0%	18-May-22*	22-May-22	42
A1250	Sherman Williams Woodwork Priming & Finishi	5	5	0%	22-Jun-22*	26-Jun-22	7
Phase 2.Closeout (New WBS)-2		41	41	0%	22-May-22	01-Jul-22	2
A1270	Final Sitework/Cleanup	5	5	0%	22-May-22*	26-May-22	38
A1260	Landscaping	5	5	0%	22-May-22*	26-May-22	38
A1280	Inspection of Completed Work	0	0	0%	27-May-22*		33
A1290	Alocated 5 Days for Delays	5	5	0%	27-Jun-22*	01-Jul-22	2

Actual Level of Effort — R
Actual Work — C

Page 1 of 4

TASK filter: All Activities

Phase III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Qtr 3, 2023
Jun
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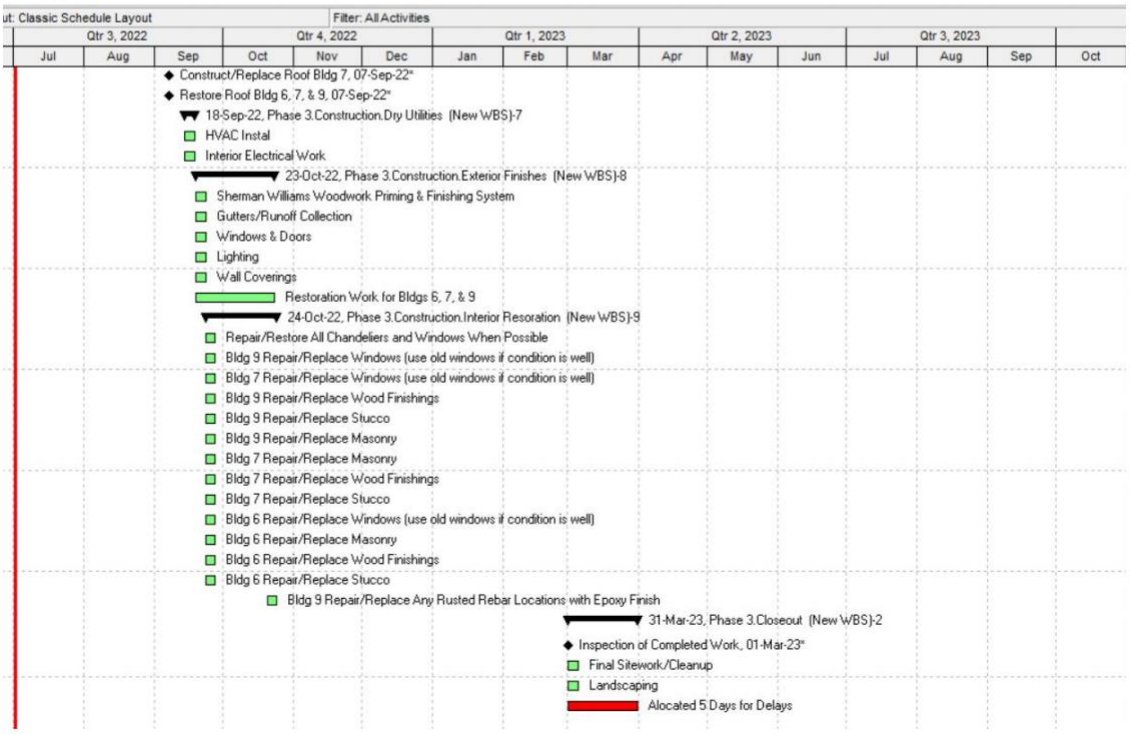
Oct
31-Mar-23, Phase 3 ASC Phase 3 Schedule
08-Jul-22, Phase 3.Preconstruction (New WBS)
Permit Receive and Review, 02-Jul-22
Surveying
Temporary Resources
Grade Work
24-Oct-22, Phase 3.Construction (New WBS)-1
26-Jul-22, Phase 3.Construction.Underground Systems (New WBS)
Drainage
Utilities
04-Aug-22, Phase 3.Construction.Sitework/Grade (New WBS)-1
Compacting Grade
26-Aug-22, Phase 3.Construction.Concrete Work (New WBS)-2
Slab On Grade (SOG), 22-Aug-22*
Cement Structure Beams
Parking Lots
Stairway Cement
30-Aug-22, Phase 3.Construction.Steel Work (New WBS)-3
Set Steel Structure Beams
03-Sep-22, Phase 3.Construction.Utilities Instal (New WBS)-4
Specialty Utilities
Electrical Work
Gas Lines Instal
Water & Sewer Lines Instal
07-Sep-22, Phase 3.Construction.Wood Framing (New WBS)-5
Building 6 A Framing & Bug Screen
Building 1 Framing & Bug Screen
Building 8 Framing & Bug Screen
07-Sep-22, Phase 3.Construction.Dry In/Roof Instal (New WBS)-6
Construct Roof Bldg 6 A & Bldg 8, 07-Sep-22*
Construct/Replace Roof Bldg 7, 07-Sep-22*
Restore Roof Bldg 6, 7, & 9, 07-Sep-22*


ut: Classic Schedule Layout
Filter: All Activities
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Oct
Construct/Replace Roof Bldg 7, 07-Sep-22*
Restore Roof Bldg 6, 7, & 9, 07-Sep-22*
18-Sep-22, Phase 3.Construction.Dry Utilities (New WBS)-7
HVAC Instal
Interior Electrical Work
23-Oct-22, Phase 3.Construction.Exterior Finishes (New WBS)-8
Sherman Williams Woodwork Priming & Finishing System
Gutters/Runoff Collection
Windows & Doors
Lighting
Wall Coverings
Restoration Work for Bldgs 6, 7, & 9
24-Oct-22, Phase 3.Construction.Interior Resoration (New WBS)-9
Repair/Restore All Chandeliers and Windows When Possible
Bldg 9 Repair/Replace Windows (use old windows if condition is well)
Bldg 7 Repair/Replace Windows (use old windows if condition is well)
Bldg 9 Repair/Replace Wood Finishings
Bldg 9 Repair/Replace Stucco
Bldg 9 Repair/Replace Masonry
Bldg 7 Repair/Replace Masonry
Bldg 7 Repair/Replace Wood Finishings
Bldg 7 Repair/Replace Stucco
Bldg 6 Repair/Replace Windows (use old windows if condition is well)
Bldg 6 Repair/Replace Masonry
Bldg 6 Repair/Replace Wood Finishings
Bldg 6 Repair/Replace Stucco
Bldg 9 Repair/Replace Any Rusted Rebar Locations with Epoxy Finish
31-Mar-23, Phase 3.Closeout (New WBS)-2
Inspection of Completed Work, 01-Mar-23*
Final Sitework/Cleanup
Landscaping
Alocated 5 Days for Delays

ASC Phase 2 Schedule	Classic Schedule Layout					04-Feb-21 16:38	
Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float
Phase 2 ASC Phase 2 Schedule		180	180	0%	03-Jan-22	01-Jul-22	2
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Phase 2.Construction (New WBS)-1		165	165	0%	13-Jan-22	26-Jun-22	7
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A1090	Parking Lots	5	5	0%	28-Jan-22*	01-Feb-22	152
A1080	Slab On Grade (SOG)	0	0	0%	28-Jan-22*		152
A1070	Stairway Cement	5	5	0%	01-Feb-22*	05-Feb-22	148
A1100	Cement Structure Beams	5	5	0%	28-Feb-22*	04-Mar-22	121
Phase 2.Construction.Steel Work (New WBS)-3		5	5	0%	05-Mar-22	09-Mar-22	116
A1110	Set Steel Structure Beams	5	5	0%	05-Mar-22*	09-Mar-22	116
Phase 2.Construction.Utilities Instal (New WBS)-4		33	33	0%	09-Mar-22	10-Apr-22	84
A1140	Electrical Work	5	5	0%	09-Mar-22*	13-Mar-22	112
A1130	Gas Lines Instal	5	5	0%	09-Mar-22*	13-Mar-22	112
A1120	Water & Sewer Lines Instal	5	5	0%	09-Mar-22*	13-Mar-22	112
A1150	Specialty Utilities	5	5	0%	06-Apr-22*	10-Apr-22	84
Phase 2.Construction.Wood Framing (New WBS)-5		18	18	0%	10-Apr-22	27-Apr-22	67
A1300	Building 5 Framing & Bug Screen	5	5	0%	23-Apr-22*	27-Apr-22	
A1160	Building 4 Framing & Bug Screen	5	5	0%	10-Apr-22*	14-Apr-22	80
A1170	Building 1 Framing & Bug Screen	5	5	0%	23-Apr-22*	27-Apr-22	67
Phase 2.Construction.Dry In/Roof Instal (New WBS)-6		0	0	0%	27-Apr-22	27-Apr-22	0
A1320	Construct Roof Bldg 1	0	0	0%	27-Apr-22*		
A1310	Construct Roof Bldg 5	0	0	0%	27-Apr-22*		
A1180	Construct Roof Bldg 4	0	0	0%	27-Apr-22*		60
Phase 2.Construction.Dry Utilities (New WBS)-7		15	15	0%	04-May-22	18-May-22	46
A1190	Interior Electrical Work	5	5	0%	04-May-22*	08-May-22	56
A1200	HVAC Instal	5	5	0%	14-May-22*	18-May-22	46
Phase 2.Construction.Exterior Finishes (New WBS)-8		40	40	0%	18-May-22	26-Jun-22	7
A1240	Gutters/Runoff Collection	5	5	0%	18-May-22*	22-May-22	42
A1230	Windows & Doors	5	5	0%	18-May-22*	22-May-22	42
A1220	Lighting	5	5	0%	18-May-22*	22-May-22	42
A1210	Wall Coverings	5	5	0%	18-May-22*	22-May-22	42
A1250	Sherman Williams Woodwork Priming & Finishi	5	5	0%	22-Jun-22*	26-Jun-22	7
Phase 2.Closeout (New WBS)-2		41	41	0%	22-May-22	01-Jul-22	2
A1270	Final Sitework/Cleanup	5	5	0%	22-May-22*	26-May-22	38
A1260	Landscaping	5	5	0%	22-May-22*	26-May-22	38
A1280	Inspection of Completed Work	0	0	0%	27-May-22*		33
A1290	Abcated 5 Days for Delays	5	5	0%	27-Jun-22*	01-Jul-22	2

Actual Level of Effort — R
Actual Work — C

Page 1 of 4

TASK filter: All Activities

BIM & Site Technologies

Building Information Modeling (BIM) will be heavily utilized to increase communication and increase efficiency in other tasks. BIM 360 allows for the smooth collaboration of all parties with all information updated instantly. Revit allows for visualizations and renderings to catch unforeseen areas of improvement. Whether it be a solar study, a walkthrough, or a 4D model, BIM creates a unique perspective to identify issues that may have been otherwise missed until that area of construction had already begun; these issues could be regarding safety, quality, or desired aesthetic. There are many programs categorized as BIM that create monumental benefits to smooth the construction process. Navisworks not only identifies any clashes between MEP systems pre-construction, it also is used to create a 5-dimensional model of the project. This simulation follows the project being built, viewed in three spatial dimensions over the timeframe of the project with cost displayed at each point in time. Building Information Modeling also eases all future maintenance required for the structure during its lifespan, creating a single space with all the information of each system within a building.

Procore is used to increase organization and accessibility of all documents and information. This platform provides a standardized location for the information used by all parties on a project and is easily navigated; anyone, whether owner, general contractor, or subcontractor, can just as easily access the same file. Procore stores and allows the organization of all plans, specifications, models, etc. QR codes are placed throughout the project site that direct users to Procore to easily allow access to RFIs and submittals related to the area or connected object. Procore serves as a database that can view all files within their original context or in a categorized view. Procore is also supported by mobile devices with apps for smartphones and tablets.

Primavera P6 Scheduling creates a smooth and accessible platform that maximizes needed capabilities to increase scheduling efficiency. This program allows all trade partners to provide input on the scheduling process as it is being formed, streamlining communication, and boosting project quality. P6 displays the critical path and milestones to increase productivity and achieve completion by the required date. The program comes with features to track potential risks from when they are first identified to the point of their resolution. Primavera P6 also allows simple and immediate updates/modifications of the schedule even after it has been distributed to all parties.

Drone documentation captures quality visuals of the project site at various points within each phase. The data recorded from drones can be used in pre-construction surveying, site reviewing, and mapping. During the construction, these visuals allow the owner and the public to conceptualize the project progression and identify potential areas of concern or needed improvement. When an area needs to be analyzed, and it is not safely accessible for individuals, drones would be used in replacement. Drones can also come equipped with various advanced technologies such as moisture sensors, temperature sensors, and LiDAR.

360° photo documentation allows for improved progress tracking of the project for all indoor construction. The 360° photos allow for an immersive perspective that reduces the amount of total documentation needed. While normal photo documentation can lack enough visual information to easily comprehend location respective to other photos within the same room, 360° photos create a more natural view of a room; these photos simulate the experience of physically standing in the room, smoothly shifting analysis from wall to wall. All photos would be neatly organized on Procore by room type and time (in weeks) since construction began. This allows for owners, architects, and project managers to track progress and quickly identify any areas requiring correction.

Safety, Disease, and Infection Control

Safety Measures

CU Denver Contracting is focused on awareness, preventative training, and stringent worksite enforcement that supports our Zero Injury Culture. Our current EMR is 0.73 and as of today, we are proud to have worked over 2532 consecutive days without a lost time injuries or accidents. Here are a few of our safety measures:

OSHA 10-hour training is required to all workers which teaches basic safety and health information. The training helps employees to identify, avoid, and correct hazards in the workplace. Workers learn how to avoid electrical, chemical, and mechanical dangers that they might not be aware of before.

Safely Manager Monthly Visits are conducted to guarantee that all hazards on project sites are eliminated or minimized. The safety managers ensures that the workers focus on delivering quality work to the client while controlling all safety issues and risks.

Subcontractors Safety Qualifications are submitted with the subcontractor bids which includes subcontractor training safety requirements, incident reports, and safety statistics.

Weekly Safety Audit identify health safety, and fire hazards. It provides an evaluation of workplace compliance to OSHA standards. A few things that are involved in those standards are respirator use, personal protective equipment (PPE), hearing conservation, ergonomics, etc.

Personal Protective Equipment such as hard hat, safety gloves, safety shoes, safety jacket, ear plugs, eye goggles, and dust masks must be worn at all times when on construction site.

Noise Mitigation Plans are created to avoid any trouble with neighbors, along with dust control.

Vehicular and Public Safety

We will protect vehicular public by controlling traffic when our site causes any disturbance. If we must close a lane to make sure that our delivery trucks enter and exit safely then we will have a traffic control team on delivery days. We will also work closely with the city to ensure all our measures are safe meet requirements. We have also made our employee entrance on Walnut Grove Drive a smaller street to minimize the effect our effect on traffic. Our delivery trucks are to enter and exit on Sorensen Avenue. While these streets are busier, they are also wider and better equipped for any large trucks. Whittier Boulevard being a very trafficked street will not suffer an impact of construction, because we can direct pedestrian traffic onto the sidewalks on the other side of the road. We will also provide “Caution Area Under Construction” area signs on the sidewalks and fence of the site. We will also close off any unused gates to ensure only PPE equipped personnel are onsite.

Injuries on-site

Any injuries on the jobsite are required to be reported to the closet's supervisor. If reporting immediately is not possible an investigation and interview will occur. Very minor injuries such as small cuts or abrasions will not require action on behalf of the company.

The field office includes first aid preparations, a wash station, and basic materials to handle most common injuries. When people fall faint, are severely burnt, or struck by an object professional medical assistance is required. In viewing a saver medical situation care to not move the injured individual must be taken seriously. Witnesses will guide medical staff to the injured individual and stay around as a witness to the events that led to the injury.

If drugs or alcohol are expected to be involved individuals will be tested for such substances as per workman compensation requirements.

Official forms from supervisors, witness, and when permits injured parties will be submitted for reference.

Documents must include:

- Place of accident
- Date and time of accident
- Individuals involved or injured
- Involvement in the accident
- Actions after the incident
- Specific injuries
- Damage to equipment or materials

COVID 19 REGULATIONS & Measures

All workers need to always wear a mask in addition to checking in every day and have temperature taken. Anyone who has had fever in the last 24 hours or suspects that has been in contact with someone sick needs to get tested for COVID-19 and provide proof before returning to work. Also, all trades are kept on a strict schedule to minimize contact between different group of workers. The site layout is created with the objective to follow the new protocols including circulation within buildings, elevator and stair usage, and restroom occupancy. In addition, social distancing must be always everywhere.

Risks

We are an industry-leader that assures high-quality performance every step of the way. The enthusiasm to eagerly jump into the design development phase to provide design-assist services, value engineering, and critical lessons learned from our many similar projects. A strong team of construction professionals with substantial hospitality and historic restoration and renovation experience. Proven success in helping design projects deliver architectural intent, cost-savings, and best features for project goals and type.

No person enjoys hidden fees or breaking their planned budget. To protect the owner from any unforeseen expenses, CU Denver Contracting has implemented a Guaranteed Maximum Price in the contract. If the costs of the project exceed this predetermined value for any reason, no expenses beyond the GMP will fall onto the owner. CU Denver assumes full responsibility for any costs beyond this maximum price.

Delays in the project means money lost for the owner. CU Denver Contracting promises to protect the owner from these losses. Unexpected delays are factored into schedule; therefore, if there are no delays, this will result in the project being ahead of schedule. If Substantial Completion is delayed, liquidated damages ensure the owner receives compensation as agreed upon in the contract. Frequent planning meetings are practiced increasing communication across parties and to ensure the project progresses as planned. OAC meetings and short term (3 month) planning coordination meetings accelerate problem solving and help identify any potential future obstacles. Additionally, to prevent any delays due to COVID-19 outbreaks, CU Denver Contracting has established policies, educative meetings, and various practices that will be strictly enforced.

CU Denver Contracting prides itself in its quality assurance. To deliver a quality project to the owner, our subcontractors must be providing their highest quality work. Quality is upheld between parties by ensuring that the subcontractor maintains liability for the work they produce even after the final payment. Warranties are established against all deficiencies and defects in their work. Quality is also ensured by choosing subcontractor bids not solely off their prices but also analyzing their financial situation, safety record, and overall reputation. This bid qualification is organized through software that processes and weighs all these factors to retain only the top options for subcontracting.

Subcontractors not only have a large hold on the quality of the project but also the pace of the project. We take all available actions to maximize all subcontractors' productivity. Financial incentives are agreed upon for completing work (of high quality) ahead of schedule. Likewise, penalties are in place for work being completed behind schedule. We require subcontractors to provide full-time supervision for all laborers to increase productivity and aid in quality. Productivity is electronically tracked to identify risk factors and pinpoint groups needing improvement.

Safety is essential and is of utmost importance. All areas of the building under construction are required to be maintained in "broom-clean" condition to minimize hazards underfoot and struck-by injuries. We perform frequent safety meetings with mandatory attendance to maximize safety knowledge and ensure policies are being followed. CU Denver Contracting requires strict OSHA compliance and strict enforcement of PPE usage. Activities are only performed with proper equipment and supervision. Additional safety measures are taken for tasks statistically proven to be more dangerous, including electrical work and trench work.

Exhibit 4: Questions

Questions

General Questions:

1. **What type of contract is this project (Copy of proposed contract can be found in files)?**

Cost Plus + Guarantee Maximum Price

2. **How are you handling SWPPP set up and maintenance? Are you subcontracting all or any portion of that work?**

We are subcontracting most of the Storm Water Pollution Prevention Plan (SWPPP) set up and maintenance. Additionally, all site contractors are required to implement moderate protections to limit storm water pollution and erosion. The primary SWPPP subcontractor contractor will fulfill permit requirements, implement proper site drainage, take steps to limit erosion using erosion control blankets, pipe out any site sediment through a sediment trap, and monitor above grade concrete washout locations. The project manager will verify a construction general permit order 2009-0009-DWQ is obtained by the SWPPP contractor as well as check to see if the SWPPP subcontractor is a certified qualified SWPPP Developer (QSD).

3. **How are you going to protect the owner from risk/unforeseen costs?**

A guaranteed maximum price (GMP) the owner will pay is agreed upon and established in the contract to protect the owner from any excessive or unforeseen costs; all these expenses will be under the contractor's responsibility. Liquidated damages are contractually established to provide the owner compensation in the case that Substantial Completion is delayed. Measures are taken to maximize the productivity and quality of the work performed by all subcontractors to ensure the project the owner receives is delivered on time and of the highest quality.

4. **What are your exclusions and clarifications?**

A few clarifications:

- The schedule estimate is designed for durations purposes. The start date will be modified as needed.
- Street closures and permits have not been included and are assumed to be managed by the owner.
- Any existing hazardous material on site required removal will be assumed by the owner and is excluded.

Exclusions:

- Delays caused by civil unrest, political instability, and health standards implemented by the State of California will not negatively count towards the projected project duration time.
- Delays caused by endangered species or archaeological finds will alter the completion of the project as necessary by the State of California.

5. **If subcontractor provides a bid that states, they have bid an "alternate" product what does the specification book say needs to be done?**

Document

Bickel Group Architecture, 16A300

page 3 section 2.5 C "Alternate Products: Alternate products will only be permitted if written approval and accepted is obtained by both architect and owner at least seven (7) days prior to the bid date. Any monetary savings that may be realized by using an alternate product shall be forwarded to the owner."

6. **How does your project team plan on handling and tracking commissioning, demonstration & training?**

After reviewing the and fixing any issues in the final punch list and the City of Whittier issuing the certificate of occupancy the building will be handed over to the owner. CU Denver Contracting has scheduled the project engineer to stay on site for an additional week with the purpose of training the owner and workers how to operate each of the buildings as well as surrounding utilities.

Training and providing resources to the owners and site teams will involve hands on experience demonstrating operations when permits. Testing utilities such as water pressure, electrical voltage, and mechanical systems will include manuals with contact information and warrantee information. Additionally, CU Denver Contracting stands by their product to serve their customer needs and will maintain audibility if questions arise about site capabilities or logistics.

7. **What is your general contracting fee?**

5.45% which consists of 4.25% cost of work, 1% for insurance, and 1.2% Subcontractor Default Insurance (SDI)

8. **What building has the highest elevation?**

Pad elevation from building 6 is 228’ making the tallest building number 9 at 41’-8.5” with a maximum elevation at chimney 269’-8.5.

Scheduling Questions:

9. **What long lead items do you anticipate having on this project?**

Equipment such as loading dock, elevators, Pneumatic Tube System, and materials delivery.

10. **What kind of schedule delays do you anticipate and how will you address them in the schedule?**

Weather and subcontractor delays, to address this issue a few extra days were incorporated into the schedule for these unforeseen delays.

11. **How often will you update the progress in the schedule and what are the standard reports that you will provide?**

There will be weekly and monthly updates. Every Friday, there will be rough updates and once a month, there will be a meeting to go over the process made in that month.

12. **How will you use the schedule to identify risks early?**

By identifying the Critical Path Method (CPM) and each phase main milestones.

13. **What are at least five critical milestones you have in your schedule?**

Receiving permits, finishing demo, finishing utilities install, finish cement work, and complete drywall work.

Estimating Questions:

14. **Using the unit price on concrete for Building 8, what would it cost to place the complete slab?**

From RSMeans, a unit cost of $3.36/sf was determined for a 4" slab-on-grade with reinforcement. From the Foundation Plans for Building 8 (S-1.0), Bluebeam was used to determine two slab areas of 966.24 sf and 510.52 sf. The "slab leave-out" area was not included in the calculation. With this information, the cost to place the slab is $5,000.

15. **What is the recommended treatment for the building pads indicated in the soils report?**

Building pads should be scarified and the top 12 inches of existing subgrade and each layer of backfill or fill material at 95 > percent should be recompacted.

Phasing Questions:

16. **If the owner does not release us for a phase on the date anticipated, how will you address this?**

If the owner does not release a phase on an anticipated date, we will review the schedule to see if the critical path can be adjusted to complete the project on time. Assuming overtime is required to complete the project after a delay caused by the owner a change order will be requested authorizing overtime pay. If additional delays arise due to owner delay change order will reflect such variations from the original contract.

17. **How will you determine where the phases start and stop if it is in the middle of an element i.e. sidewalk, asphalt paving, etc.?**

By developing a precise punch list per phase development, the superintendent will inspect each stage before another begins. When one stage overlaps another, the General Contractor will be allowed to move forward assuming the financial risk if delays occur in the phasing plan.

18. **If phases are delayed or started concurrently, how will that impact overall completion of the project?**

Each phase has a built-in buffer that allows for leniency due to unforeseen events as well as delays in phase transitioning. Phase one has a buffer that consists of ten days, stage two is five days, and stage three allocates ten days. These additional days give some protection to delays however if additional phase delays occur adjustments in the schedule would need to be made. Some scheduling adjustments might involve starting on phase 3 which involves protection and renovation of buildings while causes of delay on phase 2 are being solved.

In allowing stages to be completed concurrently, the project duration would be significantly shortened. Since phases one and two require excavation, doing this would not only improve on time but also allow the field office to be set up in one location and not be relocated after earthwork was finished in stage one. Additional benefits include having multiple contractors spread out on the site finishing each trait at the same time increasing the efficiency of the project.

19. **If you're proposed schedules shows a subcontractor working on multiple buildings/areas at the same time, how will that be addressed with the subcontractor?**

Subcontractors hired will be expected to work on multiple buildings simultaneously and understand the scope of the project. These subcontractors who bid on the project are expected to understand the site plan which includes seven buildings. Part of accepting the contract includes having enough staff and the ability to manage their staff to complete such requirements. If errors in scheduling occur by the general contractor not anticipated by the subcontractors, the general contractor will immediately identify strategies to rotate traits job work in such a manner to not negatively affect the critical path of the construction project.

Exhibit 5: Addendum

1. **Provide pricing for Building #5 on the attached change order sheet including all mark-up.**

CHANGE ORDER REQUEST

Date:	2/4/2021		
Contractor Name:	CU Denver Contracting	**Layton Project Number**	207107
Address:	1201 Larimer St	**Project Name:**	The Groves at Whittier
City & State:	Denver, CO	**Project Address:**	11850 Whittier Blvd
Phone Number:	(303) 315-7170	**City & State:**	Whittier, CA
Fax Number:	(303) 860-5610		
COR #:	1		
Description of Work:	Building 5		

Subcontractor (Include company name)	Value	
Concrete - Site and Structural	$ 51,967.59	AG Construction
Framing and embeds	$ 186,500.00	Herron Construction, Inc.
Plumbing	$ 54,600.00	Timken Plumbing
Structural Steel Framing & Misc. Steel	$ 50,312.00	Advanced Concepts Construction Services, Inc.
Subtotal	$ 343,379.59	
Mark-Up (%)	9.50%	90606 sales tax
Total Costs:	**$ 376,000.65**	

NOTE: Please use appropriate tax rate for your county

2. **Prepare a management plan to not disturb the soil containment area and describe what activities will be performed over that area.**

Per Salem Engineering group inc. it is recommended that "the first 12 inches of soil beneath the required granular aggregate subbase within slab on grade area be removed and replaced with Non- Expansive Engineered Fill (EI<20). By doing this we will have met the requirements on their report. Unless we do a complete soil, replacement mitigation measures will not eliminate post construction soil movement but will reduce the soil movement. Success of this mitigation will depend on the thoroughness of the contractor and developer in dealing with the soil conditions. In any event, the developer should be aware thane sone soil movement is to be expected.

3. **Ownership did not like the concrete finish performed by Rick Hamm on a different project, if Rick Hamm was who you were planning on using for concrete, please select an alternate subcontractor.**

We did not like Rick Hamm so we did not pick them for any contract on the project.

4. **We were recently informed by the City of Whittier that inspections are 2-3 weeks out from when they are scheduled, please provide a plan as to how this will be addressed to not impact your project schedule.**

CU Denver Contracting has a buffer built into each phase for unseen events and are expected to finish three weeks early. Phase one included a buffer of ten days and five were utilized due to slow take off as well as sub-contracting issues. Stage two included a buffer of five days and finished construction one week early. At this time, we are prepared for the two to three weeks delay due to inspectors and se to finish on time.

Assuming further issues arise, CU Denver Contracting has adjusted the schedule to include moving construction focus on phase three to restoration of buildings 6A, 7, and 9. Additional resources will be moved to the construction completion of buildings 6A and 8 to ensure building 5does not delay the overall project.

Exhibit 6: Alternates Competition Information

ASC Regions 6 & 7 2021 Student Competition

February 3-6, 2021

The ASC Regions 6 & 7 2021 Student Competition will be held 100% Online

Alternates Competition

Thursday, February 4, 2021

Date: January 23, 2021
To: Registered Alternates

Hello participants!
All of us here at Rudolph & Sletten are excited to have you compete in this year's Alternates Competition! What to

expect on the day of the event, **Thursday, Feb. 4, 2021**:

7:00 AM PST Competition begins at 7:00 AM PST sharp, login to your Zoom account 10-15 minutes early to verify your internet connection and Zoom account work.
All participants will need a free individual Zoom account - https://zoom.us

7:00 AM PST Log into the Zoom meeting listed below. From there, the R&S team will provide you with a quick overview of the day's events, assign each participant to a team, and provide the problem statement. Teams will be created by a random selection process.

10:00 AM PST R&S will briefly close all breakout rooms and bring everyone back to the main lobby for a mandatory all-hands meeting. Once this meeting has concluded teams will return to the breakout room they were originally assigned to.

5:00 PM PST Team deliverables for the problem shall be due at 5:00 PM.

5:30 PM PST A Problem Recap detailing the solutions to the deliverables, site photos, and history of R&S will take place. Team attendance is encouraged to help you understand our approach to the problem and develop a "lessons learned". R&S judges will also answer almost any question you have for us; even the questions we may not have fully answered during the problem.

Exhibit 7: Competition Pictures

Team Photo

Merlina Montalvo: Project Manager

Ryan Thomson: Superintendent

Front: Cory Stanek: Building Information Modeling Manager

Behind: Jacob Donaldson: Chief Estimator

Raynard Jokie: Project Scheduler

Iran Chacon Duarte: Office Engineer

Nicole Medrano: Team Alternate

Exhibit 8: Team Member Resumes

Ryan Thomson

(720)882-7208
rzthomson@protonmail.com

https://www.linkedin.com/in/ryan-thomson-4256791ba | 2690 W. 90th Pl. Ave., Denver, CO 80260

EDUCATION

BS: Civil Engineering (GPA: 3.64)
Minor: Construction Management
University of Colorado (Denver) Anticipated May 2021

- Fundamentals of Engineering Exam scheduled March 2021
- Associated Schools of Construction (ASC) competition. Nationally recognized construction management competition.
  One of two team leads in charge of leading and organizing group members and defining the scope of the project.
- American Society of Civil Engineers (ASCE) student member Fall 2018 – Present

- Completed Courses: Structural Rehabilitation, Timber Design, Geotechnical Engineering, Storm Water System Design, Hydro Systems Engineering, Reinforced Concrete Design, Transportation Engineering, Structural Analysis, Computational Methods, Construction Cost Estimating, and Construction Planning and Controls.

Diploma
Centaurus High School Lafayette, CO (May 2001 - May 2005)

Software Background:

- AutoCAD, Building Information Modeling (BIM), Rivet, Navisworks, Bluebeam, Excel, Python, and MATLAB

WORK EXPERIENCE

Apr. 2010 – Dec. 2020
Allstate Corporation **Licensed Insurance Consultant - Manager** **Lakewood, CO**

Over ten years of experience running day to day operations of an insurance agency as a licensed consultant. I specialized in clients with large and diverse insurance portfolio's that included multiple properties, automobiles, umbrella coverage, as well as life insurance. Additionally, I assessed risks, took payments, managed commercial exposures, and evolved with the industry to stay pertinent. Specific accomplishments:

- Regular interface with clients
- Drove consistent increase in signed policies over the last ten years
- Implemented new policy management system that increased efficiency
- Improved customer satisfaction scores
- Property, Casualty, and Life Producer's License, March 2010 – Current

Jan. 2007 – Jan. 2010

Harman Management **General Manager/Co-Owner of K.F.C.**
Westminster, CO

- Managed a team of 20 staff to drive profitable revenue exceeding $900,000 annually, while rated the top store in the district for three years
- Negotiated multiple vendor contracts, resulting in a 15% increase to profitability over a three-year period.
- Established strong health and safety protocols to enable high ratings for inspections
- Developed team members in management resulting in multiple promotions
- ServSafe Food Handler - National Restaurant Association Issued Apr 2007 –Apr 2012

Nov. 2005 – Jan. 2007

Restoration Specialist, Inc. **Labor** **Broomfield, CO**

- Restored and repaired buildings in Denver and surrounding communities

Dec. 2002 – Nov. 2006

Private Contractor **Private Contractor** **Colorado**

- Renovated existing structures to improve sustainability and appearance

HOBBIES

Avid outdoorsman who enjoys backpacking, landscape photography, and fish

Cory Stanek, E.I.

9090 Garrison St. (720) 315-5878

Westminster, CO 80021 cstanek48@gmail.com

OBJECTIVE

Obtain a job or an internship in the field of construction management.

EDUCATION

University of Colorado Denver *Graduation*: May 2021

BS: **Civil Engineering**

Minor: **Construction Management**

- Coursework: Construction Engineering Systems, Construction Materials and Methods, Timber Design, Geotechnical Engineering, Surveying, Highway Design, Steel Design, Concrete Design, Structural Analysis, BIM
- Competed in the 2021 ASC Construction Management competition
- Member of the American Society of Civil Engineers (ASCE) student chapter
- Passed FE Exam on April 15th, 2021

SKILLS

- Proficient at Revit, AutoCAD, Microsoft Office, RISA, and AutoCAD Civil 3D
- Beginner at Bluebeam, Navisworks, MATLAB, SOLIDWORKS, and EPANET
- Spanish (Conversational), Japanese (Basic)

EXPERIENCE

DoorDash Driver 2019-2021

24 Hour Fitness - *Arvada, CO* 2017-2019

- Communicated with members to discern goals, then informed and guided them to the best solution to meet their needs
- Consistently lead team of ten in sales of nutritional items and new memberships

Jump City - *Westminster, CO* 2014-2016

- Resolved in-person/phone inquiries, issues, and various requests
- Performed maintenance on equipment to ensure maximum quality was sustained

ACTIVITIES & ACHIEVEMENTS

- Volunteered for Impact Cares constructing wooden patios, 2019
- Managed and lead campus students through ministry program, improving their discipline and helping them to reach and surpass personal goals, 2018-2019
- Volunteered at Outdoor Education Laboratory Schools, 2014-2015

Merlina Montalvo Campos

3360 S Clermont St, Denver, Colorado - 80222 | merlinamontalvo@gmail.com | (503) 915-7017

EDUCATION

B.S Civil Engineering, University of Colorado Denver (2018- May 2021)
Construction Management Minor

- COMPLETED COURSES: Structural Analysis, Structural Materials, Fluids Mechanics, Geotechnical Engineering, Hydrology, Engineering Surveying, Mechanic of Materials, Environmental Engineering, Water Supply and Distribution, Construction Management Fundamentals, Project Management Systems, Reinforced Concrete Design, and Storm Water Design.
- CURRENTLY TAKING: Timber Design, Highway Design, Planning and Control, and Project Cost Estimating.

Community College of Denver – Associate of Arts (2015-2017)

SKILLS & ABILITIES

Skills (Technical)

- AutoCAD, RISA 3D, Revit, EPANET, Bluebeam
- Word, Excel, PowerPoint

Communication

- Fluent in reading, writing, and speaking in Portuguese and Spanish
- Participated on speech competitions in college

WORK EXPERIENCE

Intern | Martinez Associates, Inc | February 2021 – Present

- Training under supervisor for soil and concrete testing
- Field and laboratory work
- Preparing data reports of testing and inspection

Server | BeauJo's Pizza | September 2016 – Present
Server | The Ramen House | April 2016 – August 2016
Cashier | Starbucks | February 2015 – May 2016

ORGANIZATIONS

- Tau Beta Pi Member (2019) – Engineering Honor Society
- American Society of Civil Engineering (ASCE) – Fall 2018 – Present

JACOB DONALDSON

Denver, CO | jadonaldson17@gmail.com | (303) 669-8843

Jacob is eagerly seeking work in civil and structural engineering to apply his knowledge gained in an ABET certified program and to further his education and experience beyond his bachelor's degree. He strives to amplify his analytic and design skills and conduct and create designs in various markets including residential, commercial, and industrial. He wants to be under the guidance of engineers who will help advance his career and provide opportunities on his way to PE licensure.

EDUCATION

UNIVERSITY OF COLORADO, DENVER – MAY 2021

Major: Civil Engineering, BS **Minor:** Construction Management
Affiliations/Awards: Tau Beta Pi Honor Society, American Society of Civil Engineers, Associated Schools of Construction, CEC Silver Medal Award Nominee, ASCE Outstanding Senior Award Nominee
Certifications: EI (pending): FE Exam May 4, 2021

EXPERIENCE

Relevant Work History:

LEARNING RESOURCES CENTER at the UNIVERSITY OF COLORADO, DENVER
AUGUST 2018 – MAY 2021
Master Certified Tutor (College Reading and Learning Association Level III)

- Facilitated one-on-one and group sessions to students in Math and Civil Engineering courses
    - Tutored courses include Calculus I-III and all completed engineering coursework
- Conducted interviews to carefully select most qualified candidates for new tutors in all subject areas

THE HOME DEPOT
MARCH 2016 – SEPTEMBER 2018
Deliveries Specialist

- Assembled orders for customers (DIY to professional contractors) with nearly zero errors
- Conceptualized and implemented an efficient shift turnover reporting system to minimize loading times and redundancy
- Safely operated various types of lift equipment with forklift license and trained other employees on proper use of electric ladders
- Completed deliveries in a company-owned vehicle while communicating order status to customers by phone

VECTOR MARKETING
MAY 2015 – AUGUST 2015
Independent Sales Representative

- Negotiated profitable sales agreements on a commissioned platform
- Implemented effective networking strategies to generate new customers
- Utilized extensive training in marketing strategies to boost commission levels to 25%