



ADVERTISEMENT FOR REQUEST FOR PROPOSALS
for
CONSTRUCTION MANAGER / GENERAL CONTRACTOR SERVICES
State of Colorado
University of Colorado Denver (GFE)

Notice Status: OPEN
Publish Date: 12/20/2021
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Project No: 22-103067
Project Title: CU Denver College of Engineering, Design, and
Computing Building and North Classroom Renovations
Estimated Construction Cost: \$58,739,000

Settlement Notices

For all projects with a total dollar value above \$150,000 Notice of Final Settlement is required by C.R.S. 38-26-107(1).

Final Settlement, if required, will be advertised via: Electronic Media

Project Description

Please refer to the Request for Proposal for this project for the full project description and scope of services. This advertisement only provides a select description and requested scope of services.

This project will create a new complex for engineering and computing, and enhance the gateway experience into the CU Denver neighborhood along Larimer Street. The building will also serve as a cornerstone for CU Denver's emerging open innovation district. The creation of an innovation district was one of five goals that arose from CU Denver's 2030 Strategic Plan. Located at the intersection of Speer Boulevard and Larimer Street, this project is comprised of a 94,200 GSF new building and approximately 46,000 SF of site improvements. The project also consists of approximately 5,000 SF of renovations in the North Classroom building that will occur after completion of the new building. Should the renovation scope increase, the University may request additional services from the selected project team.

The published program plan identifies the very prominent site that has been selected for the project. The building will play a critical role in the further development of the CU Denver neighborhood, the Innovation District, and this important gateway into the CU Denver neighborhood. The building shall be complimentary of campus scale while continuing to establish a visual connection between LoDo, the Central

Business District, and the CU Denver neighborhood. The building must exemplify design-excellence and deliver an iconic presence off Speer Boulevard that both activates the “front side” of campus and facilitates ease of access and mobility around the building. Committed to the creative economy, CU Denver also supports public art as part of the design and will explore community serving retail, and food and beverage spaces as part of the development. Flex-spaces for public convenings, and areas for socialization and team study, research and collaboration will be essential in the design.

Scope of Services

The **University of Colorado Denver** anticipates using a Construction Manager/General Contractor (CM/GC) approach to project delivery. A Guaranteed Maximum Price (GMP) and an updated project duration schedule will be established by the Architect/Engineer and the Construction Manager/General Contractor in conjunction with the **University of Colorado Denver**. The CM/GC will evaluate, among other things, availability of materials and labor, project schedule, project costs as they relate to the established budget, constructability, and will work closely with the Architect/Engineer and the **University of Colorado Denver | Anschutz Medical Campus** throughout the planning, design and construction phases of the project. Please see attached RFQ for full details on the A/E full scope of services.

Minimum Requirements

Notice is hereby given to all interested parties that all firms will be required to meet ALL of the minimum qualifications to be considered for these projects. To be considered as qualified, interested firms shall have, as a minimum:

1. Provided Construction Management/General Contracting services within the last five (5) years for at least two (2) projects each in excess of **\$59,000,000** (hard costs), utilizing the expertise present in their Colorado Office; and
2. Demonstrated specific Construction Management/General Contracting experience in projects of similar ground-up scope and complexity with State [A/E CM/CG agreement \(SC-5.2\) and CM/GC Agreement \(SC-6.5\)](#); and;
3. Demonstrated bonding capability up to **\$59,000,000** for an individual project coincidentally with current and anticipated workloads; provide letter from surety that affirms this capacity.
4. A licensed contractor in the State of Colorado and City of Denver; and
5. Have completed construction of two or more examples of either interdisciplinary science, technology, computer science, or engineering buildings for institutions of higher education and preferably as a CM/GC; and
6. Demonstrated specific CM/GC experience on projects of similar ground-up scope and complexity with State CM/GC Agreement (SC-6.5), accurately establishing project GMP, and achieving project completion withing the set schedule and budget; and

7. Demonstrated close working relationships with a complex team of designers and consultants, University consultants, and University on project scope estimating and scope development; and
8. Experience achieving LEED Gold with a preference for Platinum; and
9. A demonstrated commitment to diversity including documented goal-setting and strategies via submission of a “diversity, equity, and inclusion plan” to achieve participation of minority and women owned local firms throughout construction of the project. You can provide a website link to your firm’s published policy and elaborate your project-specific approach as necessary.
10. The ability for team members to agree to all of CU Denver’s current and future COVID policies including verification that all project related employees (and subcontractors) are vaccinated with the assumption that the most stringent policies may apply throughout the project; and
11. The ability for all team members including sub-consultants and sub-contractors to successfully complete a background check at the request of the University to include sex offender criminal convictions; and
12. Per C.R.S. §24-92-115 unless prohibited by applicable federal law, contract for any public project in the amount of one million dollars or more, that does not receive federal money, including a public project that will have an integrated project delivery contract pursuant to article 93 of this title 24, shall require the general contractor to which the contract is awarded to submit, at the time the mechanical, electrical, or plumbing subcontractor is put under contract, documentation that identifies the contractors or subcontractors that will be used for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical, and plumbing work required on the project and certifies that all firms identified participate in apprenticeship programs registered with the United States department of labor’s employment and training administration or state apprenticeship councils recognized by the United States department of labor and have a proven record of graduating a minimum of 15% of its apprentices for at least three of the past five years. More information regarding this requirement can be found on the website: <https://osa.colorado.gov/state-buildings/prevaling-wage-and-apprenticeship>; and

Preferred Requirements:

1. Experience with mixed-use buildings.
2. Experience with buildings that involve industry partnerships with specific emphasis on innovation.
3. Experience constructing buildings on small sites with access limitations.
4. Experience with projects on prominent sites.
5. Experience with the goals outlined in the Project Description including, but not limited to: LEED Platinum, Net Zero or Net Zero Ready, Green Globes, WELL Building Standard, Energy Star Buildings, and Colorado High Performance Certification Program (HPCP). Project team members that are LEED professionals in key roles (PM, Super, PE, etc) will be scored higher.
6. Key project team members that truly live, embrace, understand, and have a high-level of enthusiasm for the types of projects outlined in preferred requirement #5 and understand the importance of these types of projects to the built environment and educational institutions.
7. Experience generating real-time estimates from BIM data.

8. Project field staff, especially superintendents, that are technically competent with all aspects of project site technology and the BIM process and models.
9. Demonstrated experience leading teams to achieve project stretch goals.
10. Experience working on the Auraria Higher Education Center campus.
11. Experience working with the University of Colorado.
12. A commitment to working with the University to provide career pathways for CU Denver students including, but not limited to: experiential learning opportunities, paid-internships, job shadow programs, and mentoring opportunities.
13. Experience working with and coordinating third-party entities including the City and County of Denver, Denver Fire Department, Denver Water, Xcel Energy, and Solar PPA providers.

Firms meeting the minimum requirements may obtain the bidding documents on the website accompanying this advertisement.

University of Colorado Denver | Anschutz Medical Campus Facilities Projects – **Request for Qualifications** website:

<https://www.cuanschutz.edu/offices/facilities-management/construction-projects/RFQ>

Colorado CORE/ColoradoVSS:

<https://www.colorado.gov/pacific/osa/cdnoticces>

Other Information

Preference shall be given to Colorado resident bidders and for Colorado labor, as provided by law.

Pre-Submittal Conference

To ensure sufficient information is available to firms preparing submittals, a mandatory pre submittal conference has been scheduled. The intent of this conference is to tour the site and to have CU Denver staff present the project. There will not be a Q/A session at this conference, all questions are to be submitted via email. Firms preparing submittals must have **at least one person** attend in-person and sign-in, in order to have their submittals accepted. Firms are requested to limit the number of in-person attendees due to COVID precautions and recommend additional firm members to join via Zoom. The pre-submittal conference will be held at:

Address: **1380 Lawrence Street, Denver, CO**

Room: **The Terrace Room, 2nd Floor**

Date/Time: **01/06/2021 at 2:30 PM**

COVID precautions are in place, including mandatory masks for attendees. If you are feeling sick for any reason, please have an alternate attend in-person.

ZOOM Attendee Information – For Information Purposes Only:

To receive an invitation for the on-line Zoom to view the pre-submittal conference, you must pre-register in advance using the link below. The Zoom meeting is for information

purposes only and does not meet the mandatory in-person requirement for each interested firm.

ZOOM registration link:

https://ucdenver.zoom.us/meeting/register/tJlpfuqpgzwrGNdDSF0e1MeTkwlHMFbw_Xmo

Comments: **Pre-Bid meeting will begin at 2:30 PM on January 06, 2021. COVID Precautions in place including mandatory masks for attendees.**

Schedule/Submission Details

1. The schedule of events for the RFP process and an outline of the schedule for the balance of the project is as follows:

Advertisement	12/20/2021
Mandatory Pre-submittal Conference	1/06/2022 2:30 PM
Date Email Questions Due	1/17/2022 3:00 PM
Date Email Answers Issued	1/24/2022
Submittals Due (Prequalification: Step I)	2/09/2022 3:00 PM
Interview Short List Announced	3/01/2022
Sealed Proposal Due (Evaluation and Award: Step II)	3/21/2022 12:00 PM Noon
Oral Interviews	3/22/2022
Selection Announced	3/29/2022
Negotiation of CM/GC Contract	3/30/2022 – 4/05/2022
Contract Approval (projected)	4/05/2022 - 4/19/2022
<i>Anticipated Design Start</i>	2/16/2022
<i>Anticipated Schematic Design Start</i>	4/13/2022
Anticipated CM/GC Start (precon)	04/19/2022
Anticipated Construction Start/Finish	12/19/2022 – 5/17/2024
Building Purge	5/20/2024 – 6/7/2024
Move-In	6/03/2024 – 7/12/2024

2. ONE (1) electronic copy is due **2/9/2022** and shall be received no later than **3:00 PM (MD/ST)**, and shall be submitted via CU Denver Online RFQ Submission at the following address: https://ucdenverdata.formstack.com/forms/rfp_rfq_submission

Agency: **University of Colorado Anschutz Medical Campus**
Contact Name: **Ben Bohmann**
Email: Ben.Bohmann@cuanschutz.edu
Address: Campus Services Building
1945 Wheeling Street, Mail Stop F418, Aurora, CO 80045

Comments: **Late sealed bids will be rejected without consideration. The University of Colorado Denver (GFE) and the State of Colorado assume no responsibility for costs related to the preparation of submittals.**

3. The above schedule is tentative. Responding firms shall be notified of revisions in a timely manner by email. Respondents may elect to verify times and dates by email, but no earlier than 36 hours before the schedule date and time.

Point of Contact/Clarification

Name:	Ben Bohmann
Agency:	University of Colorado Denver Anschutz Medical Campus (GFE)
Phone:	303.724.3956
Email:	ben.bohmann@cuanschutz.edu

This Notice is also available on the web at:

Media of Publication(s):	University of Colorado Denver Anschutz Medical Campus Facilities Projects Website
Publication Dates:	12/20/2021
VSS	https://codpa-vss.cloud.cgifederal.com/webapp/PRDVSS2X1/AltSelfService

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



**REQUEST FOR PROPOSALS
FOR AN
INTEGRATED PROJECT DELIVERY METHOD
UTILIZING
CONSTRUCTION MANAGEMENT/GENERAL CONTRACTING (CM/GC)
SERVICES**

**For The
University of Colorado Denver (GFE)**

**For The
CU Denver College of Engineering, Design, and Computing Building and
North Classroom Renovations
Project No. 22-103067
12/20/2021**

**REQUEST FOR PROPOSALS FOR AN
INTEGRATED PROJECT DELIVERY METHOD UTILIZING
CONSTRUCTION MANAGEMENT/GENERAL CONTRACTING (CM/GC) SERVICES**

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- 2. Qualifications of the Management Team Members**
- 3. Project Management Approach**

- 4. Prior Project Experience/Success
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**REQUEST FOR PROPOSALS FOR AN
INTEGRATED PROJECT DELIVERY METHOD UTILIZING
CONSTRUCTION MANAGEMENT/GENERAL CONTRACTING (CM/GC) SERVICES
UNIVERSITY OF COLORADO DENVER (GFE)**

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I. GENERAL INFORMATION

A. INTRODUCTION/DESCRIPTION OF PROJECT

“CU Denver is creating an open innovation district in Downtown Denver to expand technology access, catalyze computing education, and grow economic opportunity in Denver as the nation’s first Equity Serving Institution (ESI)”

– Chancellor Michelle Marks

1. BACKGROUND

The University of Colorado Denver (CU Denver) recently adopted a [2030 Strategic Plan](#) that includes five goals; (1) become the nation’s first equity-serving institution, (2) become known as a “university for life,” providing access to educational excellence over a lifetime, (3) become internationally known for our research and creative work, (4) serve as the anchor institution for an open innovation district in Denver, and (5) be recognized as a people-centered “best place to work,” attracting and retaining exceptional people who reflect the rich diversity of our community and are passionate about our purpose.

About the Innovation District and Our Inaugural Anchor Development:

CU Denver’s open innovation district in the heart of downtown Denver will catalyze economic growth, spark new companies, commercialize research, cultivate the workforce of the future, and drive social impact. As Colorado’s only public urban research university and as the nation’s first equity-serving institution, CU Denver will activate unconventional partnerships to create new technologies, nurture creative industries, and advance economic mobility. Prioritizing place-making and sustainable, mixed-use development, CU Denver will architect blended spaces that encourage creative thinking, nurture living laboratories, power the future of discovery, and advance equity in computing.

CU Denver seeks a CM/GC firm to provide preconstruction and CM/GC services for the flagship inaugural development for the open innovation district - a new [College of Engineering, Design and Computing](#) (CEDC) building on the Auraria Higher Education Center (AHEC) in downtown Denver. The project will also involve targeted renovations to the North Classroom Building, which is adjacent to the project site. The University expects final approvals from the Capital Development Committee and

the University of Colorado Board of Regents in 2022. The project is contingent on these final approvals.

The design and ownership team shall commit to keeping the strategic plan goals at the forefront of the programming and design decision-making process. Please visit <https://www.ucdenver.edu/2030/goals-for-2030> for more information about the CU Denver 2030 Strategic Plan.

2. PROJECT DESCRIPTION

The project will create a new complex for engineering and computing, and enhance the gateway experience into the CU Denver neighborhood along Larimer Street. The building will also serve as a cornerstone for CU Denver's emerging open innovation district. The creation of an innovation district was one of five goals that arose from CU Denver's 2030 Strategic Plan. Located at the intersection of Speer Boulevard and Larimer Street, this project is comprised of a 94,200 GSF new building and approximately 46,000 SF of site improvements. The project also consists of approximately 5,000 SF of renovations in the North Classroom building that will occur after completion of the new building. Should the renovation scope increase, the University may request additional services from the selected project team.

The published program plan identifies the very prominent site that has been selected for the project. The building will play a critical role in the further development of the CU Denver neighborhood, the Innovation District, and this important gateway into the CU Denver neighborhood. The building shall be complimentary of campus scale while continuing to establish a visual connection between LoDo, the Central Business District, and the CU Denver neighborhood. The building must exemplify design-excellence and deliver an iconic presence off Speer Boulevard that both activates the "front side" of campus and facilitates ease of access and mobility around the building. Committed to the creative economy, CU Denver also supports public art as part of the design and will explore community serving retail, and food and beverage spaces as part of the development. Flex-spaces for public convenings, and areas for socialization and team study, research and collaboration will be essential in the design.

CU Denver is open to discussions with the design and CM/GC team about exploring greater development density than that which has been historically pursued on the campus. These will be campus discussions, and will include representation from the Auraria Higher Education Center. The CM/GC will play an important role to make sure the project is built in compliance with established guidelines (or having approved variances) including, but not limited to: "[2019 CU Denver Facilities Master Plan](#)", "[2017 AHEC Master Plan](#)", "[2009 Auraria Campus Design Guidelines](#)", "[CU Denver Facilities Management Guidelines and Standards](#)", and the [Office of the State Architect High Performance Certification Program](#) (HPCP) requirements.

As part of the curation of the innovation district, CU Denver is also seeking strategic partnerships – for both programmatic and physical enhancements to the new building. Partnerships may play a role in this project, including the addition of square footage and space types not previously contemplated in the program plan. Themes for partnerships may include co-location opportunities targeting experiential learning opportunities for students, community serving functions (e.g., non-profit

organizations tied to the engineering, design or computing professions, STEAM educational programs for children, workforce development opportunities, etc.). Partnerships may also grow the entrepreneurial ecosystem, create access to capital (venture capital, private equity, angel networks, etc), and enhance manufacturing eco-systems and fabrication facilities across Colorado.

The new building will be a cross-disciplinary teaching and research facility, drawing users from beyond CEDC. The new building will reflect a redesigning of engineering and computer science education that will prepare students for a world that is changing at an unprecedented pace. It will promote accelerated innovation and meaningful student-faculty interaction, as well as attract outside industry partners that are important to the success of student recruiting and retention.

CEDC has adopted [IMPACT 2024 \(IMPACT\)](#) — a strategic plan that was created by the college. IMPACT has bold plans to transform engineering education, emphasizing computing technology throughout, with interdisciplinary design-oriented teaching and learning. There will be a dynamic blend of hands-on and on-line pedagogy that can pivot in an agile manner, with an emphasis on cutting-edge technology, such as artificial intelligence and big data driven content delivery.

The CEDC Project aspires to be not only a model for innovative research, teaching, and learning, but also an example of cutting-edge building performance and sustainability on display. These goals are especially relevant given that building systems are a key curricular component in the CEDC. The building will be a “living laboratory” for building and engineering technologies and will demonstrate sustainable building leadership for the campus’ future growth, for the University of Colorado, and in support of the City and County of Denver’s ambitious 2030 net zero all electric building goals.

To continue as leaders in the fight against climate change, the University will revise and revisit its sustainability goals in 2026. In the interim, the University will challenge this design team to exceed existing minimum design and code requirements and incorporate the following goals to achieve cutting-edge building performance:

1. Conduct thorough life-cycle cost analyses of potential project enhancements to identify first costs, payback analysis (ROI), environmental costs, and energy savings opportunities and to reduce operations and maintenance costs. This could include the examination of Well Building Certification and on-site energy generation, among others.
2. Go beyond energy code minimums and LEED Gold; and include a measurable energy goal for the project (EUI goals).
3. Explore the opportunities to meet net-zero energy consumption or be net-zero energy ready (highly desirable).
4. Detailed metering and data feedback to be used for data collection, confirmation of EUI goal achievement, and research.
5. Implement improvements that increase efficiency and reduce GHG emissions.
6. Integrate environmental sustainability goals with social and economic sustainability goals.
7. Incorporate the guidance of the New Buildings Institute and their tools, guidelines, and examples of high-performance buildings.

To exemplify CU Denver’s commitment to sustainability and high-performance buildings, a National Renewable Energy Laboratory white paper is included in

Appendix F. This document outlines “strategies for procuring high-performance buildings on typical construction budgets”. While this paper focuses on the design-build procurement strategy, the University is interested in exploring the strategies and concepts outlined with the A/E Team and the CM/GC.

The new building includes the components outlined in Appendix G, College of Engineering, Design and Computing (CEDC) Program Plan.

The scope of work includes consolidating CU Denver’s CEDC footprint from seven buildings (North Classroom, Boulder Creek, 5th Street Hub, Administration Building, Lawrence Street Center, CU Denver Building, and St Cajetan’s Center) into the new building and the adjacent North Classroom building.

Current building construction budget

Building & Sitework	\$55,228,000
Audio/Visual	\$ 2,182,000
Security	\$ 195,000
FF&E	<u>\$ By Owner</u>
TOTAL	<u>\$57,605,000</u>

Current renovation budget

North Classroom Renovations (appx. 5,000 SF)	<u>\$ 1,134,000</u>
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Total current budget

Total Construction Cost	<u>\$58,739,000</u>
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Construction is estimated to commence **DECEMBER 19, 2022**.

The process to be used in the selection of the CM/GC is comprised of two steps. STEP I is the Submittal of Prequalification as described in Section II (D). STEP II is the Oral Interview/Cost Proposal as described in detail in Section III. A Jury Panel of individuals who will be involved in the project and/or understand the required services associated with Construction Management/General Contracting will evaluate responses to this RFP for both STEPS. Upon completion of the evaluation of the Submittals of Prequalification, a limited number of firms will be invited to the oral interviews. Sealed fee proposals will be required only from those firms who are interviewed and are to be submitted as indicated in this RFP. Both qualifications and cost will be considered in the final ranking of firms with qualifications given 70% of the value of the weighted criteria and fees for the Cost/ Proposal given 30%.

Selection and award of this project will be based on a combination of qualifications and costs that represents the best overall value to the State.

B. MINIMUM QUALIFICATIONS

Notice is hereby given to all interested parties that all firms will be required to meet ALL of the minimum qualifications to be considered for these projects. To be considered as qualified, interested firms shall have, as a minimum:

1. Provided Construction Management/General Contracting services within the last five (5) years for at least two (2) projects each in excess of **\$59,000,000** (hard costs), utilizing the expertise present in their Colorado Office; and
2. Demonstrated specific Construction Management/General Contracting experience in projects of similar ground-up scope and complexity with State [A/E CM/CG agreement \(SC-5.2\)](#) and [CM/GC Agreement \(SC-6.5\)](#); and;
3. Demonstrated bonding capability up to **\$59,000,000** for an individual project coincidentally with current and anticipated workloads; provide letter from surety that affirms this capacity.
4. A licensed contractor in the State of Colorado and City of Denver; and
5. Have completed construction of two or more examples of either interdisciplinary science, technology, computer science, or engineering buildings for institutions of higher education and preferably as a CM/GC; and
6. Demonstrated specific CM/GC experience on projects of similar ground-up scope and complexity with State CM/GC Agreement (SC-6.5), accurately establishing project GMP, and achieving project completion withing the set schedule and budget; and
7. Demonstrated close working relationships with a complex team of designers and consultants, University consultants, and University on project scope estimating and scope development; and
8. Experience achieving LEED Gold with a preference for Platinum; and
9. A demonstrated commitment to diversity including documented goal-setting and strategies via submission of a “diversity, equity, and inclusion plan” to achieve participation of minority and women owned local firms throughout construction of the project. You can provide a website link to your firm’s published policy and elaborate your project-specific approach as necessary.
10. The ability for team members to agree to all of CU Denver’s current and future COVID policies including verification that all project related employees (and subcontractors) are vaccinated with the assumption that the most stringent policies may apply throughout the project; and
11. The ability for all team members including sub-consultants and sub-contractors to successfully complete a background check at the request of the University to include sex offender criminal convictions; and
12. Per C.R.S. §24-92-115 unless prohibited by applicable federal law, contract for any public project in the amount of one million dollars or more, that does not receive federal money, including a public project that will have an integrated project delivery contract pursuant to article 93 of this title 24, shall require the general contractor to which the contract is awarded to submit, at the time the mechanical, electrical, or plumbing subcontractor is put under contract, documentation that identifies the contractors or subcontractors that will be used for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical, and plumbing work required on the project and certifies that all firms identified participate in apprenticeship programs registered with the United States department of labor’s employment and training administration or state apprenticeship councils recognized by the United States department of labor and have a proven record of graduating a minimum of 15% of its apprentices for at

least three of the past five years. More information regarding this requirement can be found on the website: <https://osa.colorado.gov/state-buildings/prevaling-wage-and-apprenticeship>; and

Preferred Requirements:

1. Experience with mixed-use buildings.
2. Experience with buildings that involve industry partnerships with specific emphasis on innovation.
3. Experience constructing buildings on small sites with access limitations.
4. Experience with projects on prominent sites.
5. Experience with the goals outlined in the Project Description including, but not limited to: LEED Platinum, Net Zero or Net Zero Ready, Green Globes, WELL Building Standard, Energy Star Buildings, and Colorado High Performance Certification Program (HPCP). Project team members that are LEED professionals in key roles (PM, Super, PE, etc) will be scored higher.
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7. Experience generating real-time estimates from BIM data.
8. Project field staff, especially superintendents, that are technically competent with all aspects of project site technology and the BIM process and models.
9. Demonstrated experience leading teams to achieve project stretch goals.
10. Experience working on the Auraria Higher Education Center campus.
11. Experience working with the University of Colorado.
12. A commitment to working with the University to provide career pathways for CU Denver students including, but not limited to: experiential learning opportunities, paid-internships, job shadow programs, and mentoring opportunities.
13. Experience working with and coordinating third-party entities including the City and County of Denver, Denver Fire Department, Denver Water, Xcel Energy, and Solar PPA providers.

This project is EXEMPT from the State prevailing wage provisions of C.R.S. §24-92-209. At the time of publishing this RFP, this project is listed as “UCD Engineering Building” on Line 265 of the Office of the State Architect Higher Education Statutorily Exempt Project spreadsheet.

<https://docs.google.com/spreadsheets/d/13dD7grVUJFbJFLMILe5KQrjNAy5hzdfJ/edit#gid=655147540>

CU Denver will engage an outside firm for project delivery services. That firm will work in conjunction with CU Denver’s offices of Institutional Planning and Facilities Projects project management to interface with the design and construction teams on this project.

The University of Colorado Denver will use a Construction Manager/General Contractor (CM/GC) approach to project delivery. Through the use of an Architect and a Construction Manager/General Contractor, a Guaranteed Maximum Price (GMP) will be established in conjunction with the University of Colorado Denver. The CM/GC will evaluate, among other things, the availability of materials and labor, the project schedule, and project costs as they relate to the established budget and constructability. The CM/GC will work with the Architect and CU Denver to identify opportunities to enhance the ROI and ensure that the project scope aligns with the GMP. These processes will be ongoing throughout all the design phases of the project. The A/E is responsible to keep project design within the established budgets both

independently and in collaboration with the CM/GC.

C. SCOPE OF SERVICES

The scope of services will include assistance to the State during the process of assessment, design, construction, and warranty period. Specific tasks to be performed by the Construction Manager/General Contractor (CM/GC) include those generally performed by the CM/GC construction community where the Construction Manager is also the Contractor. A sample copy of the State's CM/GC contract is contained within the RFP. A Guaranteed Maximum Price (GMP) will be required at the completion of Design Development phase.

The CM/GC will be responsible for engaging all necessary subcontractors, suppliers, and consultants to complete the project scope. The University anticipates contracting the following items directly: Network hardware (routers, switches, wifi access points, phones, etc), office furniture, move-in services for staff.

A commitment to diversity is highly encouraged in the selection of subcontractors.

The University is requiring the core project team (project manager, superintendent, engineer) to be the same individuals for the ground-up construction of the new engineering building and the interior renovations of the North Classroom project. Firms that commit to this approach in their submittals will be scored higher.

Include a full CM/GC project organization chart on how you plan to staff the project, including the number of individuals for both phases of the project. Include all staff roles that you anticipate participating on the project. The more individuals you identify by name and commit to for this project, the higher the score to be given.

Preconstruction estimating:

- a. In addition to the CM/GC preconstruction requirements required per the CM/GC agreement. It is a project requirement that the preconstruction team understand and can provide real-time estimates and cost impacts throughout the design process to provide guidance to the design team and university to make real-time design decisions.
- b. Please demonstrate your firm's ability to integrate with and provide real-time estimating from a project's BIM model.

Additional 3D Model / BIM guidelines:

- c. The project design is to be a fully coordinated BIM process including full 3D design and models using Revit by all members of the design team. Site work is expected to be completed in Civil 3D and included with the project models. In project areas with open ceilings, all systems and components are required to be modeled including all exposed conduits, systems, devices, etc. All models shall be setup for incorporation of Construction Operations Building Information Exchange (COBie) data for the project and be included in the record project models for export integrations into university asset management systems. The CM/GC will be responsible for developing all facilities management data capture required for the operation and

maintenance of the building. All trades are expected to participate in the BIM Model coordination process.

- d. It shall be the understanding that all 3D/Revit/BIM and federated models prepared by the design teams are considered “other documents” as outlined in SC-5.2 Architect/Engineering Agreement CM/GC, Article 7 Ownership of Documents, section 7.1.1.
- e. The BIM model is to be used by the university following completion of the project as the baseline model for facilities management information regarding the project and will be the base model that all further projects will be initiated from (as allowed per the State SC-5.2 agreement).
- f. It is a project requirement that the Design Team and CM/GC is to follow the GSA Guidelines for BIM. Please review all GSA guidelines for BIM including, but not limited to, Implementation, Roles & Responsibilities, Document Guides, Model Progression Matrix, etc.
 - i. Link 1: <https://www.gsa.gov/real-estate/design-construction/3d4d-building-information-modeling/guidelines-for-bim-software>
Clickable Link [HERE](#)
 - ii. Link 2: <https://www.gsa.gov/real-estate/design-construction/3d4d-building-information-modeling/guidelines-for-bim-software/bim-revit-document-guides>
Clickable Link [HERE](#)
- g. The design team will initially be responsible for setting up and coordinating the BIM related meetings including the kickoff and coordination meetings until the appropriate time for the CM/GC to take leading further development, coordination and clash detection of the model.
- h. Updates to the shared BIM files shall be posted to the Aconex platform no less than once weekly during the design process by all design team members for continuous development review by the University, CM/GC, Consultants, etc.
- i. At the completion of the project, a record set LOD 500 model is to be turned over to the University. Please refer to the GSA Model Progression Matrix for associated responsibilities.

The CM/GC along with the design team, university team, and all other project team members are required to use the University’s website-based common data environment for project controls, Oracle Aconex (aconex.com). This platform will be used to the maximum extent possible to increase project collaboration, data sharing, and creating a single location for project information. Aconex will be used as the central hub for all project controls including the submission and review of RFIs, submittals, design documents, BIM models, cost, pay applications, change orders, field inspections, quality control, daily/weekly reports, redline drawing management, etc. All project team communication will be through the Aconex Mail platform instead of email. Of the many features to improve collaboration, the University is expecting design team member to perform real-time field reports and “inspections” through Aconex at every site visit. Aconex provides mobile apps and integration plugins for Outlook, Revit, and Navisworks. The University subscribes to this platform directly and there are no additional costs to any organization for use of the Aconex platform, apps, and plugins. More info can be found at <https://help.aconex.com>.

For this project, any self-performed work including that by wholly- or partially-owned subsidiaries for any scope of work, material suppliers, equipment rental, and miscellaneous vendors, will not be allowed unless approved in advance by the Principal Representative and shall not be used in any project budgets and estimates. No expectation shall be assumed that the Principal Representative will accept any self-performed scopes for any reason.

By responding to this RFP, your firm acknowledges your full participation and agreement to all items and all project requirements outlined within this RFP.

II. PREQUALIFICATION SUBMITTALS (STEP I)

A. SCHEDULE

1. The schedule of events for the RFP process and an outline of the schedule for the balance of the project is as follows:

Advertisement	12/20/2021
Mandatory Pre-submittal Conference	1/06/2022 2:30 PM
Date Email Questions Due	1/17/2022 3:00 PM
Date Email Answers Issued	1/24/2022
Submittals Due (Prequalification: Step I)	2/09/2022 3:00 PM
Interview Short List Announced	3/01/2022
Sealed Proposal Due (Evaluation and Award: Step II)	3/21/2022 12:00 PM Noon
Oral Interviews	3/22/2022
Selection Announced	3/29/2022
Negotiation of CM/GC Contract	3/30/2022 – 4/05/2022
Contract Approval (projected)	4/05/2022 - 4/19/2022
<i>Anticipated Design Start</i>	2/16/2022
<i>Anticipated Schematic Design Start</i>	4/13/2022
Anticipated CM/GC Start (precon)	04/19/2022
Anticipated Construction Start/Finish	12/19/2022 – 5/17/2024
Building Purge	5/20/2024 – 6/7/2024
Move-In	6/03/2024 – 7/12/2024

2. One (1) pdf of the submittal is due 2/16/2022 and shall be received no later than 3:00 *PM* (MD/ST), at the following website address:

CU Denver Online RFQ Submission:

https://ucdenverdata.formstack.com/forms/rfp_rf_q_submission

The submission website allows uploads of up to 25 MB. Alternatively, you can past a shared link into the website form and we'll download the pdf.

3. The above schedule is tentative. Responding firms shall be notified of revisions in a timely manner by email. Respondents may elect to verify times and dates by email, but no earlier than 36 hours before the schedule date and time.
4. Late submittals will be rejected without consideration. The University of Colorado Denver and the State of Colorado assume no responsibility for costs related to the preparation of submittals.

B. MANDATORY PRE-SUBMITTAL CONFERENCE

1. To ensure sufficient information is available to firms preparing submittals, a mandatory pre-submittal conference has been scheduled. The intent of this conference is to tour the site and to have CU Denver staff present the project. There will not be a Q/A session at this conference, all questions are to be submitted via email. Firms preparing submittals must have **at least one person** attend in-person and sign-in, in order to have their submittals accepted. Firms are requested to limit the number of in-person attendees due to COVID precautions and recommend additional firm members to join via Zoom. The pre-submittal conference will be held at:

Address: **1380 Lawrence Street, Denver, CO**

Room: **The Terrace Room, 2nd Floor**

Date/Time: **01/06/2021 at 2:30 PM**

COVID precautions are in place, including mandatory masks for attendees. If you are feeling sick for any reason, please have an alternate attend in-person.

Zoom Attendee Information – For Information Purposes Only:

To receive an invitation for the on-line Zoom to view the pre-submittal conference, you must pre-register in advance using the link below. The Zoom meeting is for information purposes only and does not meet the mandatory in-person requirement for each interested firm.

Zoom registration link:

https://ucdenver.zoom.us/meeting/register/tJlpfuqpgzwrGNdDSF0e1MeTkWLHMFbw_Xmo

C. CLARIFICATIONS

1. Owner initiated changes to this RFP will be issued under numerically sequenced email addenda. Addenda generally consist of the following items:
 - a. Clarifications
 - b. Scope Changes
 - c. Time and/or Date Changes

Respondents must acknowledge all issued addenda in their submittal and proposal.

2. Respondent initiated email requests for clarification will be received any time on or before **01/17/2022 at 3:00 PM**. All State responses will be issued by email addenda on or before **01/24/2022**.

D. GENERAL INFORMATION

1. All respondents accept the conditions of this RFP, including, but not limited to, the following:

- a. All submittals shall become the property of the State of Colorado and will not be returned.
- b. Late submittals shall not be evaluated. Facsimile submittals shall not be accepted.
- c. Any restriction as to the use of submitted materials must be clearly indicated as proprietary. The requested limitation or prohibition of use or release shall be identified in writing on a cover sheet. Blanket claims of proprietary submittals will not be honored. Fee proposals will be considered proprietary.
- d. The State reserves the right to reject any or all proposals on the basis of being unresponsive to this RFP or for failure to disclose requested information or modification to the Acknowledgement and Attestation form.
- e. The State shall not be liable for any costs incurred by respondents in the preparation of submittals and proposals nor in costs related to any element of the selection and contract negotiation process.
- f. The respondent has reviewed Appendix B and by responding has agreed that the terms and conditions of the sample Construction Management/General Contracting Agreement are expressly workable without reservation.

E. PREQUALIFICATION SUBMITTALS (STEP I)

1. Respondent must comply with the following items, a through f. The State retains the right to waive any minor irregularity or requirement should it be judged to be in the best interest of the State. **(Note that the primary focus of the Prequalification evaluation will be the firm(s)' capabilities).**

- a. Submit **ONE (1)** complete **PDF** copy of all material.
- b. Submittals shall be formatted and tabbed in the exact form and numeric sequence of the Evaluation Form (1 through 5) in Appendix A. A single page cover letter addressed to the University of Colorado Denver outlining the firm(s) qualifications is required at the front of the submittal.

The entire submittal is to be no more than Twenty-Five (25) 8 ½' x 11" sized pages using at least 11 font. The 25-page limit does not include the cover letter, divider tabs, required forms, and required Acknowledgement and Attestation form. No hard copy submittals will be accepted for this project.

The following pages will also not be included in the 25-page limit if they don't contain any information that would influence the scoring of the submittal: cover page, back cover page, divider tabs, and table of contents, appendix cover page (for forms).

The section divider pages should only contain the section title and a section table of contents, otherwise, please keep the pages clean of any other information.

- c. Submittals shall be evaluated in accordance with criteria as indicated in SECTION IV. A. PREQUALIFICATION SUBMITTAL CRITERIA and ranked on the corresponding Evaluation Form in Appendix A.

- d. Response to all items shall be complete.
- e. All references shall be current and relevant including project name, owner name, contract name, email, and phone number.
- f. A one-page resume for each project team member should be included in an appendix with their project role and will not count towards the 25-page limit.
- g. Complete and execute the appropriate Acknowledgment and Attestation Form as provided in Section VI and submit in an appendix at the back of the Prequalification Submittal.

III. ORAL INTERVIEWS/COST PROPOSALS (STEP II)

A. SHORT LIST

From the submittals received, a short list of qualified respondents shall be identified using the scoring indicated on the enclosed Evaluation Form, Appendix A.

Firms failing to meet the minimum required qualifications will not receive further consideration.

B. ORAL INTERVIEW

1. Mandatory oral interviews shall be conducted for the short listed firm(s) only. Interview times and location, will be arranged by CU Denver Facilities Projects and all short listed firms will be notified in advance. At the option of the State, a visit to the short listed firm(s) managing home office and/or representative field office may be required. **(Note that the primary focus of the Oral Interview evaluation in addition to the Cost Proposal will be the proposed Project Management Team members' capabilities).**

C. COST PROPOSALS

1. Only those firms short listed for interview are required to submit their sealed proposals. The Cost Proposal will then be considered (equivalent to 30 percent of the weighted criteria) in conjunction with the qualitative score from the response and interview (equivalent to 70 percent of the weighted criteria).

CU Denver Online Submission Site:

https://ucdenverdata.formstack.com/forms/rfp_rfq_submission

2. Cost Proposals shall be submitted on the form provided in Section VII, without modification. A Cost Proposal shall be accompanied with sufficient detail to clearly identify the fee for service and include a detailed schedule of estimated (not-to-exceed) reimbursable and non-reimbursable costs. Percentage of the cost of work is not an acceptable value. The Cost Proposal should be prepared independently in accordance with the following:
 - a. Any specific services requested in the RFP and its appendices that are not included should be clearly identified. Exclusion of any required service may result in the proposal being found non-responsive.
 - b. Provide a CM/GC staff schedule with staff by name, position and man-hours (assume 8 hour days) per month estimated on the project.

- c. Provide a detailed estimate of reimbursable costs including breakdown of direct salaries and payroll fringes (DPE) for on-site CM/GC personnel associated with the services. Not-to-exceed reimbursable expenses shall be provided at direct cost.
- d. Provide a detailed estimate of non-reimbursable expenses (included in fee).
- e. The State reserves the right to reject any Cost Proposal not prepared in the above manner. Proposals that exceed the available funds may be rejected outright but the State reserves the right to negotiate a reasonable fee for service within the available funds. The CM/GC contract will be a bonded lump sum contract including not-to-exceed reimbursables with a Guaranteed Maximum Price to encompass all construction work; some not-to-exceed allowances may be included as directed by the State.
 - i. This Fee Proposal is a binding offer to perform the services associated with the Scope of Services described in this RFP and the Designated Services and Method of Payment Matrix in Appendix B. The State reserves the right to negotiate a cost adjustment based on scope clarification subsequent to selection and prior to contract execution.
- f. Provide the detailed salary breakdown of project staffing salary and burden that aligns with your cost proposal. Use form CM/GC PERSONNEL MONTHLY SALARY RATES AND BURDEN DETAILS located in APPENDIX H. Cost proposal not including this form in the submission will be deemed non-responsive.
 - i. Project staffing is required to be billed at actual burdened salary rate for each employee. An average or blended rate by job category will not be accepted.
 - ii. Employees working on multiple projects must have their monthly rate proportionally allocated to each project.

D. METHOD OF SELECTION AND AWARD

The Jury Panel shall complete a combined evaluation of qualifications and fee in accordance with the criteria as indicated in SECTION IV, B. ORAL INTERVIEWS/COST PROPOSALS/EVALUATION CRITERIA. Numerical ranking and selection of the most qualified firm (including fee) will then occur on the corresponding evaluation forms in Appendix A1.

The final fee amount and scope of services may be negotiated at the State's discretion. Award and contract will be contingent on availability of key proposed Project Management Team staff.

IV. EVALUATION CRITERIA

A. PREQUALIFICATION SUBMITTAL CRITERIA

(Note that the primary focus of the Prequalification evaluation will be the Firm(s) capabilities).

1. QUALIFICATIONS OF THE FIRM(s)

- ☐ Provide a description of the composition and management structure of your firm. Identify the firm's roles and responsibilities and relevant experience with projects of similar scope and complexity and similar fast track project delivery methods. Describe how the firm's experience will relate to the success of this project.
- ☐ Provide a description and separate graphic organizational chart complete with working titles identifying the lines of authority, responsibility and coordination.
- ☐ Provide a detailed description of the process of how your firm selects qualified sub-contractors and manages them effectively on complex multi-phased projects.
- ☐ Provide a detailed description of how your firm will maximize the Colorado construction work force on this project.
- ☐ Provide your firms' safety record over the last ten years and describe your firms' efforts to retain and support employees.

2. QUALIFICATIONS OF THE MANAGEMENT TEAM MEMBERS

- ☐ Describe the qualifications and relevant experience of the project executive including demonstrated experience working on projects of similar scope and complexity and time commitment for this project.
- ☐ Describe the qualifications and relevant experience of the project manager including demonstrated experience working on projects of similar scope and complexity and time commitment for this project.
- ☐ Describe the qualifications and relevant experience of the superintendent including demonstrated experience working on projects of similar scope and complexity and time commitment for this project.
- ☐ Describe the qualifications and relevant experience of the preconstruction staff including demonstrated experience working on projects of similar scope and complexity and time commitment for this project.
- ☐ Describe the qualifications and relevant experience of the BIM staff including demonstrated experience working on projects of similar scope and complexity and time commitment for this project.
- ☐ Describe the qualifications and relevant experience of other proposed project staff and in-house expertise and time commitments for this project.
- ☐ Identify all current office locations of the assigned staff and any other resident expertise intended to be provided under this RFP.

3. PROJECT MANAGEMENT APPROACH

- ☐ Provide a strategic project approach summary: Include discussion of your firm's approach in providing successful Construction Management/General Contracting services based on prior experience in cost, schedule and quality effectiveness. Include specific examples (1-2 page excerpts) of actual products (estimates, progress reports, schedules, constructability reviews, value engineering studies, forms, general conditions budgets, organizational structures, etc.).
- ☐ Provide a description of construction work Project Management Team has capability to competitively bid and self-perform, including qualifications to do such. It is the

perception of CU Denver that subcontracting CM/GC construction work is in the State's best interest in terms of price competition. CU Denver may, at its discretion, limit the types and amount of work Project Management Team bids and self-performs.

4. PRIOR PROJECT EXPERIENCE/SUCCESS

Select your three (3) most relevant projects and provide, at a minimum, the following:

- ☐ The project/contract name
- ☐ Description of services provided
- ☐ Overall construction cost of project, as applicable, including initial contract value and change orders including reasons for change orders
- ☐ Organizational structure of service delivery under the contract (include the owner's organization as it interfaced with the respondent's contract)
- ☐ Key assigned in-house staff (name and title)
- ☐ Subcontracts (service) used in the performance of the contract
- ☐ Schedule history
- ☐ Reference(s) for Owner and Architect as described in IV.E
- ☐ Continuing services, if any

a. Timeliness

In general, Construction Management/General Contracting work is seen as successful if it is on time, on budget, and of high quality of workmanship. Timeliness is generally based on completion by the originally scheduled date and is indicated by a Certificate of Occupancy. Please demonstrate for each of the above projects how timely delivery occurred.

b. Budget Considerations

Similar to timeliness, being on budget historically means the work was completed within the originally identified available budget. For purposes of this RFP, the State is interested not only in being within budget but also in the respondent's ability to address and implement the following issues as well:

1. Conceptual estimating
2. Value analysis
3. Alternate solutions
4. Scope reduction that maintains project function
5. Cost/benefit analysis

Demonstrate for the above projects examples of how you accomplished the above cost control services.

c. Quality

Construction quality has the obvious traditional connotations (workmanlike, in compliance with the specifications, normal standard of care, etc.). Demonstrate for the above project examples how a high quality of workmanship was achieved.

d. Services Disruption

Demonstrate how your services on the above project examples dealt with issues of disruption at existing facilities, etc. if applicable.

e. Project Acceptability

Please discuss how your Construction Management/General Contracting services helped achieve owner satisfaction with regard to project quality and acceptability on your project examples.

f. Compliance

Provide information on how compliance with industry standards of care, building codes, etc. was achieved.

g. LEED Achievement

Provide information related to LEED achievement, approach, and challenges.

h. NetZero related

Provide information related to NetZero or NetZero ready achievements, approach, and challenges.

5. MISCELLANEOUS CONSIDERATIONS

a. Claims/Litigation History of Firm

Provide information on any past, current or anticipated claims (i.e., knowledge of pending claims) on respondent contracts; explain the litigation, the issue, and its outcome or anticipated outcome.

b. Apprenticeship Training Program (Optional for Step I)

Where an Apprentice Training Program certified by the Office of Apprenticeship located in the Employment and Training Administration in the United States Department of Labor exists in the State, or a comparable program for the training of apprentices is available in the State:

1. Each submitter shall demonstrate access to the certified program or a comparable alternative (Note that it is the responsibility of the submitter to demonstrate the comparability of a non-certified program) and,
2. Each submitter's subcontractor at any tier with a contract value of two hundred fifty thousand dollars or more shall demonstrate access to the certified program or a comparable alternative.

c. Other

This category is included for other items provided by the submitter. Inclusions may include standard firm promotional literature, testimonials, awards, corporate memberships in professional organizations or sponsorships, additional project/contract histories, etc., intended to demonstrate why your firm is uniquely qualified for this project.

B. ORAL INTERVIEWS/COST PROPOSALS EVALUATION CRITERIA

(Note that the primary focus of the Oral Interview evaluation in addition to the Cost Proposal will be the proposed project management team members' capabilities).

1. QUALIFICATIONS OF THE FIRM

- ☐ Explain the composition and structure of your project management team and how the firm will support their efforts in the field throughout this project.
- ☐ Are the lines of authority, responsibility and coordination clearly identified?

2. QUALIFICATIONS OF THE MANAGEMENT TEAM MEMBERS

- ☐ Explain the prior experience with projects of similar scope and complexity and similar fast track project delivery methods of the superintendent and all other project management team members. Explain their roles and responsibilities and authority and why they are the right team members for this project.
- ☐ Explain anticipated project management team staff current and projected workload.
- ☐ Identify all current office locations and the resident expertise intended to be provided under this RFP. Identify the location of the staff for the performance of this contract, their expertise, and generic equipment that will be located in Colorado and act in support of the anticipated contract.

3. PROJECT MANAGEMENT APPROACH

- ☐ Explain the strategic project approach for this project in summary: Include discussion of your team's approach in providing successful CM/GC services based on the needs of this specific project utilizing the team's prior past experience including cost, schedule, and quality control.
- ☐ Explain the construction work the project management team has the capability to competitively bid and self-perform including qualifications to do such work.
- ☐ Provide a detailed description of how your project management team will select qualified sub-contractors and manage them effectively on this project.

4. PRIOR PROJECT EXPERIENCE/SUCCESS

- ☐ Explain the most relevant projects the superintendent and the team members have completed together and/or separately and what their role was. CU Denver, at its discretion, will contact references and/or conduct independent performance analysis on projects on which the team member has worked).
- ☐ Provide descriptions of other related experience of superintendent and other project management team members.

5. MISCELLANEOUS CONSIDERATIONS

- ☐ **Craft Labor Capabilities**
Describe the availability of resources that will be utilized to successfully complete the project.
- ☐ **Apprenticeship Training Program (Mandatory for Step II)**
Describe access to federal or state-approved apprenticeship programs, as available.
- ☐ **Other**
This category is included for other items provided by the presenter. Inclusions may include testimonials, awards, corporate memberships in professional organizations or

sponsorships, additional project/contract histories, etc., intended to demonstrate why this management team is uniquely qualified for this project.

V. CM/GC CONTRACT INFORMATION

- A.** Carefully review the CM/GC Contract sample (Appendix B) before initiating your response submittal. Any exceptions to the contract must be communicated formally in accordance with the written questions schedule in II.A.
- B.** Appendix C of this RFP is the Certification and Affidavit Regarding Illegal Immigrants, a mandatory portion of the contract agreement.
- C.** Appendix E and F of this RFP includes mandatory State apprenticeship and prevailing wage requirements based on the construction value of the project.
- D.** The State reserves the right to make non-material changes to the appended model agreement, including additions and /or modifications that may be necessary to more completely describe the services defined or implied herein.
- E.** Any approved reimbursable expenses made under the terms of the final agreement shall be a direct pass-on cost with no adjustment to the fee described therein.
- F.** Any and all products, systems, methods, and procedures developed, as a result of this agreement shall remain the exclusive property of the State.

VI. ACKNOWLEDGEMENT AND ATTESTATION FORM

- A.** Several versions of the Acknowledgment and Attestation Form follow this section. Proper completion of the appropriate form is a mandatory requirement for a respondent to be considered responsive to this RFP Prequalification Submittal.
- B.** Qualifications made by a respondent in executing this form may render a submittal non-responsive as determined by the State.

VII. COST PROPOSAL FORM

- A.** Immediately following the Acknowledgement and Attestation Form is a Cost Proposal Form to be utilized to summarize the fee proposal for the services. Only those firms short-listed will be required to submit fee proposals as directed by CU Denver.
- B.** This RFP document, its appendices, and any written addenda issued prior to the submittal of proposals, and written clarifications prior to the interview shall serve as the only basis for proposals.
- C.** The respondent, by submitting this proposal, does hereby accept that minor changes by the State to the exhibited contract and its exhibits, which do not adversely affect the respondent, shall not be cause for withdrawal or modification of the amounts submitted herein. Exceptions to the RFP documents and/or modification of the proposal may render the proposal non-responsive.
- D.** Upon due consideration and review of this document along with its appendices, written addenda, and written clarifications prior to the interview, the respondent does hereby submit the following proposal for Construction Management/General Contracting fees,

consistent with the schedules provided in the Scope of Services. Respondents are hereby advised that it is the State's desire to accelerate design and construction schedules where reasonably possible, without adverse cost impact.

- E.** Respondent should complete the Cost Proposal Form by filling in all blanks on the form that follows.
- F.** Respondents should include a separate detailed not-to-exceed reimbursable estimate

End of RFP

ACKNOWLEDGEMENT AND ATTESTATION FORM
(Partnership Format)

Date: _____

Page 1 of 1

By responding to this RFP, the respondent(s) certify that he/she has reviewed the Construction Management/General Contracting sample contract, and its exhibits contained herein, and is familiar with their terms and conditions and finds them expressly workable without change or modification.

We certify and declare that the foregoing is true and correct.

Subscribed on _____ at _____
Date City

_____, State of _____
County State

1) _____
Partner Signature

Typed Name: _____

2) _____
Partner Signature

Typed Name: _____

Notary: _____ Date _____

Commission Expires: _____

Note: Add additional signatures if there are more than two partners.

ACKNOWLEDGEMENT AND ATTESTATION FORM
(Joint Venture Format)

Date: _____

Page 1 of 1

By responding to this RFP, the respondent(s) certify that he/she has reviewed the Construction Manager/General Contractor sample contract, and its exhibits contained herein, and is familiar with their terms and conditions and finds them expressly workable without change or modification.

We certify and declare that the foregoing is true and correct.

Subscribed on _____ at _____,
Date City
_____, State of _____
County State

1) _____
Venture Partner Binding Signature Date

Type of Business Typed Name: _____
Title: _____

Witness Date

Typed Name: _____

2) _____
Venture Partner Binding Signature Date

Type of Business Typed Name: _____
Title: _____

Witness Date

Typed Name: _____

Note:

1. Add additional venture partners as necessary.
2. Witnesses of venture partners shall be corporate secretary for corporations, partners for partnerships, and notaries for sole proprietorships.
3. Attach venture agreement
4. Type of business shall identify the venture partner as a corporation, venture, partnership, sole proprietorship, or other legal entity.

ACKNOWLEDGEMENT AND ATTESTATION FORM (CORPORATE FORMAT)

Date: _____

Page 1 of 1

By responding to this RFP, the respondent(s) certify that he/she has reviewed the Construction Management/General Contracting sample contract, and its exhibits contained herein, and is familiar with their terms and conditions and finds them expressly workable without change or modification.

We certify and declare that the foregoing is true and correct.

Subscribed on _____ at _____,
Date City

_____, State of _____
County _____ State _____

Corporate Officer Signature

Date _____

Secretary

Date _____

Note: Use full corporate name and attach corporate seal here.

(SEAL)

ACKNOWLEDGEMENT AND ATTESTATION FORM (Sole Proprietorship Format)

Date: _____

Page 1 of 1

By responding to this RFP, the respondent(s) certify that he/she has reviewed the Construction Management/General Contracting sample contract, and its exhibits contained herein, and is familiar with their terms and conditions and finds them expressly workable without change or modification.

We certify and declare that the foregoing is true and correct.

Subscribed on _____ at _____,
Date City

_____, State of _____.

County _____ State _____

Respondent

Date _____

Typed Name: _____

Notary: _____

Date _____

Commission Expires: _____

COST PROPOSAL FORM
CONSTRUCTION MANAGER/GENERAL CONTRACTING (CM/GC) SERVICES

Date: _____

Project No. 22-103067

CU Denver College of Engineering, Design, and Computing Building and North Classroom Renovations

Project Title

	Engineering Bldg	North Classroom Reno
1. CM/GC Preconstruction Fee	\$ _____	\$ _____
2. CM/GC Construction Fee	\$ _____	\$ _____
3. General Conditions On-Site CM/GC Staff	\$ _____	\$ _____
4. Other Reimbursable General Conditions (NTE)	\$ _____	\$ _____
Total CM/GC Fee	\$ _____	\$ _____

Fees are to be calculated per Exhibit A (SC-6.5), CM/GC Designated Services and Method of Payment.

Please provide a detailed breakdown to adequately describe the CM/GC staff provided, term of their services, and associated anticipated reimbursable costs so as to demonstrate as complete an understanding as possible of the services provided.

Reimbursable general condition expenses are generally confined to the on-site CM/GC construction phase staff reimbursed at direct personnel expense, plus those on-site materials, equipment and facilities to support the work of the CM/GC staff and construction subcontractors.

Acknowledge receipt of Addendum Nos. _____

Anticipates Services outside the United States or Colorado* ☐ Yes ☐ No

If the respondent anticipates services under the contract or any subcontracts will be performed outside the United States or Colorado, the respondent shall provide in a written statement which must include, but need not be limited to the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform such services. (Does not apply to any project that receives federal moneys)

Will comply with 80% Colorado Labor ☐ Yes ☐ No

For State Public Works Project per C.R.S 8-17-10, Colorado labor shall be employed to perform at least 80% of the work. "Colorado Labor" means any person who is a resident of the state of Colorado at the time of the Public Works project. Respondents indicating that their bid proposal will not comply with the 80% Colorado Labor requirement are required to submit written justification along with the bid submission. A governmental body that allows a waiver shall post notice and justification for the waiver on its web site. (Does not apply to any project that receives federal moneys)

Bidder is a Service-Disabled Veteran Owned Small Business* ☐ Yes ☐ No

A Service-Disabled Veteran Owned Small Business (SDVOSB) per C.R.S. 24-103-905, means a business that is incorporated or organized in Colorado or maintains a place of business or has an office in Colorado and is officially registered and verified by the Center for Veteran Enterprise within the U.S. Department of Veteran Affairs. Attach proof of certification along with the proposal submission.

**Does not apply to projects for Institutions of Higher Education that have opted out of the State Procurement Code.*

Applicant or Corporate Officer Signature

Title

Appendix A

STATE BUILDINGS PROGRAM PREQUALIFICATION SUBMITTAL/EVALUATION FORM CONSTRUCTION MANAGEMENT/GENERAL CONTRACTING (CM/GC) SERVICES

Name of Firm: _____
Name of Project: College of Engineering, Design, and Computing Building and North Classroom Reno
Evaluator No: _____ Date: _____

RFP REFERENCE

MINIMUM REQUIREMENTS

Y ____ N ____

If the minimum requirements (including letter from surety) have not been met, specify the reason(s):

Acknowledgement and Attestation included:

Y ____ N ____

SCORE

Weight² x Rating³ = Score

1. QUALIFICATIONS OF THE FIRM(S)¹

<input type="checkbox"/> Qualifications of the firm	5	x		=	
<input type="checkbox"/> Organizational structure/lines of authority	3	x		=	
<input type="checkbox"/> Subcontractor selection and management	3	x		=	
<input type="checkbox"/> Colorado workforce	4	x		=	
<input type="checkbox"/> Safety/employee support	3	x		=	

2. QUALIFICATIONS OF THE MANAGEMENT TEAM MEMBERS¹

<input type="checkbox"/> Qualifications and relevant experience of Project Executive	3	x		=	
<input type="checkbox"/> Qualifications and relevant experience of Project Manager	5	x		=	
<input type="checkbox"/> Qualifications and relevant experience of Superintendent	5	x		=	
<input type="checkbox"/> Qualifications and relevant experience of Pre-Con staff	5	x		=	
<input type="checkbox"/> Qualifications and relevant experience of BIM staff	4	x		=	
<input type="checkbox"/> Qualifications and relevant experience of other proposed project staff	4	x		=	
<input type="checkbox"/> Location/Access	3	x		=	

3. PROJECT MANAGEMENT APPROACH¹

<input type="checkbox"/> Approach to successful CM/GC Services					
a. Cost effectiveness	5	x		=	
b. Schedule effectiveness	4	x		=	
c. Quality effectiveness	4	x		=	
d. Meeting University goals/requirement	5	x		=	
<input type="checkbox"/> Competitively Bid scope / process	4	x		=	

4. PRIOR PROJECT EXPERIENCE/SUCCESS¹

<input type="checkbox"/> Project #1		<u>5</u>	x	<u> </u>	=	<u> </u>
a. Timeliness	e. Acceptability					
b. Budget Considerations	f. Compliance					
c. Quality	g. LEED Achvmnt.					
d. Disruption	h. NetZero related					
 <input type="checkbox"/> Project #2		 <u>5</u>	 x	 <u> </u>	 =	 <u> </u>
a. Timeliness	e. Acceptability					
b. Budget Considerations	f. Compliance					
c. Quality	g. LEED Achvmnt.					
d. Disruption	h. NetZero related					
 <input type="checkbox"/> Project #3		 <u>4</u>	 x	 <u> </u>	 =	 <u> </u>
a. Timeliness	e. Acceptability					
b. Budget Considerations	f. Compliance					
c. Quality	g. LEED Achvmnt.					
d. Disruption	h. NetZero related					
 <input type="checkbox"/> Related experience of the firm		 <u>3</u>	 x	 <u> </u>	 =	 <u> </u>

5. MISCELLANEOUS¹

<input type="checkbox"/> Claims/litigation history	<u>5</u>	x	<u> </u>	=	<u> </u>
<input type="checkbox"/> Apprenticeship Training Program	<u>3</u>	x	<u> </u>	=	<u> </u>
<input type="checkbox"/> Other	<u>3</u>	x	<u> </u>	=	<u> </u>

TOTAL SCORE: ⁴

NOTES:

- Criteria:** Agencies/Institutions are encouraged to include additional criteria that reflect unique characteristics of the project under each category to help determine the submitter's overall qualifications.
- Weights:** Agency/Institutions to assign weights, using whole numbers, to all criteria on evaluation forms for inclusion into RFQ document and prior to evaluations.
- Ratings:** Evaluator to assess the strength of each firms qualifications and assign a numerical rating of 1 to 5 with 5 being the highest rating. (Use whole numbers)
- Total Score:** Includes the sum of all criteria. Note: a passing score (as a percentage of the total points available) is optional and should be assigned by the agency/institution prior to evaluation.

Appendix A1

STATE BUILDINGS PROGRAM ORAL INTERVIEWS/COST PROPOSALS EVALUATION FORM CONSTRUCTION MANAGEMENT/GENERAL CONTRACTING (CM/GC) SERVICES

Name of Firm: _____
Name of Project: _____
Evaluator No: _____ Date: _____

SCORE

Score	Weight ²	x	Rating ³	=
1. <u>QUALIFICATIONS OF THE TEAM</u> ¹	<u>5</u>	x	<u> </u>	= <u> </u>
2. <u>QUALIFICATIONS OF THE MANAGEMENT TEAM MEMBERS</u> ¹	<u>5</u>	x	<u> </u>	= <u> </u>
3. <u>PROJECT MANAGEMENT APPROACH</u> ¹	<u>5</u>	x	<u> </u>	= <u> </u>
4. <u>PRIOR PROJECT EXPERIENCE/SUCCESS</u> ¹	<u>5</u>	x	<u> </u>	= <u> </u>
5. <u>MISCELLANEOUS</u> ¹				
<input type="checkbox"/> Craft Labor Capabilities	<u>2</u>	x	<u> </u>	= <u> </u>
<input type="checkbox"/> Apprenticeship Training Program	<u>2</u>	x	<u> </u>	= <u> </u>
<input type="checkbox"/> Other	<u>3</u>	x	<u> </u>	= <u> </u>

TOTAL SCORE: _____ ⁴

NOTES:

- Criteria:** Agencies/Institutions are encouraged to include additional criteria that reflect unique characteristics of the project under each category to help determine the submitter's overall qualifications.
- Weights:** Agency/Institutions to assign weights, using whole numbers, to all criteria on evaluation forms for inclusion into RFQ document and prior to evaluations.
- Ratings:** Evaluator to assess the strength of each firms qualifications and assign a numerical rating of 1 to 5 with 5 being the highest rating. (Use whole numbers)
- Total Score:** Includes the sum of all criteria. Note: a passing score (as a percentage of the total points available) is optional and should be assigned by the agency/institution prior to evaluation.

Appendix A2

STATE BUILDINGS PROGRAM
SUBMITTAL AND ORAL INTERVIEW RANKING MATRIX

QUALIFICATIONS 70%/FEE 30% (Optional 80%/20%)

FIRM	QUALIFICATIONS ¹						AVERAGE QUALS ²	QUALS SCORE ³	FEE SCORE ⁴	QUALS & FEE SCORE ⁵	RANK ⁶
	EVAL #1	EVAL #2	EVAL #3	EVAL #4	EVAL #5	EVAL #6					

NOTES:

1. Insert total score from each evaluator's PREQUALIFICATION SUBMITTAL or ORAL INTERVIEW/ COST PROPOSALS/EVALUATION FORMS. (Note that the use of the Matrix for the PREQUALIFICATION SUBMITTAL EVALUATION does not consider cost proposals only qualifications). DO NOT combine the scores of the two evaluation forms.
2. Add all evaluators' total scores and divide by the number of evaluators to determine the average score for each firm's qualifications.
3. The highest score for qualifications on the evaluation form is to receive 70 points and the other team scores are to be determined as a percentage of the 70 points. To score each average qualification score, use the example formula.

Assume the highest score is 700.

SCORING OF QUALIFICATIONS

FIRM B: $\frac{700}{700} \times 70 \text{ points} = 70 \text{ points}$

FIRM C: $\frac{600}{700} \times 70 \text{ points} = 60 \text{ points}$

FIRM A: $\frac{500}{700} \times 70 \text{ points} = 50 \text{ points}$

4. Determine score for each firm's sealed cost proposal with the lowest fee being equivalent to a score of 30 points. To score each fee, use the example formula.

Assume the lowest fee was \$100,000.

SCORING OF FEES

FIRM A: $\frac{\$100,000}{\$100,000} \times 30 \text{ points} = 30 \text{ points}$

FIRM B: $\frac{\$100,000}{\$125,000} \times 30 \text{ points} = 24 \text{ points}$

FIRM C: $\frac{\$100,000}{\$150,000} \times 30 \text{ points} = 20 \text{ points}$

5. Add the average qualification score to the fee score to determine cumulative qualifications and fee score.
6. Numerically rank all firms with the highest scoring firm being the most qualified.

Appendix B

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT (FORM SC-6.5) (Sample)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM



CONSTRUCTION MANAGER/GENERAL/CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

DEPARTMENT ID: _____

CMS CONTRACT ID#: _____

CONTRACT ID#: _____

PROJECT #: _____

PROJECT NAME: _____

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)**

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STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

Department ID: _____ Contract ID #: _____ Project #: _____

PARTIES. THIS AGREEMENT is entered into by and between the STATE OF COLORADO, acting by and through the [Agency], hereinafter referred to as the State or Principal Representative, and [vendor name] having its offices at [vendor address] engaged to serve as Construction Manager, hereinafter referred to as the Construction Manager.

EFFECTIVE DATE AND NOTICE OF NONLIABILITY. This Agreement shall not be effective or enforceable until it is approved and signed by the State Controller or its designee (hereinafter called the "Effective Date"), but shall be effective and enforceable thereafter in accordance with its provisions. The State shall not be liable to pay or reimburse Construction Manager for any performance hereunder or be bound by any provision hereof prior to the Effective Date.

RECITALS:

WHEREAS, the Principal Representative intends to engage the services of the Construction Manager to construct the following: [project name] hereinafter called the Project; and

WHEREAS, authority exists in the Law and Funds have been budgeted, appropriated, and otherwise made available, and a sufficient unencumbered balance thereof remains available for payment in Fund Number _____, Account Number _____; and

WHEREAS, the State of Colorado has appropriated and the Principal Representative has been authorized to expend the total sum of _____ Dollars (\$_____) for this Project including all professional services, construction management/general contractor services, construction/improvements, Project contingencies, reimbursables, furnishings, movable equipment, and miscellaneous expenses; and

WHEREAS, *funds are available for only a portion of the services defined herein, as more fully described in the funding Condition Precedent clause in 6.5 hereof; and*

WHEREAS, the Principal Representative has established the **Fixed Limit of Construction Cost** in the amount of _____ Dollars (\$_____) ; and

WHEREAS, the Construction Manager shall establish a **Guaranteed Maximum Price (GMP)** that is within the Fixed Limit of Construction Cost as established by the Principal Representative at the completion of the Design Development Phase; and

WHEREAS, in accordance with Article 6 Compensation the Construction Manager's Fee for the Project is _____ Dollars (\$_____) ; and

WHEREAS, the Architect/Engineer for the project is [\[Legal name of design entity\]](#); and

WHEREAS, the Construction Manager acknowledges the statutory authority and responsibility of the Principal Representative within the State of Colorado; and

WHEREAS, the Construction Manager was selected after a determination that its proposal was the most advantageous to the Principal Representative pursuant to a request for proposal issued and awarded on [\[date awarded\]](#); and

WHEREAS, the Construction Manager and the Principal Representative have finalized the terms of this Agreement pursuant to the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

WITNESSETH, that the Principal Representative and the Construction Manager agree as follows:

ARTICLE 1. PERFORMANCE OF THE WORK

1.1. THE WORK

- 1.1.1 The Construction Manager will construct the Project within the Fixed Limit of Construction Cost specified, and the Construction Manager will furnish all the services, labor and materials to perform all the Work, including design, for the complete and prompt execution of the Project in accordance with the Contract Documents.
- 1.1.2 In the performance of the Work under this Agreement, the Construction Manager acknowledges that time is critical for Project delivery and that portions of the Work could have their design completed as separate Bid Packages and under construction before other portions of the Work are fully designed. It is further recognized that this accelerated approach to construction utilizing the services of an Architect/Engineer and Construction Manager is defined as "Fast Track Construction" and requires maximum cooperation between all parties. It is also recognized that the services to be rendered by the Construction Manager and the inter-relationships and coordinative aspects thereof are in the developmental state and not fully defined. The Construction Manager has reviewed the Architect/Engineer's Agreement and accepts the terms thereof as expressing a workable concept. In furtherance thereof, in the event there appears to be a duplication, overlap or conflict of the responsibilities of or duties between the Architect/Engineer and Construction Manager or an absence of designation, the question shall be submitted to the Principal Representative for determination. The Construction Manager shall abide by the decision of the Principal Representative provided it does not require the performance of work beyond what was reasonably contemplated and accepted by the Construction Manager as its responsibility. If the Construction Manager claims any increase in the Work arises by virtue of such a decision.
- 1.1.3 The Construction Manager acknowledges that the Principal Representative shall provide _____ () Bid Packages to accomplish the Work. In the event the Construction Manager for any reason within the Construction Manager's control, requests more than _____ () Bid Packages to be furnished by the Principal Representative, the Principal Representative shall make arrangement with the Architect/Engineer for the additional Bid Packages desired and shall directly compensate the Architect/Engineer for all fees and cost associated therewith. The Construction Manager shall reimburse the Principal Representative for all of the Architect/Engineer's fees and costs associated therewith.

- 1.1.4 The Construction Manager agrees to use best efforts, to cooperate fully with the Principal Representative in the construction aspects of the Work, and to keep within the Principal Representative's monetary, schedule and quality limitations, as stipulated within this Agreement.
- 1.1.5 The organization of the Specifications into division, section, and article, and the arrangement of Drawings shall not control the Construction Manager in dividing the Work among any level of subcontractors or in establishing the extent of the Work to be performed by any trade.
- 1.1.6 The Construction Manager understands the relationship of trust and confidence established between it and the Principal Representative and accepts those responsibilities as described in this Agreement. The Construction Manager covenants with the Principal Representative to furnish its best skill and judgment and to cooperate with the Architect/Engineer in furthering the interests of the Principal Representative. The Construction Manager agrees to furnish efficient business administration and superintendence and to use its best efforts to complete the Work in an expeditious and economical manner consistent with the interest of the Principal Representative.
- 1.1.7 The Construction Manager, the Principal Representative, and the Architect/Engineer, called the Construction Team, shall work during design through to construction completion. The Construction Manager shall provide leadership to the Construction Team on all matters relating to construction.
- 1.1.8 The Architect/Engineer is a representative of the Principal Representative as provided in the Contract Documents and its Agreement is with the Principal Representative. In case of termination of employment or death of the Architect/Engineer, the Principal Representative shall appoint a capable and reputable Architect/Engineer against whom the Construction Manager makes no reasonable objection, whose status under the Agreement shall be the same as that of the former Architect/Engineer.
- 1.1.9 The Architect/Engineer shall not be responsible for or have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work and except for the Architect/Engineer's specifically enumerated Contract Administration duties such as observation of the Work, shall not be responsible for the Construction Manager's failure to carry out the Work in accordance with the Contract Documents. The Architect/Engineer shall not be responsible for or have control or charge over the acts or omissions of the subcontractors of any tier or any of their agents or employees, or any other persons performing any of the Work.
- 1.1.10 The Contract Documents shall not be deemed to create any contractual relationship between the Architect/Engineer and the Construction Manager or any separate contractors, subcontractors of any tier or suppliers on the Project; nor shall anything contained in the Contract Documents be deemed to give any third party any claim or right of action against the Principal Representative, the Architect/Engineer or Construction Manager which does not otherwise exist without regard to the Contract Documents.
- 1.1.11 The initial Work of the Construction Manager shall consist of its services in connection with the Preconstruction Phase. The Preconstruction Phase of the CM/GC Services shall be parallel and coincidental with the Schematic Design, Design Development, and Construction Document Phases of the Architect/Engineer's Services. As the Bid Packages are prepared and prices are established for the work to be performed within each respective Bid Package, the parties contemplate that the work to be performed by the Construction Manager shall be adjusted by Amendment or Change Order to

this Agreement to place the work contained within the various Bid Packages within the work to be performed by the Construction Manager with corresponding adjustments made to the Contract Sum, Guaranteed Maximum Price and Contract Time.

1.2 CONTRACT DOCUMENTS

- 1.2.1 The Contract Documents as described in Article 1 of the General Conditions of the Construction Manager/General Contractor Agreement (SC-6.51) are essential parts of this Agreement and are fully incorporated herein.

ARTICLE 2. EXHIBITS TO THE AGREEMENT

The following Exhibits are, or will be, attached to this Agreement and are or shall become when approved and accepted, part of the Contract Documents.

- 2.1 **The General Conditions** of the Construction Manager/General Contractor Agreement (State Form SC-6.51) and Supplementary General Conditions, if applicable;
- 2.2 **The Drawings** released for Construction (Exhibit I.1);
- 2.3 **The Specifications** released for Construction (Exhibit I.1);
- 2.4 **Exhibit A**, Construction Manager's Designated Services and Method of Payment;
- 2.5 **Exhibit B**, Construction Manager Certification;
- 2.6 **Exhibit C**, Request for proposal (Dated _____);
- 2.7 **Exhibit D1**, Construction Manager's Fee Proposal (Dated _____);
- 2.8 **Exhibit D2**, Certification and Affidavit Regarding Unauthorized Immigrants (Required at Contract Signing Prior to Commencing Work);
- 2.9 **Exhibit D3**, Construction Manager's Certificates of Liability Insurance;
- 2.10 **Exhibit E**, *Not used*.
- 2.11 **Exhibit F**, List of Pre-Qualified Subcontractors (when approved by the Principal Representative and prior to bidding);
- 2.12 **Exhibit G**, Schematic Design Estimate Summary and Updated Summaries (when approved by the Principal Representative);

First Amendment (incorporating GMP) Exhibits based on Design Development Documents

- 2.13 **Exhibit H.1**, GMP Documents, Drawings and Specifications including Addenda and Modifications (when approved by the Principal Representative);
- 2.14 **Exhibit H.2**, Schedule of Bid Package Descriptions and Issuance Dates (as applicable);
- 2.15 **Exhibit H.3**, Schedule of Values (prepared at the time of the GMP Amendment);
- 2.16 **Exhibit H.4**, Allowance Schedule (prepared at the time of the GMP Amendment);
- 2.17 **Exhibit H.5**, Detailed Critical Path Method Construction Schedule (Prepared at the time of the GMP Amendment).

Second and Subsequent Amendments (incorporating Bid Packages) Exhibits

- 2.18 **Exhibit I.1**, Drawings and Specifications (when approved by the Principal Representative);

- 2.19 **Exhibit I.2**, All Modifications issued after execution of Amendment(s). A Modification to the Agreement includes (1) a written Amendment to this Agreement signed by both parties or (2) a Change Order signed by both parties;
- 2.20 **Exhibit I.3**, Schedule of Values (consistent with GMP Schedule of Values), include Labor Overhead (SBP-6.18) for each Subcontractor to be applied to all change orders and amendments;
- 2.21 **Exhibit I.4**, Allowance Schedule (consistent with GMP Allowance Schedule);
- 2.22 **Exhibit I.5**, Performance Bond (Form SC-6.22);
- 2.23 **Exhibit I.6**, Labor and Material Payment Bond (Form SC-6.221);
- 2.24 **Exhibit I.7**, Property Insurance Certificates;
- 2.25 **Exhibit I.8**, Notice to Proceed to Commence Construction Phase (Form SC-7.26) (when issued);
- 2.26 **Exhibit I.9**, Detailed Critical Path Method Construction Schedules (when approved by the Principal Representative);
- 2.27 **Exhibit I.10**, Applicable Prevailing Wage Determinations (If applicable)
- 2.28 **Exhibit I.11**, Apprenticeship Utilization Certifications (SBP6.17) (If applicable)
- 2.29 **Exhibit J**, State Sales and Use Tax Forms;
- 2.30 **Exhibit K**, Building Code Compliance Policy: Coordination of Approved Building Codes, Plan Reviews, and Building Inspections;
- 2.31 **Exhibit L through Z**, Subsequent Amendments (SC-6.0B) and Change Orders (SC-6.31).

ARTICLE 3. CONSTRUCTION MANAGER'S SERVICES

The Construction Manager shall perform the following services under this Agreement in each of the phases described below:

PRE-CONSTRUCTION SERVICES

3.1 AVAILABLE FUNDS

- 3.1.1 The Design/Build Entity acknowledges that the Principal Representative is limited in the sum available to design and construct the Project. Should funding of a lesser amount be made available for the Project, it is the obligation of the Principal Representative to revise the Project Scope consistent with the ultimate appropriation.

3.2 BUDGETING AND FIXED LIMIT OF CONSTRUCTION COST

- 3.2.1 The Construction Manager shall assist the Architect/Engineer in evaluating the Principal Representative's preliminary budget. Based on consultation with the Architect/Engineer and the Construction Manager, the Principal Representative shall furnish a Project Budget to the Construction Manager which shall set forth a dollar amount available for the total Construction Cost of the Project and include contingencies for bidding and construction.
- 3.2.2 The Fixed Limit of Construction Cost has been established by the Principal Representative, converting the applicable portion of the Project Budget into the Fixed Limit of Construction Cost, as set forth in the recital above.
- 3.2.3 The Fixed Limit of Construction Cost may be revised only by approved Amendments and Change Orders issued after execution of the Contract Documents.

3.3 CONSULTATION AND VALUE ENGINEERING

3.3.1 The Construction Manager shall provide consultation throughout the Preconstruction and Construction Phases including but not limited to the furnishing of Value Engineering Services to identify cost effective changes in the State's specifications that will result in reducing the Contract Price without impairing essential functions or characteristics. The objective of Value Engineering is to achieve optimum value for each construction dollar spent and keep the time of completion and cost of the Work within the time and fiscal constraints set forth throughout the Contract Documents. In cooperation with the Principal Representative, the Construction Manager shall:

- 3.3.1.1 Formulate and evaluate alternative designs, systems, materials, etc.;
- 3.3.1.2 Provide cost estimates of the alternatives to be evaluated. Cost estimates shall include industry standard operating and maintenance costs when appropriate to evaluate life-cycle costs of the alternatives. Cost estimates shall take into consideration all cost impacts related to alternatives including but not limited to construction costs. The Construction Manager shall, at a minimum, review the cost estimate at the completion of the Schematic Design, and Design Development Phases and include an analysis and commentary as to any discrepancies observed in the report referenced in paragraph 3.2.1.4 below;
- 3.3.1.3 Evaluate the alternatives on the basis of costs, time schedules, availability of labor and materials, construction feasibility, etc.;
- 3.3.1.4 With the assistance of the Architect/Engineer to prepare written reports at the end of the Schematic Design and Design Development Phases summarizing the Value Engineering activities accomplished and any recommendations developed within each phase;
- 3.3.1.5 If Estimates of Construction and/or bids received for the Work contained in any Bid Package cause the anticipated cost of the Work to exceed the then current Estimate of Construction Cost, the Fixed Limit of Construction Cost, the Guaranteed Maximum Price or Schedule of Values, the Construction Manager shall, at no additional cost to the Principal Representative unless caused by an increase in the Construction Manager 's Work requested by the Principal Representative, provide additional Value Engineering services in conjunction with any and all appropriate items in the Estimate of Construction, the Fixed Limit of Construction Cost, the Guaranteed Maximum Price, and/or the Schedule of Values for the Work; and
- 3.3.1.6 Lead a formal Value Engineering workshop as requested by the Principal Representative, at the end of the Schematic Design, Design Development and Construction Documents Phases review and estimating tasks, bringing multidiscipline cost/construction experts to evaluate alternative designs, systems and materials.

3.3.2 The Principal Representative shall participate in the formulation and evaluation of alternatives in the Value Engineering activity, and shall approve Value Engineering alternatives accepted in each design phase.

3.4 CONSTRUCTION COSTS

3.4.1 It is the desire of the Principal Representative to incorporate as many alternate bid items into the Project as reasonable, to maximize the scope for the Fixed Limit of Construction Cost. All parties recognize that although the availability of costs to perform the Work depend, in part, upon favorable market conditions. With thorough

and careful planning, cost estimating and cooperation, funds may become available for the alternates through the procurement process at less than the Construction Manager's estimated cost therefore. Together with savings through the unexpended portion of the bidding contingency, the Principal Representative may authorize alternates and/or additional scope, all within the Fixed Limit of Construction Cost.

3.4.2 To accomplish the inclusion of alternates and/or increases, the project contingency shall be as follows and included in the GMP:

3.4.2.1 The bidding contingency for all Bid Packages together with the construction of the Work shall be equal to two point five percent (2.5%) of the total Guaranteed Maximum Price, all within the Fixed Limit of Construction Cost.

3.4.2.2 The construction contingency for the Work shall be equal to three percent (3%) of the total Guaranteed Maximum Price, all within the Fixed Limit of Construction Cost.

The bidding contingency shall be allocated between the presently anticipated _____ () Bid Packages, equally proportionate to the value associated with each Bid Package. The Construction Manager shall notify, in writing, the Principal Representative of the allocation of the bidding contingency for each Bid Package.

3.4.3 At the conclusion and award of the Bid Packages, all differences between the Construction Manager's estimated cost of the Work contained within the Bid Packages, exclusive of contingency, versus the actual cost thereof as determined by bidding and award (buyouts) shall be promptly calculated and totaled. If the total of all of the buyouts exceed the Construction Manager estimated cost therefore, the bidding contingency identified in paragraph 3.4.2.1 shall be applied by the Construction Manager, after prior written notice to the Principal Representative, to cover any overrun per Bid Package.

3.4.4 After all of the Bid Packages have been bought out, any and all savings achieved through the buyouts of the Bid Packages together with all unexpended sums remaining in the bidding contingencies shall forthwith accrue to the Principal Representative to be applied by the Principal Representative, in its sole and absolute discretion, to the inclusion of desired alternates into the Work or to otherwise increase the scope of Work to be performed by the Construction Manager, and/or to reduce the Guaranteed Maximum Price.

3.4.5 The construction contingency shall only be used to cover costs for labor, materials, equipment and similar costs for items or Work to be furnished during the construction phase of the Project. It is not the intent of this Agreement to use the construction contingency for costs incurred during the Pre-Construction phase or bidding phase or for costs to correct any errors, omissions, mistakes or rejected Work caused by subcontractors. The construction contingency may be used to cover the Construction Manager's costs (i) arising from estimating cost overruns in the costs of **Exhibit H.4** Allowance Schedule; (ii) unexpected additional trade coordination costs incurred for Work directly performed by the Construction Manager that could not have been reasonably contemplated; (iii) items required and reasonably inferable from the Contract Documents, or items included within the Contract Documents but missed within the subcontractor buy-out which the Construction Manager can show were not specifically called out within the estimate or bid documents of the Construction Manager or any subcontractor ; (iv) losses or damages to property related to the Work not covered by insurance provided by the Construction Manager, but not including any insurance deductible(s); (v) arising from expediting or acceleration of the Project schedule where such cost is not a

basis for an increase in the GMP under Article 6; (vi) Bid Package buyout overrun costs for additional Bid Packages that were not part of anticipated Construction Phases defined in 1.1.4, but only if bidding procedures contemplated hereunder were followed and the bidding contingency has been exhausted; or (vii) other costs incurred not reasonably to have been expected that are approved by the Principal Representative in the Principal Representative's sole discretion, so long as those costs are not recovered under any insurance policy provided pursuant to this Agreement and so long as the total costs under this Agreement do not exceed the Guaranteed Maximum Price. No expenditure from the construction contingency for any matters or Work activities shall be made without the prior written approval of the Principal Representative, which approval, with the exception of item (vii) above, shall not be unreasonably withheld. Expenditures from the construction contingency shall be made only by Change Order.

Construction contingency shall include all costs associated with a stated scope including, if applicable Direct Work, Insurance, Bonds, Fee, and General Conditions (if appropriate).

3.4.6 When preparing any estimates of Construction and in development of the Schedule of Values, such documents shall include, without duplication:

- 3.4.6.1 All labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work;
- 3.4.6.2 Any allowance designated by the Principal Representative;
- 3.4.6.3 Any Principal Representative furnished equipment which has been designed, specified, selected or specifically provided for by the Architect/Engineer;
- 3.4.6.4 The Construction Manager's fee and the cost of work provided by the Construction Manager;
- 3.4.6.5 All bonds, insurance premiums and applicable taxes;
- 3.4.6.6 Contingencies for bidding, price escalation, and construction;
- 3.4.6.7 Plumbing and electrical building permits from appropriate entities and any other building permits as directed by the Principal Representative; and
- 3.4.6.8 Administrative expenses directly related to the Work.

(Refer to the General Conditions of Construction Manager/General Contractor Agreement (SC-6.51) Article 12.B schedules)

3.4.7 Estimates of Construction Cost shall not include the compensation of the Architect/Engineer and, the Architect/Engineer mechanical, electrical, plumbing, structural, civil, and any other consultants and subconsultants required in the Request For Proposal or any other sums due the Architect/Engineer and its consultants, and shall not include the costs of land, right of way, financing or other costs, which are the responsibility of the Principal Representative

3.4.8 The Construction Manager, in preparing its Estimates of Construction cost and providing the Guaranteed Maximum Price, shall consult with the Architect/Engineer to determine what materials, equipment, component systems and types of construction are to be included in the Contract Documents, to make reasonable adjustments in the scope of the Work, and to include in the Contract Documents

alternate items, as approved by the Principal Representative in writing, for bid so as to permit the adjustment of the Estimate of Construction Cost.

- 3.4.9 The Construction Manager shall prepare an Estimate of Construction as soon as major Project requirements have been identified and update it periodically. For the Schematic Design Phases, the Construction Manager shall prepare a quantity take-off cost estimate based on building systems, assemblies, components, etc., and update periodically. During the Design Development Phase, the Construction Manager shall prepare a final cost estimate in preparation for a Guaranteed Maximum Price and update periodically. All Estimates of Construction shall include separate defined allowances for bidding and Construction price escalation. During the Construction Documents Phase, the Construction Manager shall continually monitor the cost estimates and develop a cost estimate to help assure that the cost of the Work remains within the applicable portion of the Project Budget, Fixed Limit of Construction Cost and Guaranteed Maximum Price.
- 3.4.10 Estimates shall be prepared and shall be based on quantitative takeoffs whenever possible and shall be supported in sufficient depth and organization to be used in preparing budgets based on Construction Specifications Institute (CSI) Division, funding sources, sub-trades, combinations of sub-trades, building systems, Bid Packages or combinations thereof. The specific cost coding structure, estimating guidelines, assumptions, and contents of the cost estimates shall be mutually resolved between the Construction Manager and the Architect/Engineer prior to development of the first cost estimate to assure that estimates developed by all parties can be compared and reconciled. Lump sum estimates are not acceptable.
- 3.4.11 During the preparations of cost estimates, the Construction Manager shall notify the Principal Representative if it appears that the Estimate of Construction will exceed the applicable portion of the Project Budget or Fixed Limit of Construction Cost as may be applicable, satisfactorily demonstrate the accuracy of its estimate in such detail as shall be reasonably required by the Principal Representative, and make reasonable recommendations for corrective action consistent with the Project Budget or Fixed Limit of Construction Cost, as may be applicable. The Construction Manager shall submit Estimates of Construction Cost to the Principal Representative for review and acceptance at each design milestone and other times as required by the Principal Representative to analyze various building systems and components. Concurrently, the Construction Manager shall provide copies to the Architect/Engineer for review and verification.
- 3.4.12 The Principal Representative shall reasonably cooperate with the Construction Manager to keep the Work within the applicable portions of the Project Budget or Fixed Limit of Construction Cost, as may be applicable, including but not limited to the giving of appropriate and reasonable consideration to all reasonable recommendations of the Construction Manager, approving redesign, only for Principal Representative directed scope changes, deductive alternatives or reductions in Work, requesting additional Value Engineering, making modifications to the Contract Documents or exercising such other rights or remedies as may be available elsewhere under this Agreement including termination for convenience. However, the Principal Representative shall be under no duty to reduce the Work to accommodate for any projected costs over or beyond the Guaranteed Maximum Price that is the responsibility of the Construction Manager or allow access to the construction contingency to cover costs to correct errors, omissions, mistakes, rejected Work or warranty Work.

- 3.4.13 Architect/Engineer/Construction Manager Cooperation: The Architect/Engineer, by the terms of its agreement with the Principal Representative, is obligated to provide reasonable cooperation to the Construction Manager in the development of Estimates of Construction Cost and the Guaranteed Maximum Price. Conversely, the Construction Manager, by the terms of this Agreement is obligated to provide reasonable cooperation to the Architect/Engineer in the development of Statements of Probable Construction Cost and the Guaranteed Maximum Price. Additionally, both Architect/Engineer and Construction Manager are obligated to reconcile their respective cost estimates at the completion of each design phase of the Work including the Guaranteed Maximum Price in a timely manner so as not to negatively impact the Project Schedule.

3.5 OTHER PRE-CONSTRUCTION SERVICES

- 3.5.1 The Construction Manager shall perform those items designated as Required Services as set forth in the Designated Services and Method of Payment schedule designated as **Exhibit A**. In addition, and not in limitation, the Construction Manager shall also perform the other Pre-Construction Services designated in this Article 3 together with such other services as are normally and customarily provided by a Construction Manager.
- 3.5.2 Meeting Attendance: The Construction Manager shall attend all regular meetings with the Principal Representative and such additional meetings as the Principal Representative may request. All regular meetings shall be scheduled by the Architect/Engineer with the Construction Manager and approval of the Principal Representative. All additional meetings shall be requested by the Principal Representative.
- 3.5.3 Copies for Review: The Principal Representative through the Architect/Engineer and consistent with the Principal Representative's contract with the Architect/Engineer, shall furnish the Construction Manager a sufficient quantity of documents required for the Preconstruction Services.
- 3.5.4 The Construction Manager shall make recommendations to the Principal Representative and the Architect/Engineer regarding the Division of Work in the Drawings and Specifications to facilitate the bidding and awarding of subcontracts, allowing for phased construction and funding, if applicable, taking into consideration such factors as time of performance, availability of labor, overlapping trade jurisdictions, provisions for temporary facilities, etc.
- 3.5.5 The Construction Manager shall review Drawings and Specifications with the Architect/Engineer to (1) eliminate areas of conflict, overlapping trade jurisdictions, and overlapping in the Work to be performed by the various subcontractors, (2) endeavor to confirm that all Work has been included, and (3) allow for phased construction as applicable.
- 3.5.6 The Construction Manager shall participate in Project Design Review Sessions at the close of the Schematic Design Phase, the Design Development Phase, and as Construction Documents are finalized for each Bid Package. The Project design review sessions shall be attended by the Architect/Engineer and representatives of the Principal Representative. The purposes of the Project design review sessions are to (1) assure consistency with the design intent; (2) ensure complete, coordinated, constructible and cost-effective designs for all disciplines (e.g. architectural, structural, mechanical); (3) assure that the design documents are code compliant as per **Exhibit K** Approved Building Codes Plan Reviews and Building Inspections; (4) endeavor to confirm that all Work has been

included and described in sufficient detail to assure complete pricing of Work; and (5) allow for phased construction. The Architect/Engineer shall collect all design review comments from the various participants, provide reports to the Principal Representative, and ensure that with the issuance of each progress set of design documents all comments have either been incorporated or resolved to the satisfaction of the Principal Representative.

- 3.5.7 The Construction Manager recognizes that the Principal Representative is a Governmental Body with certain procedural requirements to be satisfied. The Construction Manager has and shall make reasonable allowance in its performance of the Work for such additional time as may be required for approvals and decisions by the Principal Representative, in addition to the times specifically provided in paragraph 5.1.11.
- 3.5.8 In the Review Process of the final Design Development Documents and Construction Documents for each Bid Package, the Construction Manager expressly agrees to the following review times by the Principal Representative:
 - 3.5.8.1 A period of fourteen (14) days for the review of the Design Development Documents; and
 - 3.5.8.2 A period of fourteen (14) days prior to completion of the Construction Documents together with an additional seven (7) days after receipt of all bid documents for each Bid Package, commencing with the date of receipt by the Principal Representative of all documents and any other items which are required to be furnished to the Principal Representative by the terms of the Principal Representative's contract with the Architect/Engineer.
- 3.5.9 As part of the Schematic Design review and estimating tasks, the Construction Manager shall develop a preliminary detailed Critical Path Method (CPM) Project Schedule as described in Article 12 of the General Conditions of the Design/Build Guaranteed Maximum Price Agreement (SC-9.1), that is coordinated with the milestone dates specified in **Exhibit H.2**, the Date of Completion specified in paragraph 5.2.1, the scope of Work described within the Contract Documents, and the Work described within the Schematic Design Documents. The Construction Manager shall utilize the Project Management Software as described in paragraph 3.6.4 to develop and manage the schedule.
- 3.5.10 Principal Representative Purchasing: The Construction Manager shall investigate and recommend materials and equipment that could be purchased by the Principal Representative; consider long lead time procurement and mass purchasing power in making such recommendations; recommend a schedule for such purchases after coordination with the schedule for preparation of Contract Documents; and expedite and coordinate delivery of these purchases to facilitate their delivery by the required dates.
- 3.5.11 The Construction Manager shall prepare necessary bidding information, bidding forms, and pre-qualification criteria for bidders; develop subcontractor interest in the Project; establish bidding schedules; advertise for bids; and conduct pre-bid conferences to familiarize bidders with the bidding documents and management techniques and with any special systems, materials, or methods. As soon as the Construction Manager becomes aware prior to any bid date that less than three (3) pre-qualified subcontractors plan to bid any portion of any Bid Package or that anticipated bids from previously approved or pre-qualified subcontractors listed on **Exhibit F**, are likely to exceed the then current Schedule of Values or Estimate of Construction Cost, the Construction Manager shall promptly so notify the Principal

Representative and Principal Representative shall be entitled to treat the situation as an unforeseeable circumstance pursuant to paragraph 3.5.9.1.

- 3.5.12 The Construction Manager shall receive and open bids when advertised, prepare a bid analysis, conduct pre-award conferences, and notify the Principal Representative concerning which bids shall be accepted. The Principal Representative shall be notified in advance of the time and place of all bid openings and may elect to attend such openings with their representatives. Should the Construction Manager submit a proposal for subcontract Work (Work not included in the Construction Manager's Construction Phase Fee and/or General Conditions) herein referred to as "Self Perform Work", the proposal conditions shall be the same as for all subcontractor proposals. These Construction Manager proposals for subcontract Work shall be submitted to the Principal Representative twenty-four (24) hours prior to receipt of other subcontractor proposals and all opened with the other proposals. A proposal to accept other than a low bid shall be justified in writing by the Construction Manager and subject to prior written approval by the Principal Representative.
- 3.5.13 The Construction Manager shall provide the requirements and assignment of responsibilities for safety precautions and programs as required for the execution of the Work, temporary project facilities and for equipment, materials and services for common use of subcontractors and verify that all are included in the Contract Documents.
- 3.5.14 The Construction Manager shall provide not later than the first of each month, unless requested otherwise by the Principal Representative, a monthly report utilizing the Project Management Software described in paragraph 3.6.4 documenting the current status of the project's schedule, costs, requests for information, submittals, manpower, safety, and other pertinent information. The report shall include a narrative discussion of the progress achieved, activities anticipated for the next month, and issues that are affecting the rate of progress. Progress photographs should be attached/included. This monthly report shall be provided in Construction Phases of the project. The schedule status shall include the following minimum items:
- a. Cost report showing activity dollar value, dollar value of Work in place to-date and dollar value for current period.
 - b. Cost report showing activity dollar value, dollar value of Work in place to-date, and dollar value for current period summarizing to schedule of values.
 - c. Resource report showing man-day allocations by specific trade on each activity.
 - d. Variance report comparing current dates to target dates.
 - e. Cash flow report showing monthly projections of expenditures.
- A narrative schedule report shall document:
- a. Description of the actual Work accomplished during the reporting period.
 - b. Description of any problem areas.
 - c. Description of current and anticipated delays with recommended corrective actions to mitigate such delays.
 - d. A list of proposed modifications, additions, deletions, and changes in logic to the approved schedule.

CONSTRUCTION PHASE SERVICES

3.6 CONTROL OF THE WORK

- 3.6.1 The Construction Manager shall supervise and direct the Work of its subcontractors and shall coordinate the Work with the activities and responsibilities of the Principal Representative to complete the Project in accordance with the Principal Representative's objectives of cost, time and quality and subject to the terms and conditions of the General Conditions of the Construction Manager General / Contractor Agreement (SC-6.51).
- 3.6.2 The Construction Manager shall establish on-site organization and lines of authority in order to carry out the overall plans of the Construction Team.
- 3.6.3 The Construction Manager shall schedule and conduct weekly progress meetings at which the Principal Representative, Construction Manager, Architect/Engineer, and Architect/Engineer's Consultants, can discuss jointly such matters as procedures, progress, schedule, costs, quality control and problems. The Construction Manager shall record and distribute minutes of all construction meetings within 48 hours of the meeting.
- 3.6.4 A contract-control/project-management software (hereafter "Project Management Software") approved by the Principal Representative, shall be used as a primary tool for project control, communication and documentation control by all the project participants, to include the Principal Representative, the Construction Manager and the Architect/Engineer. The Construction Manager shall utilize the Project Management Software to implement a cost forecasting, monitoring, control and reporting system for the Project. The Project Management Software shall be maintained throughout the project, both during the pre-construction and construction phases. Cost analyses shall be based upon data analyses as developed/described within Section 3.3 and shall include analyses of all trades and Project components making a significant contribution for total Project costs. The Project Management Software shall provide for development of a Project cost model, monitoring the design process and periodic reviews of the cost estimates/forecasts to identify variances from the cost model. Additionally, the Project Management Software shall identify variances between actual and budgeted costs and the Fixed Limit of Construction Cost and the Contract Sum.

The Construction Manager shall use the Project Management Software for the major contract administration processes to include, but not limited to:

- 3.6.4.1 Submittals:
 - a. Construction Manager shall create a Submittal log and Submittal schedule.
 - b. Submittals shall be directly submitted to the Architect/Engineer and Principal Representative and directly returned from the Architect/Engineer.
- 3.6.4.2 Requests for Information:
 - a. Construction Manager shall submit requests for information using the Project Management Software.
 - b. Architect/Engineer shall answer requests for information via the Project Management Software. Requests for Information responses that have cost impact will have corresponding Change Order Bulletin (Form SC-6.311) issued by the Architect/ Engineer.
- 3.6.4.3 Change Management: Entire change management process including Notices, and Change Orders shall be managed using the Project Management Software and utilizing Contract Amendment (Form SC-6.0), Change Order (Form SC-

6.31), Change Order Bulletin (Form SC-6.311), Change Order Proposal (Form SC-6.312) and Change Order Log.

- 3.6.4.4 Pay Applications: Construction Manager shall be responsible for creating and distributing pay application in the Project Management Software using an earned-value calculation through the CPM Schedule & utilizing Application and Certificate for Contractor's Payment (SBP-7.2).
- 3.6.4.5 Meeting Minutes: Construction Manager shall be responsible for creating and distributing construction-meeting minutes in the Project Management Software.
- 3.6.4.6 Reports: Construction Manager shall be responsible to prepare and distribute reports in the Project Management Software.
- 3.6.4.7 Insurance Certificate: Construction Manager shall responsible for storing all the insurance related information of subcontractors in the Project Management Software.
- 3.6.4.8 Punchlist: Construction Manager shall be responsible to update the Substantial Completion Punchlist status using the Project Management Software.
- 3.6.4.9 Construction Schedule: Critical Path Method as described in Article 12 of the General Conditions of the Construction Manager / General Contractor Agreement (SC-6.51).
- 3.6.4.10 All project correspondence with Principal Representative shall be in the Project Management Software.

- 3.6.5 The Construction Manager shall propose and implement an approved procedure for coordinating and tracking all required Code Compliance Building Inspections as indicated on the Building Inspection Record (BIR) as provided by the State Buildings Program approved Code Review Agent at the appropriate Construction Phase(s) as described in the attached **Exhibit K**.

3.7 SCHEDULE AND COORDINATION

- 3.7.1 The Construction Manager shall begin the construction Work upon receiving the Notice to Proceed to Commence Construction Phase (SBP-7.26), in accordance with Article 5.1. The Construction Manager shall schedule and coordinate the Work of all of its subcontractors on the Project including their use of the site. The Construction Manager shall keep the subcontractors informed of the Project construction schedule to enable the subcontractors to plan and perform the Work properly. The Construction Manager shall carry the Work forward expeditiously with adequate forces and shall achieve Completion of the Work prior to the Contract Completion Date specified in Article 5.2, as adjusted by Change Orders and Amendments.

3.7.2 Schedule Management

- 3.7.2.1 Schedule Modifications: If, as a result of the monthly schedule update the Project Schedule no longer represents the actual / logical progression of the Work or the Construction Manager's plan for prosecution and progress of the Work, the Principal Representative shall require the Construction Manager to submit a revision to the Project Schedule. Such revisions to the Schedule shall not alter any of the Project Milestone dates.
- 3.7.2.2 Schedule Impacts, Schedule Delays, Time Extensions: During the course of the Project, it may be appropriate to revise the Schedule to incorporate impacts or delay issues into the Project Schedule. If the Construction Manager determines it has encountered schedule impacts that may warrant a time extension, the

Construction Manager shall present an Impacted Schedule in accordance with the Contract General Conditions, to the Principal Representative supporting its claim.

- 3.7.2.3 Recovery Schedule: In the event progress falls behind schedule dates, the Construction Manager shall prepare a recovery schedule indicating its revised plan to assure the timely completion of the Work. The recovery schedule shall be subject to the Principal Representative's approval.

3.8 AMENDMENTS AND CHANGE ORDERS

- 3.8.1 The Construction Manager shall assist in developing and implementing a system for the preparation, processing and tracking of Amendments and Change Orders using the Project Management Software as described in paragraph 3.6.4 and recommend necessary or desirable changes to the Principal Representative. Fully executed and approved Change Orders shall constitute obligations of the Principal Representative to pay as part of the Contract Sum the amounts identified by such modifications so long as such amounts do not exceed the Guaranteed Maximum Price, however, only those portions of the Contract Sum that are incorporated by Amendment shall be immediately payable. Change Orders, other than Change Orders allocating contingency amounts already incorporated by an Amendment which modify the Guaranteed Maximum Price, shall be payable only after having been incorporated into the Contract by Amendment. The Construction Manager shall provide the Principal Representative with Amendments from time to time aggregating and incorporating Change Orders that do not allocate contingency amounts already incorporated by an Amendment in order to expedite payment of approved Change Order work when performed and payable.

3.9 PRINCIPAL REPRESENTATIVE CONSULTANTS

- 3.9.1 If required, the Construction Manager shall assist the Principal Representative in selecting and retaining the professional services including but not limited to a surveyor, geotechnical, testing and inspection and other special consultants, and coordinate these services, without assuming any responsibility or liability of or for these consultants.

3.10 START UP

- 3.10.1 The Construction Manager, with the Principal Representative's maintenance staff and/or consultant, shall direct the checkout of utilities, operations, systems and equipment for readiness and assist in their initial start-up and testing/commissioning as required in the Scope Narrative with the subcontractors of all tiers.
- 3.10.2 Prior to the Date of Completion of the Work or earlier date for phased occupation of the Work as requested by the Principal Representative, the Construction Manager shall schedule and conduct with the Principal Representative and the Architect/Engineer a complete review, commissioning, demonstration, start-up and operational testing of all equipment and mechanical and electrical systems installed by the Construction Manager or its subcontractors on the Project, and shall also review the operation and maintenance of such systems with the Principal Representative's maintenance personnel.
- 3.10.3 Subsequent to this review, the Construction Manager, with reasonable promptness and at no cost to the Principal Representative shall make all adjustments or corrections required by the Principal Representative or the Architect/Engineer and shall balance all systems in order to make all equipment and systems perform as required by the Contract Documents and to reflect the actual use and occupancy of the Project. If

necessary or requested by the Architect/Engineer or Principal Representative, the Construction Manager shall require the subcontractor, supplier of material supplier to make adjustments, corrections or balancing required by this process, at no additional cost to the Principal Representative.

ARTICLE 4. TIME OF COMMENCEMENT AND COMPLETION

4.1 COMMENCEMENT

- 4.1.1 The Contract Time shall commence on the Effective Date of this Agreement but no Work shall be performed prior to the delivery of all bonds, and insurance certificates and the Certification and Affidavit Regarding Unauthorized Immigrants as required to be furnished by the Construction Manager as described on the Notice of Award.
- 4.1.2 The Construction Phase shall commence on the date the first Bid Package is added to this Agreement by Amendment unless there is an Early Release Bid Package as approved by the Owner in accordance with Article 1.1.4 of this Agreement.
- 4.1.3 The commencement of the Construction Phase is expressly conditioned upon and shall not commence until:
 - 4.1.1.1 The Guaranteed Maximum Price and Schedule of Values shall have been timely submitted (or such timeliness shall have been waived in writing by the Principal Representative and the director of State Buildings Program) and shall have been approved and accepted by the Principal Representative;
 - 4.1.1.2 The date for Completion of the Work has been approved and accepted by the Principal Representative;
 - 4.1.1.3 All required Performance and Labor and Material Payment Bonds and insurance certificates have been approved and accepted by State Buildings Program; and
 - 4.1.1.4 **Exhibit I.8**, Notice To Proceed to Commence Construction Phase (SBP-7.26) has been issued by the Principal Representative and made a part of the Contract Documents.

If any of the preceding material conditions to be performed by the Construction Manager have not been fully satisfied by reason of any act or omission on the part of the Construction Manager through no fault of the Principal Representative, the Principal Representative shall give the Construction Manager written notice of any and all such deficiencies and allow ten (10) days from the date of such notice to correct and cure such deficiency or deficiencies, and in the event the deficiency or deficiencies are not fully corrected and cured within the ten (10) day period, the Principal Representative may declare the Construction Manager to be in default of this Agreement.

4.2 COMPLETION

- 4.2.1 The Construction Manager agrees to Substantially Complete the Project within [XX] calendar days from the date of the Notice to Proceed to Commence Construction Phase (SBP-7.26), in addition, the Construction Manager agrees to finally complete the Project from Substantial Completion to Final Acceptance within [XX] calendar days for a total time of completion of the entire Project of [XX] calendar days.

The Construction Manager shall perform the Work with due diligence to completion.

ARTICLE 5. COMPENSATION

5.1 CONSTRUCTION MANAGER'S FEE

- 5.1.1 Subject to the provisions of this Agreement and of the General Conditions of the Design/Build Guaranteed Maximum Price Agreement (SC-9.1), and in consideration of the performance of this Agreement, the Principal Representative shall pay the Construction Manager in current funds as compensation for its services as listed below:

[Below is a MS Excel spreadsheet. Double click to activate and complete]

Construction Manager's Fee

1 Pre-Construction Phase Fee	\$	
2 Construction Phase Fee	\$	
3 Total Fee (1+2)	\$	0

General Conditions

4 Direct Personal Expenses of On-Site CM/GC Staff (Not to Exceed)	\$	
5 Other Reimbursable General Conditions (Not to Exceed per paragraph 9.1.3)	\$	
6 Total General Conditions (including Direct Personnel Expenses of Staff) (4+5)	\$	0
Total Fee and General Conditions (3+6)	\$	0

- 5.1.2 The Construction Manager's Fee shall include all job indirect costs, and General Conditions costs as defined in **Exhibit A**, Construction Manager Designated Services and Method of Payment, home office overhead, and profit, included but not limited to the following:

- 5.1.2.1 Salaries or other compensation of the Construction Manager's employees at the principal office and branch offices;
- 5.1.2.2 General operating expenses of the Construction Manager's principal and branch offices other than the field office;
- 5.1.2.3 Any part of the Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Project;
- 5.1.2.4 Overhead or general expenses of any kind;
- 5.1.2.5 Salaries of the Construction Manager's employees engaged on the road in expediting the production or transportation of materials and equipment;
- 5.1.2.6 Cost of all employee benefits and taxes for such items as unemployment compensation and social security, insofar as such cost is based on wages, salaries or other remuneration paid to employees of the Construction Manager and included in the fee under paragraphs 6.1.2.1 through 6.1.2.5;
- 5.1.2.7 All transportation, traveling, moving, and hotel expenses of the Construction Manager or its officers or employees incurred in discharge of duties connected with the Work;

- 5.1.2.8 Costs, including transportation and maintenance, of all materials, supplies, equipment, temporary facilities, and hand tools not owned by the workmen, which are employed or consumed in the performance of the Work;
- 5.1.2.9 Cost of the premium for all insurance which the Construction Manager is required to procure by this Agreement or is deemed necessary by the Construction Manager;
- 5.1.2.10 Minor expenses such as facsimile messages, telegrams, long distance telephone call telephone service at the site, express mail, and similar petty cash items in connection with the Work;
- 5.1.2.11 All other items set forth in **Exhibit A**, Construction Manager Designated Services and Method of Payment that are specifically designated as Pre-Construction Services Fee, Construction Services Fee or General Conditions. All Items listed in the columns designated Direct Cost of Work shall be included in the separate Bid Packages.
- 5.1.2.12 Except as expressly provided to the contrary elsewhere in this Agreement, approved costs in excess of the Guaranteed Maximum Price.
- 5.1.3 General conditions items, as set forth in paragraph 6.1.2, shall generally include the cost of Construction Phase on-site construction management staff and those temporary facilities, services and equipment to support the Work of construction subcontractors. General conditions items are more fully identified in **Exhibit A**, Designated Services and Methods of Payment, and shall be reimbursed at cost, without mark-up, based upon pre-approved not-to-exceed budgets. General conditions (exclusive of the Construction Manager's staff) provided directly by the Construction Manager must be at market competitive rates. Each monthly request for progress payment shall be justified with reasonable support for expenses to include:
 - 5.1.3.1 Invoice or receipt for any vendors or suppliers for material, rented equipment, etc.
 - 5.1.3.2 Labor/timesheet reports (by task number) for direct labor, provide bare labor rate and itemized breakdown of labor burden prior to initial billing.
 - 5.1.3.3 Owned equipment shall be compensated per pre-negotiated rates established in accordance with the Colorado Procurement or applicable procurement code for institutions of higher education. In no case shall cumulative/total cost of owned equipment exceed the value of the equipment minus salvage value. The Principal Representative shall approve all rental rates and salvage values in writing prior to initial billing.
 - 5.1.3.4 Labor, material and equipment cost may be audited by the Principal Representative.
- 5.2 ADJUSTMENTS IN FEE
 - 5.2.1 Adjustments in the Construction Phase Fee shall be made as follows: If, after the total Guaranteed Maximum Price is accepted, in writing, by the Principal Representative, the Principal Representative directs additions to or other changes made in the Work, the Construction Manager's fee shall be adjusted as follows:
 - 5.2.1.1 If the changes in the aggregate increase the total Guaranteed Maximum Price the Construction Manager's fee for any and all other changes in the Work shall be calculated at the rate of FOUR percent (4%) (plus appropriate General Condition costs) of the estimated cost of such work and shall be agreed upon between the Construction Manager and the Principal Representative as a fixed fee for the effect

of the change (or changes), prior to starting the changed Work. The adjustments stated above shall only be deemed valid after the Principal Representative accepts the adjustments in writing and, are the only adjustments to the fee that shall be granted for changes authorized to the GMP. Adjustments to these fees beyond these values shall not be granted. However, General Condition costs directly attributable to time extensions may be charged in accordance with the provisions of the General Conditions.

5.2.2 The Construction Manager shall also be paid an additional fee at the rate as set forth in paragraph 6.2.1.2 if the Construction Manager is placed in charge of the reconstruction of any insured loss.

5.2.3 If there is a material reduction in the scope of Work greater than fifteen percent (15%) of the Fixed Limit of 5 Construction Cost, the Construction Manager's Fees shall be reduced proportionally after the fifteen percent (15%).

5.3 PAYMENT OF FEE

5.3.1 Preconstruction Services Fee: For the performance of the Preconstruction Services ending with the execution of the first amendment establishing and accepting the Guaranteed Maximum Price of the Work, the fee therefore as set forth in paragraphs 5.1.1 shall be paid monthly and as described in the General Conditions with the total payment not to exceed the fee for such services as set forth in paragraph 5.1.1.

5.3.2 Construction Services Fee: For the Performance of the Construction Services after the execution of the first amendment establishing and accepting the Guaranteed Maximum Price of the Work and with the addition of the second Amendment incorporating the first Bid Package and subsequent Amendments incorporating subsequent Bid Packages, the fee therefore as set forth in paragraphs 5.1.1 shall be paid monthly as described in the General Conditions with the total payment not to exceed the fee for such services as set forth in paragraph 5.1.1. and the portion of the fee to be paid shall be equivalent to the ratio of the dollar value of each Bid Package to the Guaranteed Maximum Price including the premiums for the Performance and Labor and Materials Payment Bonds with coverage up to the value of the Contract Sum.

5.4 GUARANTEED MAXIMUM PRICE

5.4.1 At the conclusion of the Design Development Phase, the Construction Manager shall deliver to the Principal Representative, a Guaranteed Maximum Price proposal which shall agree to perform all of the Work even though all of the Construction Documents have not all been finalized and released for construction, and guarantee the maximum price to the Principal Representative for the entire cost of the Work, as adjusted by deductive alternates required to maintain the Guaranteed Maximum Price below the Fixed Limit of Construction Cost which have been previously approved by the Principal Representative pursuant to paragraph 3.1.1.

5.4.2 The Guaranteed Maximum Price shall include all of the Construction Manager's obligations to be performed pursuant to the terms of the Contract Documents and may include, but not be limited to, the total of the following:

5.4.2.1 The total of all prices already received for all items bid before the establishment of the Guaranteed Maximum Price;

5.4.2.2 The Construction Manager's estimate of the cost of all other Work to be performed but not yet bid, excluding the approved deductive alternates unless said Work can be incorporated into the Contract Documents by application of the contingency per

- the provisions of paragraphs 3.3.1 through 3.3.5, with the consent of the Construction Manager which consent shall not be unreasonably withheld;
- 5.4.2.3 The installation cost of items to be procured by the Principal Representative and assigned to the Construction Manager for installation, as defined in the Contract Documents;
 - 5.4.2.4 The estimated maximum cost of all Work to be performed by the Construction Manager;
 - 5.4.2.5 Construction Manager's Fee as provided under this Agreement;
 - 5.4.2.6 The cost of all Performance and Labor and Material Payment Bonds furnished by the Construction Manager pursuant to the Contract General Conditions, Article 16;
 - 5.4.2.7 The premiums for insurance to protect the Project pursuant to the Contract General Conditions, Article 25; and
 - 5.4.2.8 Authorized adjustments as set forth elsewhere in this Agreement, to include but may not be limited to: taxes; fees for licenses, and royalties; special conditions, commissioning, start-up services, and warranty support; and contingencies.
- 5.4.3 The Guaranteed Maximum Price proposal as set forth in paragraph 5.3.1 shall:
- 5.4.3.1 Set forth a stated not to exceed dollar amount;
 - 5.4.3.2 Set forth the Schedule of Values therefore which shall be consistent with previously approved Schedules of Values, as adjusted as required pursuant to Design Development cost estimating;
 - 5.4.3.3 Contain no conditions or exceptions;
 - 5.4.3.4 Not exceed the Fixed Limit of Construction Cost;
 - 5.4.3.5 Contain no allowances except for those set forth in **Exhibit H.4**, Allowance Schedule of which all allowances are to be a not-to-exceed dollar amount; and
 - 5.4.3.6 Be substantiated with complete supporting documentation acceptable to the Principal Representative, to clearly define the anticipated Work to be performed by the Construction Manager and facilitate a determination thereafter when final drawings and specifications are released for construction, as to whether there has been an increase in the Work required of the Construction Manager in the documents released for construction from the Design Development documents on which the Guaranteed Maximum Price was based. If at any time thereafter, any Claim is asserted by the Construction Manager for an increase to the Contract Sum or Guaranteed Maximum Price and/or extension of the Contract Time because of an alleged increase in the Work to be performed by the Construction Manager as contained in the drawings or specifications released for construction, the Design/ Build Entity shall be required to satisfactorily demonstrate the increase in the Work; otherwise the Construction Manager shall be entitled to no increase in the Contract Sum, Guaranteed Maximum Price or extension of the Contract Time.
- 5.4.4 If, through no fault on the part of the Construction Manager, and after receiving reasonable cooperation by the Principal Representative, the Construction Manager submits a Guaranteed Maximum Price proposal contrary to the provisions of paragraph 6.3.2 and 6.3.3, the proposal may be rejected by the Principal Representative; the Principal Representative shall be under no obligation to award subsequent Bid Packages; the Principal Representative may declare the Construction Manager to be in default; and payment may be withheld from the Construction Manager, excepting the

Construction Manager's reasonable costs incurred, up and until a Guaranteed Maximum Price is furnished in accordance with the foregoing.

- 5.4.5 If, in developing a Guaranteed Maximum Price, the Construction Manager believes any documentation or information, consistent with the Design Development level of documentation, is not sufficiently complete to clearly define the anticipated Work, the Construction Manager shall be responsible for making all necessary inquiries and requests to establish the same.
- 5.4.6 When the Guaranteed Maximum Price is agreed upon and accepted by the Principal Representative, it shall be made a part of the Contract Documents by Amendment, shall supersede updated summaries, and all documents relating to Schedules of Values and Estimates of Construction; and shall be subject to modification for Changes in the Work as provided in the General Conditions Article 35. If the Construction Manager, in good faith, furnishes the Principal Representative with a Guaranteed Maximum Price proposal which meets the criteria of paragraphs 6.3.1, 6.3.2, and 6.3.3 and the parties fail to mutually agree to that number as set forth above, the parties expressly agree that default termination of the Construction Manager shall not be a remedy therefore under this Agreement, and, the Principal Representative shall be entitled to proceed with the Project and Work as set forth elsewhere in this Agreement.
- 5.4.7 When the Construction Manager provides a Guaranteed Maximum Price, the trade contracts for the Work shall either be with the Construction Manager or shall contain the necessary provisions to allow the Construction Manager to control the performance of the Work. The Principal Representative shall also authorize the Construction Manager to take all steps necessary in the name of the Principal Representative to assure that any separate contractors, having separate contracts with the Principal Representative for the Project, perform their contracts in accordance with their terms.

5.5 CONTRACT SUM

- 5.5.1 Subject to the provisions of Article 3, Article 5 and Contract General Conditions Article 50, the Contract Sum shall equal the total of:

5.5.1.1 The Construction Costs as set forth in 3.4.6 and 3.4.7.

5.5.1.2 Authorized adjustments as set forth elsewhere in this Agreement;

and shall be the total amount payable by the Principal Representative to the Construction Manager for the performance of all Work under the Contract Documents.

5.6 CONDITION PRECEDENT

- 5.6.1 Financial obligations of the Principal Representative payable after the current fiscal year are contingent upon funds for the purpose being appropriated, budgeted, and otherwise made available.
- 5.6.2 At the time of the execution of this Agreement, there are sufficient funds budgeted and appropriated to compensate the Construction Manager only for performance of the Work through and including _____. Therefore, it shall be a Condition Precedent to the Construction Manager's performance of the remaining Work specified in _____ and the State's liability to pay for such performance, sufficient funding must be made available to the Principal Representative for the Project prior to _____ and, as a further Condition Precedent, a written Amendment to this Agreement is entered into in accordance with the State of Colorado Fiscal Rules, stating that additional funds are lawfully available for the Project. If either Condition Precedent is not satisfied by _____, the Construction Manager's obligation to perform Work for _____ and the State obligation to pay for such Work is discharged

without liability to each other. If funding is eventually made available after _____, the Construction Manager has no right to perform the Work under _____ of this Agreement and the State has no right to require the Construction Manager to perform said Work.

ARTICLE 6. OPTIONAL PROVISIONS AND ELECTIONS

The provisions of this Article alter the preceding Articles or enlarge upon them as indicated (The General Conditions of the Design/Build Guaranteed Maximum Price (GMP) Agreement SC-9.1):

The Principal Representative and or the State Buildings Program shall mark boxes and initial where applicable.

[To select any of these provisions: The boxes below are "fields." Place cursor in front of the square, right-click, select "Properties," change Default Value to "Checked"]

6.1 MODIFICATION OF ARTICLE 2. EXECUTION, CORRELATION, INTENT OF DOCUMENTS, COMMUNICATION AND COOPERATION

If the box below is marked, certification of apprenticeship utilization is required for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical and plumbing work on the project.

☐ _____ Principal Representative initial

6.2 MODIFICATION OF ARTICLE 46. GUARANTEE INSPECTIONS AFTER COMPLETION

If the box below is marked the six month guarantee inspection is not required.

☐ _____ Principal Representative initial

6.3 MODIFICATION 1 OF ARTICLE 27. LABOR AND WAGES

If the box is marked the Federal Davis-Bacon Act shall be applicable to the Project. The minimum wage rates to be paid on the Project shall be furnished by the Principal Representative and included in the Contract Documents.

☐ _____ Principal Representative initial

6.4 MODIFICATION 2 OF ARTICLE 27. LABOR AND WAGES

If the box is marked, the State prevailing wage statute shall be applicable to the Project. The minimum wage rates to be paid on the Project shall be furnished by the Principal Representative and included in the Contract Documents.

☐ _____ Principal Representative initial

6.5 MODIFICATION OF ARTICLE 39. NON-BINDING DISPUTE RESOLUTION – FACILITATED NEGOTIATIONS

If the box is marked, and initialed by the State as noted, the requirement to participate in facilitated negotiations shall be deleted from this Contract. Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, shall be deleted in its entirety and all references to the right to the same where ever they appear in the contract shall be similarly deleted. The box may be marked only for projects with an estimated value of less than \$500,000.

☐ _____ Principal Representative initial

6.6 MODIFICATION OF ARTICLE 46. TIME OF COMPLETION AND LIQUIDATED DAMAGES

If an amount is indicated immediately below, liquidated damages shall be applicable to this Project as, and to, the extent shown below. Where an amount is indicated below, liquidated damages shall be assessed in accordance with and pursuant to the terms of Article 46, Time of Completion and Liquidated Damages, in the amounts and as here indicated. The election of liquidated damages shall limit and control the party's right to damages only to the extent noted.

1. For the inability to use the Project, for each day after the number of calendar days specified in the Construction Manager's proposal for the Project and the Agreement for achievement of Substantial Completion, until the day that the Project has achieved Substantial Completion and the Notice of Substantial Completion is issued, the Construction Manager agrees that an amount equal to _____ (\$) shall be assessed against Construction Manager from amounts due and payable to the Construction Manager under the Contract, or the Construction Manager and the Construction Manager's Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due, but amounts remaining are insufficient to cover the entire assessment.
2. For damages related to or arising from additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period, for each day in excess of the number of calendar days specified in the Construction Manager's proposal for the Project and the Agreement to finally complete the Project as defined by the issuance of the Notice of Final Acceptance) after the issuance of the final Notice of Substantial Completion, the Construction Manager agrees that an amount equal to _____ (\$) shall be assessed against Construction Manager from amounts due and payable to the Construction Manager under the Contract, or the Construction Manager and the Construction Manager's Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due but amounts remaining are insufficient to cover the entire assessment.

ARTICLE 7. NOTICE IDENTIFICATION

All Notices pertaining to General Conditions or otherwise required to be given shall be transmitted in writing, to the individuals at the addresses listed below, and shall be deemed duly given when received by the parties at their addresses below or any subsequent persons or addresses provided to the other party in writing.

Notice to Principal Representative:

[Name and address]

With copies to (State Buildings Program (or Delegate) State of Colorado):

[Name and address]

Notice to Construction Manager:

[Name and address]

With copies to:

File

[Name and address]

SIGNATURE APPROVALS:

THE PARTIES HERETO HAVE EXECUTED THIS AGREEMENT

*Persons signing for Construction Manager hereby swear and affirm that they are authorized to act on Construction Manager's behalf and acknowledge that the State is relying on their representations to that effect. **Principal is not a recognized title and will not be accepted.**

THE CONSTRUCTION MANAGER:

STATE OF COLORADO, acting by and through:
(Insert Name & Title of Agency or IHE)

Legal Name of Contracting Entity

By: _____
(Insert Name & Title of Principal Representative for Agency or IHE here)

Date: _____

*Signature

APPROVED
DEPARTMENT OF PERSONNEL & ADMINISTRATION
STATE BUILDINGS PROGRAM
State Architect (or authorized Delegate)

By: _____
Name (print) Title

Date: _____

By: _____
(Insert Name of Authorized Individual here)

Date: _____

APPROVED
DEPARTMENT OF LAW
Attorney General (or authorized Delegate)

By: _____
(Insert Name of Authorized Individual here)

Date: _____

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER:

C.R.S. § 24-30-202 requires the State Controller to approve all State Contracts. This Contract is not valid until signed and dated below by the State Controller or delegate. Construction Manager is not authorized to begin performance until such time. If Construction Manager begins performing prior thereto, the State of Colorado is not obligated to pay Construction Manager for such performance or for any goods and/or services provided hereunder.

APPROVED:
STATE OF COLORADO
STATE CONTROLLER'S OFFICE
State Controller (or authorized Delegate)

By: _____
(Insert Name of Authorized Individual here)

Date: _____

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT A

DESIGNATED SERVICES AND METHOD OF PAYMENT
(Attached)

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: PRECONSTRUCTION	PRE-CONST SVCS FEE	CONST SRVS FEE	GEN CONDS.	DIRECT COST OF WORK		
ARCHITECTURAL SELECTION						X
CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND OTHER SUB-CONSULTANTS AS APPLICABLE					1	2
SPECIAL CONSULTANT SELECTION						X
SURVEYOR SELECTION						X
SITE SELECTION RECOMMENDATIONS					2	1
REVIEW DESIGN CONCEPTS	X					
DEVELOP BID PACKAGES/SUB-CONTRACTING STRATEGY	1				2	
SITE USE RECOMMENDATIONS	2				1	
MATERIAL SELECTION RECOMMENDATIONS	2				1	
BUILDINGS SYSTEMS RECOMMENDATIONS	2				1	
BUILDING EQUIPMENT RECOMMENDATIONS (MOVEABLE)	2				2	1
BUILDING EQUIPMENT RECOMMENDATIONS (FIXED)	2	2			1	
CONSTRUCTION FEASIBILITY RECOMMENDATIONS	1				2	
PROJECT MASTER SCHEDULING	X					
BID PACKAGE RECOMMENDATIONS	1				2	
LIFE CYCLE COSTING ANALYSIS	2				1	
INFORMAL AND FORMAL VALUE ENGINEERING	X				2	
ENERGY USE ANALYSIS AND RECOMMENDATIONS	2				1	
PRELIMINARY TOTAL COST FEASIBILITY REVIEW	1				2	
LABOR AVAILABILITY REVIEW (SUBCONTRACTORS)	X					
MATERIAL EQUIPMENT AND CONTRACTOR AVAILABILITY	X					

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: PROJECT BUDGETING AND COST CONTROL	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
TOTAL PROJECT COST BUDGET						X
CONSTRUCTION COST BUDGET	X					
CONSTRUCTION COST BUDGET ESTIMATES	X					
PRELIMINARY COST MODEL	X					
SCHEMATIC DESIGN PHASE ESTIMATES	X					
DESIGN DEVELOPMENT PHASE ESTIMATES	X					
BID PACKAGE/SUBCONTRACT ESTIMATES	X					
CASH FLOW PROJECTIONS	X					
PHASE FUNDING MODELING	X					
MATERIAL SURVEYS	X					
TRADE CONTRACTOR ESTIMATES	X					
CHANGE ORDER ESTIMATES			X			
SET-UP COST ACCOUNTING			X			
SET-UP REPORTING METHODS			X			
SET-UP PAYMENT PROCEDURES			2			1
SET-UP CHANGE ORDER PROCEDURES			1		2	1
CONTINUAL PROJECT COST MONITORING			1		2	1

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES PHASE: SUB-CONTRACTING SELECTION AND PURCHASING	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
SET PRE-QUALIFICATION CRITERIA	1					2
RECOMMEND SUBCONTRACTOR SELECTION METHODS	X					
RECOMMEND SUBCONTRACTOR AWARD SELECTION METHODS	X					
DEVELOP CONTRACTOR INTEREST	X					
PREPARE BIDDING SCHEDULES	X					
CONDUCT PRE-BID CONFERENCE AND ISSUE PLANS	X					
RECEIVE BIDS	1					2
ANALYZE BIDS	1					2
RECOMMEND AWARD	1				2	2
VERIFY UNIT COSTS	X					
NEGOTIATE UNION RATES AND MANPOWER COSTS REQUIRED	X					
CONDUCT PRE-AWARD CONFERENCES			X			
PREPARE CONTRACTS	X					
SUPPLIER AND SUBCONTRACTOR REVIEW	X					
ORIGINATE RFI'S AFTER SCREENING			X			
PREPARE CHANGE ORDERS			1		2	
VERIFY CORRECTNESS OF QUANTITIES AND PRICES OF CHANGE ORDERS			1		2	
COORDINATE OWNER-SUPPLIED FIXED EQUIPMENT			2		1	1

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: CONTRACT DOCUMENTS COORDINATION	PRE- CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
FEASIBILITY REVIEW AND RECOMMENDATIONS	X					
CONSTRUCTIBILITY REVIEW AND RECOMMENDATIONS	X					
SUBCONTRACTOR WORK SCOPING	X					
RESPONSIBILITY FOR: SAFETY PRECAUTIONS			X			
SAFETY PROGRAMS			X			
TEMPORARY FACILITIES			X			
COMMON USE EQUIPMENT			X			
COMMON USE SERVICES			X			
REVIEW FOR: JURISDICTIONAL OVERLAP	X					
INCLUSION OF ALL WORK	X					
PHASE CONSTRUCTION COORD.	X					
IDENTIFY LONG LEAD ITEMS	X					
OBTAIN AGENCY APPROVALS					2	1
ASSIST IN OBTAINING PERMITS (AS NEEDED)			X			

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES PHASE: CONSTRUCTION PHASE STAFF	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
PROJECT MANAGER/ASSISTANT PROJECT MANAGER (AS REQUIRED)			X			
PROJECT SUPERINTENDENT (AS REQUIRED)			X			
ASSISTANT PROJECT SUPERINTENDENT			X			
MECHANICAL COORDINATOR (AS REQUIRED)			X			
ELECTRICAL COORDINATOR (AS REQUIRED)			X			
OFFICE ENGINEER (AS REQUIRED)			X			
ENGINEERING AND LAYOUT (AS REQUIRED)				X		
FIELD ENGINEER-LINE AND GRADE (AS REQUIRED)				X		
DRAWING CHECKER (AS REQUIRED)			X			
RODMAN AND HELPERS (AS REQUIRED)				X		
TIME KEEPER/CHECKER (AS REQUIRED)			X			
SCHEDULING ENGINEER (AS REQUIRED)			X			
PROJECT COORDINATOR			X			
COST ENGINEER (AS REQUIRED)			X			
CLERK-TYPIST (AS REQUIRED)			X			
SAFETY ENGINEER (AS REQUIRED)			X			

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: TRAVEL AND LODGING	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
STAFF TRAVEL COST		X				
STAFF TRANSPORTATION		X				
PROJECT STAFF MOVING EXPENSES		X				
PROJECT STAFF SUBSISTENCE COSTS			X			
PHASE: TEMPORARY FACILITIES						
SAFETY EQUIPMENT AND FIRST AID SUPPLIES			X			
HANDRAILS AND TOE BOARDS			X			
OPENING PROTECTION			X			
FIRE EXTINGUISHERS			X			
WATCHMAN SERVICE				X		
OFFICE OR TRAILER RENTAL			X			
HYDRATION STATION CUPS			X			
TEMPORARY STAIRS			X			
PROJECT SIGNS			X			
BULLETIN BOARDS			X			
CONSTRUCTION FENCING			X			
BARRICADES AND COVERED WALKWAYS (AS REQUIRED)				X		
SAFETY NETS (AS REQUIRED)				X		
A/E TEMPORARY OFFICE (AS REQUIRED)			X			
TEMPORARY TOILETS			X			

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES PHASE: ON-SITE UTILITIES AND SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
TEMPORARY TELEPHONE INSTALLATION AND EXPENSE (INCLUDING LOCAL A/E)			X			
TEMPORARY POWER SERVICE			X			
POWER SERVICE			X			
TEMPORARY WATER AND HEATING SERVICE			X			
HEATING ENERGY CHARGES			X			
TEMPORARY WIRING				X		
LIGHT BULBS				X		
DAILY CLEAN-UP			1	2		
WEEKLY TRASH-REMOVAL			1	2		
FINAL CLEAN-UP			1	2		
DUMP PERMITS AND FEES				X		
DEBRIS HAULING/REMOVAL				X		
FLAGMAN/TRAFFIC CONTROL (AS REQUIRED)				X		
FUELS FOR INITIAL TANK FILLING				X		
TEMPORARY ROADS				X		
ROADWAY MAINTENANCE				X		
DUST CONTROLS				X		
TEMPORARY EROSION CONTROL				X		
TEMP. WATER /SEWER EXPENSE & WATER EXPENSES - SITE GRADING & COMPACTION				X		
TWO-WAY RADIO EQUIPMENT (AS REQUIRED)			X			
TRASH CHUTE AND HOPPERS (AS REQUIRED)				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES PHASE: ON-SITE EQUIPMENT	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
AUTOMOBILE AND FUEL (AS REQUIRED)			X			
PICK-UP TRUCK AND FUEL (AS REQUIRED)			X			
FLATBED TRUCK AND FUEL (AS REQUIRED)			X			
WATER TRUCK (AS REQUIRED)				X		
AIR COMPRESSOR AND FUEL (AS REQUIRED)				X		
DEWATERING EQUIPMENT AND FUEL (AS REQUIRED)				X		
TEMPORARY GENERATOR AND FUEL (AS REQUIRED)			X			
DEBRIS REMOVAL/HAULING EQUIPMENT (AS REQUIRED)				X		
SNOW REMOVAL (AS REQUIRED)			X			
TIRES AND MAINTENANCE COST (AS REQUIRED)			X			
FORKLIFT OPERATOR				X		
MATERIAL HOIST OPERATOR			X			
PERSONNEL OPERATOR			X			
FIXED CRANE OPERATOR				X		
TRAVEL CRANE OPERATOR				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: TEMPORARY HEATING	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
REMOVE SNOW AND ICE (AS REQUIRED)			X			
TEMPORARY ENCLOSURES (AS REQUIRED)				X		
PIPING COST IN BUILDING (AS REQUIRED)			X			
FUEL COST FOR HEATING (AS REQUIRED)			X			
POWER COST FOR HEATING (AS REQUIRED)			X			
FURNACE RENTAL (AS REQUIRED)			X			
HEATER RENTAL (AS REQUIRED)			X			
BOILER RENTAL (AS REQUIRED)			X			
OPERATOR - TEMPORARY SYSTEMS (AS REQUIRED)			X			
OPERATION FIRE WATCH (AS REQUIRED)				X		
CLEANING COST (AS REQUIRED)				X		
MAINTENANCE COST (AS REQUIRED)				X		
EXTENDED WARRANTY COST (AS REQUIRED)				X		
FILTER CHANGE (AS REQUIRED)				X		
TEMPORARY OFFICE HEATING (AS REQUIRED)			X			
TEMP WEATHER PROTECTION & HEATING FOR SUBCONTRACTORS (AS REQ'D)				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: REPRODUCTION/PRINTING AND DATA PROCESSING	PRE- CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
COST STUDY DOCUMENTS					X	
SYSTEMS STUDY DOCUMENTS					X	
BID PACKAGE SETS (SEE PARAGRAPH 3.5.9)	X					
BIDDING INSTRUCTIONS	X					
CONSTRUCTION DOCUMENTS ORIGINAL					X	
POSTAGE AND EXPRESS COSTS (CM/GC ISSUES PLANS)			X			
AS-BUILT SUB-DOCUMENTS				X		
AS-BUILT DOCUMENTS			X			
ACCOUNTING FORMS		X				
FIELD REPORTING FORMS			X			
SUBCONTRACT AGREEMENT FORMS	X					
SCHEDULE REPORT FORMS			X			
ESTIMATING FORMS	X					
COST REPORTING FORMS	X					
VALUE ANALYSIS STUDIES PRINTING	X					
DATA PROCESSING (MAIN OFFICE)		X				
REFERENCE MATERIALS			X			
SHOP DRAWING PRINTING				X		
ON-SITE FAX AND COPIER			X			
DATA PROCESSING (ON-SITE)			X			
MAINTENANCE MANUALS (FROM SUBS) AND OPERATIONS MANUALS (FROM SUBS)				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: QUALITY CONTROL	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
FIELD INSPECTOR (AS REQUIRED)			X			
INSPECTORS' OFFICE (AS REQUIRED)			X			
INSPECTORS' TRANSPORTATION (AS REQUIRED)			X			
INSPECTORS' EQUIPMENT (AS REQUIRED)			X			
SPECIAL INSPECTION CONSULTANTS						X
SPECIAL TESTING CONSULTANTS						X
CONCRETE SUBSTRUCTURE-OBSERVATIONS						X
CONCRETE TESTING						X
MASONRY TESTING						X
COMPACTION TESTING						X
WELDING TESTING						X
PIER INSPECTION/TESTING						X
SOILS INVESTIGATION						X
SPECIAL TESTING SERVICES (EXCEPT AS NOTED)						X
PROJECT PHOTOGRAPHS			X			
WARRANTY INSPECTIONS / REWORK		1			2	
AIR AND WATER BALANCING				X		
OPERATOR ON-SITE TRAINING			X			
PREPARE OPERATION/MAINTENANCE MANUALS			2	1		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: PERMITS AND SPECIAL FEES	PRE-CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
STORAGE YARD RENTAL				X		
PARKING LOT RENTALS AND SHUTTLE EXPENSES (AS REQUIRED)				2		1
FIELD OFFICE STAFF PARKING FEES			X			
SIGN PERMITS			X			
STREET/CURB PERMIT				X		
BUILDING PERMITS						X
PLAN CHECK FEES						X
WATER SYSTEM DEV. FEE						X
SEWER USE & DRAINAGE PERMIT/DEV. FEE						X
STORM CONNECTION FEE						X
GAS AND POWER SERVICE CHARGE (PERMANENT)						X
GAS AND POWER SERVICE CHARGE (TEMPORARY)			X			
STEAM SERVICE CHARGE						X
CHILLER WATER SERVICE CHARGE						X
SPECIAL TAP FEES						X
CONTRACTORS LICENSES		X				
CONSTRUCTION EQUIPMENT LICENSES		X				
CONSTRUCTION EQUIPMENT PERMITS				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CM/GC				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: INSURANCE AND BONDS	PRE- CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
BUILDERS RISK INSURANCE			X			
GENERAL LIABILITY, INCLUDING AUTOMOBILE			X			
PRODUCT LIABILITY			X			
EXCESS LIABILITY COVERAGE			X			
WORKERS COMPENSATION (FIELD OFFICE STAFF)			X			
FICA INSURANCE (FIELD OFFICE STAFF)			X			
FEDERAL UNEMPLOYMENT (FIELD OFFICE STAFF)			X			
STATE UNEMPLOYMENT (FIELD OFFICE STAFF)			X			
CONSTRUCTION MANAGER'S PAYMENT BOND			X			
CONSTRUCTION MANAGER'S PERFORMANCE BOND			X			
STATE/LOCAL BONDS				X		
* SUBCONTRACTOR BONDS				X		

Responsibility:

x = Total

1 = Primary

2 = Secondary

* ONLY AS MUTUALLY AGREED UPON BETWEEN THE PRINCIPAL REPRESENTATIVE AND THE CONSTRUCTION MANAGER.

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: OTHER COSTS	PRE- CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
CONSTRUCTION EQUIPMENT				X		
CONSTRUCTION SERVICES LABOR				X		
CONSTRUCTION MATERIALS				X		
COST OF DESIGN AND ENGINEERING					X	
A/E FAST TRACK COST EXTRAS					X	
PRELIMINARY SOILS INVESTIGATION						X
TITLE/DEVELOPMENT COST						X
BUILDING OPERATION AFTER MOVE-IN						X
BUILDING MAINTENANCE AFTER MOVE-IN						X
MOVING COORDINATION						X
MOVING COSTS						X
COSTS OF EMERGENCY WORK				X		
CONSTRUCTION MANAGER GENERAL OVERHEAD COST		X				
CONSTRUCTION MANAGER PROFIT MARGIN		X				
GMP FINANCIAL RESPONSIBILITIES		X				
STATE REQUIRED INSPECTIONS						X

Responsibility:

x = Total

1 = Primary

2 = Secondary

Designated Services and Method of Payment

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONSTRUCTION MANAGER				REQUIRED OF ARCH	REQUIRED OF OWNER
PHASE: OFF-SITE SERVICES	PRE- CONST SVCS FEE	CONST SVCS FEE	GEN CONDS.	DIRECT COST OF WORK		
CORPORATE EXECUTIVES (AS REQUIRED)	X	X				
PRINCIPAL IN CHARGE (AS REQUIRED)	X	X				
PROJECT EXECUTIVE (AS REQUIRED)	X	X				
LEGAL - BASIC SERVICES (AS REQUIRED)	X	X				
ACCOUNTING (AS REQUIRED)		X				
PURCHASING (AS REQUIRED)	X					
SAFETY OFFICER (AS REQUIRED)		X				
EEO OFFICER (AS REQUIRED)	X	X				
SECRETARIAL AND CLERK-TYPIST (AS REQUIRED)	X	X				
BENEFITS AND VACATIONS FOR ABOVE	X	X				
STAFF BONUSES		X				

Responsibility:
x = Total

1 = Primary

2 = Secondary

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT B

CONSTRUCTION MANAGER'S CERTIFICATION

I hereby certify:

- a. That I am the _____ and duly authorized representative of the firm of: _____;
and
- b. That the wage rates and other factual unit costs supporting the compensation to be paid by the State for these professional services and other services are accurate, complete, and current; and
- c. That I understand the original contract price and any additions shall be adjusted to exclude any significant sums by which the State determines the contract price had been increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs; and
- d. That all such contract adjustments shall be made within one year following the end of this contract.

CONSTRUCTION MANAGER

Signature

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT C

REQUEST FOR PROPOSAL
(attached)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT D

CONSTRUCTION MANAGER'S FEE PROPOSAL

- D.1 Construction Manager's Fee Proposal
- D.2 Certificate and Affidavit Regarding Unauthorized Immigrants
- D.3 Construction Manager's Certificate of Liability Insurance

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT E

(Not Used)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT F

LIST OF PRE-QUALIFIED SUBCONTRACTORS
(when approved by the Principal Representative and prior to bidding)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT G

SCHEMATIC DESIGN ESTIMATE SUMMARY AND UPDATED SUMMARIES
(when approved by the Principal Representative)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT H

FIRST AMENDMENT (INCORPORATING GMP) EXHIBITS

- H.1 Guaranteed Maximum Price Documents, Drawings, and Specifications including Addenda and Modifications (when approved by the Principal Representative)

- H.2 Schedule of Bid Package Descriptions and Issuance Dates

- H.2 Schedule of Values

- H.4 Allowance Schedule

- H.5 Critical Path Method (CPM) Construction Schedule

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT I

SECOND AND SUBSEQUENT AMENDMENT (INCORPORATING BID PACKAGES) EXHIBITS

- I.1 Contract Document Drawings and Specifications (when approved by the Principal Representative)
- I.2 All Addenda and Modifications
- I.3 Schedule of Values (consistent with GMP Schedule of Values), include Labor Overhead (direct labor burdens) for each Subcontractor to be applied to all change orders and amendments;
- I.4 Allowance Schedule (consistent with GMP Allowance Schedule)
- I.5 Performance Bond
- I.6 Labor and Material Payment Bond
- I.7 Property Insurance Certificate
- I.8 Notice to Proceed to Commence Construction Phase (Form SC 7.26)
- I.9 Detailed Construction Schedules (when approved by the Principal Representative).
- I.10 Applicable Prevailing Wage Determinations (If applicable)
- I.11 Apprenticeship Utilization Certifications (SBP6.17) (If applicable)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT J

SALES AND USE TAX FORMS
(attach when executed)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.5)

EXHIBIT K

**BUILDING CODE COMPLIANCE POLICY: COORDINATION OF APPROVED BUILDING
CODES, PLAN REVIEW AND BUILDING INSPECTIONS**

As found on the Office of the State Architect website. Revision date _____

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



**THE GENERAL CONDITIONS OF THE CONSTRUCTION MANAGER/GENERAL
CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC 6.51)**

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**THE GENERAL CONDITIONS OF THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR
(CM/GC) AGREEMENT
(STATE FORM SC-6.51)**

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**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**THE GENERAL CONDITIONS OF THE CONSTRUCTION MANAGER/GENERAL
CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.51)**

ARTICLE 1. DEFINITIONS

A. CONTRACT DOCUMENTS

The Contract Documents consist of the following some of which are procedural documents used in the administration and performance of the Agreement:

1. Construction Manager/General Contractor (CM/GC) Agreement; (SC-6.5.);
 - 1.1 Construction Manager's Fee Proposal, All Appendices, Addenda and Clarifications
 - 1.2 The Request for Proposals, All Appendices, Addenda and Clarifications;
2. Performance Bond (SC-6.22) and Labor and Material Payment Bond (SC-6.221);
3. These General Conditions of the Construction Manager/General Contractor (CM/GC) Agreement (SC- 6.5.1) and if applicable, Supplementary General Conditions;
4. Drawings, including all addenda issued prior to the Notice to Proceed to Commence Construction Phase (SBP-8.261);
5. Change Orders (SC-6.31) and Amendments (SC-6.0B), if any, when properly executed;
6. Notice of Award (SBP-6.15);
7. Builder's Risk insurance certificates of insurance (ACORD 25-S);
8. Liability and Workers' compensation certificates of insurance;
9. Notice to Proceed to Commence Construction Phase (SBP-6.261);
10. Notice of Approval of Occupancy/Use (SBP-01);
11. Notice of Partial Substantial Completion (SBP-071);
12. Notice of Substantial Completion (SBP-07);
13. Notice of Partial Final Acceptance (SC-6.27);
14. Notice of Final Acceptance (SBP-6.271);
15. Notice of Partial Contractor's Settlement (SC-7.3);
16. Notice of Contractor's Settlement (SBP-7.31);
17. Application and Certificate for Contractor's Payment (SBP-7.2);
18. Other procedural and reporting documents or forms referred to in the General Conditions, the Supplementary General Conditions, and the Specifications or required by the State Buildings Program or the Principal Representative, including but not necessarily limited to Pre-Acceptance Check List (SBP-05) and the Building Inspection Record (SBP-BIR). A list of the current standard State Buildings Program forms applicable to this Contract may be obtained from the Principal Representative on request.

B. DEFINITIONS OF WORDS AND TERMS USED

1. **AGREEMENT.** The term "Agreement" shall mean the written agreement entered into by the State of Colorado acting by and through the Principal Representative and the Construction Manager for the performance of the Work and payment therefore, on State Form SC-6.5. The term Agreement when used without reference to State Form SC-6.5 may also refer to the entirety of the parties' agreement to perform the Work described in the Contract Documents or reasonably inferable there from. The term "Contract" shall be interchangeable with this latter meaning of the term Agreement
2. **AMENDMENT:** The term "Amendment" shall be defined as provided in Article 3.8 of the Agreement, Amendments and Change Orders.

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

3. ARCHITECT/ENGINEER. The term "Architect/Engineer" shall mean either the architect of record or the engineer of record under contract to the State of Colorado for the Project identified in the Contract Documents.
4. BID PACKAGE. Bid Package describes all documents that relate to a specific scope of work, including the drawings, specifications, documents, estimates, bid forms and bid bonds relevant to a discrete portion of or a complete construction Project.
5. CHANGE ORDER. The term "Change Order" means a written order directing the Construction Manager to make changes in the Work, in accordance with Article 35A, The Value of Changed Work and Article 3.8 of the Agreement (SC-6.5), Amendments and Change Orders.
6. COLORADO LABOR. The term "Colorado labor", as provided in C.R.S. § 8-17-101(2) (a), as amended, means any person who is a resident of the state of Colorado, at the time of the public Works project, without discrimination as to race, color, creed, sex, sexual orientation, marital status, national origin, ancestry, age, or religion except when sex or age is a bona fide occupational qualification. A resident of the state of Colorado is a person who can provide a valid Colorado driver's license, a valid Colorado state-issued photo identification, or documentation that he or she has resided in Colorado for the last thirty days.
7. CONSTRUCTION MANAGER/GENERAL CONTRACTOR. The words "Construction Manager/General Contractor" shall mean the person, company, firm, corporation or other legal entity entering into a contract with the State of Colorado acting by and through the Principal Representative. The Construction Manager/General Contractor may also be referred to as the "Construction Manager" or "Contractor" in this agreement or in related exhibits, attachments, contract modification or procedural documents.
8. CONSTRUCTION MANAGER/GENERAL CONTRACTOR'S SCOPE NARRATIVE. Shall be defined as the bilateral agreement concerning final scope, which is developed cumulatively and simultaneously with each of the Bid Packages and is agreed upon during review of the final scope as it pertains to each Bid Package.
9. CONSULTANT. The term "Consultant" shall mean a person, firm or corporation supplying design/consulting services for the Project. Design professionals and consultants are directly contracted to the Architect/Engineer or the Principal Representative.
10. DAYS. The term "days" whether singular or plural shall mean calendar days unless expressly stated otherwise. Where the term "business days" is used it shall mean business days of the State of Colorado.
11. DRAWINGS. The term "Drawings" shall mean all drawings approved by appropriate State officials which have been prepared by the Architect/Engineer showing the Work to be done, except that where a list of drawings is specifically enumerated in the Supplementary General Conditions or division 1 of the Specifications, the term shall mean the drawings so enumerated, including all addenda drawings.
12. EMERGENCY FIELD CHANGE ORDER. The term "Emergency Field Change Order" shall mean a written change order for extra Work or a change in the Work necessitated by an emergency as defined in Article 35D executed on State form SC 6.31 and identified as an Emergency Field Change Order. The use of such orders is limited to emergencies and to the amounts shown in Article 35D.
13. FAST TRACK CONSTRUCTION. The term "Fast Track Construction" is a methodology where portions of the Work could have their design completed as separate Construction Phase(s) and may be under construction before other portions of the Work are fully designed.
14. FINAL ACCEPTANCE. The terms "final acceptance" or "finally complete" mean the stage in the progress of the Work, after substantial completion, when all remaining items of Work have been completed, all requirements of the Contract Documents are satisfied and the Notice of Acceptance can be issued. Discrete physical portions of the Project may be separately and partially deemed finally complete at the discretion of the Principal Representative when that portion of the Project reaches such stage of completion and a partial Notice of Acceptance can be issued.
15. FIXED LIMIT OF CONSTRUCTION COST. The term "Fixed Limit of Construction Cost" shall set forth a dollar amount available for the total Construction Cost of all elements of the Work as specified by the Principal Representative.

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

16. GUARANTEED MAXIMUM PRICE. The term "Guaranteed Maximum Price" shall mean the maximum amount for which the Work shall be accomplished and it shall be computed by the Construction Manager in accordance with the provisions of paragraph 5.4 of the Agreement and as approved by the Principal Representative.
17. NOTICE. The term "Notice" shall mean any communication in writing from either contracting party to the other by such means of delivery that receipt cannot properly be denied. Notice shall be provided to the person identified to receive it in Article 8 of the Agreement. Notice Identification, or to such other person as either party identifies in writing to receive Notice. Notice by facsimile transmission where proper transmission is evidence shall be adequate where facsimile numbers are included in Article 7 of the Agreement, or to such other person as either party identifies in writing to receive Notice or in the absence of the identified party, a principal of the Construction Manager. Notice by facsimile transmission where proper transmission is evidenced shall be adequate where facsimile numbers are included in Article 7 of the Agreement. Notwithstanding an email delivery or return receipt, email Notice shall not be adequate. Acknowledgment of receipt of a voice message shall not be deemed to waive the requirement that Notice, where required, shall be in writing.
18. OCCUPANCY. The term "Occupancy" means occupancy taken by the State as Owner after the Date of Substantial Completion at a time when a building or other discrete physical portion of the Project is used for the purpose intended. The Date of Occupancy shall be the date of such first use, but shall not be prior to the date of execution of the Notice of Approval of Occupancy/Use. Prior to the date of execution of a Notice of Approval of Occupancy/Use, the state shall have no right to occupy and the project may not be considered safe for occupancy for the intended use.
19. OWNER. The term "Owner" shall mean the Principal Representative.
20. PRECONSTRUCTION. The term "Preconstruction" shall mean the Work done by the Construction Manager in the management and definition of the project prior to the awarding of construction contracts for any bid package.
21. PRINCIPAL REPRESENTATIVE. The term "Principal Representative" shall be defined, as provided in C.R.S. § 24-30-1301(14), as the governing board of a state department, institution, or agency; or if there is no governing board, then the executive head of a state department, institution, or agency, as designated by the governor or the general assembly and as specifically identified in the Contract Documents, or shall have such other meaning as the term may otherwise be given in C.R.S. § 24-30-1301(14), as amended. The Principal Representative may delegate authority. The Construction Manager shall have the right to inquire regarding the delegated authority of any of the Principal Representative's representatives on the project and shall be provided with a response in writing when requested.
22. PRODUCT DATA. The term "Product Data" shall mean all submittals in the form of printed manufacturer's literature, manufacturer's specifications, and catalog cuts.
23. PROJECT. The "Project" is the total construction of which the Work performed under the Contract Documents is a part, and may include construction by the Principal Representative or by separate contractors.
24. REASONABLY INFERABLE. The phrase "reasonably inferable" means that if an item or system is either shown or specified, all material and equipment normally furnished with such items or systems and needed to make a complete installation shall be provided whether mentioned or not, omitting only such parts as are specifically excepted, and shall include only components which the Construction Manager could reasonably anticipate based on his or her skill and knowledge using an objective, industry standard, not a subjective standard. This term takes into consideration the normal understanding that not every detail is to be given on the Drawings and Specifications. If there is a difference of opinion, the Principal Representative shall make the determination as to the standards of what reasonably inferable.
25. SAMPLES. The term "Samples" shall mean examples of materials or Work provided to establish the standard by which the Work will be judged.
26. SBP. The term "SBP" means "State Buildings", which is used in connection with labeling applicable State form documents (e.g., "SBP-01" is the form number for Notice of Approval of Occupancy/Use).

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

27. SC. The term "SC" means "State Contract" which is used in connection with labeling applicable State form documents (e.g. "SC 6.23" is the State form number for these General Conditions of the Construction Manager/General Contractor's (CM/GC) Agreement).
28. SCHEDULE OF VALUES. The term "Schedule of Values" is defined as the itemized listing of description of the Work by Division and Section of the Specifications. The format shall be the same as Form SC-7.2. Included shall be the material costs, and the labor and other costs plus the sum of both.
29. SHOP DRAWINGS. The term "Shop Drawings" shall mean any and all detailed drawings prepared and submitted by Construction Manager, Subcontractor at any tier, vendors or manufacturers providing the products and equipment specified on the Drawings or called for in the Specifications.
30. SPECIFICATIONS. The term "Specifications" shall mean the requirements of the CSI divisions of the project manual prepared by the Architect/Engineer describing the Work to be accomplished.
31. STATE BUILDINGS PROGRAM. Shall refer to the Office of the State Architect within the Department of Personnel & Administration of Colorado State government responsible for project administration, review, approval and coordination of plans, construction procurement policy, contractual procedures, and code compliance and inspection of all buildings, public Works and improvements erected for state purposes; except public roads and highways and projects under the supervision of the division of wildlife and the division of parks and outdoor recreation as provided in C.R.S. § 24-30-1301, *et seq.* The term State Buildings Program shall also mean that individual within a State Department agency or institution, including institutions of higher education, who has signed an agreement accepting delegation to perform all or part of the responsibilities and functions of State Buildings Program.
32. SUBCONSULTANT. The term "Subconsultant" shall mean a person, firm or corporation supplying design/consulting services for the Project. Design and other professionals directly contracted to the Architect/Engineers are considered subconsultants.
33. SUBCONTRACTOR. The term "Subcontractor" shall mean a person, firm or corporation supplying labor, materials, equipment and/or Services for Work at the site of the Project for, and under separate contract or agreement with the Construction Manager.
34. SUBMITTALS. The term "submittals" means drawings, lists, tables, documents and samples prepared by the Construction Manager to facilitate the progress of the Work as required by these General Conditions or the Drawings and Specifications. They consist of Shop Drawings, Product Data, Samples, and various administrative support documents including but not limited to lists of subcontractors, construction progress schedules, schedules of values, applications for payment, inspection and test results, requests for information, various document logs, and as-built drawings. Submittals are *required* by the Contract Documents, but except to the extent expressly specified otherwise are not themselves a part of the Contract Documents.
35. SUBSTANTIAL COMPLETION. The terms "substantial completion" or "substantially complete" mean the stage in the progress of the Work when the construction is sufficiently complete, in accordance with the Contract Documents as modified by any Change Orders, so that the Work, or at the discretion of the Principal Representative, any designated portion thereof, is available for its intended use by the Principal Representative and a Notice of Substantial Completion can be issued. Portions of the Project may, at the discretion of the Principal Representative, be designated as substantially complete.
36. SUPPLIER. The term "Supplier" shall mean any manufacturer, fabricator, distributor, material man or vendor.
37. SURETY. The term "Surety" shall mean the company providing the labor and material payment and performance bonds for the Construction Manager as obligor.
38. VALUE ENGINEERING. "Value Engineering" or "VE" is defined as an analysis and comparison of cost versus value of building materials, equipment, and systems. VE considers the initial cost of construction, coupled with the estimated cost of maintenance, energy use, life expectancy and replacement cost. VE related to this Project shall include the analysis and comparison of building elements in an effort to reduce overall Project costs, while maintaining or enhancing the quality of the design intent, whenever possible.

39. WORK. The term "Work" shall mean all or part of the labor, materials, equipment, and other services required by the Contract Documents or otherwise required to be provided by the Construction Manager to meet the Construction Manager's obligations under the Contract.

ARTICLE 2. EXECUTION, CORRELATION, INTENT OF DOCUMENTS, COMMUNICATION AND COOPERATION

A. EXECUTION

The Construction Manager, within ten (10) days from the date of Notice of Award, will be required to:

1. Execute the Agreement, State Form SC-6.5.
2. Furnish fully executed Performance and Labor and Material Payment Bonds on State Forms SC-6.22 and SC-6.221; and
3. Furnish certificates of insurance evidencing all required insurance on standard Acord forms designed for such purpose.
4. Furnish certified copies of any insurance policies requested by the Principal Representative.
5. If Article 6.1 of the Construction Manager/General Contractor Agreement (SC-6.5) applies, furnish documentation that identifies the subcontractors that will be used for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical, and plumbing work required on the project and certify that that all firms identified participate in apprenticeship programs registered with the United States Department of Labor's Employment and Training Administration or state apprenticeship councils recognized by the United States Department of Labor and have a proven record of graduating a minimum of fifteen percent of its apprentices for at least three of the past five years.

B. CORRELATION

By execution of the Agreement the Construction Manager represents that the Construction Manager has visited the site, has become familiar with local conditions and local requirements under which the Work is to be performed, including the building code programs of the State Buildings Program as implemented by the Principal Representative, and has correlated personal observations with the requirements of the Contract Documents.

C. INTENT OF DOCUMENTS

The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all. The intention of the documents is to include all labor, materials, equipment and transportation necessary for the proper execution of the Work. Words describing materials or Work which have a well-known technical or trade meaning shall be held to refer to such recognized standards.

In any event, if any error exists, or appears to exist, in the requirements of the Drawings or Specifications, or if any disagreement exists as to such requirements, the Construction Manager shall have the same explained or adjusted by the Architect/Engineer before proceeding with the Work in question. In the event of the Construction Manager's failure to give prior written Notice of any such errors or disagreements of which the Construction Manager or the Subcontractors at any tier are aware, the Construction Manager shall, at no additional cost to the Principal Representative, make good any damage to, or defect in, Work which is caused by such omission.

Where a conflict occurs between or within standards, Specifications or Drawings, which is not resolved by reference to the precedence between the Contract Documents, the more stringent or higher quality requirements shall apply so long as such more stringent or higher quality requirements are reasonably inferable. The Principal Representative, or the Architect/Engineer with consent of the Principal Representative, shall decide which requirements will provide the best installation.

With the exception noted in the following paragraph, the precedence of the Contract Documents is in the following sequence:

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

1. The Minimum Requirements of the Request for Proposals;
2. The Construction Manager's Fee Proposals;
3. The Agreement (SC-6.5);
4. The Supplementary General Conditions, if any;
5. The General Conditions (SC-6.51); and
6. Drawings and Specifications, all as modified by any addenda.

Change Orders and Amendments, if any, to the Contract Documents take precedence over the original Contract Documents.

Notwithstanding the foregoing order of precedence, the Special Provisions of Article 52 of the General Conditions, Special Provisions, shall take precedence, rule and control over all other provisions of the Contract Documents.

Unless the context otherwise requires, form numbers in this document are for convenience only. In the event of any conflict between the form required by name or context and the form required by number, the form required by name or context shall control. The Construction Manager may obtain State forms from the Principal Representative upon request.

D. PARTNERING, COMMUNICATIONS AND COOPERATION

In recognition of the fact that conflicts, disagreements and disputes often arise during the performance of construction contracts, the Construction Manager and the Principal Representative aspire to encourage a relationship of open communication and cooperation between the employees and personnel of both, in which the objectives of the Contract may be better achieved and issues resolved in a more fully informed atmosphere.

The Construction Manager and the Principal Representative each agree to assign an individual who shall be fully authorized to negotiate and implement a voluntary partnering plan for the purpose of facilitating open communications between them. Within thirty days (30) of the Notice to Proceed, the assigned individuals shall meet to discuss development of an informal agreement to accomplish these goals.

The assigned individuals shall endeavor to reach an informal agreement, but shall have no such obligation. Any plans these parties voluntarily agree to implement shall result in no change to the contract amount, and no costs associated with such plan or its development shall be recoverable under any contract clause. In addition, no plan developed to facilitate open communication and cooperation shall alter, amend or waive any of the rights or duties of either party under the Contract unless and except by written Amendment to the Contract, nor shall anything in this clause or any subsequently developed partnering plan be deemed to create fiduciary duties between the parties unless expressly agreed in a written Amendment to the Contract. It is also recognized that projects with relatively low contract values may not justify the expense or special efforts required. In the case of small projects with an initial Contract value under \$500,000, the requirements of the preceding paragraph shall not apply.

ARTICLE 3. COPIES FURNISHED

The Construction Manager will be furnished, free of charge, the number of copies of Drawings and Specifications as specified in the Contract Documents, or if no number is specified, all copies reasonably necessary for the execution of the Work.

ARTICLE 4. OWNERSHIP OF DRAWINGS

Drawings or Specifications, or copies of either, furnished by the Architect/Engineer, are not to be used on any other Work. At the completion of the Work, at the written request of the Architect/Engineer, the Construction Manager shall endeavor to return all Drawings and Specifications.

The Construction Manager may retain the Construction Manager's Contract Document set, copies of Drawings and Specifications used to contract with others for any portion of the Work and a marked up set of as-built drawings.

ARTICLE 5. ARCHITECT/ENGINEER'S STATUS

The Architect/Engineer is the representative of the Principal Representative for purposes of administration of the Contract, as provided in the Contract Documents and the Agreement. In case of termination of employment or the death of the Architect/Engineer, the Principal Representative will appoint a capable Architect/Engineer against whom the Construction Manager makes no reasonable objection, whose status under the Contract shall be the same as that of the former Architect/Engineer.

ARTICLE 6. ARCHITECT/ENGINEER DECISIONS AND JUDGMENTS, ACCESS TO WORK AND INSPECTION

A DECISIONS

The Architect/Engineer shall, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work or the interpretation of the Contract Documents, and in the exercise of due diligence shall be reasonably available to the Construction Manager to timely interpret and make decisions with respect to questions relating to the design or concerning the Contract Documents. The Principal Representative may consent with such decision by the Design Build Entity's Architect/Engineer or amend/revise such decision at the discretion of the Principal Representative.

B JUDGMENTS

The Architect/Engineer is, in the first instance, the judge of the performance required by the Contract Documents as it relates to compliance with the Drawings and Specifications and quality of Workmanship and materials.

The Architect/Engineer shall make judgments regarding whether directed Work is extra or outside the scope of Work required by the Contract Documents at the time such direction is first given. If, in the Construction Manager's judgment, any performance directed by the Architect/Engineer is not required by the Contract Documents or if the Architect/Engineer does not make the judgment required, it shall be a condition precedent to the filing of any claim for additional cost related to such directed Work that the Construction Manager, before performing such Work, shall first obtain in writing, the Architect/Engineer's written decision that such directed Work is included in the performance required by the Contract Documents. If the Architect/Engineer's direction to perform the Work does not state that the Work is within the performance required by the Contract Documents, the Construction Manager shall, in writing, request the Architect/Engineer to advise in writing whether the directed Work will be considered extra Work or Work included in the performance required by the Contract Documents.

The Architect/Engineer shall respond to any such written request for such a decision within three (3) business days and if no response is provided, or if the Architect/Engineer's written decision is to the effect that the Work is included in the performance required by the Contract Documents, the Construction Manager may file with the Principal Representative and the Architect/Engineer a Notice of claim in accordance with Article 36, Claims. Whether or not a Notice of claim is filed, the Construction Manager shall proceed with the ordered Work. Disagreement with the decision of the Architect/Engineer shall not be grounds for the Construction Manager to refuse to perform the Work directed or to suspend or terminate performance.

C ACCESS TO WORK

The Architect/Engineer, the Principal Representative and representatives of State Buildings Program shall at all times have access to the Work. The Construction Manager shall provide proper facilities for such access and for their observations or inspection of the Work.

D INSPECTION

The Architect/Engineer has agreed to make, or that structural, mechanical, electrical engineers or other consultants will make, periodic visits to the site to generally observe the progress and quality of the Work to determine in general if the Work is proceeding in accordance with the Contract Documents. Observation may extend to all or any part of the Work and to the preparation, fabrication or manufacture of materials.

Without in any way meaning to be exclusive or to limit the responsibilities of the Architect/Engineer or the Construction Manager, the Architect/Engineer has agreed to observe, among other aspects of the Work, the following for compliance with the Contract Documents:

1. Compaction testing reports based upon the findings and recommendations of the Principal Representative's testing consultant;
2. Bearing surfaces of excavations before concrete is placed based upon the findings and recommendations of the Principal Representative's soils engineering consultant;
3. Reinforcing steel after installation and before concrete is poured;
4. Structural concrete;
5. Laboratory reports on all concrete testing based upon the findings and recommendations of the Principal Representative's testing consultant;
6. Structural steel during and after erection and prior to its being covered or enclosed;
7. Steel welding; Principal Representative will furnish steel welding inspection consultant/agency if required or necessary for the project;
8. Mechanical and plumbing Work following its installation and prior to its being covered or enclosed;
9. Electrical Work following its installation and prior to its being covered or enclosed; and
10. Any special or quality control testing required in the Contract Documents provided by the Principal Representative's testing consultant.

If the Specifications, the Architect/Engineer's instructions, laws, ordinances of any public authority require any Work to be specifically tested or approved, the Construction Manager shall give the Principal Representative, Architect/Engineer and appropriate testing agency (if necessary) timely notice of its readiness for observation by the Architect/Engineer or inspection by another authority, and if the inspection is by another authority, of the date fixed for such inspection, required certificates of inspection being secured by the Construction Manager. The Construction Manager shall give all required Notices to the Principal Representative or his or her designee for inspections required for the building inspection program. It shall be the responsibility of the Construction Manager to determine the Notice required by the State pursuant to Building Inspection Record for the Project, according to State form SBP-B.I.R., or the equivalent form required by the Principal Representative as approved by the State Buildings Program. If any portion of the Work should be covered contrary to the reasonable request of the Architect/Engineer, or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect/Engineer, be uncovered for its observation and shall be replaced at the Construction Manager's expense.

If any other portion of the Work has been covered which the Architect/Engineer has not specifically requested to observe prior to its being covered, it may request to see such work and it shall be uncovered by the Construction Manager. If such work is found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Amendment or Change Order, be charged to the Principal Representative. If such work is found not in accordance with the Contract Documents, the Construction Manager shall pay such costs unless it is found that this condition was caused by the Principal Representative or a separate Construction Manager as provided in Article 18, in which event, the Principal Representative shall be responsible for the payment of such costs.

ARTICLE 7. CONSTRUCTION MANAGER'S SUPERINTENDENCE AND SUPERVISION

The Construction Manager shall employ, and keep present (as applicable) on the Project during its progress, a competent project manager as satisfactory to the Principal Representative. The project manager shall not

be changed except with the consent of the Principal Representative, unless the project manager proves to be unsatisfactory to the Construction Manager and ceases to be in his or her employ. The project manager shall represent the Construction Manager for the Project, and in the absence of the Construction Manager, all directions given to the project manager shall be as binding as if given to the Construction Manager. Directions received by the project manager shall be documented by the project manager and communicated in writing with the Construction Manager.

The Construction Manager shall employ, and keep present on the Project during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Architect/Engineer and the Principal Representative. The superintendent shall not be changed except with the consent of the Architect/Engineer and the Principal Representative, unless the superintendent proves to be unsatisfactory to the Project Manager/Construction Manager and ceases to be in his or her employ. The superintendent shall represent the Project Manager/Construction Manager in his or her absence and all directions given to the superintendent shall be as binding as if given to the Project Manager/Construction Manager. Directions received by the superintendent shall be documented by the superintendent and confirmed in writing with the Project Manager/Construction Manager.

The Construction Manager shall give efficient supervision to the Work, using his or her best skill and attention. He or she shall carefully study and compare all Drawings, Specifications and other written instructions and shall without delay report any error, inconsistency or omission which he or she may discover in writing to the Architect/Engineer. The Construction Manager shall not be liable to the Principal Representative for damage to the extent it results from errors or deficiencies in the Contract Documents or other instructions by the Architect/Engineer, unless the Construction Manager knew or had reason to know, that damage would result by proceeding and the Construction Manager fails to so advise the Architect/Engineer.

The superintendent shall see that the Work is carried out in accordance with the Contract Documents and in a uniform, thorough and first-class manner in every respect. The **Construction Manager's** superintendent shall establish all lines, levels, and marks necessary to facilitate the operations of all concerned in the **Construction Manager's** Work. The **Construction Manager** shall lay out all Work in a manner satisfactory to the Architect/Engineer, making permanent records of all lines and levels required for excavation, grading, foundations, and for all other parts of the Work.

ARTICLE 8. MATERIALS AND EMPLOYEES

Unless otherwise stipulated, the Construction Manager shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the Work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be first class and of uniform quality. The Construction Manager shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The **Construction Manager** is fully responsible for all acts and omissions of the **Construction Manager's** employees and shall at all times enforce strict discipline and good order among employees on the site. The **Construction Manager** shall not employ on the Work any person reasonably deemed unfit by the Principal Representative or anyone not skilled in the Work assigned to him.

ARTICLE 9. SURVEYS, PERMITS, LAWS, TAXES AND REGULATIONS

A SURVEYS

The Principal Representative shall furnish all surveys, property lines and bench marks deemed necessary by the Architect/Engineer, unless otherwise specified.

B PERMITS AND LICENSES

Permits and licenses necessary for the prosecution of the Work shall be secured and paid for by the Construction Manager. Unless otherwise specified in the Specifications, no local municipal or

county building permit shall be required. However, State Buildings Program requires each Principal Representative to administer a building code inspection program, the implementation of which may vary at each agency or institution of the State. The Construction Manager's employees shall become personally familiar with these local conditions and requirements and shall fully comply with such requirements. State electrical and plumbing permits are required, unless the requirement to obtain such permits is altered by State Building's Programs. The Construction Manager shall obtain and pay for such permits.

Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Principal Representative, unless otherwise specified.

C TAXES

1. Refund of Sales and Use Taxes

The Construction Manager shall pay all local taxes required to be paid, including but not necessarily limited to all sales and use taxes. If requested by the Principal Representative prior to issuance of the Notice to Proceed or directed in the Supplementary General Conditions or the Specifications, the Construction Manager shall maintain records of such payments in respect to the Work, which shall be separate and distinct from all other records maintained by the Construction Manager, and the Construction Manager shall furnish such data as may be necessary to enable the State of Colorado, acting by and through the Principal Representative, to obtain any refunds of such taxes which may be available under the laws, ordinances, rules or regulations applicable to such taxes. When so requested or directed, the Construction Manager shall require Subcontractors at all tiers to pay all local sales and use taxes required to be paid and to maintain records and furnish the Construction Manager with such data as may be necessary to obtain refunds of the taxes paid by such Subcontractors. No State sales and use taxes are to be paid on material to be used in this Project. On application by the purchaser or seller, the Department of Revenue shall issue to a Construction Manager or to a Subcontractor at any tier, a certificate or certificates of exemption per C.R.S. § 39-26-703(2)(b), and C.R.S. § 39-26-708.

2. Federal Taxes

The Construction Manager shall exclude the amount of any applicable federal excise or manufacturers' taxes from the proposal. The Principal Representative will furnish the Construction Manager, on request exemption certificates.

D LAWS AND REGULATIONS

The Construction Manager shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work as drawn or specified. If the Construction Manager observes that the Drawings or Specifications require Work which is at variance therewith, the Construction Manager shall without delay notify the Architect/Engineer in writing and any necessary changes shall be adjusted as provided in Article 35, Changes in the Work.

The Construction Manager shall bear all costs arising from the performance of Work required by the Drawings or Specifications that the Construction Manager knows to be contrary to such laws, ordinances, rules or regulations, if such Work is performed without giving Notice to the Architect/Engineer.

ARTICLE 10. PROTECTION OF WORK AND PROPERTY

A GENERAL PROVISIONS

The Construction Manager shall continuously maintain adequate protection of all Work and materials, protect the property from injury or loss arising in connection with this Contract and adequately protect adjacent property as provided by law and the Contract Documents. The Construction Manager shall make good any damage, injury or loss, except to the extent:

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

1. Directly due to errors in the Contract Documents;
2. Caused by agents or employees of the Principal Representative; and,
3. Due to causes beyond the Construction Manager's control and not to fault or negligence; provided such damage, injury or loss would not be covered by the insurance required to be carried by the Construction Manager;

B. SAFETY PRECAUTIONS

The Construction Manager shall take all necessary precautions for the safety of employees on the Project, and shall comply with all applicable provisions of federal, State and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. He or she shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of Workers and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and he or she shall designate a responsible member of his or her organization on the Project, whose duty shall be the prevention of accidents. The name and position of any person so designated shall be reported to the Architect/Engineer by the Construction Manager.

The Construction Manager shall provide all necessary bracing, shoring and tying of all structures, decks and framing to prevent any structural failure of any material which could result in damage to property or the injury or death of persons; take all precautions to insure that no part of any structure of any description is loaded beyond its carrying capacity with anything that will endanger its safety at any time during the execution of this Contract; and provide for the adequacy and safety of all scaffolding and hoisting equipment. The Construction Manager shall not permit open fires within the building enclosure. The Construction Manager shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavations and floors, pits and trenches free of water. The Construction Manager shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, except as otherwise noted.

The Construction Manager shall take due precautions when obstructing sidewalks, streets or other public ways in any manner, and shall provide, erect and maintain barricades, temporary walkways, roadways, trench covers, colored lights or danger signals and any other devices necessary or required to assure the safe passage of pedestrians and automobiles.

C. EMERGENCIES

In an emergency affecting the safety of life or of the Work or of adjoining property, the **Construction Manager** without special instruction or authorization from the Architect/Engineer or Principal Representative, is hereby permitted to act, at his or her discretion, to prevent such threatened loss or injury; and he or she shall so act, without appeal, if so authorized or instructed. Provided the **Construction Manager** has no responsibilities for the emergency, if the **Construction Manager** incurs additional cost not otherwise recoverable from insurance or others on account of any such emergency Work, the Contract sum shall be equitably adjusted in accordance with Article 35, Changes in the Work.

ARTICLE 11. DRAWINGS AND SPECIFICATIONS ON THE WORK

The Construction Manager shall keep on the job site one copy of the Contract Documents in good order, including current copies of all Drawings and Specifications for the Work, and any approved Shop Drawings, Product Data or Samples, and as-built drawings. As-built drawings shall be updated weekly by the Construction Manager and Subcontractors to reflect actual constructed conditions including dimensioned locations of underground Work and the Construction Manager's failure to maintain such updates may be grounds to withhold portions of payments otherwise due in accordance with Article 33, Payments Withheld. All such documents shall be available to the Architect/Engineer and representatives of the State. In addition, the Construction Manager shall keep on the job site one copy of all approved addenda, Change Orders and requests for information issued for the Work.

The **Construction Manager** shall develop procedures to insure the currency and accuracy of as-built drawings and shall maintain on a current basis a log of requests for information and responses thereto, a Shop Drawing and Product Data submittal log, and a Sample submittal log to record the status of all necessary and required submittals.

ARTICLE 12. REQUESTS FOR INFORMATION AND SCHEDULES

A DETAIL DRAWINGS AND INSTRUCTIONS

The Architect/Engineer shall furnish additional instructions with reasonable promptness, by means of drawings or otherwise, necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from. The Architect/Engineer shall determine what additional instructions or drawings are necessary for the proper execution of the Work.

The Work shall be executed in conformity with such instructions and the Construction Manager shall do no Work without proper drawings, specifications or instructions. If the Construction Manager believes additional instructions, specifications or drawings are needed for the performance of any portion of the Work, the Construction Manager shall give Notice of such need in writing through a request for information furnished to the Architect/Engineer sufficiently in advance of the need for such additional instructions, specifications or drawings to avoid delay and to allow the Architect/Engineer a reasonable time to respond. The Construction Manager shall maintain a log of the requests for information and the responses provided.

The Construction Manager, the Architect/Engineer, and the Principal Representative shall jointly prepare a schedule, subject to change from time to time in accordance with the progress of the Work, fixing the dates at which the various detail drawings will be required, and the Architect/Engineer shall furnish them in accordance with that schedule. Under like conditions, a schedule shall be prepared, fixing the dates for the submission of shop drawings, for the beginning of manufacture and installation of materials and for the completion of the various parts of the Work.

The Principal Representative may consent with such instructions by the Architect/Engineer or amend/revise such instructions at the discretion of the Principal Representative.

B SCHEDULES

1. Submittal Schedules

Prior to the Notice to Proceed to Commence Construction for the first construction phase, a schedule shall be prepared which may be preliminary to the extent required, fixing the dates for the submission and initial review of required Shop Drawings, Product Data and Samples for the beginning of manufacture and installation of materials, and for the completion of the various parts of the Work. It shall be prepared so as to cause no delay in the Work or in the Work of any other contractor engaged by the Principal Representative. The schedule shall be subject to change from time to time in accordance with the progress of the Work, and it shall be subject to the review and approval by the Architect/Engineer. It shall fix the dates at which the various Shop Drawings Product Data and Samples will be required from the Architect/Engineer. The Architect/Engineer, after review and agreement as to the time provided for initial review, shall review and comment on the Shop Drawings, Product Data and Samples in accordance with that schedule. The schedule shall be finalized, prepared and submitted with respect to each of the elements of the Work in time to avoid delay, considering reasonable periods for review, manufacture or installation.

At the time the schedule is prepared, the Construction Manager, the Architect/Engineer and Principal Representative shall jointly identify the Shop Drawing, Product Data and Samples, if any, which the Principal Representative shall receive simultaneously with the Architect/Engineer for the purposes of owner coordination with existing facility standards and systems. The

Construction Manager shall furnish a copy for the Principal Representative when so requested. Transmittal of Shop Drawings and Product Data copies to the Principal Representative shall be solely for the convenience of the Principal Representative and shall neither create nor imply responsibility or duty of review by the Principal Representative.

The Construction Manager may also, or at the direction of the Principal Representative at any time shall, prepare and maintain a schedule, which may also be preliminary and subject to change to the extent required, fixing the dates for the initial responses to requests for information or for detail drawings which will be required from the Architect/Engineer to allow the beginning of manufacture, installation of materials and for the completion of the various parts of the Work. The schedule shall be subject to review and approval by the Architect/Engineer. The Architect/Engineer shall, after review and agreement, furnish responses and detail drawings in accordance with that schedule. Any such schedule shall be prepared and approved in time to avoid delay, considering reasonable periods for review, manufacture or installation, but so long as the request for information schedule is being maintained, it shall not be deemed to transfer responsibility to the Construction Manager for errors or omissions in the Contract Documents where circumstances make timely review and performance impossible.

The Architect/Engineer shall not unreasonably withhold approval of the Construction Manager's schedules and shall inform the Construction Manager and the Principal Representative of the basis of any refusal to agree to the Construction Manager's schedules. The Principal Representative shall attempt to resolve any disagreements.

2. Schedule of Values

Prior to the Notice to Proceed to Commence Construction for the first construction phase, the Construction Manager shall submit to the Architect/Engineer and Principal Representative, for approval, and to the State Buildings Program when specifically requested, a complete itemized schedule of the values of the various parts of the Work, as estimated by the Construction Manager, aggregating the total price. The schedule of values shall be in such detail as the Architect/Engineer or the Principal Representative shall require, prepared on forms acceptable to the Principal Representative. It shall, at a minimum, identify on a separate line each division of the Specifications including the general conditions costs to be charged to the Project. The Construction Manager shall revise and resubmit the schedule of values for approval when, in the opinion of the Architect/Engineer or the Principal Representative, such resubmittal is required due to changes or modifications to the Contract Documents or the Contract sum.

The total cost of each line item so separately identified shall, when requested by the Architect/Engineer or the Principal Representative, be broken down into reasonable estimates of the value as indicated in Article 3.4.6 of the Construction Manager/General Contractor (CMGC) Agreement (SC-6.5).

The cost of subcontracts shall be incorporated in the Construction Manager's schedule of values, and when requested by the Architect/Engineer or the Principal Representative, shall be separately shown as line items.

The Architect/Engineer shall review the proposed schedules and approve it after consultation with the Principal Representative, or advise the Construction Manager of any required revisions within ten (10) days of its receipt. In the event no action is taken on the submittal within ten days, the Construction Manager may utilize the schedule of values as its submittal for payment until it is approved or until revisions are requested.

When the Architect/Engineer deems it appropriate to facilitate certification of the amounts due to the Construction Manager, further breakdown of subcontracts, including breakdown by labor and materials, may be directed.

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This schedule of values, when approved, will be used in preparing Construction Manager's applications for payment on State Form SC-7.2, Application for Payment.

3. Construction Schedules

Prior to the Notice to Proceed to Commence Construction for the first construction phase, the Construction Manager shall submit to the Architect/Engineer and the Principal Representative, and to the State Buildings Program when specifically requested, on a form acceptable to them, an overall timetable of the construction schedule for the Project. Unless the Supplementary General Conditions or the Specifications allow scheduling with bar charts or other less sophisticated scheduling tools, the Construction Manager's schedule shall be a critical-path method (CPM) construction schedule. The CPM schedule shall start with the date of the Notice to Proceed to Commence Construction for the first construction phase and include submittals activities, the various construction activities, change order Work (when applicable), close-out, testing, demonstration of equipment operation when called for in the Specifications, and acceptance. The CPM schedule shall at a minimum correlate to the schedule of values line items and shall be cost loaded if requested by the Architect/Engineer or Principal Representative. The completion time shall be the time specified in the Agreement and all Project scheduling shall allocate float utilizing the full period available for construction as specified in the Agreement on State Form SC 6.13, without indication of early completion, unless such earlier completion is approved in writing by the Principal Representative and State Building Programs.

The time shown between the starting and completion dates of the various elements within the construction schedule shall represent one hundred per cent (100%) completion of each element.

All other elements of the CPM schedule shall be as required by the Specifications. In addition, the Construction Manager shall submit monthly updates or more frequently, if required by the Principal Representative, updates of the construction schedule. These updates shall reflect the Construction Manager's "Work in place" progress.

When requested by the Architect/Engineer, the Principal Representative or the State Buildings Program, the Construction Manager shall revise the construction schedule to reflect changes in the schedule of values.

When the testing of materials is required by the Specifications, the Construction Manager shall also prepare and submit to the Architect/Engineer and the Principal Representative a schedule for testing in accordance with Article 14, Samples and Testing.

ARTICLE 13. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. SUBMITTAL PROCESS

The Construction Manager shall check and field verify all dimensions. The Construction Manager shall check, approve and submit to the Architect/Engineer in accordance with the schedule described in Article 12, Requests for Information and Schedules, all Shop Drawings, Product Data and Samples required by the specifications or required by the Construction Manager for the Work of the various trades. All Drawings and Product Data shall contain identifying nomenclature and each submittal shall be accompanied by a letter of transmittal identifying in detail all enclosures. The number of copies of Shop Drawings and Product Data to be submitted shall be as specified in the Specifications and if no number is specified then three copies shall be submitted.

The Architect/Engineer shall review and comment on the Shop Drawings and Product Data within the time provided in the agreed upon schedule for conformance with information given and the design concept expressed in, or reasonably inferred from, the Contract Documents. The nature of all corrections to be made to the Shop Drawings and Product Data, if any, shall be clearly noted, and the submittals shall be returned to the Construction Manager for such corrections. If a change

in the scope of the Work is intended by revisions requested to any Shop Drawings and Product Data, the Construction Manager shall be requested to prepare a change proposal in accordance with Article 35, Changes in the Work. On resubmitted Shop Drawings, Product Data or Samples, the Construction Manager shall direct specific attention in writing on the transmittal cover to revisions other than those corrections requested by the Architect/Engineer on any previously checked submittal. The Architect/Engineer shall promptly review and comment on, and return, the resubmitted items.

The Construction Manager shall thereafter furnish such other copies in the form approved by the Architect/Engineer as may be needed for the prosecution of the Work.

B. FABRICATION AND ORDERING

Fabrication shall be started by the Construction Manager only after receiving approved Shop Drawings from the Architect/Engineer. Materials shall be ordered in accordance with approved Product Data. Work which is improperly fabricated, whether through incorrect Shop Drawings, faulty workmanship or materials, will not be acceptable.

C. DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS

The review and comments of the Architect/Engineer of Shop Drawings, Product Data or Samples shall not relieve the Construction Manager from responsibility for deviations from the Drawings or Specifications, unless he or she has in writing called the attention of the Architect/Engineer to such deviations at the time of submission, nor shall it relieve the Construction Manager from responsibility for errors of any sort in Shop Drawings or Product Data. Review and comments on Shop Drawings or Product Data containing identified deviations from the Contract Documents shall not be the basis for a Change Order or a claim based on a change in the scope of the Work unless Notice is given to the Architect/Engineer and Principal Representative of all additional costs, time and other impacts of the identified deviation by bring it to their attention in writing at the time the submittals are made, and any subsequent change in the Contract sum or the Contract time shall be limited to cost, time and impacts so identified.

D. CONSTRUCTION MANAGER REPRESENTATIONS

By preparing, approving, and/or submitting Shop Drawings, Product Data and Samples, the Construction Manager represents that the Construction Manager has determined and verified all materials, field measurements, and field construction criteria related thereto, and has checked and coordinated the information contained within each submittal with the requirements of the Work, the Project and the Contract Documents and prior reviews and approvals.

ARTICLE 14. SAMPLES AND TESTING

A. SAMPLES

The Construction Manager shall furnish for approval, with such promptness as to cause no delay in his or her Work or in that of any other Construction Manager, all Samples as directed by the Architect/Engineer. The Architect/Engineer shall check and approve such Samples, with reasonable promptness, but only for conformance with the design intent of the Contract Documents and the Project, and for compliance with any submission requirements given in the Contract Documents.

B. TESTING - GENERAL

The Construction Manager shall provide such equipment and facilities as the Architect/Engineer may require for conducting field tests and for collecting and forwarding samples to be tested. Samples themselves shall not be incorporated into the Work after approval without the permission of the Architect/Engineer.

All materials or equipment proposed to be used may be tested at any time during their preparation or use. The Construction Manager shall furnish the required samples without charge and shall give

sufficient Notice of the placing of orders to permit the testing thereof. Products may be sampled either prior to shipment or after being received at the site of the Work.

Tests shall be made by an accredited testing laboratory. Except as otherwise provided in the Specifications, sampling and testing of all materials, and the laboratory methods and testing equipment, shall be in accordance with the latest standards and tentative methods of the American Society of Testing Materials (ASTM). The cost of testing which is in addition to the requirements of the Specifications shall be paid by the Construction Manager if so directed by the Architect/Engineer, and the Contract sum shall be adjusted accordingly by Change Order; provided however, that whenever testing shows portions of the Work to be deficient, all costs of testing including that required to verify the adequacy of repair or replacement Work shall be the responsibility of the Construction Manager.

C. TESTING - CONCRETE AND SOILS

Unless otherwise specified or provided elsewhere in the Contract Documents, the Principal Representative will contract for and pay for the testing of concrete and for soils compaction testing through an independent laboratory or laboratories selected and approved by the Principal Representative. The Construction Manager shall assume the responsibility of arranging, scheduling and coordinating the concrete sample collection efforts and soils compaction efforts in an efficient and cost effective manner. Testing shall be performed in accordance with the requirements of the Specifications, and if no requirements are specified, the Construction Manager shall request instructions and testing shall be as directed by the Architect/Engineer or the soils engineer, as applicable, and in accordance with standard industry practices.

The Principal Representative and the Architect/Engineer shall be given reasonable advance notice of each concrete pour and reserve the right to either increase or decrease the number of cylinders or the frequency of tests.

Soil compaction testing shall be at random locations selected by the soils engineer. In general, soils compaction testing shall be as directed by the soils engineer and shall include all substrate prior to backfill or construction.

D. TESTING - OTHER

Additional testing required by the Specifications will be accomplished and paid for by the Principal Representative in a manner similar to that for concrete and soils unless noted otherwise in the Specifications. In any case, the Construction Manager will be responsible for arranging, scheduling and coordinating additional tests. Where the additional testing will be contracted and paid for by the Principal Representative the Construction Manager shall give the Principal Representative not less than one-month advance written Notice of the date the first such test will be required.

ARTICLE 15. SUBCONTRACTS

A. CONTRACT PERFORMANCE OUTSIDE OF THE UNITED STATES OR COLORADO

After the contract is awarded, Construction Manager is required to provide written notice to the Principal Representative no later than twenty (20) days after deciding to perform services under this contract outside the United States or Colorado or to subcontract services under this contract to a subcontractor that will perform such services outside the United States or Colorado. The written notification must include, but need not be limited to, a statement of the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform the services. All notices received by the State pursuant to outsourced services shall be posted on the Colorado Department of Personnel & Administration's website. *If Construction Manager knowingly fails to notify the Principal Representative of any outsourced services as specified herein, the Principal Representative, at its discretion, may terminate this contract as provided in the Colorado Procurement Code or the applicable procurement code for institutions of higher education (Does not apply to any project that receives federal moneys)*

B. SUBCONTRACTOR PREQUALIFICATION

Prior to the Notice to Proceed to Commence Construction for the first and subsequent construction phases, the Construction Manager shall submit to the Principal Representative and State Buildings Program a complete list of all known Subcontractors, planned for the Work. The list shall be supplemented as other Subcontractors are determined by the Construction Manager and any such supplemental list shall be submitted to the Principal Representative and State Buildings Program not less than ten (10) days before the Subcontractors commence Work.

C. SUBCONTRACTOR PROPOSALS

If Construction Manager utilizes any Subcontractor on this Project, Construction Manager shall request and receive proposals from the Subcontractors and subcontracts will be awarded after the proposals are tabulated in a pre-approved format which compares to the Fixed Limit of Construction Cost budgeted by line item, as indicated in the finalized Construction Manager's Fee Proposal, and, reviewed by the Construction Manager, and Principal Representative.

Should the construction Manager submit a proposal for subcontract Work, the proposal conditions used shall be the same as for all subcontractor proposals. These Construction Manager proposals for subcontract Work shall be submitted to the Principal Representative twenty-four (24) hours prior to receipt of other subcontractor proposals and be opened with the other proposals.

D. SUBCONTRACT FORMS

All subcontracts will be between Construction Manager and the Subcontractors. The form of subcontracts shall be furnished to the Principal Representative for review and consent as to form, which consent shall not be unreasonably withheld.

E. SUBCONTRACTOR SUBSTITUTION

The substitution of any Subcontractor listed in the Construction Manager's bid shall be justified in writing not less than ten (10) days after the date of the Notice to Proceed to commence construction for the first and subsequent construction phases, and shall be subject to the approval of the Principal Representative. For reasons such as the Subcontractor's refusal to perform as agreed, subsequent unavailability or later discovered bid errors, or other similar reasons, but not including the availability of a lower Subcontract price, such substitution may be approved. The Construction Manager shall bear any additional cost incurred by such substitutions.

F. CONSTRUCTION MANAGER RESPONSIBLE FOR SUBCONTRACTORS

The Construction Manager shall not employ any Subcontractor that the Architect/Engineer, within ten (10) days after the date of receipt of the Construction Manager's list of Subcontractors or any supplemental list, objects to in writing as being unacceptable to either the Architect/Engineer, the Principal Representative or State Buildings Program. If a Subcontractor is deemed unacceptable, the Construction Manager shall propose a substitute Subcontractor and the Contract sum shall be adjusted by any demonstrated difference between the Subcontractor's bids, except where the Subcontractor has been debarred by the State or fails to meet qualifications of the Contract Documents to perform the Work proposed.

The Construction Manager shall be fully responsible to the Principal Representative for the acts and omissions of Subcontractors and of persons either directly or indirectly employed by them. All instructions or orders in respect to Work to be done by Subcontractors shall be given to the Construction Manager.

ARTICLE 16. RELATIONS OF CONSTRUCTION MANAGER AND SUBCONTRACTOR

The Construction Manager agrees to bind each Subcontractor to the terms of these General Conditions and to the requirements of the Drawings and Specifications, and any Addenda thereto, and also all the other Contract Documents, so far as applicable to the Work of such Subcontractor. The Construction Manager

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further agrees to bind each Subcontractor to those terms of the General Conditions which expressly require that Subcontractors also be bound, including without limitation, requirements that Subcontractors waive all rights of subrogation, provide adequate general commercial liability and property insurance, automobile insurance and workers' compensation insurance as provided in Article 25, Insurance.

Nothing contained in the Contract Documents shall be deemed to create any contractual relationship whatsoever between any Subcontractor and the State of Colorado acting by and through its Principal Representative.

ARTICLE 17. MUTUAL RESPONSIBILITY OF CONTRACTORS

Should the Construction Manager cause damage to any separate contractor on the Work, the Construction Manager agrees, upon due Notice, to settle with such contractor by agreement, if he or she will so settle. If such separate contractor sues the Principal Representative on account of any damage alleged to have been so sustained, the Principal Representative shall notify the Construction Manager, who shall defend such proceedings if requested to do so by Principal Representative. If any judgment against the Principal Representative arises there from, the Construction Manager shall pay or satisfy it and pay all costs and reasonable attorney fees incurred by the Principal Representative, in accordance with Article 53H, Indemnification, provided the Construction Manager was given due Notice of an opportunity to settle.

ARTICLE 18. SEPARATE CONTRACTS

The Principal Representative reserves the right to enter into other contracts in connection with the Project or the Contract. The Construction Manager shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall properly connect and coordinate his or her Work with theirs. If any part of the Construction Manager's Work depends, for proper execution or results, upon the Work of any other contractor, the Construction Manager shall inspect and promptly report to the Architect/Engineer any defects in such Work that render it unsuitable for such proper execution and results. Failure of the Construction Manager to so inspect and report shall constitute an acceptance of the other contractor's Work as fit and proper for the reception of Work, except as to defects which may develop in the other Construction Manager's Work after the execution of the Construction Manager's Work.

To insure the proper execution of subsequent Work, the Construction Manager shall measure Work already in place and shall at once report to the Architect/Engineer any discrepancy between the executed Work and the Drawings.

ARTICLE 19. USE OF PREMISES

The Construction Manager shall confine apparatus, the storage of materials and the operations of workmen to limits indicated by law, ordinances, permits and any limits lines shown on the Drawings. The Construction Manager shall not unreasonably encumber the premises with materials.

The Construction Manager shall enforce all of the Architect/Engineer's instructions and prohibitions regarding, without limitation, such matters as signs, advertisements, fires, smoking and security.

ARTICLE 20. CUTTING, FITTING OR PATCHING

The Construction Manager shall do all cutting, fitting or patching of Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of other contractors shown upon, or reasonably inferred from, the Drawings and Specifications for the complete structure, and shall provide for such finishes to patched or fitted Work as the Architect/Engineer may direct. The Construction Manager shall not endanger any Work by cutting, excavating or otherwise altering the Work and shall not cut or alter the Work of any other contractor save with the consent of the Architect/Engineer.

ARTICLE 21. UTILITIES

A. TEMPORARY UTILITIES

Unless otherwise specifically stated in the Specifications or on the Drawings, the Principal Representative shall be responsible for the locations of all utilities as shown on the Drawings or

indicated elsewhere in the Specifications, subject to the Construction Manager's compliance with all statutory or regulatory requirements to call for utility locates. When actual conditions deviate from those shown the Construction Manager shall comply with the requirements of Article 37, Differing Site Conditions. The Construction Manager shall provide and pay for the installation of all temporary utilities required to supply all the power, light and water needed by him and other contractors for their Work and shall install and maintain all such utilities in such manner as to protect the public and Workmen and conform with any applicable laws and regulations. Upon completion of the Work, he or she shall remove all such temporary utilities from the site. The Construction Manager shall pay for all consumption of power, light and water used by him or her and the other contractors, without regard to whether such items are metered by temporary or permanent meters. The Superintendent shall have full authority over all trades and Subcontractors at any tier to prevent waste. The cut-off date on permanent meters shall be either the agreed date or the date of the Notice of Substantial Completion or the Notice of Approval of Occupancy/Use of the Project.

B. PROTECTION OF EXISTING UTILITIES

Where existing utilities, such as water mains, sanitary sewers, storm sewers and electrical conduits, are shown on the Drawings, the Construction Manager shall be responsible for the protection thereof, without regard to whether any such utilities are to be relocated or removed as a part of the Work. If any utilities are to be moved, the moving must be conducted in such manner as not to cause undue interruption or delay in the operation of the same.

C. CROSSING OF UTILITIES

When new construction crosses highways, railroads, streets, or utilities under the jurisdiction of State, city or other public agency, public utility or private entity, the Construction Manager shall secure proper written permission before executing such new construction. The Construction Manager will be required to furnish a proper release before final acceptance of the Work.

ARTICLE 22. UNSUITABLE CONDITIONS

The Construction Manager shall not Work at any time, or permit any Work to be done, under any conditions contrary to those recommended by manufacturers or industry standards which are otherwise proper, unsuited for proper execution, safety and performance. Any cost caused by ill-timed Work shall be borne by the Construction Manager unless the timing of such Work shall have been directed by the Architect/Engineer or the Principal Representative, after the award of the Contract, and the Construction Manager provided Notice of any additional cost.

ARTICLE 23. TEMPORARY FACILITIES

A. OFFICE FACILITIES

The Construction Manager shall provide and maintain without additional expense for the duration of the Project temporary office facilities, as required and as specified, for its own use and the use of the Architect/Engineer, representatives of the Principal Representative and State Buildings Program.

B. TEMPORARY HEAT

The Construction Manager shall furnish and pay for all the labor, facilities, equipment, fuel and power necessary to supply temporary heating, ventilating and air conditioning, except to the extent otherwise specified, and shall be responsible for the installation, operation, maintenance and removal of such facilities and equipment. Unless otherwise specified, the permanent HVAC system shall not be used for temporary heat in whole or in part. If the Construction Manager desires to put the permanent system into use, in whole or in part, the Construction Manager shall set it into operation and furnish the necessary fuel and manpower to safely operate, protect and maintain that HVAC system. Any operation of all or any part of the permanent HVAC system including operation for testing purposes shall not constitute acceptance of the system, nor shall it relieve the Construction Manager of his or her one-year guarantee of the system from the date of the Notice of Substantial Completion of the entire Project, and if necessary due to prior operation, the

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Construction Manager shall provide manufacturers' extended warranties from the date of the Construction Manager's use prior to the date of the Notice of Substantial Completion.

C. WEATHER PROTECTION

The Construction Manager shall, at all times, provide protection against weather, so as to maintain all Work, materials, apparatus and fixtures free from injury or damages. The Construction Manager shall provide weather-tight storage on substantial floors at least six (6) inches off the ground for all materials requiring protection from the weather.

D. DUST PARTITIONS

If the Work involves Work in an occupied existing building, the Construction Manager shall erect and maintain during the progress of the Work, suitable dust-proof temporary partitions, or more permanent partitions as specified, to protect such building and the occupants thereof.

E. BENCH MARKS

The Construction Manager shall maintain any site bench marks provided by the Principal Representative and shall establish any additional benchmarks specified by the Architect/Engineer as necessary for the Construction Manager to layout the Work and ascertain all grades and levels as needed.

F. SIGN

The Construction Manager shall erect and permit one 4' x 8' sign only at the site to identify the Project as specified or directed by the Architect/Engineer which shall be maintained in good condition during the life of the Project.

G. SANITARY PROVISION

The Construction Manager shall provide and maintain suitable, clean, temporary sanitary toilet facilities for any and all workmen engaged on the Work, for the entire construction period, in strict compliance with the requirement of all applicable codes, regulations, laws and ordinances, and no other facilities, new or existing, may be used by any person on the Project. When the Project is complete the Construction Manager shall promptly remove them from the site, disinfect, and clean or treat the areas as required. If any new construction surfaces in the Project other than the toilet facilities provided for herein are soiled at any time, the entire areas so soiled shall be completely removed from the Project and rebuilt. In no event may present toilet facilities of any existing building at the site of the Work be used by employees of the Construction Manager or any subcontractors.

ARTICLE 24. CLEANING UP

The Construction Manager shall keep the building and premises free from all surplus material, waste material, dirt and rubbish caused by employees or Work, and at the completion of the Work shall remove all such surplus material, waste material, dirt, and rubbish, as well as all tools, equipment and scaffolding, and shall wash and clean all window glass and plumbing fixtures, perform cleanup and cleaning required by the Specifications and leave all of the Work clean unless more exact requirements are specified.

ARTICLE 25. INSURANCE

A. GENERAL

The Construction Manager shall procure and maintain all insurance requirements and limits as set forth below, at his or her own expense, for the length of time set forth in Contract requirements. The Construction Manager shall continue to provide evidence of such coverage to State of Colorado on an annual basis during the aforementioned period including all of the terms of the insurance and indemnification requirements of this agreement. All below insurance policies shall include a provision preventing cancellation without thirty (30) days' prior notice by certified mail. A completed Certificate of Insurance shall be filed with the Principal Representative and State Buildings Program

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within ten (10) days after the date of the Notice of Award, said Certificate to specifically state the inclusion of the coverages and provisions set forth herein and shall state whether the coverage is "claims made" or "per occurrence".

B. COMMERCIAL GENERAL LIABILITY INSURANCE (CGL)

This insurance must protect the Construction Manager from all claims for bodily injury, including death and all claims for destruction of or damage to property (other than the Work itself), arising out of or in connection with any operations under this Contract, whether such operations be by the Construction Manager or by any Subcontractor under him or anyone directly or indirectly employed by the Construction Manager or by a Subcontractor. All such insurance shall be written with limits and coverages as specified below and shall be written on an occurrence form.

General Aggregate	\$2,000,000
Products – Completed Operations Aggregate	\$2,000,000
Each Occurrence	\$1,000,000
Personal Injury	\$1,000,000

The following coverages shall be included in the CGL:

1. Per project general aggregate (CG 25 03 or similar)
2. Additional Insured status in favor of the State of Colorado and any other parties as outlined in The Contract and must include both ONGOING Operations AND COMPLETED Operations per CG2010 10/01 and CG 2037 10/01 or equivalent as permitted by law.
3. The policy shall be endorsed to be **primary and non-contributory** with any insurance maintained by Additional Insureds.
4. A waiver of Subrogation in favor of all Additional Insured parties.
5. Personal Injury Liability
6. Contractual Liability coverage to support indemnification obligation per Article 53.I
7. Explosion, collapse and underground (xcu)

The following exclusionary endorsements are prohibited in the CGL policy:

1. Damage to Work performed by Subcontract/Vendor (CG 22-94 or similar)
2. Contractual Liability Coverage Exclusion modifying or deleting the definition of an "insured contract" from the unaltered SO CG 0001 1001 policy from (CG 24 26 or similar)
3. If applicable to the Work to be performed: Residential or multi-family
4. If applicable to the Work to be performed: Exterior insulation finish systems
5. If applicable to the Work to be performed: Subsidence or Earth Movement

The Construction Manager shall maintain general liability coverage including Products and Completed Operations insurance, and the Additional Insured with primary and non-contributory coverage as specified in this Contract for three (3) years after completion of the project.

C. AUTOMOBILE LIABILITY INSURANCE and business auto liability covering liability arising out of any auto (including owned, hired and non-owned autos).

Combined Bodily Injury and Property Damage Liability
(Combined Single Limit): \$1,000,000 each accident

Coverages:
Specific waiver of subrogation

D. WORKERS' COMPENSATION INSURANCE

The Construction Manager shall procure and maintain Workers' Compensation Insurance at his or her own expense during the life of this Contract, including occupational disease provisions for all employees per statutory requirements. Policy shall contain a waiver of subrogation in favor of the State of Colorado.

The Construction Manager shall also require each Subcontractor to furnish Workers' Compensation Insurance, including occupational disease provisions for all of the latter's employees, and to the extent not furnished, the Construction Manager accepts full liability and responsibility for Subcontractor's employees.

In cases where any class of employees engaged in hazardous Work under this Contract at the site of the Project is not protected under the Workers' Compensation statute, the Construction Manager shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise protected.

E. UMBRELLA LIABILITY INSURANCE (for construction projects exceeding \$10,000,000, provide the following coverage):

The Construction Manager shall maintain umbrella/excess liability insurance on an occurrence basis in excess of the underlying insurance described in Section B-D above. Coverage shall follow the terms of the underlying insurance, included the additional insured and waiver of subrogation provisions. The amounts of insurance required in Sections above may be satisfied by the Construction Manager purchasing coverage for the limits specified or by any combination of underlying and umbrella limits, so long as the total amount of insurance is not less than the limits specified in each section previously mentioned.

Each occurrence	\$5,000,000
Aggregate	\$5,000,000

F. BUILDER'S RISK INSURANCE

Unless otherwise expressly stated in the Supplementary General Conditions (e.g. where the State elects to provide for projects with a completed value of less than \$1,000,000), the Construction Manager shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property, or the Date of Notice specified on the Notice of Acceptance, State Form SBP-6.27 or whichever is later.

This insurance shall include interests of the Owner, the Construction Manager, Subcontractors and Sub-subcontractors in the Project as named insureds.

All associated deductibles shall be the responsibility of the Construction Manager. Such policy may have a deductible clause but not to exceed ten thousand dollars (\$10,000.00).

Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false Work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and

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shall cover reasonable compensation for Architect's and Construction Manager's services and expenses required as a result of such insured loss.

Construction Manager shall maintain Builders Risk coverage including partial use by Owner. The Construction Manager shall waive all rights of subrogation as regards the State of Colorado and the Principal Representative, its officials, its officers, its agents and its employees, all while acting within the scope and course of their employment for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section or other property insurance applicable to the Work. The Construction Manager shall require all Subcontractors at any tier to similarly waive all such rights of subrogation and shall expressly include such a waiver in all subcontracts.

Upon request, the amount of such insurance shall be increased to include the cost of any additional Work to be done on the Project, or materials or equipment to be incorporated in the Project, under other independent contracts let or to be let. In such event, the Construction Manager shall be reimbursed for this cost as his or her share of the insurance in the same ratio as the ratio of the insurance represented by such independent contracts let or to be let to the total insurance carried.

The Principal Representative, with approval of the State Controller, shall have the power to adjust and settle any loss. Unless it is agreed otherwise, all monies received shall be applied first on rebuilding or repairing the destroyed or injured Work.

G. POLLUTION LIABILITY INSURANCE

If Construction Manager is providing directly or indirectly Work with pollution/environmental hazards, the Construction Manager must provide or cause those conducting the Work to provide Pollution Liability Insurance coverage. Pollution Liability policy must include contractual liability coverage. State of Colorado must be included as additional insureds on the policy. The policy limits shall be in the amount of \$1,000,000 with maximum deductible of \$25,000 to be paid by the Subcontractor/Vendor.

H. ADDITIONAL MISCELLANEOUS INSURANCE PROVISIONS

Certificates of Insurance and/or insurance policies required under this Contract shall be subject to the following stipulations and additional requirements:

1. Any and all deductibles or self-insured retentions contained in any Insurance policy shall be assumed by and at the sole risk of the Construction Manager;
2. If any of the said policies shall fail at any time to meet the requirements of the Contract Documents as to form or substance, or if a company issuing any such policy shall be or at any time cease to be approved by the Division of Insurance of the State of Colorado, or be or cease to be in compliance with any stricter requirements of the Contract Documents, the Construction Manager shall promptly obtain a new policy, submit the same to the Principal Representative and State Building Programs for approval if requested, and submit a Certificate of Insurance as hereinbefore provided. Upon failure of the Construction Manager to furnish, deliver and maintain such insurance as provided herein, this Contract, in the sole discretion of the State of Colorado, may be immediately declared suspended, discontinued, or terminated. Failure of the Construction Manager in obtaining and/or maintaining any required insurance shall not relieve the Construction Manager from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Construction Manager concerning indemnification;
3. All requisite insurance shall be obtained from financially responsible insurance companies, authorized to do business in the State of Colorado and acceptable to the Principal Representative;
4. Receipt, review or acceptance by the Principal Representative of any insurance policies or certificates of insurance required by this Contract shall not be construed as a waiver or relieve

the Construction Manager from its obligation to meet the insurance requirements contained in these General Conditions.

ARTICLE 26. CONSTRUCTION MANAGER'S PERFORMANCE AND PAYMENT BONDS

The Construction Manager shall furnish a Performance Bond and a Labor and Material Payment Bond on State Forms SC-6.22, Performance Bond, and SC-6.221, Labor and Material Payment Bond, or such other forms as State Buildings Program may approve for the Project, executed by a corporate Surety authorized to do business in the State of Colorado and in the full amount of the Contract sum. The expense of these bonds shall be borne by the Contractor and the bonds shall be filed with State Buildings Program.

If, at any time, a Surety on such a bond is found to be, or ceases to be in strict compliance with any qualification requirements of the Contract Documents or the bid documents, or loses its right to do business in the State of Colorado, another Surety will be required, which the Construction Manager shall furnish to State Buildings Program within ten (10) days after receipt of Notice from the State or after the Construction Manager otherwise becomes aware of such conditions.

ARTICLE 27. LABOR AND WAGES

A. In accordance with laws of Colorado, C.R.S. § 8-17-101(1), as amended, Colorado labor shall be employed to perform at least eighty percent of the Work. If the Federal Davis-Bacon Act shall be applicable to the Project, as indicated in Article 6.2 (Construction Manager/General Contractor Agreement SC-6.5), Modification of Article 27, the minimum wage rates to be paid on the Project will be specified in the Contract Documents.

B. In accordance with laws of Colorado, C.R.S. § 24-92 Part 2, if prevailing wage rates are applicable to this project:

1. The contractor shall in conspicuous places on the project post an owner provided poster with the current prevailing rate of payments as provided in the project solicitation.
 - a. A contractor who fails to comply shall be deemed guilty of a class 3 misdemeanor and shall pay the State one hundred dollars (\$100) for each calendar day of noncompliance as determined by the State.
2. The contractor and any subcontractors shall pay all the employees employed directly on the site of the work, unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment computed at wage rates not less than those stated in the competitive solicitation, regardless of any contractual relationships that may be alleged to exist between the contractor or subcontractor and the employees.
3. The contractor and any subcontractors shall prepare and submit payroll reports to the State on a monthly basis that disclose all relevant payroll information, including the name and address of any entities to which fringe benefits are paid.
4. The contractor and any subcontractors shall maintain on the site where public projects are being constructed a daily log of employees employed each day on the public project. The log shall include, at a minimum, for each employee his or her name, primary job title, and employer, and shall be kept on a form prescribed by the director. The log shall be available for inspection on the site at all times by the State.
5. If the contractor or any subcontractor fails to pay wages as are required by the contract, the State shall not approve a warrant or demand for payment to the contractor until the contractor furnishes the State evidence satisfactory to such agency of government that such wages have been paid; except that the State shall approve and pay any portion of a warrant or demand for payment to the contractor to the extent the State has been furnished satisfactory evidence that the contractor or one or more subcontractors has paid such wages required by the contract,

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The contractor or subcontractor may use the following procedure in order to satisfy the requirements of this section:

- a. The contractor or subcontractor may submit to the State, for each employee to whom such wages are due, a check payable to that employee or to the State so it is negotiable by either party. Each such check shall be in an amount representing the difference between the accrued wages required to be paid to that employee by the contract and the wages actually paid by the contractor or subcontractor.
- b. If any check submitted cannot be delivered to the employee within a reasonable period, then it shall be negotiated by the State and the proceeds deposited in the unclaimed property trust fund created in section 38-13-116.6. Nothing in this subsection (1) shall be construed to lessen the responsibility of the contractor or subcontractor to attempt to locate and pay any employee to whom wages are due.

ARTICLE 28. ROYALTIES AND PATENTS

The Construction Manager shall be responsible for assuring that all rights to use of products and systems have been properly arranged and shall take such action as may be necessary to avoid delay, at no additional charge to the Principal Representative, where such right is challenged during the course of the Work. The Construction Manager shall pay all royalties and license fees required to be paid and shall defend all suits or claims for infringement of any patent rights and shall save the State of Colorado harmless from loss on account thereof, in accordance with Article 53H, Indemnification; provided, however, the Construction Manager shall not be responsible for such loss or defense for any copyright violations contained in the Contract Documents prepared by the Architect/Engineer or the Principal Representative of which the Construction Manager is unaware, or for any patent violations based on specified processes that the **Construction Manager** is unaware are patented or that the **Construction Manager** should not have had reason to believe were patented.

ARTICLE 29. ASSIGNMENT

Except as otherwise provided hereafter the Construction Manager shall not assign the whole or any part of this Contract without the written consent of the Principal Representative. This provision shall not be construed to prohibit assignments of the right to payment to the extent permitted by C.R.S. § 4-9-406, et. seq., as amended, provided that written Notice of assignment adequate to identify the rights assigned is received by the Principal Representative and the controller for the agency, department, or institution executing this Contract (as distinguished from the State Controller). Such assignment of the right to payment shall not be deemed valid until receipt by the Principal Representative and such controller and the Construction Manager assumes the risk that such written Notice of assignment is received by the Principal Representative and the controller for the agency, department, or institution involved. In case the Construction Manager assigns all or part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Construction Manager shall be subject to all claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract, whether said service or materials were supplied prior to or after the assignment. Nothing in this Article shall be deemed a waiver of any other defenses available to the State against the Construction Manager or the assignee.

ARTICLE 30. CORRECTION OF WORK BEFORE ACCEPTANCE

The Construction Manager shall promptly remove from the premises all Work or materials condemned or declared irreparably defective as failing to conform to the Contract Documents on receipt of written Notice from the Architect/Engineer or the Principal Representative, whether incorporated in the Work or not. If such materials shall have been incorporated in the Work, or if any unsatisfactory Work is discovered, the Construction Manager shall promptly replace and re-execute his or her Work in accordance with the requirements of the Contract Documents without expense to the Principal Representative, and shall also bear the expense of making good all Work of other contractors destroyed or damaged by the removal or replacement of such defective material or Work.

Should any defective Work or material be discovered during the process of construction, or should reasonable doubt arise as to whether certain material or Work is in accordance with the Contract Documents, the value of such defective or questionable material or Work shall not be included in any application for payment, or if previously included, shall be deducted by the Architect/Engineer from the next application submitted by the Construction Manager.

If the Construction Manager does not perform repair, correction and replacement of defective Work, in lieu of proceeding by issuance of a Notice of intent to remove condemned Work as outlined above, the Principal Representative may, not less than seven (7) days after giving the original written Notice of the need to repair, correct, or replace defective Work, deduct all costs and expenses of replacement or correction as instructed by the Architect/Engineer from the Construction Manager's next application for payment in addition to the value of the defective Work or material. The Principal Representative may also make an equitable deduction from the Contract sum by unilateral Change Order, in accordance with Article 33, Payments Withheld and Article 35, Changes in the Work.

If the Construction Manager does not remove such condemned or irreparably defective Work or material within a reasonable time, the Principal Representative may, after giving a second seven (7) day advance Notice to the Construction Manager and the Surety, remove them and may store the material at the Construction Manager's expense. The Principal Representative may accomplish the removal and replacement with its own forces or with another contractor. If the Construction Manager does not pay the expense of such removal and pay all storage charges within ten (10) days thereafter, the Principal Representative may, upon ten (10) days' written Notice, sell such material at auction or at private sale and account for the net proceeds thereof, after deducting all costs and expenses which should have been borne by the Construction Manager. If the Construction Manager shall commence and diligently pursue such removal and replacement before the expiration of the seven-day period, or if the Construction Manager shall show good cause in conjunction with submittal of a revised CPM schedule showing when the Work will be performed and why such removal of condemned Work should be scheduled for a later date, the Principal Representative shall not proceed to remove or replace the condemned Work.

If the Construction Manager disagrees with the Notice to remove Work or materials condemned or declared irreparably defective, the Construction Manager may request facilitated negotiation of the issue and the Principal Representative's right to proceed with removal and to deduct costs and expenses of repair shall be suspended and tolled until such time as the parties meet and negotiate the issue.

During construction, whenever the Architect/Engineer has advised the Construction Manager in writing, in the Specifications, by reference to Article 6, Architect/Engineer Decisions And Judgments, of these General Conditions or elsewhere in the Contract Documents of a need to observe materials in place prior to their being permanently covered up, it shall be the Construction Manager's responsibility to notify the Architect/Engineer at least forty-eight (48) hours in advance of such covering operation. If the Construction Manager fails to provide such notification, Construction Manager shall, at his or her expense, uncover such portions of the Work as required by the Architect/Engineer for observation, and reinstall such covering after observation. When a covering operation is continued from day to day, notification of the commencement of a single continuing covering operation shall suffice for the activity specified so long as it proceeds regularly and without interruption from day to day, in which event the Construction Manager shall coordinate with the Architect/Engineer regarding the continuing covering operation.

ARTICLE 31. APPLICATIONS FOR PAYMENTS

A. CONSTRUCTION MANAGER'S SUBMITTALS

On or before the first day of each month and no more than five days prior thereto, the Construction Manager may submit applications for payment for the Work performed during such month covering the portion of the Work completed as of the date indicated, and payments on account of this Contract shall be due per C.R.S. § 24-30-202(24) (correct notice of amount due), within forty-five (45) days of receipt by the Principal Representative of application for payments that have been certified by the Architect/Engineer. The Construction Manager shall submit the application for

payment to the Architect/Engineer on State forms SBP-7.2, Application and Certificate for Contractor's Payment, or such other format as the State Buildings Program shall approve, in an itemized format in accordance with the schedule of values or a cost loaded CPM schedule when required, supported to the extent reasonably required by the Architect/Engineer or the Principal Representative by receipts or other vouchers, showing payments for materials and labor, prior payments and payments to be made to Subcontractors and such other evidence of the Construction Manager's right to payments as the Architect/Engineer or Principal Representative may direct.

If payments are made on account of materials not incorporated in the Work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Construction Manager of bills of sale or such other procedure as will establish the Principal Representative's title to such material or otherwise adequately protect the Principal Representative's interests, and shall provide proof of insurance whenever requested by the Principal Representative or the Architect/Engineer, and shall be subject to the right to inspect the materials at the request of either the Architect/Engineer or the Principal Representative.

All applications for payment, except the final application, and the payments there under, shall be subject to correction in the next application rendered following the discovery of any error.

B. ARCHITECT/ENGINEER CERTIFICATION

In accordance with the Architect/Engineer's agreement with the Principal Representative, the Architect/Engineer after appropriate observation of the progress of the Work shall certify to the Principal Representative the amount that the Construction Manager is entitled to, and forward the application to the Principal Representative. If the Architect/Engineer certifies an amount different from the amount requested or otherwise alters the Construction Manager's application for payment, a copy shall be forwarded to the Construction Manager.

If the Architect/Engineer is unable to certify all or portions of the amount requested due to the absence or lack of required supporting evidence, the Architect/Engineer shall advise the Construction Manager of the deficiency. If the deficiency is not corrected at the end of ten (10) days, the Architect/Engineer may either certify the remaining amounts properly supported to which the Construction Manager is entitled, or return the application for payment to the Construction Manager for revision with a written explanation as to why it could not be certified.

C. RETAINAGE WITHHELD

Unless otherwise provided in the Supplementary General Conditions, an amount equivalent to five percent (5%) of the amount shown to be due the Construction Manager on each application for payment shall be withheld until the Work required by the Contract has been performed. The withheld percentage of the contract price of any such Work, improvement, or construction shall be administered according to C.R. S. § 24-91-103, as amended, and C.R.S. § 38-26-107, as amended, and Article 31D, shall be retained until the Work or discrete portions of the Work, have been completed satisfactorily, finally or partially accepted, and advertised for final settlement as further provided in Article 41.

D. RELEASE OF RETAINAGE

The Construction Manager may, for satisfactory and substantial reasons shown to the Principal Representative's satisfaction, make a written request to the Principal Representative and the Architect/Engineer for release of part or all of the withheld percentage applicable to the Work of a Subcontractor which has completed the subcontracted Work in a manner finally acceptable to the Architect/Engineer, the Construction Manager, and the Principal Representative. Any such request shall be supported by a written approval from the Surety furnishing the Construction Manager's bonds and any surety that has provided a bond for the Subcontractor. The release of any such withheld percentage shall be further supported by such other evidence as the Architect/Engineer or the Principal Representative may require, including but not limited to, evidence of prior payments

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made to the Subcontractor, copies of the Subcontractor's contract with the Construction Manager, any applicable warranties, as-built information, maintenance manuals and other customary close-out documentation. Neither the Principal Representative nor the Architect Engineer shall be obligated to review such documentation nor shall they be deemed to assume any obligations to third parties by any review undertaken.

The Construction Manager's obligation under these General Conditions to guarantee Work for one year from the date of the Notice of Substantial Completion or the date of any Notice of Partial Substantial Completion of the applicable portion or phase of the Project, shall be unaffected by such partial release; unless a Notice of Partial Substantial Completion is issued for the Work subject to the release of retainage.

Any rights of the Principal Representative which might be terminated by or from the date of any final acceptance of the Work, whether at common law or by the terms of this Contract, shall not be affected by such partial release of retainage prior to any final acceptance of the entire Project.

The Construction Manager remains fully responsible for the Subcontractor's Work and assumes any risk that might arise by virtue of the partial release to the Subcontractor of the withheld percentage, including the risk that the Subcontractor may not have fully paid for all materials, labor and equipment furnished to the Project.

If the Principal Representative considers the Construction Manager's request for such release satisfactory and supported by substantial reasons, the Architect/Engineer shall make a "final inspection" of the applicable portion of the Project to determine whether the Subcontractor's Work has been completed in accordance with the Contract Documents. A final punch list shall be made for the Subcontractor's Work and the procedures of Article 41, Completion, Final Inspection, Acceptance and Settlement, shall be followed for that portion of the Work, except that advertisement of the intent to make final payment to the Subcontractor shall be required only if the Principal Representative has reason to believe that a supplier or Subcontractor to the Subcontractor for which the request is made, may not have been fully paid for all labor and materials furnished to the Project.

ARTICLE 32. CERTIFICATES FOR PAYMENTS

State Form SBP-7.2, Certificate For Contractor's Payment, and its continuation detail sheets, when submitted, shall constitute the ~~Certificate of~~ Construction Manager's Application for Payment, and shall be a representation by the Construction Manager to the Principal Representative that the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and materials for which payment is requested have been incorporated into the Project except as noted in the application. If requested by the Principal Representative the Certificate of Contractor's Application for Payment shall be sworn under oath and notarized.

ARTICLE 33. PAYMENTS WITHHELD

The Architect/Engineer, the Principal Representative or State Buildings Program may withhold, or on account of subsequently discovered evidence nullify, the whole or any part of any application on account of, but not limited to any of the following:

1. Defective Work not remedied;
2. Claims filed or reasonable evidence indicating probable filing of claims;
3. Failure of the Construction Manager to make payments to Subcontractors for material or labor;
4. A reasonable doubt that the Contract can be completed for the balance of the contract price then unpaid;
5. Damage or injury to another contractor or any other person, persons or property except to the extent of coverage by a policy of insurance;
6. Failure to obtain necessary permits or licenses or to comply with applicable laws, ordinances, codes, rules or regulations or the directions of the Architect/Engineer;
7. Failure to submit a monthly construction schedule;

8. Failure of the Construction Manager to keep Work progressing in accordance with the time schedule;
9. Failure to keep a superintendent on the Work;
10. Failure to maintain as built drawings of the Work in progress;
11. Unauthorized deviations by the Construction Manager from the Contract Documents; or
12. On account of liquidated damages.

In addition, the Architect Engineer, Principal Representative or State Buildings Program may withhold or nullify the whole or any part of any application for any reason noted elsewhere in these General Conditions of the Construction Manager/General Contractor (CM/GC) Agreement. Nullification shall mean reduction of amounts shown as previously paid on the application. The amount withheld or nullified may be in such amount as the Architect/Engineer or the Principal Representative estimates to be required to allow the State to accomplish the Work, cure the failure and cover any damages or injuries, including an allowance for attorneys' fees and costs where appropriate. When the grounds for such withholding or nullifying are removed, payment shall be made for the amounts thus withheld or nullified on such grounds.

ARTICLE 34. DEDUCTIONS FOR UNCORRECTED WORK

If the Architect/Engineer and the Principal Representative deem it inexpedient to correct Work damaged or not performed in accordance with the Contract Documents, the Principal Representative may, after consultation with the Architect/Engineer and ten (10) days' Notice to the Construction Manager of intent to do so, make reasonable reductions from the amounts otherwise due the Construction Manager on the next application for payment. Notice shall specify the amount or terms of any contemplated reduction. The Construction Manager may during this period correct or perform the Work. If the Construction Manager does not correct or perform the Work, an equitable deduction from the Contract sum shall be made by Change Order, in accordance with Article 35, Changes in the Work, unilaterally if necessary. If either party elects' facilitation of this issue after Notice is given, the ten-day (10) notice period shall be extended and tolled until facilitation has occurred.

ARTICLE 35. CHANGES IN THE WORK

The Principal Representative may designate, without invalidating the Agreement, and with the approval of State Buildings Program and the State Controller, may order extra Work or make changes with or without the consent of the Construction Manager as hereafter provided, by altering, adding to or deducting from the Work, the Contract sum being adjusted accordingly. All such changes in the Work shall be within the general scope of and be executed under the conditions of the Contract, except that any claim for extension of time made necessary due to the change or any claim of other delay or other impacts caused by or resulting from the change in the Work shall be presented by the Construction Manager and adjusted by Change Order to the extent known at the time such change is ordered and before proceeding with the extra or changed Work. Any claims for extension of time or of delay or other impacts, and any costs associated with extension of time, delay or other impacts, which are not presented before proceeding with the change in the Work, and which are not adjusted by Change Order to the extent known, shall be waived.

The Architect/Engineer shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the intent of the Contract Documents, but otherwise, except in an emergency endangering life or property, no extra Work or change in the Contract Documents shall be made unless by 1) a written Change Order, approved by the Principal Representative, State Buildings Program, and the State Controller prior to proceeding with the changed Work; or 2) by an Emergency Field Change Order approved by the Principal Representative and State Buildings Program as hereafter provided in Article 35D, Emergency Field Ordered Changed Work; or 3) by an allocation in writing of any allowance already provided in the encumbered contract amount, the Contract sum being later adjusted to decrease the Contract sum by any unallocated or unexpended amounts remaining in such allowance. No change to the Contract sum shall be valid unless so ordered.

A. THE VALUE OF CHANGED WORK

1. The value of any extra Work or changes in the Work shall be determined by agreement in one or more of the following ways:

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- a. by estimate and acceptance of a lump-sum amount;
 - b. By unit prices specified in the Agreement, or subsequently agreed upon, that are extended by specific quantities;
 - c. By actual cost plus a fixed fee in a lump sum amount for profit, overhead and all indirect and off-site home office costs, the latter amount agreed upon in writing prior to starting the extra or changed Work.
2. Where the Construction Manager and the Principal Representative cannot agree on the value of extra Work, the Principal Representative may order the Construction Manager to perform the changes in the Work and a Change Order may be unilaterally issued based on an estimate of the change in the Work prepared by the Architect/Engineer. The value of the change in the Work shall be the Principal Representative's determination of the amount of equitable adjustment attributable to the extra Work or change. The Principal Representative's determination shall be subject to appeal by the Construction Manager pursuant to the claims process in Article 36, Claims.
 3. Except as otherwise provided in Article 35B, Detailed Breakdown, below, the Cost Principles of the Colorado Procurement Code or the applicable procurement code for institutions of higher education, shall govern all Contract changes.

B. DETAILED BREAKDOWN

In all cases where the value of the extra or changed Work is not known based on unit prices in the Construction Manager's bid or the Agreement, a detailed change proposal shall be submitted by the Construction Manager on a Change Order Proposal (SC-6.312), or in such other format as the State Buildings Program approves, with which the Principal Representative may require an itemized list of materials, equipment and labor, indicating quantities, time and cost for completion of the changed Work.

Such detailed change proposals shall be stated in lump sum amounts and shall be supported by a separate breakdown, which shall include estimates of all or part of the following when requested by the Architect/Engineer or the Principal Representative:

1. Materials, indicating quantities and unit prices including taxes and delivery costs if any (separated where appropriate into general, mechanical and electrical and/or other Subcontractors' Work; and the Principal Representative may require in its discretion any significant subcontract costs to be similarly and separately broken down).
2. Labor costs, indicating hourly rates and time and labor burden to include Social Security and other payroll taxes such as unemployment, benefits and other customary burdens.
3. Costs of project management time and superintendence time of personnel stationed at the site, and other field supervision time, but only where a time extension, other than a weather delay, is approved as part of the Change Order, and only where such project management time and superintendence time is directly attributable to and required by the change; provided however that additional cost of on-site superintendence shall be allowable whenever in the opinion of the Architect/Engineer the impact of multiple change requests to be concurrently performed will result in inadequate levels of supervision to assure a proper result unless additional superintendence is provided.
4. Construction equipment (including small tools). Expenses for equipment and fuel shall be based on customary commercially reasonable rental rates and schedules. Equipment and hand tool costs shall not include the cost of items customarily owned by workers.
5. Workers' compensation costs, if not included in labor burden.
6. The cost of commercial general liability and property damage insurance premiums but only to the extent charged the Construction Manager as a result of the changed Work.
7. Overhead and profit, as hereafter specified.
8. Builder's risk insurance premium costs.
9. Bond premium costs.

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10. Testing costs not otherwise excluded by these General Conditions.

11. Subcontract costs.

Unless modified in the Supplementary General Conditions, overhead and profit shall not exceed the percentages set forth in the table below.

	OVERHEAD	PROFIT	COMMISSION
To the Construction Manager or to Subcontractors for the portion of Work performed with their own forces:	10%	5%	0%
To the Construction Manager or to Subcontractors for Work performed by others at a tier immediately below either of them:	5%	0%	5%

Overhead shall include: a) insurance premium for policies not purchased for the Project and itemized above, b) home office costs for office management, administrative and supervisory personnel and assistants, c) estimating and change order preparation costs, d) incidental job burdens, e) legal costs, f) data processing costs, g) interest costs on capital, h) general office expenses except those attributable to increased rental expenses for temporary facilities, and all other indirect costs, but shall not include the Social Security tax and other direct labor burdens. The term "Work" as used in the proceeding table shall include labor, materials and equipment and the "Commission" shall include all costs and profit for carrying the subcontracted Work at the tiers below except direct costs as listed in items 1 through 11 above if any.

On proposals for Work involving both additions and credits in the amount of the Contract sum, the overhead and profit will be allowed on the net increase only. On proposals resulting in a net deduct to the amount of the Contract sum, profit on the deducted amount shall be returned to the Principal Representative at fifty percent (50%) of the rate specified. The inadequacy of the profit specified shall not be a basis for refusal to submit a proposal.

Except in the case of Change Orders or Emergency Field Change Orders agreed to on the basis of a lump sum amount or unit prices as described in paragraphs 35A1 and 35A2 above, The Value of Changed Work, the Construction Manager shall keep and present a correct and fully auditable account of the several items of cost, together with vouchers, receipts, time cards and other proof of costs incurred, summarized on a Change Order form (SC-6.31) using such format for supporting documentation as the Principal Representative and State Buildings Program approve. This requirement applies equally to Work done by Subcontractors. Only auditable costs shall be reimbursable on Change Orders where the value is determined on the basis of actual cost plus a fixed fee pursuant to paragraph 35A3 above, or where unilaterally determined by the Principal Representative on the basis of an equitable adjustment in accordance with the Procurement Rules, as described above in Article 35A, The Value Of Changed Work.

Except for proposals for Work involving both additions and credits, changed Work shall be adjusted and considered separately for Work either added or omitted. The amount of adjustment for Work omitted shall be estimated at the time it is directed to be omitted, and when reasonable to do so, the agreed adjustment shall be reflected on the schedule of values used for the next Construction Manager's application for payment.

The Principal Representative reserves the right to contract with any person or firm other than the Construction Manager for any or all extra Work; however, unless specifically required in the Contract Documents, the Construction Manager shall have no responsibility without additional compensation to supervise or coordinate the Work of persons or firms separately contracted by the Principal Representative.

C. HAZARDOUS MATERIALS

The Principal Representative represents that it has undertaken an examination of the site of the Work and has determined that there are no hazardous substances, as defined below, which the Construction Manager could reasonably encounter in its performance of the Work. In the event the Principal Representative so discovers hazardous substances, the Principal Representative shall render harmless such hazards before the Construction Manager commences the Work.

In the event the Construction Manager encounters any materials reasonably believed to be hazardous substances which have not been rendered harmless, the Construction Manager shall immediately stop Work in the area affected and report the condition to the Principal Representative, in writing. For purposes of this Agreement, "hazardous substances" shall include asbestos, lead, polychlorinated biphenyl (PCB) and any or all of those substances defined as "hazardous substance", "hazardous waste", or "dangerous or extremely hazardous wastes" as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), and shall also include materials regulated by the Toxic Substances Control Act (TSCA), the Clean Air Act, the Air Quality Act, the Clean Water Act, and the Occupational Safety and Health Act. The Work in the affected area shall not therefore be resumed except by written agreement of the Principal Representative and the Construction Manager, if in fact materials that are hazardous substances have not been rendered harmless. The Work in the affected area shall be resumed only in the absence of the hazardous substances or when it has been rendered harmless or by written agreement of the Principal Representative and the Construction Manager.

The Construction Manager shall not be required to perform Work without consent in any areas where it reasonably believes hazardous substances that have not been rendered harmless are present.

D. EMERGENCY FIELD CHANGE ORDERED WORK

The Principal Representative, without invalidating the Agreement, and with the approval of State Buildings Program and without the approval of the State Controller, may order extra Work or make changes in the case of an emergency that is a threat to life or property or where the likelihood of delays in processing a normal Change Order will result in substantial delays and or significant cost increases for the Project. Emergency Field Orders are not to be used solely to expedite normal Change Order processing absent a clear showing of a high potential for significant and substantial cost or delay. Such changes in the Work may be directed through issuance of an Emergency Field Change Order signed by the Construction Manager, the Principal Representative (or by a designee specifically appointed to do so in writing), and approved by the Director of State Buildings Program or his or her delegate. The change shall be directed using an Emergency Field Change Order form (SC-6.31E).

If the amount of the adjustment of the Contract price and time for completion can be determined at the time of issuance of the Emergency Field Change Order, those adjustments shall be reflected on the face of the Emergency Field Change Order. Otherwise, the Emergency Field Change Order shall reflect a not to exceed (NTE) amount for any schedule adjustment (increasing or decreasing the time for completion) and an NTE amount for any adjustment to Contract sum, which NTE amount shall represent the maximum amount of adjustment to which the Construction Manager will be entitled, including direct and indirect costs of changed Work, as well as any direct or indirect costs attributable to delays, inefficiencies or other impacts arising out of the change. Emergency Field Change Orders directed in accordance with this provision need not bear the approval signatures of the State Controller.

On Emergency Field Change Orders where the price and schedule have not been finally determined, the Construction Manager shall submit final costs for adjustment as soon as practicable. No later than seven (7) days after issuance, except as otherwise permitted, and every seven days thereafter, the Construction Manager shall report all costs to the Principal

Representative and the Architect/Engineer. The final adjustment of the Emergency Field Change Order amount and the adjustment to the Project time for completion shall be prepared on a normal Change Order from (SC-6.31) in accordance with the procedures described in Article 35A, The Value of Changed Work, and B, Detailed Breakdown, above. Unless otherwise provided in writing signed by the Director of State Buildings Program to the Principal Representative and the Construction Manager, describing the extent and limits of any greater authority, individual Emergency Field Change Orders shall not be issued for more than \$25,000, nor shall the cumulative value of Emergency Field Change Orders exceed an amount of \$100,000.

E. APPROPRIATION LIMITATIONS - C.R.S. § 24-91-103.6, as amended

The amount of money appropriated, as shown on the Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), is equal to or in excess of the Contract amount. No Change Order, Emergency Field Change Order, or other type of order or directive shall be issued by the Principal Representative, or any agent acting on his or her behalf, which directs additional compensable Work to be performed, which Work causes the aggregate amount payable under the Contract to exceed the amount appropriated for the original Contract, as shown on the Agreement (SC-6.5), unless one of the following occurs: (1) the Construction Manager is provided written assurance from the Principal Representative that sufficient additional lawful appropriations exist to cover the cost of the additional Work; or (2) the Work is covered by a Construction Manager remedy provision under the Contract, such as a claim for extra cost. By way of example only, no assurance is required for any order, directive or instruction by the Architect/Engineer or the Principal Representative to perform Work which is determined to be within the performance required by the Contract Documents; the Construction Manager's remedy shall be as described elsewhere in these General Conditions.

Written assurance shall be in the form of an Amendment to the Contract reciting the source and amount of such appropriation available for the Project. No remedy granting provision of this Contract shall obligate the Principal Representative to seek appropriations to cover costs in excess of the amounts recited as available to pay for the Work to be performed.

ARTICLE 36. CLAIMS

It is the intent of these General Conditions to provide procedures for speedy and timely resolution of disagreements and disputes at the lowest level possible. In the spirit of on the job resolution of job site issues, the parties are encouraged to use the partnering processes of Article 2D, Partnering, Communications and Cooperation, before turning to the more formal claims processes described in this Article 36, Claims. The use of non-binding dispute resolution, whether through the formal processes described in Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, or through less formal alternative processes developed as part of a partnering plan, are also encouraged. Where such process cannot resolve the issues in dispute, the claims process that follows is intended to cause the issues to be presented, decided and where necessary, documented in close proximity to the events from which the issues arise. To that end, and in summary of the remedy granting process that follows commencing with the next paragraph of this Article 36, Claims, the Construction Manager shall 1) first, seek a decision by the Architect/Engineer, and 2) shall second, informally present the claim to Principal Representative as described hereafter, and 3) failing resolution in the field, give Notice of intent to exercise statutory rights of review of a formal contract controversy, and 4) seek resolution outside the Contract as provided by the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

If the Construction Manager claims that any instructions, by detailed drawings, or otherwise, or any other act or omission of the Architect/Engineer or Principal Representative affecting the scope of the Construction Manager's Work, involve extra cost, extra time or changes in the scope of the Work under this Contract, the Construction Manager shall have the right to assert a claim for such costs or time, provided that before either proceeding to execute such Work (except in an emergency endangering life or property), or filing a Notice of claim, the Construction Manager shall have obtained or requested a written decision of the Architect/Engineer following the procedures as provided in Article 6A and B, Architect/Engineer Decisions and Judgments, respectively; provided, however, that in the case of a directed change in the Work pursuant to Article 35, no written judgment or decision of the Architect/Engineer is required. If the Construction

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Manager is delayed by the lack of a response to a request for a decision by the Architect/Engineer, the Construction Manager shall give Notice in accordance with Article 38, Delays and Extensions of Time.

Unless it is the Architect/Engineer's judgment and determination that the Work is not included in the performance required by the Contract Documents, the Construction Manager shall proceed with the Work as originally directed. Where the Construction Manager's claim involves a dispute concerning the value of Work unilaterally directed pursuant to Article 35A2 the Construction Manager shall also proceed with the Work as originally directed while his or her claim is being considered.

The Construction Manager shall give the Principal Representative and the Architect/Engineer Notice of any claim promptly after the receipt of the Architect/Engineer's decision, but in no case later than three (3) business days after receipt of the Architect/Engineer's decision (or no later than ten (10) days from the date of the Construction Manager's request for a decision when the Architect/Engineer fails to decide as provided in Article 6). The Notice of claim shall state the grounds for the claim and the amount of the claim to the extent known in accordance with the procedures of Article 35, Changes in the Work. The period in which Notice must be given may be extended by the Principal Representative if requested in writing by the Construction Manager with good cause shown, but any such extension to be effective shall be in writing.

The Principal Representative shall respond in writing, with a copy to the Architect/Engineer, within a reasonable time, and except where a request for facilitation of negotiation has been made as hereafter provided, in no case later than seven (7) business days (or at such other time as the Construction Manager and Principal Representative agree) after receipt of the Construction Manager's Notice of claim regarding such instructions or alleged act or omission. If no response to the Construction Manager's claim is received within seven (7) business days of Construction Manager's Notice (or at such other time as the Construction Manager and Principal Representative agree) and the instructions have not been retracted, it shall be deemed that the Principal Representative has denied the claim.

The Principal Representative may grant or deny the claim in whole or in part, and a Change Order shall be issued if the claim is granted. To the extent any portion of claim is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35A, The Value of Changed Work. Except in the case of a deemed denial, the Principal Representative shall provide a written explanation regarding any portion of the Construction Manager's claim that is denied.

If the Construction Manager disagrees with the Principal Representative's judgment and determination on the claim and seeks an equitable adjustment of the Contract sum or time for performance, he or she shall give Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy within ten (10) days of receipt of the Principal Representative's decision denying the claim. A "contract controversy," as such term is used in the Colorado Procurement Code or the applicable procurement code for institutions of higher education, shall not arise until the initial claim process described above in this Article 36 has been properly exhausted by the Construction Manager. The Construction Manager's failure to proceed with Work directed by the Architect/Engineer or to exhaust the claim process provided above in this Article 36, shall constitute an abandonment of the claim by the Construction Manager and a waiver of the right to contest the decision in any forum.

At the time of filing the Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy, the Construction Manager may request that the Principal Representative defer a decision on the contract controversy until a later date or until the end of the Project. If the Principal Representative agrees, he or she shall so advise the Construction Manager in writing. If no such request is made, or if the Principal Representative does not agree to such a request, the Principal Representative shall render a written decision within twenty (20) business days and advise the Construction Manager of the reasons for any denial. Unless the claim has been decided by the Principal Representative (as opposed to delegates of the Principal Representative), the person who renders the decision on this statutory contract controversy shall not be the same person who decided the claim. To the extent any portion of the contract controversy is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35A, The Value of Changed Work. In

the event of a denial the Principal Representative shall give Notice to the Construction Manager of his or her right to administrative and judicial reviews as provided in the Colorado Procurement Code or the applicable procurement code for institutions of higher education. If no decision regarding the contract controversy is issued within twenty (20) business days of the Construction Manager's giving Notice (or such other date as the Construction Manager and Principal Representative have agreed), and the instructions have not been retracted or the alleged act or omission have not been corrected, it shall be deemed that the Principal Representative has ruled by denial on the contract controversy. Except in the case of a deemed denial, the Principal Representative shall provide an explanation regarding any portion of the contract controversy that involves denial of the Construction Manager's claim.

Either the Construction Manager or the Principal Representative may request facilitation of negotiations concerning the claim or the contract controversy, and if requested, the parties shall consult and negotiate before the Principal Representative decides the issue. Any request for facilitation by the Construction Manager shall be made at the time of the giving of Notice of the claim or Notice of the contract controversy. Facilitation shall extend the time for the Principal Representative to respond by commencing the applicable period at the completion of the facilitated negotiation, which shall be the last day of the parties' meeting, unless otherwise agreed in writing.

Disagreement with the decision of the Architect Engineer, or the decision of the Principal Representative to deny any claim or denying the contract controversy, shall not be grounds for the Construction Manager to refuse to perform the Work directed or to suspend or terminate performance. During the period that any claim or contract controversy decision is pending under this Article 36, Claims, the Construction Manager shall proceed diligently with the Work directed.

In all cases where the Construction Manager proceeds with the Work and seeks equitable adjustment by filing a claim and or statutory appeal, the Construction Manager shall keep a correct account of the extra cost, in accordance with Article 35B, Detailed Breakdown supported by receipts. The Principal Representative shall be entitled to reject any claim or contract controversy whenever the foregoing procedures are not followed and such accounts and receipts are not presented.

The payments to the Construction Manager in respect of such extra costs shall be limited to reimbursement for the current additional expenditure by the Construction Manager made necessary by the change in the Work, plus a reasonable amount for overhead and profit, determined in accordance with Article 35B, Detailed Breakdown, determined solely with reference to the additional Work, if any, required by the change.

ARTICLE 37. DIFFERING SITE CONDITIONS

A. NOTICE IN WRITING

The Construction Manager shall promptly, and where possible before conditions are disturbed, give the Architect/Engineer and the Principal Representative Notice in writing of:

1. subsurface or latent physical conditions at the site differing materially from those indicated in or reasonably assumed from the information provided in the Contract Documents; and,
2. unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

The Architect/Engineer shall promptly investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Construction Manager's costs of performance of any part of the Work required by the Contract Documents, whether or not such Work is changed as a result of such conditions, an equitable adjustment shall be made and the Contract sum shall be modified in accordance with Article 35, Changes In The Work.

If the time required for completion of the Work affected by such materially differing conditions will extend the Work on the critical path as indicated on the CPM schedule, the time for completion shall also be equitably adjusted.

B. LIMITATIONS

No claim of the Construction Manager under this clause shall be allowed unless the Construction Manager has given the Notice required in Article 37A, Notice in Writing, above. The time prescribed for presentation and adjustment in Articles 36, Claims and 38, Delays And Extensions Of Time, shall be reasonably extended by the State to the extent required by the nature of the differing conditions; provided, however, that even when so extended no claim by the Construction Manager for an equitable adjustment hereunder shall be allowed if not quantified and presented prior to the date the Construction Manager requests a final inspection pursuant to Article 41A, Notice Of Completion.

ARTICLE 38. DELAYS AND EXTENSIONS OF TIME

If the Construction Manager is delayed at any time in the progress of the Work by any act or neglect of the State of Colorado or the Architect/Engineer, or of any employee or agent of either, or by any separately employed Construction Manager or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any other causes beyond the Construction Manager's control, including weather delays as defined below, the time of Completion of the Work shall be extended for a period equal to such portion of the period of delays directly affecting the completion of the Work as the Construction Manager shall be able to show he or she could not have avoided by the exercise of due diligence.

The Construction Manager shall provide Notice in writing to the Architect/Engineer, the Principal Representative and State Buildings Program within three (3) business days from the beginning of such delay and shall file a written claim for an extension of time within seven (7) business days after the period of such delay has ceased, otherwise, any claim for an extension of time is waived.

Provided that the Construction Manager has submitted reasonable schedules for approval when required by Article 12, Requests for Information and Schedules, if no schedule is agreed to fixing the dates on which the responses to requests for information or detail drawings will be needed, or Shop Drawings, Product Data or Samples are to be reviewed as required or allowed by Article 12B, Schedules, no extension of time will be allowed for the Architect/ Engineer's failure to furnish such detail drawings as needed, or for the failure to initially review Shop Drawings, Product Data or Samples, except in respect of that part of any delay in furnishing detail drawings or instructions extending beyond a reasonable period after written demand for such detailed drawings or instructions is received by the Architect/Engineer. In any event, any claim for an extension of time for such cause will be recognized only to the extent of delay directly caused by failure to furnish detail drawings or instructions or to review Shop Drawings, Product Data or Samples pursuant to schedule, after such demand.

All claims for extension of time due to a delay claimed to arise or result from ordered changes in the scope of the Work, or due to instructions claimed to increase the scope of the Work, shall be presented to the Architect/Engineer, the Principal Representative and State Buildings Program as part of a claim for extra cost, if any, in accordance with Article 36, Claims, and in accordance with the Change Order procedures required by Article 35, Changes In The Work.

Except as otherwise provided in this paragraph, no extension of time shall be granted when the Construction Manager has failed to utilize a CPM schedule or otherwise identify the Project's critical path as specified in Article 12, Requests for Information and Schedules, or has elected not to do so when allowed by the Supplementary General Conditions or the Specifications to use less sophisticated scheduling tools, or has failed to maintain such a schedule. Delay directly affecting the completion of the Work shall result in an extension of time only to the extent that completion of the Work was affected by impacts to the critical path shown on Construction Manager's CPM schedule. Where the circumstances make it indisputable in the opinion of the Architect/Engineer that the delay affected the completion of the Work so directly that the additional notice of the schedule impact by reference to a CPM schedule was unnecessary, a reasonable extension of time may be granted.

Extension of the time for completion of the Work will be granted for delays due to weather conditions only when the Construction Manager demonstrates that such conditions were more severe and extended than

those reflected by the ten-year average for the month, as evidenced by the Climatological Data, U. S. Department of Commerce, for the Project area.

Extensions of the time for completion of the Work due to weather will be granted on the basis of one and three tenths (1.3) calendar days for every day that the Construction Manager would have Worked but was unable to Work, with each separate extension figured to the nearest whole calendar day.

For weather delays and delays caused by events, acts or omissions not within the control of the Principal Representative or any person acting on the Principal Representative's behalf, the Construction Manager shall be entitled to an extension of time only and shall not be entitled to recovery of additional cost due to or resulting from such delays. This Article does not, however, preclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

ARTICLE 39. NON-BINDING DISPUTE RESOLUTION – FACILITATED NEGOTIATIONS

The Construction Manager and Principal Representative agree to designate one or more mutually acceptable persons willing and able to facilitate negotiations and communications for the resolution of conflicts, disagreements or disputes between them at the specific request of either party with regard to any Project decision of either of them or any decision of the Architect/Engineer. The designation of such person(s) shall not carry any obligation to use their services except that each party agrees that if the other party requests the intervention of such person(s) with respect to any such conflict, dispute or disagreement, the non-requesting party shall participate in good faith attempts to negotiate a resolution of the issue in dispute. If the parties cannot agree on a mutually acceptable person to serve in this capacity one shall be so appointed; provided, however, that either party may request the director of State Buildings Program to appoint such a person, who, if appointed, shall be accepted for this purpose by both the Construction Manager and the Principal Representative.

The cost, if any, of the facilitative services of the person(s) so designated shall be shared if the parties so agree in any partnering plan; or in the absence of agreement the cost shall be borne by the party requesting the facilitation of negotiation.

Any dispute, claim, question or disagreement arising from or relating to the Contract or an alleged breach of the Contract may be subject to a request by either party for facilitated negotiation subject to the limitations hereafter listed, and the parties shall participate by consultation and negotiation with each other, as guided by the facilitator and with recognition of their mutual interests, in an attempt to reach an equitable solution satisfactory to both parties.

The obligation to participate in facilitated negotiations shall be as described above and elsewhere in these General Conditions, as by way of example in Article 36, Claims, or Article 34, Deductions for Uncorrected Work and to the extent not more particularly described or limited elsewhere, each party's obligations shall be as follows:

1. a party shall not initiate communication with the facilitator regarding the issues in dispute; except that any request for facilitation shall be made in writing with copies sent, faxed or delivered to the other party;
2. a party shall prepare a brief written description of its position if so requested by the facilitator (who may elect to first discuss the parties' positions with each party separately in the interest of time and expense);
3. a party shall respond to any reasonable request for copies of documents requested by the facilitator, but such requests, if voluminous, may consist of an offer to allow the facilitator access to the parties' documents;
4. a party shall review any meeting agenda proposed by a facilitator and endeavor to be informed on the subjects to be discussed;
5. a party shall meet with the other party and the facilitator at a mutually acceptable place and time, or, if none can be agreed to, at the time and place designated by the facilitator for a period not to exceed four hours unless the parties agree to a longer period;

6. a party shall endeavor to assure that any facilitation meeting shall be attended by any other persons in their employ that the facilitator requests be present, if reasonably available, including the Architect/Engineer;
7. each party shall participate in such facilitated face-to-face negotiations of the issues in dispute through persons fully authorized to resolve the issue in dispute;
8. each party shall be obligated to participate in negotiations requested by the other party and to perform the specific obligations described in paragraphs (1) through (10) this Article 39, Facilitated Negotiation, no more than three times during the course of the Project;
9. neither party shall be under any obligation to resolve any issue by facilitated negotiation, but each agrees to participate in good faith and the Principal Representative shall direct the Architect/Engineer to appropriately document any resolution or agreement reached and to execute any Amendment or Change Order to the Contract necessary to implement their agreement; and,
10. any discussions and documents prepared exclusively for use in the negotiations shall be deemed to be matters pertaining to settlement negotiations and shall not be subsequently available in further proceedings except to the extent of any documented agreement.

In accordance with State Fiscal Rules and Article 52G, Prohibited Terms, nothing in this Article 39 shall be deemed to call for arbitration or otherwise obligate the State to participate in any form of binding alternative dispute resolution.

A partnering plan developed as described in Article 2D, Partnering, Communications and Cooperation, may modify or expand the requirements of this Article but may not reduce the obligation to participate in facilitated negotiations when applicable. In the case of small projects estimated to be valued under \$500,000, the requirements of this Article may be deleted from this Contract by modification in Article 6.3, Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Optional Provisions and Elections. When so modified, the references to the parties' right to elect facilitated negotiation elsewhere in these General Conditions shall be deleted.

ARTICLE 40. RIGHT OF OCCUPANCY

The Principal Representative shall have the right to take possession of and to use any completed or partially completed portions of the Work, even if the time for completing the entire Work or portions of the Work has not expired and even if the Work has not been finally accepted, and the Construction Manager shall fully cooperate with the Principal Representative to allow such possession and use. Such possession and use shall not constitute an acceptance of such portions of the Work.

Prior to any occupancy of the Project, an inspection shall be made by the Principal Representative, the Architect/Engineer, State Buildings Program and the Construction Manager. Such inspection shall be made for the purpose of ensuring that the building is secure, protected by operation safety systems as designed, operable exits, power, lighting and HVAC systems, and otherwise ready for the occupancy intended and the Notice of Substantial Completion has been issued for the occupancy intended. The inspection shall also document existing finish conditions to allow assessment of any damage by occupants. The Construction Manager shall assist the Principal Representative in completing and executing State Form SBP-01, Approval of Occupancy/Use, prior to the Principal Representative's possession and use. Any and all areas so occupied will be subject to a final inspection when the Construction Manager complies with Article 41, Completion, Final Inspection, Acceptance and Settlement.

ARTICLE 41. COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

A. NOTICE OF COMPLETION

When the Work, or a discrete physical portion of the Work (as hereafter described) which the Principal Representative has agreed to accept separately, is substantially complete and ready for final inspection, the Construction Manager shall file a written Notice with the Architect/Engineer that the Work, or such discrete physical portion, in the opinion of the Construction Manager, is substantially complete under the terms of the Contract. The Construction Manager shall prepare and submit with such Notice a comprehensive list of items to be completed or corrected prior to final

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payment, which shall be subject to review and additions as the Architect/Engineer or the Principal Representative shall determine after inspection. If the Architect/Engineer or the Principal Representative believe that any of the items on the list of items submitted, or any other item of Work to be corrected or completed, or the cumulative number of items of Work to be corrected or completed, will prevent a determination that the Work is substantially complete, those items shall be completed by the Construction Manager and the Notice shall then be resubmitted.

B. FINAL INSPECTION

Within ten (10) days after the Construction Manager files written Notice that the Work is substantially complete, the Architect/Engineer, the Principal Representative, and the Construction Manager shall make a "final inspection" of the Project to determine whether the Work is substantially complete and has been completed in accordance with the Contract Documents. State Buildings Program shall be notified of the inspection not less than three (3) business days in advance of the inspection. The Construction Manager shall provide the Principal Representative and the Architect/Engineer an updated punch list in sufficient detail to fully outline the following:

1. Work to be completed, if any; and
2. Work not in compliance with the Drawings or Specifications, if any.

A final punch list shall be made by the Architect/Engineer in sufficient detail to fully outline to the Construction Manager:

1. Work to be completed, if any;
2. Work not in compliance with the Drawings or Specifications, if any; and
3. unsatisfactory Work for any reason, if any.

The required number of copies of the final punch list will be countersigned by the authorized representative of the Principal Representative and will then be transmitted by the Architect/Engineer to the Construction Manager, the Principal Representative, and State Buildings Program. The Architect/Engineer's final punch list shall control over the Construction Manager's preliminary punch list.

C. NOTICE OF SUBSTANTIAL COMPLETION

Notice of Substantial Completion shall establish the date of substantial completion of the Project. The Construction Manager acknowledges and agrees that because the departments, agencies and institutions of the State of Colorado are generally involved with the business of the public at large, greater care must be taken in establishing the date of substantial completion than might otherwise be the case to ensure that a project or building or discrete physical portion of the Work is fully usable and safe for public use, and that such care necessarily raises the standard by which the concept of substantial completion is applied for a public building.

The Notice of Substantial Completion shall not be issued until the following have been fully established:

1. All required building code inspections have been called for and the appropriate code officials have affixed their signatures to the Building Inspection Record indicating successful completion of all required code inspections;
2. All required corrections noted on the Building Inspection Record shall have been completed unless the Architect/Engineer, the Principal Representative and State Buildings Program, in their complete and absolute discretion, all concur that the condition requiring the remaining correction is not in any way life threatening, does not otherwise endanger persons or property, and does not result in any undue inconvenience or hardship to the Principal Representative or the public;
3. The building, structure or Project can be fully and comfortably used by the Principal Representative and the public without undue interference by the Construction Manager's

- employees and Workers during the completion of the final punch list taking into consideration the nature of the public uses intended and taking into consideration any stage or level of completion of HVAC system commissioning or other system testing required by the Specifications to be completed prior to issuance of the Notice of Substantial Completion;
4. The Project has been fully cleaned as required by these General Conditions, and as required by any stricter requirements of the Specifications, and the overall state of completion is appropriate for presentation to the public; and
 5. The Construction Manager has provided a schedule for the completion of each and every item identified on the punch list which specifies the Subcontractor or trade responsible for the Work, and the dates the completion or correction of the item will be commenced and finished; such schedule will show completion of all remaining final punch list items within the period indicated in the Contract for final punch list completion prior to Final Acceptance, with the exception of only those items which are beyond the control of the Construction Manager despite due diligence. The schedule shall provide for a reasonable punch list inspection process. Unless liquidated damages have been specified in Article 7.4 of the Construction Manager's Design/Bid/Build Agreement SC-6.21), the cost to the Principal Representative, if any, for re-inspections due to failure to adhere to the Construction Manager's proposed punch-list completion schedule shall be the responsibility of the Construction Manager and may be deducted by the Principal Representative from final amounts due to the Construction Manager.

Substantial completion of the entire Project shall not be conclusively established by a decision by the Principal Representative to take possession and use of a portion, or all of the Project, where portions of the Project cannot meet all the criteria noted above. Notice of Substantial Completion for the entire Project shall, however, only be withheld for substantial reasons when the Principal Representative has taken possession and uses all of the Project in accordance with the terms of Article 40, Right of Occupancy. Failure to furnish the required completion schedule shall constitute a substantial reason for withholding the issuance of any Notice of Substantial Completion.

The Construction Manager shall have the right to request a final inspection of any discrete physical portion of the Project when in the opinion of the Principal Representative, The Architect/Engineer and State Buildings Program a final punch list can be reasonably prepared, without confusion as to which portions of the Project are referred to in any subsequent Notice of Partial Final Settlement which might be issued after such portion is finally accepted. Discrete physical portions of the Project may be, but shall not necessarily be limited to, such portions of the Project as separate buildings where a Project consists of multiple buildings. Similarly, an addition to an existing building where the Project also calls for renovation or remodeling of the existing building may constitute a discrete physical portion of the Project. In such circumstances, when in the opinion of the Principal Representative, the Architect/Engineer and State Buildings Program, the requirements for issuance of a Notice of Substantial Completion can be satisfied with respect to the discrete portion of the Project, a partial Notice of Substantial Completion may be issued for such discrete physical portion of the Project.

D. NOTICE OF ACCEPTANCE

The Notice of Acceptance shall establish the completion date of the Project. It shall not be authorized until the Construction Manager shall have performed all of the Work to allow completion and approval of the Pre-Acceptance Checklist (SBP-05).

Where partial Notices of Substantial Completion have been issued, partial Notices of Final Acceptance may be similarly issued when appropriate for that portion of the Work. Partial Notice of Final Acceptance may also be issued to exclude the Work described in Change Orders executed during late stages of the Project where a later completion date for the Change Ordered Work is expressly provided for in the Contract as amended by the Change Order, provided the Work can be adequately described to allow partial advertisement of any Notice of Partial Final Settlement to be issued without confusion as to the Work included for which final payment will be made.

E. SETTLEMENT

Final payment and settlement shall be made on the date fixed and published for such payment except as hereafter provided. The Principal Representative shall not authorize final payment until all items on the Pre-Acceptance check list (SBP-05) have been completed, the Notice of Acceptance issued, and the Notice of Contractors Settlement published. If the Work shall be substantially completed, but Final Acceptance and completion thereof shall be prevented through delay in correction of minor defects, or unavailability of materials or other causes beyond the control of the Construction Manager, the Principal Representative in his or her discretion may release all amounts due to the Construction Manager except such amounts as may be in excess of three times the cost of completing the unfinished Work or the cost of correcting the defective Work, as estimated by the Architect/Engineer and approved by State Buildings Program. Before the Principal Representative may issue the Notice of Contractor's Settlement and advertise the Project for final payment, the Construction Manager shall have corrected all items on the punch list except those items for which delayed performance is expressly permitted, subject to withholding for the cost thereof, and shall have:

1. Delivered to the Principal Representative:
 - a. All guarantees and warranties;
 - b. All statements to support local sales tax refunds, if any;
 - c. Required operating maintenance instructions as per the Principal Representative; and,
 - d. One (1) set of hard copy as-built Contract Documents, and one (1) electronic copy showing all job changes.
2. Demonstrated to the operating personnel of the Principal Representative the proper operation and maintenance of all equipment.
3. Delivered to the State of Colorado Department of Personnel & Administration in accordance with the Colorado Procurement Code or the applicable procurement code for institutions of higher education:
 - a. A written disclosure of the five most costly goods incorporated into the project, including iron, steel, or related manufactured goods and the total cost and country of origin of those five goods and whether the project was subject to any existing domestic content preferences.

Upon completion of the foregoing the Project shall be advertised in accordance with the Notice of Contractor's Settlement by two publications of Notice, the last publication appearing at least ten (10) days prior to the time of final settlement. Publication and final settlement should not be postponed or delayed solely by virtue of unresolved claims against the Project or the from Subcontractors, suppliers or materialmen based on good faith disputes; the resolution of the question of payment in such cases being directed by statute.

Except as hereafter provided, on the date of final settlement thus advertised, provided the Construction Manager has submitted a written Notice to the Architect/Engineer that no claims have been filed, and further provided the Principal Representative shall have received no claims, final payments and settlement shall be made in full. If any unpaid claim for labor, materials, rental machinery, tools, supplies or equipment is filed before payment in full of all sums due the Construction Manager, the Principal Representative and the State Controller shall withhold from the Construction Manager on the date established for final settlement, sufficient funds to insure the payment of such claim, until the same shall have been paid or withdrawn, such payment or withdrawal to be evidenced by filing a receipt in full or an order for withdrawal signed by the claimant or his or her duly authorized agent or assignee. The amount so withheld may be in the amount of 125% of the claims or such other amount as the Principal Representative reasonably deems necessary to cover expected legal expenses. Such withheld amounts shall be in addition to any amount withheld based on the cost to compete unfinished Work or the cost to repair defective Work.

However, as provided by statute, such funds shall not be withheld longer than ninety (90) days following the date fixed for final settlement with the Construction Manager, as set forth in the published Notice of Contractor's Settlement, unless an action at law shall be commenced within that time to enforce such unpaid claim and a Notice of such action at law shall have been filed with the Principal Representative and the State Controller. At the expiration of the ninety (90) day period, the Principal Representative shall authorize the State Controller to release to the Construction Manager all other money not the subject of such action at law or withheld based on the cost to complete unfinished Work or the cost to repair defective Work.

Notices of Partial Final Settlement may be similarly advertised, provided all conditions precedent have been satisfied as though that portion of the Work affected stood alone, a Notice of Partial Acceptance has been issued, and the consent of surety to the partial final settlement has been obtained in writing. Thereafter, partial final payments may be made to the Construction Manager subject to the same conditions regarding unpaid claims.

ARTICLE 42. GENERAL WARRANTY AND CORRECTION OF WORK AFTER ACCEPTANCE

The Construction Manager warrants that the materials used and the equipment furnished shall be new and of good quality unless specified to the contrary. The Construction Manager further warrants that the Work shall, in all respects, be free from material defects not permitted by the Specifications and shall be in accordance with the requirements of the Contract Documents. Neither the final certificate for payment nor any provision in the Contract Documents shall relieve the Construction Manager of responsibility for defects or faulty materials or Workmanship. The Construction Manager shall be responsible to the Principal Representative for such warranties for the longest period permitted by any applicable statute of limitations.

In addition to these general warranties, and without limitation of these general warranties, for a period of one year after the date of any Notice of Substantial Completion, or any Notice of Partial Substantial Completion if applicable, the Construction Manager shall remedy defects, and faulty Workmanship or materials, and Work not in accordance with the Contract Documents which was not accepted at the time of the Notice of Final Acceptance, all in accordance with the provisions of Article 44, One-Year Guarantee And Special Guarantees And Warranties.

ARTICLE 43. LIENS

Colorado statutes do not provide for any right of lien against public buildings. In lieu thereof, C.R.S. § 38-26-107, provides adequate relief for any claimant having furnished labor, materials, rental machinery, tools, equipment, or services toward construction of the particular public Work in that final payment may not be made to a Construction Manager until all such creditors have been put on Notice by publication in the public press of such pending payment and given opportunity for a period of up to ninety (90) days to stop payment to the Construction Manager in the amount of such claims.

ARTICLE 44. ONE-YEAR GUARANTEE AND SPECIAL GUARANTEES AND WARRANTIES

A. ONE-YEAR GUARANTEE OF THE WORK

The Construction Manager shall guarantee to remedy defects and repair or replace the Work for a period of one year from the date of the Notice of Substantial Completion or from the dates of any partial Notices of Substantial Completion issued for discrete physical portions of the Work. The Construction Manager shall remedy any defects due to faulty materials or Workmanship and shall pay for, repair and replace any damage to other Work resulting there from, which shall appear within a period of one year from the date of such Notice(s) of Substantial Completion. The Construction Manager shall also remedy any deviation from the requirements of the Contract Documents which shall later be discovered within a period of one year from the date of the Notice of Substantial Completion; provided, however, that the Construction Manager shall not be required to remedy deviations from the requirements of the Contract Documents where such deviations were obvious, apparent and accepted by the Architect/Engineer or the Principal Representative at the time of the Notice of Final Acceptance. The Principal Representative shall give Notice of observed defects or other Work requiring correction with reasonable promptness. Such Notice shall be in writing to the Architect/Engineer and the Construction Manager.

The one year guarantee of the Construction Manager's Work may run separately for discrete physical portions of the Work for which partial Notices of Substantial Completion have been issued, however, it shall run from the last Notice of Substantial Completion with respect to all or any systems common to the Work to which more than one Notice of Substantial Completion may apply.

This one-year guarantee shall not be construed to limit the Construction Manager's general warranty described in Article 42, General Warranty and Correction of Work After Acceptance, that all materials and equipment are new and of good quality, unless specified to the contrary, and that the Work shall in all respects be free from material defects not permitted by the Specifications and in accordance with the requirements of the Contract Documents.

B. SPECIAL GUARANTEES AND WARRANTIES

In case of Work performed for which product, manufacturers or other special warranties are required by the Specifications, the Construction Manager shall secure the required warranties and deliver copies thereof to the Principal Representative through the Architect/Engineer upon completion of the Work.

These product, manufacturers or other special warranties, as such, do not in any way lessen the Construction Manager's responsibilities under the Contract. Whenever guarantees or warranties are required by the Specifications for a longer period than one year, such longer period shall govern.

ARTICLE 45. GUARANTEE INSPECTIONS AFTER COMPLETION

The Architect/Engineer, the Principal Representative and the Construction Manager together shall make at least two (2) complete inspections of the Work after the Work has been determined to be substantially complete and accepted. One such inspection, the "Six-Month Guarantee Inspection," shall be made approximately six (6) months after date of the Notice of Substantial Completion, unless in the case of smaller projects valued under \$500,000 this inspection is declined in Article 6.1, Construction Manager/General Contractor's (CM/GC) Agreement (SC-6.5), Modification of Article 45, in which case the inspection to occur at six months shall not be required. Another such inspection, the "Eleven-Month Guaranty Inspection" shall be made approximately eleven (11) months after the date of the Notice of Substantial Completion. The Construction Manager shall schedule and so notify all parties concerned, and the Principal Representative shall so notify State Buildings Program, of these inspections. If more than one Notice of Substantial Completion has been issued at the reasonable discretion of the Principal Representative separate eleven month inspections may be required where the one year guarantees do not run reasonably concurrent.

Written punch lists and reports of these inspections shall be made by the Architect/Engineer and forwarded to the Construction Manager, the Principal Representative, State Buildings Program, and all other participants within ten (10) days after the completion of the inspections. The punch list shall itemize all guarantee items, prior punch list items still to be corrected or completed and any other requirements of the Contract Documents to be completed which were not waived by final acceptance because they were not obvious or could not reasonably have been previously observed. The Construction Manager shall immediately initiate such remedial Work as may be necessary to correct any deficiencies or defective Work shown by this report, and shall promptly complete all such remedial Work in a manner satisfactory to the Architect/Engineer, the Principal Representative and State Buildings Program.

If the Construction Manager fails to promptly correct all deficiencies and defects shown by this report, the Principal Representative may do so, after giving the Construction Manager ten (10) days written Notice of intention to do so.

The State of Colorado, acting by and through the Principal Representative, shall be entitled to collect from the Construction Manager all costs and expenses incurred by it in correcting such deficiencies and defects, as well as all damages resulting from such deficiencies and defects.

ARTICLE 46. TIME OF COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed, by and between the parties hereto, that the date of beginning, rate of progress, and the time for completion of the Work to be done hereunder are ESSENTIAL CONDITIONS of this Agreement, and it is understood and agreed that the Work embraced in this Contract shall be commenced at the time specified in the Notice to Proceed (SC-7.26).

It is further agreed that time is of the essence of each and every portion of this Contract, and of any portion of the Work described on the Drawings or Specifications, wherein a definite and certain length of time is fixed for the performance of any act whatsoever. The parties further agree that where under the Contract additional time is allowed for the completion of the Work or any identified portion of the Work, the new time limit or limits fixed by such extension of the time for completion shall be of the essence of this Agreement.

The Construction Manager acknowledges that subject to any limitations in the Advertisement for Bids, issued for the Project, the Construction Manager's bid is consistent with and considers the number of days to substantially complete the Project and the number of days to finally complete the Project to which the parties may have stipulated in the Agreement, which stipulation was based on the Construction Manager's bid. The Construction Manager agrees that Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure the Project will be substantially complete, and fully and finally complete, as recognized by the issuance of all required Notices of Substantial Completion and Notices of Final Acceptance, within any times stipulated and specified in the Agreement, as the same may be amended by Change Order or other written modification, and that the Principal Representative will be damaged if the times of completion are delayed.

It is expressly understood and agreed, by and between the parties hereto, that the times for the Substantial Completion of the Work or for the final acceptance of the Work as may be stipulated in the Agreement, and as applied here and in Article 6.1, Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Modifications of Article 46, are reasonable times for these stages of completion of the Work, taking into such consideration all factors, including the average climatic range and usual industrial conditions prevailing in the locality of the building operations.

If the Construction Manager shall neglect, fail or refuse to complete the Work within the times specified in the Agreement, such failure shall constitute a breach of the terms of the Contract and the State of Colorado, acting by and through the Principal Representative, shall be entitled to liquidated damages for such neglect, failure or refusal, as specified in Article 6.1, Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Modification of Article 46.

The Construction Manager and the Construction Manager's Surety shall be jointly liable for and shall pay the Principal Representative, or the Principal Representative may withhold, the sums hereinafter stipulated as liquidated damages for each calendar day of delay until the entire Project is 1) substantially completed, and the Notice (or all Notices) of Substantial Completion are issued, 2) finally complete and accepted and the Notice (or all Notices) of Acceptance are issued, or 3) both. Delay in substantial completion shall be measured from the Date of the Notice to Proceed and delay in final completion and acceptance shall be measured from the Date of the Notice of Substantial Completion.

In the first instance, specified in Article 6.1 of the Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Modification of Article 46, liquidated damages, if any, shall be the amount specified therein, for each calendar day of delay beginning after the stipulated number of days for Substantial Completion from the date of the Notice to Proceed, until the date of the Notice of Substantial Completion. Unless otherwise specified in any Supplementary General Conditions, in the event of any partial Notice of Substantial Completion, liquidated damages shall accrue until all required Notices of Substantial Completion are issued.

In the second instance, specified in Article 6.2 of the Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Modification of Article 46, liquidated damages, if any, shall be the amount specified in Article 6.2 of the Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), Modification of

Article 46, for each calendar day in excess of the number of calendar days specified in the Construction Manager's bid for the Project and stipulated in the Agreement to finally complete the Project (as defined by the issuance of the Notice of Acceptance) after the final Notice of Substantial Completion has been issued.

In the third instance, when so specified in both Articles 6.1 and 6.2 of the Construction Manager/General Contractor (CM/GC) Agreement (SC-6.5), both types of liquidated damages shall be separately assessed where those delays have occurred.

The parties expressly agree that said amounts are a reasonable estimate of the presumed actual damages that would result from any of the breaches listed, and that any liquidated damages that are assessed have been agreed to in light of the difficulty of ascertaining the actual damages that would be caused by any of these breaches at the time this Contract was formed; the liquidated damages in the first instance representing an estimate of damages due to the inability to use the Project; the liquidated damages in the second instance representing an estimate of damages due to the additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period including delivery of any or all guarantees and warranties, the submittals of sales and use tax payment forms, the calling for the final inspection and the completion of the final punch list.

The parties also agree and understand that the liquidated damages to be assessed in each instance are separate and distinct, although potentially cumulative, damages for the separate and distinct breaches of delayed substantial completion or final acceptance. Such liquidated damages shall not be avoided by virtue of the fact of concurrent delay caused by the Principal Representative, or anyone acting on behalf of the Principal Representative, but in such event the period of delay for which liquidated damages are assessed shall be equitably adjusted in accordance with Article 38, Delays and Extensions of Time.

ARTICLE 47. DAMAGES

If either party to this Contract shall suffer damage under this Contract in any manner because of any wrongful act or neglect of the other party or of anyone employed by either of them, then the party suffering damage shall be reimbursed by the other party for such damage. Except to the extent of damages liquidated for the Construction Manager's failure to achieve timely completion as set forth in Article 46, Time of Completion and Liquidated Damages, the Principal Representative shall be responsible for, and at his or her option may insure against, loss of use of any existing property not included in the Work, due to fire or otherwise, however caused. Notwithstanding the foregoing, or any other provision of this Contract, to the contrary, no term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act, Section 24-10-101, *et seq.*, CRS, as now or hereafter amended. The parties understand and agree that liability for claims for injuries to persons arising out of negligence of the State of Colorado, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of Section 24-10-101, *et seq.*, CRS, as now or hereafter amended and the risk management statutes, Section 24-30-1501, *et seq.*, CRS, as now or hereafter amended.

Notice of intent to file a claim under this clause shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except that in the case of claims by the Principal Representative involving warranties against faulty Work or materials Notice shall be required only to the extent stipulated elsewhere in these General Conditions. Claims made to the Principal Representative involving extra cost or extra time arising by virtue of instructions to the Construction Manager to which Article 36, Claims, applies shall be made in accordance with Article 36. Other claims arising under the Contract involving extra cost or extra time which are made to the Principal Representative under this clause shall also be made in accordance with the procedures of Article 36, whether or not arising by virtue of instructions to the Construction Manager; provided however that it shall not be necessary to first obtain or request a written judgment of the Architect/Engineer.

Provided written Notice of intent to file a claim is provided as required in the preceding paragraph, nothing in this Article shall limit or restrict the rights of either party to bring an action at law or to seek other relief to which either party may be entitled, including consequential damages, if any, and shall not be construed to limit the time during which any action might be brought. Nothing in these General Conditions shall be

deemed to limit the period of time during which any action may be brought as a matter of contract, tort, warranty or otherwise, it being the intent of the parties to allow any and all actions at law or in equity for such periods as the law permits. All such rights shall, however be subject to the obligation to assert claims and to appeal denials pursuant to Article 36, Claims, where applicable.

ARTICLE 48. STATE'S RIGHT TO DO THE WORK; TEMPORARY SUSPENSION OF WORK; DELAY DAMAGES

A. STATE'S RIGHT TO DO THE WORK

If after receipt of Notice to do so, the Construction Manager should neglect to prosecute the Work properly or fail to perform any provision of the Contract, the Principal Representative, after a second seven (7) days' advance written Notice to the Construction Manager and the Surety may, without prejudice to any other remedy the Principal Representative may have, take control of all or a portion of the Work, as the Principal Representative deems necessary and make good such deficiencies deducting the cost thereof from the payment then or thereafter due the Construction Manager, as provided in Article 30, Correction Of Work Before Acceptance and Article 33, Payments Withheld, provided, however, that the Architect/Engineer shall approve the amount charged to the Construction Manager by approval of the Change Order.

B. TEMPORARY SUSPENSION OF WORK

The State, acting for itself or by and through the Architect/Engineer, shall have the authority to suspend the Work, either wholly or in part, for such period or periods as may be deemed necessary due to:

1. Unsuitable weather;
2. Faulty Workmanship;
3. Improper superintendence or project management;
4. Construction Manager's failure to carry out orders or to perform any provision of the Contract Documents;
5. Loss of, or restrictions to, appropriations;
6. Conditions, which may be considered unfavorable for the prosecution of the Work.

If it should become necessary to stop Work for an indefinite period, the Construction Manager shall store materials in such manner that they will not become an obstruction or become damaged in any way; and he or she shall take every precaution to prevent damage to or deterioration of the Work, provide suitable drainage and erect temporary structures where necessary.

Notice of suspension of Work shall be provided to the Construction Manager in writing stating the reasons therefore. The Construction Manager shall again proceed with the Work when so notified in writing.

The Construction Manager understands and agrees that the State of Colorado cannot predict with certainty future revenues and could ultimately lack the revenue to fund the appropriations applicable to this Contract. The Construction Manager further acknowledges and agrees that in such event that State may, upon Notice to the Construction Manager, suspend the Work in anticipation of a termination of the Contract for the convenience of the State, pursuant to Article 50, Termination for Convenience of State. If the Contract is not so terminated the Contract sum and the Contract time shall be equitably adjusted at the time the Principal Representative directs the Work to be recommenced and gives Notice that the revenue to fund the appropriation is available.

C. DELAY DAMAGES

The Principal Representative and the State of Colorado shall be liable to the Construction Manager for the payment of any claim for extra costs, extra compensation or damages occasioned by hindrances or delays encountered in the Work only when and to the limited extent that such hindrance or delay is caused by an act or omission within the control of the Principal Representative,

the Architect/Engineer or other persons or entities acting on behalf of the Principal Representative. Further, the Principal Representative and the State of Colorado shall be liable to the Construction Manager for the payment of such a claim only if the Construction Manager has provided required Notice of the delay or impact, or has presented its claim for an extension of time or claim of other delay or other impact due to changes ordered in the Work before proceeding with the changed Work. Except as otherwise provided, claims for extension of time shall be Noticed and filed in accordance with Article 38, Delays and Extensions of Time, within three (3) business days of the beginning of the delay with any claim filed within seven (7) days after the delay has ceased, or such claim is waived. Claims for extension of time or for other delay or other impact resulting from changes ordered in the Work shall be presented and adjusted as provided in Article 35, Changes in the Work.

ARTICLE 49. STATE'S RIGHTS TO TERMINATE CONTRACT

A. GENERAL

If the Construction Manager should be adjudged bankrupt, or if he or she should make a general assignment for the benefit of his or her creditors, or if a receiver should be appointed to take over his affairs, or if he or she should fail to prosecute his or her Work with due diligence and carry the Work forward in accordance with the construction schedule and the time limits set forth in the Contract Documents, or if he or she should fail to subsequently perform one or more of the provisions of the Contract Documents to be performed by him, the Principal Representative may serve written Notice on the Construction Manager and the Surety on performance and payment bonds, stating his or her intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Principal Representative bases his or her right to exercise such remedy.

In such event, unless the matter complained of is satisfactorily cleared within ten (10) days after delivery of such Notice, the Principal Representative may, without prejudice to any other right or remedy, exercise one of such remedies at once, having first obtained the concurrence of the Architect/Engineer in writing that sufficient cause exists to justify such action.

B. CONDITIONS AND PROCEDURES

1. The Principal Representative may terminate the services of the Construction Manager, which termination shall take effect immediately upon service of Notice thereof on the Construction Manager and his or her Surety, whereupon the Surety shall have the right to take over and perform the Contract. If the Surety does not provide Notice to the Principal Representative of its intent to commence performance of the Contract within ten (10) days after delivery of the Notice of termination, the Principal Representative may take over the Work, take possession of and use all materials, tools, equipment and appliances on the premises and prosecute the Work to completion by such means as he or she shall deem best. In the event of such termination of his or her service, the Construction Manager shall not be entitled to any further payment under the Contract until the Work is completed and accepted. If the Principal Representative takes over the Work and if the unpaid balance of the contract price exceeds the cost of completing the Work, including compensation for any damages or expenses incurred by the Principal Representative through the default of the Construction Manager, such excess shall be paid to the Construction Manager. If, however, the cost, expenses and damages as certified by the Architect/Engineer exceed such unpaid balance of the contract price, the Construction Manager and his or her Surety shall pay the difference to the Principal Representative.
2. The Principal Representative may require the Surety on the Construction Manager's bond to take control of the Work and see to it that all the deficiencies of the Construction Manager are made good, with due diligence within ten (10) days of delivery of Notice to the Surety to do so. As between the Principal Representative and the Surety, the cost of making good such deficiencies shall all be borne by the Surety. If the Surety takes over the Work, either by election upon termination of the services of the Construction Manager pursuant to Section B(1) of this Article 49, State's Right To Terminate Contract, or upon instructions from the Principal Representative to do so, the provisions of the Contract Documents shall govern the Work to be done by the Surety, the Surety being substituted for the Construction Manager as to such

provisions, including provisions as to payment for the Work, the times of completion and provisions of this Article as to the right of the Principal Representative to do the Work or to take control of all or a portion of the Work.

3. The Principal Representative may take control of all or a portion of the Work and make good the deficiencies of the Construction Manager, or the Surety if the Surety has been substituted for the Construction Manager, with or without terminating the Contract, employing such additional help as the Principal Representative deems advisable in accordance with the provisions of Article 48A, State's Right To Do The Work; Temporary Suspension Of Work; Delay Damages. In such event, the Principal Representative shall be entitled to collect from the Construction Manager and his or her Surety, or to deduct from any payment then or thereafter due the Construction Manager, the costs incurred in having such deficiencies made good and any damages or expenses incurred through the default of Construction Manager, provided the Architect/Engineer approves the amount thus charged to the Construction Manager. If the Contract is not terminated, a Change Order to the Contract shall be executed, unilaterally if necessary, in accordance with the procedures of Article 35, Changes in the Work.

C. ADDITIONAL CONDITIONS

If any termination by the Principal Representative for cause is later determined to have been improper, the termination shall be automatically converted to and deemed to be a termination by the Principal Representative for convenience and the Construction Manager shall be limited in recovery to the compensation provided for in Article 50, Termination for Convenience of State. Termination by the Construction Manager shall not be subject to such conversion.

ARTICLE 50. TERMINATION FOR CONVENIENCE OF STATE

A. NOTICE OF TERMINATION

The performance of Work under this Contract may be terminated, in whole or from time to time in part, by the State whenever for any reason the Principal Representative shall determine that such termination is in the best interest of State. Termination of Work hereunder shall be effected by delivery to the Construction Manager of a Notice of such termination specifying the extent to which the performance of Work under the Contract is terminated and the date upon which such termination becomes effective.

B. PROCEDURES

After receipt of the Notice of termination, the Construction Manager shall, to the extent appropriate to the termination, cancel outstanding commitments hereunder covering the procurement of materials, supplies, equipment and miscellaneous items. In addition, the Construction Manager shall exercise all reasonable diligence to accomplish the cancellation or diversion of all applicable outstanding commitments covering personal performance of any Work terminated by the Notice. With respect to such canceled commitments, the Construction Manager agrees to:

1. settle all outstanding liabilities and all claims arising out of such cancellation of commitments, with approval or ratification of the Principal Representative, to the extent he or she may require, which approval or ratification shall be final for all purposes of this clause; and,
2. assign to the State, in the manner, at the time, and to the extent directed by the Principal Representative, all of the right, title, and interest of the Construction Manager under the orders and subcontracts so terminated, in which case the State shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

The Construction Manager shall submit his or her termination claim to the Principal Representative promptly after receipt of a Notice of termination, but in no event later than three (3) months from the effective date thereof, unless one or more extensions in writing are granted by the Principal Representative upon written request of the Construction Manager within such three-month period or authorized extension thereof. Upon failure of the Construction Manager to submit his or her termination claim within the time allowed, the Principal Representative may determine, on the basis

APPENDIX B - EXAMPLE AGREEMENT GENERAL CONDITIONS

of information available to him, the amount, if any, due to the Construction Manager by reason of the termination and shall thereupon pay to the Construction Manager the amount so determined.

Costs claimed, agreed to, or determined pursuant to the preceding and following paragraph shall be in accordance with the provisions of the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

Subject to the preceding provisions, the Construction Manager and the Principal Representative may agree upon the whole or any part of the amount or amounts to be paid to the Construction Manager by reason of the termination under this clause, which amount or amounts may include any reasonable cancellation charges thereby incurred by the Construction Manager and any reasonable loss upon outstanding commitments for personal services which he or she is unable to cancel; provided, however, that in connection with any outstanding commitments for personal services which the Construction Manager is unable to cancel, the Construction Manager shall have exercised reasonable diligence to divert such commitments to other activities and operations. Any such agreement shall be embodied in an Amendment to this Contract and the Construction Manager shall be paid the agreed amount.

The State may from time to time, under such terms and conditions as it may prescribe, make partial payments against costs incurred by the Construction Manager in connection with the termination portion of this Contract, whenever, in the opinion of the Principal Representative, the aggregate of such payments is within the amount to which the Construction Manager will be entitled hereunder.

The Construction Manager agrees to transfer title and deliver to the State, in the manner, at the time, and to the extent, if any, directed by the Principal Representative, such information and items which, if the Contract had been completed, would have been required to be furnished to the State, including:

- a. completed or partially completed plans, Drawings and information; and,
- b. materials or equipment produced or in process or acquired in connection with the performance of the Work terminated by the Notice.

Other than the above, any termination inventory resulting from the termination of the Contract may, with written approval of the Principal Representative, be sold or acquired by the Construction Manager under the conditions prescribed by and at a price or prices approved by the Principal Representative. The proceeds of any such disposition shall be applied in reduction of any payments to be made by the State to the Construction Manager under this Contract or shall otherwise be credited to the price or cost of Work covered by this Contract or paid in such other manners as the Principal Representative may direct. Pending final disposition of property arising from the termination, the Construction Manager agrees to take such action as may be necessary, or as the Principal Representative may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Construction Manager and in which the State has or may acquire an interest.

Any disputes as to questions of fact, which may arise hereunder, shall be subject to the Remedies provisions of the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

ARTICLE 51. CONSTRUCTION MANAGER'S RIGHT TO STOP WORK AND/OR TERMINATE CONTRACT

If the Work shall be stopped under an order of any court or other public authority for a period of three (3) months through no act or fault of the Construction Manager or of any one employed by him, then the Construction Manager may on seven (7) days' written Notice to the Principal Representative and the Architect/Engineer stop Work or terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained on any plant or material, and a reasonable profit only for the Work completed. If the Architect/Engineer shall fail to issue or otherwise act in writing upon any

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certificate for payment within ten (10) days after it is presented and received by the Architect/Engineer, as provided in Article 31, Applications For Payments, or if the Principal Representative shall fail to pay the Construction Manager any sum certified that is not disputed in whole or in part by the Principal Representative in writing to the Construction Manager and the Architect/Engineer within thirty (30) days after the Architect/Engineer's certification, then the Construction Manager may on ten (10) days' written Notice to the Principal Representative and the Architect/Engineer stop Work and/or give written Notice of intention to terminate this Contract.

If the Principal Representative shall thereafter fail to pay the Construction Manager any amount certified by the Architect/Engineer and not disputed in writing by the Principal Representative within ten (10) days after receipt of such Notice, then the Construction Manager may terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained upon any plant or materials, and a reasonable profit only for the Work completed. The Principal Representative's right to dispute an amount certified by the Architect/Engineer shall not relieve the Principal Representative of the obligation to pay amounts not in dispute as certified by the Architect/Engineer.

ARTICLE 52. SPECIAL PROVISIONS

A. CONTROLLER'S APPROVAL C.R.S. § 24-30-202(1)

This Contract shall not be deemed valid until it has been approved by the Colorado State Controller or designee.

B. FUND AVAILABILITY C.R.S. § 24-30-202(5.5)

Financial obligations of the State payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available

C. GOVERNMENTAL IMMUNITY

Liability for claims for injuries to persons or property arising from the negligence of the State, its departments, boards, commissions committees, bureaus, offices, employees and officials shall be controlled and limited by the provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 et seq.; the Federal Tort Claims Act, 28 U.S.C. Pt. VI, Ch. 171 and 28 U.S.C. 1346(b), and the State's risk management statutes, §§24-30-1501, et seq. C.R.S. No term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, contained in these statutes.

D. INDEPENDENT CONTRACTOR

Construction Manager shall perform its duties hereunder as an independent contractor and not as an employee. Neither Construction Manager nor any agent or employee of Construction Manager shall be deemed to be an agent or employee of the State. Construction Manager shall not have authorization, express or implied, to bind the State to any agreement, liability, or understanding, except as expressly set forth herein. **Construction Manager and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for Construction Manager or any of its agents or employees. Construction Manager shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this contract. Construction Manager shall (a) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, (b) provide proof thereof when requested by the State, and (c) be solely responsible for its acts and those of its employees and agents.**

E. COMPLIANCE WITH LAW

Construction Manager shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

F. CHOICE OF LAW, JURISDICTION, AND VENUE

Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this contract. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. All suits or actions related to this Contract shall be filed and proceedings held in the State of Colorado and exclusive venue shall be in the City and County of Denver.

G. PROHIBITED TERMS

Any term included in this Contract that requires the State to indemnify or hold Construction Manager harmless; requires the State to agree to binding arbitration; limits Construction Manager's liability for damages resulting from death, bodily injury, or damage to tangible property; or that conflicts with this provision in any way shall be void ab initio. Nothing in this Contract shall be construed as a waiver of any provision of C.R.S. §24-106-109. Any term included in this Contract that limits Contractor's liability that is not void under this section shall apply only in excess of any insurance to be maintained under this Contract, and no insurance policy shall be interpreted as being subject to any limitations of liability of this Contract.

H. SOFTWARE PIRACY PROHIBITION.

State or other public funds payable under this contract shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Construction Manager hereby certifies and warrants that, during the term of this contract and any extensions, Construction Manager has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Construction Manager is in violation of this provision, the State may exercise any remedy available at law or in equity or under this contract, including, without limitation, immediate termination of this contract and any remedy consistent with federal copyright laws or applicable licensing restrictions.

I. EMPLOYEE FINANCIAL INTEREST/CONFLICT OF INTEREST C.R.S. § 24-18-201 & C.R.S. § 24-50-507

The signatories aver that to their knowledge, no employee of the State has any personal or beneficial interest whatsoever in the service or property described in this contract. Construction Manager has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Construction Manager's services and Construction Manager shall not employ any person having such known interests.

J. VENDOR OFFSET AND ERRONEOUS PAYMENTS C.R.S. § 24-30-202(1) & C.R.S. § 24-30-202.4

Subject to C.R.S. § 24-30-202.4 (3.5), the State Controller may withhold payment under the State's vendor offset intercept system for debts owed to State agencies for: **(a)** unpaid child support debts or child support arrearages; **(b)** unpaid balances of tax, accrued interest, or other charges specified in C.R.S. § 39-21-101, et seq.; **(c)** unpaid loans due to the Student Loan Division of the Department of Higher Education; **(d)** amounts required to be paid to the Unemployment Compensation Fund; and **(e)** other unpaid debts owing to the State as a result of final agency determination or judicial action. The State may also recover, at the State's discretion, payments made to Construction Manager in error for any reason, including, but not limited to, overpayments or improper payments, and unexpended or excess funds received by Construction Manager by deduction from subsequent payments under this Contract, deduction from any payment due under any other contracts, grants or agreements between the State and Construction Manager, or by any other appropriate method for collecting debts owed to the State.

K. PUBLIC CONTRACTS FOR SERVICES. C.R.S. § 8-17.5-101.

Construction Manager certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform Work under this contract and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform Work under this contract, through participation in the E-Verify Program or the Department program established pursuant to C.R.S. § 8-17.5-102(5)(c), Construction Manager shall not knowingly employ or contract with an illegal alien to perform Work under this contract or enter into a contract with a subcontractor that fails to certify to Construction Manager that the subcontractor shall not knowingly employ or contract with an illegal alien to perform Work under this contract. Construction Manager **(a)** shall not use E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed, **(b)** shall notify the subcontractor and the contracting State agency within three days if Construction Manager has actual knowledge that a subcontractor is employing or contracting with an illegal alien for Work under this contract, **(c)** shall terminate the subcontract if a subcontractor does not stop employing or contracting with the illegal alien within three days of receiving the notice, and **(d)** shall comply with reasonable requests made in the course of an investigation, undertaken pursuant to C.R.S. § 8-17.5-102(5), by the Colorado Department of Labor and Employment. If Construction Manager participates in the Department program, Construction Manager shall deliver to the contracting State agency, Institution of Higher Education or political subdivision a written, notarized affirmation, affirming that Construction Manager has examined the legal Work status of such employee, and shall comply with all of the other requirements of the Department program. If Construction Manager fails to comply with any requirement of this provision or C.R.S. § 8-17.5-101 et seq., the contracting State agency, institution of higher education or political subdivision may terminate this contract for breach and, if so terminated, Construction Manager shall be liable for damages.

L. PUBLIC CONTRACTS WITH NATURAL PERSONS. C.R.S. § 24-76.5-101.

Construction Manager, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that he or she **(a)** is a citizen or otherwise lawfully present in the United States pursuant to federal law, **(b)** shall comply with the provisions of C.R.S. § 24-76.5-101 et seq., and **(c)** has produced one form of identification required by C.R.S. § 24-76.5-103 prior to the effective date of this contract.

ARTICLE 53. MISCELLANEOUS PROVISIONS

A. CONSTRUCTION OF LANGUAGE

The language used in these General Conditions shall be construed as a whole according to its plain meaning, and not strictly for or against any party. Such construction shall, however, construe language to interpret the intent of the parties giving due consideration to the order of precedence noted in Article 2C, Intent of Documents.

B. SEVERABILITY

Provided this Agreement can be executed and performance of the obligations of the Parties accomplished within its intent, the provisions hereof are severable and any provision that is declared invalid or becomes inoperable for any reason shall not affect the validity of any other provision hereof, provided that the Parties can continue to perform their obligations under this Agreement in accordance with its intent.

C. SECTION HEADINGS

The captions and headings in this Agreement are for convenience of reference only, and shall not be used to interpret, define, or limit its provisions.

D. AUTHORITY

Each person executing the Agreement and its Exhibits in a representative capacity expressly represents and warrants that he or she has been duly authorized by one of the parties to execute the Agreement and has authority to bind said party to the terms and conditions hereof.

E. INTEGRATION OF UNDERSTANDING

This Contract is intended as the complete integration of all understandings between the parties and supersedes all prior negotiations, representations, or agreements, whether written or oral. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written Change Order or Amendment to this Contract.

F. NO THIRD PARTY BENEFICIARIES

Enforcement of this Agreement and all rights and obligations hereunder are reserved solely to the Parties. Any services or benefits which third parties receive as a result of this Contract are incidental to the Contract, and do not create any rights for such third parties.

G. WAIVER

Waiver of any breach under a term, provision, or requirement of this Agreement, or any right or remedy hereunder, whether explicitly or by lack of enforcement, shall not be construed or deemed as a waiver of any subsequent breach of such term, provision or requirement, or of any other term, provision, or requirement.

H. INDEMNIFICATION

Construction Manager shall indemnify, save, and hold harmless the State, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees, to the extent such claims are caused by any negligent act or omission of the Construction Manager, its employees, agents, subcontractors or assignees pursuant to the terms of this Contract, but not to the extent such claims are caused by any negligent act or omission of, or breach of contract by, the State, its employees, agents, other contractors or assignees, or other parties not under control of or responsible to the Construction Manager.

I. STATEWIDE CONTRACT MANAGEMENT SYSTEM

If the maximum amount payable to Construction Manager under this Contract is \$100,000 or greater, either on the Effective Date or at any time thereafter, this shall apply. Construction Manager agrees to be governed by and comply with the Colorado Procurement Code or the applicable procurement code for institutions of higher education, regarding the monitoring of vendor performance and the reporting of contract performance information in the State's contract management system ("Contract Management System" or "CMS"). Construction Manager performance shall be subject to evaluation and review in accordance with the terms and conditions of this Contract, Colorado statutes governing CMS, and State Fiscal Rules and State Controller policies.

J. CORA DISCLOSURE

To the extent not prohibited by federal law, this Agreement and the performance measures and standards under the Colorado Procurement Code or the applicable procurement code for institutions of higher education, if any, are subject to public release through the Colorado Open Records Act, C.R.S. § 24-72-201, et seq.

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS CONSTRUCTION
MANAGER/GENERAL CONTRACTOR – SUPPLEMENTARY GENERAL CONDITIONS

The Construction Manager/General Contractor Agreement shall be amended as follows:

Article 3.4.2.2 Change language to: The construction contingency for the Work shall be equal to three percent (3.0%) of the initial Guaranteed Maximum Price.

The terms University, University of Colorado, University of Colorado Denver, University of Colorado Anschutz Medical Campus, CU Denver, CU Anschutz, Principal Representative, are the interchangeable for this replacement of Article 11.

ARTICLE 11 INSURANCE - Replace Article 11 as follows:

For purposes of this supplement “Contractor” as used herein shall mean, as appropriate to the State Contract form being used, Contractor, Standing Order Contractor, Construction Manager/General Contractor, or Design/Build Entity.

The Contractor shall obtain and maintain, at its own expense and for the duration of the contract including any warranty periods under the Contract are satisfied, the insurance coverages set forth below.

By requiring such insurance, the Principal Representative shall not be deemed or construed to have assessed the risk that may be applicable to the Contractor its agents, representatives, employees or subcontractors under this contract. The insurance requirements herein for this Contract in no way limit the indemnity covenants contained in the Contract. The Principal Representative in no way warrants that the limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees, or subcontractors. The Contractor shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverages. The Contractor is not relieved of any liability or other obligations assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types.

COVERAGES AND LIMITS OF INSURANCE - - Contractor shall provide coverage with limits of liability not less than those stated below.

1. **Commercial General Liability – ISO CG 0001 or equivalent. Coverage to include:**
 - Premises and Operations
 - Explosions, Collapse and Underground Hazards
 - Personal / Advertising Injury
 - Products / Completed Operations

- Liability assumed under an Insured Contract (including defense costs assumed under contract)
- Independent Contractors
- Designated Construction Projects(s) General Aggregate Limit, ISO CG 2503 (1997 Edition)
- Additional Insured—Owners, Lessees or Contractors Endorsement, ISO Form 2010 (2004 Edition or equivalent)
- Additional Insured—Owners, Lessees or Contractors Endorsement (Completed Operations), ISO CG 2037 (7/2004 Edition or equivalent)
- **The policy shall be endorsed to include the following additional insured language on the Additional Insured Endorsements specified above: “The Regents of the University of Colorado, a Body Corporate, named as an additional insured with respect to liability and defense of suits arising out of the activities performed by, or on behalf of the Contractor, including completed operations”.**
- Commercial General Liability Completed Operations policies must be kept in effect for up to three (3) years after completion of the project. For buildings with a construction cost greater than \$99 million, the Commercial General Liability Completed Operations policies must be kept in effect for up to eight (8) years after the completion of the project.
- **An umbrella and/or excess liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a “following form” basis.**

Liability Limits	General Aggregate	Products/Completed Operation Aggregate	Each Occurrence	Personal/Advertising Injury
Primary General Liability	\$2,000,000	\$2,000,000	\$1,000,000	\$1,000,000
Umbrella or Excess Liability*	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000

***Umbrella or Excess Liability does not apply to projects totaling \$500,000 or under.**

The following exclusionary endorsements are prohibited in the CGL policy:

1. Damage to work performed by subcontract/vendor (CG 22-94 or similar);
2. Contractual liability coverage exclusion modifying or deleting the definition of an “insured contract”;
3. If applicable to the work to be performed: Residential or multi-family;
4. If applicable to the work to be performed: Exterior insulation finish systems;
5. If applicable to the work to be performed: Subsidence or earth movement.

2. **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of this contract

Minimum Limits:

Bodily Injury/Property Damage (Each Accident) \$ 1,000,000

3. **Workers Compensation**

- Statutory Benefits (Coverage A)
 - Employers Liability (Coverage B)
- a. Policy shall contain a waiver of subrogation in favor of the Principal Representative.
- b. This requirement shall not apply when a contractor or subcontractor is exempt under Colorado Workers' Compensation Act., **AND** when such contractor or subcontractor executes the appropriate sole proprietor waiver form.

Minimum Limits:

Coverage A (Workers' Compensation)	Statutory
Coverage B (Employers Liability)	
Each accident	\$ 100,000
Disease each employee	\$ 100,000
Disease policy limit	\$ 500,000

4. **Contractors Pollution Liability**

- Coverage shall apply to sudden and gradual pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants (including asbestos). Policy shall cover the Contractor's completed operations.
- If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed.
- **The policy shall be endorsed to include the following as Additional Insureds: The Regents of the University of Colorado, a Body Corporate, named as an additional insured with respect to liability and defense of suits arising out of the activities performed by, or on behalf of the Construction Manager, including completed operations.**
- Endorsements CA9948 and MCS-90 are required on the Automobile Liability Coverage if the Contractor is transporting any type of hazardous materials.
- **Contractors Pollution Liability policies must be kept in effect for up to three (3) years after completion of the project.**

Minimum Limits (Projects at or under \$500,000):

Per Loss	\$ 1,000,000
Aggregate	\$ 1,000,000

Minimum Limits (Projects over \$500,000):

Per Loss	\$ 2,000,000
Aggregate	\$ 2,000,000

5. **Professional Liability (Errors and Omissions)**

(This Professional Liability requirement applies only to Design/Build Entity SC-8.0 and 9.0.)

- The Contractor shall maintain Errors and Omissions Liability covering negligent acts, errors and/or omissions, including design errors of the Contractor for damage sustained by reason of or in the course of operations under this Contract. The policy/coverages shall be amended to include the following:

Amendment of any Contractual Liability Exclusion to state: "This exclusion does not apply to any liability of others which you assume under a written contract provided such liability is caused by your negligent acts."

- In the event that any professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning at the time work under this Contract is completed.
- Policy shall contain a waiver of subrogation against The Regents of the University of Colorado, a Body Corporate.

Wrongful Act	\$2,000,000
General Aggregate	\$2,000,000

6. **Builder's Risk/ Installation Floater**

Unless otherwise provided or instructed by the Principal Representative, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the project is located, Builder's Risk Insurance in the amount of the initial contract amount as well as subsequent modifications for the entire project at the site on a replacement cost basis without optional deductibles. This coverage is required for new buildings or additions to existing buildings and for materials and equipment to be installed in existing structures.

- Covered Cause of Loss: Special Form
 - Include Theft and Vandalism
 - Labor costs to repair damaged work
 - Shall be written for 100% of the completed value (replacement cost basis)
 - Deductible maximum is \$50,000.00
 - Waiver of Subrogation is to apply
 - The Regents of the University of Colorado, a body corporate, shall be added as **Additional Named Insured on Builders Risk.**
1. Policy must provide coverage from the time any covered property becomes the responsibility of the Contractor, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.
 2. The Policy shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Principal Representative has insurable interest in the property to be covered, whichever is later.
 3. The Builder's Risk insurance shall include interests of the Principal Representative, and if applicable, affiliated or associated entities, the General Contractor, subcontractors and sub-tier contractors in the project.
 4. Builders' Risk Coverage shall be on a **Special** Covered Cause of Loss Form and shall include theft, vandalism, malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition, increased cost of construction, architect's fees and expenses, flood (including water damage), earthquake, and if applicable, all below and above ground structures, piping, foundations including underground water and sewer mains, piling including the ground on which the structure rests and excavation, backfilling, filling, and grading. Equipment Breakdown Coverage (a.k.a.

Boiler & Machinery) shall be included as required by the Contract Documents or by law, which shall specifically cover insured equipment during installation and testing (including hot testing, where applicable). Other coverages may be required if provided in contract documents.

5. The Builders' Risk shall be written for 100% of the completed value (replacement cost basis) of the work being performed. The Builders' Risk shall include the following provisions:
 - a. Replacement Cost Basis - including modification of the valuation clause to cover all costs needed to repair the structure or work (including overhead and profits) and will pay based on the values figured at the time of rebuilding or repairing, not at the time of loss
 - b. Modify or delete exclusion pertaining to damage to interior of building caused by an perils insured against are covered; also provide coverage for water damage

Note, if the addition, or renovation is to an existing building, The Principal Representative requires that the Contractor provide as an option to include the existing building into the Builders' Risk Policy. The Principal Representative shall provide the replacement cost value of the existing building
6. At the option of the Principal Representative, the Principal Representative may include Soft Costs (including Loss of Use)/Delay in Opening Endorsement under the builder's risk policy. The Principal Representative agrees to provide the necessary exposure base information for quotation by the Builder's Risk carrier. The Principal Representative agrees to pay the premium associated with the Soft Costs coverage, the Principal Representative decides to purchase this coverage.
7. The Builders' Risk Policy shall specifically permit occupancy of the building during construction. Partial occupancy or use of the work shall not commence until the insurance company or companies providing insurance have consented to such partial occupancy or use. The Principal Representative and Contractor shall take reasonable steps to obtain consent of the insurance company or companies and delete any provisions with regard to restrictions within any Occupancy Clauses within the Builders' Risk Policy. The Builders' Risk Policy shall remain in force until acceptance of the project by the Principal Representative.
8. The deductible shall not exceed \$50,000 and shall be the responsibility of the Contractor except for losses such as flood (not water damage), earthquake, windstorm, tsunami, volcano, etc. Losses in excess of \$50,000 insured shall be adjusted in conjunction with the Principal Representative. Any insurance payments/proceeds shall be made payable to the Principal Representative subject to requirements of any applicable mortgagee clause.

The Contractor shall pay subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require subcontractors to make payments to their sub-subcontractors in similar manner.

The Principal Representative shall have the authority to adjust and settle any losses in excess of \$50,000 with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Principal Representative exercise of this power. It is expressly agreed that nothing in this section shall be subject to arbitration and any references to arbitration are expressly deleted.

9. The Contractor is responsible for providing 45 days' notice of cancellation to the Principal Representative. The policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to the Project.

If the Contractor does not intend to purchase such Builder's Risk Insurance required by the Contract and with all of the coverages in the amount described above, the Contractor shall so inform the Principal Representative as stated in writing prior to commencement of the work. The Principal Representative may then affect insurance that will protect the interests of the Principal Representative, the General Contractor, Subcontractors and sub-tier contractors in the project. Coverages applying shall be the same as stated above including other coverages that may be required by the Principal Representative. The cost shall be charged to the Contractor. Coverage shall be written for 100% of the completed value of the work being performed, with a deductible not to exceed \$50,000 per occurrence for most projects.

All deductibles will be assumed by the Contractor. Waiver of Subrogation is to apply against all parties named as insureds, but only to the extent the loss is covered, and Beneficial Occupancy Endorsements are to apply.

If the Principal Representative is damaged by the failure or neglect of the Contractor to purchase or maintain insurance as described above, without so notifying the Principal Representative, then the Contractor shall bear all reasonable costs properly attributable thereto.

ADDITIONAL INSURANCE REQUIREMENTS

1. All insurers must be licensed or approved to do business within the State of Colorado, and unless otherwise specified, all policies must be written on a per occurrence basis.
2. Contractor's insurance carrier should possess a minimum A.M. Best's Insurance Guide rating of A- VI.
3. On insurance policies where the Principal Representative are named as additional insureds, the Principal Representative shall be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.
4. Contractor shall furnish the Principal Representative with certificates of insurance (ACORD form or equivalent approved by the Principal Representative) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.
All certificates and any required endorsements are to be received and approved by the Principal Representative before work commences.
Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.
5. Upon request by the Principal Representative, Contractor must provide a copy of the actual insurance policy effecting coverage(s) required by the contract.
6. The Contractor's insurance coverage shall be primary insurance and non-contributory with respect to all other available resources.
7. The Contractor shall advise the Principal Representative in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limit. At their own expense, the Contractor will reinstate the aggregate limits to comply with the minimum requirements and shall furnish to the Principal Representative a new certificate of insurance showing such coverage is in force.
8. Provide a minimum of thirty (30) days advance written notice to the Principal Representative for cancellation, non-renewal, or material changes to policies required under the Contract (45 days for builders' risk coverage).
9. Certificate Holder: The Regents of the University of Colorado, Project Management, 1945 North Wheeling Street, Campus Mail stop F-418, Aurora, CO 80045.

Failure of the Contractor to fully comply with these requirements during the term of the Contract may be considered a material breach of contract and may be cause for immediate termination of the Contract at the option of the Principal Representative. The Principal Representative reserves the right to negotiate additional specific insurance requirements at the time of the contract award.

Subcontractors

Contractor's certificate(s) shall include all subcontractors as additional insureds under its policies **or** subcontractors shall maintain separate insurance as determined by the Contractor, however, subcontractor's limits of liability shall not be less than \$1,000,000 per occurrence / \$2,000,000 aggregate.

Non-Waiver

The parties hereto understand and agree that The Principal Representative is relying on, and does not waive or intend to waive by any provision of this Contract, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, et seq., as from time to time amended, or otherwise available to the Principal Representative or its officers, employees, agents, and volunteers.

Mutual Cooperation

The Principal Representative and Contractor shall cooperate with each other in the collection of any insurance proceeds which may be payable in the event of any loss, including the execution and delivery of any proof of loss or other actions required to effect recovery.

(Revised 12/09/2019)

ARTICLE 21. MISCELLANEOUS. PROVISIONS

Delete the following section except for Projects that are ARRA funded:

21.22 STATEWIDE CONTRACT MANAGEMENT SYSTEM

Add the following:

21.24 UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS POLICY ON SEXUAL HARASSMENT

- .1 The Contractor shall vigorously pursue to the greatest extent possible, adherence to the university Policy on Sexual Harassment and also require all employees, and employees of all professional consultants of any kind, working on this project to adhere to this Policy.
- .2 Statement of Policy: It is the policy of the university to maintain the community as a place of work, study, and residence free of sexual harassment or exploitation of students, faculty, staff, and administrators. Sexual harassment is prohibited on campus and in the university programs. The university is committed to taking appropriate action against any of its officials, employees or students who violate the policy prohibiting sexual harassment.
- .3 Definition of Sexual Harassment: For purposes of this Policy, sexual harassment is defined as conduct which is unwelcome and consists of:

1. sexual advances; 2. requests for sexual favors; or 3. other verbal or physical conduct of a sexual nature when submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic decisions affecting the individual; or when such conduct has the purpose or effect, of unreasonably interfering with an individual's work or academic performance by creating an intimidating, hostile, or offensive working or educational environment.

Conduct prohibited under this policy may occur between persons of the same sex or of different sexes and may manifest itself in different ways. For example, sexual harassment may be as undisguised as a direct solicitation of sexual favors, or arise from behavior which has the effect of creating an intimidating, hostile, or offensive educational or working environment. In this regard, the following types of acts, if pervasive and continuous, are more likely than not to be considered sexual harassment: unwelcome physical contact, sexual remarks about a person's clothing, body, or sexual relations, conversation of a sexual nature or similar jokes and stories, and the display of sexually explicit materials in the workplace or their use in the classroom without defensible educational purpose.

- .4 Consequence of Sexual Offenses: The university may require the Architect/Engineer to remove from the university property any individual or individuals who violate the policy prohibiting sexual harassment.
- .5 Contractor acknowledges that all Contractor employees, agents and representatives providing services to the University of Colorado Denver | Anschutz Medical Campus are responsible for complying with University policies and procedures. This includes, without limitation, policies related to professional conduct, sexual misconduct (including non-consensual sexual intercourse, non-consensual sexual contact, sexual exploitation, sexual harassment, intimate partner abuse, and stalking), and discrimination and harassment based on protected characteristic identity (including race, color, national origin, pregnancy, sex, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy). Please see <http://equity.ucdenver.edu/policies-procedures/>.
- .6 Contractor agrees that its employees, agents and representatives who engage in conduct prohibited by University policies, including related retaliation or failure to report, as determined in the University's sole discretion, will be subject to disciplinary action, up to and including termination by Contractor consistent with Contractor's policies and procedures
- .7 Further, as Contractor recognizes and agrees that its selection and hiring of individuals who possess expertise and professional skills to carry out Contractor's obligations in an appropriate and non-discriminatory manner that reflects positively on the University's goodwill and reputation is an essential condition to inducing the University to enter into the Agreement, Contractor agrees to remove or replace any individual whose work or performance under this Agreement is considered by the University as acting inappropriately, unprofessionally, or violating any University policy, in the University's sole discretion, including, without limitation, the aforementioned policies.

- .8 Contractor acknowledges that Contractor's activities involve heightened risks as a result of access or exposure by Contractor's employees or agents to one or more security sensitive environments. Contractor expressly acknowledges that Contractor shall take all commercially reasonable measures to mitigate any such risks, which measures shall include but are not limited to conducting criminal history checks, financial background checks when appropriate, and reference checks on all employees or agents who will be performing work at the University. Upon University request, Contractor shall certify in writing that it has complied with this provision and that all employees, agents, and subcontractors performing work hereunder have satisfactorily completed Contractor's background check.

21.25 UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS POLICY ON SECURITY BADGING

- 1) All costs and time associated with obtaining a University security badge for Contractor employees working on campus shall be borne by the Contractor.

Appendix C

CERTIFICATION AND AFFIDAVIT REGARDING Unauthorized Immigrants (Form UI-1)



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

CERTIFICATION AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS

Institution/Agency: University of Colorado Denver (GFE)
22-106067 / CU Denver College of Engineering, Design, and Computing Building and North
Project No./Name: Classroom Renovations

A. CERTIFICATION STATEMENT CRS 8-17.5-101 & 102 (HB 06-1343, SB 08-193)

The Vendor, whose name and signature appear below, certifies and agrees as follows:

1. The Vendor shall comply with the provisions of CRS 8-17.5-101 et seq. The Vendor shall not knowingly employ or contract with an unauthorized immigrant to perform work for the State or enter into a contract with a subcontractor that knowingly employs or contracts with an unauthorized immigrant.
2. The Vendor certifies that it does not now knowingly employ or contract with an unauthorized immigrant who will perform work under this contract, and that it will participate in either (i) the "E-Verify Program", jointly administered by the United States Department of Homeland Security and the Social Security Administration, or (ii) the "Department Program" administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired to perform work under this contract.
3. The Vendor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. If the Vendor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate work for breach and the Vendor shall be liable for damages to the State.

Or

B. SOLE PROPRIETOR AFFIDAVIT CRS 24-76.5-101 (HB 06S-1023)

1. If the Vendor is a **sole proprietor**, the undersigned hereby swears or affirms under penalty of perjury under the laws of the State of Colorado that (check one):

- ☐ I am a United States citizen, or
- ☐ I am a Permanent Resident of the United States, or
- ☐ I am lawfully present in the United States pursuant to Federal law.

I understand that this sworn statement is required by law because I am a sole proprietor entering into a contract to perform work for the State of Colorado. I understand that state law requires me to provide proof that I am lawfully present in the United States prior to starting work for the State. I further acknowledge that I will comply with the requirements of CRS 24-76.5-101 et seq. and will produce the required form of identification prior to starting work. I acknowledge that making a false, fictitious, or fraudulent statement or representation in this sworn affidavit is punishable under the criminal laws of Colorado as perjury in the second degree under CRS 18-8-503 and it shall constitute a separate criminal offense each time a public benefit is fraudulently received.

CERTIFIED and AGREED to this _____ day of _____, 20____.

VENDOR:

Vendor Full Legal Name

BY

:

Signature of Authorized Representative

Title

Appendix D

DIRECT LABOR BURDEN (SBP-6.18)



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

DIRECT LABOR BURDEN CALCULATION

Institution/Agency: _____
Project No./Name: _____

This form is required to be submitted for review prior to execution of a construction agreement.

List items below by the percentage of what makes up the total labor burden; Items include benefits that a contractor pays to employees on their payroll. Examples include taxes, pension cost, health and dental insurance etc. The Labor Burden amount must be agreed to by both the contractor and Principal Representative and will be included in the contract as part of Exhibit A and will be used in the calculation of any future Change Order Proposals (SC-6.312) Line 2.

Major sub-contractors defined as electricians, plumbers, mechanical contractors, excavators, millwork, concrete, block layers etc. Please provide one (1) Labor Burden Calculation Sheet per contractor and for each sub-contractor. These labor burdens shall be used in the calculation of any future Change Order Proposals (SC-6.312) Line 10.

State reserves the right to require back-up confirmation of all information included in this calculation.

	Percent of Salary Paid	
Payroll Taxes		
Pension Costs		
Health Insurance		
Dental Insurance		
Life Insurance		
Other (Specify)		Description: _____
Other (Specify)		Description: _____
Total Labor Burden:	0%	

Appendix E

APPLICABLE PREVAILING WAGE RATES

NOT APPLICABLE FOR THIS PROJECT.

Appendix F

APPRENTICESHIP CERTIFICATION (SBP-6.17)



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

APPRENTICESHIP UTILIZATION CERTIFICATION
(Public Projects of \$1 million or more)

Institution/Agency: _____
Project No./Name: _____

For each trade listed below attach documentation that all firms identified participate in apprenticeship programs as described in the Certification Statement below.

TRADE	SUBCONTRACTOR
Mechanical	
Sheet Metal	
Fire Suppression	
Sprinkler Fitting	
Plumbing	
Electrical	

CERTIFICATION STATEMENT § 24-92-115, C.R.S. (SB 19-196)

The above named General Contractor certifies and agrees as follows:

That all firms identified above participate in apprenticeship programs registered with the United States Department of Labor's Employment and Training Administration or state apprenticeship councils recognized by the United States Department of Labor and have a proven record of graduating apprentices at a minimum of fifteen percent of its apprentices for at least three of the past five years. The General Contractor shall supply supporting documentation from the United States Department of Labor's office of apprenticeship verifying the certification.

The above documentation shall be made publicly available by the contracting agency through its website within thirty (30) days from when it is submitted.

The General Contractor shall agree to provide additional documentation to the contracting agency regarding affected apprenticeship training programs relating to the requirements above. If a contracting agency determines that a subcontractor has willfully falsified documentation or willfully misrepresented their qualifications, the agency shall direct the General Contractor to terminate the subcontractor contract immediately and the subcontractor will be immediately removed from the public project. At the discretion of the Director of the Department of Personnel, the State may initiate the process to debar the General Contractor pursuant to § 24-109-105, C.R.S., and may pursue any other remedy provided by law.

CERTIFIED and AGREED to this _____ day of _____, 20____.

GENERAL CONTRACTOR:

Full Legal Name

BY: _____

Signature of Authorized Representative

Title

Appendix G

PROGRAM PLAN ETC *(Optional)*



University of Colorado **Denver**

CU Denver CEDC

University of Colorado Denver

**College of Engineering, Design,
and Computing**

2021 Program Plan Amendment

ZGF

April 1, 2021

Acknowledgements

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View of North End of CEDC Building

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01



Executive Summary

The University of Colorado Denver is taking the next steps to advance the College of Engineering, Design and Computing. The next phase of the College will enable adaptation and delivery of technological innovations that will impact Colorado and the World.

The College of Engineering, Design and Computing (CEDC) Project creates a new complex for engineering and innovation at The University of Colorado Denver and an enhanced gateway into the CU neighborhood. Located at the intersection of Speer Boulevard and Larimer Street, the CEDC project is comprised of a 94,200 GSF engineering laboratory building and approximately 46,000 SF of site improvements.

The site includes a public plaza that celebrates the entrance into the CU neighborhood, an engineering “alley” that includes outdoor laboratory work space, service area, and pedestrian connectors between the project and adjacent buildings, including a proposed pedestrian bridge connecting to North Classroom at the 2nd floor.

The CEDC building will be a cross-disciplinary teaching and research facility, drawing users from beyond the College. The new building will reflect a redesigning of engineering education that will prepare students for a world that is changing at an unprecedented pace. It will promote accelerated innovation and meaningful student-faculty interaction, as well as attract outside industry partners that are important to the success of student recruiting and retention.

The total project budget for the CEDC Project is \$80,911,629. A request for state capital construction funding for 74% of the total project cost (\$59,874,606) has been submitted for fiscal year 2022-2023. Additional sources of funding are being reviewed and explored.



View at Speer Boulevard and Larimer Street

Introduction & Background

Institutional Background

CU Denver originated in 1912 as an extension of the University of Colorado Boulder. In 1964, the extension division was renamed the University of Colorado Denver Center and granted the authority to offer undergraduate and graduate degree programs.

In 1973, the University Of Colorado Board Of Regents established the University of Colorado System to be led by a president and comprised of four distinct and independently accredited institutions—The University of Colorado Boulder, the University of Colorado at Denver, The University of Colorado Colorado Springs, and the University of Colorado Health Sciences Center. The CU System is now the state’s largest public university system.

In 1977, the University of Colorado at Denver became part of an innovative multi-institutional campus known as the Auraria Higher Education Center (AHEC). The Auraria Campus, located on the edge of downtown Denver is shared by the University of Colorado Denver, Metropolitan State University of Denver, and the Community College of Denver and managed by AHEC.

In 2004, the University of Colorado Board of Regents approved the consolidation of the University of Colorado at Denver and the University of Colorado Health Sciences Center into a single institution. The consolidated university was initially named the University of Colorado at Denver and

Health Sciences Center, and subsequently in 2007, was renamed the University of Colorado Denver—one institution with two campuses, CU Denver in downtown Denver and CU Anschutz Medical Campus in Aurora, CO. CU Denver and CU Anschutz are a legally consolidated university. Each campus operates independently, though several functions—including facilities, information technology, academic and student affairs, administration and finance, and human resources—are provided through consolidated units.

Beginning in 2006, CU Denver purchased several buildings in downtown Denver that lie outside the boundaries of the Auraria Campus. The CU Denver Building, purchased in 2006, is home to the College of Architecture and Planning and lies directly adjacent to Larimer Square, a popular historic district in Denver. The Lawrence Street Center, also purchased in 2006, houses the School of Public Affairs, the School of Education and Human Development, and many administrative units. The Business School, which reaches into the heart of downtown, was purchased in 2008 and renovated to accommodate and consolidate the school’s various programs, departments and centers.



North Classroom Building

Also in 2006, the Lynx Crossing Residence Hall opened immediately adjacent to the Auraria Campus’ western boundary. For the first time, CU Denver students could essentially live on campus and have a traditional, residential college experience.

In 2007, the Auraria Master Plan ushered in the concept of institutional neighborhoods - areas of the campus designated for each of the three AHEC institutions. The area of the campus along Speer Boulevard, directly adjacent to Denver’s central business district, was established as the CU Denver Neighborhood. The concept allowed for a measure of institutional autonomy and identity not seen before on the campus. For CU Denver, it led to a period of significant change. Student Commons was built in 2014 and consolidated many student services into one location. As the first CU Denver-owned building constructed on the Auraria Campus, Student Commons established an urban design and architectural language that anchors the entry and defines a unique character for the CU Denver neighborhood.

In 2011, students voted to create a CU Denver-specific mascot and Milo the Lynx was introduced in 2013. In 2015, students initiated and led a referendum to construct the Lola and Rob Salazar Student Wellness Center, a facility



Student Commons

devoted to enriching all dimensions of wellness for CU Denver students. It opened in August 2018 and is the first named building for CU Denver. This project continued to establish the character of the CU Denver neighborhood through further use of the standards established at Student Commons.

The second CU Denver housing facility will open in the fall of 2021. The City Heights Residence Hall and Learning Commons building is located between 11th and 12th on Larimer Street and its design will continue to solidify and ground the neighborhood in the established CU Denver design language. The residence hall will serve 555 students and will include a full-service dining facility. The Learning Commons is designed to enhance student and faculty development; this portion of the First-Year Student Housing Project will become the new center for academic support and co-curricular life for CU Denver students.

CU Denver serves a distinctive role as Colorado’s public urban research university. It combines academic rigor with immersive real-world experiences to educate students through quality academics, relevant research, creative work, and civic engagement in the heart of Denver. More than 14,000 on-campus students thrive in a diverse

cultural, professional, and experiential setting, benefiting from CU Denver’s unparalleled internship, career, and networking opportunities. All of these opportunities are within easy reach of the central business district, lower downtown (LoDo), the State Capitol, and the global and regional headquarters of major companies, high-tech startups, non-profits, and cultural organizations. CU Denver offers more than 130 degree programs housed within several academic schools and colleges. CU Denver is also a major contributor to the Colorado economy, with a direct impact of \$3.3 billion to the Colorado economy, including university expenses of payroll and operations plus indirect earnings and expenses.

The University of Colorado Denver (CU Denver) is submitting a program plan amendment for the College of Engineering, Design and Computing (CEDC) project to the CU Board of Regents (BOR) for approval. This program plan represents the current vision for the CEDC project, including a new site and program requirements.

PROJECT HISTORY

The CEDC project has gone through an evolution spanning over five years. The project has explored at least three different sites and has seen numerous program iterations and overall architectural concepts. All programming and conceptual efforts for CEDC aimed to consolidate and increase collaboration across the college. Currently, CEDC activities on the Denver Campus are distributed across eight buildings: North Classroom, Boulder Creek, 5th Street Hub, Administration Building, Lawrence Street Center (LSC), Inworks at the CU Denver Building, and St Cajetan’s Center. Assignable square footage (ASF) areas are identified in the Currently Occupied Space Table.

A revised program has been submitted every year since 2015. Those submissions that include substantial changes are discussed here. The original program plan, approved in May 2015, addressed the space challenges by proposing a new building north of North Classroom. The program plan also proposed the renovation of vacated engineering space in North Classroom to create a “humanities hub” of interdisciplinary space. The site proposed in the 2015 program plan is shown at the right in figure 1.

The Spring 2018 Program Amendment retained the program identified in 2015 but proposed a new site, located south of the Science Building on Speer Boulevard. This site provided a more direct connection to the Science Building for students and faculty, while being situated on a more prominent site. The site proposed in the 2018 amendment is shown in figure 2.

In Spring 2019, the program was updated to emphasize the importance of first-year design and computing classes, as well as collaboration and maker spaces. The architectural concept took advantage of the prominent site and attempted to create an identity for CEDC. It also contemplated how the site might accomodate several building, allowing for future growth. This visionary exercise was not packaged and submitted as an offical program plan amendment.

The 2021 program plan utilizes a program similar to that identified in Spring 2019, while examining a new site between North Classroom and Speer Boulevard. This site provides visibility for CEDC in addition to taking advantage of increased efficiencies resulting from an adjacency to North Classroom. The 2021 site is shown in figure 3.



Figure 1: Site in the 2015 Program Plan Amendment



Figure 2: Site in the 2018 Program and Concept Study



Figure 3: New Site for the 2021 Program and Concept Study

Currently Occupied Spaces		
	ASF	ASF to be Vacated
North Classroom	44,992	
LSC 8th Floor	8,803	8,803
5th Street Hub	7,550	7,550
Boulder Creek	7,562	7,562
CU Building (Inworks)	5,000	5,000
Admin Building	1,832	1,832
St Cajetans	1,131	1,131
Total	76,834	31,842

MISSION & VISION

CEDC has adopted IMPACT 2024 (IMPACT)—a strategic plan that was created by the college. IMPACT has bold plans to transform engineering education, emphasizing computing technology throughout, with interdisciplinary design-oriented teaching and learning. There will be a dynamic blend of hands-on and on-line pedagogy that can pivot in an agile manner, with an emphasis on cutting-edge technology, such as artificial intelligence and big data driven content delivery.

From this distinct platform, CEDC will focus its teaching and learning on two verticals: health and urban solutions. CEDC also realizes the need to be agile and adaptive to strategically differentiate in a rapidly changing world. This forward-leaning vision enables CEDC to leapfrog competitors and establish itself as the academic technological innovation engine of the Denver urban corridor. This vision is embodied in the conceptual programming and architecture of the new building.

“At the CU Denver College of Engineering, Design and Computing, we focus on providing our students with a comprehensive engineering education at the undergraduate, graduate, and professional level.”

KEY POINTS OF IMPACT 2024:

Transform Engineering Education

Emphasis on Computing Technology

Interdisciplinary Design-Oriented Teaching and Learning

Dynamic Blend of Hands-On and Online Pedagogy

Emphasis on Cutting-Edge Technology

Advising and Collaborative Convergence Research with a Focus on Innovation, Entrepreneurship, and Broad Impact



IMPACT 2024:

A NEW MODEL OF ENGINEERING EDUCATION

A NEW GENERATION OF ENGINEERS

IMPLEMENTATION OF IMPACT 2024:

Student Success Record

1,740 enrollment in Fall 2020 – 35% increase since 2017, 17% increase in diversity – through new industry-responsive degree programs and pre-engineering retention program; Engineering Learning Community launched with NSF funding

Curriculum Modernization

Electrical Engineering curriculum and pedagogy redesign; Computer Science curriculum redesign; four new minors and two new certificates

Computer Science + X

114 students in new CS+X program that connects CS to (X) disciplines across campus (anchored by new BA in CS degree); 36 CS+X major and minor choices across CU Denver

Design and Computing Integration

Flagship first-year courses in Design and Computing; restructured Capstone Design Program; significantly upgraded Edtech and online pedagogy and capabilities across college

Transformational Partnerships

Trimble Technology Lab at CU Denver launched with generous gift from Trimble; Additive Manufacturing (3D Printing) lab launched with generous support from Lockheed Martin

Construction is Booming

Appointed Caroline Clevenger as Director of Construction Engineering and Management; launched BS degrees in Construction Mgmt/Construction Engineering (Fall 2020); partnership with VERTEX and CU Denver Business School for online graduate programs

Skyrocketing Research

New research awards exceed \$25M for 2020; >100% growth since 2017; launched Center for Inclusive Design and Engineering (Cathy Bodine, Director)

Re-brand as College of Engineering, Design and Computing (CEDC)

Launched in 2019

Leadership Recruits

Kris Wood (design), Keith Neeves (bioengineering), and Doug Sicker (computer science) join CEDC

Strengthen and Diversify Faculty

18 outstanding new faculty since 2018; increased overall faculty diversity (gender + racial) by 40%; cluster hire for new faculty in health systems and technology across Bioengineering, Mechanical Engineering, and Computer Science

Innovation and Entrepreneurship

Comcast Center for Media and Technology launched Design Horizons entrepreneurship program with College of Arts and Media and Jake Jabs Center, 24 students in first cohort; integrated Inworks Innovation Initiative into college; strongest year ever for college startup companies

Earn-Learn Apprenticeship Program

New model for students to work on campus in jobs aligned with professional aspirations

Bioengineering Expansion at CU Anschutz

20,000 sf in new Biosciences 3 building (Fall 2020) to expand research and innovation in medical technologies; new Masters in Biomedical Device Design and Entrepreneurship

Relation to Strategic Plan

“By 2020, CU Denver will be a leading public university with a global reputation for improving the quality of life through excellence in learning, research and creativity, community engagement, and clinical care.”

— 2008–2020 Strategic Plan

The new CEDC project supports and advances goals and objectives from the Strategic Plan 2008-2020. The goal and objective numbers are taken directly from the strategic plan document and includes an explanation on how the CEDC project supports the goal.

Goal 1.1 — Develop, strengthen, and sustain interdisciplinary and dual degree programs that maximize the strengths and bridge the disciplines of the Downtown and Anschutz campuses.

Objective 1.1.1 — Develop, strengthen, and sustain new interdisciplinary academic degree programs at the undergraduate, graduate, and professional levels (including joint degrees) that are collaborative and connect the disciplines within and across the campuses.

Objective 1.1.2 — Establish mechanisms to plan, pilot, and sustain joint interdisciplinary academic programs.

The new CEDC building will create a cross-college “Academy” to foster interdisciplinary design and computing innovation in education and research across the College. The new CEDC building is positioned to connect efforts across our campuses and facilitate external partnerships; with

Inworks and the Comcast Center. The new building will also connect with the Anschutz Medical Campus programmatically by providing space for bioengineering and digitally to enable health technology and systems.

Goal 1.2 — Strengthen and sustain existing and develop selected new areas of interdisciplinary research and/or creative work involving faculty across the schools and colleges of both campuses.

Objective 1.2.1 — Develop criteria and processes to identify new research areas for investment.

Objective 1.2.2 — Provide funding and other resources to support and develop areas of interdisciplinary research and / or creative work.

The new CEDC building will support the College’s mission to build a culture of innovation, collaboration, and lifelong learning across the college, empowering students, faculty, and staff to be entrepreneurial. Makerspaces, interdisciplinary research labs, and student space will foster social and professional communities.

Goal 2.1 — Deliver superior educational programs on multiple campuses and academic centers across the state, nation, and around the world.

Objective 2.1.4 — Build capacity and increase delivery of educational programs aimed at lifelong learners, including returning students seeking degree completion, those seeking continuing and professional education, and those seeking to expand knowledge avocationally.

The conceptual programming of the new CEDC building is dictated by a balance of factors, including the CEDC education and research vision, growth potential, and distinctiveness. This program provides vacated space in other CU assets and the consolidation of spaces for a higher level of utilization and expansion for CU.

Goal 2.9 — Broaden the educational experience for students to improve student success.

Objective 2.9.2 — Create additional experiential learning opportunities for students.

The new CEDC building will integrate and amplify student success programs by strengthening and expanding teaching capabilities and capacity. The new building will allow the integration of design and computing throughout, connecting concepts, disciplines, and people through hands-on interdisciplinary experiences in authentic contexts in and out of the classroom. The design and programmatic layout will endow every student with exceptional human and social skills and experience, applying cutting-edge technology to enable value-creating solutions.

Goal 3.1 — Be a global leader in the translation and application of discovery, innovation, and creativity for societal good.

Objective 3.1.1 — Initiate and support community-based research and creative work that leads to the sharing and application of knowledge.

Objective 3.1.3 — Fully invest in the signature areas identified for the Downtown Campus, including education research and policy and sustainability.

The new CEDC building will provide state-of-the-art spaces that are flexible, resilient, and generated with elements of the global leading edge. Engineering will be on display, whether that be through glass walls at research labs or through the exposing of building systems— both resulting in excitement for the new vision of the College.

Goal 3.6 — Provide superior core research facilities to enhance the discovery, innovation, and creative activities of the university.

Objective 3.6.1 — Build and sustain superior core research facilities and infrastructure.

Objective 3.6.2 — Continually assess program needs and utilization to determine priorities for ongoing investment in core facilities.

Objective 3.6.3 — Create and sustain research computing facilities that meet investigators’ needs.

CEDC is redesigning engineering education to create agile and versatile engineers of the future with computation at the core. The program of the new building reflects the diversity of research, teaching, and social experiences the College is expecting for its students.

Goal 6.1 — Promote partnerships and active engagement with business, industry, nonprofits, government, schools, and venture capitalists to optimize intellectual and cultural capital for societal use.

Objective 6.1.1 — Leverage the capabilities of our centers and institutes to advance partnerships, engage venture capitalists, and provide incubators for businesses.

The visibility of the new CEDC building will offer excitement and opportunities for industries to get involved, or expand their involvement, with the College. There is an opportunity to co-create spaces with partners and deliver a customized solution to engagement.

Goal 7.2 — Invest in providing the infrastructure (services and facilities) necessary for a world-class learning and discovery environment for the benefit of our students, faculty, staff, and communities.

Objective 7.2.1 — Be recognized as an employer of choice through innovative employee-sensitive policies and practices to maximize productivity and competitiveness.

Objective 7.2.2 — Implement the CU Denver facilities capital plan to provide cost-effective, adaptable, maintainable, sustainable, and accessible facilities.

Objective 7.2.3 — Address all elements of the student experience at the university to improve the recruitment, graduation, and establishment of lasting connections to the university.

Objective 7.2.6 — Facilitate interaction and collaboration solutions across various locations so that geographical separation is not a barrier.

Objective 7.2.8 — Create a safe campus environment through implementing effective safety measures and campus safety training and technology.

The new CEDC building will unite disciplines that are currently spread across six buildings and establish a strong presence along a much-traveled urban corridor, better connecting the campus with the City. Flexible classrooms, labs, and collaboration space will support the continual adaptation and value-creating services that respond to the demands of the world, as it moves at an unprecedented scale and pace due to technology, globalization, and demographics.

Future of Engineering & Facilities

The College of Engineering, Design and Computing has adopted IMPACT 2024, which plans out the next phase of Engineering at CU Denver. The plan builds on the advances the College has made over the last decade and sets goals for the next five years. The plan recognizes the world is changing more rapidly than any time in history and that engineers of the future will have to respond to that change—it is the College’s responsibility to prepare their students for that future.

Engineering Education

CU Denver’s College of Engineering, Design and Computing is redesigning engineering education to create the agile and versatile engineers of the future. Through our pioneering curriculum and convergence research approach, we promote an inclusive culture of inquiry and innovation focused on making a broad impact with all we do.

We integrate the cutting edge of computing technology and design innovation across disciplines, blending this with authentic experiences that develop human and social skills, such as creativity, collaboration, entrepreneurship, and leadership. We embrace and leverage our setting, across urban and medical campuses, to enable social and economic growth of the Denver urban corridor through holistic public and private sector partnerships; we aspire to emerge as its technological innovation engine and significantly impact Colorado and the world.

Engineers of the Future

Engineers must be prepared to meet the rapidly evolving demands of the profession as well as new obligations and opportunities in our increasingly technology-based society. These skills will include:

- Deep and modern technical knowledge and capabilities
- Proficiency in contemporary design, systems, and computing-enabled technology to produce innovative, value-creating solutions that improve people and society
- Exceptional socio-emotional and entrepreneurial skills—critical thinking, creativity, teamwork, leadership, engagement with diversity, and the ability to continually reskill and learn throughout their lives

Engineering Education Must Be Different

Global leaders agree that engineering education must change significantly to deliver future engineers. Engineering Education must include:

- Integrative, active and authentic learning experiences that are interdisciplinary, global, societally-focused, and constantly refreshed
- Mass customized offerings that are increased in flexibility, choices, and diversification while exploiting technology
- Agile and responsive curricula underpinned by new value propositions and business models
- Increased emphasis on social skills and attitudes
- Highly connected research innovation enterprise that leverages and strengthens educational goals and approaches
- Strong alignment of goals between government, industry and academia, especially those that impact “place”

Students of the Future, City of the Future

CU Denver students are diverse urban learners and driven, purposeful doers. The student body will include:

- Widely varying demographics—socioeconomic, age, race, ethnicity, language, first-generational student status, commuter/resident—contributing wide-ranging and meaningful experiences
- Experientially motivated—seeking more from their education, e.g., purposeful opportunities aligned with career ambitions to increase relevance of education and meet fiscal challenges
- Drawn to Denver—seeking the vibrancy of city life with its economic and social opportunities and the development of professional networks

65% of children entering primary school today will end up working in jobs that currently don’t exist.

35% of today’s core skills will change in next five years—increasing the need for creativity, emotional intelligence, and cognitive flexibility. ²

Rapidly developing technological solutions require cross-functional collaboration and high-performance teams.

70% of the World’s Population will live in Cities by 2050.

1. Dell Technologies, 2017
2. “The Future of Jobs - Employment, Skills, and workforce Strategy for the Fourth Industrial Revolution”, World Economic Forum, 2016

Statement of Need and Benefit

The new CEDC building will be a single project, creating an Engineering Hub that promotes design-oriented engineering education that emphasizes deep computing and systems thinking, interdisciplinary and 21st Century skills at CU Denver

New Building Benefits

CONSOLIDATION

Consolidates CEDC downtown activity into two adjacent buildings; facilitated by additional internal moves

PROXIMITY

Close proximity to other CU Denver colleges and schools

VACATE

Vacates space in LSC, CU Building, and 5th Street Hub for growth of other CU Denver programs

CAMPUS GATEWAY

Enables campus gateway on Speer and Larimer; attractive location for fundraising

ENROLLMENT GROWTH

Allows enrollment growth of ~550 students from 1,618 currently (which is a 25% increase since 2018)

ENERGIZES

Energizes CU Denver and CEDC and rapidly supports realization of strategic plan for new engineering education for our diverse student body

Impact on Occupations with the Highest Projected Openings: In-Demand Engineering Jobs

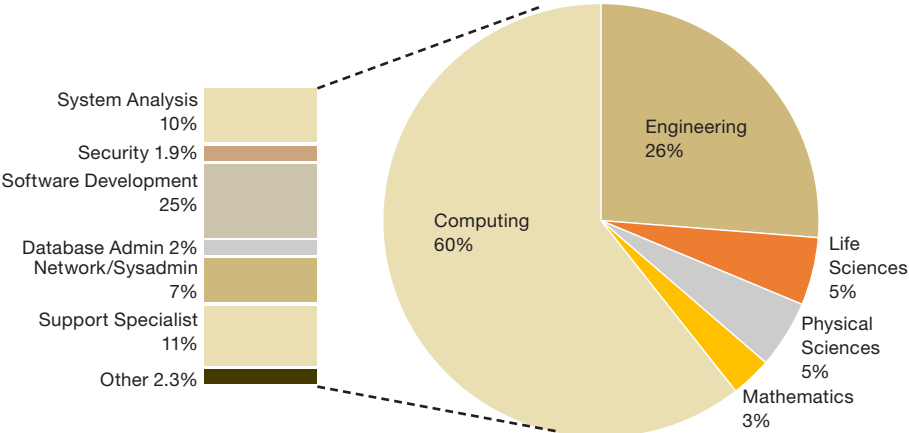
The Colorado Department of Higher Education (CDHE) 2016 Skills for Jobs Act listing of bachelor and graduate degree level jobs in Colorado identified 15 engineering and applied sciences occupations in the top 50, with three in the top 12.

The US Department of Labor Bureau of Labor Statistics ranked Bioengineering and Computer Science + Engineering related occupations among the top 50 fastest growing in the United States, with four of the Top Six In-Demand Engineering Jobs offered by CEDC. CU Denver hosts the only Bioengineering program in Colorado.

In-Demand Engineering, Computer and Information Technology Jobs

	Job Growth Between 2019 and 2029	2019 Median Pay
Biomedical Engineering	5%	\$91,410
Computer Hardware Engineering	2%	\$117,220
Civil Engineering	2%	\$87,060
Mechanical Engineering	4%	\$88,430
Software Developers	22%	\$107,510

Based on data from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook (Updated 9/1/2020)



US-BLS Total U.S. STEM Jobs through 2022 by STEM %. Based on data from U.S. Bureau of Labor Statistics Employment Projections, 2012-2022

Alignment with Colorado Rises Master Plan

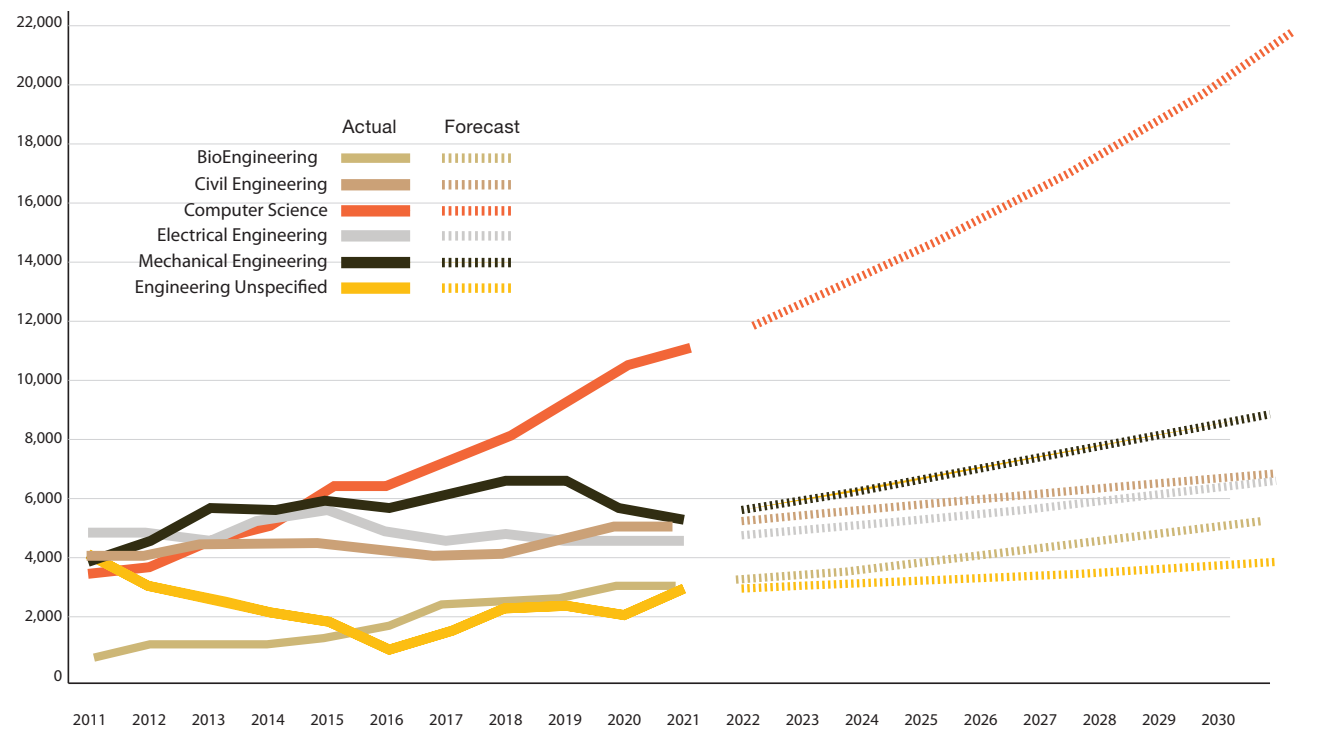
CU Denver has made significant strides to mitigate affordability and equity gaps for students. CU Denver’s commitment to, and history of, serving diverse populations will help CU and the State reach their equity attainment goals. A new CEDC facility will increase credential attainment in “top jobs”, as described in the CCHE Colorado Rises master plan.

Strategic Goal 1 and 3 of Colorado Rises urges institutions to focus on student outcomes, support, enrollment in STEM and increased persistence and retention.

By providing a modern, well equipped, and agile learning space for the College of Engineering, Design, and Computing, the program will attract and retain top tier faculty and researchers that represent innovative and interdisciplinary thinking.

A contemporary facility will inspire elevated curricula and innovative pedagogy which will attract and retain students.

The new CEDC facility will push the future of engineering and provide engaging opportunities to increase credentials for in-demand STEM education through amenities, cross-college engagement, and an increase in industry partnership.



CEDC Actual and Goal Enrollment History by Department. UCD OIRE, February 17, 2021. NOTES: Based on census of each term. Fiscal year is defined as summer, fall, spring with the year displayed being that of spring term. CAVEATES: State reportable enrollment and credit hours only. Prior to fall 2020 construction management was a track under civil engineering.

Space Needs Alleviation Justification: Classroom and Class Laboratory Utilization

	Number of Rooms	Median ASF	Median Room Capacity	Median ASF per Station	Median Enrollment (Class Size)	Median Weekly Student Contact Hours	Median Weekly Hours Scheduled	Median Percent Occupancy
Classroom	52	970	40	24	26	997	36	67%
Lab / Studio	13	1,049	30	30	20	379	18	72%

NOTES: From Fall 2018 classroom utilization study for CU Regents. Includes rooms with any Engineering usage. Utilization includes all courses scheduled in those rooms. Weekly measures are from the busiest week for each room.

03 Project Description

This project will re-imagine the physical space for CU Denver’s College of Engineering, Design and Computing. It will support an educational mission centered on a strong design sense, powerful computing skills, and a larger connection to changing global, economic, and societal needs.



Site — Surrounding relationships, neighbors, and future developments. 1. Nexus, Sliver and Firestation Site Development 2. Larimer Square Redevelopment 3. River Mile Development 4. Sun Valley Eco District Development 5. Denver Performing Arts Center Expansion 6. Pepsi Center Development

Site Selection & Master Plan Consistency

The site proposed for the engineering building, which sits at the intersection of Speer Boulevard and Larimer Street, was identified as a “future construction opportunity” site in the CU Denver 2017 Facilities Master Plan. The site would allow the CEDC project to act as a bookend to the Student Commons building and further define the Larimer Street gateway into the CU Neighborhood. The site also serves as a vibrant urban connector and a pedestrian landing zone for those arriving from LoDo and the Central Business District. Speer Boulevard will generate excitement for the CEDC by embracing the ethos of putting science on display. In return, the CEDC project has the potential to shift Speer Boulevard from a “parkway” to a City Street with enhanced pedestrian connections to downtown.

The site also offers proximity to North Classroom, which is critical because the new building will not accommodate the relocation of all of the CEDC departmental spaces. Some well-established and specialized laboratories will remain in North Classroom. Relocating these recently renovated spaces would significantly burden the project budget. The close proximity and physical connections to North Classroom will provide efficiency and interdisciplinary opportunities for faculty and staff.



Site from Speer Boulevard and Larimer Street



Site from Speer Boulevard and Lawrence Street

Site Highlights

NEIGHBORHOOD ENTRY GATEWAY

This site is the front door to the CU Neighborhood from the Central Business District.

CONNECTION TO DOWNTOWN

On Speer Boulevard and Larimer Street, the site reaches out to the urban fabric to the east. There is potential to respond and integrate future development into the programming and concept of the CEDC project.

PROXIMITY TO NORTH CLASSROOM

A majority of Engineering classes are held in North Classroom. Locating the new CEDC building to the east creates an efficient walking connection for faculty and students.

Site Challenges

EXISTING STORM WATER DETENTION

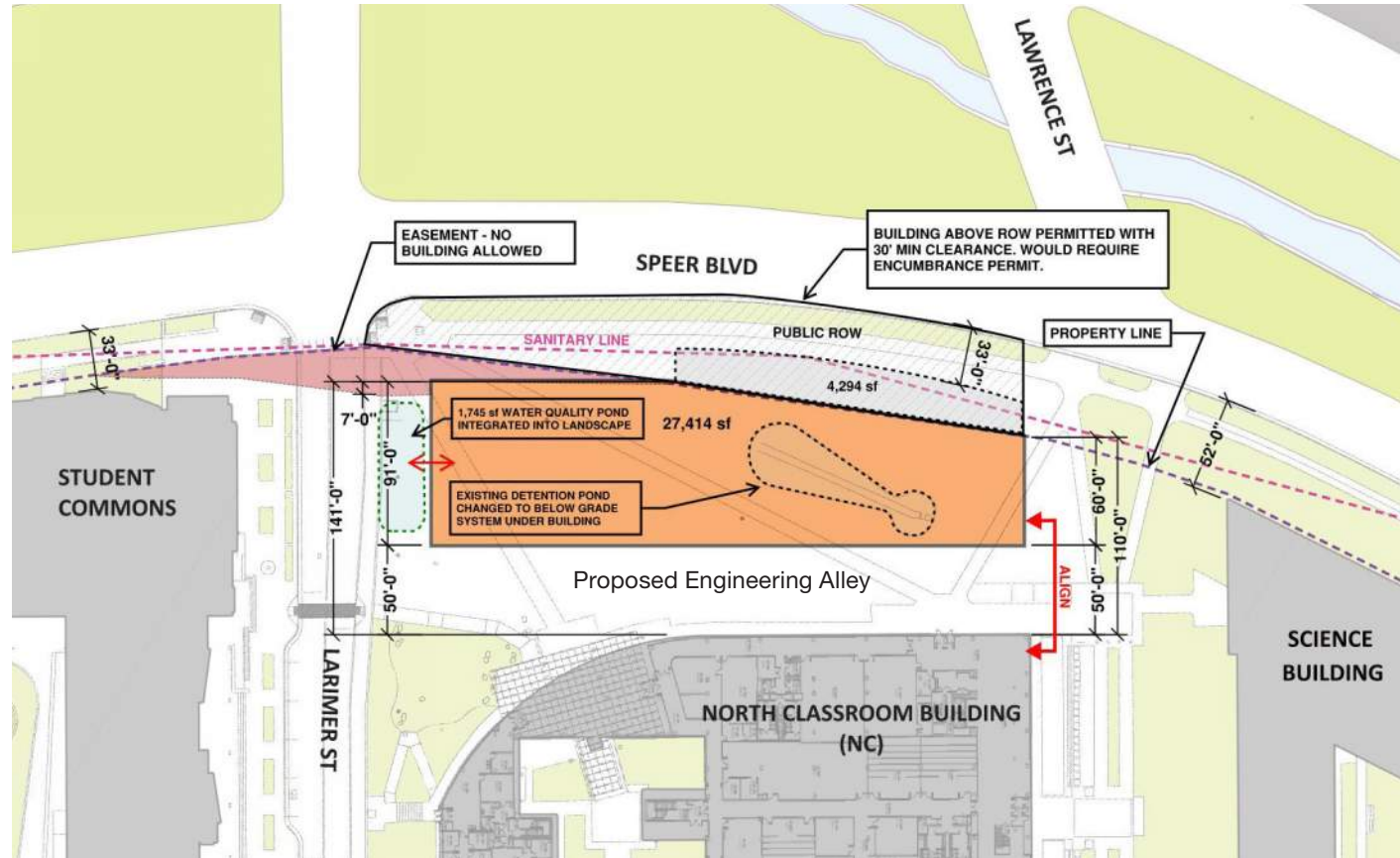
There is currently a storm water detention pond occupying 0.25 acres of the site. A new strategy will need to be implemented to make up for displacing the existing pond. The proposed budget includes this scope of work.

LIMITED VEHICLE ACCESS

The only existing vehicle access to the site is from Larimer Street. Given the program desires for the main entrance to face Larimer Street, vehicle access will be complicated. The proposed site design offers several potential solutions to this challenge.

RIGHT OF WAY

There is currently a large right-of-way (ROW) bordering Speer Boulevard on the east side of the site. This ROW has pinched the buildable area of the site. The proposed building footprint and massing has taken this into consideration and a potential solution will be further developed during the next phase of design.



Site Boundaries

Site Conditions

Although the site provides opportunities relative to interconnection, gateway, and interdisciplinary collaboration, the site has several constraints. These include a storm water detention pond, limited vehicular access, a significant easement, and a right-of-way (ROW) that includes a 54" sanitary line running along the edge of Speer Boulevard. All of these factors have impacted the buildable area of the site and the resulting conceptual massing.

Easements and Right-of-Way

Along the southbound lanes of Speer Boulevard, there is a ROW extending approximately 52' from the curb into the site. Within the ROW, there is a 54" sanitary pipe.

At the corner of Speer Boulevard and Larimer Street, there is an easement that extends into the north-east area of the site. The project cannot encroach into this easement.

An encumbrance permit would be required to build within the ROW, and the design of the building would need to provide vertical and horizontal clearance above the sanitary line.

Stormwater Detention

There is an existing stormwater pond, referred to as Pond 2 in the construction documents for the Science Building, that has a capacity of 10,562 cubic feet. Pond 2 provides both detention and water quality for a portion of the the Science Building site.

In order to accommodate a building on the site, it is recommended that an underground detention system and a surface water quality feature will be designed. These features accommodate flows from the proposed site as well as the areas tributary to the existing Pond B.

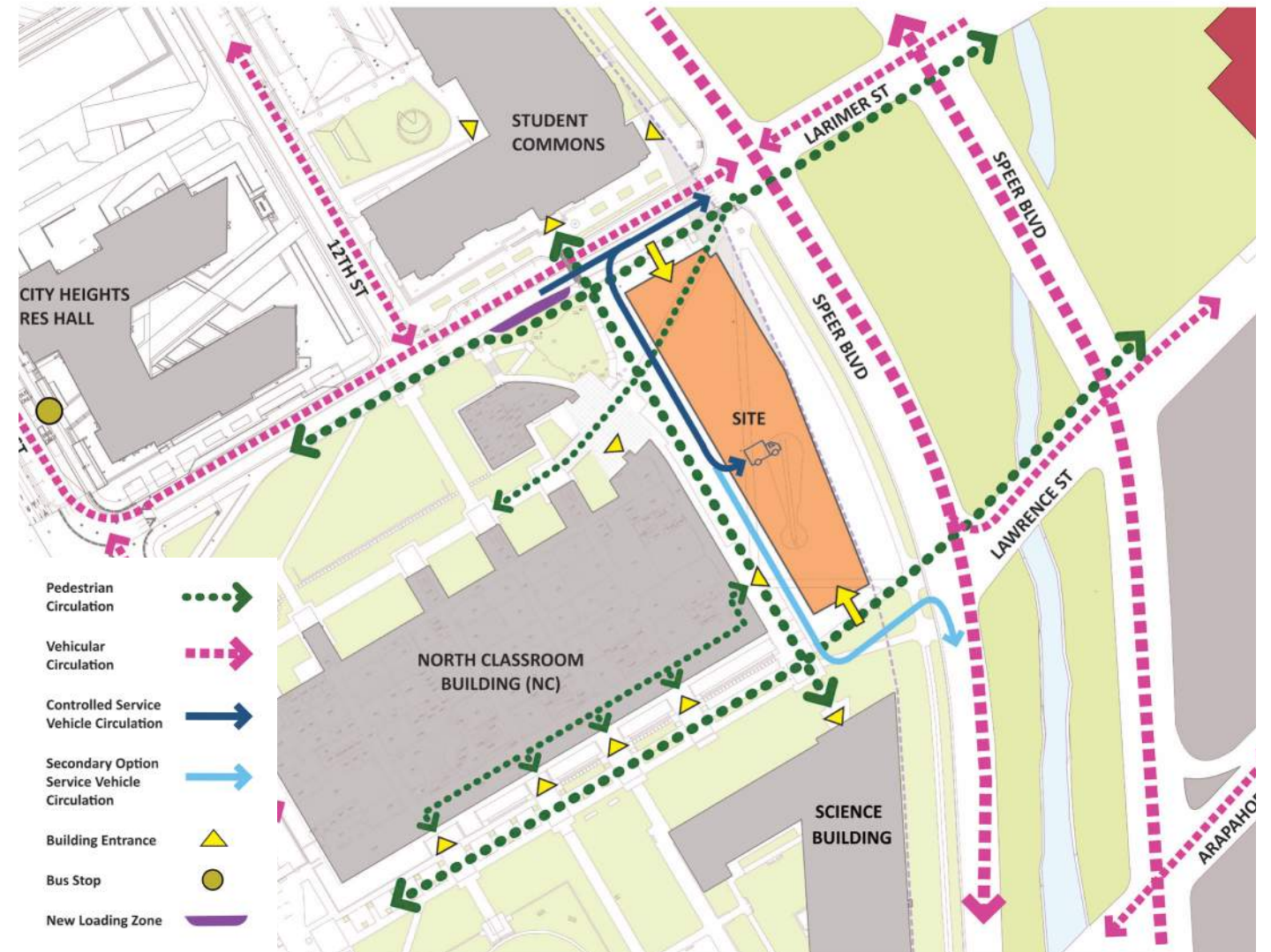
The underground detention system will

accommodate approximately 0.36 acre-feet and the above water quality system will accommodate approximately 0.06 acre-feet. It is important to note that the water quality feature has been sized as a rain garden within the plaza and shall remain at a maximum depth of 18", resulting in a footprint of 1,745 SF.

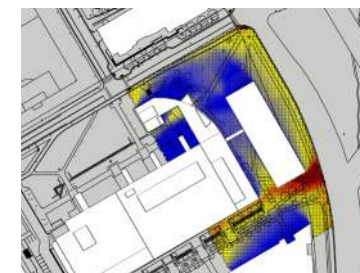
Engineering "Alley"

The space between North Classroom and the new building is critical to the success of this project as it will provide outdoor project space, social space, while creating an iconic urban design feature for the CU Denver campus.

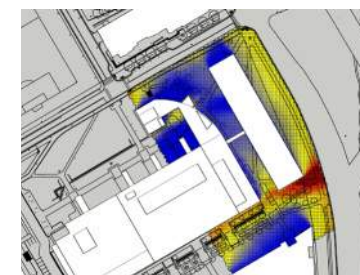
Several scenarios were explored to determine how close the new building could be to North Classroom while still providing ample solar exposure in the winter and an openness that fit the scale of the two buildings. Based on this study, it was determined that a 50' setback from North Classroom provides



Site Circulation Study



Solar Study – Five-story building on Winter Solstice



Solar Study – Four-story building on Winter Solstice

the desired environment, while allowing for floorplate sizes that accommodated a lab module.

Pedestrian Flows

The site acts as a pedestrian connector between Student Commons, North Classroom, and the Science Building in addition to the pedestrian connection to LoDo and the Central Business District at both Larimer Street and Lawrence Street. The site and building will respond to all of these flows—creating enjoyable outdoor space, maintaining safety, and strengthening pedestrian connections with LoDo and the Central Business District.

The pedestrian flows on the site reinforces the importance of treating the Larimer Street and Lawrence Street sides of the building with equal consideration as both are significant to the pedestrian environment on campus and the City.

Vehicular Flows

Currently, there are no curb cuts onto the site nor are there nearby loading zones servicing the surrounding buildings that could be used by occupants of the new building. Based on the proposed program, delivery of materials to the building will be required. In addition, maintenance and service vehicles will need access to the building. Ideally, trash collection would occur at the Larimer Street curb in a manner similar to Student Commons and Student Wellness.

Given the limited vehicle access to the site, the project will utilize the pedestrian alley between North Classroom and the building to provide delivery and maintenance access. That access could take the form of a dead end vehicular alley with a turnaround or a loop access road with a curb cut on Speer for right turn only. Various options will be analyzed further during the next phase of design.

Neighborhood & Downtown Connections

The University of Colorado Denver is Colorado’s only public urban university. In the heart of one of America’s fastest growing cities, it connects students with internships, jobs, and a thriving cultural scene.

The CEDC Project is in a key location on campus—directly adjacent to and visible from highly used street; highly visible from one of the primary approaches to the campus along Speer Boulevard; in proximity to multiple development opportunities between campus and downtown. The site has the potential to be both a gateway and a bridge to the CU Denver campus.

Neighborhood Connectivity

At the corner of Speer Boulevard and Larimer Street, the site welcomes pedestrians, bikes, and vehicles into the campus, while also closing the distance between the CU buildings across Speer Boulevard. The site acts as a crossroads between Student Commons, North Classroom, and the Science Building, connecting major circulation paths running between the three buildings.

Currently, the western edge of Speer Boulevard is lined by building facades, until you get to Larimer Street, where the site is located. The site-edge challenges the urban edge as a threshold—a welcoming gateway, while responding to the surrounding context.

Downtown Connection

The 2007 update to the Auraria Master Plan shifted the direction for the campus to prioritize continuity with the surrounding areas. It was no longer

intended to be an isolated campus, but instead to create linkages to the adjoining neighborhoods. This is particularly true for LoDo and the Central Business District.

The CEDC site is the closest Auraria site to the CU facilities that are located across Speer Boulevard. For years, there has been talk about creating a physical connection between the Auraria Campus and the Central Business District to avoid pedestrian and vehicle interaction. This site has the potential to be a part of that connection by providing a landing, or a physical link to the building, that would allow pedestrian access to interact with Engineering on Display.

The CEDC site spans two major pedestrian paths, one at Larimer Street — both heavily trafficked with students commuting between Auraria and the Central Business District. The CEDC building’s internal and external pedestrian flows will recognize these existing travel paths to ensure they remain efficient and safe, while using them to enhance student space throughout and around the building.

Connecting Park Space

The CEDC site offers the opportunity to provide a neighborhood gateway plaza to the north of the proposed building —

one that welcomes guests onto campus, honors and celebrates North Classroom, and provide outdoor project space for CEDC.

The south side of the site has the responsibility to respond to the Lawrence Street Mall and continue the established pedestrian amenities and urban design language. With optimal daylight and southern exposure, this space can act as a continuation of the outdoor space at the south end of North Classroom.

The space between the new CEDC project and North Classroom (Engineering “Alley”) will host performance events, include outdoor project space, and be a main pedestrian thoroughfare for the CU neighborhood. This space will be activated with a variety of outdoor environments, including seating, project work and storage, and vegetated areas—all with daylight and sun exposure being a consideration.



View from Larimer Square to new CEDC Building, new plaza, and North Classroom clock beyond



Aerial Image - Speer Boulevard Facades

Guiding Principles

FORWARD THINKING
EXPRESSION

Represent CU Denver as an innovative model for public urban universities. Represent CEDC’s vision of a state-of-the-art engineering hub.

ENHANCE THE GATEWAY

Acknowledge the campus and neighborhood gateway at Speer Boulevard and Larimer Street.

BEING A GOOD NEIGHBOR

Respond to the scale, materiality, and architectural aspects of the surrounding buildings and anticipate future development.

ENGINEERING ON DISPLAY

Create transparency into the building to showcase engineering activity. Expose and highlight building systems that can be used as a teaching tool.

RESPECT NORTH CLASSROOM

Acknowledge the existing conditions of North Classroom that could be affected by the new building and reduce the impact.

HIGH PERFORMANCE

Analyze and implement strategies that will reduce the environmental impact and increase the operational efficiency of the building.

Concept Design

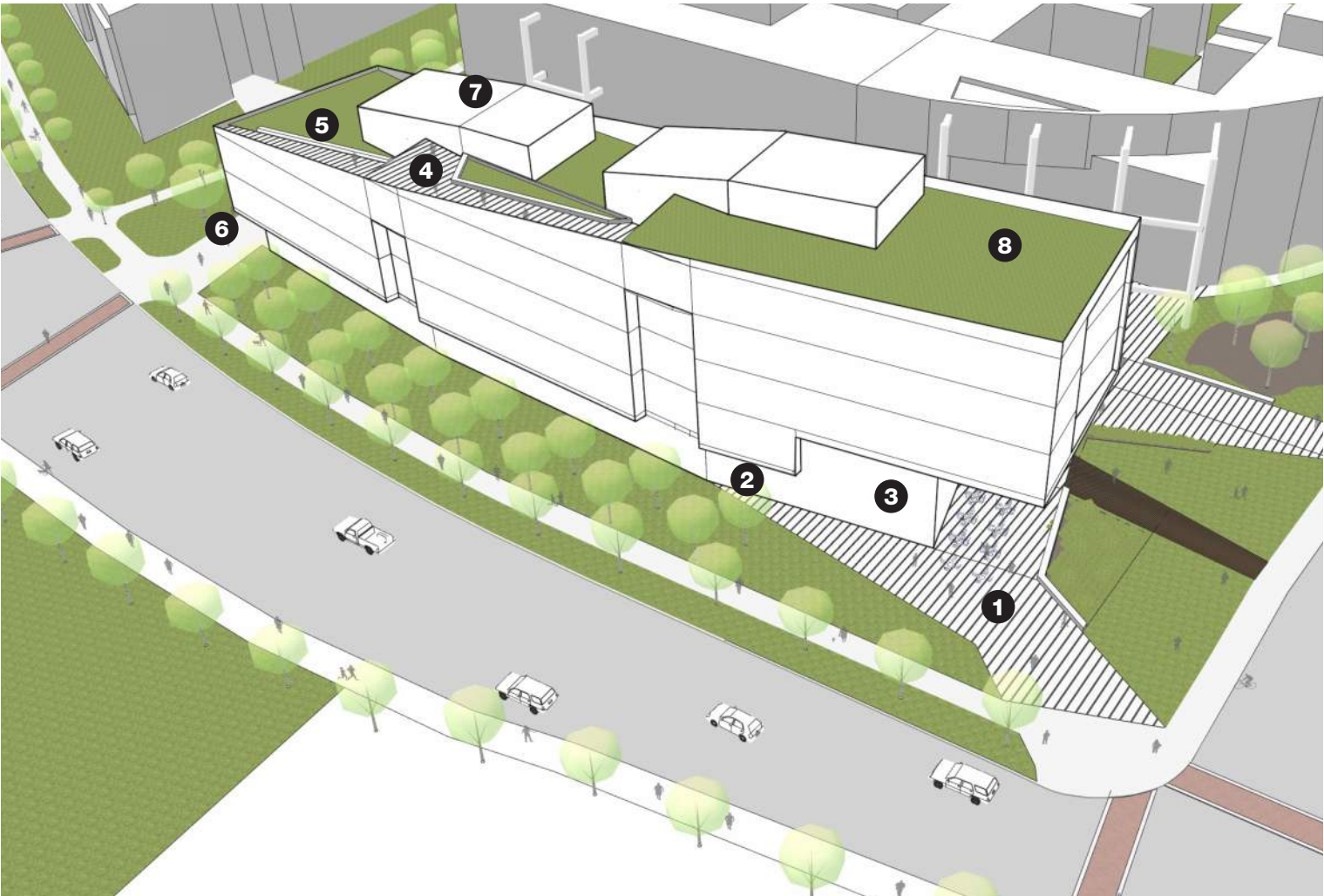
The University of Colorado Denver CEDC Project combines teaching, research, and clinical spaces to further expand and amplify the significance of the engineering profession across a broad range of applications.

The building will promote a highly collaborative model by creating a series of interconnected classroom and research spaces anchored by a centralized maker space.

The “Plaza” seeks to celebrate the act of making, in the engineering and design curriculum, by centralizing key spaces, where activity is on display, within the project’s spatial organization. The project team has identified a range of “activation” program spaces that highlight, celebrate and enhance the vision of the CEDC. These spaces include: the computing space, capstone space, and first year design space. The key attributes applied to the development of those spaces are connectedness, openness, and flexibility.

This project will serve to consolidate the engineering programs on the CU Denver campus, strengthen the expression of the CU neighborhood architectural language, and enhance the importance of engineering and design by representing a rethinking of the goals and strategies of the engineering school in a rapidly changing technological world.

This building is imagined as a stepping building form that climbs from the Lawrence Street Mall up to a five story mass at the Larimer Street gateway. The steps of the mass would provide exterior terrace opportunities — one being associated with a large conference room, which would look down on a “project space terrace” where engineering and making will be on display. The building is complimentary of campus scale and space making strategies, and implies a visual and physical connection between LoDo and the Central Business District and the CU Denver neighborhood.



Legend

1	GATEWAY PLAZA
2	MAKER SPACE— ENGINEERING ON DISPLAY
3	VISIBILITY INTO BUILDING - ENGINEERING ON DISPLAY
4	ROOF TERRACE — SOCIAL
5	ROOF TERRACE — PROJECT SPACE
6	ENTRY AT LAWRENCE STREET
7	MECHANICAL SYSTEMS ON DISPLAY
8	GREEN ROOF

Program

The relative proportions of different space types and their physical arrangement has a significant impact on how a building is experienced and how it functions. In the case of the CEDC Project, this mix is critical to achieving the collaborative and interdisciplinary environment that is its mission. Structural bay dimensions were based on a 30’ x 21’ module. This module is sized for best practice and flexibility of labs and classrooms.

To develop and evaluate the program, space types were grouped into three overarching categories: “Flex Instructional Modules”, “Meeting / Social” and “Office”. Within the “flex instructional modules”, there are accommodations for research labs, classroom labs, and classrooms. Within “meeting / social” there are collaboration spaces (formal and informal), conference, and seminar rooms.

The areas dedicated to each of these space types are a result of relocated CEDC space from other buildings, precedents from other engineering facilities, and growth factors. A 60% efficiency grossing factor was applied to the assignable square footages. This grossing factor is in line with similar facilities across the region and allows for the infrastructure and back of house spaces required for this building type.

As the project proceeds further into the design phases, the team will work with the CEDC to develop the concept program into a detailed program. For this effort, the space types allows for a cost/SF association.

Circulation

Several internal circulation patterns were reviewed and the desire for lab flexibility, chance interactions, and program efficiency resulted in both double loaded corridors and concourse circulation. The concourse circulation allows for back-to-back labs which offers flexibility for future growth or configuration. The double loaded corridors provide opportunities for chance interactions between students leaving or walking to class and reduces the square footage associated with circulation.

The circulation on the west side of the building includes the Grand Stair. The Grand Stair connects the northern lobby to the bridge that connects with North Classroom. The stair is meant to be an active, transparent space that engages with engineering “alley” below.

Service & Loading

As described previously, the service and loading access to the site is a challenge. Conceptually, the service and loading entrance into the building has been located under the Grand Stair, near the north end of the building. This location provides

Program	ASF
FLEX INSTRUCTIONAL MODULE	43,700
Research Labs	
Classroom Labs	
Classrooms	
MEETING / SOCIAL	7,000
Conference and Seminar Space	
Collaboration Space	
OFFICE	5,800
TOTAL ASF	56,500
TOTAL GSF (60% EFFICIENCY GROSSING FACTOR)	94,200

access to a service elevator within the bank of building elevators and limits the vehicle traffic within engineering “alley”.

Student Center

A student center has been located on level 2, at the intersection of the Grand Stair and the bridge to North Classroom. This area will include student lounge space, study space, and tutoring space. The activities combined with the central location, will create a vibrant space with a focus on meeting student’s needs - a primary goal of the project.

Office Suite

Office location, size and configuration will be explored more in design but the current concept has offices grouped together on levels three and four. Grouping the offices together into an office suite will support interdisciplinary interactions and provide flexibility for future configurations. The suite can be located near one of the interior stairs which will act as an interconnecting stair between the two suites promoting additional interactions and flexibility.

Outdoor Terraces

The “Plaza” scheme includes two outdoor terraces that face south. Given the Colorado climate, the southern exposure will allow these terraces to be used year round. The upper terrace (Social Terrace) is adjacent to a meeting space which will allow the meeting and activities to spill out onto the terrace. The social Terrace overlooks the lower terrace (Project Terrace) that is adjacent to flexible instructional space. Student projects and work will take place out on this terrace while having a connection back to the instructional space. Both terraces will be a combination of hard surfaces, green roof and vegetation and exposed mechanical systems - all supporting engineering on display.



Legend

1	INFORMAL MEETING SPACE
2	GRAND STAIR
3	STUDENT CENTER
4	FLEX INSTRUCTION MODULES
5	OFFICE SUITE
6	PROJECT TERRACE
7	SOCIAL TERRACE
8	SERVICE / LOADING AREA
9	MULTIPURPOSE / EVENT SPACE

	FLEX INSTRUCTIONAL MODULES
	MEETING / SOCIAL SPACE
	OFFICE
	SUPPORT

Exterior Spaces

The exterior spaces complement the rich and vibrant interior space, while serving as an extension of the program and mission of the CEDC.

The gateway “welcome” plaza, located at the corner of Larimer Street and Speer Boulevard , provides identity and defines arrival —to the AHEC campus, the CU neighborhood, and the new CEDC building. This plaza will be critical in creating a first impression and giving visitors the first look at “engineering on display”. Including a sculpture in this space will reinforce the significance of the gateway.

The plaza will lead into the engineering “Alley”, which is the space between North Classroom and the new building. This space will act as a zipper between the new building and North Classroom by connecting engineering programs in both buildings, while enhancing a major campus circulation route. The space will be designed for walk-ability, service vehicles, and project space. The new building will include large overhead doors that will allow engineering to spill out into the alley. The University should consider renovating the ground floor circulation space, in the 1000 hallway of North Classroom, to compliment the ground level activation being provided by the new building. This scope is not included in the current renovation square footage in this program plan or the project budget.

Engineering Alley will extend from the north of the building to the south, where it will tie into Lawrence Street Mall — a main pedestrian thoroughfare.

Both the Engineering Alley and the Gateway Plaza will incorporate aspects of water surface treatment to account for the existing detention pond, which this project will decommission. Those surface treatment zones can be in the form of landscaped or pervious paved areas. The project will require approximately 1,700 SF of treatment area.

The new building features two rooftop terraces. Both terraces face south for maximum sun exposure in the winter, which will allow the space to be utilized year-round. The lower terrace is seen as a project space, with the upper terrace being a social space that looks down on the project space and takes advantage of the downtown views.



High Performance

The CEDC Project aspires to be not only a model for innovative research, teaching, and learning, but also an instructional example of cutting-edge building performance and sustainability. These goals are especially relevant given that building systems are a key curricular component at the CEDC. In a building supporting engineering education, some consideration should be given to exposing the mechanical systems that would typically be concealed.

Programming discussions and preliminary analysis of the anticipated spaces has identified a range of opportunities (further discussed below). Implementation of these goals will be explored in more detail in the next phase of design and reconciled with the overall project costs.

Factor 10 Engineering

In a high-performance integrated design, enhancing one building component or element should result in improvements to 10 other components. For example, enhancing the building envelope should result in needing little to no mechanical system, which results in improved indoor environment quality, ultimately resulting in higher productivity from the occupants. The design team will design the building and building systems while embracing this philosophy.

Electrification

In response to the Governor's Executive Order on Greening of State Government (D 2019 016), the project team studied the possibility of building electrification. Selecting building systems that rely on electricity rather than fossil fuels

will increase electricity usage, but eliminate the use of on site fossil fuels such as natural gas. As the state power grid shifts away from the burning of fossil fuels to renewable sources, having an electrified building advances the sustainability goals of the university and the State of Colorado, which are supported by the electrical utility provider (XCEL). XCEL has a goal of providing 80% lower carbon emissions by 2030 and 100% carbon-free electricity by 2050. A life cycle cost analysis evaluating building electrification is provided after this section and in appendix A.

Renewable Energy

The orientation of the building on the site provides excellent exposure for the potential addition of photovoltaic panels. Photovoltaic panels are not included in the building budget, but could be installed on the roof or as canopies on the rooftop terraces. The amount of building energy that photovoltaic panels would offset and the potential ROI would be evaluated as the building design advances. If photovoltaics prove to be cost prohibitive, the building can be built with the necessary infrastructure as a minimal cost for future installation.

Transpired Walls

Given the orientation of the building and local climate, the new building could utilize a transpired wall to preheat the air entering the building. A transpired wall would be an integrated part of the building facade that passively heats the outdoor air to up to 40 degrees before it enters the building, significantly reducing the building heating load. A

transpired wall is not broken out in the current budget, but can be integrated into the design for a nominal fee. The ROI and effects on energy reduction of a transpired wall would be analyzed before incorporating that into the building design.

Indoor Environment

Air quality strategies and healthy material selection are critical to the performance and health of the occupants. Given the current environment surrounding Covid-19 and respiratory diseases, various mechanical scenarios will need to be explored— will the desire for 100% outdoor air be requested at the cost of a larger energy load, or will a cascading air strategy provide the level of air quality that is desired? Materials will also play a large role in ensuring the health of the occupants. Ensuring that harmful chemicals and pollutant exposure is eliminated will optimize the health of the building occupants.



(Left) The J. Craig Venter Institute has two photovoltaic arrays comprising 26,124 SF of surface area that are predicted to exceed the building demand, pushing excess power generated back into the grid. These arrays are utilized as shading devices in most of the exterior spaces.



(Above) Rocky Mountain Institute Innovation Center utilized Factor 10 Engineering to further each sustainable strategy. The enhanced exterior envelope had a 4 year payback when considering it helped eliminate traditional mechanical systems and improved indoor environment quality resulting in increased productivity and engagement.

(Right) Montana State University, Norm Asbjornson Hall uses transpired walls to preheat outside air. Air passing through the transpired wall is preheated to 60 degrees in the middle of Montana's winter before entering the building. This effort is on track to save MSU millions of dollars in operating costs over the coming years.





View of CEDC building from Northbound Speer Boulevard

Building Electrification LCCA

As required by the Governor’s Executive Order on Greening of State Government (D 2019 016), building electrification studies are included. The outcomes have been used to identify strong candidate projects for investment in electrification.

With the electric utility provider committed to zero carbon emissions for electricity generation by 2050 (1 – Xcel Energy), designing all electric buildings will reduce the University’s carbon footprint as the utility grid’s carbon impact improves. Program plans are the critical phase for major architectural massing decisions, HVAC system selection, and thermal utility analysis. All of these will shape the project’s ability to meet carbon and sustainability goals.

The Life Cycle Cost Analysis (summarized in the adjacent charts and included in the Appendix) documents program plan life-cycle cost analysis for various building mechanical systems.

There are no campus thermal utilities for the proposed site, therefore all heating and cooling will be generated on site with either electricity or natural gas. Three all electrically sourced options with varying complexity were compared against a standard baseline option which includes gas and electric sources. Each option was analyzed over a 30-year life cycle. Quantitative values were considered for each option and included Rough Order of Magnitude (ROM) capital cost, operations cost, energy cost, water cost, total energy consumption, water

consumption, and carbon emissions.

All electric laboratory designs are novel and there is not an abundance of historical cost data used for the life cycle analysis. As design progresses and more detailed cost estimates are available (using current labor rates, equipment costs, technology availability) , there is reason to believe that the cost between All-Electric Option 3 and the Baseline could be closer than the report predicts, and Option 3 would have a favorable life cycle cost.

The report recommends refining the Baseline and All-Electric Option 3 systems during Schematic Design to further detail initial costs and more accurately reflect the life cycle estimate.

Option	Description	Reason
Option 1: Base	<ul style="list-style-type: none">AHU DX coolingVAV with HW reheatNatural Gas Hot Water (condensing) BoilersCode Heat Recovery (Wheel) 50% sensible and latent heat recovery effectiveness	Lowest Capital Cost
Option 2: Better	<ul style="list-style-type: none">AHU DX coolingVAV with electric reheatCode Heat Recovery (Wheel) 50% sensible and latent heat recovery effectiveness	Replace gas boilers with electric reheat. Lowest all-electric mechanical capital coStreet
Option 3: Better +	<ul style="list-style-type: none">AHU DX cooling with Direct Evaporative CoolingVAV with HW reheatElectric Heating (Air Source Heat Pump)Maximized Heat Recovery (Wheel) 70% sensible and latent heat recovery effectiveness	Replace gas boilers with Electric Air-sourced Heat Pump. Load reduction on mechanical systems with improved heat recovery and reduced peak cooling demand with evaporative cooling. Improved electric heating efficiency over electric reheat.
Option 4: Best	<ul style="list-style-type: none">AHU/DOAS with Direct Evaporative Cooling (no hydronic coils)Indirect Evaporative Cooling on Exhaust air before entering to the WheelVAV with HW reheat + chilled water (4-pipe)Active Chilled BeamsElectric Heating/Cooling (Sewer Heat Pump)Maximized Heat Recovery (Wheel) 75% sensible and 20% latent heat recovery effectiveness	Maximized load reducing techniques with indirect/direct evaporative cooling, improved heat recovery, and improved terminal unit design (4-pipe VAV/active chilled beams. Sewer-sourced Heat Pump provides all electric heating and cooling with improved efficiencies over air-sourced heat pump.

Costs	Opt 1: Base	Opt 2: Better	Opt 3: Better+	Opt 4: Best
Initial Capital Cost (Total Mechanical and Electrical Cost)	\$16,821,000	\$21,813,207	\$21,299,159	\$22,220,534
Total Energy Cost (Year 1)	\$158,442	\$196,113	\$157,227	\$126,094
Energy Savings Compared to Base Option Yyear 1)		-\$37,671	\$1,215	\$32,348
Total Yearly Operation Costs (w/o Energy or Water)	\$36,769	\$35,846	\$37,692	\$36,769
Total Yearly Operations Cost Savings Compared to Baseline		\$923	-\$923	\$0
Payback		Never	83 years	54 years
Direct & Indirect Carbon Emissions	Opt 1: Base	Opt 2: Better	Opt 3: Better+	Opt 4: Best
Carbon Emissions - Natural Gas (MTCE)	195	0	0	0
Carbon Emissions - Electricity (MTCE)	1,603	2,149	1,723	1,382
Total Carbon Emissions (MTCE)	1,798	2,149	1,723	1,382
Currently no Carbon tax in Colorado				

Financial Model & Assumptions

The total CEDC Project budget is \$80,911,629. The initial concept level breakdown of project costs is below. The total project cost includes 5,000 SF of renovation in North Classroom to accommodate the Machine Shop being relocated from the 5th Street hub.

Project Cost		
A	Professional Services	\$ 10,848,210
B	Construction - Building	\$ 53,499,870
C	Equipment and Furnishings	\$ 9,357,757
D	Miscellaneous	\$ 1,499,787
E	Program Contingency	\$ 4,572,005
NEW BUILDING SUBTOTAL		\$79,777,629
F	5,000 SF NC Renovation	\$ 1,134,000
PROJECT CONSTRUCTION BUDGET		\$ 80,911,629

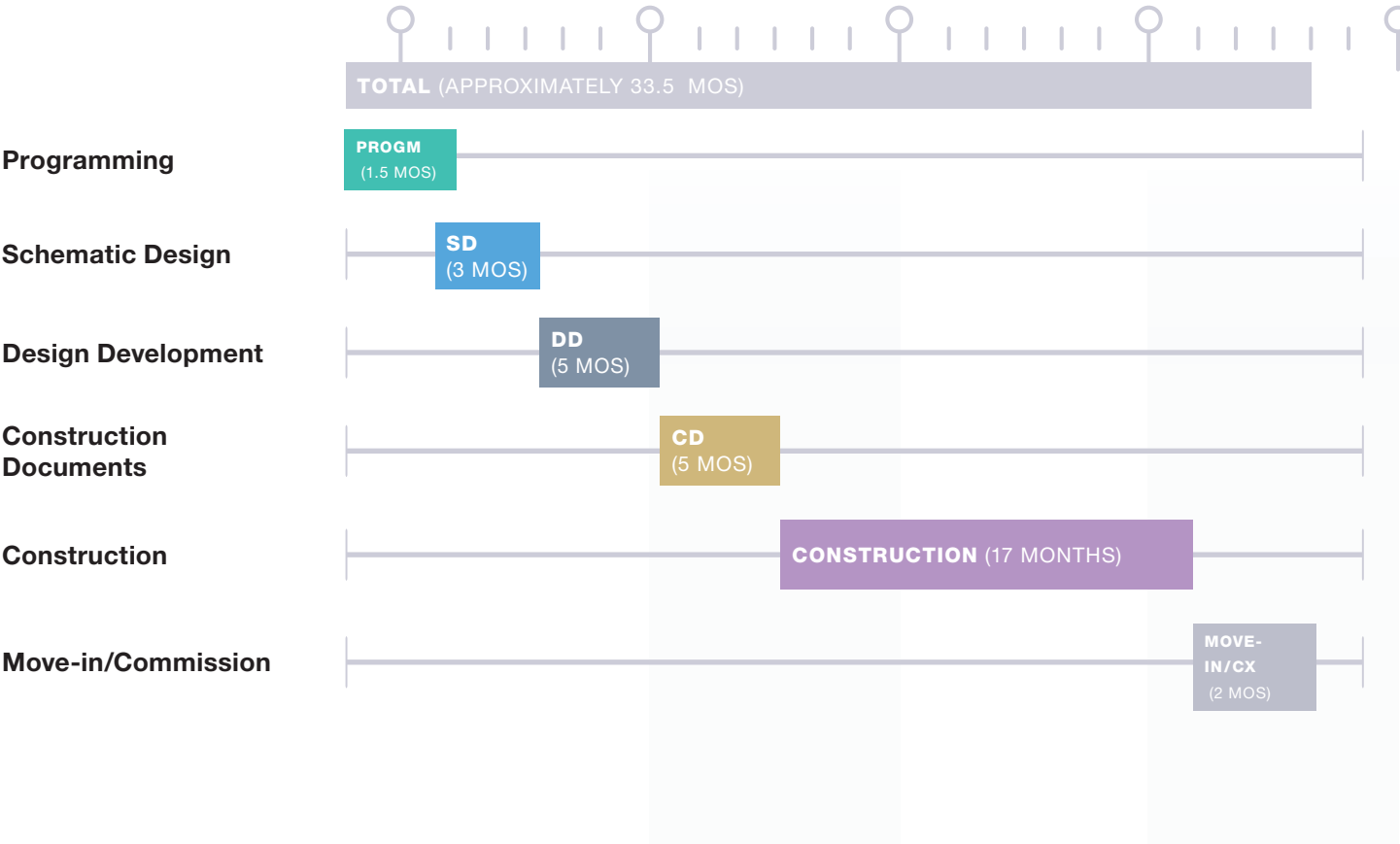
The construction cost for the CEDC project is \$386/SF for classroom and office space and \$632/SF for lab space. These costs are based on historical data from past projects on the Auraria Campus. Space types were then lumped into programmatic blocks to arrive at an estimated project cost. Further definition in the design phase will allow for more detailed cost reporting so that the project can be designed to and tracked against the budget. Some sustainability related design features, such as electrification, have the potential to push the project cost beyond the budget, but overall project goals, expected cost and budget will be further explored in the design phases.



View of south end of Engineering “Alley” and Lawrence Street Mall

Schedule

The below schedule is a preliminary schedule that will be reevaluated once Design begins, a delivery method is confirmed, and again when a contractor is added to the team. This schedule is based on similar projects within the region of a similar size and complexity.



04 Appendix

Electrification LCCA

University of Colorado Denver, College of Engineering
Pivot Plan Electrification LCCA

1. Executive Summary

The new College of Engineering, Design, and Computing Project is envisioned to be five-story, 94,200 gross-square foot development to spur innovation in technology, manufacturing, and engineering, while providing opportunities for life-long learning and community connectivity through engineering on display and outdoor circulation zones. As required by the Governor’s Executive Order on Greening of State Government (D 2019 016), building electrification studies are included to identify strong candidate projects for investment in electrification. With the electric utility provider committed to zero carbon emissions for electricity generation by 2050 (1 – Xcel Energy), designing all electric buildings will reduce the University’s carbon footprint as the utility grid’s carbon impact improves. Program plans are the critical phase for major architectural massing decisions, HVAC systems and thermal utility analysis which will shape the project’s ability to meet carbon and sustainability goals.

This Life Cycle Cost Analysis documents program plan life-cycle cost analysis for various building mechanical systems. There are no campus thermal utilities for the proposed site, therefore all heating and cooling will be generated on site with either electricity or natural gas. Three all electrically sourced options with varying complexity were compared against a standard baseline option which includes gas and electric sources. Each option was analyzed over a 30-year life cycle. Quantitative values were considered for each option and included Rough Order of Magnitude (ROM) capital cost, operations cost, energy cost, water cost, total energy consumption, water consumption, and carbon emissions. First costs are estimated based on historical data, and it is assumed that the first cost for the electrification options are higher than the first cost for the baseline option due to the novelty of the design. As such, there is reason to believe that the cost between All-Electric Option 3 and the Baseline could be closer than the report predicts, and Option 3 would have a favorable life cycle cost.

The report recommends refining the Baseline and All-Electric Option 3 systems during Schematic Design to further detail first costs and more accurately reflect the life cycle estimate.

(1) https://www.xcelenergy.com/company/media_room/news_releases/xcel_energy_aims_for_zero-carbon_electricity_by_2050

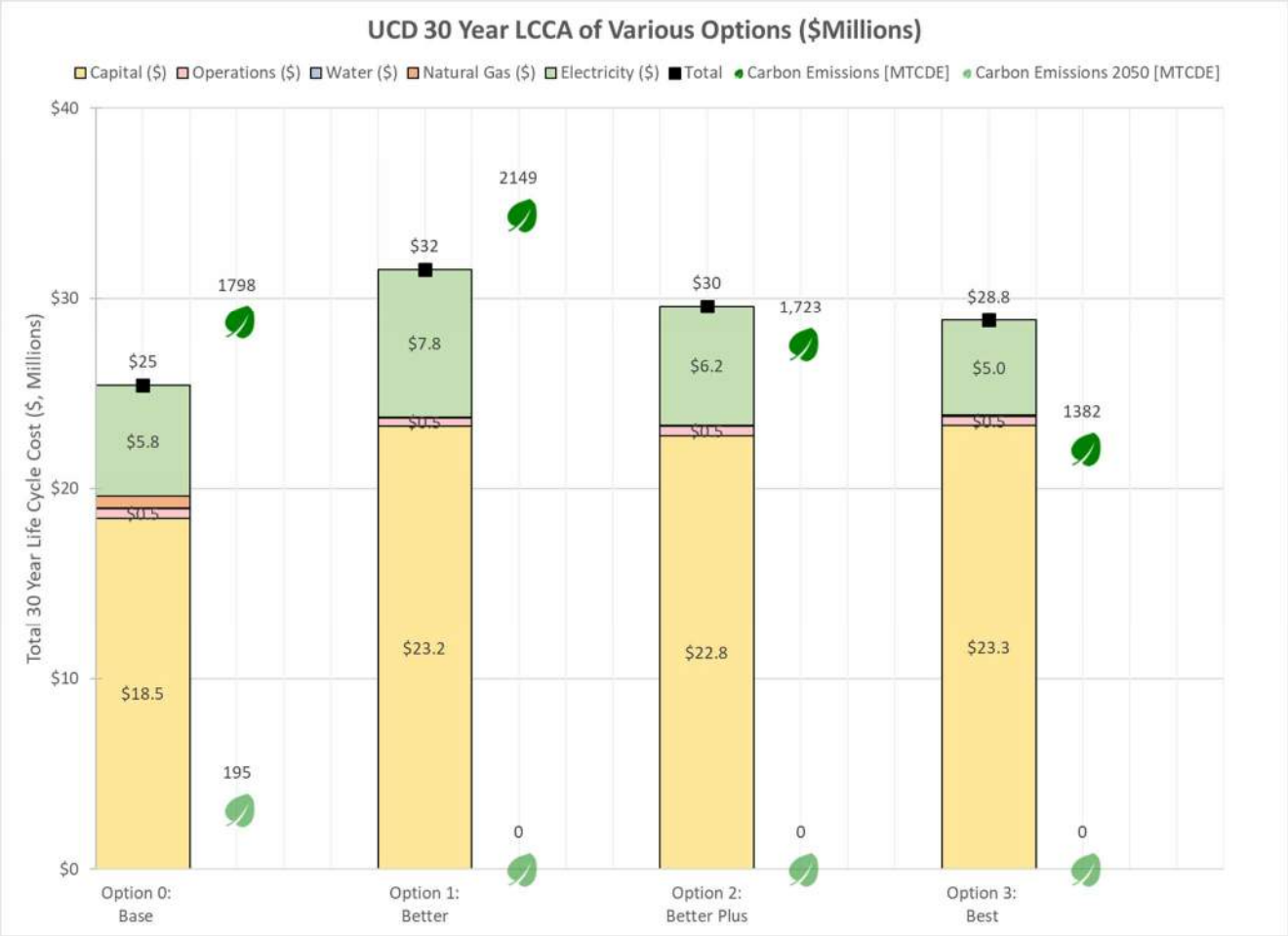


Figure 1– Summary of Life Cycle Cost Analysis
Note: metric ton carbon dioxide equivalent (MTCDE)

Based on the summary of the life cycle cost analysis shown above, AEI would recommend two options for further investigation to refine first costs and impact on a more detailed project program.

1. If a familiar system that uses best practices utilizing electric cooling/ventilation and natural gas heating is preferred, then Option 0 (baseline) should be pursued.
2. If carbon reduction/neutrality is a priority, then Option 3 (Best) should be pursued. The higher initial investment is not justified by life cycle cost savings by today’s utility rates. AEI would recommend considering Option 3 based on university goals for carbon neutrality and future planning for an all-electric infrastructure. This option highlights:
 - Less energy consumption (EUI) 🌱
 - Zero on-site carbon emissions 🌱
 - Less grid carbon emissions dependent on electricity source 🌱
 - Longer equipment life
 - Future proof for State electrification requirementsIn addition, unique features of this option can provide educational opportunities to future engineers.

Certain benchmarked assumptions are made in the analysis which could significantly impact the results such as the escalation rate of electric, natural gas, and water costs, the availability of financial incentives and rebates, and the actual cooling and heating demands of the building. Variability in the energy and water costs and/or the implementation of a carbon tax would reduce the payback time for the electrified and more efficient central energy system. Financial incentives could reduce the additional capital investment required.

Electrification Options Considered

Four cases were considered for this study exploring the options of thermal utility sources and delivery systems. Equipment in the outlined systems would be in rooftop penthouses across the building with air-sourced equipment outside on the roof, and the sewer heat pump system or boilers located on the first floor. The options are summarized in table 1 below.

Table 1 - Summary of Options Considered

Options Considered	#	Description	Reason
Base	0	<ul style="list-style-type: none">AHU DX coolingVAV with HW reheatNatural Gas Hot Water (condensing) BoilersCode Heat Recovery (Wheel) 50% sensible and latent heat recovery effectiveness	Lowest capital cost
Better	1	<ul style="list-style-type: none">AHU DX coolingVAV with electric reheatCode Heat Recovery (Wheel) 50% sensible and latent heat recovery effectiveness	Replace gas boilers with electric reheat. Lowest all-electric mechanical capital cost.
Better +	2	<ul style="list-style-type: none">AHU DX cooling with Direct Evaporative CoolingVAV with HW reheatElectric Heating (Air Source Heat Pump)Maximized Heat Recovery (Wheel) 70% sensible and latent heat recovery effectiveness	Replace gas boilers with Electric Air-sourced Heat Pump. Load reduction on mechanical systems with improved heat recovery and reduced peak cooling demand with evaporative cooling. Improved electric heating efficiency over electric reheat.
Best	3	<ul style="list-style-type: none">AHU/DOAS with Direct Evaporative Cooling (no hydronic coils)	Maximized load reducing techniques with indirect/direct evaporative cooling, improved heat recovery, and improved

		<ul style="list-style-type: none">Indirect Evaporative Cooling on Exhaust air before entering to the WheelVAV with HW reheat + chilled water (4-pipe)Active Chilled BeamsElectric Heating/Cooling (Sewer Heat Pump)Maximized Heat Recovery (Wheel) 75% sensible and 20% latent heat recovery effectiveness	terminal unit design (4-pipe VAV /active chilled beams. Sewer-sourced Heat Pump provides all electric heating and cooling with improved efficiencies over air-sourced heat pump.
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COVID-19 Considerations

Given the current climate, it is important to understand the implications of the ventilation system during a pandemic. All systems studied provide adequate ventilation air as required by local codes. Options 0 – 2 can allow for 100% of the total volume of air through the air handling unit to be outdoor air. In select spaces where active chilled beams are implemented in Option 3, recirculation air within the space and cannot be avoided. Oversizing equipment to meet the additional load of 100% outside air was not studied in this report and would add to the initial costs of the system. In all cases, operable windows are recommended to allow for user controlled natural ventilation.

Results

The key results of the 30-year lifecycle cost estimate are summarized in the table below:

Costs		Option 0: Base	Option 1: Better	Option 2: Better Plus	Option 3: Best	Notes
Initial Capital Cost						
	Total Mechanical and Electrical Cost (all phases)	\$16,821,000	\$21,813,207	\$21,299,159	\$22,220,534	
Water Cost (yr 1)	Total Water and Sewer Cost	\$503	\$503	\$769	\$722	
Natural Gas Cost (yr 1)	Total Natural Gas Cost	\$12,171	\$0	\$0	\$0	
Electricity Cost (yr 1)	Total Electricity Cost	\$146,271	\$196,113	\$157,227	\$126,094	
	Total Energy Cost [\$]	\$158,442	\$196,113	\$157,227	\$126,094	
	Energy Cost Savings Compared to Option 0		-\$37,671	\$1,215	\$32,348	
Operation Cost						
	Number of Full Time Employees	0.223	0.215	0.231	0.223	based on #hrs/year
	Cost of Labor	\$26,769	\$25,846	\$27,692	\$26,769	1 FTE per year /\$120,000
	Cost of Maintenance	\$10,000	\$10,000	\$10,000	\$10,000	estimate for filters, broken dampers, valves, belts, etc
	Total Operations Cost (w/o Energy or Water)	\$36,769	\$35,846	\$37,692	\$36,769	
	Total Operations Cost Savings Compared to Base		\$923	-\$923	\$0	
Payback	Payback	N/A	Never	83 years	54 years	
Direct and Indirect Carbon Emissions	Carbon Emission NG (MTCE)	195	0	0	0	
	Carbon Emission ELE (MTCE)	1,603	2,149	1,723	1,382	
	Total Carbon Emission (MTCE)	1,798	2,149	1,723	1,382	
	Carbon Offset Cost [\$]	\$0	\$0	\$0	\$0	No carbon tax present for Colorado

Table 2 - Summary of Life Cycle Cost Analysis

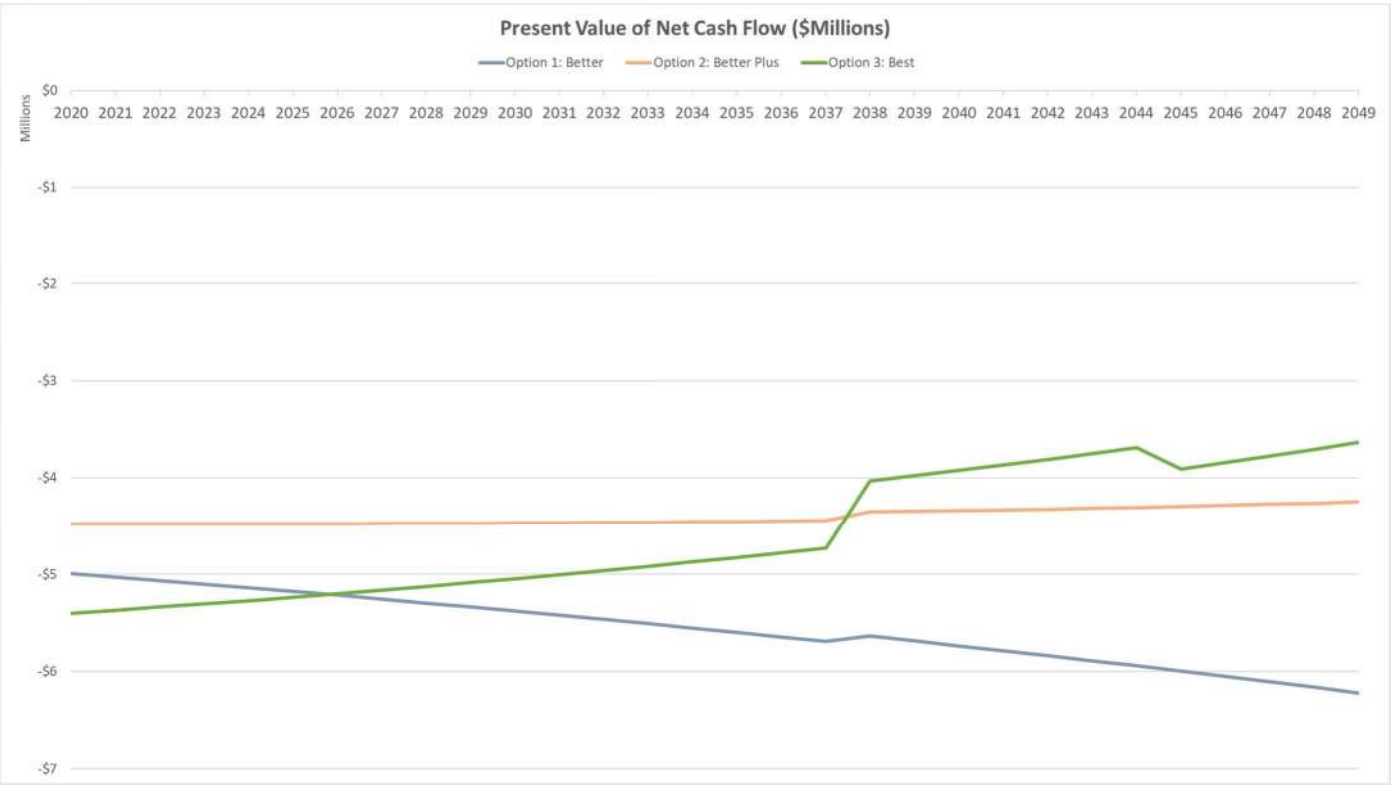


Figure 2 – Present Value of Net Cash Flow

AEI made several observations and conclusions from the Life Cycle Cost Analysis.

It is immediately apparent that Options 1, 2, 3 **DO** meet the all-electric goal but **DO NOT** payback within the 30 analysis when compared to the baseline option (x-axis) when using today's utility rates and considering no carbon neutrality incentives. Option 1 does not reduce energy costs over the baseline and therefore trends away from the x-axis which indicates it will never payback. Options 2 and 3 reduce energy costs and therefore trend upward toward the x-axis which indicates there will be a payback in the distant future. Option 3 trends upwards the quickest indicating that of the three all-electric options it will payback the soonest, but still outside of this 30-year analysis again based on today's utility rates.

Option 1 will generate the most carbon emissions initially but as the electric grid moves from carbon emitting sources to renewable sources, Option 1 will eventually release fewer emissions than the baseline solution. Options 2 and 3 emit fewer emissions from the baseline from the beginning and will continue to do so as the grid improves.

Sensitivity

With the relatively high constructions costs in the Denver area and relatively low utility rates, there is no near-term paybacks. Should utility rates, especially natural gas rates, rise due to political climate around using natural gas or the addition of a carbon tax, the payback for all electric options would reduce. For instance, with a 10% natural gas escalation rate and a \$25 per MTCDE carbon tax, Option 3 would have a payback of 38 years. Also, if Option 3 initial costs are within 10% of baseline cost, Option 3 would have a payback within 30 years.

Recommendations

The best performing option to achieve energy and carbon reduction is to invest in Option 3, however this study shows the payback greater than 30 years given the assumed high initial capital cost and the low costs of both electricity and natural gas based on today's utility rates and no carbon neutrality financial incentive mechanisms. If reducing carbon emissions and demonstrating sustainable practices are a priority regardless of payback time-frame, Option 3 best displays these priorities.

The first costs used for the life cycle analysis are based on historical system data. While AEI has significant experience designing all-electric systems, they are novel and there is not an abundance of historical cost data. As such, there is reason to believe that the cost between Option 3 and the Baseline could be closer than our benchmarks predict and Option 3 would have a favorable life cycle cost.

AEI recommends refining the Baseline and Option 3 systems during schematic design to further detail first costs and more accurately reflect the life cycle estimate. If the Baseline Option is selected, the building can be future-proofed for all-electric infrastructure with thoughtful design that does not impact project budget.

APPENDIX

Methodology and Assumptions

Building Load Profile

AEI developed an energy model for the building using EnergyPlus, with a high-performance envelope to determine the annual cooling and heating demand and operational profile based on historical design data.

Table 4 is a high-level summary of inputs assumed for these early massing energy models. The energy model load profiles are calculated using code ASHRAE 90.1 characteristics, and estimated typical internal loads, without any allowances for climate change, construction deviations or occupancy variances. The real operating peak cooling demand is expected to be between 500 and 700 square feet per cooling ton at the LLL tower and residence facility, and between 350 and 500 for the LSTE buildings, which is slightly lower than loads used in this analysis.

The cooling and heating demand calculated by the energy model is summarized below.

Table 3 – Loads Summary

	LSTE (East)
Square Feet	94,200
Peak Cooling (Tons)	200
Cooling (Ton-hours)	420,166
Peak Heating (MBH)	1,317
Heating (MMBtu)	2,876

Table 4 - Energy Model Inputs

General	Weather Data	Denver, CO
	ASHRAE Climate Zone	5B
	Energy Code	ASHRAE 90.1 2013
	Simulation weather file	USA_CO_Denver.Intl.AP.725650_TMY3.epw
Building Envelope	Modeled total floor area	94,200 sf
	Roof constructions	U-factor = 0.050
	Window constructions	U-factor = 0.55, SHGC=0.28
	Exterior wall constructions	U-factor = 0.064
	Window to Wall Area Ratio	40%
System Assumptions	HVAC	See Table 1
	Lighting	LED throughout
	Kitchen	Excluded process gas/steam
	Labs	Excluded process gas/steam
	Equipment (Labs)	8W/sf
	Equipment (Offices)	2W/sf

Lab Air Change Rates per Hour (ACH)	Labs	6ACH occ./4 ACH unocc.
	Other spaces	Compliant with min ventilation per ASHRAE 62.1
Utility Cost	Natural Gas	\$3.7/MMBtu (virtual rate calculated based on local utility tariff)
	Electricity	\$0.055/kWh (virtual rate calculated based on local utility tariff)
	Water	\$2.67 per 1,000 gallons
Economic Factors	Electricity Cost Escalation Rate	3%
	Natural Gas Cost Escalation Rate	4.7%
	Water and Sewer Cost Escalation Rate	3%
	Interest Rate	3%
	Inflation Rate	3.5%

Additional Modelling Results

From the AEI energy model, the results of the different mechanical options are summarized below.

Figure 3. EUI Comparison by End-use Category

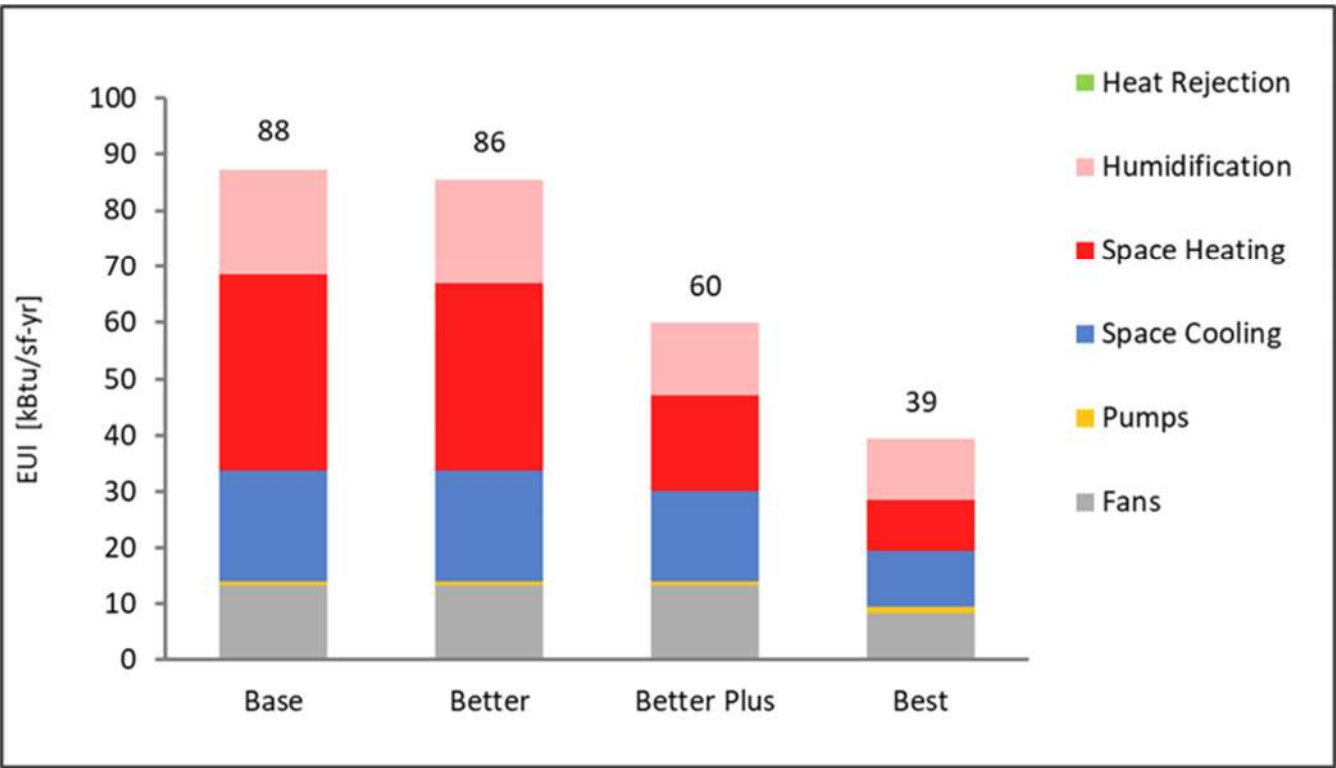
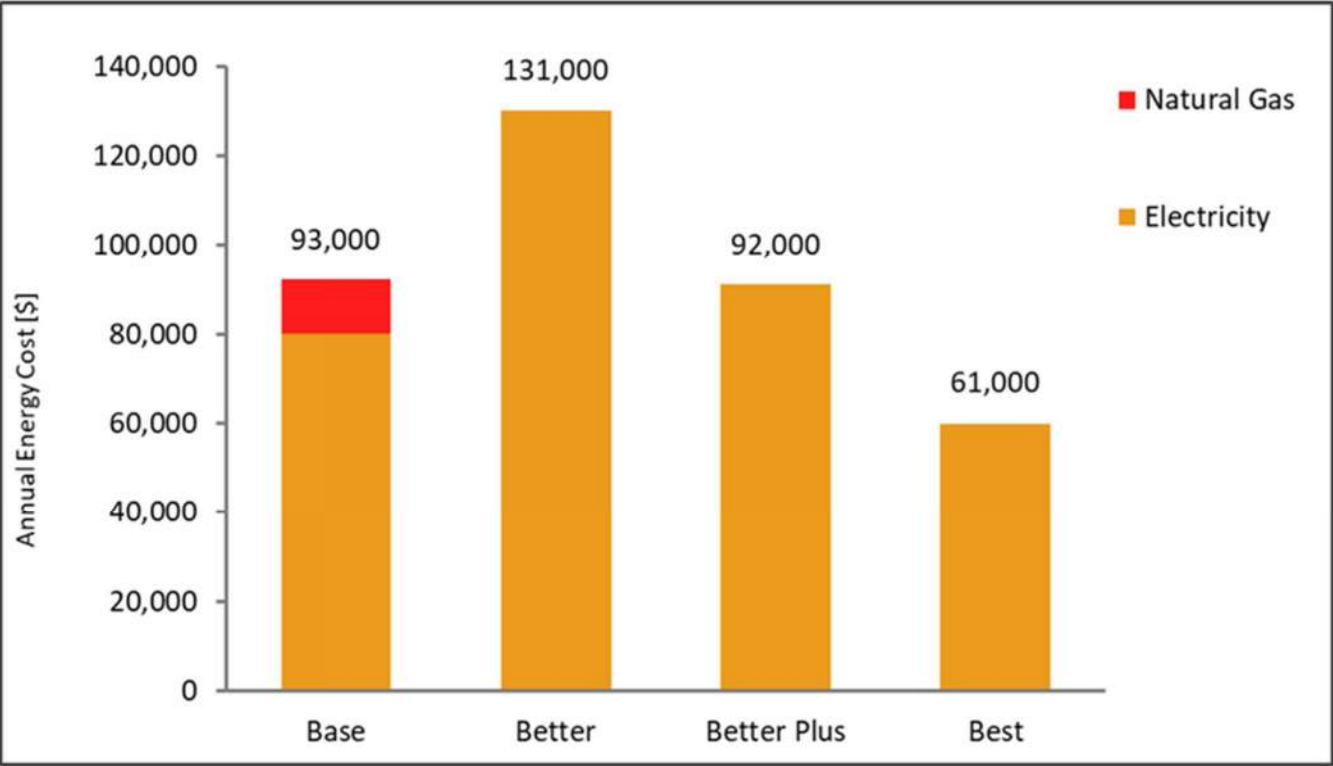


Figure 2. Annual Energy Cost Summary



Third-Party Independent Review

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23 March 2021

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University of Colorado Denver

RE: Third-Party Independent Review
CU Denver College of Engineering, Design, and Computing (CEDC)
2021 Program Plan Amendment

To the CU Denver Team,

We have reviewed the referenced Program Plan Amendment addressing updates to the CU Denver CEDC. We offer the following comments:

Executive Summary:

1. *Executive Summary* is consistent with the findings in the previous program plan exercises conducted since 2015, which articulate the evolving landscape of contemporary engineering education and specifically its cross-disciplinary complexion. The summary identifies the proposed new site for the building, identified as a development site by the CU Denver 2017 Facilities Master Plan, to enhance the gateway into the CU Denver Neighborhood at the Auraria Higher Education Center (AHEC).

Introduction & Background:

2. *Institutional Background* provides a succinct overview of the CU Denver historical evolution within AHEC and downtown Denver, and its role as a public urban research university in the city and the state;
3. *Project History* provides overview of the evolving program plan for the CEDC project since the original 2015 Program Plan, including the exploration of different sites for the project and program iterations focused on consolidation of physical space to reinforce collaborations across colleges.
4. *Mission & Vision* clearly articulates the trending attributes of today's engineering education, and CU Denver's focus with the CEDC project towards establishing itself as a leader of innovation within the Denver urban corridor.
5. *Relation to Strategic Plan* pointedly connects the vision of the CEDC with specific goals and objectives as articulated in the 2008-2020 University of Colorado Denver Strategic Plan.
6. *Future of Engineering & Facilities* reinforces the overarching mission of the CEDC as it relates to the educating and delivering the future generation of engineers.
7. *Statement of Need and Benefit* reflects alignments of the CEDC with current U.S. labor analysis of engineering careers and with Colorado Commission on Higher Education (CCHE) restated goals per its 2017 Master Plan Update; the section also provides a clear summary of classroom and lab spaces needs.

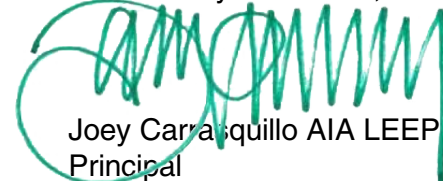
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Project Description:

8. The new site proposed is identified as a development site by the CU Denver 2017 Facilities Master Plan.
9. The proposed site is concentrated at what is considered to be the gateway to the CU Denver Neighborhood at AHEC.
10. The CEDC program will maintain a strong affinity with the North Classroom Building (NCB), where current programming resides, and with some programming slated to remain, having been recently renovated during improvements to the NCB.
11. The site conditions – physical patterns, constraints and opportunities - are clearly communicated in the description of the proposed site.
12. The program description articulates a building efficiency factor that is consistent with this building type.
13. The High Performance agenda for the project is briefly described and is consistent with concepts typically explored for State of Colorado projects required to secure LEED-certification; and a specific analysis has been conducted to initially address alignment with State of Colorado steps toward more sustainable state facilities.
14. The Financial Model & Assumptions analysis is consistent and appropriate for construction of a project of this building type and scale, based on our familiarity with projects at AHEC, and with projects of this building type delivered in the Denver-metro region.

In summary, the 2021 Program Plan Amendment for the CU Denver College of Engineering, Design, and Computing (CEDC) puts forth reasonable recommendations that evolve the goals, objectives and findings of the previous program plan efforts since 2015.

Respectfully Submitted,



Joey Carrasquillo AIA LEED AP
Principal

Anderson Mason Dale Architects
Architect, State of Colorado, License No. 20-3349

Appendix H

CM/GC PERSONNEL MONTHLY SALARY RATES AND BURDEN DETAILS

CM/GC PERSONNEL AND FULLY BURDENED MONTHLY SALARY RATES

Project No. & Name: 22-103067 / CU Denver College of Engineering, Design, and Computing Building and North Classroom Renovations

The following Burdened Monthly Salary Rate (MSR) shall identify the monthly billable rate and shall be submitted with cost proposals due prior to oral interviews with sealed proposal. These rates will also be confirmed during the Guaranteed Maximum Price Proposal phase for use throughout Construction Phase Services for all salaried direct personnel expense. The rate shall include the employee's estimated monthly direct salary expense (including future salary increases during the project schedule), plus any employer payroll taxes and/or fringe benefit contributions as identified below. Any additional employer contributions not identified below shall be included in the Construction Phase Fee.

Employee		Employer's Monthly Contributions (Burden)										Monthly Salary Rate (Fully Burdened)
Name and Title	Estimated Monthly Direct Salary Expense	Federal & State Unemp. Insurance	Social Security & Medicare	Worker's Comp	Health Insurance	Life / Disability / Other Insurance	Vacation / Holiday	IT	Phones	Vehicle	General & Administrative	
1.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
2.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
3.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
4.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
5.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
6.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
7.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
8.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
9.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
10.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
11.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
12.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
13.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
14.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
15.	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

CM/GC shall certify, to the best of their knowledge, that the above referenced salary information is accurate.

CM/GCM signature: _____ (same individual who will sign CM/GC agreement)