



**University of Colorado Denver
CU-D Business School
Level P2 Drain Replacement**



University of Colorado **Denver**

Project Manual
100% Construction Documents

May 27, 2022
SBEC #220004

Division Section Title

PROJECT TYPE INCLUSION MATRIX

| | | D/B/B <\$150k | D/B/B >\$150k | D/B/B >500k | CM/GC |
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END OF SECTION 00 01 00

SECTION 00 01 04 – PROJECT DIRECTORY

PART 1 - GENERAL

1.01 PROJECT DIRECTORY

A. OWNER/UNIVERSITY

University of Colorado Denver | Anschutz Medical Campus
Campus Services, Mail Stop F418
1945 Wheeling Street, Rm 334
Aurora, CO 80045

Greg Filpus
gregory.filpus@cuanschutz.edu

B. ENGINEERS

Shaffer Baucom Engineering Consultants
3900 S. Wadsworth Blvd. Lakewood, Co 80235
dhartman@sbengr.com

David Hartman

C. CONSULTANTS

Martin & Martin Consulting Engineers
12499 W. Colfax Ave, Lakewood Co 80235

Matt Schneider
MSchneider@martinmartin.com

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 01 04

Construction Documents

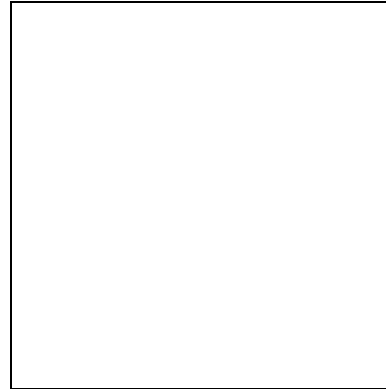
SECTION 00 01 07 - SEALS PAGE

DESIGN PROFESSIONALS OF RECORD

Architect: N/A

Colorado License # N/A

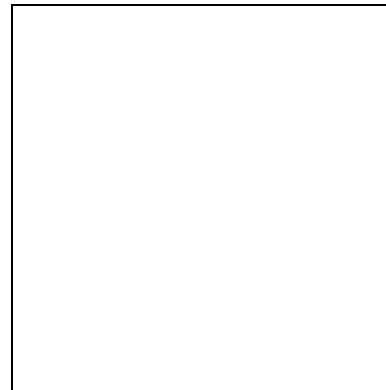
Responsible for those Sections appended with "A" on Table of Contents



Structural Engineer: N/A

Colorado License # N/A

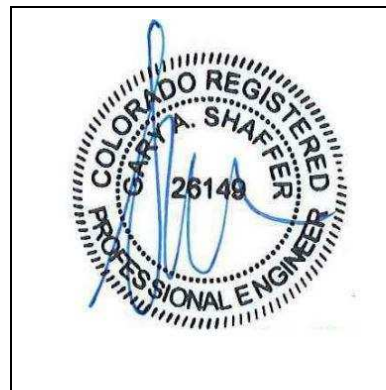
Responsible for those Sections appended with "S" on Table of Contents and the Structural Calculations



Mechanical / Plumbing Engineer: Gary A. Shaffer

Colorado License # 26149

Responsible for those Sections appended with "P" or "M" on Table of Contents and the Mechanical Load Calculations.



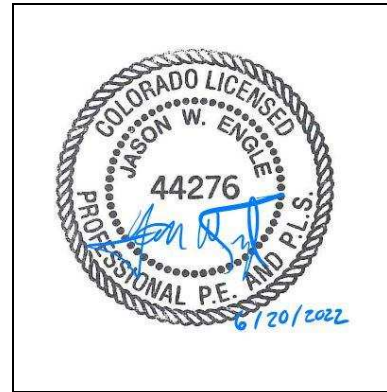
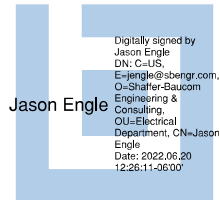
Digitally signed by Gary Shaffer
DN: c=US,
E=gshaffer@sbengr.com,
O=Shaffer Baucom Engineering & Consulting,
CN=Gary Shaffer
Date: 2022.06.16 17:04:47-06'00'

Construction Documents

Electrical Engineer: Jason W. Engle

Colorado License : 44276

Division 26 only



END OF SECTION 00 01 07



**ADVERTISEMENT FOR BIDS
Design/Bid/Build
State of Colorado
University of Colorado Denver (GFE)**

***** OPEN TO SMALL CONSTRUCTION PURCHASE PROGRAM CONTRACTORS ONLY *****
SCPP INFORMATION: <http://bit.ly/FacilitiesProjectsSCPP>

Project No: 21-161645

Project Title: CU Denver Business School Level P2 Drain replacement

Estimated Construction Cost: \$299,550

Settlement Notice

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 in the same location as the original solicitation.

Project Description

Remove and replace the storm drainage piping and area drains serving the P2 level of the CU Denver Business School parking garage.

The prime contractor must be part of the University of Colorado Denver Small Construction Purchase Program and must use an electrical subcontractor who is also part of the Small Construction Purchase Program.

Scope of Services

Provide all necessary concrete demolition and debris removal from the site to replace the storm drainage piping and area drains serving the P2 level of the CU Denver Business School parking garage. Furnish and install water detection sensors in the elevator shafts and provide all necessary disconnects of existing drains. Replace the entry ramp trench drain and clean existing area drains on level P1. Reinstall all concrete removed during the project and restore all finishes, parking lot striping, etc. to their original condition. Provide all construction cleaning and final cleaning.

Minimum Requirements

Notice is hereby given to all interested parties that all firms will be required to meet all minimum requirements to be considered for this project. To be considered as qualified, interested firms shall have, as a minimum:

1. Provided General Contracting services within the last three (3) years for at least two (2) projects each in excess of \$299,550 (hard costs), utilizing the expertise present in their Colorado Office; and
2. Demonstrated specific General Contracting experience in projects of similar scope and complexity; and
3. Demonstrated bonding capability up to \$299,550 for an individual project coincidentally with current and anticipated workloads; provide letter from surety that affirms this capacity.
- 4) Per C.R.S. §24-92-Part 2, a public construction project in the amount of five hundred thousand dollars or more shall be subject to the State prevailing wage rate, of the regular, holiday, and overtime wages paid and the general prevailing payments on behalf of employees to lawful welfare, pension, vacation, apprentice training, and educational funds in the State, for each employee needed to execute the contract. Payments to the funds must constitute an ordinary business expense deduction for federal income tax purposes by contractors and subcontractors. Contractors are required to pay their employees at weekly intervals and shall comply with the enforcement provisions of C.R.S. §24-92-209. Contractors awarded a project of this size will be required to utilize the LCPTracker cloud-based labor compliance and certified payroll application.

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 Proposals** website:

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

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.

Per C.R.S. §24-105-201 If the construction value is \$50,000 or greater a Bid Bond and Power of Attorney or Proposal Guaranty is required in an amount not less than 5% of the total Bid.

Pre-Bid Meeting

A mandatory Pre-Bid Meeting will be held at: CU Business School:

Address: **1475 Lawrence Street**

Room: **First floor lobby**

Date/Time: **6/28/2022 at 10:00am**

Schedule/Submission Details

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

| | |
|---|----------------------------|
| Advertisement | <u>6/20/2022</u> |
| Mandatory Pre-Bid Conference and Tour | <u>6/28/2022, 10:00am</u> |
| Date Email Questions Due | <u>7/01/2022, 2:00pm</u> |
| Date Email Answers Issued | <u>7/06/2022</u> |
| Sealed Bids Due | <u>7/10/2022, 2:00pm</u> |
| Bid Results Published | <u>7/13/2022</u> |
| Contract Approval (projected) | <u>7/19/2022</u> |
| Anticipated Design Start | <u>Completed</u> |
| Anticipated General Contractor Start Precon | <u>7/19/2022</u> |
| Anticipated Construction Start/Finish | <u>8/08/2022-9/02/2022</u> |

2. ONE (1) electronic copy of the sealed bid are due **7/10/2022** and shall be received no later than **2:00PM** and shall be submitted via CU Denver Online RFQ Submission at the following address: https://ucdenverdata.formstack.com/forms/rfp_rfq_submission

| | |
|---------------|--|
| Agency: | <u>University of Colorado Denver</u> |
| Contact Name: | <u>Greg Filpus</u> |
| Address: | <u>Gregory.Filpus@cuanschutz.edu</u> |
| | <u>Campus Services Building</u> |
| | <u>1945 Wheeling Street Mail Stop F418</u> |
| | <u>Aurora, CO 80045</u> |

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 or posted on ColoradoVSS website. Respondents may elect to verify times and dates by email, but no earlier than 36 hours before the scheduled date and time.

Point of Contact/Clarification

| | |
|---------|--|
| Name: | <u>Greg Filpus</u> |
| Agency: | <u>University of Colorado Denver (GFE)</u> |
| Phone: | <u>720-281-7417</u> |
| Email: | <u>Gregory.Filpus@cuanschutz.edu</u> |

**NOTICE TO STATE CONTRACTORS
VACCINATION REQUIREMENTS**



NOTICE LETTER TO CONTRACTORS TEMPLATE

October 06, 2021

All Contractors Working within CU Denver/Anschutz Medical Campus Facilities

Subject: Vaccination Requirements

Dear Contractor:

On August 31, 2021, pursuant to the [Sixth Amended Public Health Order 20-38](#), Limited COVID Restrictions, all State Contractors and State Contractor Workers who physically enter a State Facility shall comply with the Vaccination Requirements included in Section III of the Order. All State Contractors and State Contractor Workers, including individuals who have been infected with and recovered from COVID-19, shall have received their first dose in a two dose COVID-19 series no later than September 30, 2021 and be Fully Vaccinated by October 31, 2021.

On September 30, 2021 the [Seventh Amended Public Health Order 20-38](#) (PHO or Order), allowed for State Contractor Workers to participate in twice weekly COVID-19 testing if they have an employer approved medical or religious exemption or are unvaccinated.

You are receiving this letter because your company has a contract with University of Colorado Denver/Anschutz Medical Campus and, as part of the performance of that contract, certain of your company's personnel (including any subcontractor personnel) are required to or likely will provide contracted goods or services in person and on-site. Therefore, as a contractor, your company is subject to the vaccination or testing requirements set forth in the Order.

As permitted by the Order, University of Colorado Denver/Anschutz Medical Campus State Contractors shall assume responsibility for verification of full COVID-19 vaccination, approving all exemptions for medical or religious beliefs and determining any accommodations needed for such exemptions.

State Contractors shall verify that each of the identified State Contractor Workers is Fully Vaccinated, or that each of the identified State Contractor Works that is unvaccinated or has a medical or religious exemption is participating in twice weekly COVID-19 testing.

Please be aware that the University of Colorado Denver/Anschutz Medical Campus retains the right to inquire into compliance with the Order's requirements at any time, to include requesting a State Contractor to provide proof of vaccination or a recent negative COVID-19 test.

The State of Colorado values your firm as a contract partner to deliver needed goods or services. Accordingly, we are hopeful that your company will comply with the Order and help the state reduce the spread of the virus. In the meantime, please see COVID-19 Vaccination Requirements for State Contractors FAQs. (<https://dhr.colorado.gov/covid-19-vaccination-requirements-for-state-contractors>)

University of Colorado Denver/Anschutz Medical Campus

This Notice is also available on the web at:

| | |
|---|--|
| https://codpa-vss.cloud.cgifederal.com/webapp/PRDVSS2X1/AltSelfService | |
| Media of Publication(s): | University of Colorado Denver Anschutz Medical Campus Facilities Projects Website |
| Publication Dates: | 6/20/2022 |

APPENDICES:

Appendix A: Information for Bidders (SBP-6.12)

Appendix B: Bid Form (SBP-6.13)

~~Appendix B1: Bid Alternates (SBP-6.131)~~

~~Appendix B2: Unit Pricing (SBP-6.133)~~

Appendix B3: Bid Bond (SBP-6.14)

Appendix C: Certification and Affidavit Regarding Unauthorized Immigrants (Form UI-1)

~~Appendix D: Direct Labor Burden Calculation (SBP-6.18)~~

~~Appendix E: Applicable Prevailing Wage and Apprenticeship and Fringe Rates~~

~~Appendix F: Apprenticeship Utilization Certifications (SBP-6.17)~~

SECTION 00 21 13 – INFORMATION TO BIDDERS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 INFORMATION TO BIDDERS

- A. State of Colorado form “Information to Bidders” (SBP-6.12).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 21 13



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

INFORMATION FOR BIDDERS

Institution or Agency: University of Colorado - Denver
Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

1. **BID FORM:** Bidders are required to use the Bid form attached to the bidding documents. Each bidder is required to bid on all alternates and indicate the time from the date of the Notice to Proceed to Substantial Completion in calendar days, and in addition, the bidder is required to indicate the period of time to finally complete the project from Substantial Completion to Final Acceptance, also in calendar days. Bids indicating times for Substantial Completion and Final Acceptance in excess of the number of days indicated in the Advertisement for Bids for completion of the entire Project may be found non-responsive and may be rejected. The bid shall not be modified or conditioned in any manner. Bids shall be submitted in sealed envelopes bearing the address and information shown below. If a bid is submitted by mail, this aforementioned sealed envelope should be enclosed in an outer envelope and sent to the following addressee:

INSERT NAME OF AGENCY AND ADDRESS WHERE BID SHOULD BE DELIVERED

The outside of the sealed inner envelope should bear the following information:

Project # 21-161645
Project Name: Business School Level P2 Drain Replacement
Name and Address of Bidder
Date of Opening
Time of Opening

2. **INCONSISTENCIES AND OMISSIONS:** Bidders may request clarification of any seeming inconsistencies, or matters seeming to require explanation, in the bidding documents at least three (3) business days prior to the time set for the opening of Bids. Decisions of major importance on such matters will be issued in the form of addendum.
3. **APPLICABLE LAWS AND REGULATIONS:** The bidder's attention is called to the fact that all work under this Contract shall comply with the provisions of all state and local laws, approved state building codes, ordinances and regulations which might in any manner affect the work to be done or those to be employed in or about the work. Attention is also called to the fact that the use of labor for work shall be governed by the provisions of Colorado law which are hereinafter set forth in Articles 27 and 52E of the GENERAL CONDITIONS.
4. **UNAUTHORIZED IMMIGRANTS:** Note that the Special Provisions of the General Conditions of the Contract includes the following language: PUBLIC CONTRACTS FOR SERVICES - CRS 8-17.5-101 and PUBLIC CONTRACTS WITH NATURAL PERSONS - 24-76.5-101. The Contractor certifies that the Contractor shall comply with the provisions of CRS 8-17.5-101 et seq. The Contractor 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 the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, and (ii) otherwise will comply with the requirements of CRS 8-17.5-102(2)(b). The Contractor 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 Contractor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the State.

A Contractor that operates as a sole proprietor hereby swears or affirms under penalty of perjury that the Contractor (i) is a citizen of the United States or otherwise lawfully present in the United States pursuant to federal law, (ii) shall comply with the provisions of CRS 24-76.5-101 et seq, and (iii) shall produce one of the forms of identification required by CRS 24-76.5-103 prior to the effective date of this Contract. Except where exempted by federal law and except as provided in CRS 24-76.5-103(3), a Contractor that receives federal or state funds under this contract must confirm that any individual natural person eighteen years of age or older is lawfully present in the United States pursuant to CRS 24-76.5-103(4) if such individual applies for public benefits provided under this contract.

5. **TAXES:** The bidder's attention is called to the fact that the Bid submitted shall exclude all applicable federal excise or manufacturers' taxes and all state sales and use taxes as hereinafter set forth in Article 9C of the GENERAL CONDITIONS.
6. **OR EQUAL:** The words "OR EQUAL" are applicable to all specifications and drawings relating to materials or equipment specified. Any material or equipment that will fully perform the duties specified, will be considered "equal", provided the bid submits proof that such material or equipment is of equivalent substance and function and is approved, in writing. Requests for the approval of "or equal" shall be made in writing at least five (5) business days prior to bid opening. During the bidding period, all approvals shall be issued by the Architect/Engineer in the form of addenda at least two (2) business days prior to the bid opening date.
7. **ADDENDA:** Owner/architect initiated addenda shall not be issued later than two (2) business days prior to bid opening date. All addenda shall become part of the Contract Documents and receipt must be acknowledged on the Bid form.
8. **METHOD OF AWARD - LOWEST RESPONSIBLE BIDDER:** If the bidding documents for this project require alternate prices, additive and/or deductible alternates shall be listed on the alternates bid form provided by the Principal Representative. Bidders should note the Method of Award is applicable to this Bid as stated below.
 - A. **DEDUCTIBLE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid combined with deductible alternates, deducted in numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The subtraction of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be subtracted from the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - B. **ADDITIVE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid plus all additive alternates added in the numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The addition of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be added to the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - C. **DEDUCTIBLE AND ADDITIVE ALTERNATES:** Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.
9. **NOTICE OF CONTRACTOR'S SETTLEMENT** – Agencies/institutions must indicate in the initial Solicitation (Advertisement for Bids, Documented Quotes, or Requests for Proposals) whether settlement will be advertised in newspapers or electronic media.

The Advertisement for Bids can be located at the web site: www.colorado.gov/pacific/osa/cdnotices
(Click on the appropriate link [ColoradoVSS or ColoradoBIDS] or on the State Purchasing Office website)

SECTION 00 41 53 – BID FORM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. 00 43 13 - Bid Bond (SPB-6.14)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 BID FORM

- A. FORM: State of Colorado form “Bid” (SBP-6.13).
- B. A copy of the above noted form is attached to the end of this section.
- C. Additional State and University of Colorado forms to be attached to the submitted bid are listed in the Articles below.

1.05 PROCEDURES

- A. The durations for Bidder’s Time of Completion shall match the project advertisement duration.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 41 53

to completion. The bidder represents that Article 7D of the Contractor's Agreement (SC-6.21) has been reviewed to determine the type and amount of any liquidated damages that may be specified for this contract.

6. EXECUTION OF DOCUMENTS: The bidder understands that if this Bid is accepted, bidder must execute the required Agreement and furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance and Affidavit Regarding Unauthorized Immigrants within ten (10) days from the date of the Notice of Award, and that the bidder will be required to sign to acknowledge and accept the Contract Documents, including the Drawings and Specifications.

7. ALTERNATES: Refer to the Information for Bidders (SC-6.12) for Method of Award for Alternates and use State Form SBP-6.13.1 Bid Alternates form to be submitted with this bid form if alternates are requested by the institution/agency in the solicitation documents.

8. Submit wage rates (direct labor costs) for prime contractor and subcontractor as requested by the institution/agency in the solicitation documents.

9. The right is reserved to waive informalities and to reject any and all Bids.

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

SIGNATURES: If the Bid is being submitted by a Corporation, the Bid shall be signed by an officer, i.e., President or Vice-President. If a sole proprietorship or a partnership is submitting the Bid, the Bid shall so indicate and be properly signed.

Dated Day , 20
this of _____

THE BIDDER:

Company Name Address (including city, state and zip)

Phone number:

Name (Print) and Title Signature

SECTION 00 41 55 – DIRECT LABOR BURDEN CALCULATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 DIRECT LABOR BURDEN CALCULATION

- A. FORM: State of Colorado form “Direct Labor Burden Calculation” (SBP-6.18).
- B. A copy of the above noted form is attached to the end of this section.
- C. Additional State and University of Colorado forms to be attached to the submitted bid are listed in the Articles below.

1.05 PROCEDURES

- A. The form shall be submitted for the bidding firm on award of low bid and prior to contract being issued.
- B. Submission of a project bid acknowledges agreement of this requirement. Fail to submit this form may deem a bid as non-responsive

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 41 55



OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

STATE OF COLORADO

DIRECT LABOR BURDEN CALCULATION

Institution/Agency

:

University of Colorado - Denver

Project No./Name: **21-161645 – Business School Level P2 Drain Replacement**

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% | |
| | | |
| | | |

SECTION 00 43 13 – BID BOND

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 BID BOND

- A. FORM: State of Colorado form “Bid Bond” (SBP-6.14).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURES

- A. This bid bond must be accompanied by Power of Attorney.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 43 13



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

BID BOND

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645: Business School Level P2 Drain Replacement

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, _____ hereinafter called the "PRINCIPAL", is submitting a PROPOSAL for the above described project, to the STATE OF COLORADO, hereinafter called the "OBLIGEE".

WHEREAS, the Advertisement for Bids has required as a condition of receiving the Proposals that the Principal submit with the PROPOSAL GUARANTY in an amount not less than five per cent (5%) of the Proposal, which sum it is specifically agreed is to be forfeited as Liquidated Damages in the event that the Principal defaults in his obligation as hereinafter specified, and, in pursuance of which Requirement, this Bid is made, executed and delivered.

NOW THEREFORE, the Principal and _____ a corporation of the State of _____, duly authorized to transact business in Colorado, as Surety, are held and firmly bound unto the Obligee, in the sum of five per cent (5%) of the Principal's total bid price, lawful money of the United States for the payment of which sum, well and truly to be made to the Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

FURTHER THAT, a condition of the obligation that the Principal shall maintain his Proposal in full force and effect for thirty (30) days after the opening of the proposals for the project, or, if the Principal's Proposal is accepted, the Principal shall, within the prescribed time, execute the required Agreement, furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy, Certificates of Insurance and Certification and Affidavit Regarding Illegal Aliens, then this obligation shall be null and void, otherwise it shall remain in full force and effect, and subject to forfeiture upon demand as Liquidated Damages.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

ATTEST

Secretary

Name (Print)

THE PRINCIPAL

Company Name

Address (including city, state and zip)

Phone number: _____

Signature

Name (Print) and Title

SIGNATURES

If the "Principal" is doing business as a Corporation, the Bid Bond shall be signed by an officer, i.e., President or Vice President. The signature of the officer shall be attested to by the Secretary and properly sealed.

If the "Principal" is an individual or a partnership, the Bid Bond shall so indicate and be properly signed.

(Corporate Seal)

Secretary

THE SURETY

By _____

Attorney-in-Fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED.
FAILURE TO PROVIDE A PROPERLY EXECUTED BID BOND WITH A PROPERLY EXECUTED
POWER OF ATTORNEY WILL RESULT IN THE BIDDER'S PROPOSAL BEING DEEMED NON-
RESPONSIVE.

SECTION 00 43 23 – BID ALTERNATES FORM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. 00 41 53 - Bid Form (SPB-6.13)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 BID FORM

- A. FORM: State of Colorado form “Bid Alternates Form” (SBP-6.131).
- B. A copy of the above noted form is attached to the end of this section.
- C. Additional State and University of Colorado forms to be attached to the submitted bid are listed in the Articles below.

1.05 PROCEDURES

- A. Fill out each alternate as shown in project documents with associated cost.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 43 23



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

BID ALTERNATES FORM

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.

Additive Alternates (If Applicable)

Refer to specification section _____ for descriptions of add alternates. If the add alternates are accepted, the base bid would be modified by the amount entered by the bidder.

| | | | |
|-------------|-------|--------|-------|
| A.A. No. 1 | _____ | Add \$ | _____ |
| A.A. No. 2 | _____ | Add \$ | _____ |
| A.A. No. 3 | _____ | Add \$ | _____ |
| A.A. No. 4 | _____ | Add \$ | _____ |
| A.A. No. 5 | _____ | Add \$ | _____ |
| A.A. No. 6 | _____ | Add \$ | _____ |
| A.A. No. 7 | _____ | Add \$ | _____ |
| A.A. No. 8 | _____ | Add \$ | _____ |
| A.A. No. 9 | _____ | Add \$ | _____ |
| A.A. No. 10 | _____ | Add \$ | _____ |

Deductive Alternates (If Applicable)

Refer to specification section _____ for descriptions of the deductive alternates. If the deductive alternates are accepted, the base bid would be modified by the amount entered by the bidder.

| | | | |
|-------------|-------|-----------|-------|
| D.A. No. 1 | _____ | Deduct \$ | _____ |
| D.A. No. 2 | _____ | Deduct \$ | _____ |
| D.A. No. 3 | _____ | Deduct \$ | _____ |
| D.A. No. 4 | _____ | Deduct \$ | _____ |
| D.A. No. 5 | _____ | Deduct \$ | _____ |
| D.A. No. 6 | _____ | Deduct \$ | _____ |
| D.A. No. 7 | _____ | Deduct \$ | _____ |
| D.A. No. 8 | _____ | Deduct \$ | _____ |
| D.A. No. 9 | _____ | Deduct \$ | _____ |
| D.A. No. 10 | _____ | Deduct \$ | _____ |

THE BIDDER:

Company Name

Signature

Date

SECTION 00 43 40 - CERTIFICATE AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. The form UI-1 shall be provided by all contractors, architect, engineers and consultants directly engaged with the University of Colorado Denver | Anschutz Medical Campus.

1.03 DEFINITIONS (Not Applicable)

1.04 CERTIFICATE AND AFFIDAVIT REGARDING UNAUTHROIZED IMMIGRANTS

- A. FORM: State of Colorado form "CERTIFICATE AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS" (UI-1).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 43 40



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

CERTIFICATION AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

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 knowing employ or contract with and 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.

B. 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 _____.

VENDOR:

Vendor Full Legal Name

BY: _____

Signature of Authorized Representative

Title

SECTION 00 45 17 – SUBCONTRACTOR PREQUALIFICATION

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS (Not Applicable)
- 1.02 SUMMARY (Not Applicable)
- 1.03 DEFINITIONS (Not Applicable)
- 1.04 SUBCONTRACTOR PREQUALIFICATION
 - A. FORM: University of Colorado Denver | Anschutz Medical Campus “Subcontractor’s Statement of Experience.”
 - B. A copy of the above noted document is attached to the end of this section.
- 1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 45 17



University of Colorado
Denver | Anschutz Medical Campus
Facilities Management

SUBCONTRACTOR'S STATEMENT OF EXPERIENCE

Project Name: _____

Project # _____

Project Manager: _____

Phone: _____

Email: _____

Architect/Engineer: _____

- This is a project specific qualification form. Subcontractor must fill this out on each project.

INDEX OF DOCUMENTS

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**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

INFORMATION FORM

STATEMENT OF _____
(Subcontractor)

ADDRESS _____
(Street or PO Box) (City) (State) (Zip)

TELEPHONE/FAX NO. _____
(telephone) (fax)

DATE OF EXPERIENCE STATEMENT _____

PRINCIPLE OWNER/OFFICER _____
(Names(s) and Official Title(s))

Please indicate below if your company qualifies as one of the following:

Minority Business Enterprise (MBE) YES ___ NO ___

Justification: _____

Woman-Owned Business Enterprise (WBE) YES ___ NO ___

Justification: _____

Small Business Enterprise (SBE) YES ___ NO ___

Justification: _____

Disadvantaged Business Enterprise (DBE) YES ___ NO ___

Justification: _____

**UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

TYPES OF WORK

- (1) If you are a General Contractor interested in bidding on all types of construction, mark "All Classes of Construction" only.
- (2) If you are interested in contracting directly with the University for certain types of work only, mark in the column provided after the particular types of work on which you wish to bid.

| TYPES OF WORK | MARK WITH (X) |
|---------------------------------|---------------|
| 1. All Classes of Construction | |
| 2. General | |
| 3. Mechanical | |
| 4. Electrical | |
| 5. Excavating and Grading | |
| 6. Concrete | |
| 7. Structural Steel | |
| 8. Steel and Miscellaneous Iron | |
| 9. Painting and Decorating | |
| 10. Laboratory Equipment | |
| 11. Elevator Installation | |
| 12. Plumbing | |
| 13. Heating and Ventilating | |
| 14. Air Conditioning | |
| 15. Boiler and Equipment | |
| 16. Environmental (Describe) | |
| 17. Other (Describe) | |
| 18. Other (Describe) | |
| 19. Other (Describe) | |
| 20. Other (Describe) | |

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

IDENTIFICATION

(The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to questions hereinafter made.)

LEGAL NAME _____

PRINCIPAL OFFICE _____
(Street or PO Box) (City) (State) (Zip)

____ A Corporation ____ A Copartnership ____ An Individual ____ Combination

GENERAL INFORMATION

A. Are you licensed as a contractor? Yes () No ()

| Licensed in the name of | Location (City or State) | License No. & Type |
|----------------------------|-----------------------------|-----------------------|
|----------------------------|-----------------------------|-----------------------|

| | | |
|-------|--|--|
| _____ | | |
| _____ | | |

B. How many years has your organization been in business as a contractor under your present business name? _____

C. How many years experience in _____ construction work has your organization had? (Type)

(a) As a prime contractor? _____ (b) As a subcontractor?

D. Have you or your organization, or any officer or partner thereof, failed to complete a contract? _____

If so, give details _____

E. If you have a controlling interest in any firms presently qualified with the University, show names thereof:

F. We normally perform ____% of the work with our own forces.

List trades: _____

Where qualification is based on a combination of several organizations, show the experience and equipment of the combined organizations.

G. Has your firm been involved in any litigation in the past five (5) years? Yes (☐) No (☐)
If yes, explain (listing type, kind, plaintiff, defendant, etc. and state the current status).

H. Are there any activities or interests of officers, principle stockholders, or employees of your firm or other factors which would place your firm and the University of Colorado Denver in a position of "Conflict of Interests"?

Yes (☐) No (☐) If yes, or in doubt, explain.

I. Has your firm ever been involved in any bankruptcy action as a bankrupt?

Yes (☐) No (☐) If yes, explain.

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

PERSONNEL OF ORGANIZATION

1. Name the persons with whom you have been associated in business as partners or business associates in each of the last five (5) years.

2. Show the construction experience of the principal individuals of your present organization in the following tabulation:

| Individual's Name | Present Position or Office in Your Organization | Years of Construction Experience | Magnitudes and Type of Work | In What Capacity |
|-------------------|---|----------------------------------|-----------------------------|------------------|
| | | | | |

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

PROJECT EXPERIENCE

Show the projects your organization has completed during the last five years in the following tabulation:

| Year Completed | Project | Type of Work (See Page 2) | Location | Contract Value | Contracting Authority | In what Capacity |
|----------------|---------|------------------------------|----------|----------------|-----------------------|------------------|
| | | | | | | |

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

WORK CURRENTLY UNDER CONTRACT

| Expected Completion Date | Project | Type of Work (See Page 1) | Location | Contract Value | Contracting Authority | Architect or Engineer |
|--------------------------|---------|---------------------------|----------|----------------|-----------------------|-----------------------|
| | | | | | | |

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR’S QUALIFICATION STATEMENT**

SURETIES

List the Surety Companies that have bonded your work for the past five (5) years:

| Name of Surety and Name and Address of Agent | Project and Location | Period of Bond From | Period of Bond To | General Comments |
|--|----------------------|---------------------|-------------------|------------------|
| | | | | |

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

CORPORATION / CO-PARTNERSHIP

CORPORATION:

(If a corporation, answer this:)

When Incorporated _____

In What State _____

President's Name _____

Vice President's Name _____

Secretary's Name _____

Treasurer's Name _____

CO-PARTNERSHIP:

(If a co-partnership, answer this:)

Date of Organization _____

State whether partnership is general, limited, or association

Name and address of each partner:

| | |
|-----------------|-----------------|
| _____ (name) | _____ (name) |
|-----------------|-----------------|

| | |
|--------------------|--------------------|
| _____ (address) | _____ (address) |
|--------------------|--------------------|

| | |
|-------|-------|
| _____ | _____ |
|-------|-------|

| | |
|-------|-------|
| _____ | _____ |
|-------|-------|

WHERE QUALIFICATION IS BASED ON A COMBINATION OF ORGANIZATIONS, THE APPROPRIATE (ATTACHED) AFFIDAVITS MUST BE EXECUTED FOR EACH MEMBER OF SUCH COMBINATION.

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

AFFIDAVIT FOR CORPORATION

_____certifies and says: That he is
(Name of officer)

_____of the _____ (Official capacity)

corporation submitting this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submittor with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent his/her condition in any substantial respect, it will refrain from further bidding on University work until it shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on _____ at _____, _____, State of _____
(date) (city) (county)

NOTE: Use full corporate name and
attach corporate seal here. _____
(Officer must sign here)

NOTE: Statement will be returned unless affidavit is completed in EVERY respect.

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

AFFIDAVIT FOR CO-PARTNERSHIP

_____ certifies and says: That he/she is a partner of
(Name of partner)

the partnership of _____: That said partnership
(Name of Firm)

submitted this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submittor with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent the condition of said firm in any substantial respect, it will refrain from further bidding on University work until they shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on _____ at _____, _____, State of _____
(date) (city) (county)

The foregoing statement and affidavit are hereby
offered.

(Member of Firm must sign here)

(Title)

(Remaining members of Firm sign here) (Name of Firm)

NOTE: Statement will be returned unless affidavit is completed in EVERY respect.

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

AFFIDAVIT FOR INDIVIDUAL

_____ doing business _____
(Name of individual) (Name of Firm)

certifies and says: That he/she is the person submitting this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submitter with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent his/her condition in any substantial respect, it will refrain from further bidding on University work until it shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on _____ at _____, _____, State of _____
(date) (city) (county)

NOTE: Statement will be returned unless
affidavit is completed in EVERY respect. _____
(Applicant must sign here)

**UNIVERSITY OF COLORADO DENVER
SUBCONTRACTOR'S QUALIFICATION STATEMENT**

BIDDING INFORMATION

QUALIFICATION

The University of Colorado Denver will qualify or disqualify a Subcontractor on the basis of:

- (1) The information contained in this statement and
- (2) Past contract experience with the University.

NOTIFICATION

The University of Colorado Denver will, in writing, notify Contractors of their qualification or disqualification.

SECTION 00 51 01 – NOTICE OF AWARD (CM/GC)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE OF AWARD

- A. FORM: State of Colorado form “Notice of Award” (SBP-6.16) for CM/GC Agreements.
- B. Copies of the above noted forms are attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 51 01



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE OF AWARD

(Construction Manager/General Contractor and Design /Build GMP Agreements)

Date of Notice: _____

_____ Date to be inserted by the Principal Representative

Institution/Agency: University of Colorado Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

TO:

The State of Colorado, represented by the undersigned, has considered the Proposals submitted for the above described work.

Your Proposal, deemed to be in the best interest of the State of Colorado, in the amount of _____ DOLLARS AND NO/100* (\$____*) is hereby accepted, pending final execution of the Agreement.

You **are** required to execute the approved Agreement and to furnish the Performance Bond, Labor and Material Payment Bond, Insurance Policy, Certificates of Insurance, Certification and Affidavit Regarding Unauthorized Immigrants and Labor Overhead (Direct Labor Burdens) for Work performed by Contractor within ten (10) days from the date of this Notice. Labor overhead (Direct Labor Burdens) for major Subcontractors are required to be submitted for each bid package along with other documentation as required by Agreement.

If you fail to execute said Agreement and to furnish said Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, and Certification and Affidavit Regarding Unauthorized Immigrants, and Labor Overhead (Direct Labor Burdens) as described above within ten (10) days from the date of this Notice, the State Controller is entitled to retain the amount of the Proposal Guaranty submitted with your Proposal as Liquidated Damages. In this event, the right is reserved to consider all of your rights arising out of the acceptance of your Proposal as abandoned and to award the work covered by your Proposal to another, or to re-advertise the Project, or otherwise dispose thereof.

By _____
State Buildings Programs
(of Authorized Delegate) _____ Date

By _____
Principal Representative
(Institution or Agency) _____ Date

When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.

SECTION 00 52 53.10 – CMGC AGREEMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 CONTRACTOR'S DESIGN/BID/BUILD (D/B/B) AGREEMENT

- A. FORM: State of Colorado form "Construction Manager/General Contractor Agreement (CM/GC)" (SC-6.4).
- B. A copy of the above noted document is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 52 53.10

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



**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CMGC) AGREEMENT
(STATE FORM SC-6.4)**

DEPARTMENT ID: _____

CONTRACT ID #: _____

PROJECT #: 21-161645 _____

PROJECT NAME: Business School Level P2 Drain Replacement

VENDOR NAME: _____

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)

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EXHIBITS:

A. – O. (As described in ARTICLE 2. DEFINITIONS, 2.1.6, Contract Documents)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONSTRUCTION MANAGER/GENERAL CONTRACTOR AGREEMENT
(STATE FORM SC-6.4)

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

1. PARTIES. THIS AGREEMENT is entered into by and between the STATE OF COLORADO, acting by and through the (agency), hereinafter referred to as the Principal Representative, and (vendor name) having its offices at (vendor address) engaged to serve as Construction Manager/General Contractor, hereinafter referred to as the Construction Manager.

2. 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 procure (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 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 Article 9.6.*

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)** (including Construction Manager's fee) 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 9 Compensation the Construction Manager's fee for the Project is _____ Dollars (\$_____) ; and

WHEREAS, the Architect/Engineer for the project is _____ ; 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 .

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

NOW, THEREFORE, the Principal Representative and the Construction Manager for the consideration hereinafter set forth, agree as follows:

ARTICLE 1. THE WORK

1.1 THE WORK

1.1.1 The Principal Representative intends to design and construct a _____, hereinafter referred to as the Project.

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/General Contractor is a unique concept and that its utilization 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, it shall give its Notice of Claim as provided in Article 19.

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 and an appropriate Amendment or Change Order shall be issued deducting the same from the payments then or thereafter due to the Construction Manager. If those payments are not sufficient to cover such amount, the Construction Manager shall pay the difference to the Principal Representative.

1.1.4 The Construction Manager agrees to cooperate fully with the Principal Representative in the design and construction aspects of the Work to keep within the Principal Representative's monetary limitations, as stipulated above.

1.1.5 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.

1.1.6 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.

1.1.7 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.

1.1.8 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.

1.1.9 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.

1.1.10 Subject to the provisions of Article 10.4, execution of this Agreement by the Construction Manager is a representation that the Construction Manager has visited the site, become familiar with the local conditions under which the Work is to be performed, and has correlated personal observations with the requirements of the Contract Documents.

1.1.11 The intent of the Contract Documents are to include all items and services necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents shall be required unless it is not consistent therewith and is not reasonably inferable there from as being necessary to produce the intended results. Words and abbreviations which have well known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings. If there are conflicting variances between the Drawings and Specifications, the requirements of the Specifications shall control unless the Architect/Engineer directs otherwise in writing. Numerous exhibits to be developed over a period of time are to be also attached to and made a part of the Contract Documents, some of which may be in conflict with other exhibits or portions of this Agreement. In the event of any conflict between any of them, the greater service, better quality or greater quantity shall be included in the Work, Contract Sum and Guaranteed Maximum Price without additional compensation, to be superseded by applicable Amendments and Change Orders.

1.1.12 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 subcontractors or in establishing the extent of the work to be performed by any trade.

ARTICLE 2. DEFINITIONS

2.1 DEFINITIONS

2.1.1 The words "Agreement" or "Contract" shall be considered to be this written Agreement entered into by the Principal Representative and the Construction Manager for the performance of the Work and payment therefore.

2.1.2 "Architect/Engineer" shall mean the legally approved professional Architect/Engineer, or group or association or professional corporation of such approved professional Architect/Engineers, engineers and consultants, who have contracted with the Principal Representative to accomplish the architectural and engineering services necessary to the Project.

2.1.3 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.

2.1.4 The "Date of Completion of the Work" or designated portion thereof is the date certified by the Architect/Engineer when construction is complete, in accordance with the Contract Documents.

2.1.5 "Construction Manager" shall mean that the individual, partnership, or corporation which has, by virtue of its in-house capabilities of budgeting, cost estimating, management and labor relations personnel, the required technical and professional services expertise to work with the Principal Representative and the Architect/Engineer in order to help formulate the Project Budget, furnish the Architect/Engineer with the information on construction technology and market conditions to help assure that the building design stays within the Project Budget, Fixed Limit of Construction Cost and Guaranteed Maximum Price (except for changes made pursuant to Article 10), manage the procurement effort, and supervise the construction of the Work.

2.1.6 The "Contract Documents" consist of:

- .1 This Agreement;
- .2 The Conditions of the Contract (General, as included within this Agreement, and Supplementary, if applicable);
- .3 The Drawings released for Construction (**Exhibit I.1**);
- .4 The Specifications released for Construction (**Exhibit I.1**);
- .5 **Exhibit A**, CM/GC Designated Services and Method of Payment (Attached);
- .6 **Exhibit B**, Construction Manager's Certification (Attached);

- .7 **Exhibit C**, Construction Manager's Certificate of Liability Insurance (Attached);
- .8 **Exhibit D**, Certification and Affidavit Regarding Unauthorized Immigrants (Form UI-1) (Attached as Exhibit I.8)
- .9 **Exhibit E**, Not Used;
- .10 **Exhibit F**, List of Pre-Qualified Subcontractors (when approved by the Principal Representative **and prior to bidding**);
- .11 **Exhibit G**, Schematic Design Estimate Summary and Updated Summaries (when approved by the Principal Representative);

First Amendment (incorporating GMP) Exhibits

- .12 **Exhibit H.1**, Guaranteed Maximum Price Documents, Drawings and Specifications including Addenda and Modifications (when approved by the Principal Representative);
- .13 **Exhibit H.2**, Schedule of Bid Package Descriptions and Issuance Dates;
- .14 **Exhibit H.3**, Schedule of Values (prepared at the time of **the Guaranteed Maximum Price Amendment**);
- .15 **Exhibit H.4**, Allowance Schedule (prepared at the time of **the Guaranteed Maximum Price Amendment**);

Second and Subsequent Amendments (incorporating Bid Packages) Exhibits

- .16 **Exhibit I.1**, Contract Documents and Specifications (when approved by the Principal Representative);
- .17 **Exhibit I.2**, All Addenda issued prior to and 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, (2) a Change Order, (3) a written interpretation issued by the Architect/Engineer pursuant to Article 4.3, or (4) a written order for a minor change in the Work issued by the Architect/Engineer pursuant to paragraph 10.5.1;
- .18 **Exhibit 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;
- .19 **Exhibit I.4**, Allowance Schedule (consistent with GMP Allowance Schedule);
- .20 **Exhibit I.5**, Performance Bond;
- .21 **Exhibit I.6**, Labor and Material Payment Bond;
- .22 **Exhibit I.7**, Property Insurance Certificate;
- .23 **Exhibit I.8**, Certification and Affidavit Regarding Unauthorized Immigrants (Attached);
- .24 **Exhibit I.9**, Notice to Proceed to Commence Construction Phase (Form SC-7.26) (when issued);

- .25 **Exhibit I.10**, Preliminary and Detailed Construction Schedules (when approved by the Principal Representative);
- .26 **Exhibit I.11**, Notice of Substantial Completion (Form SBP-07) (when Issued);
- .27 **Exhibit I.12**, Notice of Approval of Occupancy/Use (Form SBP-01) (when issued);
- .28 **Exhibit J**, Notice of Acceptance (when issued);
- .29 **Exhibit K**, Notice of Contractor's Settlement (when issued);
- .30 **Exhibit L**, Request for Proposal (Dated _____) (Attached);
- .31 **Exhibit M**, Construction Manager's Fee Proposal (Dated _____) (Attached);
- .32 **Exhibit N**, Sales and Use Tax Forms Attached);
- .33 **Exhibit O**, Building Code Compliance Policy: Coordination of Approved Building Codes, Plan Reviews and Building Inspections (Attached).

2.1.7 Unless otherwise provided, the "Contract Time" shall commence as set forth in paragraph 6.1.1 and shall end on the final completion date of the Project as defined in paragraph 17.4.

2.1.8 The term "Day" as used in the Contract Documents shall mean calendar day unless specifically designated otherwise.

2.1.9 The word "Drawings" shall mean all Drawings approved by the Principal Representative which have been prepared by the Architect/Engineer showing the work to be done.

2.1.10 The "Fixed Limit of Construction Cost" shall set forth a dollar amount available for the total Construction Cost for construction of all elements of the Work designed or specified by the Architect/Engineer including but not limited to the Construction Manager's fee, bond and insurance premiums, all reimbursables, together with any and all Construction Manager contingency amounts in accordance and as adjusted as set forth in paragraphs 3.4.1 through 3.4.3.

2.1.11 The term "Guaranteed Maximum Price" shall mean that maximum amount for which the work shall be accomplished (including Construction Manager's fee) and it shall be computed by the Construction Manager in accordance with the provisions of paragraph 9.3 hereinafter.

2.1.12 The word "Notice" shall mean any communication in writing from either contracting party to the other by such means of delivery that receipt cannot be properly denied.

2.1.13 The term "Principal Representative," shall mean: "The governing board of a state department, institution or agency or its designee; 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 shall be specifically identified in the Contract Documents.

2.1.14 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.

2.1.15 "State Buildings Program" shall mean an entity of the Department of Personnel & Administration of the Executive Branch of the State government or designee as shall be established to perform statutory responsibilities current at any time during the performance of this Agreement.

2.1.16 The term "Subcontractor" shall mean a person, firm, or corporation supplying labor and materials, or only labor, for the Work, under separate contract or agreement with the Construction Manager.

2.1.17 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.

2.1.18 The term "Supplier" shall mean any manufacturer, fabricator, distributor, material man or vendor.

2.1.19 The "Work" means the construction and services required by the Contract Documents, whether completed or partially completed and includes all other labor, materials, equipment and services provided or to be provided by the Construction Manager to fulfill the Construction Manager's obligations. The Work may constitute the whole or a part of the Project.

2.1.20 The "Preconstruction Phase" 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 bidding package.

2.1.21 The "Construction Phase" shall mean the work done by the Construction Manager in the management and construction of the project from the awarding of construction contracts for any bidding package until the final acceptance of that package of Work.

2.1.22 The "Direct Cost of the Work" shall be those items defined in the Guaranteed Maximum Price; the General Conditions and Supplementary General Conditions directly related to construction and not otherwise defined under the Construction Phase of the Work; and reimbursable expenses 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.

2.1.23 The "Schedule of Values" shall be defined as the itemized listing of description of the Work by Division and Section of the Specifications. The format shall be the Form SC-7.2. Included shall be the material costs, and the labor and other costs plus the sum of both.

2.1.24 The term "Construction Cost" shall be defined as provided in paragraph 3.4.6.

2.1.25 The term "Contract Sum" shall be defined as provided in paragraph 9.4.1.

2.1.26 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 (Form SBP-01). 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.

2.1.27 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.

2.1.28 The term "Amendment" shall be defined as provided in paragraph 10.1.2.

2.1.29 The term "Change Order" shall be defined as provided in paragraph 10.1.3.

ARTICLE 3. CONSTRUCTION MANAGER'S SERVICES

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

3.1 COMPLETION WITHIN FISCAL AND TIME CONSTRAINTS AND VALUE ENGINEERING

3.1.1 The Construction Manager expressly recognizes that this Project is being undertaken on an accelerated basis and must be completed within the time and fiscal constraints as set forth throughout this Agreement. The Construction Manager further represents to the Principal Representative that by executing this Agreement, it has been fully informed and has thoroughly reviewed: the goals of the Project; the work effort of the Architect/Engineer performed to date for the Project; all of the Exhibits and documents attached to this Agreement and when executed, specifically including **Exhibit A**, CM/GC Designated Services and Method of Payment, **Exhibit H.1**, Guaranteed Maximum Price Documents, Drawings and Specifications when approved by the Principal Representative, **Exhibit H.2**, Schedule Of Bid Package Descriptions and Issuance Dates, **Exhibit H.3**, Schedule of Values, **Exhibit H.4**, Allowance Schedule, and **Exhibit F**, List of Pre-Qualified Subcontractors, all of which exhibits are incorporated herein and by reference made a part hereof; has been informed of the Principal Representative's general time as well as fiscal constraints and contingencies applicable to the Fixed Limit of Construction Cost; and all of the services to be provided by the Construction Manager pursuant to the Contract Documents. Based upon this review and analysis and recognizing that the contract for design services is between the Principal Representative and the Architect/Engineer, the Construction Manager nonetheless represents to the Principal Representative that it shall provide all the necessary services and perform all of the Work within the requirements of the Contract Documents.

3.1.2 To accomplish the objectives set forth in paragraph 3.1.1, the Construction Manager shall provide consultation throughout the Preconstruction and Construction Phases including but not limited to the furnishing of all necessary Value Engineering services. The object of the 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 Architect/Engineer and Principal Representative, the Construction Manager shall:

- .1 Formulate and evaluate alternative designs, systems, materials;
- .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. The Construction Manager shall review the Statement of Probable Construction Cost prepared by the Architect/Engineer at the completion of the Schematic Design phase and include an analysis and commentary as to any discrepancies observed in the report referenced in 3.1.2.4 below;
- .3 Evaluate the alternatives on the basis of costs, time schedules, availability of labor and materials, construction feasibility, etc.;

- .4 With the assistance of the Architect/Engineer, prepare written reports at the end of the Schematic Design Phase and the Design Development Phase summarizing the Value Engineering activities accomplished and any recommendations developed within each phase.
- .5 If Estimates of Construction Cost 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 Cost, the Fixed Limit of Construction Cost, the Guaranteed Maximum Price, and/or the Schedule of Values for the Work.
- .6 Participate in a formal Value Engineering workshop at the end of the Schematic Design review and estimating tasks, bringing multidiscipline cost/construction experts to evaluate alternative designs, systems and materials.
- .7 Lead a formal Value Engineering workshop at the end of the Design Development Design review and estimating tasks, bringing multidiscipline cost/construction experts to evaluate alternative designs, systems and materials.

3.1.3 The Principal Representative shall participate in the formulation and evaluation of alternatives in the Value Engineering activity.

PRECONSTRUCTION SERVICES

3.2 AVAILABLE FUNDS

3.2.1 The Construction Manager acknowledges that the Principal Representative is limited in the funds 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.

3.2.2 Consultation During Project Development: The Construction Manager shall review conceptual design; advise on-site use and improvements, selection of materials, building systems and equipment; and provide recommendations on construction feasibility, availability of materials and labor, local construction activity as it relates to schedules, and time requirements for installation and construction.

3.3 BUDGETING AND FIXED LIMIT OF CONSTRUCTION COST

3.3.1 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.

3.3.2 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.

3.3.3 The Fixed Limit of Construction Cost may be revised only by approved Amendments and Change Orders issued after execution of the Contract Documents.

3.4 COST ESTIMATING

3.4.1 It is the desire of the Principal Representative to incorporate as many alternate bid items into the Project as reasonable and otherwise increase the Work to be performed by the Construction Manager, and all parties recognize that although the availability of funds will depend in part upon favorable market conditions, with thorough and careful planning, cost estimating and cooperation, funds may become available for the alternates through procurement at less than the Construction Manager's estimated cost therefore, together with savings through the unexpended portion of the bidding contingency.

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

- .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 Guaranteed Maximum Price.
- .2 The construction contingency for the Work shall be equal to three and one-half percent (3.5%) of the initial Guaranteed Maximum Price.

The bidding contingency shall be allocated between the presently anticipated _____ (__) Bid Packages, at the discretion of the Construction Manager. 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's 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 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 Preconstruction 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 which the Construction Manager can show were not specifically called out within 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 Bid Packages defined in 1.1.3, 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.

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

- .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;
- .2 At current market rates, including a reasonable allowance for overhead and profit, the cost of labor and materials furnished by the Principal Representative;
- .3 Any Principal Representative furnished equipment which has been designed, specified, selected or specifically provided for by the Architect/Engineer;
- .4 The Construction Manager's compensation for services and the cost of work provided by the Construction Manager;
- .5 All bond premiums; and
- .6 Contingencies for bidding, price escalation, and construction as set forth above.

3.4.7 The Estimates of Construction Cost shall not include the compensation of the Architect/Engineer, the Architect/Engineer's consultants or any other sums due the Architect/Engineer, 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 Constitution 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 Cost as soon as major Project requirements have been identified and update it periodically. For the Schematic Design Phase, 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 Cost shall make allowance for bidding and 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 independently prepared but in coordination with the Architect/Engineer 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 Cost 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 cost estimates to the Principal Representative for review and acceptance. 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, 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 construction contingency used to cover costs to correct errors, omissions, mistakes or rejected work pursuant to paragraph 3.4.5.

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.

3.4.14 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, Construction Manager, and Architect. 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 Preconstruction and construction phases. Cost analyses shall be based upon data analyses as developed/described within Section 3.4 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 or estimated costs or the Fixed Limit of Construction Cost and, consistent with paragraph 3.4.9, advise the Principal Representative and Architect whenever projected costs are expected to exceed Project Budgets, estimates of construction Cost, the Fixed Limit of Construction Cost, or the Guaranteed Maximum Price as may be applicable.

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

- .1 Submittals:
 - a. Construction Manager shall create a Submittal log and Submittal schedule.
 - b. Submittals shall be directly submitted to the Architect and directly returned from the Architect.
- .2 Requests for Information:
 - a. Construction Manager shall submit requests for information using the Project Management Software.
 - b. Architect 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 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.
- .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 (SBP7.2).
- .5 Meeting Minutes: Construction Manager shall be responsible for creating and distributing construction-meeting minutes in the Project Management Software.
- .6 Daily Report: Construction Manager shall be responsible to prepare and distribute daily reports in the Project Management Software.
- .7 Insurance certificate: Construction Manager shall be responsible for storing all the insurance related information of subcontractors in the Project Management Software.
- .8 Punchlists: Construction Manager shall be responsible to update the Substantial Completion Punchlist status using the Project Management Software.
- .9 All correspondence with Architect or Principal Representative shall be in the Project Management Software.

3.5 OTHER PRECONSTRUCTION SERVICES

3.5.1 The Construction Manager shall perform those items designated as Required Services as set forth in the CM/GC 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 Preconstruction Services designated in this Article 3 together with such other services as are normally and customarily provided by a Construction Manager.

3.5.2 The Construction Manager shall review the Drawings and Specifications as they are being prepared, recommending alternative solutions whenever design details affect construction feasibility, schedules or cost; however, nothing contained in this paragraph shall be construed to require the Construction Manager to provide Architect/Engineer services.

3.5.3 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.

3.5.4 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.

3.5.5 The appropriate representatives of the Principal Representative shall review documents submitted by the Construction Manager and shall render decisions pertaining thereto without unreasonable delay.

3.5.6 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.

3.5.7 As part of the Schematic Design review and estimating tasks, the Construction Manager shall develop a preliminary Project Schedule that is coordinated with the Architect/Engineer's design schedule, the milestone dates specified in **Exhibit H.2**, the Date of Completion specified in paragraph 6.3.1, 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 to develop and manage the schedule. The schedule as agreed to shall be Critical Path Method (CPM) with reasonable detail to allow for assessment of procurement schedules for equipment to be furnished by the Principal Representative, the adequacy of the construction duration/period, critical paths among the activities for the building systems, peak manpower requirements, and crunch points within the Project's logic/critical path. As part of the Design Development Document review and estimate, this preliminary schedule shall be updated by the Construction Manager to reflect the work described in the Design Development Documents, and shall be utilized by the Principal Representative to assess the Guaranteed Maximum Price.

3.5.8 The Construction Manager shall attend all regular meetings with the Principal Representative and the Architect/Engineer and such additional meetings as the Principal Representative may request. All regular meetings shall be scheduled by the Architect/Engineer with the agreement of the Construction Manager and approval of the Principal Representative. All additional meetings shall be scheduled by the Principal Representative.

3.5.9 The Construction Manager shall implement a cost forecasting, monitoring and control program and reporting system for the Project. The system shall be maintained throughout the project, both during the Preconstruction and Construction Phases. Cost analyses shall be based upon data analyses as developed/described within paragraph 3.4 and shall include analyses of all trades and Project components making a significant contribution for total Project costs. The system 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 system shall identify variances between actual and budgeted or estimated costs or the Fixed Limit of Construction Cost and, consistent with paragraph 3.4.9, advise the Principal Representative and Architect/Engineer whenever projected costs are expected to exceed Project Budgets, Estimates of Construction Cost, the Fixed Limit of Construction Cost, or the Guaranteed Maximum Price as may be applicable.

3.5.10 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 Architect/Engineer in 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. If 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 7.2.2.

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 and Architect/Engineer concerning which bids shall be accepted. The Principal Representative and Architect/Engineer shall be notified in advance of the time and place of all bid openings and may elect to attend such openings with their representatives. A proposal to accept other than a low bid shall be justified in writing by the Construction Manager and subject to prior 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 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 O**, 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.

3.5.15 The Construction Manager shall provide not later than the first of each month a monthly report documenting the current status of the project's schedule, costs, minority and women owned business enterprises, requests for information, submittals, manpower, safety, and other pertinent information. The report shall be separate from the monthly schedule update/report. 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 Design and Construction Phase of the project.

3.5.16 If the Construction Manager or any of its subcontractors of any tier participating in the Design Reviews observes that any of the Contract Documents are at variance with applicable laws, statutes, building codes, ordinances, rules or regulations, in any respect the Construction Manager shall promptly notify the Principal Representative in writing, noting the applicable drawing or specification, and recommending an appropriate alternative for correcting the design.

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 coordinate the Work with the activities and responsibilities of the Principal Representative and the Architect/Engineer to complete the Project in accordance with the Principal Representative's objectives of cost, time and quality.

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, Architect/Engineer, and Construction Manager can discuss jointly such matters as procedures, progress, and problems.

3.7 SUPERVISION AND CONSTRUCTION PROCEDURES

3.7.1 The Construction Manager shall supervise and direct the Work, using the Construction Manager's best skill and attention. The Construction Manager shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and shall coordinate all portions of the Work under the Contract Documents.

3.7.2 The Construction Manager shall be responsible to the Principal Representative for the acts and omissions of the Construction Manager's employees, subcontractors of all tiers, their agents and employees, and any other persons performing any of the Work or furnishing materials under a contract with the Construction Manager.

3.7.3 The Construction Manager shall not be relieved from the Construction Manager's obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect/Engineer in its administration of this Agreement, or by inspections, tests, or approvals required or performed by persons other than the Construction Manager. Nothing contained in this paragraph shall preclude the Construction Manager from asserting any rights it may have under this Agreement in the event of unreasonable delays to the Construction Manager in the making of any inspections, tests, approvals, or other action by the Architect/Engineer upon which the Construction Manager is dependent.

3.7.4 During the Construction Phase, the Construction Manager shall employ at a minimum on a full time basis a site based superintendent, together with such additional superintendence, project management, engineering and clerical support as may be reasonably required and appropriate to the stage of construction (as per the Construction Manager Designated Services and Method of Payment, Exhibit A). The Superintendent and Project Manager shall not be changed except with the consent of the Principal Representative, unless the Superintendent or Project Manager proves to be unsatisfactory to the Construction Manager or ceases to be in its employ. The Construction Manager shall employ the services of at least one person fully qualified

and with a minimum of 5 years' experience in critical path scheduling on projects of similar size and scope for the duration of the Work.

3.7.5 The Construction Manager shall at all times enforce strict discipline and good order among the Construction Manager's employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to them.

3.8 ADMINISTRATION

3.8.1 The Architect/Engineer shall provide administration of this Agreement on behalf of the Principal Representative as described throughout this Agreement.

3.8.2 The Architect/Engineer shall be the Principal Representative's representative during construction and until the one (1) year warranty period has expired. The Architect/Engineer and the Construction Manager shall advise and consult with the Principal Representative. All instructions and communications by the Architect/Engineer to the Construction Manager shall be copied to the Principal Representative. The Architect/Engineer shall have authority to act on behalf of the Principal Representative only to the extent provided in the Contract Documents.

3.8.3 Except where expressly provided to the contrary in the Contract Documents, the Construction Manager's contact person shall forward all communications in writing and all documents to the Principal Representative's contact person and the Architect/Engineer's contact person simultaneously as listed below:

For the Principal Representative:

For the Architect/Engineer:

For the Construction Manager:

3.9 SCHEDULE, COORDINATION AND COST CONTROL

3.9.1 In the performance of the Work under this Agreement, the Construction Manager acknowledges that time is of the essence of this Agreement. The Construction Manager shall begin the Work upon receiving Notice to Proceed to Commence Construction Phase, in accordance with paragraph 6.1. 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 Date of Completion specified in paragraph 6.3, as adjusted by Change Orders and Amendments.

3.9.2 Preliminary Construction Schedule:

- .1 Within fourteen (14) calendar days after being authorized to proceed to commence construction phase, the Construction Manager shall submit for the Architect/Engineer's and the Principal Representative's review and acceptance a Preliminary Construction Schedule. The Preliminary Construction Schedule shall include the Work of the entire project, in a manner that is consistent with previously issued schedules, and shall comply with the Date of Completion of the Work authorized by the current Contract Documents. The submittal shall be developed in the Critical Path Method as agreed to in paragraph 3.5.7. Although the Preliminary Construction Schedule shall describe the entire construction work anticipated to be required by the Project, the schedule shall provide particular detail for the Work described

within the first Bid Package, for the remaining design activities for the balance of the Bid Packages, for the equipment procurement activities, and for the actions required from the Principal Representative.

- .2 The Preliminary Construction Schedule shall be the basis for progress payments during the first ninety (90) calendar days of the Contract while the Detailed Construction Schedule (discussed hereafter) is being developed and accepted. The Preliminary Construction Schedule shall be updated on a monthly basis while the Detailed Construction Schedule is being developed and approved.

3.9.3 Detailed Construction Schedule:

- .1 Within forty-five (45) calendar days of receiving Notice to Proceed to Commence Construction Phase, the Construction Manager shall submit to the Architect/Engineer and Principal Representative a detailed Construction Schedule for the complete construction work scope.
- .2 Upon acceptance by the Principal Representative, the Construction Schedule shall be used as a basis for determining progress payments.

3.9.4 Technical Requirements:

- .1 The Detailed Construction Schedule shall be developed utilizing commercially available scheduling software as approved by the Principal Representative and the Precedence Diagramming Method. The level of detail of the Construction Manager's schedule shall be a function of the complexity of the work involved. The milestones and total number of activities shall be subject to approval by the Principal Representative. The activities shall be coded such that the Schedule of Values can be sorted by CSI Division, funding sources, sub-trades, building systems, Bid Packages or combinations thereof. The specific coding structure, resource/cost loading guidelines and assumptions and the allocation of the cost estimates shall be mutually resolved between the Construction Manager, the Architect/Engineer prior to development of the first submission.
- .2 Schedule activities shall be cost-loaded as agreed to and the assigned dollar value (cost loading) of each activity of the network shall cumulatively equal the total Construction Cost. Costs for mobilization, bonds, permits, insurance costs may be shown separately. For any items that the Construction Manager intends to bill for stored materials, these items need to be shown as separate material procurement activities in the schedule and the material dollars only placed on these activities. Billing for stored materials on any other schedule activities not broken out in this manner shall not be allowed. General Conditions costs, overhead, profit, et cetera shall not be included within the cost loading and payment for these costs/fees shall be administered separately.
- .3 The Construction Manager shall assign manpower loading as agreed to for each activity of the network. In addition, the Construction Manager shall prepare and submit a separate manpower summary analysis in graphic format depicting manpower by subcontractor and aggregate. The graph(s) shall show the number of man-days of effort, by month, over the duration of the Construction Schedule.

- .4 For all major equipment and materials fabricated or supplied for this project, the network shall show a sequence of activities including, preparation of shop drawings and sample submissions, review and approval of shop drawings and samples, shop fabrication and delivery, erection or installation, and testing of equipment and materials.

3.9.5 SUBMITTALS:
FOR THE DETAILED CONSTRUCTION SCHEDULE SUBMITTALS, AS WELL AS FOR EACH SCHEDULE UPDATE, THE CONSTRUCTION MANAGER SHALL SUBMIT THE FOLLOWING:

- .1 Hard copies of schedule reports, to 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.
- .2 A narrative schedule report documenting:
 - 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 construction schedule.
- .3 A Construction Manager's Schedule to the Principal Representative in an electronic format.

3.9.6 The Construction Manager shall utilize the Project Management Software to prepare and keep current, for the Architect's approval, a time schedule of submittals in a submittal log which is coordinated with the Construction Manager's construction schedule and allows the Architect a reasonable time to review submittals.

3.9.7 Schedule Management

- .1 Weekly Progress Meetings: Once each week, on a day mutually agreed to by the Principal Representative and the Construction Manager, a meeting shall be held to assess the progress achieved by the Construction Manager during previous work week, discuss and resolve issues affecting the progress, and review the critical activities anticipated for the following two weeks. The Construction Manager is to provide short interval schedules documenting the activities to be accomplished during the past week and the activities forecast for the next two weeks.
- .2 Monthly Project Review Meetings: Once each month on or about the 25th of the month, a meeting shall be held to review a draft pay application/schedule update, assess and agree to the progress achieved by the Construction Manager during the previous month, discuss

and resolve issues affecting the progress, and review the critical activities to be accomplished during the following 90 days. The Construction Manager is to provide a draft Pay Application and Schedule Update reflecting the work accomplished during the previous month. If necessary, a joint job-site walk through shall be completed to validate the progress on any questioned activities.

- .3 Monthly Schedule Reporting: Upon finalization of the Monthly Project Review and Joint Job Walk, but not later than the 28th of the month, the Construction Manager shall update the Construction Schedule and submit the Pay Application and the current submittal log consistent with paragraph 3.9.6
- .4 Schedule Modifications: If, as a result of the monthly Schedule Update, it appears the Construction 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 Construction Schedule. Such revisions to the Schedule shall not alter any of the Project Milestone dates.
- .5 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 feels he has encountered schedule impacts that he feels may warrant a time extension, he shall present an Impacted Schedule in accordance with Article 6, to the Principal Representative supporting his claim.
- .6 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 plan shall be subject to the Principal Representative's approval.

3.10 AMENDMENTS AND CHANGE ORDERS

3.10.1 The Construction Manager shall assist in developing and implementing a system for the preparation and processing of Amendments and Change Orders and recommend necessary or desirable changes to the Principal Representative and the Architect/Engineer.

3.11 PERMITS, FEES AND REGULATIONS

3.11.1 The Construction Manager shall secure and pay for all permits and governmental fees, licenses, and inspections necessary for the proper execution and completion of the on-site Work which are customarily secured after execution of the Agreement for construction and which are legally required at the time the Guaranteed Maximum Price is provided to the Principal Representative.

3.11.2 The Construction Manager shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the Work.

3.12 SALES AND USE TAXES

Attached as Exhibit N are the following tax information forms applicable to this project:

Colorado Department of Revenue - Contractor Application for Exemption certification: (Form DR 0172).

Agency Tax exemption Number: _____

Additional Tax exemptions the agency may have with local Cities or Counties (as applicable).

3.12.1 The Construction Manager shall include in the Contract Sum and Guaranteed Maximum Price and pay all applicable sales, consumer, use and other similar taxes for the Work which are legally enacted at the time bids are received, whether or not yet effective.

3.12.2 The Project is being constructed by the Principal Representative and may be exempt from local sales and use taxes. The Construction Manager is required to verify with the Principal Representative and the local jurisdiction prior to establishing the initial cost estimate as to whether the Project is exempt or if the Construction Manager is entitled to a refund of taxes paid. The Construction Manager shall take any and all appropriate action to obtain such exemption or refunds of taxes paid and shall not charge the Principal Representative for any such taxes. If the Project is not exempt or the Construction Manager is not entitled to receive any refunds of taxes paid, the Construction Manager shall pay all applicable sales and use taxes required to be paid and shall maintain such records in respect to its Work, which shall be separate and distinct from all other records maintained by the Construction Manager. The Construction Manager shall furnish such data as may be necessary to enable the State, 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.

3.12.3 The Construction Manager shall require each of its subcontractors of all tiers to comply with the requirements of 3.12.1 and 3.12.2, to maintain such records and furnish the Construction Manager with such data as may be necessary to obtain refunds of the taxes paid by such subcontractors.

3.12.4 No State sales taxes are to be paid on material to be used in the Work.

3.12.5 The Construction Manager shall exclude the amount of any applicable federal excise or manufacturer's taxes from its proposal. The Principal Representative shall furnish the Construction Manager, on its request, the necessary exemption certificates.

3.13 PRINCIPAL REPRESENTATIVE CONSULTANTS

3.13.1 If required, the Construction Manager shall assist the Principal Representative in selecting and retaining the professional services of a surveyor and special consultants, and coordinate these services, without assuming any responsibility or liability of or for these consultants.

3.14 LABOR AND MATERIALS

3.14.1 Unless otherwise provided in the Contract Documents, the Construction Manager shall provide and pay for 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.

3.14.2 The Construction Manager shall provide the Principal Representative a letter of certification on company letterhead that states all products used in the Project are asbestos free. A copy of this letter shall be included in the operations and maintenance manual.

3.15 ROYALTIES AND PATENTS

3.15.1 The Construction Manager shall pay all royalties and license fees. The Construction Manager shall defend all suits or claims for infringement of any patent rights, and shall hold the Principal Representative and the Architect/Engineer harmless against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs on account thereof, except that the Principal Representative or the Architect/Engineer, as the case may be, shall be responsible for all such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is selected by the Principal Representative or Architect/Engineer or its consultants, provided, however, if the Construction Manager knew or, by virtue of common knowledge in the construction industry, should have known that the

design, process, or product selected is an infringement of a patent and failed to promptly notify the Principal Representative and Architect/Engineer in writing, the Construction Manager shall be responsible for any and all such claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs.

3.16 DOCUMENTS AND SAMPLES AT THE SITE

3.16.1 The Construction Manager shall:

- .1 Maintain at the Project site on a current basis, one record copy of all Drawings, Specifications, Addenda, Amendments, Change Orders, and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data, and Samples. The record copies shall be documented within fourteen (14) days from the date performed in the field and available to the Architect/Engineer and Principal Representative;
- .2 Maintain at the Project site on a current basis a log to record receipt of all items set forth in paragraph 3.16.1 so as to record and permit the determination of the most current copies; and
- .3 Advise the Principal Representative on a current basis of all changes in the Work made during construction.

3.17 LAYOUT OF WORK

3.17.1 Based upon monuments or benchmarks furnished by the Principal Representative, the Construction Manager shall establish all lines, levels and marks necessary to facilitate the operations of all concerned in such Construction Manager's Work. The Construction Manager shall lay out the Work making permanent records of all lines and levels required for excavation, grading and foundations and for all other parts of the Work.

3.18 USE OF SITE

3.18.1 The Construction Manager shall confine all operations at the site to areas permitted by law, ordinances, permits, and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.

3.19 CUTTING AND PATCHING OF WORK

3.19.1 The Construction Manager shall be responsible for all cutting, fitting, or patching that may be required to complete the Work or to make its several parts fit together properly.

3.19.2 The Construction Manager shall not damage or endanger any portion of the Work or the work of the Principal Representative or any separate contractors by cutting, patching, or otherwise altering any work, or by excavation. The Construction Manager shall not cut or otherwise alter the Work of the Principal Representative or any separate contractor except with the written consent of the Principal Representative and of such other contractor. No required consents shall be unreasonably withheld.

3.20 CLEANING UP

3.20.1 The Construction Manager shall keep the buildings and premises free from all surplus material, waste material, dirt and rubbish caused by its performance of the Work, including but not limited to its subcontractors of all tiers and suppliers, 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 leave the Work thoroughly clean unless more exact

requirements are specified elsewhere in the Contract Documents and where necessary, refit windows, doors and cabinet work. The Construction Manager shall also replace all broken and scratched glass and clean all window glass and all plumbing fixtures. The Construction Manager shall make such minor repairs and alterations in respect to its work as may be necessary to make the buildings and premises ready for occupancy.

3.20.2 If the Construction Manager fails to clean up within five (5) days after written notice from the Principal Representative, the Principal Representative may do so and the cost therefore shall be charged the Construction Manager.

3.21 PROTECTION OF PERSONS AND PROPERTY

3.21.1 In accordance with the provisions of paragraph 3.5.13, the Construction Manager shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

3.21.2 The Construction Manager shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:

- .1 All employees on the Work and all other persons who may be affected thereby;
- .2 All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Construction Manager or any of the Construction Manager's subcontractors of all tiers;
- .3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction; and
- .4 The work of the Principal Representative or other separate contractors provided, however, that the Construction Manager shall not be responsible to furnish the safety programs or direct protection of the work of the Principal Representative or other separate contractors.

3.21.3 The Construction Manager and subcontractors shall follow all applicable federal, State and local laws/regulations pertaining to safety, health, pollution control, water supply, fire protection, sanitation facilities, waste disposal and other related items. The Construction Manager shall educate its employees and subcontractors as to the site specific Health and Safety Plan and enforce adherence to safe work procedures.

3.21.4 The Construction Manager shall erect and maintain, as required by existing conditions and the progress of the Work, all reasonable standards for safety and protection, including posting 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, promulgating safety regulations, and notifying owners and users of adjacent utilities.

3.21.5 When the use of or storage of explosive or other hazardous materials or equipment is necessary for the execution of the Work, the Construction Manager shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel in accordance with all applicable federal, state, and local laws, rules and regulations.

3.21.6 The Construction Manager shall reasonably provide all necessary bracing, shoring, and tying of all decks, framing and structures or structural elements to prevent the failure of materials or temporary facilities required in the execution of the Work which could result in damage to property or the injury or death of persons; take all reasonable 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 the

Work; and reasonably provide for the adequacy and safety of all scaffolding and hoisting equipment. The Construction Manager shall not permit open fires. The Construction Manager shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavations, floors, pits, and trenches free of water. Nothing contained within this paragraph shall render the Construction Manager liable for any errors or omissions related to means, methods, techniques, sequences, or procedures on the part of the Architect/Engineer or its consultants unless the Construction Manager knew or in the exercise of reasonable care should have known of such error or omission and failed to act to prevent damage.

3.21.7 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 to assure the safe passage of pedestrians and automobiles.

3.21.8 The Construction Manager shall promptly remedy all damage or loss (other than damage or loss insured under Article 11) to any property caused in whole or part by the Construction Manager, any subcontractor of any tier, anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, except damage or loss attributable to the acts or omissions of the Principal Representative, the Architect/Engineer, or anyone employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of the Construction Manager. The foregoing obligations of the Construction Manager are in addition to the Construction Manager's obligations under Article 12.

3.21.9 The Construction Manager shall assign a qualified safety engineer from the Construction Manager's organization at the site whose duty shall be the prevention of accidents. This person shall report to the Construction Manager's Project Manager and shall be identified in writing to the Principal Representative.

3.21.10 In any emergency affecting the safety of persons or property, the Construction Manager shall act, at the Construction Manager's discretion, to prevent threatened damage, injury, or loss. Any additional compensation or extension of the Contract Time claimed by the Construction Manager on account of emergency work shall be pursuant to the Construction Manager's written Notice of Claim and determined as provided in Articles 6 and 19 pertaining to Time of Commencement and Completion and Claims for Additional Costs and Damages respectively.

3.21.11 Should the Construction Manager observe a subcontractor or its employee engaged in an unsafe act or improperly utilizing equipment in such a manner that creates an inherently dangerous condition, which puts the life or safety of job site personnel at risk or in danger then the Construction Manager may immediately stop such Work or acts. The Construction Manager shall as soon as possible notify the subcontractor and the Principal Representative of the violation or hazard and record the incident. The Construction Manager or subcontractor shall correct the hazard or condition prior to resuming operation in the area.

3.21.12 The Construction Manager shall develop a written site safety program, maintain injury records as required by OSHA, keep the Principal Representative informed of all serious and/or lost time injuries, and make available to the Principal Representative information on injury logs, safety meetings and their topics, inspection reports and other items concerning Project safety.

3.21.13 The Construction Manager shall coordinate with the requirements of an industry standard Owner Controlled Insurance Program if provided by the Principal Representative.

3.22 START-UP

3.22.1 The Construction Manager, with the Principal Representative's maintenance and/or contracted testing personnel, shall direct the checkout of utilities, operations, systems and

equipment for readiness and assist in their initial start-up and testing by the subcontractors of all tiers.

3.22.2 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 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.

3.22.3 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 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 or material supplier to make adjustments, corrections or balancing required by this process.

3.23 CONSTRUCTION METHODS

3.23.1 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.

3.24 ACCESS TO WORK

3.24.1 The Architect/Engineer and Principal Representative shall at all times have access to the Work wherever it is in preparation and progress. The Construction Manager shall provide safe and reasonable facilities for such access so that the Architect/Engineer and Principal Representative may exercise their rights and perform their functions under the Contract Documents.

3.25 ARCHITECT/ENGINEER'S AUTHORITY

3.25.1 The duties, responsibilities and limitations of authority of the Architect/Engineer as the Principal Representative's representative during construction as set forth in the Contract Documents, shall not be modified or extended without written consent of the Principal Representative, the Architect/Engineer, and the Construction Manager, which consent(s) shall not be unreasonably withheld.

3.26 NO RESPONSIBILITY FOR ARCHITECT/ENGINEER

3.26.1 The Construction Manager shall not be responsible for the failure of the Architect/Engineer or its consultants to properly discharge their duties and responsibilities as set forth in the Agreement between the Principal Representative and Architect/Engineer.

ARTICLE 4. DRAWINGS AND SPECIFICATIONS

4.1 OWNERSHIP AND USE OF DOCUMENTS

4.1.1 All Drawings, Specifications, and other documents, including those in electronic form, prepared by the Architect/Engineer and the Architect/Engineer's consultants are Instruments of Service for

use solely with respect to this Project. The Architect/Engineer and the Architect/Engineer's consultants shall be deemed the authors and owners of their respective Instruments of Service and shall retain all common law, statutory and other reserved rights, including copyrights. The Architect/Engineer grants to the State a perpetual nonexclusive license to reproduce and use, and permit others to reproduce and use for the State, the Architect/Engineer's Instruments of Service solely for the purposes of constructing, using and maintaining the Project or for future alterations, or additions to the Project.

4.1.2 The Drawings and Specifications and other documents are to be used only with respect to this Project and are not to be used on any other project. With exception of one contract set for each party to this Agreement, such documents are to be returned or suitably accounted for to the Principal Representative on request at the completion of the Work. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is to be approved by the Principal Representative.

4.2 REVIEW OF THE CONTRACT DOCUMENTS

4.2.1 The Construction Manager shall carefully study and compare the Contract Documents and shall at once report to the Principal Representative any error, inconsistency, or omission that may be discovered. The Construction Manager shall perform no portion of the Work at any time without Contract Documents or, where required, approved Drawings, Specifications, instructions, Shop Drawings, Product Data, or Samples for such portion of the Work.

4.2.2 If the Construction Manager or any of its subcontractors of any tier observes that any of the Contract Documents are at variance with applicable laws, statutes, building codes, ordinances, rules, or regulations, in any respect, the Construction Manager shall promptly notify the Principal Representative in writing, and any necessary changes shall be accomplished by appropriate Amendment or Change Order.

4.2.3 If the Construction Manager or any of its subcontractors of any tier perform any work with knowledge or reason to know that it is contrary to such laws, statutes, building codes, ordinances, rules, or regulations, and does not notify the Principal Representative, as required in paragraph 4.2.2, the Construction Manager shall assume full responsibility therefore and shall bear all costs attributable therefore.

4.2.4 Nothing contained in this paragraph 4.2 shall be construed to require the Construction Manager to fully coordinate all of the Drawings or undertake to provide a full and complete review of the Drawings and/or Specifications for compliance with all applicable codes.

4.3 INTERPRETATIONS

4.3.1 The Architect/Engineer shall be the initial interpreter of the requirements of the Contract Documents and the initial judge of the performance thereunder.

4.3.2 The Architect/Engineer shall render interpretations consistent with the intent of, and reasonably inferable from the Contract Documents, consisting of additional instructions by means of drawings or otherwise, necessary for the proper execution or progress of the Work, in accordance with agreed upon time limits and otherwise so as to cause no unreasonable delay. The Construction Manager may make written request to the Architect/Engineer for such interpretations and decisions.

4.4 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

4.4.1 Shop Drawings are drawings, diagrams, schedules, and other data specifically prepared for the Work by the Construction Manager or any subcontractor of any tier, manufacturer, supplier, or distributor, to illustrate some portion of the Work.

4.4.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Construction Manager to illustrate a material, product, or system for some portion of the Work.

4.4.3 Samples are physical examples which illustrate materials, equipment, or reasonable workmanship, and establish standards by which the Work shall be judged.

4.4.4 The Construction Manager shall furnish for approval, all samples as directed by the Architect/Engineer. The Architect/Engineer shall check and approve such samples with reasonable promptness.

4.4.5 The Construction Manager shall prepare, review, approve, and submit to the Architect/Engineer, with reasonable promptness and in such sequence as to cause no unreasonable delay in the Work or in the work of the Principal Representative or any separate Contractor, all Samples and sufficient copies of all Shop Drawings and Product Data required by the Contract Documents. Specific quantities, format, size, etc. of Samples, Shop Drawings, and Product Data shall be described in the Contract Documents prepared by the Architect/Engineer. All drawings shall contain identifying nomenclature and each submittal shall be accompanied by a letter of transmittal identifying in detail all enclosures.

4.4.6 By preparing, approving, and 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, or shall do so with reasonable promptness, and has checked and coordinated the information contained within such submittal with the requirements of the Work, the Project, the Contract Documents and prior approvals.

4.4.7 The Construction Manager shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect/Engineer's approval of Shop Drawings, Product Data, or Samples unless the Construction Manager has specifically informed the Principal Representative and Architect/Engineer in writing of such deviation at the time of submission and the Architect/Engineer and Principal Representative have both given written approval to the specific deviation. The Construction Manager shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data, or Samples by the Architect/Engineer's approval of them.

4.4.8 The Construction Manager shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, or Samples, to revisions other than those requested by the Architect/Engineer on previous submittal.

4.4.9 No portion of the Work requiring submission of a Shop Drawing, Product Data, or Sample shall be commenced until the submittal has been approved by the Architect/Engineer as provided in paragraph 4.4.10. All such portions of the Work shall be in accordance with approved submittal. Work which is improperly fabricated, whether through incorrect Shop Drawings, faulty workmanship or materials, shall not be acceptable unless previously accepted in writing by the Principal Representative.

4.4.10 The Architect/Engineer shall review and approve or take other appropriate action upon the Construction Manager's submittal such as Shop Drawings, Product Data, and Samples, but only for conformance with the design concept of the Work and the information given in the Contract Documents. Such action shall be taken with reasonable promptness so as to cause no unreasonable delay. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Any and all approved substitutions shall be coordinated with the Contract Documents and all prior approvals.

4.4.11 Transmittal of Shop Drawings and Product Data copies to the Principal Representative is solely for convenience of the Principal Representative and shall neither create or imply a responsibility or duty of review by the Principal Representative.

4.4.12 As required in paragraph 3.4.14 and further described here, the Construction Manager shall utilize the integrated management control system(s) as established in cooperation with the Principal Representative: to develop a submittal log and schedule for managing and controlling the submission, review, and approval of Shop Drawings, Product Data and Samples.

The submittal log and schedule must be submitted to the Architect/Engineer for review and approval with the Preliminary Construction Schedule, within fourteen (14) days of receiving the Notice to Proceed to Commence Construction Phase for each Bid Package. The Construction Manager throughout the project, both the Preconstruction and Construction Phases, shall maintain the log.

ARTICLE 5. THE PRINCIPAL REPRESENTATIVE RESPONSIBILITIES

5.1 THE RESPONSIBILITIES

5.1.1 The Principal Representative shall furnish the Construction Manager with detailed program requirements, the Project Budget and Fixed Limit of Construction Cost established for the Work as detailed elsewhere in this Agreement.

5.1.2 The Principal Representative shall designate a representative (other than the Architect/Engineer) authorized to act on its behalf with respect to the Project (*as indicated in paragraph 3.8.3*).

5.1.3 The Principal Representative shall retain an Architect/Engineer for preparation of the design and Construction Documents for the Project. The Architect/Engineer's services, duties, and responsibilities are described in the Agreement between the Principal Representative and the Architect/Engineer, a copy of which has been previously furnished to the Construction Manager.

5.1.4 The Construction Manager shall be furnished, without charge _____ (____) sets of copies of the drawings and specifications and one (1) set of reproducible. Additional sets, as mutually agreed upon to meet construction needs, shall be a direct cost of Work.

5.1.5 The Principal Representative shall furnish the site of the Project, all necessary surveys describing the physical characteristics, legal limitations, utility locations, and a legal description.

5.1.6 The Principal Representative shall identify and make available to Construction Manager copies of reports of geotechnical explorations and tests of subsurface conditions at the site which have been utilized by Architect/Engineer in preparing the Drawings and Specifications. The Principal Representative does not represent that these reports show completely and accurately the existing conditions and the Principal Representative does not guarantee any interpretation of the reports. Except as provided in paragraph 10.4, the Construction Manager expressly assumes all responsibility for deductions and conclusions which may be made as to the nature of the materials to be excavated, and the difficulties of making and maintaining the required excavations, and of doing other work affected by the geology of the site of the Work. The geotechnical information discussed above is for reference only and is not part of the Contract Documents.

5.1.7 The Principal Representative shall secure and pay for necessary approvals, permanent easements, assessments, and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

5.1.8 The Principal Representative shall furnish such legal, accounting, and insurance counseling services as may be necessary for the Project, and such auditing services as the Principal Representative may require to ascertain how or for what purposes the Construction Manager has used the monies paid to it under this Agreement.

5.1.9 The services, information, surveys, and reports required by paragraphs 5.1.3 through 5.1.8 shall be furnished on a timely basis and at the Principal Representative's expense, and except as may be provided to the contrary elsewhere in this Agreement, the Construction Manager shall be entitled to rely upon the accuracy and completeness thereof.

5.1.10 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.

5.1.11 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:

- .1 A period of fourteen (14) days for the review of the Design Development Documents; and
- .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.

It is expressly understood and expected that the Construction Manager shall develop the Guaranteed Maximum Price as the Design Development Documents are developed and that the final establishment of the Guaranteed Maximum Price shall occur within twenty eight (28) days of receipt of the final full scope of the Design Development Drawings and Specifications, including all associated Addenda.

5.1.12 The foregoing are in addition to other duties and responsibilities of the Principal Representative enumerated elsewhere in the Contract Documents.

ARTICLE 6. TIME OF COMMENCEMENT AND COMPLETION

6.1 COMMENCEMENT

6.1.1 The Contract Time shall commence on the date of this Agreement but no work shall be performed prior to the delivery of all documents and certificates required to be furnished by the Construction Manager.

6.1.2 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 paragraph 1.1.3 of this Agreement.

6.1.3 The commencement of the Construction Phase is expressly conditioned upon and shall not commence until:

- .1 The Guaranteed Maximum Price and Schedule of Values have been approved and accepted by the Principal Representative;
- .2 The date for Completion of the Work has been approved and accepted by the Principal Representative;
- .3 **Exhibit I.8**, Certification and Affidavit Regarding Unauthorized Immigrants has been approved;
- .4 All required Performance and Labor and Material Payment Bonds and insurance certificates have been approved and accepted by State Buildings Program; and
- .5 **Exhibit I.9**, Notice to Proceed to Commence Construction Phase 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.

6.2 TIME OF ESSENCE

6.2.1 Time is of the essence of this Agreement. The Construction Manager shall begin the Work on the date of Commencement as defined in paragraph 6.1.1. The Construction Manager shall carry the Work forward expeditiously with adequate forces and shall achieve Completion of the Work within the Contract Time.

6.3 COMPLETION DATE

6.3.1 The Date of Completion shall be established per Bid Package Amendment. Upon approval by the Principal Representative of the Detailed Construction Schedule as outlined in paragraph 3.9.3, the Date of Completion may be revised by mutual agreement.

6.4 DELAYS AND EXTENSIONS OF DATE OF COMPLETION OF WORK

6.4.1 Extensions of the Contract Time required under any of the various contract clauses shall be granted only to the extent that the critical path was delayed or the time allowed for any activity or activities affected exceed the identified available float or slack that occurs, or should occur, along the channels involved.

6.4.2 Subject to the limitations as provided in paragraph 6.4.1, if the Construction Manager is delayed at any time in the progress of the Work by any act or neglect of the Principal Representative, the Architect/Engineer, or of any employee of either, or by any separate contractor, or by changes ordered in the Work, or by strikes, lockouts, fire, unusual delay in transportation, directed suspensions of the Work pursuant to paragraph 6.5.1, unavoidable casualties, or any other causes beyond the Construction Manager's control, the Contract Time shall be extended by the Principal Representative for such period of time as the Principal Representative may determine based upon the Construction Manager's showing of the delay to the critical path in accordance with paragraph 6.4.1 and that it could not have avoided the delay by the exercise of due diligence.

6.4.3 If adverse weather conditions are the basis for a claim for an extension of the Contract Time, such claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and that the weather conditions complained of had an adverse effect on the critical path. Substantiation shall be based on a comparison of current conditions with recorded conditions for the same time period over the duration of the past 10 years.

6.4.4 If the Construction Manager intends to assert a claim for an extension of the Contract Time, the Construction Manager shall give written Notice of Claim for each such delay to the Architect/Engineer and the Principal Representative within fifteen (15) days from the beginning of the delay and shall submit its written claim for an extension of the Contract Time within fifteen (15) days after the period of delay has ceased. No claim for extension to the Contract Time shall be valid unless such written Notice of Claim and written claim are submitted as herein required. In the case of a continuing delay, only one written Notice of Claim shall be necessary.

6.4.5 If no schedule is prepared fixing the dates on which various detail drawings and instruction (not including final Construction Documents to be released for construction) will be needed, no extension to the Contract Time shall be allowed for failure to furnish such drawings or instructions as needed, except in respect of that part of any delay in furnishing drawings or instructions extending beyond a period of two (2) weeks after written demand for such drawings or instructions is received by the Architect/Engineer. In any event, any claim for an extension of the Contract Time for such cause shall be recognized only to the extent

of the delay directly caused by failure to furnish drawings or instructions pursuant to schedule, or such two (2) weeks demand, without fault on the part of the Construction Manager or those for whom the Construction Manager is responsible.

6.5 TEMPORARY SUSPENSION OF WORK

6.5.1 The Principal Representative shall have the authority to suspend the Work, either wholly or in part, for such period or periods as it may deem necessary due to:

- .1 Unsuitable weather;
- .2 Faulty workmanship;
- .3 Improper superintendence;
- .4 Construction Manager's material and substantial failure to carry out orders or to perform any provision of the Contract Documents;
- .5 Conditions which are considered unfavorable for the prosecution of the Work; or
- .6 Any other reason, with or without cause, including but not limited to the availability of funding for the Project as well as any other construction projects and the need to allocate funds between them.

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

6.5.3 Such Notice of Suspension of Work shall be in writing and the Construction Manager shall again proceed with the Work when so notified in writing. The Construction Manager may assert any claims for an adjustment of the Contract Sum, Guaranteed Maximum Price and Contract Time as provided in paragraphs 6 and 19 of this Agreement.

6.6 DELAY DAMAGES

6.6.1 The Principal Representative's liability for delay damages shall be limited to delays of Completion of the Work caused by:

- .1 Directed suspensions of the Work, except where the Construction Manager or those for whom the Construction Manager is responsible is at fault;
- .2 Any delay caused by the Principal Representative beyond the times allowed for each of the reviews of the Design Development Documents and Construction Documents as set forth in paragraph 5.1.11;
- .3 Any delay caused by any separate Contractor not assigned to the Construction Manager for coordination pursuant to Article 10;
- .4 The negligent or wrongful acts or omissions of the Principal Representative only;
- .5 The Principal Representative or the Architect/Engineer in the release of any separate Bid Packages or **Exhibit I.9**, Notice to Proceed to Commence Construction Phase, which delay is in excess of fourteen (14) days beyond the dates established in **Exhibit H.2**, Schedule for

Bid Package Descriptions and Issuance Dates for the release thereof, and in any subsequent Amendments or Change Orders, and further, is not caused in whole or in part by the Construction Manager and the associated cost has not been compensated otherwise; and/or;

- .6 Construction Manager's discovery of hazardous substances that have not been rendered harmless pursuant to paragraph 10.6

In the event of such delay the Construction Manager must give its written Notice of Claim within fifteen (15) days after the commencement of the event giving rise thereto, with full and complete documentation in support of the period of delay damages to be submitted within thirty (30) days after the commencement or such other time as the Principal Representative shall agree in writing, or such claim shall be forever barred. If a claim is so barred, the Principal Representative shall not be liable for delay damages under any circumstances giving rise to that claim for delay nor any damages Construction Manager suffered thereby.

6.7 Liquidated Damages

6.7.1 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 paragraph 21.9, Modification of Article 6.

6.7.2 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 to Commence Construction Phase and delay in final completion and acceptance shall be measured from the Date of the Notice of Substantial Completion.

6.7.3 In the first instance, specified in paragraph 21.9 Modification of Article 6, 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 to Commence Construction Phase, 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.

6.7.4 In the second instance, specified in paragraph 21.9, Modification of Article 6, liquidated damages, if any, shall be the amount specified in paragraph 21.9, Modification of Article 6 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.

6.7.5 In the third instance, when so specified in both paragraphs 21.9 (1) and (2), both types of liquidated damages shall be separately assessed where those delays have occurred.

6.7.6 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, and the calling for the final inspection and the completion of the Substantial Completion Punch List.

6.7.7 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 paragraph 6.4, Delays And Extensions Of Time.

ARTICLE 7. SUBCONTRACTS

7.1 CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES OR COLORADO

7.1.1 After the contract is awarded, the 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 the 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)

7.2 SUBCONTRACTS

7.2.1 The Construction Manager shall request and receive proposals from the subcontractors and subcontracts shall be awarded after the proposals are tabulated in a pre-approved format which compares to each GMP budgeted line item and, reviewed by the Architect/Engineer, Construction Manager, and Principal Representative.

- .1 Proposals for all subcontracts shall be opened in the presence of the Construction Manager, the Architect/Engineer, the Principal Representative and others as requested by the Principal Representative.
- .2 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), 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.

7.3 SUBCONTRACTOR PREQUALIFICATION

7.3.1 The Construction Manager shall use as subcontractors for the various major trades, subcontractors who have been pre-qualified by the Construction Manager and are acceptable to the Principal Representative, which acceptance shall not be unreasonably withheld. All major trade subcontractors prequalified by the Construction Manager and approved by the Principal Representative prior to signing this Agreement are set forth in **Exhibit F**.

7.3.2 In the event unforeseeable circumstances necessitate the use of any major trade subcontractors not set forth in **Exhibit F**, the Construction Manager shall pre-qualify one or more proposed major trade subcontractors to be added to **Exhibit F** and submit the same to the Principal Representative for review. The Principal Representative shall inform the Construction Manager in writing of the names of those subcontractors who are acceptable. The Construction Manager expressly recognizes its commitment

pursuant to the Contract Documents to complete the Work within the constraints set forth elsewhere in the Contract Documents and the necessity to use pre-qualified major trade subcontractors. Except as provided in paragraph 3.5.12 or where requested by the Construction Manager and with the prior written approval of the Principal Representative, proposed additions or substitutions of major trade subcontractors on **Exhibit F** because their price is less expensive than any pre-qualified subcontractors shall not constitute an unforeseeable circumstance or otherwise be a basis for any change.

7.3.3 Prior to the Notice to Proceed to Commence Construction Phase for the first construction phase, the Construction Manager shall submit to the Architect/Engineer and the Principal Representative a complete list of all other proposed pre-qualified subcontractors not provided for in accordance with paragraph 7.3.1, which shall be on a schedule prepared by the Construction Manager for such submittal. The Construction Manager shall not employ any subcontractor that the Architect/Engineer and Principal Representative, within ten (10) days after the date of receipt of the Construction Manager's prequalified subcontractors' lists, objects to in writing as being unacceptable to either the Architect/Engineer or the Principal Representative,

7.3.4 If the Principal Representative refuses to accept a subcontractor recommended by the Construction Manager pursuant to paragraph 7.3.3, the Construction Manager shall recommend an acceptable substitute and the Contract Sum and Guaranteed Maximum Price, if applicable, shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Amendment or Change Order shall be issued.

7.4 SUBCONTRACT FORMS

7.4.1 All subcontracts shall be between the Construction Manager and the subcontractors. The form of subcontracts, including any Supplementary Conditions thereto, shall be furnished to the Principal Representative for review and consent as to form, which consent shall not be unreasonably withheld.

7.5 CONSTRUCTION MANAGER RESPONSIBLE FOR SUBCONTRACTORS

7.5.1 The Construction Manager shall be responsible to the Principal Representative for the acts and omissions of its agents and employees, suppliers, subcontractors performing work under a contract with the Construction Manager, and such subcontractors' lower tier subcontractors, agents or employees.

7.6 SUBSTITUTION OF SUBCONTRACTORS

7.6.1 The substitution of any subcontractor listed in the Construction Manager's approved lists in accordance with paragraphs 7.3.1 and 7.3.3 shall be justified in writing not less than ten (10) days after the date of the Notice to Proceed to Commence Construction Phase, 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 proposal errors, or other similar reasons, such substitution may be approved. The Construction Manager shall bear any additional cost incurred by such substitutions.

7.7 SUBCONTRACTUAL RELATIONS

7.7.1 By an appropriate agreement, written where legally required for validity, the Construction Manager shall require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Construction Manager by the terms of the Contract Documents, and to assume toward the Construction Manager all the obligations and responsibilities which the Construction Manager, by these Documents, assumes toward the Principal Representative and the Architect/Engineer. Said agreement shall preserve and protect the rights of the Principal Representative and the Architect/Engineer under the Contract Documents with respect to the Work to be performed by the subcontractor so that the subcontracting thereof shall not prejudice such rights. Where appropriate, the Construction Manager shall require each subcontractor to enter into similar agreements with their subcontractors. The Construction Manager shall make available to each proposed subcontractor, prior to the execution of the subcontract, copies of the

Contract Documents to which the subcontractor shall similarly make copies of such Documents available to their sub-subcontractors. Each subcontractor shall be bound by this paragraph 7.7.1.

7.8 PRINCIPAL REPRESENTATIVE/SUBCONTRACTOR RELATIONSHIP

7.8.1 The parties recognize that the bidding and subcontracting procedures prescribed herein are intended to promote pricing of the work that shall be fair and reasonable and based on full and open competition. The Construction Manager agrees to comply in a timely manner with reasonable requests for information concerning pre-qualification of a prospective subcontractor, the evaluation and award of bids, or other obligations under this contract concerning pre-qualification, bidding, and subcontracting. Upon notice by the State, the Construction Manager agrees to meet and confer with the state and other invited, interested persons at the Denver office of State Buildings Program or at the site, the choice of such location to be made by the State, or at some other location mutually agreeable to the State and Construction Manager, concerning its pre-qualification, bidding and subcontracting procedures. The Construction Manager agrees to meet within three (3) business days of an election by the State and to comply with reasonable requests for information to be provided at such meeting. The State agrees that this administrative procedure shall be exhausted prior to the State's exercising any contractual or other remedy relating to the pre-qualification, bidding, or subcontracting procedures specified herein.

7.8.2 Nothing contained in the Contract Documents, including this Agreement, shall be deemed to create any contractual relationship between any subcontractor of any tier and the Principal Representative. Further, consistent with paragraph 21.12, nothing in the Contract Documents, including this Agreement and the pre-qualification, bidding and subcontracting procedures specified herein, is intended to create or shall be deemed to create third party beneficiary or other rights inuring to the benefit of any prospective subcontractor, subcontractor, or any other third person.

ARTICLE 8. WORK BY PRINCIPAL REPRESENTATIVE OR BY SEPARATE CONTRACTORS

8.1 PRINCIPAL REPRESENTATIVE'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

8.1.1 The Principal Representative reserves the right to perform work related to the Project with the Principal Representative's own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar conditions of this Agreement.

8.1.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term separate contractor in the Contract Documents in each case shall mean the contractor who executes each separate Principal Representative-Contractor Agreement.

8.2 COORDINATION

8.2.1 To the extent separate contractors are not assigned to the Construction Manager for coordination pursuant to Article 10, the Principal Representative shall provide and be responsible for the coordination of the Work of the Principal Representative's own forces and of each separate contractor with the Work of the Construction Manager, who shall cooperate therewith as provided in paragraph 8.3.1 through 8.4.1.

8.3 MUTUAL RESPONSIBILITY

8.3.1 The Construction Manager shall afford to Principal Representative and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate the Work with theirs as required by the Contract Documents.

8.3.2 To insure the proper execution of its subsequent Work, if any part of the Construction Manager's Work depends for proper execution or results upon the Work of the Principal Representative or any separate contractor, the Construction Manager shall, prior to proceeding with the Work, inspect and

promptly report to the Principal Representative any apparent discrepancies or defects in such other work that renders it unsuitable for such proper execution and results. The Construction Manager shall also measure work already in place and shall promptly report to the Architect/Engineer any discrepancy between the executed work and the Drawings. Failure of the Construction Manager to so inspect, or report, shall constitute an acceptance of the Principal Representative's or separate contractor's work as fit and proper to receive the Work, except as to defects which may develop in the separate contractor's Work after execution of the Work.

8.3.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefore.

8.3.4 Should the Construction Manager cause damage to the Work or property of the Principal Representative or to other work or property on the site, the Construction Manager shall promptly remedy such damage.

8.3.5 Should the Construction Manager wrongfully delay or cause damage to the work or property of any separate contractor, the Construction Manager shall, upon due notice, promptly attempt to settle with such other separate contractor by agreement or otherwise to resolve the dispute. If such separate contractor sues the Principal Representative on account of any delay or damage alleged to have been caused by the Construction Manager, the Principal Representative shall notify the Construction Manager, the Principal Representative shall defend any proceedings, and if any judgment or award against the Principal Representative arises therefrom and to the extent that Construction Manager is responsible, the Construction Manager shall pay or satisfy it and reimburse the Principal Representative for all attorney's fees and court costs which the Principal Representative has incurred.

8.4 PRINCIPAL REPRESENTATIVE'S RIGHT TO CLEAN UP

8.4.1 If a dispute arises between the Construction Manager and any separate contractors as to their respective responsibilities for cleaning up, the Principal Representative may clean up and charge the cost thereof to the Construction Manager and separate contractors responsible therefore as the Principal Representative shall determine to be just.

ARTICLE 9. COMPENSATION

9.1. Construction Manager's Fee and General Conditions

9.1.1 Subject to the provisions of Sections 6.6, 9.5, 9.6 and 20.2, 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, a Total Fee amount and separate General Conditions amount as listed below:

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 |

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

- .1 Salaries or other compensation of the Construction Manager's employees at the principal office and branch offices;
- .2 General operating expenses of the Construction Manager's principal and branch offices other than the field office;
- .3 Any part of the Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Project;
- .4 Overhead or general expenses of any kind;
- .5 Salaries of the Construction Manager's employees engaged on the road in expediting the production or transportation of materials and equipment;
- .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 9.1.2.1 through 9.1.2.5;
- .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;
- .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;
- .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;
- .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;
- .11 All other items set forth in **Exhibit A**, Designated Services and Method of Payment, that are specifically designated as Preconstruction Services Fee, Construction Services Fee or General Conditions. All Items listed in the columns designated as Required of Architect/Engineer and Required of Owner are not included in the Construction Manager's fee, and the items designated as Direct Cost of Work shall be included in the separate Bid Packages.
- .12 Except as expressly provided to the contrary elsewhere in this Agreement, costs in excess of the Guaranteed Maximum Price.

9.1.3 General conditions items, as set forth in paragraph 9.1.2, shall generally include the direct 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 direct 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:

- .1 Invoice or receipt for any vendors or suppliers for material, rented equipment, etc.
- .2 Labor/timesheet reports (by task number) for direct labor, provide bare labor rate & itemized breakdown of labor burden prior to initial billing.
- .3 Owned equipment shall be compensated per pre-negotiated rates established in accordance with the Colorado Procurement Code or the 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.
- .4 Labor, material and equipment cost may be audited by the principal representative.

9.2 ADJUSTMENTS IN FEE

9.2.1 Adjustments in 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:

- .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 paragraphs 6.4.1 through 6.4.5.

9.2.2 The Construction Manager shall also be paid an additional fee at the rate as set forth in paragraph 9.2.1.1 if the Construction Manager is placed in charge of the reconstruction of any insured loss.

9.2.3 If there is a material reduction in the scope of work greater than fifteen percent (15%) of the Fixed Limit of Construction Cost, the Principal Representative reserves the right to negotiate an equitable reduction in the Construction Phase fee and the General Conditions.

9.3 GUARANTEED MAXIMUM PRICE

9.3.1 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 3.2.

9.3.2 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:

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

- .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 3.4.1 through 3.4.5, with the consent of the Construction Manager which consent shall not be unreasonably withheld;
- .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;
- .4 The estimated maximum cost of all work to be performed by the Construction Manager;
- .5 Construction Manager's fee as provided under this Agreement and General Condition costs, as provided under this Agreement;
- .6 The cost of all Performance and Labor and Material Payment Bonds furnished by the Construction Manager pursuant to Article 13;
- .7 The premiums for insurance to protect the Project pursuant to paragraph 11.2; and
- .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, startup services, and warranty support; and contingencies.

9.3.3 The Guaranteed Maximum Price proposal as set forth in paragraph 9.3.1 shall:

- .1 Set forth a stated dollar amount;
- .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;
- .3 Contain no conditions or exceptions;
- .4 Not exceed the Fixed Limit of Construction Cost; and
- .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;
- .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 Construction Manager 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.

9.3.4 If, through no fault on the part of the Construction Manager, and after receiving reasonable cooperation by the Principal Representative and Architect/Engineer, the Construction Manager submits a Guaranteed Maximum Price proposal contrary to the provisions of paragraph 9.3.2 and 9.3.3, 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 fee for the Preconstruction Services, until a Guaranteed Maximum Price is furnished in accordance with the foregoing.

9.3.5 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.

9.3.6 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 Cost; and shall be subject to modification for Changes in the Work as provided in Article 10. If the Construction Manager, in good faith, furnishes the Principal Representative with a Guaranteed Maximum Price proposal which meets the criteria of paragraphs 9.3.1, 9.3.2, and 9.3.3 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.

9.3.7 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.

9.4 CONTRACT SUM

9.4.1 Subject to the provisions of Article 3, Article 9 and paragraph 20.2, the Contract Sum shall equal the total of:

- .1 The lump sum price for the aggregate of the Bid Packages added to the Construction Manager's Work by Amendment;
- .2 The cost of installation of items to be procured by the Principal Representative and assigned to the Construction Manager for installation;
- .3 The portions of the Construction Manager's total fee and General Conditions cost as set forth in paragraph 9.1.1;
- .4 The cost of all Performance and Labor and Material Payment Bonds furnished by the Construction Manager pursuant to Article 13;
- .5 The premiums for the property insurance to protect the Project pursuant to paragraph 11.4;
- .6 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.

9.5 PAYMENTS

9.5.1 Preconstruction Services Fee: For the performance of the Preconstruction Services, the fee therefore as set forth in paragraphs 9.1.1 shall be paid monthly based upon detailed invoices totaling the aggregate of all work previously performed as submitted by the Construction Manager, with the total payment not to exceed the fee for such services as set forth in paragraph 9.1.1.

9.5.2 Construction Services Fee: Notwithstanding the stated fee set forth in paragraph 9.1.1 for Construction Services, the portion of the fee to be paid to the Construction Manager for the Construction Phase shall be determined and paid as follows:

- .1 After execution of the first Amendment to the Agreement establishing and accepting the Guaranteed Maximum Price of the Work, the Construction Manager shall be paid the sum of Dollars (\$____) for the mobilization and front end costs including the premiums to protect the Project;
- .2 With the addition of the second Amendment incorporating the first Bid Package and subsequent Amendments incorporating subsequent Bid Packages, the portion of the fee to be paid (total fee for all Construction Services less that paid pursuant to paragraph 9.5.2.1) 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.

The portion of the fee payable in accordance with paragraph 9.5.2.1 shall be due and payable with the first Certificate and Application for Contractor's Payment (State form SC-7s) after commencement of the Construction Phase. The remaining portion(s) of the Construction Manager's fee as determined above shall be included in each Certificate and Application for Contractor's Payment in proportion to the percent of the Work that is complete. Any balance of the fee shall be paid at the time of final payment.

9.5.3 Schedule of Values

- .1 At the time of the agreement and acceptance of the Guaranteed Maximum Price as set forth in paragraph 9.3, the Construction Manager shall submit to the Principal Representative, using the CPM Schedule developed in accordance with paragraph 3.9 and forms approved by State Buildings Program, a complete, detailed, and itemized Schedule of Values. The Schedule of Values shall be allocated to the various portions of the Work described by the CPM schedule activities; allow for tracking of progress based upon CSI Division, funding sources, sub-trades, combinations of sub-trades, building systems, Bid Packages or combinations thereof; aggregate to the total of the Guaranteed Maximum Price; and be supported by such data to substantiate its accuracy as the Architect/Engineer and the Principal Representative may require. The Construction Manager's fee and the estimated Project General Conditions costs shall be set forth as a separate line item(s).
- .2 At least ten (10) days before submission of the first Certificate and Application for Contractor's Payment for the Construction Phase, a conference attended by the Construction Manager, Architect/Engineer and Principal Representative shall be held to finalize the Schedule of Values. The finalized Schedule of Values shall serve as the basis for progress payments and shall be incorporated into the form of a Project Certificate and Application for Contractor's Payment acceptable to the Architect/Engineer and Principal Representative. Subject to the prior approval of the Principal Representative, the finalized Schedule of Values shall be adjusted to reflect changes made to the Work by Amendment.
- .3 As subsequent Bid Packages are added into this Agreement by Amendment or upon the agreement and acceptance of the Guaranteed Maximum Price as set forth in paragraph 9.3, whichever is first to occur, and at such other times as the Principal Representative shall approve and/or direct, the Construction Manager shall submit proposed revisions to the

Schedule of Values to more accurately reflect the actual values of the specific activities and other items, supported by such data to substantiate its accuracy as the Architect/Engineer and the Principal Representative may require. Except as provided above, the Construction Manager shall make no other adjustment to the currently approved Schedule of Values. Where a preliminary value has been assigned to any specific item on a Schedule of Values and that portion of the Work is to be performed by the Construction Manager, the Construction Manager shall determine as soon as practical the cost of such item and submit to the Principal Representative a final value to use in the then current Schedule of Values supported by such data to substantiate its accuracy as the Architect/Engineer and Principal Representative may require. If the Construction Manager shall fail or refuse to make such submission, the value approved by the Principal Representative in the then current approved Schedule of Values shall be used and the Construction Manager shall be entitled to no further compensation for that item beyond the then currently approved amount therefore until such requirements are fulfilled.

9.5.4 Applications for Payment: On or before the first day of each month and no more than five (5) days prior thereto, the Construction Manager shall submit to the Architect/Engineer an itemized Certificate and Application for Contractor's Payment covering the portion of the Work completed as of the date indicated in the Application together with the portion of the Construction Manager's fee and General Conditions then due as provided for in paragraph 9.5.10 together with such additional documentation substantiating the Construction Manager's right to payment as the Principal Representative and Architect/Engineer may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents. The form of Certificate and Application for Contractor's Payment shall be as furnished by the Principal Representative. All Project Certificates and Applications for Contractor's Payment, except the final Certificate and Application for Contractor's Payment, shall be subject to correction including revision to the next Project Certificate and Application for Contractor's Payment rendered following the discovery of any error.

9.5.5 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site and, if approved in advance by the Principal Representative, payments may similarly be made for materials or equipment suitably stored at some other location agreed upon in writing. Payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Construction Manager of bills of sale or such other documents or procedures satisfactory to the Principal Representative to establish the Principal Representative's title to such materials or equipment or otherwise protect the Principal Representative's interest, including applicable insurance and transportation to the site for these materials and equipment stored off the site.

9.5.6 The Construction Manager warrants that title to all Work, materials, and equipment covered by a Certificate and Application for Contractor's Payment shall pass to the Principal Representative either by incorporation in the construction or upon receipt of payment by the Construction Manager whichever occurs first, free and clear of all liens, claims, security interest, or encumbrances, hereinafter referred to in this Article 9 as liens; and that no work, materials, or equipment covered by a Certificate and Application for Contractor's Payment shall have been acquired by the Construction Manager, or by any other person performing work at the site or furnishing materials and equipment for the Work, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Construction Manager or such other person. The warranty of this Article shall survive the termination of this Agreement.

9.5.7 Retainage Withheld: Unless otherwise provided in the Contract Documents, an amount equivalent to five percent (5%) of the amount shown to be due the Construction Manager on each Certificate and Application for Contractor's Payment for the Construction Phase shall be withheld until the Work required by the Contract Documents has been performed. The withheld percentages of the Contract Sum shall be administered according to C.R.S. § 24-91-103, as amended, and C.R.S. § 38-26-107, as amended, and 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 17.5.

9.5.8 Release of Retainage: The Contractor 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 Contractor, and the Principal Representative. Any such request shall be supported by a written approval from the Surety furnishing the Contractor'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 made to the Subcontractor, copies of the Subcontractor's contract with the Contractor, 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 Contractor's obligation under these Contract Documents 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 Contractor 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 Contractor'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 17, 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.

9.5.9 The Architect/Engineer shall, within five (5) days after the receipt of each Certificate and Application for Contractor's Payment, review the Project Application for Payment and either execute a Project Certificate for Payment to the Principal Representative for such amounts as the Architect/Engineer reasonably determines are properly due, or notify the Construction Manager in writing of the reasons for withholding a Certificate as provided in paragraph 9.5.15.

9.5.10 The issuance of a Certificate and Application for Contractor's Payment shall constitute a representation by the Architect/Engineer to the Principal Representative that, based on the Architect/Engineer's observations at the site as provided in Article 14 and the data comprising the Certificate and Application for Contractor's Payment, the Work has progressed to the point indicated; that, to the best of the Architect/Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon completion of the Work, to the results of any subsequent tests required by or performance under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in the Certificate and Application for Contractor's Payment); and that the Construction Manager is entitled to payment in the amount certified. However, the issuance of a Certificate and Application for Contractor's Payment shall not be a representation that the Architect/Engineer has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, has reviewed the

construction means, methods, techniques, sequences, or procedures, or has made any examination to ascertain how or for what purpose the Construction Manager has used the monies paid on account of the Contract Sum.

9.5.11 Progress Payments: 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 applications for payment that have been certified by the Architect/Engineer.

9.5.12 The Construction Manager shall promptly pay each subcontractor and supplier upon receipt of payment from the Principal Representative, out of the amount paid to the Construction Manager on account of such subcontractor's or supplier's work or materials furnished, the amount to which said subcontractor or supplier is entitled, reflecting the percentage actually retained, if any, from payments to the Construction Manager on account of such subcontractor's or supplier's work or materials furnished. The Construction Manager shall, by an appropriate agreement with each subcontractor or supplier, require each subcontractor or supplier to make payments to their sub-subcontractors or suppliers in similar manner.

9.5.13 The Architect/Engineer may, on request and at the Architect/Engineer's discretion, furnish to any subcontractor or supplier, if practicable, information regarding the percentages of completion or the amounts applied for by the Construction Manager and the action taken thereon by the Architect/Engineer on account of work done by such subcontractor or supplier.

9.5.14 Neither the Principal Representative nor the Architect/Engineer shall have any obligation to pay or to see to the payment of any monies to any subcontractor of any tier or supplier.

9.5.15 Payments Withheld: The Architect/Engineer, following consultation with the Principal Representative, may decline to certify payment and may withhold execution of the Certificate and Application for Contractor's Payment in whole or in part to the extent necessary to reasonably protect the Principal Representative, if, in the Architect/Engineer's opinion, the Architect/Engineer is unable to make the representations to the Principal Representative as provided in paragraph 9.5.9, and to certify payment in the amount of the Project Application for Payment, the Architect/Engineer shall notify the Construction Manager as provided in paragraph 9.5.8. If the Construction Manager and the Architect/Engineer cannot agree on a revised amount, the Architect/Engineer shall promptly issue a Certificate and Application for Contractor's Payment for the amount for which the Architect/Engineer is able to make such representations to the Principal Representative. The Architect/Engineer may also decline to certify payment and the Principal Representative may decline to make payment, or because of subsequently discovered evidence or subsequent observations, the Architect/Engineer may nullify the whole or any part of any Certificate and Application for Contractor's Payment previously executed and the Principal Representative may withhold from any subsequent payments due to the Construction Manager, to such extent as may be necessary to protect the Principal Representative from loss because of:

- .1 Defective work not remedied;
- .2 Claims filed by third parties or reasonable evidence indicating probable filing of such claims;
- .3 Failure of Construction Manager to make payments properly to subcontractors, or for labor, materials, or equipment;
- .4 A reasonable doubt that this Agreement can be completed for the unpaid balance of the Contract Sum or Guaranteed Maximum Price;
- .5 Damage to the Principal Representative or any separate contractor;
- .6 Reasonable evidence that the Work will not be completed within the Contract Time;

- .7 Failure to carry out the Work in accordance with the Contract Documents;
- .8 Failure to obtain necessary permits or licenses or to comply with applicable laws, ordinance, codes, rules or regulations;
- .9 Failure of the Construction Manager to keep its Work progressing in accordance with the construction schedule;
- .10 Failure to keep a Superintendent on the site; or
- .11 Unauthorized deviations by the Construction Manager from the Contract Documents.

The Principal Representative may also decline to pay and the Architect/Engineer may also decline to so certify or may nullify execution of any prior Project Certification and Application for Contractor's Payment, for the Construction Manager's failure or refusal to submit any Project schedule or monthly or other periodic update thereto.

9.5.16 When the grounds in paragraph 9.6.15 above are removed, payment shall be made for amounts withheld because of them.

9.5.17 No certification of a progress payment, or any partial or entire use or occupancy of the Project by the Principal Representative, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.5.18 Final Payment: Final payment constituting the unpaid balance of the Contract Sum shall be paid by the Principal Representative to the Construction Manager pursuant to the provisions of Article 17.

9.5.19 Failure to Make Payment: If the Principal Representative should fail to pay the Construction Manager within forty five (45) days after the date for payment of any amount due in accordance with paragraph 9.5.11, then the Construction Manager may, upon seven (7) additional days written notice to the Principal Representative and the Architect/Engineer, stop the Work until payment of the amount owing has been received.

9.5.20 Re-negotiation of Compensation: If the Work is suspended for more than six (6) months and is then resumed, the Construction Manager's Fee, Guaranteed Maximum Price and Contract Sum shall be subject to re-negotiation and any adjustment shall take into account the degree of fault on the part of the Construction Manager in the suspension.

9.6 CONDITIONS OF COMPENSATION/*CONDITION PRECEDENT*

9.6.1 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.

9.6.2 *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 Buildings Program' 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.

9.6.3 The total cost of the Work including but not limited to the Construction Manager's Fee, all sums otherwise due the Construction Manager as the cost of construction, and any and all sums claimed by the Construction Manager to be due as set forth throughout this Agreement, are expressly subject to the limitations set forth in paragraphs 9.6.1, and 9.6.3 and nothing herein contained shall be construed or understood to commit the Principal Representative to a total expense greater than that which is provided in the appropriation or allocation. Further, no funds appropriated or allocated for any other purpose shall be expended for this Project. The Principal Representative agrees not to issue any directed Amendments or Change Orders or Modifications which would cause the sums due the Construction Manager pursuant to this Agreement to exceed the appropriation or allocation for the Work.

ARTICLE 10. CHANGES IN THE WORK

10.1 AMENDMENTS AND CHANGE ORDERS

10.1.1 The Principal Representative, with the approval of State Buildings Program and the State Controller, without invalidating this Agreement and without notice to any surety, may order extra work or make changes by altering, adding to, or deducting from the Work, the Contract Sum, Guaranteed Maximum Price and Contract Time being adjusted accordingly.

10.1.2 An Amendment is a written order to the Construction Manager signed by State Buildings Program, the State Controller, and the Principal Representative or its authorized agent, issued after the execution of this Agreement, authorizing a change in the Work, the method or manner of performance, an adjustment in the Contract Sum, Guaranteed Maximum Price, the Construction Manager's Fee, or the Contract Time. Each adjustment in the Contract Sum, Guaranteed Maximum Price or Contract Time resulting from an Amendment shall clearly separate the amount attributable to the cost of the Work and the Construction Manager's Fee, if any. The Contract Sum, Guaranteed Maximum Price and Contract Time may be changed only by Amendment.

10.1.3 Except as expressly authorized in this Agreement, Change Orders shall only be used to effect changes in the Work which apply the bidding and construction contingency amounts set forth in paragraphs 3.4.1 through 3.4.5. Any changes in the Work that result in an increase in said contingency shall be added to this Agreement by an Amendment pursuant to paragraph 10.1.2.

10.2 ADJUSTMENTS IN CONTRACT SUM WITHIN THE GUARANTEED MAXIMUM PRICE (for Subcontractor Direct Cost of Work)

10.2.1 The value of any change order shall be determined in one or more of the following ways:

- .1 By estimate and acceptance in a lump sum;
- .2 By unit prices named in the Contract Documents or subsequently agreed upon;
- .3 By actual cost plus a fixed fee being agreed upon prior to starting the changed work; or
- .4 In the absence of agreement by the parties, by a unilateral determination by the Principal Representative of the costs attributable to the events or situation under such clauses with an adjustment to the subcontractor direct cost of work, all as computed by the Principal Representative pursuant to the applicable sections of any rules issued under the Colorado Procurement Code or the applicable procurement code for institutions of higher education, and subject to the provisions of C.R.S. § Title 24, Article 109.

The Construction Manager and subcontractor shall be required to submit cost or pricing data if any adjustment in subcontractor direct cost of work or Guaranteed Maximum Price is subject to the provisions of the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

Changed work shall be adjusted and considered separately for the work either added or omitted. The amount of adjustment for work omitted shall be estimated at the time it is authorized, and the agreed adjustment shall be deducted from the subsequent monthly estimates.

10.2.2 The Construction Manager shall keep and present a correct account of the several items of cost on the Change Order Form (State form SC-6.31), when applying bidding and construction contingencies. This requirement applies equally to work done by subcontractors of all tiers.

10.2.3 The Principal Representative reserves the right to contract with any person or firm other than the Construction Manager for any or all changed work.

10.2.4 The Construction Manager shall receive no markup on construction Change Orders, within the Guaranteed Maximum Price unless the Construction Manager is acting as a subcontractor consistent with the provisions of Article 7. Subject to the provisions of this paragraph 10.2 and paragraph 10.3.2, cost for changes shall be limited to the following: cost of materials, including applicable sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; the rental value of equipment and machinery; payments made by the Construction Manager to subcontractors for work performed by subcontractors, provided, however, the maximum amount to be paid to any subcontractor for all job indirect or General Condition costs, home office general and administrative or overhead costs and profit shall be fifteen percent (15%) of the subcontractor's direct costs; ten percent (10%) of any sub-tier contractor's direct costs; and property insurance and bond premiums. Construction Manager to submit fully executed copies of insurance and bonds which reflect the full amount of the contract sum incorporating the changes to the Work along with any Change Order to the Principal Representative for approval in writing.

.1 In all cases where the value of the extra or changed work is not known based on unit prices in the Subcontractor's bid or the Agreement, a detailed change proposal shall be submitted by the Subcontractor 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:

- a. 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).
- b. 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.
- c. 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 shall result in

inadequate levels of supervision to assure a proper result unless additional superintendence is provided.

- d. 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.
- e. Workers' compensation costs, if not included in labor burden.
- f. The cost of commercial general liability and property damage insurance premiums but only to the extent charged the Subcontractor as a result of the changed work.
- g. Overhead and profit, as hereafter specified.
- h. Builder's risk insurance premium costs.
- i. Bond premium costs.
- j. Testing costs not otherwise excluded by these General Conditions.
- k. Sub Tier Subcontract costs.

- .2 Overhead and profit shall not exceed the percentages set forth in the table below.

| | OVERHEAD | PROFIT | COMMISSION |
|---|----------|--------|------------|
| To the Subcontractor or Sub-tier contractors for the portion of work performed with their own forces: | 10% | 5% | 0% |
| To the Subcontractor or Sub-tier contractors for work performed by others at a tier immediately below either of them: | 5% | 0% | 5% |

- .3 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.
- .4 On proposals for work involving both additions and credits in the amount of the Contract sum, the overhead and profit shall 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.
- .5 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 10.2.1.1 and 10.2.1.2 above, The Value of Changed Work, the Contractor 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, or where unilaterally determined by the Principal Representative on the basis of an equitable adjustment in accordance with the Procurement Rules.

- .6 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 Contractor's application for payment.
- .7 The Principal Representative reserves the right to contract with any person or firm other than the Contractor for any or all extra work; however, unless specifically required in the Contract Documents, the Contractor shall have no responsibility without additional compensation to supervise or coordinate the work of persons or firms separately contracted by the Principal Representative
- .8 The Principal Representative reserves the right to audit labor and equipment rates.

10.2.5 Except for the possible substantial increases to the Work to be performed as set forth in paragraph 10.1.1 which shall require the mutual agreement of the parties, the Construction Manager shall promptly proceed with the Work involved provided a written Amendment or Change Order signed by the Principal Representative, State Buildings Program and the State Controller is received.

10.3 VARIATIONS IN ESTIMATED QUANTITIES

10.3.1 Where the quantity of a pay item in this Agreement is an estimated quantity, and where the actual quantity of such pay item varies more than fifteen percent (15%) above or below the estimated quantity stated in this Agreement, an adjustment in the Construction Sum and Guaranteed Maximum Price shall be made upon demand of either party. The adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115% or below 85% of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Principal Representative shall, upon receipt of a timely written request for an extension of the Contract Time prior to the date of final settlement of this Agreement, ascertain the facts and make such adjustment for extending the Contract Time as in the judgment of the Principal Representative the findings justify.

10.3.2 Adjustment of Price: Any adjustment in Contract Sum and Guaranteed Maximum Price made pursuant to this clause shall be determined in accordance with the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

10.4 DIFFERING SITE CONDITIONS

10.4.1 The Construction Manager shall promptly, and before such conditions are disturbed, notify the Principal Representative in writing of:

- .1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
- .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.

10.4.2 The Principal Representative shall promptly investigate the conditions, and if such conditions do materially so differ and cause an increase or decrease in the Construction Manager's cost of, or the time required for, performance of any part of the work under this Agreement, whether or not changed as a result

of such conditions, an equitable adjustment in the Contract Sum and/or the Contract Time shall be made and this Agreement modified in writing by Amendment or Change Order.

10.4.3 No claim by the Construction Manager or Principal Representative for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Agreement.

10.5 MINOR CHANGES IN THE WORK

10.5.1 The Architect/Engineer shall have authority to make minor changes in the Work, not involving extra cost or an extension of the Contract Time, and not inconsistent with requirements of the Contract Documents, 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 Amendment, 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 10.7.1 EMERGENCY FIELD CHANGE ORDERS; 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 by any unallocated or unexpended amounts remaining in such allowance. No change to the Contract Sum shall be valid unless so ordered.

10.6 HAZARDOUS MATERIALS

10.6.1 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.

10.6.2 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.

10.6.3 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.

10.7 EMERGENCY FIELD CHANGE ORDERS

10.7.1 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 Change 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 Contractor, 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 a State Change Order form (SC-6.31E) Emergency Field Change Order.

10.7.2 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 Contractor shall 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.

10.7.3 On Emergency Field Change Orders where the price and schedule have not been finally determined, the Contractor 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 contractor 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 of the Emergency Field Change Order amount and the adjustment to the Project time for completion shall be prepared on a normal Change Order form (SC-6.31) in accordance with the procedures described in paragraph 10.2. Unless otherwise provided in a writing signed by the Director of State Buildings Program to the Principal Representative and the Contractor, 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.

ARTICLE 11. INSURANCE

11.1 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 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".

11.2 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.

11.3 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

11.4 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.

11.5 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 |

11.6 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 Contractor, 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, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor'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.

11.7 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.

11.8 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 12. INDEMNIFICATION

12.1 INDEMNIFICATION

12.1.1 The 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's 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 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.

12.1.2 In any and all claims against the Principal Representative, its agents or employees, by any employee of the Construction Manager, any subcontractor of any tier, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Article 12 shall not be limited in any way by any limitation on the amount or type of damages, compensation,

or benefits payable by or for the Construction Manager or any subcontractor of any tier under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

12.1.3 The obligations of the Construction Manager under this Article 12 shall not extend to the liability of the Architect/Engineer, its consultants, agents or employees, arising out of : (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Amendments, Change Orders, designs or specifications; (2) the giving of or the failure to give direction or instructions by the Architect/Engineer, its consultants, agents or employees, provided such giving or failure to give is the primary cause of the injury or damage; or (3) any acts of the Architect/Engineer, its consultants, agents or employees outside of the scope of their duties pursuant to the Contract Documents.

ARTICLE 13. CONSTRUCTION MANAGER'S PERFORMANCE AND PAYMENT BONDS

13.1 PERFORMANCE AND PAYMENT BONDS

13.1.1 The Construction Manager shall furnish a Performance Bond and a Labor and Material Payment Bond on approved State forms, executed by a corporate surety licensed to transact such business in the State of Colorado, each in the full amount of the Contract Sum attendant with the Amendment for the addition of the first Bid Package to this Agreement. The Construction Manager shall also furnish such other bonds as may be required by the Supplementary Conditions. If subsequent Amendments are made to this Agreement which substantially increase the Contract Sum, increased bond limits shall be furnished by the Construction Manager upon the acceptance of the increase in the Contract Sum. The then current bonds shall apply to all work included within the scope of this Agreement, including but not limited to all prior work which may have been performed when previous bonds were in effect.

13.1.2 The Performance Bond shall remain in effect until at least one (1) year after the date when final payment becomes due, except as otherwise provided by law or regulation or by the Contract Documents. The Labor and Material Payment Bond shall remain in effect for not less than the required statutory period. All Bonds shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Account, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act. All Bonds must be acceptable to the Principal Representative and State Buildings Program.

13.1.3 The initial Bonds shall be filed with the Principal Representative at the time of execution of the initial Bid Package Amendment.

13.1.4 If the surety on any Bond furnished by Construction Manager is declared a bankrupt, becomes insolvent, its right to do business in the State of Colorado is terminated or it ceases to meet the requirements of paragraphs 13.1.1 and 13.1.2, Construction Manager shall within ten (10) days thereafter, substitute another bond and surety, both of which must be acceptable to the Principal Representative and State Buildings Program.

13.1.5 Upon the issuance and acceptance of the Performance and Labor and Material Payment Bonds, the premium therefore shall be included in the first Project Certificate and Application for Contractor's Payment. The premiums for all Bonds and increases thereto to be provided by the Construction Manager as well as those subcontractors required to be bonded by the Construction Manager shall be included in the Guaranteed Maximum Price, Contract Sum and the price of each Amendment and Change Order, and the Construction Manager shall not be entitled to additional compensation therefore.

ARTICLE 14. ACCESS TO WORK AND OBSERVATION

14.1 ARCHITECT/ENGINEER'S WORK

14.1.1 The Architect/Engineer shall be in the first instance, the judge of the performance of the Construction Manager as it relates to compliance with the Contract Documents and quality of workmanship and material.

14.1.2 The Architect/Engineer and its professional consultants, staff or practicing, shall make visits to the site appropriate to the stage of construction to become familiar with the progress and quality of the Work, and to determine that 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. The Architect/Engineer shall exercise due diligence to safeguard the Principal Representative against defects, deficiencies, non-compliance with the Contract Documents, and unsatisfactory materials and workmanship.

14.1.3 In addition to the services to be provided under paragraph 14.1.2, the Architect/Engineer shall also observe the following for compliance with the Contract Documents:

- .1 Shop Drawings;
- .2 Bearing surfaces of excavations before concrete is poured;
- .3 Reinforcing steel after installation and before concrete is poured;
- .4 Structural concrete;
- .5 Laboratory reports on all concrete;
- .6 Structural steel during and after erection and prior to its being covered or enclosed;
- .7 Mechanical work following its installation and prior to its being covered or enclosed;
- .8 Electrical work following its installation and prior to its being covered or enclosed;
- .9 Compaction testing;
- .10 Any special testing required in the Contract Documents;
- .11 Compliance with applicable buildings codes; and
- .12 Elements of construction relating to the building envelope.

14.1.4 The Architect/Engineer shall have authority to reject work which does not conform to the Contract Documents, and to require special inspection or testing whether or not such work is fabricated, installed, or completed, but shall take such action only after consultation with the Principal Representative. However, the Architect/Engineer's authority to act under this paragraph 14.1.4 and any decision made by it in good faith either to exercise or not to exercise such authority shall not give rise to any duty on the part of the Architect/Engineer to the Construction Manager, any subcontractor of any tier, any of their agents or employees, or any other person performing any of the work.

14.2 SAMPLES AND QUALITY CONTROL TESTING

14.2.1 Samples: The Construction Manager shall furnish for approval, with such promptness as to cause no delay in its work or in that of the Principal Representative or any separate Contractor, all samples as directed by the Architect/Engineer. The Architect/Engineer shall check and approve such samples with reasonable promptness. The work shall be uniformly in accordance with approved samples.

14.2.2 Quality Control Testing - General: The Construction Manager shall provide all tests and collect and forward all samples called for in **Exhibit A**, Designated Scope of Services and Method of Payment. The Construction Manager shall provide such equipment and facilities as the Architect/Engineer may require for conducting quality control field tests and for collecting and forwarding of samples. The Construction Manager shall not use any materials or equipment represented by samples until tests, if required, have been made and the materials or equipment found to be acceptable. Any materials which become unfit for use after approval thereof shall not be incorporated into the Work. All materials or equipment proposed to be used may be tested at any time during their preparation or use. 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, sampling and testing of all materials, and the laboratory methods and testing equipment shall be in accordance with the latest standards and testing methods of the American Society of Testing Materials (A.S.T.M.). The Construction Manager shall pay for all testing services as described in **Exhibit A**, Designated Scope of Services and Method of Payment.

14.3 QUALITY ASSURANCE AND OTHER TESTING

14.3.1 The Principal Representative shall retain an independent testing agent to perform quality assurance testing services for the project. The testing agent's services, duties and responsibilities include tests/inspections performed as described in the various Divisions of the Specifications and shall include but not be limited to: asphaltic concrete, cast-in-place concrete, mortar and grout, structural steel welds and bolt connections, steam pipe welding, and geotechnical investigation.

14.3.2 The Construction Manager is responsible to:

1. Provide sufficient notification in advance of operations to permit laboratory personnel assignment and scheduling.
2. Coordinate with laboratory personnel and provide access to the Work and manufacturer's operation.
3. Furnish casual labor to facilitate sample handling and testing at the project site.
4. Provide facilities for laboratory's exclusive use to store and cure samples.
5. Supply preliminary representative samples of products and materials, if required.
6. Supply mill test report if required.
7. Retain separate equally qualified independent testing lab to perform additional services required for Construction Manager's convenience and when initial service indicate products, material and work do not comply with the Contract Documents.

14.3.3 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Construction Manager shall give the Principal Representative timely notice of its readiness so the Principal Representative and the Architect/Engineer may observe such inspection, testing or approval. The Construction Manager shall bear all costs of inspections, tests or approvals which were legally required when this Agreement was executed, whether or not yet effective or merely scheduled to go into effect. The Principal Representative shall bear all costs of inspections, tests or approvals which may be required thereafter.

14.3.4 If the Principal Representative determines that any Work requires special inspection, testing or approval which paragraph 14.2 and paragraph 14.3.1 do not include, the Construction Manager shall, upon

written authorization from the Principal Representative order such special inspection, testing or approval, and the Construction Manager shall give notice as provided in paragraph 14.3.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Construction Manager shall bear all direct costs thereof, including compensation for the Architect/Engineer's additional services made necessary by such failure; otherwise the Principal Representative shall bear such costs, and an appropriate Amendment or Change Order shall be issued.

14.3.5 Required certificates of inspection, testing, or approval shall be secured by the Construction Manager and the Construction Manager shall promptly deliver them to the Principal Representative and the Architect/Engineer.

ARTICLE 15. UNCOVERING OF AND CORRECTION OF WORK

15.1 UNCOVERING OF WORK

15.1.1 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.

15.1.2 If any other portion of the Work has been covered which the Architect/Engineer has not specifically requested to observe prior to it's 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 Contractor as provided in Article 8, in which event, the Principal Representative shall be responsible for the payment of such costs.

15.2 CORRECTION OF WORK

15.2.1 The Construction Manager shall promptly remove from the premises all materials and correct all work rejected by the Architect/Engineer as defective or as failing to conform to the Contract Documents, whether observed before or after completion of the Work and whether or not fabricated, installed or completed. The Construction Manager shall bear all costs of correcting such rejected work, including compensation for the Architect/Engineer's additional services made necessary thereby.

15.2.2 If the Construction Manager fails to remove rejected materials and/or correct defective or non-conforming work, the Principal Representative may remove the same and/or correct it. In such case, an appropriate Amendment or Change Order shall be issued deducting from the payments then or thereafter due to Construction Manager, all costs of removing such materials and correcting such deficiencies, including compensation for the Architect/Engineer's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Construction Manager are not sufficient to cover such amount, the Construction Manager shall pay the difference to the Principal Representative.

15.2.3 If the Construction Manager does not proceed with the correction of such defective or non-conforming work within a reasonable time fixed by written notice from the Architect/Engineer issued through the Principal Representative, the Principal Representative may remove it and store the materials or equipment at the expense of the Construction Manager. If the Construction Manager does not pay the cost of such removal and storage within ten (10) days thereafter, the Principal Representative may, upon ten (10) additional days written notice, sell such work at auction or at private sale, and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Construction Manager, including compensation for the Architect/Engineer's additional services made necessary thereby. If such proceeds of sale do not cover all costs which the Construction Manager should have borne, the difference shall be charged to the Construction Manager and an appropriate Amendment or Change Order shall be

issued. If the payments then or thereafter due the Construction Manager are not sufficient to cover such amount, the Construction Manager shall pay the difference to the Principal Representative.

15.2.4 The costs for correcting rejected work and for making good any other work of the Principal Representative or separate contractors destroyed or damaged by such correction or removal shall be allocated in accordance with paragraph 3.4.5.

15.2.5 Should any defective work or material be discovered during the progress 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 questioned material or work shall not be included in any Project Application for Payment, or if previously included, shall be deducted by the Architect/Engineer from the next application submitted by the Construction Manager.

15.2.6 Nothing contained in this paragraph 15.2 shall be construed to establish a period of limitation with respect to any other obligation which the Construction Manager might have under the Contract Documents, including Article 18 hereof.

15.3 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

15.3.1 If the Principal Representative prefers to accept defective or non-conforming work, the Principal Representative may do so instead of requiring its removal and correction, in which case an Amendment or Change Order shall be issued to reflect a reduction in the Contract Sum and Guaranteed Maximum Price where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

15.4 PRINCIPAL REPRESENTATIVE'S RIGHT TO CARRY OUT THE WORK

15.4.1 If the Construction Manager defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within seven (7) days after receipt of written notice from the Principal Representative to commence and continue correction of such default or neglect with diligence and promptness, the Principal Representative may, and without prejudice to any other remedy the Principal Representative may have, make good such deficiencies. In such case, an appropriate Amendment or Change Order shall be issued deducting from the payments then or thereafter due the Construction Manager, all costs of correcting such deficiencies, including compensation for the Architect/Engineer's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Construction Manager are not sufficient to cover such amount, the Construction Manager shall pay the difference to the Principal Representative.

ARTICLE 16 RIGHT OF EARLY OCCUPANCY

16.1 RIGHT OF OCCUPANCY

16.1.1 Subject to the provisions of paragraph 11.4.2, 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 Completion of the Work or such portions of the Work has not expired and even if the Work has not been finally accepted. Such possession and use shall not constitute an acceptance of such portions of the Work.

16.1.2 If the Principal Representative elects to take possession of and to use any completed or partially completed portions of the Work prior to the time for Completion of the Work or portion thereof, prior to any such possession or use, an inspection shall be made by the Architect/Engineer, the Principal Representative and the Construction Manager. The Construction Manager shall assist the Principal Representative in completing and executing 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 17, Completion, Final Completion, Acceptance and Final Payment.

16.1.3 At the time of the inspection made pursuant to paragraph 16.2, the parties shall also agree upon the responsibilities of the Principal Representative and the Construction Manager for security, maintenance, heat, utilities, and damage to the Work. If the Construction Manager can also satisfactorily demonstrate to the Principal Representative any actual cost for warranties for the period prior to the date of Notice of Substantial Completion, the Principal Representative shall reimburse the Construction Manager for that portion of such cost attributable to the portion of the Work occupied by the Principal Representative for the period of time of such occupancy. In the event the Construction Manager believes there will be additional cost associated with completion of the Work while the Principal Representative occupies the Work in whole or in part, the Construction Manager shall advise the Principal Representative of all such costs at or before the time of inspection and an agreement shall be reached on the responsibilities of the Principal Representative and the Construction Manager therefore. If the Construction Manager fails or refuses to furnish such cost information as required, the Construction Manager hereby waives any and all rights to assert any claim therefore at any time thereafter.

ARTICLE 17. COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

17.1. NOTICE OF COMPLETION

17.1.1 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 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, shall 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.

17.2. FINAL INSPECTION

17.2.1 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.

17.2.2 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.

17.2.3 A 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.

17.2.4 The required number of copies of the Punch List shall be countersigned by the authorized representative of the Principal Representative and shall 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.

17.3. NOTICE OF SUBSTANTIAL COMPLETION

17.3.1 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.

17.3.2 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 Substantial Completion 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 Substantial Completion Punch List which specifies the Subcontractor or trade responsible for the work, and the dates the completion or correction of the item shall be commenced and finished, 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, the cost to the Principal Representative, if any, for re-inspections due to failure to adhere to the Construction Manager's proposed Substantial Completion 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.

17.3.3 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 16, Right Of Early Occupancy. Failure to furnish the required completion schedule shall constitute a substantial reason for withholding the issuance of any Notice of Substantial Completion.

17.3.4 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 Architect/Engineer a Pre-Acceptance 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. The ability to beneficially occupy a discrete physical portion of the Project shall also be considered.

17.4. NOTICE OF ACCEPTANCE

17.4.1 The Notice of Acceptance shall establish the final 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).

17.4.2 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 shall be made.

17.5 SETTLEMENT

17.5.1 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 the Notice of Acceptance is issued, and the Notice of Contractors Settlement is published. If the Work shall be Substantially Completed, but Final Acceptance and 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 (3) 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 Substantial Completion 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 Architect/Engineer:
 - a. All guarantees and warranties;
 - b. All statements to support local sales tax refunds, if any;
 - c. Three (3) complete bound sets of required operating maintenance instructions; and,
 - d. One (1) set of as-built Contract Documents 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.

17.5.2 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 Construction Manager from Subcontractors, suppliers or materialmen based on good faith disputes; the resolution of the question of payment in such cases being directed by statute.

17.5.3 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 complete 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. At the expiration of the ninety (90) day period, the Principal Representative shall 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.

17.5.4 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 18. WARRANTIES

18.1 WARRANTY TIME AND DOCUMENTATION

18.1.1 The Construction Manager warrants to the Principal Representative and the Architect/Engineer that all materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Architect/Engineer or the Principal Representative, the Construction Manager shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of paragraph 18.1.2.

18.1.2 The Construction Manager shall warrant and guarantee the Work or a designated portion thereof for a period of one (1) year after the Notice of Substantial Completion. If, within one (1) year after the Notice of Substantial Completion, or within such longer period of time as may be prescribed by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Construction Manager shall correct it promptly after receipt of a written notice from the Principal Representative to do so unless the Principal Representative has previously given the Construction Manager a written acceptance of such condition. This obligation shall survive both final payment for the Work or designated portion thereof and termination of this Agreement. The Principal Representative shall give such notice promptly after discovery of the condition and in any event no later than one (1) year after the issuance of the Notice of Substantial Completion.

18.1.3 In case of work performed for which other warranties are required by the Contract Documents, the Construction Manager shall secure the required warranties and deliver the same to the Principal Representative through the Architect/Engineer in accordance with paragraph 17.3.2. These warranties shall not in any way lessen the Construction Manager's responsibilities under the Contract Documents. Whenever guarantees or warranties are required by the Contract Documents for a longer period than one (1) year, such longer period shall govern.

18.1.4 The establishment of the time periods noted in paragraph 18.1.2, or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents, relates only to the specific obligation of the Construction Manager to correct the Work, and has no relationship to the time within which the Construction Manager's obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Construction Manager's liability with respect to the Construction Manager's obligations other than specifically to correct the Work.

18.2 WARRANTY INSPECTIONS AFTER COMPLETION

18.2.1 The Architect/Engineer, the Principal Representative, and the Construction Manager together shall make two (2) complete inspections of the Work after issuance of the Final Notice of Substantial Completion. The Six-Month Warranty Inspection shall be made approximately six (6) months after the issuance of the Notice of Substantial Completion. The Eleven-Month Warranty Inspection shall be made approximately eleven (11) months after the issuance of the Final Notice of Substantial Completion. The Principal Representative shall schedule and so notify all parties concerned of these inspections.

18.2.2 Written lists and reports of these inspections shall be made by the Construction Manager and forwarded to the Principal Representative, Architect/Engineer and all of the other participants within ten (10) days after the completion of each inspection. The Construction Manager shall immediately initiate such remedial work as may be necessary to correct any deficiencies or defective work shown by these reports, and shall promptly complete all such remedial work in a matter satisfactory to the Architect/Engineer and the Principal Representative.

18.2.3 If the Construction Manager fails to promptly correct all deficiencies and defects shown by any report, the Principal Representative may do so after giving the Construction Manager ten (10) days written notice of its intention to do so, and the Principal Representative shall be entitled to collect from the Construction Manager and its surety all costs and expenses incurred by it in correcting such deficiencies and defects, as well as all damages directly resulting from such deficiencies and defects.

ARTICLE 19. CLAIMS FOR ADDITIONAL COSTS AND DAMAGES

19.1 CLAIMS FOR ADDITIONAL COSTS

19.1.1 If, for any reason, the Construction Manager claims that it is entitled to an increase in the Contract Sum or Guaranteed Maximum Price or an extension of agreed completion date (paragraph 6.3), the Construction Manager shall give the Principal Representative its written Notice of Claim thereof within fifteen (15) days or such other time period as may be specifically set forth elsewhere in this Agreement, whichever

is the lesser, after the occurrence of the event giving rise to such claim and in all cases before proceeding to execute the work, except in an emergency endangering life or property in which case the Construction Manager shall proceed in accordance with paragraph 3.22.10. No such claim shall be valid unless so made. Any approved change in the Contract Sum or Guaranteed Maximum Price resulting from such claim shall be authorized by Amendment.

19.2 INJURY TO PERSON OR DAMAGE TO PROPERTY

19.2.1 Should either party to this Agreement suffer injury or damage to person or property because of any act or omission of the other party or of any of the other party's employees, agents, or others for whose acts such party is legally liable, Notice of Claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

19.3 COST RECORDS

19.3.1 In all claims for changes to the Contract Sum or Guaranteed Maximum Price, the Construction Manager shall keep a correct accounting of the extra costs, in such reasonable form as the Principal Representative may require, and shall present such account, supported by receipts. The Principal Representative shall be entitled to reject any claim for extra costs if such documentation is not provided.

19.3.2 Any payments to the Construction Manager with respect to claims for increases in the Contract Sum or Guaranteed Maximum Price shall be limited to reimbursement for the additional expenditure by the Construction Manager, with the costs to be determined in accordance with paragraph 10.2 and the Construction Manager's Fee to be determined in accordance with paragraph 9.2.1, as limited and controlled by paragraph 6.4.2, when applicable.

19.4 RIGHTS AND REMEDIES

19.4.1 The Construction Manager's attention is directed to the Colorado Procurement Code or the applicable procurement code for institutions of higher education pertaining to remedies, all of which shall apply to this Agreement.

19.4.2 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to, and not a limitation of, any duties, obligations, rights or remedies otherwise imposed or available by law.

19.4.3 No action or failure to act by the Principal Representative or the Architect/Engineer shall constitute a waiver of any right or duty afforded any of them under the Contract Documents nor shall any such action or failure to act constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

19.5 WRITTEN NOTICE

19.5.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving the notice.

Any notice to be given to the Principal Representative shall be given or sent to:

Attn:

With a Copy:

Any notice to be given to the Construction Manager shall be given to:

Attn:

With a Copy To:

ARTICLE 20 PRINCIPAL REPRESENTATIVE'S RIGHT TO TERMINATE CONTRACT

20.1 TERMINATION FOR DEFAULT

20.1.1 If the Construction Manager should be adjudged bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed to take over its affairs, or if it should fail to prosecute the Work with due diligence and carry the Work forward in accordance with its work schedule or if it should fail to subsequently perform one or more of the provisions of the Contract Documents to be performed by it, the Principal Representative may service written notice on the Construction Manager and the surety on its Performance and Labor and Material Payment Bonds, stating its intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Principal Representative may, without prejudice to any other right or remedy, exercise one of such remedies, at once, having first obtained a certificate from the Architect/Engineer that sufficient causes exist to justify such action.

20.1.2 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 its surety, whereupon the surety shall have the right to take over and perform the Agreement. If the Surety does not commence performance of this Agreement within ten (10) days after service 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 it shall deem best. In the event of such termination of its service, the Construction Manager shall not be entitled to any further payments under this Agreement until the Work is completed and accepted. If the Principal Representative takes over the Work and if the unpaid balance of the Contract Sum or Guaranteed Maximum Price exceeds the cost of completing the Work, including compensation for any damages and 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 Sum, Guaranteed Maximum Price or Fixed Limit of Construction Cost as the case may be, the Construction Manager and its surety shall pay the difference to the Principal Representative.
- .2 The Principal Representative may take control of the Work and either make good the deficiencies of the Construction Manager or direct the activities of the Construction Manager in doing so, employing such additional help as the Principal Representative deems advisable. In such event the Principal Representative shall be entitled to collect from the Construction Manager and its 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 the Construction Manager, provided the Architect/Engineer approves the amount thus charged to the Construction Manager.

- .3 The Principal Representative may require the surety on the Construction Manager's Performance Bond to take control of the Work at once and see to it that all the deficiencies of the Construction Manager are made good, with due diligence. 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 upon termination of the services of the Construction Manager or upon instructions from the Principal Representative to do so, the provisions of the Contract Documents shall govern in respect to the work done by the surety, the surety being substituted for the Construction Manager as to such provisions, including provisions as to payment for the Work and provisions of this Article as to the right of the Principal Representative to do the Work or to take control of the Work.

20.2 TERMINATION FOR CONVENIENCE OF STATE

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

20.2.2 After receipt of the Notice of Termination, the Construction Manager shall cancel its outstanding commitments hereunder covering the procurement of all materials, supplies, equipment, and miscellaneous items. In addition, the Construction Manager shall exercise all reasonable diligence to accomplish the cancellation or diversion of its outstanding commitments covering personal services and extending beyond the date of such termination to the extent that they relate to the 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 the approval or ratification of the Principal Representative, to the extent it may require, which approval and ratification shall be final for all purposes of this clause; and
- .2 Assign to the Principal Representative in the manner, at the time and to the extent directed by the Principal Representative, all of the right, title, and interest in the Construction Manager under the orders and subcontractors so terminated, in which case the Principal Representative 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.

20.2.3 The Construction Manager shall submit its termination claim to the Principal Representative promptly after receipt of a Notice of Termination, but in no event later than one (1) month 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 one year period or authorized extension thereof. Upon failure of the Construction Manager to submit its Termination Claim within the time allowed, the Principal Representative may determine, on the basis of information available to it, 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.

20.2.4 Costs claimed, agreed to, or determined pursuant to paragraphs 20.2.3 and 20.2.5 shall be in accordance with the provisions of the Colorado Procurement Rules or the applicable procurement code for institutions of higher education as in effect on the date of this Agreement all of which is limited to the authorized expenditure noted in the recitals of this Agreement and the provisions of paragraphs 9.6.1, 9.6.2, and 9.6.3. The sums to be paid to the Construction Manager shall not include any compensation, loss, or lost profit on work unperformed by the Construction Manager or any of its subcontractors of any tier or suppliers.

20.2.5 Subject to the provisions of paragraph 20.2.3 above, 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 it 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 its 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.

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

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

- .1 Completed or partially completed plans, drawings (including As-Built Drawings), and information; and
- .2 Materials and 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 this Agreement may, with the 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 Principal Representative to the Construction Manager under this Contract, or shall otherwise be credited to the price or cost of Work covered by this Agreement, or paid in such other manner 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 Agreement which is in the possession of the Construction Manager, and in which the Principal Representative has or may acquire an interest.

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

20.3 CONSTRUCTION MANAGER'S RIGHT TO STOP WORK AND/OR TERMINATE CONTRACT

20.3.1 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 anyone employed by it, then the Construction Manager may on seven (7) days written notice to the Principal Representative and the Architect/Engineer stop work or terminate this Agreement and recover from the Principal Representative payment for all work executed, and losses sustained on any plant or material and a reasonable profit. If the Principal Representative shall fail to issue any Project Certificate and Application for Contractor's Payment within ten (10) days after it is due, or if the Principal Representative shall fail to pay the Construction Manager within thirty (30) days after its maturity and presentation of any sum certified by the Architect/Engineer, then the Construction Manager, on ten (10) days written notice to the Principal Representative and the

Architect/Engineer, may stop work and give written notice of intention to terminate this Agreement. If the Principal Representative shall thereafter fail to pay the Construction Manager within ten (10) days after receipt of such notice, then the Construction Manager may terminate this Agreement and recover from the Principal Representative payment for all work executed and losses sustained upon any plant or materials, and a reasonable profit.

ARTICLE 21, MISCELLANEOUS PROVISIONS

21.1 ARCHITECT/ENGINEER

It is expressly understood that the Principal Representative shall be directly retaining the services of an Architect/Engineer.

21.2 LABOR AND WAGES

In accordance with the 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, the minimum wage rates to be paid on the Project shall be the prevailing Federal Davis-Bacon wage rates at the time of bidding of each bid package. If the box is marked below, the Federal Davis-Bacon Act shall be applicable to the Project.

☐ Principal Representative Initial: _____ date: _____

21.3 NON-DISCRIMINATION

The Construction Manager agrees to comply with the letter and spirit of all State and federal laws respecting discrimination and unfair employment practices.

21.4 LIENS

Colorado statutes do not provide for any right of lien against public buildings. In lieu thereof, Sections C.R.S. § 38-26-107 et seq., as amended, provided 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 to stop payment to the Construction Manager in the amount of such claims.

21.5 EXTENT OF AGREEMENT

This Agreement represents the entire and integrated Agreement between the Principal Representative and the Construction Manager and supersedes all prior negotiations, representations, or agreements, either written or oral. When Drawings and Specifications are complete, they shall be identified by Amendment or Change Order to this Agreement. This Agreement may be amended only by written instrument signed by all signatories hereto.

The invalidity of any one or more of the covenants, phrases, sentences, clauses or provisions of this Agreement or any part thereof shall not affect the remaining portions of this Agreement or any part thereof and in the event any one of the same shall be declared invalid, this Agreement shall be construed as if such invalid portion had not been inserted provided the same does not work a substantial injustice.

21.6 BENEFITS AND ASSIGNMENT

This Agreement shall be binding upon and inure to the benefit of the parties hereto, their partners, heirs, personal representatives, successors and duly approved assigns. The Construction Manager shall not assign the whole or any part of this Agreement or any monies due or to become due hereunder without the prior written consent of the Principal Representative. No assignment, without said prior approval, shall be valid. In

case the Construction Manager makes any assignment of any monies which is consented to by the Principal Representative, 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 monies due or to become due to the Construction Manager shall be subject to all claims of all persons, firms, or corporations for services rendered or materials supplied for the performance of the work called for in this Agreement, whether such service or materials were supplied prior to or after the assignment.

21.7 MISCELLANEOUS

It is contemplated by the parties that certain exhibits hereto shall not be accomplished or finalized at the time this Agreement is executed as such exhibits must, by the nature of the provisions relative thereto, be executed by the parties subsequent to the execution of this Agreement. The parties shall be diligent in accomplishing such exhibits at the earliest appropriate time in accordance with the provisions hereof.

The terms of this Agreement shall supersede any inconsistent provision contained in the General Conditions, the Special Supplementary General Conditions, or any other of the Contract Documents.

21.8 NO THIRD PARTY BENEFICIARIES

It is expressly understood and agreed that the enforcement of the terms and conditions of this contract, and all rights of action relating to such enforcement, shall be strictly reserved to the State and the named Construction Manager. Nothing contained in this Agreement shall give or allow any claim or right of action whatsoever by any other third person. It is the express intention of the State and the Construction Manager that any such person or entity other than the State and the Construction Manager receiving services or actual benefits under this Agreement shall be deemed an incidental beneficiary only.

21.9 MODIFICATION OF ARTICLE 6. TIME OF COMMENCEMENT AND COMPLETION

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 6, Time Of Commencement and Completion, in the amounts and as here indicated. The election of liquidated damages shall limit and control the parties' 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 bid 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 GMP 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.

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

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

21.11 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

21.12 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.

21.13 INDEPENDENT CONTRACTOR

Contractor shall perform its duties hereunder as an independent contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be deemed to be an agent or employee of the State. Contractor shall not have authorization, express or implied, to bind the State to any agreement, liability, or understanding, except as expressly set forth herein. **Contractor 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 Contractor or any of its agents or employees. Contractor shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this contract. Contractor 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.**

21.14 COMPLIANCE WITH LAW

Contractor shall 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.

21.15 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.

21.16 PROHIBITED TERMS

Any term included in this Contract that requires the State to indemnify or hold Contractor harmless; requires the State to agree to binding arbitration; limits Contractor'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.

21.17 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. Contractor hereby certifies and warrants that, during the term of this Contract and any extensions, Contractor has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Contractor 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.

21.18 EMPLOYEE FINANCIAL INTEREST/CONFLICT OF INTEREST C.R.S. § 24-18-201 and 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. Contractor has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Contractor's services and Contractor shall not employ any person having such known interests.

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

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 §39-21-101, et seq. C.R.S.; **(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 Contractor in error for any reason, including, but not limited to, overpayments or improper payments, and unexpended or excess funds received by Contractor by deduction from subsequent payments under this Contract, deduction from any payment due under any other contracts, grants or agreements between the State and Contractor, or by any other appropriate method for collecting debts owed to the State.

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

Contractor 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), Contractor 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 Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract. Contractor **(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 Contractor 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 Contractor participates in the Department program, Contractor shall deliver to the contracting State Agency, Institution of Higher Education or political subdivision a written, notarized affirmation, affirming that Contractor has examined the legal work status of such employee, and shall comply with all of the other requirements of the Department program. If Contractor 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, Contractor shall be liable for damages.

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

Contractor, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that Contractor **(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.

21.22 STATEWIDE CONTRACT MANAGEMENT SYSTEM

If the maximum amount payable to Contractor under this Contract is \$100,000 or greater, either on the Effective Date or at anytime thereafter, this shall apply. Contractor 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"). Contractor 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.

21.23 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.

SIGNATURE APPROVALS:

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

Persons signing for Contractor/Consultant hereby swear and affirm that they are authorized to act on Contractor'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 CONTRACTOR/CONSULTANT:

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

Legal Name of Contracting Entity

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

Date: _____

*Signature

APPROVED

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

By _____
Name (print) Title

Date: _____

By: _____
Name

Date: _____

APPROVED

DEPARTMENT OF LAW
ATTORNEY GENERAL (or authorized Delegate)

By: _____
Name

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. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor 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: _____
Name

Date: _____

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT A

**CMGC DESIGNATED SERVICES AND METHOD OF PAYMENT
(attached)**

Designated Services and Method of Payment

| CONSTRUCTION MANAGEMENT SERVICES | REQUIRED OF CM/GC | | | | REQUIRED OF ARCH | REQUIRED OF OWNER |
|---|------------------------------|----------------------|---------------|------------------------------|---------------------|----------------------|
| PHASE: PRECONSTRUCTION | PRE- CONST SVCS FEE | CONST SVCS FEE | GEN CONDS. | DIRECT COST OF WORK | | |
| ARCHITECTURAL SELECTION | | | | | | X |
| STRUCTURAL, MECHANICAL AND ELECTRICAL (CONSULTANT) | | | | | 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 | X | | | | | |
| PROJECT MASTER SCHEDULING | X | | | | | |
| BID PACKAGE RECOMMENDATIONS | 1 | | | | 2 | |
| LIFE CYCLE COSTING ANALYSIS | 2 | | | | 1 | |
| INFORMAL AND FORMAL VALUE ENGINEERING | X | | | | | |
| ENERGY USE ANALYSIS AND RECOMMENDATIONS | 2 | | | | 1 | |
| PRELIMINARY TOTAL COST FEASIBILITY REVIEW | X | | | | | |
| 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 CM/GC | | | | 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 | REQUIRED OF CM/GC | | | | REQUIRED OF ARCH | REQUIRED OF OWNER |
|---|------------------------------|----------------------|---------------|------------------------------|---------------------|----------------------|
| PHASE: SUB-CONTRACTING SELECTION AND PURCHASING | PRE- CONST SVCS FEE | CONST SVCS FEE | GEN CONDS. | DIRECT COST OF WORK | | |
| SET PRE-QUALIFICATION CRITERIA | X | | | | | |
| RECOMMEND CONTRACTOR SELECTION METHODS | X | | | | | |
| RECOMMEND CONTRACTOR AWARD SELECTION METHODS | X | | | | | |
| DEVELOP CONTRACTOR INTEREST | X | | | | | |
| PREPARE BIDDING SCHEDULES | X | | | | | |
| CONDUCT PRE-BID CONFERENCE AND ISSUE PLANS | X | | | | | |
| RECEIVE BIDS | X | | | | | |
| ANALYZE BIDS | X | | | | | |
| RECOMMEND AWARD | 1 | | | | 2 | |
| VERIFY UNIT COSTS | X | | | | | |
| NEGOTIATE UNION RATES AND MANPOWER COSTS REQUIRED | | X | | | | |
| CONDUCT PRE-AWARD CONFERENCE | | | X | | | |
| PREPARE CONTRACTS | X | | | | | |
| SUPPLIER AND SUBCONTRACTOR REVIEW | X | | | | | |
| ORIGINATE RFI'S AFTER SCREENING | | | X | | | |
| PREPARE CHANGE ORDERS | | | 2 | | 1 | |
| 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 CM/GC | | | | 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 | | | | | |
| CONSTRUCTABILITY 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 | REQUIRED OF CM/GC | | | | REQUIRED OF ARCH | REQUIRED OF OWNER |
|--|------------------------------|----------------------|---------------|------------------------------|---------------------|----------------------|
| PHASE: CONSTRUCTION PHASE STAFF | PRE- CONST SVCS FEE | CONST SVCS FEE | GEN CONDS. | DIRECT COST OF WORK | | |
| 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 | | | |
| TIME KEEPER/CHECKER (AS REQUIRED) | | | X | | | |
| SCHEDULING ENGINEER (AS REQUIRED) | | | X | | | |
| PROJECT COORDINATOR | | | X | | | |
| COST ENGINEER (AS REQUIRED) | | | X | | | |
| CLERK-TYPIST (AS REQUIRED) | | | X | | | |
| RODMAN AND HELPERS (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 CM/GC | | | | 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 | | | |
| WATERBOY 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 | | | X | | | |
| TEMPORARY TOILETS | | | 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: ON-SITE UTILITIES AND SERVICES | 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 | | | 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 | REQUIRED OF CM/GC | | | | REQUIRED OF ARCH | REQUIRED OF OWNER |
|---|------------------------------|----------------------|---------------|------------------------------|---------------------|----------------------|
| PHASE: ON-SITE EQUIPMENT | 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 CM/GC | | | | 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 PROJECTION & 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 CM/GC | | | | 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 5.1.4) | | | | 2 | | 1 |
| 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 CM/GC | | | | 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 | | 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 CM/GC | | | | 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 CM.

Designated Services and Method of Payment

| CONSTRUCTION MANAGEMENT SERVICES | REQUIRED OF CM/GC | | | | 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 | | |
| CM GENERAL OVERHEAD COST | | X | | | | |
| CM 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 CM/GC | | | | 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 | | | | |

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-6.4)**

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 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-6.4)**

EXHIBIT C

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-6.4)**

EXHIBIT D

**CERTIFICATION AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS
(required at contract signing prior to commencing work)**

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

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-6.4)**

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-6.4)**

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-6.4)**

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.3 Schedule of Values
- H.4 Allowance Schedule

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

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 Certification and affidavit regarding unauthorized Immigrants (UI-1)
- I.9 Notice to Proceed to Commence Construction Phase (Form SC 7.26)
- I.10 Preliminary and Detailed Construction Schedules (when approved by the Principal Representative).
- I.11. Notice of Substantial Completion (Form SBP-07).
- I.12. Notice of Approval of Occupancy/Use (Form SBP-01).

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT J

NOTICE OF ACCEPTANCE

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT K

NOTICE OF CONTRACTOR'S SETTLEMENT

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT L

REQUEST FOR PROPOSAL (DATED _____)

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT M

CONSTRUCTION MANAGER'S FEE PROPOSAL

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

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)**

EXHIBIT N

SALES AND USE TAX FORMS

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

CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) AGREEMENT
(STATE FORM SC-6.4)

EXHIBIT O

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

SECTION 00 55 00 – NOTICE TO PROCEED

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE TO PROCEED

- A. FORM: State of Colorado form “Notice To Proceed (Design/Bid/Build Contract)” (SBP-6.26).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 55 00



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE TO PROCEED (DESIGN/BID/BUILD CONTRACT)

Date of Notice: _____
Date to be inserted by the Principal Representative
Date/Description of Contract Documents: _____
Institution/Agency: University of Colorado Denver
Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

Attach Notice of Code Compliance from Code Review Agent/Building Official for Documents Listed Above

To:

This is to advise you that your Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, and Affidavit Regarding Unauthorized Immigrants have been received. Our issuance of this Notice does not relieve you of responsibility to assure that the bond and insurance requirements of the Contract Documents are met for the duration of the Agreement. The Agreement dated _____ covering the above described work has been fully executed.

You are hereby authorized and directed to proceed within ten (10) days from date of this Notice as required in the Agreement. Any liquidated damages for failure to achieve Substantial Completion by the date agreed that may be applicable to this Contract will be calculated using the date of this Notice for the date of the commencement of the Work.

The completion date of the Project is _____ (M/D/YYYY).

By _____
State Buildings Program Date
(or Authorized Delegate)

By _____
Principal Representative Date
(Institution or Agency)

When completely executed, this form is to be sent by certified mail to the Contractor by the Principal Representative; or delivered by any other means to which the parties agree.

SECTION 00 55 01 – NOTICE TO PROCEED TO COMMENCE CONSTRUCTION PHASE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE TO PROCEED

- A. FORM: State of Colorado form “Notice To Proceed To Commence Construction Phase (CM/GC Contract)” (SBP-7.26).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 55 01



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

**NOTICE TO PROCEED TO COMMENCE CONSTRUCTION PHASE
(CM/GC CONTRACT)**

Date of Notice: _____
Date to be inserted by the Principal Representative

Amendment No./Date: _____

Bid Package(s) No.: _____

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

Attach Notice of Code Compliance from Code Review Agent/Building Official for Documents Listed Above

To:

This is to advise you that your Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, and Affidavit Regarding Unauthorized Immigrants have been received. Our issuance of this Notice does not relieve you of responsibility to assure that the bond and insurance requirements of the Contract Documents are met for the duration of the Agreement. The Amendment # _____ for the above described work has been fully executed.

You are hereby authorized and directed to proceed within ten (10) days from date of this Authorization as required in the Agreement. Any liquidated damages for failure to achieve Substantial Completion by the date agreed that may be applicable to this contract will be calculated using the date of this Notice for the date of the commencement of the Work.

By _____
State Buildings Program Date
(or Authorized Delegate)

By _____
Principal Representative Date
(Institution or Agency)

When completely executed, this form is to be sent by certified mail to the Construction Manager by the Principal Representative; or delivered by any other means to which the parties agree.

SECTION 00 61 13.13 – PERFORMANCE BOND

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 PERFORMANCE BOND

- A. FORM: State of Colorado form “Performance Bond” (SC-6.22).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE

- A. Performance Bond is required for construction values of \$150,000 or more.
- B. This bond must be accompanied by Power of Attorney.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 61 13.13



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

PERFORMANCE BOND

Institution/Agency: University of Colorado Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____ are held and firmly bound unto **the STATE OF COLORADO** acting by and through Board of Regents of the University of Colorado, a body corporate, for and on behalf of the University of Colorado Denver, hereinafter called the "Principal Representative", in the sum of _____ Dollars (\$_____)

for the payment whereof the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated _____, 20____, for the construction of a PROJECT described as _____

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION, is such that, if the Principal shall promptly, fully and faithfully perform all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract any extensions thereof that may be granted by the Principal Representative with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

AND THE SAID SURETY, for value received hereby stipulates and agrees that whenever the Principal shall be, and declared by the Principal Representative to be in default under said Contract, the State of Colorado having performed its obligations thereunder, the Surety may promptly remedy the default or shall promptly (1) Complete the Contract in accordance with its terms and conditions, or (2) Obtain a bid or bids for submittal to the Principal Representative for completing the Contract in accordance with its terms and conditions, and upon determination by the Principal Representative and Surety of the lowest responsible bidder, arrange for a contract between such bidder and the State of Colorado acting by and through the Principal Representative and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion, less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount hereinbefore set forth. The term "balance of the contract price" as herein used shall mean the total amount payable to the Principal under the Contract and any amendments thereto, less the amount properly paid by the State of Colorado to the Contractor.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the State of Colorado.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of , A.D., _____ 20_____

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____
Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful payment for all labor and material of the contract.

SECTION 00 61 13.16 – LABOR AND MATERIAL BOND

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 LABOR AND MATERIAL BOND

- A. FORM: State of Colorado form “Labor and Material Bond” (SC-6.221).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURES

- A. Labor and Material Bond is required for construction values of \$150,000 or more.
- B. This bond must be accompanied by Power of Attorney.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 61 13.16



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

LABOR AND MATERIAL BOND

Institution/Agency: University of Colorado Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____ are held and firmly bound unto the STATE OF COLORADO acting by and through Board of Regents of the University of Colorado, a body corporate, for and on behalf of the University of Colorado Denver, hereinafter called "Principal Representative," and to all subcontractors and any others who have supplied or furnished or shall supply or furnish materials, rental machinery, tools, or equipment actually used in the performance of the hereinafter identified Contract, or who have performed or shall perform labor in the performance of or in connection with said Contract, hereinafter called "Obligees" in the sum of _____ Dollars (\$ _____)

together with interest at the rate of eight per cent (8%) per annum on all payments becoming due in accordance with said Contract, from the time such payments shall become due until such payment shall be made, for the payment of which, well and truly made to the Obligees, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated _____, 20____ for the construction of a PROJECT described as

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal and the Surety shall fully indemnify and save harmless the State of Colorado and the Principal Representative from and against any and all costs and damages, including patent infringements, which either may suffer by reason of any failure or failures of the Principal promptly and faithfully to perform all terms and conditions of said Contract and shall fully reimburse and repay the State of Colorado and the Principal Representative all outlay and expense which the State of Colorado and the Principal Representative may incur in making good any such failure or failures, and further, if the Principal and his subcontractors shall duly and promptly pay for any and all labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies which have been or shall be used or consumed by said Principal or his subcontractors in the performance of the work of said Contract, and it said Principal shall duly and promptly pay all his subcontractors the sums due them for any and all materials, rental machinery, tools, or equipment and labor that have been or shall be furnished, supplied, performed or used in connection with performance of said Contract, and shall also fully indemnify and save harmless the State of Colorado and the Principal Representative to the extent of any and all expenditures which either or both of them may be required to make by reason of any failures or defaults by the Principal or any subcontractor in connection with such payments; then this obligation shall be null and void, otherwise it shall remain in full force and effect.

It is expressly understood and agreed that any alterations which may be made in the terms of said Contract or in the work to be done under said Contract, or any extension(s) of time for the performance of the Contract, or any forbearance on the part of either the State of Colorado or the Principal to any of the others, shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the Principal and the Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____

Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful performance of the contract.

SECTION 00 62 16 – CERTIFICATE OF INSURANCE

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS (Not Applicable)
- 1.02 SUMMARY (Not Applicable)
- 1.03 DEFINITIONS (Not Applicable)
- 1.04 CERTIFICATE OF INSURANCE
 - A. Sample Certificate of Liability Insurance and language.
 - B. Sample Evidence of Property Insurance (Builder's Risk)
 - C. A copy of the above noted forms are attached to the end of this section.
- 1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 62 16



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
CURRENT DATE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|---|---|--------|
| PRODUCER COMPANY ADDRESS CITY, STATE, ZIP CODE | CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS: FAX (A/C, No): | |
| INSURED INSURED NAME INSURED ADDRESS INSURED CITY, STATE, ZIP CODE | INSURER(S) AFFORDING COVERAGE | NAIC # |
| | INSURER A : | |
| | INSURER B : | |
| | INSURER C : | |
| | INSURER D : | |
| | INSURER E : | |
| | INSURER F : | |

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|--|-----------|----------|---------------|-------------------------|-------------------------|---|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> POLLUTION LIABILITY | Y | | POLICY NUMBER | 01/01/2019 | 01/01/2020 | EACH OCCURRENCE \$ 1,000,000 |
| | GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER: | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) \$ |
| | | | | | | | MED EXP (Any one person) \$ |
| | | | | | | | PERSONAL & ADV INJURY \$ 1,000,000 |
| B | <input checked="" type="checkbox"/> AUTOMOBILE LIABILITY ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY | Y | Y | POLICY NUMBER | 01/01/2019 | 01/01/2020 | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 |
| | | | | | | | BODILY INJURY (Per person) \$ |
| | | | | | | | BODILY INJURY (Per accident) \$ |
| | | | | | | | PROPERTY DAMAGE (Per accident) \$ |
| | <input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$ | | | | | | EACH OCCURRENCE \$ |
| | | | | | | | AGGREGATE \$ |
| | | | | | | | |
| | | | | | | | |
| D | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | N/A | Y | POLICY NUMBER | 01/01/2019 | 01/01/2020 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER |
| | E.L. EACH ACCIDENT \$ 100,000 | | | | | | |
| | E.L. DISEASE - EA EMPLOYEE \$ 100,000 | | | | | | |
| | E.L. DISEASE - POLICY LIMIT \$ 500,000 | | | | | | |
| E | PROFESSIONAL LIABILITY | Y | | POLICY NUMBER | 01/01/2019 | 01/01/2020 | Each Occurrence 2,000,000 |
| | Aggregate 2,000,000 | | | | | | |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Regents of the University of Colorado, a Body Corporate are named as Additional Insured as respects General, Pollution and Automobile Liability policies.

The Automobile, Workers Compensation and Professional Liability policies are endorsed to include a Waiver of Subrogation in favor of The Regents of the University of Colorado, a Body Corporate.

CERTIFICATE HOLDER

CANCELLATION

| | |
|---|--|
| The Regents of the University of Colorado Attn: Project Management 1945 North Wheeling Street, Campus Mail stop F-418 Aurora, CO 80045 | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. |
| | AUTHORIZED REPRESENTATIVE Authorized Representative Signature |

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EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)
CURRENT TEXT

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST.

| | | | | |
|---|--|------------------------------|----------------------------------|---|
| AGENCY COMPANY ADDRESS CITY, STATE, ZIP CODE | | PHONE (A/C, No, Ext): | COMPANY INSURANCE COMPANY | |
| FAX (A/C, No): | | E-MAIL ADDRESS: | | |
| CODE: | | SUB CODE: | | |
| AGENCY CUSTOMER ID #: | | | | |
| INSURED INSURED NAME INSURED ADDRESS INSURED CITY, STATE, ZIP CODE | | LOAN NUMBER | | POLICY NUMBER POLICY NUMBER |
| | | EFFECTIVE DATE 01/01/2019 | EXPIRATION DATE 01/01/2020 | <input type="checkbox"/> CONTINUED UNTIL TERMINATED IF CHECKED |
| THIS REPLACES PRIOR EVIDENCE DATED: | | | | |

PROPERTY INFORMATION

| |
|--|
| LOCATION/DESCRIPTION LOCATION OF PROJECT Builders Risk is required for new buildings or alterations to existing buildings and for materials and equipment to be installed in existing structures. |
| THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. |

COVERAGE INFORMATION

PERILS INSURED

BASIC

BROAD

☒

SPECIAL

COVERAGE / PERILS / FORMS

AMOUNT OF INSURANCE
100% Project Value

DEDUCTIBLE
\$50,000 or les

Builders Risk - 100% of Completed Value

REMARKS (Including Special Conditions)

RE: Specific Project

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST

| | | | | | | |
|---|--|--------------------|-------------------------------------|-----------------------|--------------------------|------------|
| NAME AND ADDRESS The Regents of the University of Colorado Attn: Project Management 1945 North Wheeling Street, Campus Mail stop F-418 Aurora, CO 80045 | <input checked="" type="checkbox"/> | ADDITIONAL INSURED | <input type="checkbox"/> | LENDER'S LOSS PAYABLE | <input type="checkbox"/> | LOSS PAYEE |
| | | MORTGAGEE | <input checked="" type="checkbox"/> | Waiver of Subrogation | | |
| | LOAN # | | | | | |
| | AUTHORIZED REPRESENTATIVE AUTHORIZED REPRESENTATIVE SIGNATURE | | | | | |

SECTION 00 62 76 – APPLICATION AND CERTIFICATE FOR CONTRACTORS PAYMENT FORM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.
- B. Related Requirements:
 - 1. 01 29 00 – Payment Procedures

1.03 DEFINITIONS (Not Applicable)

1.04 FORMS

- A. APPLICATION AND CERTIFICATE FOR CONTRACTORS PAYMENT (SBP-7.2)
 - 1. Download link:
<https://drive.google.com/open?id=0ByG39KP3LPICVHVqenlySGJIMFE>

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 62 76

SECTION 00 63 53 – CHANGE ORDER PROPOSAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER PROPOSAL

A. State of Colorado form “Change Order Proposal” (SC-6.312).

1. Download

https://drive.google.com/file/d/1Uo7i4h3LqpByA8GUYEI5K9qne_8hSwtS/view link:

B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 63 53



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

CHANGE ORDER PROPOSAL

(enter information ONLY in YELLOWED cells)

Change Order Proposal No. _____ Date _____

Change Order Bulletin No: _____

Description of Work: (enter into text box)

Date _____

Contractor _____

Institution or Agency _____

Project No./Name _____

(Before completing this form, read instructions on reverse side.)

PART I - WORK PERFORMED BY CONTRACTOR

| | | | | | |
|---------|---|-------------------|--------|------|------|
| Line 1. | Direct Labor Costs | | \$ | | |
| Line 2. | Labor Overhead (Direct Labor Burdens) | (_____ x Line 1) | \$ | 0.00 | |
| Line 3. | Total Contractor's Labor Costs (Lines 1 and 2) | | \$ | 0.00 | |
| Line 4. | Direct Materials Costs | | \$ | | |
| Line 5. | Materials Overhead (Delivery Costs & Taxes) | (_____ x Line 4) | \$ | 0.00 | |
| Line 6. | Total Materials Costs (Lines 4 and 5) | | \$ | 0.00 | |
| Line 7. | Total Equipment Costs | | \$ | | |
| Line 8. | PART I - TOTAL CONTRACTOR'S L, M & E COSTS (Lines 3, 6 and 7) | | Part I | \$ | 0.00 |

PART II - WORK PERFORMED BY SUBCONTRACTOR

| | | | | | |
|----------|---|--------------------------------|---------|------|------|
| Line 9. | Direct Labor Costs | | \$ | | |
| Line 10. | Labor Overhead (Direct Labor Burdens) | (_____ x Line 9) | \$ | 0.00 | |
| Line 11. | Total Subcontractor's Labor Costs (Lines 9 and 10) | | \$ | 0.00 | |
| Line 12. | Direct Materials Costs | | \$ | | |
| Line 13. | Materials Overhead (Delivery Costs & Taxes) | (_____ x Line 12) | \$ | 0.00 | |
| Line 14. | Total Subcontractor's Materials Costs (Lines 12 and 13) | | \$ | 0.00 | |
| Line 15. | Total Subcontractor's Equipment Costs | | \$ | | |
| Line 16. | Total Subcontractor's L, M & E Costs (Line 11, 14 and 15) | | \$ | 0.00 | |
| Line 17. | Subcontractor's Overhead (Indirect Costs) | (10.0% x Line 16) | \$ | 0.00 | |
| Line 18. | Subcontractor's Profit (on line 16) | _____ Addition or Deduct _____ | \$ | 0.00 | |
| Line 19. | PART II - TOTAL SUBCONTRACTOR'S COSTS (Lines 16, 17 and 18) | | Part II | \$ | 0.00 |

PART III - CONTRACTOR'S OVERHEAD & PROFIT

| | | | | | |
|----------|---|-------------------------|----------|------|------|
| Line 20. | Contractor's Overhead (Indirect Costs) | (10.0% x Part I Total) | \$ | 0.00 | |
| Line 21. | Contractor's Profit | (5.0% x Part I Total) | \$ | 0.00 | |
| Line 22. | PART III - TOTAL CONTRACTOR OVERHEAD & PROFIT (Lines 20 and 21) | | Part III | \$ | 0.00 |

PART IV - CONTRACTOR'S MARKUP ON SUBCONTRACTOR

| | | | | | |
|----------|--|--------------------------------|---------|------|------|
| Line 23. | Contractor's Commission on Subcontractor | (5.0% x Part II Total) | \$ | 0.00 | |
| Line 24. | Contractor's Profit (on Line 19) | _____ Addition or Deduct _____ | \$ | 0.00 | |
| Line 25. | PART IV - TOTAL CONTRACTOR MARKUP ON SUBCONTRACTOR (Lines 23 and 24) | | Part IV | \$ | 0.00 |

PART V - SUBTOTAL C.O. PROPOSAL (Parts I and II and III and IV)

Part V (Subtotal) \$ 0.00

PART VI - CONTRACTOR'S BOND COST

Part VI \$ 0.00

PART VII - GRAND TOTAL CHANGE ORDER PROPOSAL (Sum of Totals: Parts V and VI)

Grand Total \$ 0.00

PART VIII - CONTRACT TIME (CALENDAR DAYS CHANGED) ☐ EXTENDED ☐ NO CHANGE ☐ REDUCED _____ Days

THE TIME OF COMPLETION MAY CHANGE BY THE CALENDAR DAYS INDICATED (ABOVE) FROM THE TOTAL NUMBER OF DAYS LISTED IN THE CONTRACTOR'S AGREEMENT TO COMPLETE THE ENTIRE PROJECT.

CONTRACTOR'S CERTIFICATE:

This is to certify that, to the best of my knowledge and belief, the cost/price data submitted in response to the listed C.O. Bulletin, are accurate, complete and current as of _____.

Firm: _____

Name & title: _____

Signature: _____

*Date: _____

* The proposal shall remain in full force and effect for a period of _____ calendar days from date of signature.

ARCHITECT/ENGINEER'S CERTIFICATE:

This is to certify that I have analyzed the proposal and find, to the best of my knowledge and belief, that the proposal represents current, fair, factual and competitive cost/price data.

Firm: _____

Name & title: _____

Signature: _____

Date: _____

STATE BUILDINGS PROGRAMS (or Authorized Delegate)

Date: _____

INSTRUCTIONS FOR COMPLETING "CHANGE ORDER PROPOSAL" COST/PRICE DATA SUMMARY (STATE FORM SC-6.312)

(enter information only in YELLOWED cells)

Enter Change Order Proposal Number, Date Created, Contractor's Name, Agency/Institution, State Project Number and Name.
 REFERENCE: Enter Change Order Bulletin Number, Date Issued, and Description of Changes from Bulletin, noting exceptions which are listed in the Bulletin but are excluded, i.e., not priced on this form.

PART I - WORK PERFORMED BY CONTRACTOR:

Line 1. Direct Labor Costs: Fill in subtotal of direct labor costs which includes base rates plus applicable fringe benefits. On Contractor's (or Sub's) letterhead show costs as follows:

| Trade | Rate | Duration | Extended Costs |
|-------|----------|-------------------|----------------|
| | \$ _____ | x _____ | = \$ _____ |
| | \$ _____ | x _____ | = \$ _____ |
| | | Direct Labor Cost | = \$ _____ |

Line 2. Labor Overhead (Direct Labor Burdens, etc.): Enter percentage (as submitted in Schedule of Values) of Line 1 as applicable. (Spread

Line 3. Total Contractor's Labor Costs: Total of Lines 1 and 2. (Spreadsheet calculates the total)

Line 4. Direct Material Cost: Support with quotes or invoices. Fill in subtotal of direct materials costs.

Include all delivery, handling, insurance costs, etc. On Contractor's letterhead show direct materials costs as follows:

| Materials | Rate | Quantity | Extended Costs |
|-----------|----------|-----------------------|----------------|
| | \$ _____ | x _____ | = \$ _____ |
| | \$ _____ | x _____ | = \$ _____ |
| | | Direct Materials Cost | = \$ _____ |

Line 5. Materials Overhead (Delivery, taxes, insurance, etc. - as mutually agreed upon at contract signing):
 Enter percentage as applicable. (Spreadsheet calculates the value)

Line 6. Total Contractor's Material Costs: Total of Lines 4 and 5. (Spreadsheet calculates the total)

Line 7. Total Contractor's Equipment Costs: Enter total equipment costs including indirect overhead costs in hourly rate - except indirect labor costs. On Contractor's letterhead show total equipment costs as follows:

| Equipment | Rate | Duration | Extended Costs |
|-----------|----------|----------------------|----------------|
| | \$ _____ | x _____ | = \$ _____ |
| | \$ _____ | x _____ | = \$ _____ |
| | | Total Equipment Cost | = \$ _____ |

Line 8. TOTAL CONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 3, 6 and 7 of Part I. (Spreadsheet form calculates totals)

PART II - WORK PERFORMED BY SUBCONTRACTOR:

Line 9. Direct Labor Costs: See Line 1 instructions.

Line 10. Labor Overhead (Direct Labor Burdens, etc.): Enter percentage (as submitted in Schedule of Values) of Line 9 as applicable. (Spreadsheet calculates the value)

Line 11. Total Contractor's Labor Costs: Total of Lines 9 and 10. (Spreadsheet calculates the total)

Line 12. Direct Material Cost: See Line 4 instructions.

Line 13. Materials Overhead (Delivery, taxes, insurance, etc.) Enter percentage as applicable. (Spreadsheet calculates the value)

Line 14. Total Subcontractor's Material Costs: Total of Lines 12 and 13. (Spreadsheet calculates the total)

Line 15. Total Subcontractor's Equipment Costs: See Line 7 instructions.

Line 16. TOTAL SUBCONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 11, 14 and 15 of Part II.

Line 17. Subcontractor's Overhead (Indirect costs). Edit percentage of Line 16 if applicable - See Article 35 of General Conditions.

Line 18. Subcontractor's Profit: Enter a "1" in appropriate cell. For an addition, Edit E37, a deduct, Edit I37. See Article 35 General Conditions

Line 19. TOTAL SUBCONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 16, 17 and 18 of Part II.

PARTS III THROUGH VIII - CERTIFICATIONS - Self Explanatory.

Part 3. Edit percentages for Line 20 or 21 if applicable. See Article 35 of General Conditions.

Part 4. Line 23, Edit percentages applicable to Line 18. See Article 35 of General Conditions.

Part 4. Line 24, Enter a "1" in appropriate cell. For an addition, edit E45, a deduct edit I45. See Article 35 of General Conditions.

Part 5. SUBTOTAL OF CHANGE ORDER PROPOSAL (sum of lines 8, 19, 22, and 25 - applicable)

Part 6. Contractor's Bond Cost: Enter percentage value of Part 5 as applicable. (spreadsheet calculates the value)

Part 7. GRAND TOTAL OF THE CHANGE ORDER PROPOSAL. (spreadsheet calculates the sum of parts 5 and 6)

Part 8. Contract time change. Place an "X" in appropriate cell and edit the cell to indicate the number of days changed.

A. The Contractor, who prepares this proposal form, certifies the cost/price data by signing, dating, and forwarding same to the Architect/Engineer (or Consultant) for further action.

B. The Architect/Engineer (or Consultant) reviews and analyzes the cost/price data for the requirements that these are: 1) currently prevalent, 2) reasonably fair, 3) factually applicable, and 4) equivalently competitive market selling prices. The Architect/Engineer (or Consultant) may negotiate - after receipt of the cost proposal - any or all of the cost elements of the proposal to support a recommendation of acceptance to the Principal Representative. Certification by the A/E (or Consultant) of the above requirements is made upon his signature. The Architect/Engineer (or Consultant) forwards the proposal with the supporting back-up to the Agency.

C. Authority for the Institution or Agency (usually the Principal Representative) reviews the proposal, signs, dates, and forwards to Office of the State Architect for final action.

D. State Buildings Division reviews the cost proposal, with all supporting back-up, for technical and procedural requirements and, if in order, signs and dates the proposal.

SECTION 00 63 58 – CHANGE ORDER LOG

PART 1 - GENERAL

1.01 RELATED ITEMS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER LOG

- A. State of Colorado form “Change Order Log”
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 63 58

STATE BUILDINGS AND REAL ESTATE PROGRAMS
CHANGE ORDER MANAGEMENT
CHANGE ORDER LOG

Project #:

Project Title:
Contractor:

[illegible]

| | | | | |
|---------|---------|-----|--------------|---------------------|
| TOTALS: | COST: ± | \$0 | Org Contract | New Contract Amount |
| | TIME: ± | 0 | | |
| | | | | \$0.00 \$ |
| | | | | \$0 \$ |
| | | | | - |
| | | | | - |

Contingency Codes:

DSC - DIFFERING SITE CONDITIONS: Either encountered on site or in the building structure due to existing conditions not identified or detected during initial investigations.

BA - BID ALTERNATES: Implementation of either additive or deductive bid alternates due to favorable/unfavorable base bid results. The functionality of the project is not compromised by implementation of deductive alternates.

AV - ADDED VALUE: Change work represents essential work necessary to achieve original scope of work but was not identified in the original bid documents due to omission.

UPG - UPGRADES: Change work due to voluntary upgrading by agency/institution of materials and/or equipment/systems within original scope of work. Justification is to be based on durability, energy efficiency, aesthetics, etc.

UI - UNKNOWN ITEMS: Unforeseen costs associated with impact of project on existing functions of the agency/institution causing disruptions, shut downs, relocations, etc.

Status Codes

OPN - Open item

been submitted by Contractor for review by A/E and owner

APP - Approved for processing

Closed item (CO has been processed or item voided

ClO -

SUB - COP has

SECTION 00 63 58.02 – CHANGE ORDER LOG (CM/GC)

PART 1 - GENERAL

1.01 RELATED ITEMS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER LOG

- A. State of Colorado form “Change Order Log (CM/GC)”
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 63 58.02

75% Construction Documents
08 April, 2022

University of Colorado – Denver
Business School Level P2 Drains
21-161645

00 63 58.02 - 2
CHANGE ORDER LOG

University of Colorado – Denver
Business School Level P2 Drains
21-161645

Project Title: _____
Contractor: _____
Project #: _____

[illegible]

| <u>Description</u> | <u>Date</u> | <u>Cost (Ct.)</u> | <u>Cost (Ct.)</u> | <u>Total</u> |
|--------------------|-------------|-------------------|-------------------|--------------|
| Amendment 001 | | | | |
| Change Order 001 | | | | |
| Change Order 002 | | | | |
| Change Order 003 | | | | |

OSC - DIFFERING SITE CONDITIONS: Either encountered on site or in the building structure due to existing conditions not identified or detected during initial investigations.

BA - BID ALTERNATES: Implementation of either additive or deductive bid alternates due to favorable/unfavorable base bid results. The functionality of the project is not compromised by implementation of deductive alternates.

MY - ADDED VALUE. Change work represents essential work necessary to achieve original scope of work, but was not mentioned in the original two documents due to omission.

01-0 - 01-5 SHOWS: Change work due to voluntary upgrading by agency/institution or materials and/or equipment systems within original scope of work. Justification is to be based on durability, energy efficiency, aesthetics, etc.

60 - BUDGET UTILIZATION, UTILIZATION OF ALLOWANCES

SECTION 00 63 64.05 – CONTRACT AMENDMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER BULLETIN

- A. State of Colorado form “Contract Amendment” (SC-6.0A).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 63 64.05



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONTRACT AMENDMENT

Amendment No: _____ Contract ID No. _____

Contractor: _____

Institution or Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

PARTIES. THIS AMENDMENT is entered into by and between the STATE OF COLORADO, acting by and through the _____, Principal Representative, hereinafter referred to as the State, and _____ having its offices at _____ hereinafter referred to as the Contractor.

EFFECTIVE DATE AND NOTICE OF NONLIABILITY. This Amendment 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 Contractor for any performance hereunder or be bound by any provision hereof prior to the Effective Date.

FACTUAL RECITALS

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.

Required approval, clearance, and coordination has been accomplished from and with appropriate agencies; and

[Statement of facts/reasons for the Amendment]

NOW THEREFORE, it is hereby agreed that

1. Consideration for this Amendment consists of the payments, which shall be made pursuant to this Amendment and the promises, and agreements herein set forth.
2. It is expressly agreed by the parties that this Amendment is supplemental to the original Contract, as amended (_____), *collectively** referred to as the original Contract, which is incorporated by reference herein, that all provisions thereof, unless specifically modified herein, apply to this Amendment as though they were expressly re-written, incorporated, and included herein. (**Note: only use this language if creating Amendment #2 or higher*)
3. It is agreed the original contract is and shall be modified, altered, and changed in the following respects only:
 - a.
 - b.
 - c.

| SUMMARY OF CHANGES | | | |
|---|--------------------------|--|-------------------|
| | Description of Work/Date | Time of Completion/ Calendar Days Extended/Reduced | Dollar Amounts |
| Original Contract | | | |
| Amendment #1 | | | |
| Current Total Amount of Contract (To Date): | | | |

4. Except with respect to the "Special Provisions," in the event of any conflict, inconsistency, variance, or contradiction between the provisions of this Amendment and any of the provisions of the original contract, the provisions of this Amendment shall in all respects supersede, govern, and control. The "Special Provisions" shall always be controlling over other provisions in the contract or Amendments. The factual representations in the "Special Provisions" concerning the absence of bribery or corrupt influences and personal interest of State employees are presently reaffirmed.
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.
6. THIS AMENDMENT SHALL NOT BE DEEMED VALID UNTIL IT SHALL HAVE BEEN APPROVED BY THE CONTROLLER OF THE STATE OF COLORADO OR SUCH ASSISTANT AS SHE OR HE MAY DESIGNATE.

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

Persons signing for Contractor/Consultant hereby swear and affirm that they are authorized to act on Contractor'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.**

Project Name/Number: _____
Contract ID No.: _____

THE CONTRACTOR/CONSULTANT:

Legal Name of Contracting Entity

*Signature

By _____
Name (print) Title

Date: _____

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

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

Date: _____

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

By: _____
(Insert Name of Authorized Individual)

Date: _____

APPROVED
DEPARTMENT OF LAW
ATTORNEY GENERAL (or authorized Delegate)

By: _____
(Insert Name of Authorized Individual)

Date: _____

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER:

CRS §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. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor 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 & Title of Authorized Individual)

Date: _____

SECTION 00 63 64.06 – CONTRACT AMENDMENT (CM/GC)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER BULLETIN

- A. State of Colorado form “Contract Amendment (CM/GC)” (SC-6.0B).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 63 64.06



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONTRACT AMENDMENT (Construction Manager/General Contractor)

Amendment No: _____ Contract ID No.: _____

Contractor: _____

Institution or Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

PARTIES. THIS AMENDMENT is entered into by and between the STATE OF COLORADO, acting by and through the _____, Principal Representative, hereinafter referred to as the State, and _____ having its offices at _____ hereinafter referred to as the Contractor.

EFFECTIVE DATE AND NOTICE OF NONLIABILITY. This Amendment 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 Contractor for any performance hereunder or be bound by any provision hereof prior to the Effective Date.

FACTUAL RECITALS

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.

Required approval, clearance, and coordination has been accomplished from and with appropriate agencies; and

[Statement of facts/reasons for the Amendment]

NOW THEREFORE, it is hereby agreed that

1. Consideration for this Amendment consists of the payments, which shall be made pursuant to this Amendment and the promises, and agreements herein set forth.
2. It is expressly agreed by the parties that this Amendment is supplemental to the original contract, as amended (_____), *collectively** referred to as the original contract, which is, by this reference incorporated herein, that all terms, conditions, and provisions thereof, unless specifically modified herein, are to apply to this Amendment as though they were expressly re-written, incorporated, and included herein. (**Note: only use this language if creating Amendment #2 or higher*)
3. It is agreed the original contract is and shall be modified, altered, and changed in the following respects only:
 - a.
 - b.
 - c.

| SUMMARY OF CHANGES | | | | | |
|---|----------------------------|------------------------------|------------------------------|------------------------|---------------|
| | Pre-Const. Services Fee | Construction Services Fee | General Conditions Fee | Direct Cost of Work | Dollar Amount |
| Original Contract/Date | | | | | |
| Amendment #1/Date | | | | | |
| Amendment #2/Date | | | | | |
| Contract Sum (To Date): | | | | | |
| Guaranteed Maximum Price (To Date): | | | | | |
| Fixed Limit of Construction Cost (To Date): | | | | | |

4. Except with respect to the "Special Provisions," in the event of any conflict, inconsistency, variance, or contradiction between the provisions of this Amendment and any of the provisions of the original contract, the provisions of this Amendment shall in all respects supersede, govern, and control. The "Special Provisions" shall always be controlling over other provisions in the contract or Amendments. The factual representations in the "Special Provisions" concerning the absence of bribery or corrupt influences and personal interest of State employees are presently reaffirmed.

PART 4 - 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.

6. THIS AMENDMENT SHALL NOT BE DEEMED VALID UNTIL IT SHALL HAVE BEEN APPROVED BY THE CONTROLLER OF THE STATE OF COLORADO OR SUCH ASSISTANT AS SHE OR HE MAY DESIGNATE.

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

Persons signing for Contractor/Consultant hereby swear and affirm that they are authorized to act on Contractor'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.**

Project Name/Number: _____
Contract ID No.: _____

THE CONTRACTOR/CONSULTANT:

Legal Name of Contracting Entity

*Signature

By _____
Name (print) Title

Date: _____

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

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

Date: _____

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

By: _____
(Insert Name of Authorized Individual)

Date: _____

APPROVED
DEPARTMENT OF LAW
ATTORNEY GENERAL (or authorized Delegate)

By: _____
(Insert Name of Authorized Individual)

Date: _____

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER:

CRS §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. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor 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 & Title of Authorized Individual)

Date: _____

SECTION 00 65 15 – NOTICE OF PARTIAL SUBSTANTIAL COMPLETION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE OF PARTIAL SUBSTANTIAL COMPLETION

- A. State of Colorado form “Notice of Partial Substantial Completion” (SPB-071).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 15



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF PARTIAL SUBSTANTIAL COMPLETION

Date of Partial Substantial Completion: _____
Date to be inserted by the Principal Representative

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

TO:

Principal Representative

and

Contractor

This is to advise you that the Work has been reviewed, inspected and determined, to the best knowledge, information and belief of the Architect/Engineer, to be substantially complete as of the date noted above in accordance with the criteria outlined in Article 41 of The General Conditions of the Contract in SC-6.23 and SC-8.1 or Article 17.3 in SC-6.4 and the Specifications, including without limitation a) suitable for occupancy, b) inspected for code compliance with Building Inspection Records signed by code officials for the State, c) determined to be fully and comfortably usable, and d) fully cleaned and appropriate for presentation to the public.

A punch list of work to be completed, work not in compliance with the Drawings or Specifications, and unsatisfactory work is attached hereto, along with the Contractor's schedule for the completion of each and every item identified on the punch list specifying the Subcontractor or trade responsible for the work, and the dates the completion or correction will be commenced and finished within any period indicated in the Agreement for punch list completion prior to Final Acceptance.

Except as stated on the reverse side of this Notice of Partial Substantial Completion, all manufacturers' warranties, other special warranties and the Contractor's one-year obligation to perform remedial work, shall commence on the Date of Substantial Completion noted above.

This Notice of Partial Substantial Completion shall be effective and establish the Date of Substantial Completion only when fully executed on the reverse by the Contractor and the Principal Representative. The Principal Representative accepts the Work as substantially complete as of the Date of Substantial Completion herein noted. The Contractor agrees to complete or correct the Work identified on the attached punch list and to do so in accordance with attached punch list completion schedule

| | | | |
|--|---------------|--|---------------|
| _____ Architect/Engineer | _____ Date | _____ Contractor | _____ Date |
| _____ State Buildings Program (or Authorized Delegate) | _____ Date | _____ Principal Representative (Institution or Agency) | _____ Date |

The responsibilities of the Principal Representative and the Contractor for security, maintenance, heat, utilities, and insurance shall be as specified in the Contract Documents or as otherwise hereafter noted:

Exceptions, if any, to the commencement of warranties shall be:

The attached final punch list consists of ____ pages, and the attached Contractor's schedule showing the dates of commencement and completion of each punch list item consists of ____ pages.

When completely executed, this form shall be sent to the Contractor and the Principal Representative with a copy to State Buildings Program.

SECTION 00 65 16 – NOTICE OF SUBSTANTIAL COMPLETION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 CHANGE ORDER BULLETIN

- A. State of Colorado form “Notice of Substantial Completion” (SPB-07).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 16



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF SUBSTANTIAL COMPLETION

Date of Substantial Completion: _____
Date to be inserted by the Principal Representative

Institution/Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

TO:

Principal Representative

and

Contractor

This is to advise you that the Work has been reviewed, inspected and determined, to the best knowledge, information and belief of the Architect/Engineer, to be substantially complete as of the date noted above in accordance with the criteria outlined in Article 41 of The General Conditions of the Contract in SC-6.23 and SC-8.1 or Article 17.3 in SC-6.4 and the Specifications, including without limitation a) suitable for occupancy, b) inspected for code compliance with Building Inspection Records signed by code officials for the State, c) determined to be fully and comfortably usable, and d) fully cleaned and appropriate for presentation to the public.

A punch list of work to be completed, work not in compliance with the Drawings or Specifications, and unsatisfactory work is attached hereto, along with the Contractor's schedule for the completion of each and every item identified on the punch list specifying the Subcontractor or trade responsible for the work, and the dates the completion or correction will be commenced and finished within any period indicated in the Agreement for punch list completion prior to Final Acceptance.

Except as stated on the reverse side of this Notice of Substantial Completion, all manufacturers' warranties, other special warranties and the Contractor's one-year obligation to perform remedial work, shall commence on the Date of Substantial Completion noted above.

This Notice of Substantial Completion shall be effective and establish the Date of Substantial Completion only when fully executed by the Contractor and the Principal Representative. The Principal Representative accepts the Work as substantially complete as of the Date of Substantial Completion herein noted. The Contractor agrees to complete or correct the Work identified on the attached punch list and to do so in accordance with attached punch list completion schedule

| | | | |
|--|---------------|--|---------------|
| _____ Architect/Engineer | _____ Date | _____ Contractor | _____ Date |
| _____ State Buildings Program (or Authorized Delegate) | _____ Date | _____ Principal Representative (Institution or Agency) | _____ Date |

The responsibilities of the Principal Representative and the Contractor for security, maintenance, heat, utilities, and insurance shall be as specified in the Contract Documents or as otherwise hereafter noted:

Exceptions, if any, to the commencement of warranties shall be:

The attached final punch list consists of ____ pages, and the attached Contractor's schedule showing the dates of commencement and completion of each punch list item consists of ____ pages.

When completely executed, this form shall be sent to the Contractor and the Principal Representative with a copy to State Buildings Program.

SECTION 00 65 19.01 – BUILDING INSPECTION RECORD

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 BUILDING INSPECTION RECORD

- A. State of Colorado form “Notice of Substantial Completion” (SBP-BIR).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE

- A. The University Project Manager will request building permits and provide to Contractor.
- B. Permits issued outside of the University jurisdiction are the responsibility of the contractor.
- C. Paper copy of the Building Inspection Record (BIR) is required to be kept at the construction site at all times. After final signoff by Building Inspector, return paper copy to University Project Manager. Project Manager is responsible for final signoff on the BIR before the Building Department can close the permit.
- D. Contractor is responsible for requesting all University Building Inspector requests through the University’s MyCityInspector website platform.
- E. Use the following login page for requesting inspections:
<https://ucdenver.mycityinspector.com>

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.01



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

BUILDING INSPECTION RECORD

Institution or Agency: University of Colorado - Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

Building Official/Code Review Agent: _____ Type of Construction: _____
Architect/Engineer: _____ Occupancy Classifications: _____
Contractors: _____ Project Manager: _____
 General: _____ Project Manager Signature _____
 Electrical: _____ At Completion: _____
 Mechanical: _____ Inspector of Record Signature _____
 Plumbing: _____ at Completion: _____
Notice to Proceed Date: _____ BIR Completion Date: _____

Provide If
Checked

*** No work shall be concealed or covered until the appropriate inspector has inspected and approved.**

| | Building (Consultant) | Date | Inspector/ICC# | Comments or Corrections |
|--------------------------|--|-------------|------------------|--------------------------------|
| <input type="checkbox"/> | Footings/Foundations | | | |
| <input type="checkbox"/> | Concrete Slab / Under-Floor | | | |
| <input type="checkbox"/> | Framing (after rough elec/mech/plumb) | | | |
| <input type="checkbox"/> | Lath and Gypsum Board | | | |
| <input type="checkbox"/> | Fire-Resistant Penetrations | | | |
| <input type="checkbox"/> | Mechanical/Energy Efficiency | | | |
| <input type="checkbox"/> | Roofing | | | |
| <input type="checkbox"/> | Other | | | |
| <input type="checkbox"/> | Final | | | |
| | Special (Consultant) | Date | Inspector | Comments or Corrections |
| <input type="checkbox"/> | Steel | | | |
| <input type="checkbox"/> | Concrete | | | |
| <input type="checkbox"/> | Masonry | | | |
| <input type="checkbox"/> | Wood | | | |
| <input type="checkbox"/> | Soils/Foundations | | | |
| <input type="checkbox"/> | Spray-Applied Fireproofing | | | |
| <input type="checkbox"/> | Smoke Control Systems | | | |
| <input type="checkbox"/> | Other | | | |
| | Elevator Inspection (State) | Date | Inspector | Comments or Corrections |
| <input type="checkbox"/> | Final | | | |
| | Electrical (Co. St. Electrical Bd.) | Date | Inspector | Comments or Corrections |
| <input type="checkbox"/> | Underground | | | |
| <input type="checkbox"/> | Rough Walls | | | |
| <input type="checkbox"/> | Rough Ceilings | | | |
| <input type="checkbox"/> | Final | | | |

Place this card in an obvious, protected location, along with all related inspection reports and documents.

SBP-BIR
Rev. 5/2012

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

SECTION 00 65 19.03 – NOTICE OF APPROVAL OF OCCUPANCY/USE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE OF APPROVAL OF OCCUPANCY/USE

- A. State of Colorado form “Notice of Approval of Occupancy/Use” (SBP-01).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE

PART 2 - PRODUCTS (Not (Not Applicable)Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.03



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF APPROVAL OF OCCUPANCY/USE

Date of Occupancy:

Date to be inserted by the Architect/Engineer after consultation with Principal Representative

Institution/Agency:

University of Colorado - Denver

Project No./Name:

21-161645 – Business School Level P2 Drain Replacement

Portion(s) of project for which occupancy is approved:

Type of Occupancy: ☐ Total or ☐ Partial

The items identified below if applicable must be completed with before Occupancy is approved.

| Date Completed | A/E Signoff | |
|----------------|-------------|--|
| | | 1. The Notice of Substantial Completion has been issued and the Building Inspection Record is completely signed-off and attached. |
| | | 2a. Notification has been made to the local Fire Department concerning which portion(s) of the building will be occupied and the date(s). |
| | | 2b. Fire alarms, smoke detection systems and building fire sprinkler systems have been fully checked and are operable. |
| | | 2c. The building's fire connections must be installed and operable, if applicable. |
| | | 3. Coordination for final utility and service connections and meters (water, gas, sewer, electricity and telecommunication) has been made and systems are in full operating order. |
| | | 4. Sterilization of plumbing systems has been performed. |
| | | 5. Operational test of systems and equipment has been performed as required. |
| | | 6. Systems adjustments such as balancing, equipment operations, etc., have been performed. Reports have been submitted to the Architect/Engineer for approval. |
| | | 7. Principal Representative furnished equipment and furnishings are coordinated and placed. |
| | | 8. All elements left unfinished must be in such condition that there would be no hazard to the health or safety of the occupants. |
| | | 9. All restroom facilities must be fully functional and operable. |
| | | 10. All light fixtures must be installed and operable. |

SECTION 00 65 19.23 – PRE-ACCEPTANCE CHECKLIST

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS (Not Applicable)
- 1.02 SUMMARY (Not Applicable)
- 1.03 DEFINITIONS (Not Applicable)
- 1.04 PRE-ACCEPTANCE CHECKLIST
 - A. State of Colorado form “Pre-Acceptance Checklist” (SBP-05).
 - B. A copy of the above noted form is attached to the end of this section.
- 1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.23



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

PRE-ACCEPTANCE CHECKLIST*

Institution or Agency: University of Colorado - Denver Final Punch List Date _____
Architect/Engineer: Shaffer Baucom Engineering Consultants
Contractor: _____
Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

After Contractor is satisfied that work is complete as per Notice of Substantial Completion Punch List, a date for final review is established. Architect/Engineer inspection is made with Contractor(s) and Principal Representative and State Buildings Programs (SBP) present. Forms are processed as required.

| | DATE COMPLETED | A/E SIGNOFF | REMARKS |
|--|-------------------|----------------|---------|
| 1. The Notice of Approval of Occupancy/Use has been fully executed. | | | |
| 2. Schedule for corrections, deficiencies, and items to be supplied are established by Contractor. | | | |
| 3. Final Change Orders are processed (work must be completed prior to Notice of Acceptance). | | | |
| 4. Punch list work is completed and accepted | | | |
| 5. Permanent keying, keys and keying instructions have been performed. | | | |
| 6. Extra materials as per specifications are delivered to Principal Representative. | | | |
| 7. As-built drawings have been submitted to Architect/Engineer. | | | |
| 8. Guarantee/Warranty documentation requirements are met. | | | |
| 9. Five Most Costly Goods form is completed by Contractor and received | | | |
| 10. Removal of Contractor's temporary work including cleanup and debris removal. | | | |
| 11. State personnel are instructed in system and equipment operations as required by contract. | | | |
| 12. All Instructions, manuals, guides, and charts have been transmitted to Principal Representative. | | | |

Architect/Engineer _____ Date _____

Contractor _____ Date _____

State Buildings Programs _____ Date _____
(or Authorized Delegate)

Principal Representative _____ Date _____
(Institution or Agency)

SECTION 00 65 19.25 – NOTICE OF PARTIAL FINAL ACCEPTANCE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

1.02 SUMMARY

1.03 DEFINITIONS

1.04 NOTICE OF PARTIAL FINAL ACCEPTANCE

- A. State of Colorado form “Notice of Partial Final Acceptance” (SC-6.271).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.25



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF PARTIAL FINAL ACCEPTANCE

Date of Notice of Partial Acceptance: _____

_____ Date to be inserted by A/E after consultation with the Principal Representative

Institution/Agency: University of Colorado – Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

Portion(s) of Project for which final acceptance is approved:

TO:

Notice is hereby given that the State of Colorado, acting by and through the _____,
accepts as complete* the above numbered project.

State Buildings Program
(or Authorized Delegate)

Date

Principal Representative
(Institution or Agency)

Date

*When completely executed, this form is to be sent by certified mail to the Contractor by the Principal Representative.

SECTION 00 65 19.26 – NOTICE OF FINAL ACCEPTANCE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 NOTICE OF FINAL ACCEPTANCE

- A. State of Colorado form “Notice of Final Acceptance” (SBP-6.27).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.26



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF FINAL ACCEPTANCE

Date of Notice of Acceptance: _____
Date to be inserted by A/E after consultation with the Principal Representative

Institution/Agency: University of Colorado – Denver

Project No./Name: 21-161645 – Business School Level P2 Drain Replacement

TO:

Notice is hereby given that the State of Colorado, acting by and through the _____,
accepts as complete* the above numbered project.

| | | | |
|--|---------------|--|---------------|
| _____ State Buildings Program (or Authorized Delegate) | _____ Date | _____ Principal Representative (Institution or Agency) | _____ Date |
|--|---------------|--|---------------|

*When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.

SECTION 00 65 19.30 – NOTICE OF CONTRACTOR’S SETTLEMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

1.02 SUMMARY

1.03 DEFINITIONS

1.04 NOTICE OF CONTRACTOR’S SETTLEMENT

- A. State of Colorado form “Notice of Contractor’s Settlement” (SBP-7.3).
- B. A copy of the above noted form is attached to the end of this section.

1.05 PROCEDURE

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 65 19.30



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF CONTRACTOR'S SETTLEMENT

Institution/Agency: University of Colorado – Denver

Notice Number: _____

Project No./Title: 21-161645 – Business School Level P2 Drain Replacement

Notice is hereby given that on date at address Colorado, final settlement will be made by the STATE OF COLORADO with vendor name, hereinafter called the "CONTRACTOR", for and on account of the contract for the construction of a PROJECT as referenced above.

1. Any person, co-partnership, association or corporation who has an unpaid claim against the said project, for or on account of the furnishing of labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools. or equipment and other supplies used or consumed by such Contractor or any of his subcontractors in or about the performance of said work, may at any time up to and including said time of such final settlement, file a verified statement of the amount due and unpaid on account of such claim
2. All such claims shall be filed with the Authority for College, Institution, Department or Agency.
3. Failure on the part of a creditor to file such statement prior to such final settlement will relieve the State of Colorado from any and all liability for such claim

Authorized Facility Manager or Authorized Individual

Name: _____
Approval Date: _____
Agency: _____
Phone: _____
Fax: _____
Email: _____

MEDIA OF PUBLICATION:

PUBLICATION DATES:

First:

Second: (At least ten (10) days prior to above settlement date)

NOTES TO EDITOR:

Transmit two (2) copies of the Affidavit of Publication, and invoice, to:

SECTION 00 72 54 – CONTRACT GENERAL CONDITIONS (CM/GC)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 CONTRACT GENERAL CONDITIONS FOR CM/GC AGREEMENT

- A. State of Colorado form “The General Conditions of the Construction Manager/General Contractor (CM/GC) Agreement” (SC-6.51) dated 7/2021.
- B. A copy of the above noted document is attached to the end of this section.

1.05 PROCEDURE (Not Applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 72 54

**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.

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.

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).

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:

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:

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.

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

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 of 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

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

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

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,

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

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:

- 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.

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

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

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 complete 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

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

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.

SECTION 00 73 00 – CONSTRUCTION PURCHASE ORDER TERMS AND CONDITIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 CONSTRUCTION PURCHASE ORDER TERMS AND CONDITIONS

- A. A. The University of Colorado Denver | Anschutz Medical Campus Construction Purchase Order Terms and Conditions apply to Contractors Agreement (D/B/B) (SC-6.21) and General Conditions to the Contract (SC-6.23).
- B. A copy of the above noted document is attached to the end of this section.

1.05 PROCEDURE (Not applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 73 00



Facilities Management

Construction Purchase Order Terms and Conditions

1. Offer/Acceptance

If this purchase order ("PO") refers to vendor's bid or proposal, this PO is an ACCEPTANCE of vendor's OFFER TO SELL in accordance with the terms and conditions of the "solicitation" identified in vendor's bid or proposal. The solicitation includes an RFP, IFB, or any other form of order by the University. If a bid or proposal is not referenced, this PO is an OFFER TO BUY, subject to vendor's acceptance, demonstrated by vendor's performance or written acceptance of this PO. Any COUNTER-OFFER TO SELL automatically CANCELS this PO, unless a change order is issued by the University accepting a counter-offer. This PO shall supersede and control over any vendor form(s) or part(s) thereof included in or attached to any bid, proposal, offer, acknowledgment, or otherwise, in the event of inconsistencies or contradictions, regardless of any statement to the contrary in such form(s) or parts thereof.

2. Safety Information

All chemicals, equipment and materials proposed and/or used in the performance of this PO shall conform to the requirements of the Occupational Safety and Health Act of 1970. Vendor shall furnish all Material Safety Data Sheets (MSDS) for any regulated chemicals, equipment or hazardous materials at the time of delivery.

3. Changes

Vendor shall furnish products and/or services strictly in accordance with the specifications and price set forth for each item. This PO shall not be modified, superseded or otherwise altered, except in writing signed by purchasing agent and accepted by vendor. Each shipment received or service performed shall comply with the terms of this PO, notwithstanding invoice terms or acts of vendor to the contrary, unless this PO has been modified, superseded or otherwise altered in accordance with this section.

4. Delivery

Unless otherwise specified in the solicitation or this PO, delivery shall be FOB destination. The University is relying on the promised delivery date, installation, and/or service performance set forth in vendor's bid or proposal as material and basic to the University's acceptance. If vendor fails to deliver or perform as and when promised, the University in its sole discretion, may cancel its order, or any part thereof, without prejudice to its other rights, return all or part of any shipment so made, and charge vendor with any loss or expense sustained as a result of such failure to deliver or perform as promised. Time is of the essence.

5. Intellectual Property

Any software, research, reports, studies, data, photographs, negatives or other documents, drawings or materials (collectively "materials") delivered by vendor in performance of its obligations under this PO shall be the exclusive property of the University. Ownership rights shall include, but not be limited to, the right to copy, publish, display, transfer, prepare derivative works, or otherwise use the materials. Vendor shall comply with all applicable laws, regulations and University policies related to confidential information and all confidentiality and non-disclosure agreements, security controls, and reporting requirements.

6. Quality

The University shall be the sole judge in determining "equals" with regard to quality, price and performance. All products delivered shall be newly manufactured and the current model, unless otherwise specified.

7. Warranties

All provisions and remedies of the Colorado Uniform Commercial Code, CRS, Title 4 ("CUCC"), relating to implied and/or express warranties are incorporated herein, in addition to any warranties contained in this PO or the specifications.

8. Inspections and Acceptance

Final acceptance is contingent upon completion of all applicable inspection procedures. If products or services fail to meet any inspection requirements, the University may exercise all of its rights, including those provided in the CUCC. The University shall have the right to inspect services provided under this PO at all reasonable times and places. "Services" as used in this section includes services performed or tangible material produced or delivered in the performance of services. If any of the services do not conform to PO requirements, the University may require vendor to perform the services again in conformity with PO requirements, without additional payment. When defects in the quality or quantity of service cannot be corrected by re-performance, the University may (a) require vendor to take necessary action to ensure that future performance conforms to PO requirements and (b) equitably reduce the payment due vendor to reflect the reduced value of the services performed. These remedies do not limit the remedies otherwise available in this PO, at law, or in equity.

9. Cash Discount

The cash discount period will start from the later of the date of receipt of acceptable invoice, or from date of receipt of acceptable products/services at the specified destination by an authorized University representative.

10. Taxes

The University is exempt from all federal excise taxes under Chapter 32 of the Internal Revenue Code and from all State and local government sales and use taxes [CRS, Title 39, Article 26, Parts I and II].

11. Payment

The University shall pay vendor for all amounts due within 30 days after receipt of products or services and a correct notice of amount due. Interest on the unpaid balance shall begin to accrue on the 46th day at the applicable statutory rate. Interest shall not accrue if a good faith dispute exists as to the University's obligation to pay all or a portion of the amount due. Vendor shall invoice the University separately for interest on delinquent amounts due, referencing the delinquent payment, number of day's interest to be paid, and applicable interest rate.

12. Vendor Offset

[Not Applicable to Inter-governmental POs] The University may withhold payment as required under the State vendor offset intercept system for debts owed for: (a) unpaid child support debts or arrearages; (b) unpaid balances of tax, accrued interest, or other charges specified in CRS § 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 University.

13. Assignment and Successors

Vendor shall not assign rights or delegate duties under this PO, or subcontract any part of the performance required under this PO, without the express, written consent of the University. This PO shall inure to the benefit of and be binding upon vendor and the University and their respective successors and assigns. Assignment of accounts receivable may be made only upon written notice furnished to the University.

14. Indemnification

If any article sold or delivered under this PO is covered by a patent, copyright, trademark, or application therefore, vendor shall indemnify and hold harmless the University from any and all loss, liability, cost, expenses and legal fees incurred on account of any claims, legal actions or judgments arising out of manufacture, sale or use of such article in violation or infringement of rights under such patent, copyright, trademark or application. If this PO is for services, vendor shall indemnify, save, and hold harmless the University, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related expenses, incurred as a result of any act or omission by vendor, or its employees, agents, subcontractors or assignees, arising out of or in connection with performance of services under this PO.

15. Independent Contractor

Vendor shall perform its duties hereunder as an independent contractor and not as an employee. Neither vendor nor any agent or employee of vendor shall be deemed to be an agent or employee of the University. Vendor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the University and the University shall not pay for or otherwise provide such coverage for vendor or any of its agents or employees. Unemployment insurance benefits will be available to vendor and its employees and agents only if coverage is made available by vendor or a third party. Vendor shall pay when due all applicable employment, income, and local head taxes incurred pursuant to this PO. Vendor shall not have authorization, express or implied, to bind the University to any agreement, liability or understanding. Vendor 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 University, and (c) be solely responsible for its acts and those of its employees and agents.

16. Communication

All communication concerning administration of this PO, prepared by vendor for the University's use, shall be furnished solely to purchasing agent.

17. Compliance

Vendor 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.

18. Insurance

Vendor shall obtain, and maintain, at all times during the term of this PO, insurance as specified in the solicitation, and provide proof of such coverage as requested by the University's purchasing agent.

19. Termination Prior to Shipment

If vendor has not accepted this PO in writing, the University may cancel this PO by written or oral notice to vendor prior to shipment of goods or commencement of services.

20. Termination for Cause

(a) If vendor refuses or fails to timely and properly perform any of its obligations under this PO with such diligence as will ensure its completion within the time specified herein, the University may notify vendor in writing of non-performance and, if not corrected by vendor within the time specified in the notice, terminate vendor's right to proceed with the PO or such part thereof as to which there has been delay or a failure. Vendor shall continue performance of this PO to the extent not terminated and be liable for excess costs incurred by the University in procuring similar goods or services elsewhere. Payment for completed services performed and accepted shall be at the price set forth in this PO. (b) The University may withhold amounts due to vendor as the University deems necessary to reimburse the University for excess costs incurred in curing, completing or procuring similar goods and services. (c) If after rejection, revocation, or other termination of vendor's right to proceed under the CUCC or this clause, the University determines for any reason that vendor was not in default or the delay was excusable, the rights and obligations of the University and vendor shall be the same as if the notice of termination had been issued pursuant to termination under § 21.

21. Termination in Public Interest

The University is entering into this PO for the purpose of carrying out the public policy of the State and University, as determined by the Governor, General Assembly and Courts of the State of Colorado and the University of Colorado Board of Regents. If this PO ceases to further the public policy of the State or University, the University, in its sole discretion, may terminate this PO in whole or in part and such termination shall not be deemed to be a breach of the University's obligations hereunder. This section shall not apply to a termination for vendor's breach, which shall be governed by Item 20 (Termination for Cause). The University shall give written notice of termination to vendor specifying the part of the PO terminated and when termination becomes effective. Upon receipt of notice of termination, vendor shall not incur further obligations except as necessary to mitigate costs of performance. For services or specially manufactured goods, the University shall pay (a) reasonable settlement expenses, (b) the PO price or rate for supplies and services delivered and accepted, (c) reasonable costs of performance on unaccepted supplies and services, and (d) a reasonable profit for the unaccepted work. For existing goods, the University shall pay (e) reasonable settlement expenses, (f) the PO price for goods delivered and accepted, (g) reasonable costs incurred in preparation for delivery of the undelivered goods, and (h) a reasonable profit for the preparatory work. The University's termination liability under this section shall not exceed the total PO price plus a reasonable cost for settlement expenses. Vendor shall submit a termination proposal and reasonable supporting documentation, and cost and pricing data as required by CRS § 24-106-101, upon request of the University.

22. PO Approval

This PO shall not be valid unless it is executed by purchasing agent. The University shall not be responsible or liable for products or services delivered or performed prior to proper execution hereof.

23. Fund Availability

Financial obligations of the University payable after the current fiscal year are contingent upon funds for that purpose being budgeted and otherwise made available. If this PO is funded in whole or in part with federal funds, this PO is subject to and contingent upon the continuing availability of federal funds for the purposes hereof. The University represents that it has set aside sufficient funds to make payment for goods delivered in a single installment, in accordance with the terms of this PO.

24. Choice of Law

Colorado laws, rules and regulations shall be applied in the interpretation, execution, and enforcement of this PO. The CUCC shall govern this PO in the case of goods unless otherwise agreed in this PO. Any provision included or incorporated herein by reference which conflicts with such laws, rules, and regulations is null and void. Any provision incorporated herein by reference which purports to negate this or any other provision in this PO in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Unless otherwise specified in the solicitation or this PO, venue for any judicial or administrative action arising out of or in connection with this PO shall be in Denver, Colorado. Vendor shall exhaust administrative remedies in CRS § 24-109-106, prior to commencing any judicial action against the University.

25. Sensitive Data

To the extent vendors comes in contact with individual personal data owned or otherwise held by the University **including employee, student, or medical information or records** as a result of performing under this PO ("Data"), vendor agrees to use such Data, if at all, only to the extent required to perform its obligations under this PO, and to abide by the requirements of any federal, state and local laws that address the protection and/or use of such Data.

26. Background Checks

Contractor acknowledges that Contractor's activities may involve heightened risks as a result of access or exposure by Contractor's employees or agents to one or more Sensitive Environments. Contractor expressly acknowledges that Contractor shall take all commercially reasonable measures to mitigate any such risks, which measures may include but are not limited to conducting criminal history checks, financial background checks, or reference checks on employees or agents who will have access to one or more Sensitive Environments. For purposes of this provision, Sensitive Environment means any situation where Contractor's employees or agents: (a) are engaged in supervision of or exposure to minors or other vulnerable populations; (b) have access to confidential information, which includes any information protected or restricted by law or University policy or that is expressly identified by the University as confidential information; (c) have access to the University's information technology systems; (d) are engaged in activities that involve unique or specialized risks.

27. Public Contracts for Service

[Not Applicable to offer, issuance, or sale of securities, investment advisory services, fund management services, sponsored projects, intergovernmental POs, or information technology services or products and services] Vendor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this PO and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this PO, through participation in the E-Verify Program or the Department program established pursuant to CRS § 8-17.5-102(5)(c), Vendor shall not knowingly employ or contract with an illegal alien to perform work under this PO or enter into a contract or PO with a subcontractor that fails to certify to vendor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this PO. Vendor shall (a) not use E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants during performance of this PO, (b) notify subcontractor and the University within three days if vendor has actual knowledge that subcontractor is employing or contracting with an illegal alien for work under this PO, (c) terminate the subcontract if subcontractor does not stop employing or contracting with the illegal alien within three days of receiving notice, and (d) comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS § 8-17.5-102(5), by the Colorado Department of Labor and Employment. If vendor participates in the Department program, vendor shall deliver to the University a written, notarized affirmation that vendor has examined the legal work status of such employee, and shall comply with all of the other requirements of the Department program. If vendor fails to comply with any requirement of this provision or CRS § 8-17.5-101

et seq., the University may terminate this PO for breach and, if so terminated, vendor shall be liable for damages.

28. Public Contracts with Natural Persons

Vendor, 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 CRS § 24-76.5-101 et seq., and (c) has produced a form of identification required by CRS § 24-76.5-103 prior to the date vendor delivers goods or begins performing services under terms of the PO.

29. Governmental Immunity.

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, of the Colorado Governmental Immunity Act, CRS §24-10-101 et seq., or the Federal Tort Claims Act, 28 U.S.C. §§1346(b) and 2671 et seq., as applicable now or hereafter amended.

30. Employee Financial Interest/Conflict Of Interest. CRS §§24-18-201 and 24-50-507.

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

31. Federal Flowdown Provisions for Federally Funded Contracts

The University of Colorado has entered into an Agreement with either the U.S. Government, or another entity who has itself entered into an Agreement with the U.S. Government. That Agreement requires that certain federal contract provisions be made a part of any subsequent Purchase Order issued by the University of Colorado related to furthering the performance or deliverables required under that Agreement.

Where necessary to make the context of these provisions applicable to this order, the term "contractor" shall mean "seller," the term "contract" shall mean "this order," and the terms "Government," "contracting officer," and equivalent phrases shall mean "the University." Seller hereby agrees to flowdown the applicable clauses to its lower-tier subcontractors, and agrees that the clauses are in effect between it and the University, as applicable.

The following provisions are from the Federal Acquisition Regulations (FAR), which are [available online](#). (NOTE: These FAR clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

| FAR Citation | Title |
|--------------|---|
| 52.203-6 | Restrictions on Subcontractor Sales to the Government (\$100,000) |
| 52.203-7 | Anti-Kickback Procedures except Subparagraph (c)(1) (\$100,000) |
| 52.203-12 | Limitation on Payments to Influence Certain Federal Transactions (\$100,000) |
| 52.204-2 | Security Requirements (applicable if access to classified material is involved) (\$0) |
| 52.215-2 | Audit and Records -- Negotiation (\$100,000) |

| FAR Citation | Title |
|---------------------|---|
| 52.215-10 | Price Reduction for Defective Cost or Pricing Data (\$550,000) |
| 52.215-12 | Subcontractor Cost or Pricing Data (\$550,000) |
| 52.215-13 | Subcontractor Cost or Pricing Data -- Modifications (\$550,000) |
| 52.215-14 | Integrity of Unit Prices (\$100,000) |
| 52.219-8 | Utilization of Small Business Concerns (\$100,000) |
| 52.219-9 | Small Business and Small Disadvantaged Business Subcontracting Plans (Large Businesses) (\$650,000) |
| 52.219-16 | Liquidated Damages -- Subcontracting Plan (\$650,000) |
| 52.222-4 | Contract Work Hours and Safety Standards Act -- Overtime Compensation (\$100,000) |
| 52.222-21 | Prohibition of Segregated Facilities (\$10,000) |
| 52.222-26 | Equal Opportunity (\$10,000) |
| 52.222-35 | Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (\$25,000) |
| 52.222-36 | Affirmative Action for Workers with Disabilities (\$10,000) |
| 52.222-37 | Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (\$25,000) |
| 52.223-2 | Clean Air and Water (applicable on orders issued under contracts solicited and issued prior to February 25, 2000) |
| 52.223-6 | Drug-Free Workplace (for individuals, \$0; for non-individuals, \$100,000) |
| 52.223-7 | Notice of Radioactive Materials (applicable if radioactive materials are involved) (\$0) |
| 52.223-14 | Toxic Chemical Release Reporting (\$100,000; N/A for acquisition of commercial items) |
| 52.224-2 | Privacy Act (applicable if vendor is supplying design, development, or operation of a system of records on individuals) (\$0) |
| 52.225-3 | Buy American Act - Free Trade Agreements - Israeli Trade Act (\$0) |
| 52.225-13 | Restrictions on Certain Foreign Purchases (\$2,500) |
| 52.226-1 | Utilization of Indian Organizations and Indian-Owned Economic Enterprises (\$0) |
| 52.227-1 | Authorization and Consent (applicable if in excess of the simplified acquisition threshold) |
| 52.227-2 | Notice and Assistance Regarding Patent and Copyright Infringement (applicable if in excess of the simplified acquisition threshold) |
| 52.227-10 | Filing of Patent Applications -- Classified Subject Matter (\$0) |
| 52.227-11 | Patent Rights -- Retention by the Contractor (Short Form) (\$0) |
| 52.227-14 | Rights in Data - General (\$0) |
| 52.230-5 | Cost Accounting Standards -- Educational Institutions (\$500,000) |

| FAR Citation | Title |
|--------------|--|
| 52.230-6 | Administration of Cost Accounting Standards (\$500,000) |
| 52.244-6 | Subcontract for Commercial Items and Commercial Components (\$0; non-commercial supplies or services) |
| 52.245-5 | Government Property (Cost Reimbursement, Time-and-Materials, or Labor-Hour Contracts) (paragraph "g" Limited risk of loss is not applicable) (\$0) |
| 52.247-63 | Preference for U.S.-Flag Air Carriers (\$100,000) |
| 52.247-64 | Preference for Privately Owned U.S.-Flag Commercial Vessels (\$0) |

In addition, if federal funds through a contract from an agency of the Department of Defense are involved, the following Department of Defense Federal Acquisition Regulations (DFAR) clauses apply. DFAR clauses are [available online](#).

(NOTE: These DFAR clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

| DFAR Citation | Title |
|---------------|--|
| 252.203-7001 | Prohibition on Persons Convicted of fraud or Other Defense-Contract Related Felonies (not applicable for commercial items) (applicable if at or in excess of the simplified acquisition threshold) |
| 252.209-7000 | Acquisition from Subcontractors Subject to On-Site Inspection Under the Intermediate Range Nuclear Forces (INF) Treaty (applicable if at or in excess of The simplified acquisition threshold) (not applicable for commercial items) |
| 252.227-7013 | Rights in Technical Data -- Noncommercial Items (\$0) |
| 252.227-7014 | Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation |
| 252.227-7034 | Patents - Subcontracts (\$0, for experimental, developmental, or research work to be performed by other than a small business firm or non-profit organization) |
| 252.231-7000 | Supplemental Cost Principles (\$0) |

In addition, if federal funds through a contract from the National Aeronautic and Space Administration (NASA) are involved, the following NASA Supplemental Federal Acquisition Regulations (FAR) clauses apply. [NASA clauses are available online](#).

(NOTE: These NASA clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

| NASA Citation | Title |
|---------------|---|
| 1852.208-81 | Restrictions on Printing and Duplicating, Oct 2001 (\$0) |
| 1852.219-74 | Use of Rural Area Small Businesses, Sept 1990 (\$0) |
| 1852.219-75 | Small Business Subcontracting Reporting, May 1999 (\$500,000) |
| 1852.223-70 | Safety and Health, April 2002 ((1) Amount to \$1,000,000 or more (unless Contracting Officer makes a written determination, after consultation with installation safety and health representatives, that this is not required); (2) |

| NASA Citation | Title |
|---------------|---|
| | Require construction, repair, or alteration in excess of \$25,000; or (3) Regardless of dollar amount, involve the use of hazardous materials or operations.) |
| 1852.227-70 | New Technology, May 2002 (\$0, for the performance of experimental, developmental, or research work) |
| 1852.227-71 | Designation of New Technology Representative and Patent Representative, July 1997 (\$0) |
| 1852.244-70 | Geographic Participation in the Aerospace Program, Apr 1985 (\$100,000) |

30. Federal Flowdown Provisions for Federally Funded Grants

The University of Colorado has entered into an Agreement with either the U.S. Government, or another entity who has itself entered into an Agreement with the U.S. Government. That Agreement requires that certain federal grant provisions be made a part of any subsequent Purchase Order issued by the University of Colorado related to furthering the performance or deliverables required under that Agreement.

Where necessary to make the context of these provisions applicable to this order, the term "contractor" shall mean "seller," the term "contract" shall mean "this order," and the terms "Government," "contracting officer," and equivalent phrases shall mean "the University." Seller hereby agrees to flowdown the applicable clauses to its lower-tier subcontractors, and agrees that the clauses are in effect between it and the University, as applicable.

Performance by the seller under this Purchase Order constitutes certification that the seller is presently in compliance with, and will continue to comply with, the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) and Executive Orders Numbers 12549 and 12689, all as described below.

Equal Employment Opportunity

All contracts shall contain a provision requiring compliance with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c)

All contracts and subgrants in excess of \$2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.

Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7)

When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than \$2000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction").

Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to the Federal awarding agency.

Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333)

Where applicable, all contracts awarded by recipients in excess of \$2000 for construction contracts and in excess of \$2500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Rights to Inventions Made Under a Contract or Agreement

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended

Contracts and subgrants of amounts in excess of \$100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

Debarment and Suspension (E.O.s 12549 and 12689)

No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and

12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contracts declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

Access to Records (OMB Circular A-110, .48(d))

All negotiated contracts (except those for less than the small purchase threshold) awarded by recipients shall include a provision to the effect that the recipient, the Federal awarding agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examination, excerpts and transcriptions.

31. Security Badging

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

SECTION 00 73 02 – SUPPLEMENTARY GENERAL CONDITIONS (CM/GC)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.03 DEFINITIONS (Not Applicable)

1.04 SUPPLEMENTARY GENERAL CONDITIONS

- A. The University of Colorado Denver | Anschutz Medical Campus Supplementary General Conditions apply to Construction Manager/General Contractor Agreement (CM/GC) (SC-6.4).
- B. A copy of the above noted document is attached to the end of this section.

1.05 PROCEDURE (Not applicable)

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 73 02

**CONSTRUCTION MANAGER/GENERAL CONTRACTOR AGREEMENT
CMGC FORMAT
(STATE FORM SC-6.4)**

**UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
CONSTRUCTION MANAGER/GENERAL CONTRACTOR AGREEMENT
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 (3.0%) of the initial Guaranteed Maximum Price.

The terms University, University of Colorado, University of Colorado Denver, 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 of 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 7-21-11)

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 of Colorado Denver | Anschutz Medical Campus Policy on Sexual Harassment and also require all employees, and employees of all subcontractors of any kind, working on this project to adhere to this Policy.
- 2) Statement of Policy: It is the policy of the University of Colorado Denver | Anschutz Medical Campus 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 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 Contractor to remove from university property any individual or individuals who violate the policy prohibiting sexual harassment.

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.

SECTION 00 73 46 - WAGE DETERMINATION SCHEDULE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY (Not Applicable)

1.03 DEFINITIONS (Not Applicable)

1.04 PROCEDURE

A. DAVIS-BACON WAGE DETERMINATIONS

1. Coordinate with the University Project Manager to determine if applicable.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 73 46

SECTION 00 73 80 – SALES TAX

PART 1 - GENERAL

1.01 RELATED DOCUMENTS (Not Applicable)

1.02 SUMMARY

- A. This Section includes administrative documents related to sales tax exemption for construction material purchases.

1.03 DEFINITIONS (Not Applicable)

1.04 DOCUMENTS

- A. Tax Exempt Status of University of Colorado, dated August 25, 2017
- B. City of Aurora Sales and Use Tax Exemption, dated March 12, 2001
- C. City of County of Denver Tax Confirming Exemption Status, dated November 5, 1999
- D. State of Colorado Letter Confirming Adams County, RTD, Stadium, and Cultural Tax Exemptions, dated April 7, 2006
- E. Colorado Department of Revenue - Contractor Application for Exemption Certification
- F. Copies of the above noted documents are attached to the end of this section.

1.05 PROCEDURE

- A. General Contractor must apply for a sales tax exemption certificate through the Colorado Department of Revenue using the “Contractor Application For Exemption Certificate.”
 - 1. Form can be downloaded from the Colorado Department of Revenue website:
<https://www.colorado.gov/pacific/sites/default/files/DR0172.pdf>

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 00 73 80

CERTIFICATE OF EXEMPTION FOR STATE SALES/USE TAX ONLY

THIS LICENSE IS
NOT TRANSFERABLE

| USE ACCOUNT NUMBER for all references | LIABILITY INFORMATION | | ISSUE DATE |
|--|-----------------------|--------|-------------|
| | | | |
| 09802565 | G | 010180 | Aug 25 2017 |




STATE OF COLORADO/ OFFICE OF STATE
CONTROLLER
ATTN: OFFICE OF UNIVERSITY CONTROLLER
1800 N GRANT ST STE 600
DENVER CO 80203-1148

Executive Director
Department of Revenue



Sales Tax Exemption Certificate Multi - Jurisdiction

See page 2 for instructions

| | | | | |
|---|--|---|--|---------------------------|
| Last Name or Business Name | | First Name | | Middle Initial |
| Address | | | | |
| City | | State | ZIP | |
| I Certify That | | | | |
| Name of Firm (Buyer) The Regents of University of Colorado | | | | |
| Address 1800 Grant Street, Suite 600 | | | | |
| City Denver | | State CO | ZIP 80203 | |
| Qualifies As (Check each applicable item) | | | | |
| <input type="checkbox"/> Wholesaler <input type="checkbox"/> Retailer <input type="checkbox"/> Manufacturer <input type="checkbox"/> Charitable or Religious | | | | |
| <input checked="" type="checkbox"/> Political Subdivision or Governmental Agency <input type="checkbox"/> Other (Specify) | | | | |
| If Other, specify here | | | | |
| 1) and is registered with the below listed states and cities within which your firm would deliver purchases to us which are for resale or lease by us in the normal course of our business which is Institution of Higher Education or | | | | |
| 2) that such purchases are exempt from payment of sales or use tax in such states and cities because our buyer is: | | | | |
| <input checked="" type="checkbox"/> Political Subdivision or Governmental Agency <input type="checkbox"/> Charitable or Religious <input type="checkbox"/> Otherwise Exempt By Statute (Specify) | | | | |
| If Otherwise Exempt By Statute, specify here | | | | |
| City or State City of Aurora | State Registration or ID Number 98-00799-0000 | City or State Colorado (Boulder campus) | State Registration or ID Number 98-02915-0000 | |
| City or State Colorado | State Registration or ID Number 98-02565-0000 | City or State Texas | State Registration or ID Number 32002730391 | |
| City or State | State Registration or ID Number | City or State | State Registration or ID Number | |
| If the list of states and cities is more than six(6), attach a list to this certificate. I further certify that if any property so purchased tax free is used or consumed by the firm as to make it subject to a Sale or Use Tax we will pay the tax due direct to proper taxing authority when state law so provides or inform the seller for added tax billing. This certificate shall be part of each order which we may hereafter give to you, unless otherwise specified, and shall be called until canceled by us in writing or revoked by the city or state. | | | | |
| General Description of products to be purchased from seller | | | | |
| Under penalties of perjury, I swear or affirm that the information on this form is true and correct as to every material matter. | | | | |
| Authorized Signature (owner, Partner or Corporate Officer)  | | Title Associate Vice President/University Controller | | Date (MM/DD/YY) 7/4/18 |



FINANCE DEPARTMENT

Administration
1470 South Havana Street
Aurora, Colorado 80012
303-739-7055
FAX: 303-739-7068

March 12, 2001

Wayne F. Henderson
Vice Chancellor for Administration and Finance
University of Colorado Health Sciences Center
Fitzsimons, Building 500, Room C1003
P.O. Box 6508
Aurora, Colorado 80045-0508

RE: Letter of Commitment

Dear Mr. Henderson:

I am in receipt of your letter dated February 27, 2001, requesting that I issue a letter of commitment to the University of Colorado Health Sciences Center ("UCHSC") pursuant to *City Code Section 130-63(c)*. It is my understanding that UCHSC is part and parcel of the University of Colorado, a public institution of higher education of the State of Colorado. *§ 23-20-101, et seq., C.R.S.* You have asked for some assurance that UCHSC is exempt from the payment of City sales and use tax, as well as the employer portion of the City occupational privilege tax.

City Code Section 130-157(1) exempts all sales of tangible personal property and taxable services to the various political subdivisions of this state from imposition of City sales tax. Identical exemptions exist in both the City Use Tax ordinance (*City Code § 130-198(5)*) and the City Employer Occupational Privilege Tax ordinance (*City Code § 130-405(1)*). Accordingly, UCHSC falls squarely within each of these three exemptions.

It should be noted, however, that these exemptions do not extend to the collection of City tax. For instance, UCHSC must collect, report, and remit City sales tax on any retail sale of tangible personal property or taxable services it makes to a non-exempt third party. *City Code § 130-160*. Likewise, UCHSC

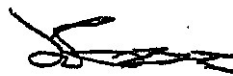
Wayne F. Henderson
March 12, 2001
Page Two

must also collect, report, and remit the employee portion of the City occupational privilege tax for each person it employs within the City for any period of time within a calendar month sufficient to receive no less than \$250.00 as compensation for such employment. *City Code § 130-464.*

With respect to the deposit and ultimate payment of City use tax on construction materials, it is the longstanding policy of the City that the party who contracts for and directs and controls the construction of building improvements is liable for such tax. *See Fifteenth Street Investment Co. v. People, 102 Colo. 571, 81 P.2d 764 (1938).* Under the circumstances described in your request, it is UCHSC, and not its contractors, upon whom sole liability for the payment of City use tax would rest. Because UCHSC is an exempt entity, no use tax is due and owing on the purchase and subsequent use of construction materials for the development of UCHSC's property at the Fitzsimons site.

With regard to your additional requests, the City has no objection if UCHSC's contractors wish to use this letter to present to City building officials and third-party retailers as evidence of UCHSC's tax exemption. As for any future revocation of this letter, unless the status of UCHSC as a political subdivision changes, the various City tax exemptions which UCHSC is entitled to claim cannot be lawfully repealed without the prior approval of the City's voters. *See Colo. Const. Art. X, § 20(4)(a).* Therefore, the City believes UCHSC will be adequately informed in the event that the City decides to seek approval for any change in its tax laws that would impact UCHSC's tax-exempt status.

Very truly yours,



John Gross
Director of Finance



Department of Finance
Treasury Division
Tax Compliance – Audit Unit

201 W Colfax Ave #1009
Denver, CO 80202
fax: 720- 913-9455
www.denvergov.org/treasury

February 19, 2014

University of Colorado
Procurement Service Center
1800 Grant Street, Suite 500
Denver, CO 80203

Ladies/Gentlemen:

The above named entity is exempt from the Denver sales tax per Sec. 53-26(1) of the City Retail Sales Tax Article:

Sec. 53-26 (1) Exemptions

There shall be exempt from taxation under the provisions of this Article the following: (1) All sales to the United States Government, to the State, its departments and institutions and the political subdivisions thereof, only when purchased in their governmental capacities.

To qualify for the exemption, purchases must be billed direct to the organization, and payment made from funds of the organization.

The exemption does not extend to construction contractors who may perform contracts for you; they are the consumer of all property purchased and used in the performance or contracts for others. Nor does the exemption apply to purchases by employees or members for their own personal use.

You may reproduce this letter to furnish to suppliers as needed.

Sincerely,

Donald Korte, Audit Manager
Tax Compliance/Audit Section
720-913-9339

STATE OF COLORADO

TAXPAYER SERVICE DIVISION

Department of Revenue

1375 Sherman Street
Denver, Colorado 80261



Bill Owens
Governor

M. Michael Cooke
Executive Director

Neil Tillquist
Division Director

Michael J. Barden
University of Colorado at Denver and Health Sciences Center(UCDHSC)
Building 500, Mail Stop F418
P.O. Box 6508
Aurora CO 80045

April 7, 2006

Dear Mr. Barden:

This is in response to your letter of March 1, 2006, to Bruce Nelson of the Department of Revenue regarding sales tax exemption from county and special district sales taxes for UCDHSC construction projects at the Fitzsimons campus. Mr. Nelson has left the Department, so I am responding to your inquiry.

In regards to Adams County sales and use tax, the sales tax is collected by the Department of Revenue, not the city of Aurora. Use tax on building materials is collected by the county when issuing building permits. Under 29-2-105(d), 39-26-708(1)(a) and 39-26-708(2)(a), C.R.S., UCDHSC and its contractors and sub-contractors are exempt from county sales and use tax on construction and building materials for State/UCDHSC owned real property.

In regards to special district sales and use taxes, UCDHSC and its contractors and sub-contractors are exempt from sales and use tax pursuant to the exemptions granted in 39-26-708(1)(a) and 39-26-708(2)(a), C.R.S., for the Regional Transportation District under 32-9-119(2)(c)(II), C.R.S, for the Scientific and Cultural District under 32-13-107(2), C.R.S, and for the Metropolitan Football Stadium District under 32-15-110(2)(a), C.R.S.

Additionally, for construction projects in the City and County of Denver, UCDHSC and its contractors and sub-contractors are exempt from the aforementioned special district sales and use taxes, as well as state sales and use tax.

Should you have additional questions regarding these matters, feel free to contact me.

Respectfully,

A handwritten signature in cursive script that reads "Steve Asbell".

Steve Asbell
Taxpayer Service Policy Group
Colorado Dept of Revenue
Ph:303.866.3889 email: sasbell@spike.dor.state.co.us



Special Notice

Purpose of this application

The exemption certificate for which you are applying must be used only for the purpose of purchasing construction and building materials for the exempt project described below. This exemption does not include or apply to the purchase or rental of equipment, supplies, and materials which are purchased, rented, or consumed by the contractor and which do not become a part of the structure, highway, road, street, or other public works **owned** and **used** by the exempt organization.

Any unauthorized use of the exemption certificate will result in revocation of your exemption certificate and other penalties provided by law.

A separate certificate is required for each project.

Colorado Withholding Account Number

A Colorado Account Number (CAN) should be provided in this field. Applications that are left blank or list N/A will not be processed and will be returned.

Subsidiary:

This box is marked when a subsidiary is using the parents withholding account number (only when it does not have its own.) Provide the parents CAN.

Subcontractor:

This box is marked when a contractor does not have employees of their own and outsources their employees through a subcontractor. List the subcontractor or subcontractors name and CAN(s).

Staffing Agency:

This box is marked when a contractor does not have employees of their own and outsources their employees through a staffing agency. Provide the Staffing Agency's name and CAN.

No employees/no subcontractors:

For contractors with no employees, no subcontractors/ staffing agencies:

Write no employees in the (CAN) box and provide explanation. For example, I have no employees or subcontractors and perform all of the work myself.

Subcontractors:

Subcontractors will not be issued Certificates of Exemption by the Department of Revenue. Upon receipt of the Certificate, the prime contractor should make a copy for each subcontractor involved in the project and complete it by filling in the subcontractor's name and address and signing it. The original Certificate should always be retained by the prime contractor. Copies of all Certificates that the prime contractor issued to subcontractors should be kept at the prime contractor's place of business for a minimum of three years and be available for inspection in the event of an audit.

See FYI Sales 95 for information about qualifying affordable housing projects.

To avoid a returned application ensure you have done the following:

- ☐ Accurately completed all applicable boxes of the form.
- ☐ Provided a copy of the Contract or agreement page. The Contract or Agreement page lists the type and scope of work.
- ☐ Bid amount on Contract or Agreement page matches the amount listed on the application (to the penny).
- ☐ Contract or Agreement page contains the signatures of the contracting parties.
- ☐ The form DR0172 (application) is signed.
- ☐ The exempt organizations number was provided and is correct.



DR 0172 (05/01/18)
COLORADO DEPARTMENT OF REVENUE
Denver CO 80261 - 0009
(303) 238-SERV (7378)

Contractor Application for Exemption Certificate

This exemption does not include or apply to the purchase or rental of equipment, supplies, and materials which are purchased, rented, or consumed by the contractor and which do not become a part of the structure, highway, road, street, or other public works **owned** and **used** by the exempt organization.

Any unauthorized use of the exemption certificate will result in revocation of your exemption certificate and other penalties provided by law.
A separate certificate is required for each contract.

Send completed forms to: Colorado Department of Revenue, Denver, CO 80261-0009

Failure to accurately complete all boxes of the form or provide all supporting documentation will cause the application to be denied.

For Department Use Only. Do not write in this section.

| | |
|--------------------------------------|----------------------|
| Contractor/Account No. 89- | Period (MM/YY-MM/YY) |
|--------------------------------------|----------------------|

Must be completed by applicant

Contractor Information

| | | | | |
|---|-------------------------------------|---|--|----------------|
| Trade name/DBA | | | | |
| Owner, partner or corporate last name | | First Name | | Middle Initial |
| Mailing Address | | City | State | Zip |
| E-Mail Address | | FEIN | Bid amount for your contract (Must match to the penny) \$ | |
| Fax number | | Business Phone number | | |
| Colorado withholding tax account number (See instructions) | <input type="checkbox"/> Subsidiary | <input type="checkbox"/> Subcontractors | <input type="checkbox"/> Staffing Agency | |
| <input type="checkbox"/> No employees/subcontractors (see below) | | | | |
| No Employees/Subcontractors. (Provide explanation or attach a letter of explanation). | | | | |

Exemption Information

Copies of contract or agreement page, identifying the contracting parties, bid amount, type of work, and signatures of contracting parties **must** be attached

| | | | | |
|---|--|---|-------|--------------------------------------|
| Name of exempt organization (as show on contract) | | Exempt organization's number 98 | | |
| Address of exempt organization | | City | State | Zip |
| Principal contact at exempt organization-Last Name | | First Name | | Middle Initial |
| Housing Authority (if applicable) | | Name of Project (if applicable) | | |
| Owner of the Project (if applicable) | | | | |
| Physical location of project site (give actual address when applicable and Cities and/or County (ies) where project is located) | | | | |
| City | | State | Zip | Principal contact's telephone number |
| Scheduled construction start date (MM/DD/YY) | | Estimated completion date (MM/DD/YY) | | |
| I declare under penalty of perjury in the second degree that the statements made in this application are true and complete to the best of my knowledge. | | | | |
| Signature of the business owner, partner or corporate officer | | Title of corporate officer | | Date (MM/DD/YY) |

SECTION 22 01 00 - BASIC REQUIREMENTS FOR PLUMBING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 Specification Sections apply to the Division 22 specifications and drawings.

1.02 SUMMARY

- A. This Section specifies the basic requirements for plumbing installations and includes requirements common to more than one section of Division 22. It expands and supplements the requirements specified in sections of Division 01.
- B. The Contractor shall coordinate and co-operate with Owner at all times for all new to existing connections, system shutdowns and restart-up, flushing and filling both new and existing systems.
- C. Coordinate all services shut-down with the Owner; provide temporary services as shown on the drawings.
- D. The Contractor shall be responsible for the maintenance operation and servicing of all new plumbing systems which are to be used by the Owner during the time of any occupancy and use of any areas within the construction limitations before final completion or acceptance of the systems. A written record of maintenance, operation and servicing shall be turned over to the Owner prior to final acceptance.

1.03 DEFINITIONS

- A. Architect: Where used in this section and other Division 22 sections, Architect is defined to be the lead design consultant firm, as well as its associated consulting engineers. On projects where the lead design consultant is an engineer rather than an architect, Architect shall refer to the lead consulting engineer.

1.04 PROJECT CONDITIONS

- A. The Contractor shall make themselves familiar with the existing conditions. No additional costs to the Owner shall be accepted for additional work for these existing conditions.
- B. Field verify all existing conditions prior to submitting bids.

- C. Report any existing damaged equipment or systems to the Owner prior to any work.
- D. Protect all plumbing work against theft, injury or damage from all causes until it has been tested and accepted.
- E. Be responsible for all damage to the property of the Owner or to the work of other contractors during the construction and guarantee period. Repair or replace any part of the work which may show defect during one year from the final acceptance of all work. Provided such defect is, in the opinion of the Architect, due to imperfect material or workmanship and not due to the Owner's carelessness or improper use.

1.05 ACCESSIBILITY

- A. Install equipment and materials to provide required access for servicing and maintenance. Coordinate the final location of concealed equipment and devices requiring access with final location of required access panels and doors. Allow ample space for removal of all parts that require replacement or servicing.
- B. Extend all grease fittings to an accessible location.
- C. Furnish hinged steel access doors with concealed latch, whether shown on drawings or not, in all walls and ceilings for access to all concealed valves, shock absorbers, air vents, balancing cocks, and other operating devices requiring adjustment or servicing. Refer to Division 01 for access door specification and Division 22 for duct access door requirements.
- D. The minimum size of any access door shall not be less than the size of the equipment to be removed or 12" x 12" if used for service only.
- E. Furnish doors to trades performing work in which they are to be built, in ample time for building-in as the work progresses. Whenever possible, group valves, cocks, etc., to permit use of minimum number of access doors within a given room or space.
- F. Factory manufactured doors shall be of a type compatible with the finish in which they are to be installed. In lieu of these doors, shop fabricated access doors with DuroDyne hinges may be used.
- G. Access doors in fire-rated walls and ceilings shall have equivalent U.L. label and fire rating.

1.06 ROUGH-IN

- A. Verify final locations for rough-ins with field measurements and with the requirements of the actual equipment to be connected.
- B. Refer to equipment shop drawings and manufacturer's requirements for actual provided equipment for rough-in requirements.

1.07 REQUIREMENTS OF REGULATORY AGENCIES

- A. Refer to Division 01.
- B. Execute and inspect all work in accordance with all Underwriters, local and state codes, rules and regulations applicable to the trade affected as a minimum, but if the plans and/or specifications call for requirements that exceed these rules and regulations, the greater requirement shall be followed. Follow recommendations of NFPA, EPA, and OSHA.
- C. Comply with standards in effect at the date of these Contract Documents, except where a standard or specific date or edition is indicated.
- D. After entering into contract, Contractor will be held to complete all work necessary to meet these requirements without additional expense to the Owner.

1.08 REQUIREMENTS OF LOCAL UTILITY COMPANIES

- A. Comply with rules and regulations of local utility companies. Include in bid the cost of all valves, valve boxes, meter boxes, meters and such accessory equipment which will be required for the project.

1.09 PERMITS AND FEES

- A. Refer to Division 01.
- B. The Owner shall pay all tap, development, meter, etc., fees required for connection to municipal and public utility facilities.
- C. Contractor shall arrange for and pay for all inspections, licenses and certificates required in connection with the work.

1.10 MECHANICAL INSTALLATIONS

- A. Drawings are diagrammatic in character and do not necessarily indicate every required offset, valve, fitting, etc.
- B. Drawings and specifications are complementary. Whatever is called for in either is binding as though called for in both.
- C. Drawings shall not be scaled for rough-in measurements or used as shop drawings. Where drawings are required for these purposes or have to be made from field measurement, take the necessary measurements and prepare the drawings.
- D. Before any work is installed, determine that equipment will properly fit the space; that required piping grades can be maintained and that ductwork can be run as

contemplated without interferences between systems, with structural elements or with the work of other trades.

- E. Coordinate the installation of mechanical materials and equipment above and below ceilings with suspension system, light fixtures, and other building components.
 - 1. Coordinate ceiling cavity space carefully with all trades. In the event of conflict, install mechanical and electric systems within the cavity space allocation in the following order of priority.
 - a. Plumbing waste, vent piping and roof drain mains and leaders.
 - b. Supply, return and exhaust ductwork.
 - c. Fire sprinkler mains and leaders.
 - d. Electrical conduit.
 - e. Domestic hot and cold water, medical gas piping.
 - f. Control wiring.
 - g. Fire sprinkler branch piping and sprinkler run-outs.
- F. Verify all dimensions by field measurements.
- G. Arrange for chases, slots, and openings in other building components to allow for mechanical installations.
- H. Coordinate the installation of required supporting devices and sleeves to be set in poured in place concrete and other structural components, as they are constructed.
- I. Sequence, coordinate, and integrate installations of plumbing materials and equipment for efficient flow of the work. Give particular attention to large equipment requiring positioning prior to closing-in the building.
- J. Coordinate the cutting and patching of building components to accommodate the installation of mechanical equipment and materials.
- K. Where mounting heights are not detailed or dimensioned, install mechanical services and overhead equipment to provide the maximum headroom possible.
- L. Install plumbing equipment to facilitate maintenance and repair or replacement of equipment components. As much as practical, connect equipment for ease of disconnecting, with minimum of interference with other installations.
- M. Coordinate connection of plumbing systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies. Provide required connection for each service.
- N. The Contractor shall provide all labor and material necessary but not limited to the starting/stopping of all plumbing equipment, opening/closing of all valves, draining/refilling all plumbing systems and operating/verifying the operation of all

plumbing systems controls as required to accomplish all work necessary to meet construction document requirements.

1.11 EXCAVATING AND BACKFILLING

A. General:

1. Provide all necessary excavation and backfill for installation of plumbing work in accordance with Division 02 and Division 22.
2. In general, follow all regulations of OSHA as specified in Part 1926, Subpart P, "Excavations, Trenching and Shoring." Follow specifications of Division 22 as they refer specifically to the plumbing work.
3. Contractor is responsible for cleaning of area of work before and during construction.
4. The contractor shall be responsible for removal of demolished materials from the project site. The project owner shall not provide dumpsters or other equipment required for the disposal of construction wastes.
5. Prior to start of demolition or excavation, the contractor shall locate all existing underground utilities and structural elements via ground penetrating radar or other means as approved by the project owner and engineer.

B. Contact Owners of all underground utilities to have them located and marked, at least 2 business days before excavation is to begin. Also, prior to starting excavation brief employees on marking and color codes and train employees on excavation and safety procedures for natural gas lines. When excavation approaches gas lines, expose lines by carefully probing and hand digging.

C. Provide all necessary pumping, cribbing and shoring.

D. Walls of all trenches shall be a minimum of 6 inches clearance from the side of the nearest plumbing work. Install pipes with a minimum of 6 inches clearance between them when located in same trench.

E. Pipe Trenching:

1. Dig trenches to depth, width, configuration, and grade appropriate to the piping being installed. Dig trenches to 6" below the level of the bottom of the pipe to be installed. Install 6" bed of pea gravel, mechanically tamp to provide a firm bed for piping, true to line and grade without irregularity. Provide depressions only at hubs, couplings, flanges, or other normal pipe protrusions.

F. Backfilling shall not be started until all work has been inspected, tested and accepted. All backfill material shall be reviewed by the soils engineer. In no case shall lumber, metal or other debris be buried in with backfill.

G. Trench Backfill:

1. Backfill to 12 inches above top of piping with pea gravel or squeegee, the same as used for piping bed, compact properly.
2. Continue backfill to finish grade, using friable material free of rock and other debris. Install in 6 inch layers, each properly moistened and mechanically compacted prior to installation of ensuing layer. Compaction by hydraulic jetting is not permissible.

H. After backfilling and compacting, any settling shall be refilled, tamped, and refinished at this contractor's expense.

I. This contractor shall repair and pay for any damage to finished surfaces.

J. Complete the backfilling near manholes using pea gravel or squeegee, installing it in 6 inch lifts and mechanically tamping to achieve 95% compaction.

K. Use suitable excavated material to complete the backfill, installed in 6 inch lifts and mechanically compacted to seal against water infiltration. Compact to 95% for the upper 30 inches below paving and slabs and 90% elsewhere.

1.12 CUTTING AND PATCHING

A. This Article specifies the cutting and patching of plumbing equipment, components, and materials to include removal and legal disposal of selected materials, components, and equipment.

B. Refer to Division 01.

C. Do not endanger or damage installed work through procedures and processes of cutting and patching.

D. Arrange for repairs required to restore other work, because of damage caused as a result of mechanical installations.

E. No additional compensation will be authorized for cutting and patching work that is necessitated by ill-timed, defective, or non-conforming installations.

F. Perform cutting, fitting, and patching of mechanical equipment and materials required to:

1. Uncover work to provide for installation of ill-timed work;
2. Remove and replace defective work;
3. Remove and replace work not conforming to requirements of the Contract Documents;
4. Remove samples of installed work as specified for testing;
5. Install equipment and materials in existing structures;

6. Upon written instructions from the Architect, uncover and restore work to provide for Architect observation of concealed work.
- G. Cut, remove and legally dispose of selected mechanical equipment, components, and materials as indicated, including, but not limited to removal of piping, plumbing fixtures and trim, and other plumbing items made obsolete by the new work.
- H. Protect the structure, furnishings, finishes, and adjacent materials not indicated or scheduled to be removed.
- I. Provide and maintain an approved type of temporary partitions or dust barriers adequate to prevent the spread of dust and dirt to adjacent areas.
- J. Locate identify, and protect mechanical and electrical services passing through remodeling or demolition area and serving other areas required to be maintained operational. When existing services, that serve active occupied areas of the facility, must be interrupted, notify the Owner at least 72 hours prior to interruption. If service will be interrupted for more than 1 hour, provide temporary utilities to maintain service to the active occupied areas at the facility.

1.13 TEMPORARY FACILITIES

- A. Light, Heat, Power, Etc.
 1. Responsibility for providing temporary electricity, heat and other facilities shall be as specified in Division 01.
- B. Use of Permanent Building Equipment for Temporary Heating or Cooling:
 1. Permanent building equipment shall not be used without written permission from the Owner. If this equipment is used for temporary heating or cooling, it shall be adequately maintained per manufacturer's instructions and protected with filters, strainers, controls, reliefs, etc. The guarantee period shall not start until the equipment is turned over to the Owner for his use.

1.14 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Materials and equipment of equivalent quality may be substituted for those scheduled or identified by name on the drawings if so reviewed by the Architect prior to bidding. This may be done by submitting to the Architect at least seven (7) working days prior to the bid date a letter in triplicate requesting prior review. This submittal shall include all data necessary for complete evaluation of the substitution.

1.15 PLUMBING SUBMITTALS

- A. The manufacturer's material or equipment listed in the schedule or identified by name on the drawings are the types to be provided for the establishment of size, capacity, grade and quality. If alternates are used in lieu of the scheduled names, the cost of any changes in construction required by their use shall be borne by Contractor.
- B. All equipment shall conform to the State and/or local Energy Conservation Standards.
- C. Submittal of shop drawings, product data, and samples will be accepted only when submitted by and stamped by the Contractor. Data submitted from subcontractors and material suppliers directly to the Architect will not be processed unless prior written approval is obtained by the Contractor.
- D. Before starting work, prepare and submit electronic Portable Document Format (.PDF), searchable files of all shop drawings and descriptive equipment data required for the project. Continue to revise and submit shop drawings, after each reviewer's action, until a "No Exception Taken" or "Make Corrections Noted" action is received. Submittals shall include all materials specified in the individual sections of Division 22 which follow.
- E. Identify each item with specification section and sufficient data to certify its compliance with the specifications. Unless each item is identified with specification section and sufficient data to identify its compliance with the specifications and drawings, the item will be returned "Revise and Resubmit".

1.16 PLUMBING COORDINATION DRAWINGS

- A. Prepare and submit a set of coordination drawings as necessary or required by the Architect showing major elements, components, and systems of plumbing equipment and materials in relationship with other building components. Prepare drawings to an accurate scale of 1/4"=1'-0" or larger. Indicate the locations of all equipment and materials, including clearances for installing and maintaining insulation, servicing and maintaining equipment, valve stem movement, and similar requirements. Indicate movement and positioning of large equipment into the building during construction.
- B. Prepare floor plans, reflected ceiling plans, elevations, sections, and details to conclusively coordinate and integrate all installations. Indicate locations where space is limited, and where sequencing and coordination of installations are of importance to the efficient flow of the work, including (but not necessarily limited to) the following:
 - 1. Mechanical equipment room layouts;
 - 2. Specific plumbing equipment installations, including:
 - a. Domestic Water heaters/generators;
 - b. Backflow preventer assemblies;
 - c. Domestic water pressure reducing stations;
 - d. Booster and circulating pumps;

- e. Water treatment equipment;
 - f. Sump pumps/sewage ejectors
-
- 3. Work in pipe spaces, chases, trenches, and tunnels;
 - 4. Exterior wall penetrations;
 - 5. Ceiling plenums which contain piping, ductwork, or equipment in congested arrangement;
 - 6. Installations in mechanical riser shafts, at typical sections and crucial offsets and junctures;
 - 7. Pipe expansion loops;
 - 8. Numbered valve location diagrams;
 - 9. Exterior underground lines in common excavation;
 - 10. Manifold piping for multiple equipment units;
 - 11. Smoke pipes and breechings at stacks.

1.17 PRODUCT LISTING

- A. Prepare listing of major plumbing equipment and materials for the project, within (2) two weeks of signing the Contract Documents and transmit to the Architect.
- B. Unless otherwise specified, all materials and equipment shall be of domestic (USA) manufacture and shall be of the best quality used for the purpose in commercial practice.
- C. Provide all information requested.
- D. Submit this listing as a part of the submittal requirement specified in Division 01.
- E. When two or more items of same material or equipment are required (plumbing fixtures, pumps, valves, etc.) they shall be of the same manufacturer. Product manufacturer uniformity does not apply to raw materials, bulk materials, pipe, tube, fittings (except flanged and grooved types), wire, steel bar stock, welding rods, solder, fasteners, motors for dissimilar equipment units, and similar items used in work, except as otherwise indicated.
- F. Provide products which are compatible within systems and other connected items.

1.18 NAMEPLATE DATA

- A. Provide permanent operational data nameplate on each item of plumbing equipment, indicating manufacturer, product name, model number, serial number, capacity, operating and power characteristics, labels of tested compliances, and similar essential data. Locate nameplates in an accessible location.

1.19 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Division 01.
- B. Deliver products to project properly identified with names, model numbers, types, grades, compliance labels, and similar information needed for distinct identifications; adequately packaged and protected to prevent damage during shipment, storage, and handling.
- C. Store equipment and materials at the site, unless off-site storage is authorized in writing. Protect stored equipment and materials from damage, dirt, dust and moisture.
- D. Coordinate deliveries of mechanical materials and equipment to minimize construction site congestion. Limit each shipment of materials and equipment to the items and quantities needed for the smooth and efficient flow of installations.
- E. Provide factory-applied plastic end-caps on each length of pipe and tube, except for concrete, corrugated metal, hub-and-spigot, clay pipe. Maintain end-caps through shipping, storage and handling to prevent pipe-end damage and prevent entrance of dirt, debris, and moisture.
- F. Protect stored pipes and tubes. Elevate above grade and enclose with durable, waterproof wrapping. When stored inside, do not exceed structural capacity of the floor.
- G. Protect flanges, fittings, and specialties from moisture and dirt by inside storage and enclosure, or be packaging with durable, waterproof wrapping.

1.20 RECORD DOCUMENTS

- A. Refer to Division 01. The following paragraphs supplement the requirements of Division 01.
- B. Keep a complete set of record document prints during the entire period of construction at the construction site.
- C. Mark Drawing Prints to indicate revisions to piping and ductwork, size and location both exterior and interior; including locations of coils, dampers and other control devices, filters, boxes, and similar units requiring periodic maintenance or repair; actual equipment locations, dimensioned from column lines; actual inverts and locations of underground piping; concealed equipment, dimensioned to column lines; mains and branches of piping systems, with valves and control devices located and numbered, concealed unions located, and with items requiring maintenance located (i.e., traps, strainers, expansion compensators, tanks, etc.); Change Orders; concealed control system devices. Changes to be noted on the drawings shall include final location of any piping or ductwork relocated more than 1'-0" from where shown on the drawings.

- D. At the completion of the project, mark all valve tag numbers on the drawings and turn these drawings over to the General Contractor for his submission to the Architect. This contract will not be considered completed until these record drawings have been received and reviewed by the Architect.

1.21 OPERATION AND MAINTENANCE DATA

- A. No later than four (4) weeks prior to the completion of the project, make up minimum of four sets of operating and maintenance manuals, as specified in Sections of Division 01. After operating and maintenance manuals have been reviewed by Architect, submit hard-copies of manuals and a scanned copy in searchable, portable data file (.pdf) format within (15) days of receipt of Architect's review comments.
- B. In addition to the information required above for Maintenance Date, include the following information:
 - 1. Description of plumbing equipment, function, normal operating characteristics and limitations, performance curves, engineering data and tests, and complete nomenclature and commercial numbers of all replaceable parts.
 - 2. Manufacturer's printed operating procedures to include start-up, break-in, routine and normal operating instructions; regulation, control, stopping, shut-down, and emergency instructions; and summer and winter operating instructions.
 - 3. Maintenance procedures for routine preventative maintenance and troubleshooting; disassembly, repair, and reassembly; aligning and adjusting instructions.
 - 4. Servicing instructions and lubrication charts and schedules.
 - 5. Manufacturer's service manuals for all mechanical equipment provide under this contract.
 - 6. Include the valve tag list.
 - 7. Name, Address and Telephone number of party to be contacted for 24-hour service for each item of equipment.
 - 8. Starting, stopping, lubrication, equipment identification numbers and adjustment clearly indicated for each piece of equipment.
 - 9. Complete parts list.
 - 10. Plumbing system equipment warranties.
- C. This contract will not be considered completed nor will final payment be made until all specified material is received in this operating and maintenance report and the manual is reviewed by the Architect.

1.22 DEMOLITION

- A. Refer to Division 01. The following paragraphs supplement the requirements of Division 01.
- B. During the demolition phase of this contract it is the responsibility of this Contractor to carefully remove existing equipment, piping or ductwork and related items either as

shown on the demolition drawings as being removed, or as required for the work. These items shall be tagged, protected from damage, and stored as directed by the Architect. A list of all items stored shall be turned over to the Architect. At the completion of the remodeling work or when directed by the Architect, all stored items not reused or wanted by the Owner shall be removed from the premises. Disposition of items not reused is by the direction of the Architect.

1. Return all demolished control valves and devices to the Owner.
 2. Return existing equipment to the Owner.
 3. Return existing plumbing fixtures to the Owner.
 4. Return existing medical gas outlets to the Owner.
- C. The location of existing equipment, pipes, ductwork, etc., shown on the drawings has been taken from existing drawings and is, therefore, only as accurate as that information. All existing conditions shall be verified from field measurements with necessary adjustment being made to the drawing information.
- D. If asbestos material, in any form, is discovered by this contractor in the process of his work, he shall report such occurrence to the Owner immediately. The Owner will determine the action to be taken for the asbestos removal, which is not a part of the work to be done under this Division.

1.23 WARRANTIES

- A. Refer to Division 01. Refer to individual equipment specifications for warranty requirements. In any case the entire plumbing system shall be warranted no less than one year from the time of acceptance by the Owner.
- B. Compile and assemble the warranties specified in Division 22, into the operating and maintenance manuals.
- C. Provide complete warranty information for each item to include product or equipment to include date or beginning of warranty or bond; duration of warranty or bond; and names, addresses, and telephone numbers and procedures for filing a claim and obtaining warranty services.

1.24 CLEANING

- A. Refer to Division 01.

END OF SECTION 22 01 00

SECTION 22 05 00 - COMMON WORK RESULTS FOR PLUMBING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Piping materials and installation instructions common to most piping systems.
 - 2. Transition fittings.
 - 3. Dielectric fittings.
 - 4. Sleeves.
 - 5. Escutcheons.
 - 6. Grout.
 - 7. Plumbing demolition.
 - 8. Painting and finishing.

1.03 DEFINITIONS

- A. Architect: Where used in this section and other subsequent sections, Architect is intended to refer to the lead design consulting firm, as well as its associated consulting engineers. On projects where the lead design consulting firm is an engineer, rather than an architect, Architect shall refer to the lead consulting engineer.
- B. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe chases, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.
- C. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- D. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- E. Concealed, Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in chases.
- F. The following are industry abbreviations for plastic materials:
 - 1. CPVC: Chlorinated polyvinyl chloride plastic

2. PE: Polyethylene plastic.
3. PVC: Polyvinyl chloride plastic.

G. The following are industry abbreviations for rubber materials:

1. EPDM: Ethylene-propylene-diene terpolymer rubber.
2. NBR: Acrylonitrile-butadiene rubber.

1.04 SUBMITTALS

A. Product Data: For the following:

1. Transition fittings.
2. Dielectric fittings.
3. Escutcheons.

B. Welding certificates.

1.05 QUALITY ASSURANCE

A. Steel Support Welding: Qualify processes and operators according to AWS D1.1, "Structural Welding Code--Steel."

B. Steel Pipe Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications."

1. Comply with provisions in ASME B31 Series, "Code for Pressure Piping."
2. Certify that each welder has passed AWS qualification tests for welding processes involved and that certification is current.

C. Electrical Characteristics for Plumbing Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

D. The Contractor shall be responsible for the field verification of existing conditions prior to submitting bids.

E. The Contractor shall be responsible for reporting any existing damaged equipment or systems to the Owner prior to any work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.

- B. Store plastic pipes protected from direct sunlight. Support to prevent sagging and bending.

1.07 COORDINATION

- A. Arrange for pipe spaces, chases, slots, and openings in building structure during progress of construction, to allow for plumbing installations.
- B. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.
- C. Coordinate requirements for access panels and doors for plumbing items requiring access that are concealed behind finished surfaces. Access panels and doors are specified in Division 08 Section "Access Doors and Frames."
- D. The Contractor shall coordinate with Owner for all new to existing connections, system shutdowns and restart-up.
- E. For work in existing occupied facilities, coordinate all service shut-downs with Owner. Contractor shall request service interruptions a minimum of 72 hours prior to desired time of interruption. The Owner reserves the right to reject or change requested time of service interruption.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.02 PIPE, TUBE, AND FITTINGS

- A. Refer to individual Division 22 piping Sections for pipe, tube, and fitting materials and joining methods.
- B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.03 JOINING MATERIALS

- A. Refer to individual Division 22 piping Sections for special joining materials not listed below.

2.04 SLEEVES

- A. Galvanized-Steel Sheet: 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint.
- B. Steel Pipe: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.
- C. Cast Iron: Cast or fabricated "wall pipe" equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
- D. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.
 - 1. Underdeck Clamp: Clamping ring with set screws.
- E. Molded PE: Reusable, PE, tapered-cup shaped, and smooth-outer surface with nailing flange for attaching to wooden forms.

2.05 ESCUTCHEONS

- A. Description: Manufactured wall and ceiling escutcheons and floor plates, with an ID to closely fit around pipe, tube, and insulation of insulated piping and an OD that completely covers opening.
- B. One-Piece, Cast-Brass Type: With set screw and polished chrome-plated finish.
- C. Split-Casting, Cast-Brass Type: With concealed hinge and set screw and polished chrome-plated finish.
- D. One-Piece, Floor-Plate Type: Cast-iron floor plate.
- E. Split-Casting, Floor-Plate Type: Cast brass with concealed hinge and set screw.

2.06 GROUT

- A. Description: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
 - 1. Characteristics: Post-hardening, volume-adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 - 2. Design Mix: 5000-psi, 28-day compressive strength.
 - 3. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.01 PLUMBING DEMOLITION

- A. Refer to Division 01 Section "Cutting and Patching" and Division 02 Section "Selective Structure Demolition" for general demolition requirements and procedures.
- B. Disconnect, demolish, and remove plumbing systems, equipment, and components indicated to be removed.
 - 1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - 2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - 3. Equipment to Be Removed: Disconnect and cap services and remove equipment.
- C. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, notify Architect before proceeding.

3.02 PIPING SYSTEMS - COMMON REQUIREMENTS

- A. Install piping according to the following requirements and Division 22 Sections specifying piping systems.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, equipment sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal and to coordinate with other services occupying that space.
- F. Install piping to permit valve servicing.
- G. Install piping at indicated slopes.
- H. Install piping free of sags and bends.
- I. Install fittings for changes in direction and branch connections.

- J. Install piping to allow application of insulation.
- K. Select system components with pressure rating equal to or greater than system operating pressure.
- L. Install escutcheons for penetrations of walls, ceilings, and floors according to the following:
 - 1. New Piping:
 - a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type with polished chrome-plated finish.
 - b. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast-brass or stamped steel type with polished chrome-plated finish.
 - c. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass or stamped steel type with polished chrome-plated finish.
 - d. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass or stamped steel type with polished chrome-plated finish.
 - 2. Existing Piping: Use the following:
 - a. Bare Piping at Wall and Floor Penetrations in Finished Spaces: Split-casting, cast-brass type with chrome-plated finish.
 - b. Bare Piping at Ceiling Penetrations in Finished Spaces: Split type, cast-brass or stamped steel type with polished chrome-plated finish.
 - c. Bare Piping in Unfinished Service Spaces: Split type, cast-brass or stamped steel type with polished chrome-plated finish.
- M. Sleeves are not required for core-drilled holes.
- N. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, concrete floors, and roof slabs.
 - 1. Cut sleeves to length for mounting flush with both surfaces.
 - a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring if ring is specified.
 - 2. Install sleeves in new walls and slabs as new walls and slabs are constructed.
 - 3. Install sleeves that are large enough to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
 - a. Steel Pipe Sleeves: For pipes smaller than NPS 6.
 - b. Steel Sheet Sleeves: For pipes NPS 6 and larger, penetrating gypsum-board partitions.
 - 1) Seal space outside of sleeve fittings with grout.
 - 4. Except for underground wall penetrations, seal annular space between sleeve and pipe or pipe insulation, using joint sealants appropriate for size, depth, and

location of joint. Refer to Division 07 Section "Joint Sealants" for materials and installation.

- O. Aboveground, Exterior-Wall Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Install steel pipe for sleeves smaller than 6 inches in diameter.
 - 2. Install cast-iron "wall pipes" for sleeves 6 inches and larger in diameter.
 - 3. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.
- P. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Refer to Division 07 Section "Penetration Firestopping" for materials.
- Q. Refer to equipment specifications in other Sections of these Specifications for roughing-in requirements.

3.03 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 22 Sections specifying piping systems.

3.04 PAINTING

- A. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.05 GROUTING

- A. Mix and install grout for plumbing equipment base bearing surfaces, pump and other equipment base plates, and anchors.
- B. Clean surfaces that will come into contact with grout.
- C. Provide forms as required for placement of grout.
- D. Avoid air entrapment during placement of grout.
- E. Place grout, completely filling equipment bases.
- F. Place grout on concrete bases and provide smooth bearing surface for equipment.
- G. Place grout around anchors.

H. Cure placed grout.

END OF SECTION 22 05 00

SECTION 22 14 13 - STORM DRAINAGE PIPING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following storm drainage piping inside the building:
 - 1. Pipe, tube, and fittings.
 - 2. Special pipe fittings.
 - 3. Encasement for underground metal piping.

1.03 PERFORMANCE REQUIREMENTS

- A. Components and installation shall be capable of withstanding the following minimum working-pressure, unless otherwise indicated:
 - 1. Storm Drainage Piping: 10-foot head of water.

1.04 SUBMITTALS

- A. Product Data: For pipe, tube, fittings, and couplings.
- B. Field quality-control inspection and test reports.

1.05 QUALITY ASSURANCE

- A. Piping materials shall bear label, stamp, or other markings of specified testing agency.
- B. Cast iron pipe and fittings shall be marked with the collective trademark of Cast Iron Soil Pipe Institute.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.02 PIPING MATERIALS

- A. Refer to Part 3 "Piping Applications" Article for applications of pipe, tube, fitting, and joining materials.

2.03 HUB-AND-SPIGOT, CAST-IRON SOIL PIPE AND FITTINGS

- A. Pipe and Fittings: ASTM A 74, Service class.
- B. Gaskets: ASTM C 564, rubber.

2.04 HUBLESS CAST-IRON SOIL PIPE AND FITTINGS

- A. Pipe and Fittings: ASTM A 888 or CISPI 301.
- B. Shielded Couplings: ASTM C 1277 assembly of metal shield or housing, corrosion-resistant fasteners, and rubber sleeve with integral, center pipe stop.
 - 1. Super-Heavy-Duty, Shielded, Stainless-Steel Couplings: With minimum 4 stainless steel bands and tightening devices, with stainless-steel shield, stainless-steel bands and tightening devices, and ASTM C 564, rubber sleeve.
 - a. Manufacturers:
 - 1) AB&I Foundry.
 - 2) Charlotte Pipe and Foundry.
 - 3) Tyler Pipe; Soil Pipe Div.
 - 4) Mission Rubber Company, LLC.
 - 5) Anaco Husky.
 - 2. Basis of Design: Anaco Husky SD 4000
- C. Rigid, Unshielded Couplings: ASTM C 1461, sleeve-type, reducing- or transition-type mechanical coupling molded from ASTM C 1440, TPE material with corrosion-resistant-metal tension band and tightening mechanism on each end.
 - 1. Manufacturers:

- a. ANACO.

2.05 SPECIAL PIPE FITTINGS

- A. Flexible, Nonpressure Pipe Couplings: Comply with ASTM C 1173, elastomeric, sleeve-type, reducing or transition pattern. Include shear ring, ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.
 1. Manufacturers:
 - a. Fernco, Inc.
 - b. Mission Rubber Co.
 - c. NDS, Inc.
 2. Sleeve Materials:
 - a. For Cast-Iron Soil Pipes: ASTM C 564, rubber.
 - b. For Dissimilar Pipes: ASTM D 5926, PVC or other material compatible with pipe materials being joined.
- B. Shielded Nonpressure Pipe Couplings: ASTM C 1460, elastomeric or rubber sleeve with full-length, corrosion-resistant outer shield and corrosion-resistant-metal tension band and tightening mechanism on each end.
 1. Manufacturers:
 - a. Cascade Waterworks Mfg. Co.
 - b. Mission Rubber Co.
- C. Rigid, Unshielded, Nonpressure Pipe Couplings: ASTM C 1461, sleeve-type reducing- or transition-type mechanical coupling molded from ASTM C 1440, TPE material with corrosion-resistant-metal tension band and tightening mechanism on each end.
 1. Manufacturers:
 - a. ANACO.
- D. Expansion Joints: Two or three-piece, ductile-iron assembly consisting of telescoping sleeve(s) with gaskets and restrained-type, ductile-iron, bell-and-spigot end sections complying with AWWA C110 or AWWA C153. Select and assemble components for expansion indicated. Include AWWA C111, ductile-iron glands, rubber gaskets, and steel bolts.
 1. Manufacturers:
 - a. EBAA Iron Sales, Inc.
 - b. Romac Industries, Inc.
 - c. Star Pipe Products; Star Fittings Div.

- E. Wall-Penetration Fittings: Compound, ductile-iron coupling fitting with sleeve and flexing sections for up to 20-degree deflection, gaskets, and restrained-joint ends complying with AWWA C110 or AWWA C153. Include AWWA C111, ductile-iron glands, rubber gaskets, and steel bolts.
 - 1. Manufacturers:
 - a. SIGMA Corp.

PART 3 - EXECUTION

3.01 PIPING APPLICATIONS

- A. Flanges and unions may be used on aboveground pressure piping, unless otherwise indicated.
- B. Aboveground storm drainage piping NPS 6 and smaller shall be the following:
 - 1. Hub-less cast-iron soil pipe and fittings; super heavy-duty shielded, stainless-steel couplings; and hub-less-coupling joints.
 - 2. Dissimilar Pipe-Material Couplings: Rigid, unshielded, non-pressure pipe couplings for joining dissimilar pipe materials with small difference in OD.
- C. Underground storm drainage piping NPS 6 and smaller shall be the following:
 - 1. Service class, cast-iron soil pipe and fittings; gaskets; and gasketed joints.

3.02 PIPING INSTALLATION

- A. Basic piping installation requirements are specified in Division 22 Section "Common Work Results for Plumbing."
- B. Install cast-iron soil piping according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook," Chapter IV, "Installation of Cast Iron Soil Pipe and Fittings."
- C. Make changes in direction for storm drainage piping using appropriate branches, bends, and long-sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.
- D. Install storm drainage piping at a minimum of 1% slope downward in direction of flow, unless otherwise indicated:
- E. Sleeves are not required for cast-iron soil piping passing through concrete slabs-on-grade if slab is without membrane waterproofing.
- F. Do not enclose, cover, or put piping into operation until it is inspected and approved by authorities having jurisdiction.

3.03 JOINT CONSTRUCTION

- A. Basic piping joint construction requirements are specified in Division 22 Section "Common Work Results Plumbing."
- B. Join hubless cast-iron soil piping according to CISPI 310 and CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for hubless-coupling joints.
- C. Hub-and-Spigot, Cast-Iron Soil Piping Gasketed Joints: Join according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for compression joints.

3.04 VALVE INSTALLATION

- A. General valve installation requirements are specified in Division 22 Section "General-Duty Valves for Plumbing Piping."

3.05 HANGER AND SUPPORT INSTALLATION

- A. Pipe hangers and supports are specified in Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment." Install the following:
 - 1. Vertical Piping: MSS Type 8 or Type 42, clamps.
 - 2. Individual, Straight, Horizontal Piping Runs: According to the following:
 - a. 100 Feet and Less: MSS Type 1, adjustable, steel clevis hangers.
 - b. Longer Than 100 Feet: MSS Type 43, adjustable roller hangers.
 - c. Longer Than 100 Feet, if Indicated: MSS Type 49, spring cushion rolls.
 - 3. Multiple, Straight, Horizontal Piping Runs 100 Feet or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
 - 4. Base of Vertical Piping: MSS Type 52, spring hangers.
- B. Install supports according to Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment."
- C. Support vertical piping and tubing at base and at each floor.
- D. Rod diameter may be reduced 1 size for double-rod hangers, with 3/8-inch minimum rods.
- E. Install hangers for cast-iron soil piping with the following maximum horizontal spacing and minimum rod diameters:
 - 1. NPS 1-1/2 and NPS 2: 60 inches with 3/8-inch rod.
 - 2. NPS 3: 60 inches with 1/2-inch rod.
 - 3. NPS 4 and NPS 5: 60 inches with 5/8-inch rod.
 - 4. NPS 6: 60 inches with 3/4-inch rod.
 - 5. Spacing for 10-foot lengths may be increased to 10 feet. Spacing for fittings is limited to 60 inches.

- F. Install supports for vertical cast-iron soil piping every 15 feet.
- G. Install hangers for steel piping with the following maximum horizontal spacing and minimum rod diameters:
 - 1. NPS 1-1/4: 84 inches with 3/8-inch rod.
 - 2. NPS 1-1/2: 108 inches with 3/8-inch rod.
 - 3. NPS 2: 10 feet with 3/8-inch rod.
 - 4. NPS 2-1/2: 11 feet with 1/2-inch rod.
 - 5. NPS 3: 12 feet with 1/2-inch rod.
 - 6. NPS 4 and NPS 5: 12 feet with 5/8-inch rod.
 - 7. NPS 6: 12 feet with 3/4-inch rod.
- H. Install supports for vertical steel piping every 15 feet.
- I. Support piping and tubing not listed above according to MSS SP-69 and manufacturer's written instructions.

3.06 CONNECTIONS

- A. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Connect interior storm drainage piping to exterior storm drainage piping. Use transition fitting to join dissimilar piping materials.

3.07 FIELD QUALITY CONTROL

- A. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction.
 - 1. Roughing-in Inspection: Arrange for inspection of piping before concealing or closing-in after roughing-in.
 - 2. Final Inspection: Arrange for final inspection by authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements.
- B. Reinspection: If authorities having jurisdiction find that piping will not pass test or inspection, make required corrections and arrange for reinspection.
- C. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.
- D. Test storm drainage piping according to procedures of authorities having jurisdiction or, in absence of published procedures, as follows:
 - 1. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.

2. Leave uncovered and unconcealed new, altered, extended, or replaced storm drainage piping until it has been tested and approved. Expose work that was covered or concealed before it was tested.
3. Test Procedure: Test storm drainage piping on completion of roughing-in. Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water. From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.
4. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained.
5. Prepare reports for tests and required corrective action.

3.08 CLEANING

- A. Clean interior of piping. Remove dirt and debris as work progresses.
- B. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.
- C. Place plugs in ends of uncompleted piping at end of day and when work stops.

END OF SECTION 22 14 13

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SECTION 22 14 23 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following storm drainage piping specialties:
 - 1. Backwater valves.
 - 2. Cleanouts.
 - 3. Through-penetration firestop assemblies.
 - 4. Roof drains.
 - 5. Miscellaneous storm drainage piping specialties.
 - 6. Flashing materials.

1.03 SUBMITTALS

- A. Product Data: For each type of product indicated.

1.04 QUALITY ASSURANCE

- A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.

1.05 COORDINATION

- A. Coordinate size and location of roof penetrations.

PART 2 - PRODUCTS

2.01 CLEANOUTS

- A. Floor Cleanouts:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Josam Company; Josam Div.
 - b. Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
 - c. Watts Drainage Products Inc.
 - d. Zurn Plumbing Products Group; Specification Drainage Operation.
2. Standard: ASME A112.36.2M for adjustable housing cleanout.
 3. Size: Same as connected branch.
 4. Type: Adjustable housing.
 5. Body or Ferrule: Cast iron.
 6. Clamping Device: Not required.
 7. Outlet Connection: Inside call.
 8. Closure: Brass plug with straight threads and gasket.
 9. Adjustable Housing Material: Cast iron.
 10. Frame and Cover Material and Finish: Nickel-bronze, copper alloy.
 11. Frame and Cover Shape: Round.
 12. Top Loading Classification: Heavy Duty.
 13. Riser: ASTM A 74, Service class, cast-iron drainage pipe fitting and riser to cleanout.

B. Wall Cleanouts:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Josam Company; Josam Div.
 - b. Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
 - c. Tyler Pipe; Wade Div.
 - d. Watts Drainage Products Inc.
 - e. Zurn Plumbing Products Group; Specification Drainage Operation.
2. Standard: ASME A112.36.2M. Include wall access.
3. Size: Same as connected drainage piping.
4. Body: Hubless, cast-iron soil pipe test tee as required to match connected piping.
5. Closure: Countersunk plug.
6. Closure Plug Size: Same as or not more than one size smaller than cleanout size.
7. Wall Access: Round, deep, chrome-plated bronze cover plate with screw.

2.02 THROUGH-PENETRATION FIRESTOP ASSEMBLIES

A. Through-Penetration Firestop Assemblies:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ProSet Systems Inc.
2. Standard: UL 1479 assembly of sleeve and stack fitting with firestopping plug.
3. Size: Same as connected pipe.

4. Sleeve: Molded PVC plastic, of length to match slab thickness and with integral nailing flange on one end for installation in cast-in-place concrete slabs.

2.03 ROOF DRAINS

2.04 TRENCH DRAINS

- A. TD-1: Trench drain type designations and sizes are indicated on Drawings.
 1. Cast-Iron Trench Drains: Cast-iron shallow hub body and grate with end plates and gaskets, assembled in standard lengths for total length and width as indicated, with the following features:
 - a. Sediment bucket;
 - b. Heel-proof grate;
 - c. Bottom outlet, inside calk.
- B. Grates: Cast iron or steel as indicated, for heavy-duty truck traffic, with openings designed to prevent entry of bicycle or wheelchain tires.
 1. Josam Company; Josam Div.
 2. Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
 3. Tyler Pipe; Wade Div.
- C. Basis of Design: J.R. Smith Fig. 2710

2.05 AREA DRAINS:

- A. AD-1: Area drain type designations and sizes are indicated on Drawings.
 1. Cast Iron Area Drains: Cast iron body with sump, traffic rated, removable cast iron vandal-proof strainer, cast iron flashing flange and cast iron ring with integral gravel stop.
- B. Grates: Cast iron or steel as indicated, for heavy-duty truck traffic, with openings designed to prevent entry of bicycle or wheelchain tires.
 1. Josam Company; Josam Div.
 2. Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
 3. Tyler Pipe; Wade Div.
- C. Basis of Design: J.R. Smith Fig. 2142.

2.05 MISCELLANEOUS STORM DRAINAGE PIPING SPECIALTIES

- A. Expansion Joints:
 1. Standard: ASME A112.21.2M.
 2. Body: Cast iron with bronze sleeve, packing, and gland.

3. End Connections: Matching connected piping.
4. Size: Same as connected piping.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Refer to Division 22 Section "Common Work Results for Plumbing" for piping joining materials, joint construction, and basic installation requirements.
- B. Install cleanouts in aboveground piping and building drain piping according to the following, unless otherwise indicated:
 1. Size same as drainage piping up to NPS 4. Use NPS 4 for larger drainage piping unless larger cleanout is indicated.
 2. Locate at each change in direction of piping greater than 45 degrees.
 3. Locate at minimum intervals of 50 feet for piping NPS 4 and smaller and 100 feet for larger piping.
 4. Locate at base of each vertical soil and waste stack.
- C. For floor cleanouts for piping below floors, install cleanout deck plates with top flush with finished floor.
- D. For cleanouts located in concealed piping, install cleanout wall access covers, of types indicated, with frame and cover flush with finished wall.
- E. Install expansion joints on vertical stacks and conductors. Position expansion joints for easy access and maintenance.
- F. Install escutcheons at wall, floor, and ceiling penetrations in exposed finished locations and within cabinets and millwork. Obtain permission to use deep-pattern escutcheons, if required, to conceal protruding pipe fittings.

3.02 CONNECTIONS

- A. Piping installation requirements are specified in other Division 22 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

3.03 PROTECTION

- A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.
- B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION 22 14 23

SECTION 23 09 00 - INSTRUMENTATION AND CONTROL FOR HVAC

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The Control Contractor will be responsible for all installation, programming, testing and performance verification.
- B. The Controls Contractor will be responsible for providing all devices required for a complete operating control system.
- C. The Control System for this project will be referred to as a Building Automation System (BAS).
- D. Total quantity and type of control points shall consist of specifications, drawings and as required to complete the sequence of operation as specified. Additional points shall be provided as required to meet all sequence of operation functions, safeties and data base. The drawings and Specifications are not intended to show all details necessary to make the system complete and operable.
- E. Provide electrical work as required, complying with requirements of Division 26 sections including, but not limited to raceways, wires, cables, electrical identification, supporting devices and electrical connections for equipment.
 - 1. The Contractor shall be responsible for all additional electrical and other costs involved to accommodate connections to the temperature control system panel.
- F. Control Contractor shall furnish & identify location requirements for all necessary control devices which may be installed by others including the following, but not limited to:
 - 1. Water/leak detection sensors.

1.2 QUALITY ASSURANCE

- A. Contractors Qualifications: Firms regularly engaged in installation and commissioning and servicing of digital control equipment, of types and sizes required, whose firm has been in business in similar service for not less than 2 years.
- B. Only those manufacturers specified are allowed to bid temperature controls. All bidders shall make available, upon the Owner's request, open book unit pricing of all materials and labor.
- C. The system shall be installed by competent mechanics, regularly employed by the Temperature Control Contractor. The Temperature Controls Contractor shall be able to use sub-contractors to wire the controls system only. All programming and commissioning of the temperature controls system shall be completed by the Temperature Controls Contractor and not a sub-contractor.

- D. All bidders must have installed and completed at least two (2) direct digital temperature control jobs of similar design, size and scope using the same equipment as specified.
- E. All bidders must have a local office in the area of the project site.
- F. All bidders must have capabilities of doing component level repairs on all systems, including electronic systems.
- G. No Field Devices shall be multiplexed to a single I/O point unless specified. Each control or sensing point shall be terminated at a unique location on the BAS panel, Slave or Dedicated Controller and be associated with a unique software point on the BAS.
- H. Codes and Standards:
 - 1. All equipment and the installation shall comply with the requirements of all applicable local and national codes including but not limited to the currently enforced edition of the Uniform Building Code, Uniform Fire Code, Uniform Electrical Code, and all applicable codes of the National Fire Protection Association including the National Electrical Code.
 - 2. Electrical Standards: Provide electrical products which have been tested, listed and labeled by UL and comply with NEMA standards.
 - 3. NEMA Compliance: Comply with NEMA standards pertaining to components and devices for electric control systems.
 - 4. NFPA Compliance: Comply with NFPA 90A "Standard for the Installation of Air Conditioning and Ventilating Systems" where applicable to controls and control sequences.
- I. The equipment and software proposed by the supplier shall be currently in manufacture. No custom products shall be allowed unless required by the Specification. All products shall be supported by the manufacturer for a minimum of 5 years including spare parts, board repairs and software revisions.
- J. The Temperature Control Contractor shall cooperate with other contractors performing work on this project necessary to achieve a complete and neat installation. To that end, each contractor shall consult the drawings and specifications for all trades to determine the nature and extent of others work.
- K. It will be the responsibility of the Contractor to work in cooperation with the Owner and with all other contractors and employees rendering such assistance and so arrange his work such that the entire project will be delivered complete in the best possible condition and in the shortest time.

1.3 PROPRIETARY INFORMATION

- A. Project Documentation: All custom software, programs, code, databases, graphic files and drawings (whether hard copy or CADD based files) prepared for this system shall be the exclusive property of the Owner and shall not be reproduced or distributed without prior written permission from the Owner.
- B. The use or reference to the Owner, any of its subsidiaries or any of the facility automation projects shall not be used by the Manufacturer or Contractor in any promotional media, including advertisements, sale brochures, annual reports and client

references or endorsements, without prior written permission from the Owner. The Owner reserves the right to restrict or refuse access to any or all of its facilities.

1.4 SUBMITTALS

- A. Submit in accordance with Division 01 and 22 submittal requirements.
- B. In addition to the requirements set forth in paragraph A above, the following shall be included in the shop drawing submittals including, but not limited to:
 - 1. Product Data: Submit manufacturer's technical product data sheets for each control device furnished, each data sheet shall be labeled indicating its control drawing descriptor and include the following:
 - a. indicating dimensions;
 - b. capacities;
 - c. performance characteristics;
 - d. electrical characteristics;
 - e. finishes of materials;
 - f. commissioning, installation instructions and start-up instructions.
 - 2. Control system drawings containing pertinent data to provide a functional operating system and a sequence of operation.
 - 3. Detailed wiring diagrams.
 - 4. A floor plan of each area with a detailed new conduit/wiring layout shall be included. The plan shall indicate all conduit/wiring locations within $\pm 2'$ of actual installed location. All walls, doors and temperature control devices shall be accurately shown.
 - 5. Provide a bill of materials with manufacturer's part number.
 - 6. Indicate all required point to point electrical wiring. Clearly differentiate between portions of wiring that are existing and portions to be field-installed.
 - 7. Provide a detailed listing of all software program code written for each system.
 - 8. Provide a point list with database input information to include a point name, address, base and span, action and other required information.
- C. Submit manufacturer's installation instructions.
- D. Submittal data and shop drawings shall be prepared and submitted in the following formats:
 - 1. All drawings prepared for the project shall be developed using the AutoCad CADD program most current version, (or a CADD package capable of producing AutoCad "DXF" compatible format files).
 - 2. All submittals data shall be the same size for any group of information and shall be in PDF format. All the information shall be indexed and bookmarked with reference to the specific section of these specifications.
 - 3. The format for different groups of submittal information are as follows:
 - a. Control drawings, building plans (including complete floor plans), schematics and system configurations shall be CADD prepared drawing, bound and indexed. Drawings that cannot represent the total information on an individual ANSI size B (11" x 17") drawing, ie. a building plan, shall be noted with appropriate match lines, cross references and key plans.
 - b. Technical data, sequence of operations, material list, point lists, program listings, I/O schedules, operator's and programmer's manuals, etc. shall be type written, original product data sheets or CADD prepared drawings, ANSI size A or ANSI size B.

4. Upon completion of the project and acceptance of systems the contractor shall provide to the Owner one set of hard copy as-built shop drawings and diskettes.
- E. Shop drawings shall include riser diagram depicting locations of all controllers and workstations, with associated network wiring.
- F. When the Architect/Engineer requires, the Contractor will resubmit with the corrected or additional submittal data. This procedure shall be repeated until all corrections are made to the satisfaction of the Engineer and the submittals are fully reviewed.
- G. Contractor agrees that shop drawing submittals processed by the Architect/Engineer are not change orders, that the purpose of shop drawing submittals by the Contractor is to demonstrate to the Architect/Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install, and by detailing the fabrication and installation methods he intends to use.
- H. The Contractor shall be responsible for space requirements, configuration, performance, changes in bases, supports, structural members and openings in structure, and other apparatus that may be affected by their use.
- I. Contractor further agrees that if deviations, discrepancies, or conflicts between shop drawing submittals and the contract documents in the form of design drawings and specifications are discovered either prior to or after shop drawing submittals are processed by the Architect/Engineer, the design drawings and specifications shall control and shall be followed. If alternates do not meet these requirements, it shall be this Contractor's responsibility to remove them and install material originally specified, at no cost to the Owner.
- J. Submittal data and control drawings for all equipment and systems shall be submitted to the Architect/Engineer for review prior to ordering or fabrication of the equipment. The following information shall be included in these submittals:
 1. Control drawings with detailed piping and wiring diagrams; system schematics with controlled/monitored device locations; and connections to all enclosures, panels, and controllers, including a bill of material for each system.
 2. Sequence of operation for all controlled and monitored points for each system.
 3. System drawings shall include all points associated with that system. The point block shall include:
 - a. Controller number
 - b. Point type
 - c. Point name (same name to be used in software)
 - d. Controller terminals
 - e. Wire/Cable number
 4. Provide a complete wiring diagram for each point from controller point block to field device. Include field device location notes where required.
 5. On control drawings show sensor, panel, and equipment locations by referring to room number.
 6. A bill of material shall be provided for each system or control panel and shall be located on the system drawing or one page of the system drawings set. The bill of material shall include the device code used on the control drawings, description of the product, name of the manufacturer, complete model number, measurement range (if applicable) and quantity.

7. Identify the electrical power source for each DDC panel by panel designation, and breaker number. Include the identification on the drawing and at the DDC panel itself.

1.5 SYSTEM REQUIREMENTS:

- A. Provide control systems consisting of sensors, and other apparatus required to operate mechanical systems and to perform functions specified.
- B. Provide necessary materials and field work necessary to connect control components factory supplied as part of equipment controlled, unless specified otherwise.
- C. All set points shall be fully adjustable.
- D. All safeties shall be hard-wired.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Provide factory shipping cartons for each piece of equipment, and control device. Maintain cartons through shipping, storage and handling as required to prevent any equipment damage, and to eliminate all dirt and moisture from equipment. Store all equipment and materials inside and protected from weather.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS AND CONTRACTORS

- A. Subject to compliance with requirements, install one of the following systems:
 1. Schneider Electric: Provided by LONG Building Technologies.
 2. Honeywell: Provided by Control Solutions Inc.
 3. Honeywell: Provided by Automated Building Solutions.
 4. Honeywell: Provided by D R Associates LLC.

2.2 MATERIALS AND EQUIPMENT

- A. General: The Contractor shall provide control products in the sizes and capacities indicated. Additional controllers, sensors, and devices which are required to make a complete control system shall be the responsibility of the controls contractor.

2.3 INPUTS

- A. All input accuracies required by this section shall be end-to-end (from sensing point to BAS display). End-to-end accuracy includes all errors due to the sensor, transmitter, wiring and BAS signal measurement and A/D conversion.
- B. Output Devices:
 1. Electronic analog output transducers shall output a signal to match the controlled device. The Contractor shall be responsible for verifying the required signals for all controlled devices. Transducers shall be completely solid-state with no mechanical parts.

2.4 LEAK DETECTION

- A. Provide leak detection system where noted on the drawings (Elevator Pits).
- B. Manufacturers:
 - 1. RLE Technologies
 - 2. Pre-approved equivalent.
- C. Description: Leak Detection System shall perform the functions of water leak detection, event annunciation, and integration into other alarm management system through the campus BAS. System shall be installed per manufacturer's recommendations.
- D. Components: The system shall include, but not be limited to:
 - 1. Spot leak detection sensor.
 - 2. Optional power supplies.
 - 3. Optional installation accessories.
- E. Power:
 - 1. 24VAC ($\pm 10\%$) Isolated @ 0.1A max.
- F. Outputs
 - 1. Dry Contact, Form C; 1A @ 24VDC, 0.5A resistive @ 120VAC

2.5 ELECTRICAL MATERIALS

- G. All wiring shall be installed in conduit. See Division 26 for conduit installation requirements. Where wiring is exposed in plenum locations (ie open cable tray, wiring shall be plenum rated). All low voltage and line voltage control wiring in all exposed ceiling spaces shall be installed in conduit; refer to division 26 for conduit requirements.
- H. Conduit and Conductors: Types as indicated in Division 26 sized per Division 26 except for low-voltage twisted pair or single jacketed cable (1/2" minimum). All low voltage conductors shall be stranded 22 gauge copper minimum; twisted pair.
- I. Fittings per Division 26: Bushings or nylon insulated throats are not required for jacketed cables.
- J. All J-boxes shall be identified and labeled per Division 26.
- K. All conductors and cables shall be labeled and identified at each end with Brady Perma-Sleeve identification marker. This identification marker shall match the wire or tubing number shown on the temperature control drawings. All temperature control wiring in the building shall be purple.
- L. Conduits shall not exceed 40% maximum fill for single conductor and jacketed cables.
- M. All communication cabling shall be shielded type.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The Contractor shall install all equipment, control air piping/tubing, conduit and wiring parallel to building lines.

B. General Installation Requirements:

1. Wiring shall be installed in conduit throughout exposed areas. Plenum rated cables are acceptable above suspended ceilings.
2. Horizontal runs of conduit, trays, tubing or wiring shall be hung from structural members using new supports, or where feasible, utilizing existing temperature control conduit and piping. The Contractor shall verify adequacy of existing systems and warrant these systems as if they were new. Single runs of conduit, tubing or wire shall be by clevis ring and all thread rod. Multiple runs shall be by "Trapeze" or "Unistrut" supports. "Plumber's Strap" shall not be allowed. Maximum distance between supports shall be per the NEC. Existing supports shall only be used upon written concurrence by the Architect, Engineer or Owner.
3. All vertical runs of conduit or tubing shall be through new core drills. Existing core drills may be used if approved by the Owner. The installation shall be supported above each floor penetration using clamps to "Unistrut".
4. All wire terminations shall be with compression type round hole spade lugs under a pan head screw landing; Stay-Kon or equivalent. All wire splices shall be with compression type insulated splice connectors or properly sized "wire-nut" connectors. Hand twisted, soldered and/or taped terminations or splices are not acceptable.
5. Where wiring or conduit penetrate floors or walls, sleeves with bushings shall be provided for tubing and wires. The conduit or sleeve opening shall be sealed with fire proof packing so the smoke and fire rating of the wall or floor is maintained.
6. All the material installed under this contract must be mounted on, or supported from the building structure or supports furnished by this Contractor.

C. Control Wiring:

1. Run wiring in metallic conduit, tubing or raceways. Exceptions are as follows:
 - a. NEC Class 2 low voltage wiring where not exposed to view such as above suspended ceilings, in shafts, etc., may be run in cable (when approved by code authority).
 - b. Wiring enclosed in temperature control panels.
2. Where conduit is used, provide steel fittings.
3. Low Voltage Conductors: 18 gauge minimum, except 19 gauge may be used for home runs to central panels and 22 gauge minimum for resistance or thermistor sensing element connections.
4. All wiring shall comply with the requirements of local and national electrical codes.
5. All costs of controls, wiring conduit and associated labor shall be included in the temperature control bid. The control wiring shall be installed under the supervision of this Contractor.

3.2 INSTALLATION PRACTICES

- A. The Contractor shall install and calibrate all Field Devices, sensors and transducers necessary for the complete operation of the I/O points described herein.
- B. Sensors shall be removable without shutting down the system in which they are installed.

3.3 IDENTIFICATION

- A. All J-boxes, conduit and wiring shall be labeled.
- B. Electrical devices, wiring, conduit and J-boxes shall be labeled and identified as required by Division 26.
 - 1. As a minimum regardless of Division 26 requirements, all temperature control J-box covers shall be painted blue in color on both sides of cover.
- C. Identification shall be provided for all enclosures, panels, junction boxes, controllers or Field Devices. Laminated, bakelite nameplates shall be used. The nameplates shall be 1/16-inch thick and a minimum of 1 inch by 2 inches. The lettering shall be white on a blue background with minimum 1/4-inch high engraved letters. The nameplates shall be installed with pop rivets.
 - 1. All new devices will be tagged. Color code to differentiate between new devices.
- D. Thoroughly clean the surface to which the label shall be applied with a solvent before applying the identification. Use an epoxy to affix the identification in addition to any adhesive backing on the identification.
- E. The plan code designation shown on all shop drawing identification shall be consistent with the contract documents.
- F. All I/O Field Devices that are not mounted within Field Device Panel enclosures shall be identified with engraved plastic laminated nameplates installed so that they are visible from ground level.
- G. Calibration settings shall be marked with paint or indelible ink.

3.4 LOCATIONS

- A. All sensing devices and locations shall be located by the Contractor as shown on the submittal shop drawings with final review by the Engineer.

3.5 EQUIPMENT PROTECTION AND COORDINATION

- A. Where existing walls are penetrated with conduit or piping, provide a fire stop assembly which meets or exceeds the original rating of the assembly. Refer to Division 23.
- B. Extreme care must be exercised while working in existing facilities and around operating equipment, particularly sensitive telephone switching and computer equipment. Close coordination with the Owner is required for the protection of this operating equipment from dust, dirt and construction material while maintaining the operational environment for the equipment. Under no circumstances shall the power or environmental requirements of the operating equipment be interrupted during the installation and check-out without submitting to the Architect, Owner and Engineer for approval.

3.6 CLEANUP

- A. At the completion of the work, all equipment pertinent to this contract shall be checked and thoroughly cleaned and all other areas shall be cleaned around equipment provided under this contract. Clean the exposed surfaces of tubing, hangers, and other exposed metal of all grease, plaster, dust, or other foreign materials.

- B. Upon final completion of work in an area, vacuum and/or damp wipe all finished room surfaces and furnishings. Use extreme care in cleaning around telephone switching and computer equipment and under no circumstances shall water or solvents be used around this equipment.
- C. At the completion of the work and at the end of each work day, remove from the building, the premises, and surrounding streets, etc., all rubbish and debris resulting from the operations and leave all equipment spaces absolutely clean and ready for use.

3.7 TEMPERATURE CONTROL DRAWINGS

- A. Upon completion of project and after record drawings of the temperature controls have been prepared and reviewed, the Contractor shall provide one (1) complete set of temperature controls drawings at each temperature control panel. Each set of drawings shall be laminated in a plastic coating. The drawings shall consist of only those control functions associated with the specific control panel and any relevant or pertinent network interface information.

The laminated drawings shall have a grommet connection attached to a metal cable or chain which is mechanically fastened to the temperature control cabinet.

3.8 START UP AND TESTING

- A. Upon review of software, a point-to-point test of the BAS installation shall commence. The Contractor shall provide two men equipped with two-way communication and shall test actual field operation of each control and sensing point. This procedure shall occur during off hour periods. The purpose is to test the calibration, response, and action of every point. Any test equipment required to prove the proper operation of the BAS shall be provided by and operated by the Contractor. The Engineer and Owner will be present to oversee, observe, and review the test. Demonstrate compliance that system functions per the Sequence of Operation.
 - 1. The point-to-point demonstration shall include any existing BAS equipment if it affects the operation of the equipment included under this contract.
- B. A detailed test report as defined under Submittals shall be provided indicating its completion and proper system operation.

3.9 PROJECT RECORD DOCUMENTS

- A. The Contractor shall be responsible for updating all existing Project Record Documents associated with the Scope of Work outlined in the Drawings and Specifications.
- B. Prior to final completion of the installation, prepare a complete set of record drawings on a clear and legible set of ANSI size 'B' (11" x 17") mylar reproducible prints. The content, format and procedure of the submittal shall be as described by the General Conditions.
- C. Prior to final completion of the installation, prepare three (3) operation and maintenance manuals. The information is to be provided in PDF format. The information shall include:

1. Maintenance, Installation, and Engineering manual(s) that clearly explains how to debug hardware problems, how to repair or replace hardware, preventive maintenance guidelines and schedules.
 2. Input/output schedules, data sheets, and all other items required under Submittals. Describe all regular maintenance that will need to be performed on the BAS hardware. List replacement parts with part numbers.
 3. During the warranty period, all copies of the drawings and manuals shall be updated to include all hardware and software changes. A final update at 1 year shall be provided to the Owner.
- D. All of the above documentation shall record both the equipment installed under this contract and the exact termination to all other existing control or BAS equipment.
- E. The record drawings shall document the complete existing control system. This includes all mechanical equipment in work area which has automatic control.
- 3.10 WARRANTY
- A. The Warranty period shall begin on the date of beneficial use completion as authorized by the Architect/Engineer and Owner in writing. The warranty period shall be a minimum of one (1) year. Beneficial use shall not occur before the Contractor has performed the tests required. With these requirements met, beneficial use shall not occur until, in the opinion of the Architect/Engineer, the BAS is sufficiently complete to be utilized for the purposes for which it is intended.
1. The warranty start date shall not begin until all phases of the Project are complete, i.e., the Project shall have a single warranty start date.
- 3.11 SEQUENCE OF OPERATION
- A. Elevator Pit Moisture Sensors:
1. Locate moisture sensors as noted on the drawings. Send an alarm to the BAS when moisture is sensed at any of the sensors.

END OF SECTION

SECTION 260100 - BASIC ELECTRICAL REQUIREMENTS

SPART 1 GENERAL

1.01 SECTION INCLUDES

- A. Basic requirements for electrical systems common to Division 26 and Division 28 Sections, supplemental to Division 01 requirements.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Sections, apply to the Division 26 and Division 28 Sections.
- B. Related Sections and Drawings: Refer to Division 21, Division 22 and Division 23 Sections and to the mechanical, plumbing and fire protection systems drawings.

1.03 DEFINITIONS

- A. Architect: The lead design consulting firm and associated consulting engineering firm. On projects where the lead design consultant is the engineer rather than the architect, Architect refers to the lead consulting engineer.
- B. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, areas above ceilings, furred cavities, chases, unexcavated spaces, crawlspaces, and tunnels.
- C. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- D. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include facades and roofs.
- E. Concealed, Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include chases and areas above ceilings.
- F. Concealed, Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants but subject to outdoor ambient temperatures. Examples include areas under large canopies and unheated shelters.

1.04 SUMMARY

- A. The electrical work includes building addition(s), renovations, system upgrades, system modifications, system replacements, interior demolition and alterations, and space build-outs.
- B. Provide equipment, materials, and labor necessary for the complete installation, start-up, and testing of the electrical systems.
- C. Comply with Owner design, construction, and building standards. Owner standards can be found at:

http://www.ucdenver.edu/about/departments/FacilitiesManagement/Documents/GuidelinesStandards/Part%204%20Specification%20Requirements%20Div%2002-33%2020_0101.zip

- D. Examine the project site to become familiar with the existing conditions prior to the bid. Additional costs to the Owner will not be accepted for additional work associated with existing conditions.
- E. Commissioning is a project requirement. Provide labor and documentation necessary for the complete testing and commissioning of the electrical systems.
- F. Verify existing field conditions prior to submitting bids.
- G. Report existing damaged equipment or systems to the Owner prior to commencing work.
- H. Coordinate and co-operate with the Owner for system interconnections and testing for the duration of construction.
- I. Coordinate and co-operate with the Owner for system upgrades, modifications, and replacements for the duration of construction.
- J. Coordinate with Owner for required shutdown and restart of service and distribution systems, provide temporary services as necessary if not indicated on the drawings. Schedule shutdowns and outages at least five days in advance at a time and duration acceptable to the Owner.
- K. Where required to maintain operations in existing areas, provide temporary wiring and protection as necessary if not indicated on the drawings.
- L. Maintain continuity of power, communications, and life safety equipment to areas occupied during construction.
- M. Protect mechanical and electrical work against theft and damage for the duration of construction.
- N. Do not damage property of the Owner or the work of other trades for the duration of construction and the guarantee period. Repair or replace portions of the installation that show defect during the period of one year, or longer if otherwise indicated, from Owner final acceptance provided the defect is due to imperfect material or faulty workmanship as determined by the Architect, and not due to Owner carelessness or improper use.

1.05 REGULATORY REQUIREMENTS

- A. Refer to Division 01.
- B. Execute and inspect work in accordance with applicable national and state codes, local ordinances and regulations, and the requirements of the authority having jurisdiction. Follow the more stringent requirement of applicable codes, regulations, or that shown on the Contract Documents where it exceeds codes or regulations. Comply with applicable standards, requirements, and testing procedures of applicable institutes and agencies, including ANSI, IBC, ICEA, IEEE, NEC, NECA, NEMA, NETA, NFPA, and OSHA.

- C. Provide Underwriters Laboratories (UL) listed electrical equipment and materials suitable for the intended purpose as determined by the authority having jurisdiction. Electrical equipment and materials shall bare a UL label.
- D. Comply with standards in effect at the date of the Contract Documents, except where a standard or specific date or edition is indicated.
- E. Follow U.S. EPA, state, and local regulations for the handling, removal, and disposal of regulated materials and substances.

1.06 PERMITS AND FEES

- A. Refer to Division 01.
- B. Schedule and pay costs of required electrical inspections, licenses, and certificates in connection with the work.
- C. Do not commence work prior to securing the necessary and required permits.

1.07 REQUEST FOR INFORMATION

- A. Prior to completion of the bid, request clarifications to the Contract Documents for conflicts noted between the drawings and specifications. Without clarification, the bid shall be based on the most stringent requirement identified in the Contract Documents.
- B. During construction, request clarifications and information wherever the Contract Documents are not clear. Obtain clarification from the Architect prior to equipment and material selection, purchase, rough-in, and installation.

1.08 SUBMITTALS

- A. Refer to Division 01.
- B. Equipment selection and submittals shall conform to the energy conservation codes and standards.
- C. Shop drawings, product data, and sample submittals will be reviewed only when submitted and stamped by the Contractor. Data submitted from subcontractors and material suppliers directly to the Architect will not be processed unless prior written approval is provided by both the Architect and Contractor.
- D. Prepare and submit shop drawings and product data before commencing work. Submit electronic Portable Document Format (.PDF) searchable files. Revise and submit shop drawings, after each reviewer's action, until a "No Exception Taken" or "Make Corrections Noted" action is received. Submittals shall include equipment and materials specified in individual Division 26 and Division 28 Sections. Make additional prints or copies of electronic submittals as required for Contractor and other subcontractor use.

- E. Identify each submittal and item with specification section number and sufficient data matching the nomenclature indicated on the drawings to allow timely and efficient review for compliance with the Contract Documents. Submittals that are not identified by specification section number and description, or that lack sufficient data to identify location, use, and compliance with the Contract Documents will be returned "Revise and Resubmit."
- F. Initial shop drawing and product data submittals that are unclear or incomplete will not be reviewed and will be returned "Rejected."
- G. Resubmittals that are incomplete or do not clearly address each prior review comment will not be reviewed and will be returned "Rejected."
- H. Clearly identify the selection of applicable models, characteristics, features, accessories, options, and the like on submittals of manufacturer product data and shop drawings with type written numbers and descriptions, colored highlights and box-outs, and other suitable designations. Product data submittals comprised of basic manufacturer's brochures, catalogs, manuals, and cut-sheets that do not clearly identify the series, model, characteristics, features, accessories, options, and the like will not be reviewed and will be returned "Rejected."

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Division 01.
- B. Deliver products to project within adequate packaging and protection to prevent damage during shipment, storage, handling, and with proper identification of purchasing party name, product description, model numbers, types, grades, compliance labels, and similar information.
- C. Upon delivery, verify actual equipment nameplate data concurs with product and shop drawing data.
- D. Store equipment and materials at the site, unless off-site storage is authorized by the Architect. Protect stored equipment and materials from damage, dirt, dust and moisture.
- E. Coordinate deliveries of equipment and materials to avoid and minimize construction site congestion. Limit each shipment of equipment and materials to the items and quantities needed for on-time and efficient work flow.
- F. Provide factory-applied plastic end-caps on threaded conduit. Maintain end-caps through shipping, storage, and handling to prevent thread damage and entrance of dirt, debris, and moisture.
- G. Protect equipment, fixtures, and specialties from moisture and dirt by providing indoor tempered storage and enclosure. Package with durable and waterproof wrapping for delivery and storage during adverse conditions.

1.10 ACCESSIBILITY

- A. Install equipment and materials to provide required code clearances and access for servicing and maintenance. Coordinate the final location of concealed equipment,

fixtures, outlets, devices, boxes, and enclosures requiring access with final location of required access panels and doors. Allow ample space to provide code required clearance and the removal of parts requiring replacement or servicing.

- B. Locate boxes, enclosures, and other wiring junctions at accessible locations.
- C. Furnish hinged steel access panel doors with concealed latch, whether or not indicated, in walls and ceilings for access to concealed equipment, fixtures, outlets, devices, boxes, and enclosures. Refer to Division 08 Sections for access door and access panel requirements.
- D. The minimum access panel size for boxes shall be 12 inches by 12 inches.
- E. Factory manufactured doors shall be of a type compatible with the adjacent finish and construction.
- F. Access doors in fire-rated walls and ceilings shall have equivalent UL label and fire rating.

1.11 ROUGH-IN

- A. Verify final rough-in locations with field measurements and the configuration of the actual equipment to be connected.
- B. Locations of electrical equipment and materials identified on the drawings are approximate, unless dimensioned or otherwise indicated. Coordinate locations of electrical equipment, fixtures, outlets, devices, and the like with field conditions and other trades. Locate outlets and devices, including wall switches so not to be confined behind open doors and casework. Locate receptacle devices within 18 inches of associated communication outlets.
- C. Refer to equipment shop drawings for the actual equipment supplied and the associated rough-in requirements. Make electrical adjustments as required to complete the installation.
- D. Coordinate with other trades prior to electrical rough-in of equipment furnished or provided by others. Verify quantity and locations of terminations, connection types, disconnecting means, controllers, electrical characteristics, minimum circuit amperes (MCA) and maximum over current protection (MOCP).

1.12 INSTALLATION

- A. Drawings are diagrammatic in character and do not necessarily include all material details to complete the electrical installation.
- B. Drawings and specifications are complementary; whatever is called for in either is to be considered as called for in both. If there is a conflict in the Contract Documents, then the most stringent requirement applies.
- C. Do not scale electrical drawings for determining measurements, linear take-offs, or for the coordination of rough-ins. Refer to architectural dimensioned drawings as necessary. Perform and record field measurements where dimensions are required for equipment, materials, and the preparation of shop drawings.

- D. Before equipment and materials are installed, confirm its fit within the allowed space along with code required clearances, without interferences between systems, structural elements, and the work of other trades.
- E. Schedule, sequence, and integrate the electrical installation for efficient work flow in coordination with other trades.
- F. Coordinate the installation of equipment and materials above and below ceilings with structural and suspension systems, and mechanical, plumbing, fire protection, and other building systems and components.
 - 1. Direct other trades not to install ductwork and piping above electrical switchboard, panelboards, motor control centers, transformers, transfer switches, and the like; notify the Architect when and where these conditions are not met.
 - 2. Coordinate ceiling cavity space carefully with other trades. In the event of conflict, install mechanical and electrical systems within the cavity space in the following order of priority:
 - a. Plumbing waste, roof drainage, and vent piping.
 - b. Supply, return and exhaust ductwork.
 - c. Fire sprinkler mains and leaders.
 - d. Electrical conduit and boxes.
 - e. Domestic hot and cold water.
 - f. Fire sprinkler branch piping.
- G. Locate, identify, and protect mechanical and electrical services and distribution extending through renovation or demolition areas, which must maintain operational to serve occupied areas or existing facilities. When existing services and distribution must be interrupted or modified to complete the construction, notify the Owner no less than 72 hours prior to interruption. If services will be interrupted for more than one hour, provide temporary facilities to maintain the occupied areas and facility operations.
- H. Protect the structure, furnishings, finishes, and adjacent materials not indicated or scheduled to be removed.
- I. Protect enclosures, equipment, and material coatings and finishes from damage and deterioration through the duration of construction.
- J. Unless otherwise indicated, mounting heights are to bottom of suspended items and to center of wall mounted items. Where mounting heights are not indicated or dimensioned, install overhead equipment to provide for maximum possible headroom.
- K. Arrange for chases, slots, inserts, sleeves, and openings through structure and building components, and in floors, walls, ceilings to allow for electrical installations.

- L. Coordinate the installation of required supporting devices and sleeves within poured concrete, masonry work, and other structural components as they are constructed.
- M. Coordinate cutting and patching of building components to accommodate the installation of equipment and materials.
- N. Install equipment to facilitate maintenance and repair or replacement of equipment components.
- O. Coordinate installation and connection of electrical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies. Provide required connection for each service, including provisions and components for electricity metering.
- P. Install on-grade and floor-mounted electrical service and distribution equipment on concrete pads with suitable anchoring in accordance with Division 03 Sections. Do not extend concrete equipment pads more than 2 inches beyond the equipment footprint.
- Q. Install equipment and materials level and plumb, as well as parallel and perpendicular to other building systems and components, unless otherwise indicated.
- R. During installation, inspect exposed finish of boxes, conduits, fittings, and other raceways and remove burrs, dirt, and construction debris prior to conductor installation.
- S. Repair marred and damaged factory and painted finishes with paint materials and procedures to match original factory or painted finish.
- T. Provide and maintain temporary partitions and dust barriers adequate to prevent the spread of dust and dirt to adjacent areas.

1.13 CUTTING AND PATCHING

- A. Refer to Division 01.
- B. Cut, channel, and core drill floors, walls, partitions, ceilings, and other surfaces as required for the electrical installation. Repair and refinish floors, walls, partitions, ceilings, and other surfaces to match adjacent surfaces.
- C. Do not alter or damage the installed work of other trades during the processes of cutting and patching. Correct damages to the work of other trades, including repair and replacement necessary to restore their work.
- D. Perform cutting, fitting, and patching of equipment and materials at no additional cost to the Owner, and as required to:
 - 1. Install equipment and materials in new or existing structures.
 - 2. Provide for installation of ill-timed work.
 - 3. Remove and replace defective work.

4. Remove and replace work not in compliance with the Contract Documents.
 5. Remove samples of installed work as specified for testing.
 6. Uncover concealed work that requires review and acceptance by the Architect.
- E. Cut, remove, and legally dispose of equipment, fixtures, devices, outlets, conductors, conduit, boxes, materials, and other electrical items made obsolete by the new work.

1.14 FIRESTOPPING

- A. Refer to Division 7.
- B. Apply firestopping materials and installation to electrical penetrations through fire-rated floors, walls, partition, ceilings, and assemblies to restore or maintain the original fire-resistance rating.

1.15 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Refer to Division 01.
- B. Provide only those manufacturers specified, scheduled, and noted as acceptable for electrical equipment and materials. Where the Contractor or other subcontractors propose alternate designs or product substitutions that are accepted by the Owner, the costs of redesign and construction changes, including the costs incurred by other trades, shall be borne by Contractor.
- C. Equipment and materials of equivalent quality may be substituted for those scheduled or identified by name on the drawings if reviewed by the Architect and accepted by the Owner prior to the bid. Submit proposed substitutions, complete with data necessary to evaluate the proposed substitution to the Architect at least two weeks prior to the bid date.

1.16 EQUIPMENT LIST

- A. Prepare a list of major electrical equipment and long lead items. Transmit to the Architect within two weeks of Contract award.
- B. Electrical equipment and materials shall be manufactured in the U.S. unless otherwise indicated.
- C. When two or more items of same material or equipment are required, they shall be of the same manufacturer. Product manufacturer uniformity does not apply to raw or bulk materials such as conduit, boxes, fittings, fasteners, and similar items, unless otherwise indicated.
- D. Provide products that are compatible with interconnected systems.

1.17 PRODUCT NAMEPLATE DATA

- A. Equipment shall include a proper nameplate and each material unit shall include designations or label indicating manufacturer, product name, model number, serial number, capacity, operating and power characteristics, testing labels, and similar data. Locate equipment and nameplates and labels for ease of visibility.

1.18 EXTRA MATERIALS

- A. Furnish extra products required by other Division 26 and Division 28 Sections. Package products with protective covering for storage and identification label describing the package contents. Deliver extra materials to the Owner and include a copy of transmittal with operation and maintenance manuals.

1.19 RECORD DOCUMENTS

- A. Refer to Division 01.
- B. Maintain a complete set of record document drawings at the on-site construction office and keep current for the duration of construction.
- C. Mark drawings with revisions to interior and exterior electrical work, including locations, quantities, and sizes of equipment, fixtures, devices, enclosures, conduit, feeders, branch circuits, overcurrent protection, and the like.
- D. Mark drawings with revisions resulting from approved Change Orders, Requests for Information (RFI) and Architects Supplemental Instructions (ASI).
- E. Mark luminaire schedule with manufacturer and complete catalog numbers of installed fixtures, including accepted substitutions.
- F. Mark panelboard schedules, equipment schedules, and similar equipment schedules with installed equipment and materials installed, and any deviations or revisions to the equipment characteristics, capacities, load calculations, and phase load balancing.
- G. Incomplete record drawings that do not identify electrical revisions including field conditions, Change Orders, RFIs, ASIs, accepted Substitutions, and the like will not be reviewed and will be returned "Rejected."
- H. Utilize the following color scheme with legible markings:
 - 1. Red – new items and deviations.
 - 2. Green – removed or deleted items.
 - 3. Blue – informational notes.
- I. At the completion of construction, submit the record documents to the Architect. The Contract will not be considered complete until record drawings have been received and reviewed by the Architect.
- J. At the completion of construction, after record documents are finalized, provide a wall-mounted framed electrical one-line diagram protected with clear acrylic within the main electrical room at a location acceptable to the Owner. Plot the one-line at full-size to match the Contract Documents.

1.20 WARRANTIES

- A. Refer to Division 01.
- B. Refer to individual Division 26 and Division 28 Sections for specific warranty requirements. Warranty duration shall be the longest time period specified in

Division 01 or in individual Division 26 and Division 28 Sections, but not less than one year from the date of final acceptance by the Owner.

- C. Compile and assemble warranties specified in Division 26 and Division 28 Sections into pertinent operating and maintenance manuals.
- D. Provide complete warranty information for each product and equipment specified, including beginning date of warranty or bond, duration of warranty or bond, contact names, addresses, and telephone numbers, and procedures for filing a claim and obtaining warranty services.

1.21 CLEANING

- A. Refer to Division 01.
- B. Clean luminaires, lenses, louvers, reflectors, and other lighting components prior to final acceptance. Replace inoperative LED arrays and drivers.

END OF SECTION

SECTION 260505 - ELECTRICAL DEMOLITION AND ALTERATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Electrical demolition and alternations.

1.02 RELATED REQUIREMENTS

- A. Section 260100 - BASIC ELECTRICAL REQUIREMENTS: Additional requirements for interior demolition and alterations.

1.03 DEFINITIONS

- A. Grayed or Light Line Weight and Text on Drawings: Existing to remain, unless otherwise indicated.
- B. Bold or Heavy Line Weight and Text on Drawings: Alterations and new work, unless otherwise indicated.
- C. Bold "XXX" and Hatch Lines on Drawings: Existing to be removed.
- D. (D) on Drawings: Demolish and remove.
- E. (E) on Drawings: Existing to remain.
- F. (R) on Drawings: New location for existing item to be relocated.
- G. (RR) on Drawings: Existing location for existing item to be relocated.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Method of Procedure: Electrical outages.
- C. Equipment and Materials List: Stored items for relocation.

PART 2 PRODUCTS

2.01 EQUIPMENT AND MATERIALS

- A. Provide equipment, materials, and labor necessary for the complete removal, alteration, or relocation of systems, equipment, and components indicated.

- B. Modify equipment as indicated on the drawings and as specified in individual sections.
 - 1. Provide parts and assemblies compatible with existing equipment and approved for use by the original manufacturer.
 - 2. Maintain equipment Underwriters Laboratories (UL) Listing. Do not modify equipment in such a manner that would void the UL certification or listing.
 - 3. Provide existing equipment information to fabricator and supplier including original manufacturer, model, serial number, date of manufacturer, and requirements.
- C. Materials and equipment for patching and extending work: As specified in individual sections.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Report discovery of Asbestos Containing Materials (ACM) to the Architect when discovered.
- B. Verify actual circuiting arrangements where existing circuit numbers are indicated.
- C. Verify that abandoned wiring and equipment serve only abandoned facilities.
- D. Existing equipment and material locations identified on the drawings are based on casual field observation and existing drawings, of unknown accuracy. Verify existing field conditions and allow for minor adjustments.
- E. Report major discrepancies to Architect before disturbing existing installation.
- F. Reuse existing raceways, equipment, fixtures, outlets, devices, and other electrical items only as indicated or specified. Inspect condition for reuse and report unsuitable items to Architect.
- G. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION

- A. Disconnect electrical systems in walls, floors, and ceilings to be removed.
- B. Disconnect electrical systems from equipment, fixtures, outlets, devices, and components to be removed or relocated.
- C. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
- D. Existing Electrical Service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switchovers and connections. Minimize outage duration.
 - 1. Obtain permission from Owner at least five days before partially or completely disabling system.

2. Make temporary connections to maintain service in areas adjacent to work area.
 3. Prepare and submit a Method of Procedure (MOP) for each required electrical outage to the Architect two weeks prior to an outage. Include date, time, anticipated maximum outage duration, reason for outage, areas affected, sequence of procedures, and related details.
- E. Existing Fire Alarm System: Maintain existing system in service until new system is accepted. Disable system only to make switchovers and connections. Minimize outage duration.
1. Notify Owner before partially or completely disabling system.
 2. Notify local fire service.
 3. Make notifications at least 72 hours in advance.
 4. Make temporary connections to maintain service in areas adjacent to work area.

3.03 DEMOLITION AND ALTERATION OF EXISTING ELECTRICAL WORK

- A. Perform removal and disposal of equipment and materials in accordance with applicable federal, state, and local regulations.
- B. Perform work for removal and disposal of equipment and materials containing toxic substances regulated under the Federal Toxic Substances Control Act (TSCA) in accordance with applicable federal, state, and local regulations.
- C. Where equipment and materials are reused or kept for the Owner, remove and store until reinstallation or until the Owner requests possession.
 1. Prepare and submit a written list of equipment and materials prior to storage.
 2. Wrap and tag items to correspond with written storage list.
 3. Protect from theft and damage.
- D. Remove, relocate, and extend existing installations to accommodate new construction.
- E. Remove abandoned wiring to source of supply, or to the last outlet or device unaffected by the work.
- F. Remove exposed abandoned conduit, including abandoned conduit above accessible ceilings.
 1. Cut conduit a minimum of 2 inch (50 mm) back from the concealing surface, repair and patch surface.
 2. Cut conduit flush with concrete surfaces, seal and patch conduit opening.
 3. Remove conduit exposed by demolition and alteration work.
 4. Concealed conduit unexposed by demolition and alteration work may be abandoned.

- G. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets that are not removed.
- H. Disconnect and remove abandoned panelboards and distribution equipment.
- I. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- J. Disconnect and remove abandoned luminaires. Remove brackets, stems, hangers, and other accessories.
- K. Repair adjacent construction and finishes damaged during demolition and extension work.
- L. Replace equipment and materials damaged during demolition and alternation work.
- M. Replace equipment and materials damaged during removal, storage, relocation, and reinstallation work.
- N. Replace in-floor and underfloor raceways and conductors damaged or altered as a result of floor cutting and coring.
- O. Maintain access to existing electrical installations that remain active. Modify installation or provide access panel as appropriate.
- P. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.
- Q. Extend feeders and branch circuits with matching raceways and conductors unless indicated otherwise.

- R. Provide temporary support of existing equipment, fixtures, and other electrical components where the work includes replacement of ceilings or temporary removal of ceilings. Reinstall equipment, fixtures, and other electrical components after completion of ceiling replacements and alterations.
- S. Provide tie bars on circuit breaker handles where the work includes alternations to existing branch circuits with a common neutral conductor and more than one phase phase conductor.

3.04 CLEANING AND REPAIR

- A. See Section 017419 - Construction Waste Management and Disposal for additional requirements.
- B. Clean and repair existing materials and equipment that remain or that are to be reused.
- C. Enclosures: Vacuum clean interiors of distribution equipment and boxes.

END OF SECTION

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SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Support and attachment components for equipment, conduit, cable, boxes, and other electrical work.

1.02 RELATED REQUIREMENTS

- A. Section 033000 - Cast-in-Place Concrete: Concrete equipment pads.
- B. Section 055000 - Metal Fabrications: Materials and requirements for fabricated metal supports.
- C. Section 260533.13 - Conduit for Electrical Systems: Additional support and attachment requirements for conduits.
- D. Section 260533.16 - Boxes for Electrical Systems: Additional support and attachment requirements for boxes.
- E. Section 265100 - Interior Lighting: Additional support and attachment requirements for interior luminaires.

1.03 REFERENCE STANDARDS

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.
- C. ASTM B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel 2019.
- D. MFMA-4 - Metal Framing Standards Publication 2004.
- E. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.
- F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate sizes and arrangement of supports and bases with the actual equipment and components to be installed.
 - 2. Coordinate the work with other trades to provide additional framing and materials required for installation.
 - 3. Coordinate compatibility of support and attachment components with mounting surfaces at the installed locations.
 - 4. Coordinate the arrangement of supports with ductwork, piping, equipment and other potential conflicts installed under other sections or by others.

5. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Sequencing:
 1. Do not install products on or provide attachment to concrete surfaces until concrete has fully cured in accordance with Section 033000.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for metal channel (strut) framing systems and post-installed concrete and masonry anchors.
- C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.06 QUALITY ASSURANCE

- A. Comply with NFPA 70.
- B. Comply with applicable building code.
- C. Installer Qualifications for Field-Welding: As specified in Section 055000.
- D. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 SUPPORT AND ATTACHMENT COMPONENTS

- A. General Requirements:
 1. Provide all required hangers, supports, anchors, fasteners, fittings, accessories, and hardware as necessary for the complete installation of electrical work.
 2. Provide products listed, classified, and labeled as suitable for the purpose intended, where applicable.
 3. Where support and attachment component types and sizes are not indicated, select in accordance with manufacturer's application criteria as required for the load to be supported. Include consideration for vibration, equipment operation, and shock loads where applicable.
 4. Do not use products for applications other than as permitted by NFPA 70 and product listing.

5. Do not use wire, chain, perforated pipe strap, or wood for permanent supports unless specifically indicated or permitted.
6. Steel Components: Use corrosion resistant materials suitable for the environment where installed.
 - a. Indoor Dry Locations: Use zinc-plated steel unless otherwise indicated.
 - b. Outdoor and Damp or Wet Indoor Locations: Use stainless steel unless otherwise indicated.
 - c. Zinc-Plated Steel: Electroplated in accordance with ASTM B633.
 - d. Galvanized Steel: Hot-dip galvanized after fabrication in accordance with ASTM A123/A123M or ASTM A153/A153M.
- B. Materials for Metal Fabricated Supports: Comply with Section 055000.
- C. Conduit and Cable Supports: Straps, clamps, etc. suitable for the conduit or cable to be supported.
 1. Conduit Straps: One-hole or two-hole type; steel or malleable iron.
 - a. One-Hole Conduit Straps or Minerallac: For supporting 3/4 inch and smaller conduit, galvanized steel.
 - b. Two-Hole Conduit Straps or Minerallac or industry approved equal: For supporting 1 inch and larger conduit, galvanized steel; 3/4 inch strap width; and 2-1/8 inch between center of screw holes.
 2. Conduit Clamps: Bolted type unless otherwise indicated.
 3. Manufacturers:
 - a. Cooper Crouse-Hinds, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Erico International Corporation: www.erico.com.
 - c. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
 - d. Thomas & Betts Corporation: www.tnb.com.
- D. Outlet Box Supports: Hangers, brackets, etc. suitable for the boxes to be supported.
 1. Manufacturers:
 - a. Cooper Crouse-Hinds, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Erico International Corporation: www.erico.com.
 - c. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
 - d. Thomas & Betts Corporation: www.tnb.com.

- E. Metal Channel (Strut) Framing Systems: Factory-fabricated continuous-slot metal channel (strut) and associated fittings, accessories, and hardware required for field-assembly of supports.
 - 1. Comply with MFMA-4.
 - 2. Channel Material:
 - a. Indoor Dry Locations: Use painted steel, zinc-plated steel, or galvanized steel.
 - b. Outdoor and Damp or Wet Indoor Locations: Use galvanized steel.
 - 3. Minimum Channel Thickness: Steel sheet, 12 gage, 0.1046 inch (2.66 mm).
 - 4. Minimum Channel Dimensions: 1-5/8 inch (41 mm) width by 13/16 inch (21 mm) height.
 - 5. Manufacturers:
 - a. Cooper B-Line, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Thomas & Betts Corporation: www.tnb.com.
 - c. Unistrut, a brand of Atkore International Inc: www.unistrut.com.
- F. Hanger Rods: Threaded zinc-plated steel unless otherwise indicated.
 - 1. Minimum Size, Unless Otherwise Indicated or Required:
 - a. Equipment Supports: 1/2 inch (13 mm) diameter.
 - b. Single Conduit up to 1 inch (27 mm) trade size: 1/4 inch (6 mm) diameter.
 - c. Single Conduit larger than 1 inch (27 mm) trade size: 3/8 inch (10 mm) diameter.
 - d. Trapeze Support for Multiple Conduits: 3/8 inch (10 mm) diameter.
 - e. Outlet Boxes: 1/4 inch (6 mm) diameter.
 - f. Luminaires: 1/4 inch (6 mm) diameter.
- G. Non-Penetrating Rooftop Supports for Low-Slope Roofs: Steel pedestals with rubber bases that rest on top of roofing membrane, not requiring any attachment to the roof structure and not penetrating the roofing assembly, with support fixtures as specified.
 - 1. Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
 - 2. Attachment/Support Fixtures: As recommended by manufacturer, same type as indicated for equivalent indoor hangers and supports.
 - 3. Mounting Height: Provide minimum clearance of 6 inches (150 mm) under supported component to top of roofing.
 - 4. Manufacturers:

- a. Cooper B-Line, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Erico International Corporation: www.erico.com.
 - c. Unistrut, a brand of Atkore International Inc: www.unistrut.com/#sle.
- H. Anchors and Fasteners:
- 1. Unless otherwise indicated and where not otherwise restricted, use the anchor and fastener types indicated for the specified applications.
 - 2. Concrete: Use preset concrete inserts or expansion anchors.
 - 3. Solid or Grout-Filled Masonry: Use expansion anchors.
 - 4. Hollow Masonry: Use toggle bolts.
 - 5. Hollow Stud Walls: Use toggle bolts.
 - 6. Steel: Use beam clamps, machine bolts, or welded threaded studs.
 - 7. Sheet Metal: Use sheet metal screws.
 - 8. Wood: Use wood screws.
 - 9. Plastic, fiber, and lead anchors are not permitted.
 - 10. Powder-actuated fasteners are not permitted.
 - 11. Hammer-driven anchors and fasteners are not permitted.
 - 12. Post-Installed Concrete and Masonry Anchors: Evaluated and recognized by ICC Evaluation Service, LLC (ICC-ES) for compliance with applicable building code.
 - 13. Manufacturers - Mechanical Anchors:
 - a. Hilti, Inc: www.us.hilti.com.
 - b. ITW Red Head, a division of Illinois Tool Works, Inc: www.itwredhead.com.
 - c. Powers Fasteners, Inc: www.powers.com.
 - d. Simpson Strong-Tie Company Inc: www.strongtie.com.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that mounting surfaces are ready to receive support and attachment components.
- B. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Install anchors and fasteners in accordance with ICC Evaluation Services, LLC (ICC-ES) evaluation report conditions of use where applicable.

- D. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
- E. Unless specifically indicated or approved by Architect, do not provide support from suspended ceiling support system or ceiling grid.
- F. Unless specifically indicated or approved by Architect, do not provide support from roof deck.
- G. Do not penetrate or otherwise notch or cut structural members without approval of Structural Engineer.
- H. Equipment Support and Attachment:
 - 1. Use metal fabricated supports or supports assembled from metal channel (strut) to support equipment as required.
 - 2. Use metal channel (strut) secured to studs to support equipment surface-mounted on hollow stud walls.
 - 3. Use metal channel (strut) to support surface-mounted equipment in wet or damp locations to provide space between equipment and mounting surface.
 - 4. Unless otherwise indicated, mount floor-mounted equipment on properly sized 4 inch (100 mm) high concrete pad constructed in accordance with Section 033000.
 - 5. Securely fasten floor-mounted equipment. Do not install equipment such that it relies on its own weight for support.
- I. Conduit Support and Attachment: Also comply with Section 260533.13.
 - 1. Provide space on metal channel (strut) for 25 percent additional future conduit.
- J. Box Support and Attachment: Also comply with Section 260533.16.
- K. Interior Luminaire Support and Attachment: Also comply with Section 265100.
- L. Secure fasteners according to manufacturer's recommended torque settings.
- M. Remove temporary supports.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Inspect support and attachment components for damage and defects.
- C. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.
- D. Correct deficiencies and replace damaged or defective support and attachment components.

END OF SECTION

SECTION 260533.13 - CONDUIT FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Galvanized steel rigid metal conduit (RMC).
- B. Flexible metal conduit (FMC).
- C. Liquidtight flexible metal conduit (LFMC).
- D. Electrical metallic tubing (EMT).
- E. Conduit fittings.
- F. Accessories.

1.02 RELATED REQUIREMENTS

- A. Section 033000 - Cast-in-Place Concrete: Concrete encasement of conduits.
- B. Section 078400 - Firestopping.
- C. Section 260519 - Low-Voltage Electrical Conductors and Cables.
- D. Section 260526 - Grounding and Bonding for Electrical Systems.
 - 1. Includes additional requirements for fittings for grounding and bonding.
- E. Section 260529 - Hangers and Supports for Electrical Systems.
- F. Section 260533.16 - Boxes for Electrical Systems.
- G. Section 260553 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

- A. ANSI C80.1 - American National Standard for Electrical Rigid Steel Conduit (ERSC) 2020.
- B. ANSI C80.3 - American National Standard for Electrical Metallic Tubing -- Steel (EMT-S) 2020.
- C. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.
- D. NECA 101 - Standard for Installing Steel Conduits (Rigid, IMC, EMT) 2013.
- E. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable 2014.
- F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- G. UL 1 - Flexible Metal Conduit Current Edition, Including All Revisions.
- H. UL 6 - Electrical Rigid Metal Conduit-Steel Current Edition, Including All Revisions.
- I. UL 360 - Liquid-Tight Flexible Metal Conduit Current Edition, Including All Revisions.

- J. UL 514B - Conduit, Tubing, and Cable Fittings Current Edition, Including All Revisions.
- K. UL 797 - Electrical Metallic Tubing-Steel Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate minimum sizes of conduits with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
 - 2. Coordinate the arrangement of conduits with structural members, ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
 - 3. Verify exact conduit termination locations required for boxes, enclosures, and equipment installed under other sections or by others.
 - 4. Coordinate the work with other trades to provide roof penetrations that preserve the integrity of the roofing system and do not void the roof warranty.
 - 5. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Sequencing:
 - 1. Do not begin installation of conductors and cables until installation of conduit is complete between outlet, junction and splicing points.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittals procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for conduits and fittings.
- C. Shop Drawings:
 - 1. Include proposed locations of roof and wall penetrations and proposed methods for sealing.
- D. Project Record Documents: Record actual routing for conduits installed underground, conduits embedded within concrete slabs, and conduits 2 inch (53 mm) trade size and larger.

1.06 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store conduit and fittings in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 CONDUIT APPLICATIONS

- A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70 and product listing.
- B. Unless otherwise indicated and where not otherwise restricted, use the conduit types indicated for the specified applications. Where more than one listed application applies, comply with the most restrictive requirements. Where conduit type for a particular application is not specified, use galvanized steel rigid metal conduit.
- C. Exposed, Interior, Subject to Physical Damage: Use galvanized steel rigid metal conduit or intermediate metal conduit (IMC).
 - 1. Locations subject to physical damage include, but are not limited to:
 - a. Where exposed between finished floor and 8 feet (2.4 m) above finished floor in mechanical rooms, vehicular parking areas, and service corridors.
 - b. Where exposed between finished floor and 20 feet (6.1 m) above finished floor in warehouse spaces, loading and unloading areas, and shipping and receiving areas.
- D. Temperature Control System (Division 23):
 - 1. Provide electrical metallic tubing (EMT) except in locations where not allowed by the NEC.
 - 2. Flexible metallic conduit (max. 3 feet) shall be used for connections to motors, actuator controllers, and sensors mounted on vibration producing equipment. Liquid-tight flexible conduit shall be use in exterior locations and interior locations subject to moisture.
 - a. Liquid-tight flexible conduit shall be use in exterior locations and interior locations subject to moisture.

2.02 CONDUIT REQUIREMENTS

- A. Existing Work: Where existing conduits are indicated to be reused, they may be reused only where they comply with specified requirements, are free from corrosion, and integrity is verified by pulling a mandrel through them.
- B. Fittings for Grounding and Bonding: Also comply with Section 260526.
- C. Provide all conduit, fittings, supports, and accessories required for a complete raceway system.
- D. Provide products listed, classified, and labeled as suitable for the purpose intended.
- E. Minimum Conduit Size, Unless Otherwise Indicated:
 - 1. Conduit Associated with Temperature Control System (Division 23): 1/2 inch trade size.

- F. Where conduit size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.03 GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

- A. Manufacturers:
 - 1. Allied Tube & Conduit: www.alliedeg.com/#sle.
 - 2. Republic Conduit: www.republic-conduit.com/#sle.
 - 3. Wheatland Tube Company: www.wheatland.com/#sle.
- B. Description: NFPA 70, Type RMC galvanized steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6.
- C. Fittings:
 - 1. Manufacturers:
 - a. Bridgeport Fittings Inc: www.bptfittings.com/#sle.
 - b. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
 - c. Thomas & Betts Corporation: www.tnb.com/#sle.
 - 2. Non-Hazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
 - 3. Material: Use steel.
 - a. Do not use die cast zinc fittings.
 - 4. Connectors and Couplings: Use threaded type fittings only. Threadless set screw and compression (gland) type fittings are not permitted.

2.04 FLEXIBLE METAL CONDUIT (FMC)

- A. Manufacturers:
 - 1. AFC Cable Systems, Inc: www.afcweb.com.
 - 2. Electri-Flex Company: www.electriflex.com.
 - 3. International Metal Hose: www.metalhose.com.
- B. Description: NFPA 70, Type FMC standard wall steel flexible metal conduit listed and labeled as complying with UL 1, and listed for use in classified firestop systems to be used.
- C. Fittings:
 - 1. Manufacturers:
 - a. Bridgeport Fittings Inc: www.bptfittings.com/#sle.
 - b. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
 - c. Thomas & Betts Corporation: www.tnb.com/#sle.
 - 2. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
 - 3. Material: Use steel.

- a. Do not use die cast zinc fittings.

2.05 LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)

A. Manufacturers:

1. AFC Cable Systems, Inc: www.afcweb.com.
2. Electri-Flex Company: www.electriflex.com.
3. International Metal Hose: www.metalhose.com.

B. Description: NFPA 70, Type LFMC polyvinyl chloride (PVC) jacketed steel flexible metal conduit listed and labeled as complying with UL 360.

C. Fittings:

1. Manufacturers:

- a. Bridgeport Fittings Inc: www.bptfittings.com/#sle.
- b. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
- c. Thomas & Betts Corporation: www.tnb.com/#sle.

2. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.

3. Material: Use steel.

- a. Do not use die cast zinc fittings.

2.06 ACCESSORIES

- A. Corrosion Protection Tape: PVC-based, minimum thickness of 20 mil (0.51 mm).
- B. Conduit Joint Compound: Corrosion-resistant, electrically conductive; suitable for use with the conduit to be installed.
- C. Pull Strings: Use nylon cord with average breaking strength of not less than 200 pound-force (890 N).
- D. Modular Seals for Conduit Penetrations: Rated for minimum of 40 psig; Suitable for the conduits to be installed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that mounting surfaces are ready to receive conduits.
- B. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Install galvanized steel rigid metal conduit (RMC) in accordance with NECA 101.
- D. Conduit Routing:
 1. Conduit routing indicated is diagrammatic.

2. When conduit destination is indicated without specific routing, determine exact routing required.
 3. Conceal all conduits unless specifically indicated to be exposed.
 4. Conduits in the following areas may be exposed, unless otherwise indicated:
 - a. Electrical rooms.
 - b. Mechanical equipment rooms.
 - c. Within joists in areas with no ceiling.
 5. Unless otherwise approved, do not route conduits exposed:
 - a. Across floors.
 - b. Across roofs.
 - c. Across top of parapet walls.
 - d. Across building exterior surfaces.
 6. Conduits installed underground or embedded in concrete may be routed in the shortest possible manner unless otherwise indicated. Route all other conduits parallel or perpendicular to building structure and surfaces, following surface contours where practical.
 7. Arrange conduit to maintain adequate headroom, clearances, and access.
 8. For conduits 1 inch (27 mm) trade size and smaller, arrange conduit to provide no more than the equivalent of three 90 degree bends between pull points.
 9. For conduits larger than 1 inch (27 mm) trade size, arrange conduit to provide no more than the equivalent of three 90 degree bends between pull points.
 10. Arrange conduit to provide no more than 100 feet (30m) between pull points.
 11. Route conduits above water and drain piping where possible.
 12. Arrange conduit to prevent moisture traps. Provide drain fittings at low points and at sealing fittings where moisture may collect.
 13. Maintain minimum clearance of 6 inches (150 mm) between conduits and piping for other systems.
 14. Maintain minimum clearance of 12 inches (300 mm) between conduits and hot surfaces. This includes, but is not limited to:
 - a. Heaters.
 - b. Hot water piping.
 - c. Flues.
 15. Group parallel conduits in the same area together on a common rack.
- E. Conduit Support:

1. Secure and support conduits in accordance with NFPA 70 and Section 260529 using suitable supports and methods approved by the authority having jurisdiction.
2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
3. Installation Above Suspended Ceilings: Do not provide support from ceiling support system. Do not provide support from ceiling grid or allow conduits to lay on ceiling tiles.
4. Use conduit strap to support single surface-mounted conduit.
 - a. Use clamp back spacer with conduit strap for damp and wet locations to provide space between conduit and mounting surface.
5. Use metal channel (strut) with accessory conduit clamps to support multiple parallel surface-mounted conduits.
6. Use conduit clamp to support single conduit from beam clamp or threaded rod.
7. Use trapeze hangers assembled from threaded rods and metal channel (strut) with accessory conduit clamps to support multiple parallel suspended conduits.
8. Use non-penetrating rooftop supports to support conduits routed across rooftops (only where approved).
9. Use of spring steel conduit clips for support of conduits is permitted only as follows:
 - a. Support of electrical metallic tubing (EMT) and flexible metal conduit (FMC) up to 1 inch (27 mm) trade size concealed above accessible ceilings and within hollow stud walls.
10. Use of wire for support of conduits is not permitted.
11. Where conduit support intervals specified in NFPA 70 and NECA standards differ, comply with the most stringent requirements.

F. Connections and Terminations:

1. Use approved zinc-rich paint or conduit joint compound on field-cut threads of galvanized steel conduits prior to making connections.
2. Where two threaded conduits must be joined and neither can be rotated, use three-piece couplings or split couplings. Do not use running threads.
3. Use suitable adapters where required to transition from one type of conduit to another.
4. Provide drip loops for liquidtight flexible conduit connections to prevent drainage of liquid into connectors.
5. Terminate threaded conduits in boxes and enclosures using threaded hubs or double lock nuts for dry locations and raintight hubs for wet locations.

6. Where spare conduits stub up through concrete floors and are not terminated in a box or enclosure, provide threaded couplings equipped with threaded plugs set flush with finished floor.
 7. Provide insulating bushings or insulated throats at all conduit terminations to protect conductors.
 8. Secure joints and connections to provide maximum mechanical strength and electrical continuity.
- G. Penetrations:
1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
 2. Make penetrations perpendicular to surfaces unless otherwise indicated.
 3. Provide sleeves for penetrations as indicated or as required to facilitate installation. Set sleeves flush with exposed surfaces unless otherwise indicated or required.
 4. Conceal bends for conduit risers emerging above ground.
 5. Seal interior of conduits entering the building from underground at first accessible point to prevent entry of moisture and gases.
 6. Provide suitable modular seal where conduits penetrate exterior wall below grade.
 7. Where conduits penetrate waterproof membrane, seal as required to maintain integrity of membrane.
 8. Make penetrations for roof-mounted equipment within associated equipment openings and curbs where possible to minimize roofing system penetrations. Where penetrations are necessary, seal as indicated or as required to preserve integrity of roofing system and maintain roof warranty. Include proposed locations of penetrations and methods for sealing with submittals.
 9. Provide metal escutcheon plates for conduit penetrations exposed to public view.
 10. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 078400.
- H. Conduit Movement Provisions: Where conduits are subject to movement, provide expansion and expansion/deflection fittings to prevent damage to enclosed conductors or connected equipment. This includes, but is not limited to:
1. Where conduits cross structural joints intended for expansion, contraction, or deflection.
 2. Where conduits are subject to earth movement by settlement or frost.
- I. Condensation Prevention: Where conduits cross barriers between areas of potential substantial temperature differential, provide sealing fitting or approved

sealing compound at an accessible point near the penetration to prevent condensation. This includes, but is not limited to:

1. Where conduits pass from outdoors into conditioned interior spaces.
 2. Where conduits pass from unconditioned interior spaces into conditioned interior spaces.
- J. Provide pull string in all empty conduits and in conduits where conductors and cables are to be installed by others. Leave minimum slack of 12 inches (300 mm) at each end.
- K. Provide grounding and bonding in accordance with Section 260526.
- L. Identify conduits in accordance with Section 260553.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.
- C. Correct deficiencies and replace damaged or defective conduits.

3.04 CLEANING

- A. Clean interior of conduits to remove moisture and foreign matter.

3.05 PROTECTION

- A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

END OF SECTION

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SECTION 260533.16 - BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Outlet and device boxes up to 100 cubic inches (1,650 cu cm), including those used as junction and pull boxes.
- B. Cabinets and enclosures, including junction and pull boxes larger than 100 cubic inches (1,650 cu cm).
- C. Floor boxes.

1.02 RELATED REQUIREMENTS

- A. Section 078400 - Firestopping.
- B. Section 083100 - Access Doors and Panels: Panels for maintaining access to concealed boxes.
- C. Section 260529 - Hangers and Supports for Electrical Systems.
- D. Section 260533.13 - Conduit for Electrical Systems:
 - 1. Conduit bodies and other fittings.
 - 2. Additional requirements for locating boxes to limit conduit length and/or number of bends between pulling points.
- E. Section 260553 - Identification for Electrical Systems: Identification products and requirements.
- F. Section 262726 - Wiring Devices:
 - 1. Wall plates.
 - 2. Additional requirements for locating boxes for wiring devices.

1.03 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.
- B. NECA 130 - Standard for Installing and Maintaining Wiring Devices 2016.
- C. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable 2014.
- D. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports 2013 (Reaffirmed 2020).
- E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) 2020.
- F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- G. SCTE 77 - Specifications for Underground Enclosure Integrity 2017.
- H. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations Current Edition, Including All Revisions.

- I. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations Current Edition, Including All Revisions.
- J. UL 508A - Industrial Control Panels Current Edition, Including All Revisions.
- K. UL 514A - Metallic Outlet Boxes Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
 - 2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
 - 3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
 - 4. Coordinate minimum sizes of pull boxes with the actual installed arrangement of connected conduits, calculated according to NFPA 70.
 - 5. Coordinate the placement of boxes with millwork, furniture, devices, equipment, etc. installed under other sections or by others.
 - 6. Coordinate the work with other trades to preserve insulation integrity.
 - 7. Coordinate the work with other trades to provide walls suitable for installation of flush-mounted boxes where indicated.
 - 8. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for cabinets and enclosures, floor boxes, and underground boxes/enclosures.
 - 1. Underground Boxes/Enclosures: Include reports for load testing in accordance with SCTE 77 certified by a professional engineer or an independent testing agency upon request.
- C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- D. Project Record Documents: Record actual locations for underground boxes/enclosures.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. See Section 016000 - Product Requirements, for additional provisions.
2. Keys for Lockable Enclosures: Six of each different key.

1.06 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 BOXES

- A. General Requirements:
 1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
 2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
 3. Provide products listed, classified, and labeled as suitable for the purpose intended.
 4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
 5. Provide grounding terminals within boxes where equipment grounding conductors terminate.
- B. Outlet and Device Boxes Up to 100 cubic inches (1,650 cu cm), Including Those Used as Junction and Pull Boxes:
 1. Use sheet-steel boxes for dry locations unless otherwise indicated or required.
 2. Use cast iron boxes for damp or wet locations unless otherwise indicated or required; furnish with compatible weatherproof gasketed covers.
 3. Use suitable concrete type boxes where flush-mounted in concrete.
 4. Use suitable masonry type boxes where flush-mounted in masonry walls.
 5. Use raised covers suitable for the type of wall construction and device configuration where required.
 6. Use shallow boxes where required by the type of wall construction.
 7. Do not use "through-wall" boxes designed for access from both sides of wall.
 8. Sheet-Steel Boxes: Comply with NEMA OS 1, and list and label as complying with UL 514A.
 9. Cast Metal Boxes: Comply with NEMA FB 1, and list and label as complying with UL 514A; furnish with threaded hubs.

10. Boxes for Supporting Luminaires: Listed as suitable for the type and weight of load to be supported; furnished with fixture stud to accommodate mounting of luminaire where required.
11. Boxes for Ganged Devices: Use multigang boxes of single-piece construction. Do not use field-connected gangable boxes unless specifically indicated or permitted.
12. Minimum Box Size, Unless Otherwise Indicated:
 - a. Wiring Devices: 4 inch square by 2-1/8 inch deep (100 by 54 mm) trade size. Boxes 1-1/2 inch (38 mm) deep are not acceptable except where the depth of wall cavity is not sufficient for the use of boxes 2-1/8 inch (54 mm) deep.
 - b. Ceiling Outlets: 4 inch octagonal or square by 2-1/8 inch deep (100 by 54 mm) trade size.
13. Wall Plates: Comply with Section 262726.
14. Manufacturers:
 - a. Cooper Crouse-Hinds, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Hubbell Incorporated; Bell Products: www.hubbell-rtb.com.
 - c. Hubbell Incorporated; RACO Products: www.hubbell-rtb.com.
 - d. O-Z/Gedney, a brand of Emerson Electric Co: www.emerson.com.
 - e. Thomas & Betts Corporation: www.tnb.com.
- C. Cabinets and Enclosures, Including Junction and Pull Boxes Larger Than 100 cubic inches (1,650 cu cm):
 1. Comply with NEMA 250, and list and label as complying with UL 50 and UL 50E, or UL 508A.
 2. NEMA 250 Environment Type, Unless Otherwise Indicated:
 - a. Indoor Clean, Dry Locations: Type 1, painted steel.
 - b. Outdoor Locations: Type 3R, painted steel.
 3. Junction and Pull Boxes Larger Than 100 cubic inches (1,650 cu cm):
 - a. Provide screw-cover or hinged-cover enclosures unless otherwise indicated.
 4. Cabinets and Hinged-Cover Enclosures, Other Than Junction and Pull Boxes:
 - a. Provide lockable hinged covers, all locks keyed alike unless otherwise indicated.
 5. Finish for Painted Steel Enclosures: Manufacturer's standard grey unless otherwise indicated.

6. Manufacturers:
 - a. Cooper B-Line, a division of Eaton Corporation: www.cooperindustries.com.
 - b. Hoffman, a brand of Pentair Technical Products: www.hoffmanonline.com.
 - c. Hubbell Incorporated; Wiegmann Products: www.hubbell-wiegmann.com.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that mounting surfaces are ready to receive boxes.
- B. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.
- C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
- D. Provide separate boxes for emergency power and normal power systems.
- E. Unless otherwise indicated, provide separate boxes for line voltage and low voltage systems.
- F. Flush-mount boxes in finished areas unless specifically indicated to be surface-mounted.
- G. Unless otherwise indicated, boxes may be surface-mounted where exposed conduits are indicated or permitted.
- H. Box Locations:
 1. Locate boxes to be accessible. Provide access panels in accordance with Section 083100 as required where approved by the Architect.
 - a. Access panel having a hinged metal door neatly fitted into a flush metal trim, where a J-box or equipment is located above non-accessible ceilings or behind finished walls.
 - b. Coordinate location and type with the University Project Manager.
 - c. Access panels shall be minimum 24"x24" or 6" larger than pull box.
 2. Box locations indicated are approximate.
 3. Locate boxes as required for devices installed under other sections or by others.

- a. Switches, Receptacles, and Other Wiring Devices: Comply with Section 262726.
- 4. Locate boxes so that wall plates do not span different building finishes.
- 5. Locate boxes so that wall plates do not cross masonry joints.
- 6. Unless otherwise indicated, where multiple outlet boxes are installed at the same location at different mounting heights, install along a common vertical center line.
- 7. Do not install flush-mounted boxes on opposite sides of walls back-to-back. Provide minimum 12 inches (300 mm) horizontal separation unless otherwise indicated.
- 8. Acoustic-Rated Walls: Do not install flush-mounted boxes on opposite sides of walls back-to-back; provide minimum 24 inches (610 mm) horizontal separation.
- 9. Fire Resistance Rated Walls: Install flush-mounted boxes such that the required fire resistance will not be reduced.
 - a. Do not install flush-mounted boxes on opposite sides of walls back-to-back; provide minimum 24 inches (610 mm) separation where wall is constructed with individual noncommunicating stud cavities or protect both boxes with listed putty pads.
- 10. Locate junction and pull boxes as indicated, as required to facilitate installation of conductors, and to limit conduit length and/or number of bends between pulling points in accordance with Section 260533.13.
- I. Box Supports:
 - 1. Secure and support boxes in accordance with NFPA 70 and Section 260529 using suitable supports and methods approved by the authority having jurisdiction.
 - 2. Provide independent support from building structure except for cast metal boxes (other than boxes used for fixture support) supported by threaded conduit connections in accordance with NFPA 70. Do not provide support from piping, ductwork, or other systems.
 - 3. Installation Above Suspended Ceilings: Do not provide support from ceiling grid or ceiling support system.
 - 4. Use stud-to-stud supports to secure flush-mounted boxes supported from single stud in hollow stud walls. Repair or replace supports for boxes that permit excessive movement.
- J. Install boxes plumb and level.
- K. Flush-Mounted Boxes:

1. Install boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that front edge of box or associated raised cover is not set back from finished surface more than 1/4 inch (6 mm) or does not project beyond finished surface.
 2. Install boxes in combustible materials such as wood so that front edge of box or associated raised cover is flush with finished surface.
 3. Repair rough openings around boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that there are no gaps or open spaces greater than 1/8 inch (3 mm) at the edge of the box.
- L. Install boxes as required to preserve insulation integrity.
- M. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.
- N. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 078400.
- O. Close unused box openings.
- P. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.
- Q. Provide grounding and bonding in accordance with Section 260526.
- R. Identify boxes in accordance with Section 260553.

3.03 CLEANING

- A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

3.04 PROTECTION

- A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

END OF SECTION

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SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Electrical identification requirements.
- B. Identification nameplates and labels.

1.02 RELATED REQUIREMENTS

- A. Section 099113 - Exterior Painting.
- B. Section 099123 - Interior Painting.
- C. Section 260519 - Low-Voltage Electrical Conductors and Cables: Color coding for power conductors and cables 600 V and less; vinyl color coding electrical tape.

1.03 REFERENCE STANDARDS

- A. ANSI Z535.2 - American National Standard for Environmental and Facility Safety Signs 2011 (Reaffirmed 2017).
- B. ANSI Z535.4 - American National Standard for Product Safety Signs and Labels 2011 (Reaffirmed 2017).
- C. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Verify final designations for equipment, systems, and components to be identified prior to fabrication of identification products.
- B. Sequencing:
 - 1. Do not conceal items to be identified, in locations such as above suspended ceilings, until identification products have been installed.
 - 2. Do not install identification products until final surface finishes and painting are complete.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittals procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product.
- C. Samples:
 - 1. Identification Nameplates: One of each type and color specified.
 - 2. Warning Signs and Labels: One of each type and legend specified.
- D. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation and installation of product.

1.06 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

1.07 FIELD CONDITIONS

- A. Do not install adhesive products when ambient temperature is lower than recommended by manufacturer.

PART 2 PRODUCTS

2.01 IDENTIFICATION REQUIREMENTS

- A. Existing Work: Unless specifically excluded, identify existing elements to remain whose designations are changed as part of the new work.
- B. Identification for Equipment:
 - 1. Use identification nameplate to identify each piece of electrical distribution and control equipment and associated sections, compartments, and components.
 - 2. Use identification nameplate to identify disconnect location for equipment with remote disconnecting means.
 - 3. Use identification label on inside of door at each fused switch to identify required NEMA fuse class and size.
 - 4. Use identification label to identify overcurrent protective devices for branch circuits serving fire alarm circuits. Identify with text "FIRE ALARM CIRCUIT".
 - 5. Use floor marking tape to identify required equipment working clearances where indicated or where required by the authority having jurisdiction.
 - 6. Available Fault Current Documentation: Use identification label to identify the available fault current and date calculations were performed at locations requiring documentation by NFPA 70 including but not limited to the following.
 - a. Service equipment.
 - b. Equipment control panels.
- C. Identification for Raceways:
 - 1. Use color-coded bands or color-coded conduit fittings to identify systems other than normal power system for accessible conduits at maximum intervals of 10 feet (3 m).
 - a. Color-Coded Bands: Use field-painting or vinyl color coding electrical tape to mark bands 3 inches (76 mm) wide.
 - 1) Color Code:
 - (a) Emergency and Optional Standby Power System(s): Red and yellow.
 - (b) Fire Alarm System: Red.

- (c) Communications and Security Systems: Refer to Divisions 27 and 28.
 - 2) Field-Painting: Comply with Section 099123 and 099113.
 - 3) Vinyl Color Coding Electrical Tape: Comply with Section 260519.
- 2. Use identification labels or handwritten text using indelible marker to identify circuits enclosed for accessible conduits at floor penetrations and at roof penetrations when source is not within sight.
- 3. Use identification labels or plastic marker tags to identify spare conduits at each end. Identify purpose and termination location.
- 4. Use underground warning tape to identify underground raceways.
- D. Identification for Boxes:
 - 1. Use color coded boxes to identify systems other than normal power system.
 - a. Color-Coded Boxes: Field-painted in accordance with Section 099123 and 099113 per the following color code:
 - 1) Emergency and Optional Standby Power System(s): Red and yellow.
 - 2) Fire Alarm System: Red.
 - b. For exposed boxes in public areas, do not color code.
 - 2. Use identification labels or handwritten text using indelible marker to identify source and circuit numbers enclosed.
 - 3. Use warning labels to identify electrical hazards for boxes containing exposed live parts or exposed conductors operating at over 600 V nominal with the word message "DANGER; HIGH VOLTAGE; KEEP OUT".

2.02 IDENTIFICATION NAMEPLATES AND LABELS

- A. Identification Nameplates:
 - 1. Manufacturers:
 - a. Brimar Industries, Inc: www.brimar.com/#sle.
 - b. Kolbi Pipe Marker Co: www.kolbipipemarkers.com.
 - c. Seton Identification Products: www.seton.com.
 - 2. Materials:
 - a. Indoor Clean, Dry Locations: Use plastic nameplates.
 - b. Outdoor Locations: Use plastic, stainless steel, or aluminum nameplates suitable for exterior use.
 - 3. Plastic Nameplates: Two-layer or three-layer laminated acrylic or electrically non-conductive phenolic with beveled edges; minimum thickness of 1/16 inch (1.6 mm); engraved text.
 - 4. Stainless Steel Nameplates: Minimum thickness of 1/32 inch (0.8 mm); engraved or laser-etched text.

5. Aluminum Nameplates: Anodized; minimum thickness of 1/32 inch (0.8 mm); engraved or laser-etched text.
 6. Mounting Holes for Mechanical Fasteners: Two, centered on sides for sizes up to 1 inch (25 mm) high; Four, located at corners for larger sizes.
- B. Identification Labels:
1. Manufacturers:
 - a. Brady Corporation: www.bradyid.com.
 - b. Brother International Corporation: www.brother-usa.com/#sle.
 - c. Panduit Corp: www.panduit.com/#sle.
 2. Materials: Use self-adhesive laminated plastic labels; UV, chemical, water, heat, and abrasion resistant.
 - a. Use only for indoor locations.
 3. Text: Use factory pre-printed or machine-printed text. Do not use handwritten text unless otherwise indicated.
- C. Format for Equipment Identification:
1. Minimum Size: 1 inch (25 mm) by 2.5 inches (64 mm).
 2. Legend:
 - a. System designation where applicable:
 - 1) Emergency Power System: Identify with text "EMERGENCY".
 - 2) Fire Alarm System: Identify with text "FIRE ALARM".
 - b. Equipment designation or other approved description.
 - c. Other information as indicated.
 3. Text: All capitalized unless otherwise indicated.
 4. Minimum Text Height:
 - a. System Designation: 1/2 inch (13 mm).
 - b. Equipment Designation: 1/2 inch (13 mm).
 - c. Other Information: 1/4 inch (6 mm).
 5. Color:
 - a. Normal Power System: White text on black background.
 - b. Emergency Power System: White text on red background.
 - c. Fire Alarm System: White text on red background.

PART 3 EXECUTION

3.01 PREPARATION

- A. Clean surfaces to receive adhesive products according to manufacturer's instructions.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install identification products to be plainly visible for examination, adjustment, servicing, and maintenance. Unless otherwise indicated, locate products as follows:
 - 1. Conduits: Legible from the floor.
 - 2. Boxes: Outside face of cover.
- C. Install identification products centered, level, and parallel with lines of item being identified.
- D. Secure nameplates to exterior surfaces of enclosures using stainless steel screws and to interior surfaces using self-adhesive backing.
 - 1. Do not use adhesives on exterior surfaces except where substrate can not be penetrated.
- E. Install self-adhesive labels and markers to achieve maximum adhesion, with no bubbles or wrinkles and edges properly sealed.
- F. Mark all handwritten text, where permitted, to be neat and legible.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Replace self-adhesive labels and markers that exhibit bubbles, wrinkles, curling or other signs of improper adhesion.

END OF SECTION