

**THE MONUMENT**

# **REQUEST FOR PROPOSAL**

**TECHNOLOGY UPGRADES**

**ICE ARENA**

**FOR**

**THE MONUMENT**

**444 Mt. Rushmore Road North  
Rapid City, SD 57701**

**October 14, 2025**

**PUBLISHING DATES:           OCTOBER 18, 2025  
                                         OCTOBER 25, 2025**

**NOTICE OF REQUEST FOR PROPOSAL  
FOR THE FOLLOWING ITEMS  
FOR THE  
CITY OF RAPID CITY – THE MONUMENT**

Notice is hereby given that Request for Proposals will be received by THE MONUMENT - City of Rapid City, South Dakota until **2:00 P.M. EDT (NOON MDT), MONDAY, NOVEMBER 10, 2025,** at the Administrative Offices of THE MONUMENT, 444 Mt Rushmore Road North, Rapid City, South Dakota, 57701, -OR- sent via electronic means to [tracyh@themonument.live](mailto:tracyh@themonument.live) and [jackb@anthonyjamespartners.com](mailto:jackb@anthonyjamespartners.com) for the project listed below.

Specifications may be obtained at the following links:

[www.themonument.live/rfp](http://www.themonument.live/rfp)

<https://www.rcgov.org/how-to/how-to-do-business-with-rapid-city/bids-contract-opportunities-160.html>

All requests for information should be in writing and directed to: Jack Bailey, Anthony James Partners, LLC via email at [jackb@anthonyjamespartners.com](mailto:jackb@anthonyjamespartners.com) and a copy to Tracy Heitsch at [tracyh@themonument.live](mailto:tracyh@themonument.live).

Request for Proposal is as follows:

**TECHNOLOGY UPGRADES – ICE ARENA  
AT THE MONUMENT**

I. REQUEST FOR PROPOSAL/OVERVIEW

The Monument, located in Rapid City, South Dakota, has initiated a Request for Proposal (RFP) to identify vendors qualified to propose, execute, and implement a Technology Upgrades Project for our Ice Arena.

The Monument requires a vendor who has demonstrated experience and expertise in technology upgrade solutions. The Monument is seeking a cost-effective, long term, warranty backed, low maintenance solutions to upgrade our outdated technologies in our Ice Arena.

II. ABOUT THE MONUMENT

The Monument is a multiple venue, 800,000 square foot complex located in Rapid City, SD. The venue includes two arenas (one with an ice surface), a 1700 seat Fine Arts Theatre, a versatile fieldhouse, and 150,000 square feet of convention space, all within one complex under one roof. The Barnett Fieldhouse, LaCroix Hall, and Fine Arts Theatre were built in 1977. Rushmore Hall was added in the mid-1980s and expanded in the early 1990s. The Ice Arena was added in 2008 and the Summit Arena (seating for 10,000+) was added in 2021.

The Monument is home to many large annual events including the Black Hills Stock Show, Rodeo Rapid City, the Black Hills Pow Wow, and the Lakota Nation Invitational Basketball Tournament. The venue hosts over 600 events each year equating to more than 500,000 visitors flowing through the building each calendar year.

***This project is specific to the Ice Arena, located within The Monument complex.*** The Ice Arena opened in 2008, boasts a permanent ice floor for multiple activities, including the home of our professional hockey team, the Rapid City Rush of the ECHL. For hockey, the Ice Arena seats just over 5100, boasts of 13 private suites, and a club area with food and beverage service combined with seating for over 260. The facility can be adapted with specialized floor covering to also allow multi-purpose events such as tradeshow, sporting events like basketball, and concerts.

III. RFP INSTRUCTIONS AND GENERAL CONDITIONS

See attached for:

- A. RFP Instructions and General Conditions
- B. Sample Contract
- C. Attachment A: Technical Specifications
- D. Attachment B: City of Rapid City General Conditions
- E. Attachment C: Prohibited Entity Certification

# THE MONUMENT ICE ARENA TECHNOLOGY UPGRADES

## RFP INSTRUCTIONS AND GENERAL CONDITIONS

**DATE OF ISSUE:** October 15, 2025

**RFP #** Monument 25-1533

**TITLE:** The Monument Ice Arena Technology Upgrades

**ISSUED BY:** Anthony James Partners on behalf of The Monument, owned by the city of Rapid City, South Dakota

**PROPOSALS WILL BE RECEIVED UNTIL 2 PM EASTERN TIME, NOVEMBER 10, 2025, FOR FURNISHING THE PRODUCTS AND SERVICES DESCRIBED HEREIN.**

All requests for information should be in writing and directed to: Jack Bailey, Anthony James Partners, LLC, [jackb@anthonyjamespartners.com](mailto:jackb@anthonyjamespartners.com), with a copy to Tracy Heitsch [tracyh@themonument.live](mailto:tracyh@themonument.live)

The undersigned offers and agrees to furnish the goods/services in accordance with the attached proposal and as mutually agreed upon by subsequent negotiation.

|                      |                  |
|----------------------|------------------|
| Proposer: _____      | Date: _____      |
| _____                | Name: _____      |
| _____                | Title: _____     |
| _____ Zip Code _____ | Phone: _____     |
| Fed ID No: _____     | Fax: _____       |
| Email: _____         | Signature: _____ |

## **1. SECTION 00 1000 – RFP INSTRUCTIONS AND GENERAL CONDITIONS**

### **1.1 INTRODUCTION**

The Request for Proposal represents the minimum requirements to furnish a complete turnkey package as described in this RFP.

The Contractor will provide the Work described in the RFP Documents on a 'turnkey basis.' Work contemplated by this RFP includes, unless otherwise indicated, manufacturing, supply, delivery, installation, labor, related services (including design) and testing of all equipment and materials necessary to install and operate the Monument Technology Upgrades as described in the RFP Documents, and more particularly in the performance specifications included in the RFP Documents.

Proposers responding to this RFP must provide pricing for a complete turnkey installation, including pricing for the provision and installation of all items necessary to provide finished and fully operational systems. Materials, equipment, and related services required for the provision and installation of such a system, not expressly addressed in this RFP, are understood to be the responsibility of the Proposer.

### **1.2 GENERAL DESCRIPTION**

The Contractor shall provide a complete, workable, and operational system including all labor, equipment, tools, material, engineering, supervision, licenses, insurance, and permits to engineer, manufacture, and install a fully integrated and operational LED Video Display highlighted by the following:

#### **A. LED Displays**

1. North Endzone LED display
2. South Endzone LED display
3. Fascia LED ring
4. Exterior Marquee
5. LED Courtside display
6. Scoring Systems – capable of supporting multiple sports (hockey, basketball, wrestling and volleyball-etc)
7. Fixed Digit Display Integration
8. LED Operating System
9. IPTV System
10. Camera System

### **1.3 DEFINITIONS**

- A. "Proposer" shall mean each Vendor submitting a proposal in response to this RFP.
- B. "Contractor" shall mean the Vendor that has been selected to provide products or services or both to Owner.
- C. "Owner" shall mean The Monument, owned by the City of Rapid City.
- D. "Code Authority having Jurisdiction" shall mean the office or Agency responsible for assuring the work's compliance with local and State Building Code.
- E. "Contract" shall mean any written contract entered between Owner and Contractor following the award of a contract with respect to this project.
- F. "Substantial Completion" – shall be defined as all work under the Contract has been substantially completed in accordance with the terms of the Contract and all systems are fully operational and ready for the intended use. Systems shall be installed, all rack equipment installed, all cabling completed, system has been commissioned and tested in accordance with applicable requirements of the Technical Specifications and the Contract. The project is ready for final punch list by the Owner and/or Owner's designated representative.

## RFP INSTRUCTIONS AND GENERAL CONDITIONS

- G. "Guaranteed Completion" – shall be defined as all punch list items have been completed, Closeout Documentation has been turned over, and all work under the Contract is ready for final acceptance by the Owner once three (3) consecutive problem free events have been completed as defined by Section 3.7.F of the Technical Specifications.
- H. "RFP Documents" – refers to the request for proposals issued by Anthony James Partners on behalf of the Owner and more specifically consisting of the RFP Instructions and General Conditions dated October 15, 2025, Proposal Form, Technical Specifications dated October 15, 2025, and any attachments and addenda issued in writing following issuance of this RFP.
- I. "Vendor" – refers to each entity receiving this RFP and from whom a proposal is being solicited.
- J. "Contract Sum" refers to the compensation, including all other fees, costs, expenses, excise taxes and other amounts to be paid to the Contract for the Work.

### 1.4 SITE VISITS

- A. All Proposers shall attend the Mandatory Pre-Bid Meeting referred to in Section 1.8B of this RFP. In connection with the Pre-Bid Meeting, Proposers shall be permitted to access and examine the site and take note of all conditions affecting the conduct and completion of the work.
- B. Submission of a Proposal will be deemed confirmation that the Proposer has complied with these requirements.
- C. Proposers are clearly advised that any drawings, plans, charts, or other materials, whether supplied by or on behalf of Owner, AJP, or third parties, describing aspects of the site provided as part of this document or otherwise are not to be considered as definitive or as a substitute for any information which would otherwise be obtained by the Proposer during a formal Site inspection.

### 1.5 PROPOSALS SHALL BE SENT TO:

One (1) electronic copy to:

Tracy Heitsch  
The Monument  
[tracyh@themonument.live](mailto:tracyh@themonument.live)

Jack Bailey  
Anthony James Partners  
[jackb@anthonyjamespartners.com](mailto:jackb@anthonyjamespartners.com)

### 1.6 GENERAL

- A. Proprietary Information - All material submitted, whether by Proposers, Vendors, including their sub-contractors and suppliers, in connection with the RFP process, becomes the property of the Owner, and may be returned or retained at Owner's sole option. Proposals submitted become the property of the Owner and may be reviewed and evaluated by any person at the discretion of the Owner. The Owner has the right to use any or all concepts presented in any reply to the RFP. Selection or rejection of the proposal does not affect this right. Information provided by the Owner to the requesting vendor for the purpose of providing a response to the RFP is the property of the Owner. However, the Owner considers Pricing Information and other information that is reasonably deemed proprietary and marked by the Proposer as "Confidential" as being confidential and will take reasonable precautions to prevent disclosure of such "confidential" information to third parties unless disclosure is required by applicable law.
- B. The labor provided under this contract is not subject to Union Labor requirements.
- C. Proposal Validity - Proposals must be valid through January 2026.
- D. At Owner's option, portions of the RFP response from the Proposer to which the Contract is awarded and this RFP may be incorporated in the Contract.
- E. Vendors must submit proposals for the complete package including all required equipment, installation and functional connection of all equipment as described in this document. A proposal submitted in response to this

## RFP INSTRUCTIONS AND GENERAL CONDITIONS

RFP signifies the Proposer agrees to sell to Owner the indicated products, in whole or in part, at the sole discretion of Owner.

- F. It shall be the Vendor's responsibility to understand the facility schedule to ensure there are no scheduling conflicts regarding installation of the systems components. Vendors are required to provide a proposed project schedule to determine if work will be required on weekends or if extended shifts will be required. Vendors will not be allowed to increase their costs because of the vendor's failure to research this aspect of their proposal. The Monument is normally open for business 5-7 days per week, except national and state holidays, dependent on facility event schedules.
- G. Change orders will not be accepted for errors in estimating the cost of the project. It is the responsibility of the Proposer to confirm the existing structural, electrical and data conditions. Vendors are required to view on-site conditions prior to submitting a proposal.
- H. The RFP shall act as a description of the minimum system requirements desired by the Owner and Proposers are required to provide a solution for the base proposal. Proposers are encouraged to offer viable alternatives.

### 1.7 PROPOSAL SUBMISSIONS GENERAL

- A. The following items must be submitted in the proposal:
  - 1. Electronic copy of the proposal to Tracy Heitsch [tracyh@themonument.live](mailto:tracyh@themonument.live), and to Jack Bailey, [jackb@anthonyjamespartners.com](mailto:jackb@anthonyjamespartners.com),
  - 2. Introductory letter with contact information clearly labeled.
  - 3. Fully executed copy of the first page of this RFP.
  - 4. Proposer's Qualifications.
  - 5. A complete list of references for similar installations performed in the past 3 years with name of facility, photo of installation, contact name, title, address and direct phone number.
  - 6. A formal list of intended design professionals, sub-contractors and suppliers, including primary place of business, and estimated dollar amount. Contractor, subcontractors and design professionals shall be licensed by appropriate South Dakota authorities / board as appropriate and required by law. Proposals should include a statement indicating the licensing status, including license number, of Contractor, subcontractors and design professionals required to be licensed in South Dakota and identified in your proposal.
  - 7. Equipment List and Detailed Pricing Breakout.
  - 8. Proposed Equipment Drawings/Renderings/Cut Sheets
  - 9. Warranty information for each application.
  - 10. Services provided as part of the required two (2) year parts and labor warranty.
  - 11. Proposed timeline for completing the work (Gantt Chart format).
  - 12. Signature on enclosed contract.

## RFP INSTRUCTIONS AND GENERAL CONDITIONS

### 1.8 PROJECT SCHEDULE SUMMARY:

|                                        |                                 |
|----------------------------------------|---------------------------------|
| A. Issue RFP to vendors:               | October 15, 2025                |
| B. Mandatory Pre-Bid Meeting           | October 21, 2025 10:30am (MST)  |
| C. Bidder Inquiry Deadline:            | October 28, 2025: 2:00pm (EST)  |
| D. Issue Answers to Inquiries:         | November 04, 2025               |
| E. Bidder RFP Response Due:            | November 10, 2025: 2:00pm (EST) |
| F. Bidder Interviews via Teams Meeting | November 18, 2025               |
| G. Bidder BAFO Response Due:           | November 25, 2025: 2:00pm (EST) |
| H. Anticipated Award                   | December 10, 2025               |
| I. Anticipated Start Date              | July 01, 2026                   |
| J. Substantial Completion              | August 31, 2026                 |
| K. Guaranteed Completion               | September 15, 2026              |

Should Contractor fail to achieve Substantial Completion by *August 31, 2026*, as that Contract Substantial Completion Date may be revised by Change Order pursuant to the terms of the Contract, the Contractor shall pay to Owner, as liquidated damages, Two Thousand Five Hundred Dollars (\$2,500) per day for each calendar day between the Contract Substantial Completion Date and the date Contractor achieves Substantial Completion as defined herein or until the Contract Guaranteed Completion Date, whichever is earlier. In addition, should Contractor fail to achieve Substantial Completion by *September 15, 2026*, the Contract Guaranteed Completion Date as that date may be revised by Change Order pursuant to the terms of the Contract, the Contractor shall pay the Owner, as liquidated delay damages, Ten-Thousand Dollars (\$10,000) per day for each calendar day between the Contract Guaranteed Completion Date and the date Contractor achieves Guaranteed Completion as defined herein. The Vendor, Contractor, and Owner agree all liquidated damages amounts contained herein are reasonable in the light of the anticipated or actual harm caused by delay, the difficulties of proof of loss, and the inconvenience of non-feasibility of otherwise obtaining an adequate remedy.

### 1.9 PROPOSAL EVALUATION

A. The proposals will be evaluated using a scoring matrix. An example of the scoring matrix is shown below:

| Firms                                                                                                                                                                                                |            | Points Possible                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Selection Criteria                                                                                                                                                                                   |            | Evaluation Criteria / Guidance                                                                                                                                                                               |
| Proposer capacity, capability, and overall competency to perform the specified work, including vendor selection, qualification and management of local integration of subcontractors for the project | 20         | Demonstrated expertise and qualifications of key personnel- Organizational structure and ability to manage complex, multi-stakeholder projects- Certifications or professional credentials relevant to scope |
| Work history and references                                                                                                                                                                          | 20         | Relevance of past projects in similar scope, complexity, and venue type- Performance on comparable public/private projects- Client references validating schedule, cost, and quality performance             |
| Ability to meet specified timelines                                                                                                                                                                  | 15         | Demonstrated understanding of project schedule and critical path- Realistic staffing and resource plan- Historical record of meeting deadlines on similar projects                                           |
| Pricing and terms                                                                                                                                                                                    | 25         | Overall value relative to scope and quality- Transparency of cost structure- Appropriateness of assumptions, exclusions, and alternates- Payment and warranty terms                                          |
| Warranty, service, and support provisions- including the ability to provide 24/7 phone support post project                                                                                          | 20         | Quality and duration of warranty- Responsiveness and service capabilities- Long-term maintenance and upgrade approach                                                                                        |
| <b>TOTAL</b>                                                                                                                                                                                         | <b>100</b> |                                                                                                                                                                                                              |

#### **1.10 PROPOSAL REJECTION**

- A. Owner reserves the right to reject and/or negotiate any or all proposals on a non-exclusive basis.
- B. The lowest priced proposal will not necessarily be accepted as the “winning” proposal.
- C. Owner may reject or accept, at its sole option, any incomplete or incorrect proposal.
- D. Due to the unique nature of the equipment and work described herein, objective comparisons may not be possible and Owner reserves the right, at its sole and absolute discretion, to determine the compliance of any Proposal with the requirements set out herein or any accompanying documents or the merits of one Proposal over another.
- E. Owner may, at its option, disclose all or some of the contents of the Proposals or other information provided by any Proposer to all or some of the Proposers as part of Owner’s evaluation of the merits of the Proposals submitted and its negotiations relating to same.
- F. Owner reserves the right to:
  - 1. Cancel this process at any time prior to its execution of a definitive contract and such cancellation will be without any Owner liability.
  - 2. Negotiate with companies not solicited in the RFP process.
  - 3. Make all decisions regarding this RFP, including, without limitation, the right to accept, reject, or negotiate changes to any of the products or terms outlined herein.
  - 4. Award the Contract as a whole or in part based on unit pricing provided on bid form.
  - 5. To reject any or all proposals received.

#### **1.11 CONTRACT FORM**

- A. The Proposer is advised that the RFP Documents contain information that will be incorporated in whole or part into the Contract.
- B. The RFP Documents may be superseded by such Contract. Please see the attached sample contract for review and approval.
- C. The terms of the Contract will be subject to the approval of Owner, in its sole discretion.
- D. A Contract, when fully executed, shall comprise a set of General Conditions with Supplementary Conditions, Functional Specifications and a complete Scope of Work, a Maintenance Agreement and any other Schedules as may be required to fully describe the work under the Contract.

#### **1.12 PROPOSAL OF ALTERNATE SOLUTIONS**

- A. In addition to proposing specifically for what is specified in this RFP, the Proposer is encouraged to furnish alternative solutions that may satisfy or complement the solution proposed in this RFP.
- B. Proposers are also encouraged to suggest alternative solutions that would reduce the overall cost without hindering the performance of the system from its intended use.

#### **1.13 COMPLIANCE**

- A. The Proposer is required to carefully review all the components of this RFP in its’ entirety.
- B. Unless the Proposer specifically cites, in writing, where they are “Not Compliant” it shall be deemed that the Proposer understands, agrees to and accepts all terms, conditions, stipulations and requirements of this RFP.
- C. In a case of non-compliance, the Proposer indicates all relevant qualifications or alternatives, which Proposer wishes Owner to consider.

#### **1.14 CONSTRUCTION**

- A. The Contractor shall always comply with applicable laws and the rules and regulations established by the Code Authority having jurisdiction, the Owner, regarding the conduct of work at the site.
- B. (1) To the fullest extent permitted by law and in addition to any other indemnity provided in this Contract, Contractor shall and will indemnify, defend and save harmless the Owner, AJP and its consultants and the Construction Contractor, and the agents, officers, and employees of any of them ("Indemnified Parties"), from

and against any and all liability, claims, demands, damages, losses, expenses (including but not limited to attorneys' fees), fees, fines, penalties, suits, proceedings, actions, and causes of action of any and every kind and nature growing out of or in any way connected with Contractor's Work under this Contract, or its use, occupancy, management, operation or control of the Project site, but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable. The Indemnified Parties shall not be liable for any personal injury damage sustained by employees of Contractor, its Subcontractors, agents, officers, and employees. This obligation to indemnify, defend and save harmless expressly includes the obligation to pay all fees of legal counsel and third-party investigation costs and all other reasonable costs, expenses, and liabilities incurred as a result thereof; however, Contractor, and the Indemnified Parties may use the same counsel if such counsel is approved by the Owner. It is expressly understood and agreed that the Contractor is and shall be deemed to be an independent contractor and operator that is responsible to all parties for its acts or omissions and that neither the Owner, nor AJP shall in any way be responsible therefor. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity (whether in contract, at law, or otherwise) which would otherwise exist as to a party or person described in this Section.

(2) In claims against any person or entity indemnified under this Section by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 1.14B(1) shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

(3) The Contractor's indemnity obligations under this Section 1.14B shall also specifically include, without limitation, all fines, penalties, damages, liability, costs, and expenses (including, without limitation, reasonable attorneys' fees), arising out of, or in connection with, any (i) violation of or failure to comply with any law, statute, ordinance, rule, regulation, code, or requirement of a public authority that bears upon the performance of the Work by the Contractor, a Subcontractor, or any person or entity for whom either is responsible, and (ii) failure to secure and pay for permits, fees, licenses, and inspections as required under the Contract Documents, or any violation of any permit or other approval of a public authority applicable to the Work, by the Contractor, a Subcontractor, or any person or entity for whom either is responsible.

#### **1.15 DELIVERY, STORAGE AND SECURITY**

- A. The Contractor shall deliver to the site all system components and related materials at its own expense.
- B. The Contractor shall unload, uncrate, assemble, and transport each component to its desired location for installation and install the system on-site in accordance with on-site regulations.
- C. The Contractor will be responsible for the cleanup, recycle (where applicable), and disposal of all packaging materials and debris.
- D. The Contractor is responsible for removal and recycling of all removed components and disposal of any non-recyclable materials.
- E. The Contractor is responsible for providing any temporary on-site storage for equipment and materials unless adequate on-site storage is available from Owner.
- F. Owner shall not be responsible for security or insurance related to said equipment or materials, even if stored on-site at locations designated or approved by Owner.
- G. Any temporary storage requirements must be coordinated with the Owner.

#### **1.16 NO PROMOTION OR ADVERTISING BY CONTRACTOR**

- A. The Contractor shall not display its trademarks or insignia upon any of the Equipment.
- B. The Contractor shall not name the Equipment or the fact that the equipment is installed at the Site in any part of its promotion or advertising of the Contractor's business (including, without limitation, any statement that it has supplied the Equipment or maintains same) without the written consent of the Owner, which consent may be withheld by the Owner with or without cause.

**1.17 INSURANCE**

At all times during the Term, and any extension or continuation of this Agreement, Contractor shall, at its sole cost and expense, obtain and maintain the following insurance which shall insure Owner and Contractor against all of the various claims, liabilities, and attorneys' fees including: (a) commercial general liability insurance including contractual liability coverage in the amount of at least \$1,000,000 per occurrence, \$2,000,000 aggregate for bodily injury and/or personal injury, \$2,000,000 for products-completed operations aggregate and \$1,000,000 for property damage per occurrence; (b) workers compensation insurance in full compliance with the laws of the state in which the Services under this agreement are performed and employer's liability insurance in the amount of at least \$1,000,000 each accident, \$1,000,000 disease each employee and \$1,000,000 disease policy limit; (c) comprehensive automobile liability insurance for owned, non-owned and hired automobiles with limits of not less than \$1,000,000 combined single limit; (e) if the Contractor is required to furnish professional design services as part of the Services, the Contractor shall procure Professional Liability insurance in an amount of at least \$2,000,000 per claim and \$2,000,000 in the aggregate, which shall remain in force for at least 6-years after substantial completion (tail coverage acceptable). The commercial general liability coverage shall include Contractor's employees as insureds; Premise/Operations (including X,C and U coverages as applicable); Independent Contractor's coverage, personal injury coverage for suits brought by employees of Contractor; and products and completed operations which shall remain in effect for a period of at least two (2) years after the Completion Date. Contractor agrees that its liability coverages are primary and non-contributory to any other insurance carried by any of the Releasees whether such insurance is on a primary, excess, umbrella or contingent basis. The required insurance limits shall not limit the liability of Contractor, nor relieve Contractor of any obligations under this Agreement. To the fullest extent permitted by law, a waiver of subrogation will be provided in favor of each of the Releasees, and any other parties listed as additional insureds. Insurance required under this Agreement shall be with companies rated A-XI or better in the most current edition of "Best's Key Ratings Guide." All policies required under this Agreement shall not be cancelled or non-renewed until at least thirty (30) days' prior written notice has been delivered to Owner. Upon execution of this Agreement, Contractor shall deliver to Owner certificates of insurance naming each of the Releasees as additional insureds, showing Owner as the certificate holder and in the form and substance satisfactory to Owner, evidencing the existence and effectiveness of such insurance. Contractor shall be responsible, and will maintain, Contractor's sole cost and expense, property insurance to cover Contractor's tools, equipment and materials. Such property insurance will include a waiver of subrogation against Owner and each of the Releasees.

**1.18 TAXES**

- A. The project is subject to excise tax. Excise tax is currently listed at a rate of 2.041%. It is the bidders responsibility to review and comply with South Dakota excise tax requirements.

**1.19 TERMS AND CONDITIONS**

- A. At no time, including, without limitation, upon substantial performance and when title to the Equipment passes to Owner, will the Owner be liable for the payment of any royalties, license, or other fees to the Contractor or third parties because of the Owner's ownership, use or enjoyment of the Equipment or resulting from the replacement of broken or worn-out parts of the Equipment.
- B. The project is designated as a partial payment project. Please refer to provided sample contract for specific terms and conditions of a designated partial payment project.

**1.20 RELATIONSHIP OF THE PARTIES**

- A. The relationship between Contractor and Owner is strictly that of an independent contractor. The contractor shall have no authority to enter into any contracts or incur any obligations binding upon Owner, unless Owner agrees in advance in writing.
- B. Contractor shall employ only competent foremen and experienced laborers on the project, and shall discharge or remove immediately, whenever requested to do so by Owner, any employee considered by Owner to be incompetent or disorderly.

**1.21 REGULATIONS AND CITIZENSHIP**

- A. Contractor shall be responsible for day-to-day premises and facilities cleanup, including temporary storage, removal and disposal of debris, trash and rubbish caused by its employees, or installation material-men or workmen. All tools, equipment and materials shall be secured upon completion of the day's work. Surplus materials shall be removed from the work site and stored in their appropriate location.

## RFP INSTRUCTIONS AND GENERAL CONDITIONS

- B. Contractor shall not drive nor operate a vehicle, equipment, or machinery upon any of Owner's campus lawns, grounds, pathways or interbuilding walkways without having first obtained concurrence of the activity and approval for operating the vehicle, equipment, or machinery from Owner. Requests for approval will be submitted through the Owner's assigned Project Contact.
- C. Contractor's personnel will follow Owner's standards and personal conduct codes while on Owner's premises. A copy of those standards and codes will be provided to Contractor on request. Personnel found violating these standards or regulations shall be asked to leave the work site and shall not be allowed to return.
- D. OSHA REGULATIONS: It is the Contractor's responsibility to guarantee that all items of hardware, services rendered or working environments meet or exceed those requirements and guidelines established by the Occupational Safety and Health Act (OSHA). Questions regarding such requirements as pertaining to Owner may be referred to the Monument Safety Officer.
- E. SAFETY: Contractor shall give all required notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the safety of persons or property and their protection from damage, injury, or loss.
- F. EMERGENCIES: In any project related emergency affecting the safety of persons or property, Contractor shall act with all due haste to prevent further threatened damage, injury, or loss, and will immediately notify the Monument Safety Office.
- G. PROTECTION OF OWNER'S FACILITIES: Contractor shall be responsible for replacing, restoring, or bringing to original condition any property or facilities damaged by Contractor's personnel or operations. Any damage or disfigurement must be reported promptly to the Owner and restored by the Contractor at its own expense.
- H. NONDISCRIMINATION: Contractor shall represent in its proposal that it and all its subcontractors are following nondiscrimination legislation and fair employment practices.

### 1.23 WARRANTIES

- A. Contractor shall warrant and guarantee that title to all work, materials, and equipment covered by a request for payment, whether originally incorporated in the project or not, will pass to Owner, upon the receipt of full payment by Contractor, free and clear of all liens, claims, security interests or encumbrances, and that no work, material, or equipment covered by a request for payment will have been acquired by Contractor, or by any person performing work at the site or furnishing materials and equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained or otherwise imposed by Contractor or any other third person.
- B. Contractor shall warrant and guarantee to Owner, without limitations or qualification, that all equipment, components, materials, workmanship, and the system as an entity shall conform to and perform in accordance with local building codes.
- C. Contractor shall be fully responsible for any work knowingly performed contrary to said laws, codes and/or regulations, and shall fully indemnify Owner against loss and bear all costs and penalties arising therefrom.
- D. Contractor should note that following acceptance of Final Acceptance of the Work and final payment to Contractor by Owner, all Work (including without limitation all equipment, hardware, software, licenses, equipment, materials, guarantees, warranties, and rights relating thereto) are property of the Owner. Submission of a proposal shall be deemed confirmation that (i) all guarantees, warranties licenses and other rights relating to the Work are property of the Owner.

### 1.24 SAFETY AND LEGAL REQUIREMENTS

- A. Without in any way limiting any other term or provision of this Agreement or any obligation of Contractor hereunder, Contractor shall do or cause to be done all of the following: (a) perform the Services in a first-class manner that shall protect the health and safety of all patrons, employees and other users of the Facilities; (b) adhere to all laws, policies, rules, and regulations applicable to the Services to be provided by Contractor pursuant to this Agreement; (c) if an authorized management person of Company is not available, then contact the proper local authorities for assistance at a Facility when such assistance is appropriate for safety; and (d) obtain, maintain and comply with all licenses, permits and franchises or approvals from any governmental authority that may be required to enable Contractor to perform all of the Services and fulfill all of its obligations under this Agreement.

#### **1.25 INDEMNIFICATION**

- A. Contractor agrees to indemnify, defend and forever save and hold harmless Owner, City of Rapid City, The Monument, and each of their affiliates or related entities, and their respective principals, owners, shareholders, members, partners, officers, directors, employees, representatives, tenants, agents, contractors and volunteers (sometimes collectively referred to herein as the "Owner Indemnitees" and individually as a "Owner Indemnitee"), from and against any and all damages, claims, losses, demands, costs, expenses (including attorneys' fees and costs), obligations, liens, liabilities, actions and causes of action, threatened or actual (collectively, "Claims"), which any one of the Owner Indemnitees may suffer or incur arising directly or indirectly out of or in connection with the Services or the negligence or willful misconduct of Contractor, except to the extent such Claims arise from the negligence or willful misconduct of Owner. In addition, without limiting the generality of the foregoing, Contractor agrees to indemnify, defend (at the option of Owner and with counsel reasonably satisfactory to Owner) and forever save and hold harmless the Owner Indemnitees from and against any and all Claims which any one of the Owner Indemnitees may suffer or incur arising out of or in connection with the failure of Contractor to make any payment of taxes and/or assessments required by law to be made by Contractor in connection with this Agreement or the Services.

#### **1.26 INDEPENDENT CONTRACTOR STATUS**

- A. Contractor is engaged hereunder as an independent contractor and as such shall be solely responsible for full compliance with all requirements under all laws and regulations now or in the future applicable to Contractor, its business affairs and its performance of its duties under or pursuant to this Agreement, including, without limitation, state and federal taxes applicable to this Agreement (including payroll taxes), unemployment insurance and other insurance applicable and necessary with respect to its employees and all of its duties and obligations as an employer. The relationship created by this Agreement is that of independent contractors, and nothing contained in this Agreement shall be deemed or construed as creating any partnership, joint venture, employment relationship, agency, or other relationship between the parties or to make Owner liable for the debts or obligations of Contractor. No officer, employee, agent, or servant of Contractor shall be deemed at any time to be an employee, servant, or agent of Owner for any purpose whatsoever. The contractor shall require all of its personnel to refrain from making any representation by word or conduct whereby any other person might understand or believe that such persons are employees, agents, or servants of Owner.

#### **1.27 LIENS**

- A. Contractor shall be responsible for the satisfaction or payment of any liens for any provider of, among other things, work, labor, material, or services claiming by, through or under Contractor. The contractor shall also indemnify, hold harmless and defend the Owner Indemnitees against any such liens, including attorneys' fees and costs. Contractor shall not cause, suffer, or authorize any lien, claim, or other encumbrance to be filed against the Facilities or underlying property in connection with Contractor's Services or the exercise of any right or privilege of Contractor under this Agreement. If Owner notifies Contractor that such a lien has been filed against a Facility or underlying property by Contractor or any contractor performing work at a Facility at Contractor's request, then Contractor shall promptly have the lien bonded or removed and released of record at Contractor's sole cost and expense, no later than ten (10) days after notice thereof.

**END – RFP INSTRUCTIONS AND GENERAL CONDITIONS**

# **THE MONUMENT**

## **SAMPLE CONTRACT**

# THE MONUMENT

## AGREEMENT BETWEEN THE CITY OF RAPID CITY / THE MONUMENT AND \_\_\_\_\_

### FOR THE ICE ARENA TECHNOLOGY UPGRADES PROJECT

1) This Agreement is entered into this \_\_\_\_ day of \_\_\_\_\_, **2025** by and between the City of Rapid City dba The Monument, 444 Mt Rushmore Rd N, Rapid City, SD 57701, a municipal corporation organized under the laws of the state of South Dakota, hereinafter referred to as the "Owner," and \_\_\_\_\_ (Contractor), \_\_\_\_\_ (Contractor Address), hereinafter referred to as the "Contractor."

2) Specifications to be followed under this contract are the City of Rapid City Standard Specifications for City of Rapid City Construction (Current Edition) and any Special Provisions, Special Conditions, and/or Detailed Specifications pertaining to this contract. See Attachment B herein.

3) The Contractor agrees to perform the work described in the Technical Specifications (see Attachment A herein) for the **ICE ARENA TECHNOLOGY UPGRADES PROJECT**. In exchange, Contractor shall be compensated in an amount not to exceed \$XXXXX. The Contractor will only be paid for work actually performed. This Agreement along with attached Technical Specifications (Attachment A) constitutes the entire agreement between the Owner and Contractor and supersedes all prior written or oral communications. In the event any terms of this agreement conflict with the attached quote, this agreement shall control.

4) The Contractor agrees to indemnify, defend and hold the Owner harmless against all liability, loss, damage, costs, and expenses including, but not limited to, costs of defense and reasonable attorney's fees, which the Owner may hereafter suffer itself or pay to another party by reason of any claim, action, or right of action, at law or in equity, arising out of willful misconduct, error, omission or negligent act of the Contractor and resulting in injury (including death) to any person or damage to any property to the extent such are caused by or are alleged to be caused by the Contractor or its employees, any subcontractor or its employees, or any person, firm, partnership, or corporation employed or engaged by the Contractor.

5) Payments. Based on Application for Payment submitted to the Owner by the Contractor, the Owner shall make progress payments to the Contractor, based on the following:

- a. The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.
- b. Payment for the amount certified shall be made by the Owner not later than 45 days after the Owner receives the Application for Payment.
- c. Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor. The schedule of values shall allocate the entire Contract Sum among the various portions of the work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Owner may require. This schedule of values shall be used as a basis for reviewing the Contractor's Application for Payment.

- d. Applications for Payment shall show the percentage of completion of each portion of the work as of the end of the period covered by the Application for Payment.
- e. Applicable retainage will apply per City of Rapid City Standard Specifications.
- f. Except for the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.
- g. Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when a final Certificate for Payment has been issued and approved by the Owner.
- h. The Owner's final payment to the Contractor shall be made no later than 45 days after issuance of the Final Certificate for Payment.

6) The Contractor is an independent entity and not an employee, agent, or partner of the Owner.

7) The Contractor shall obtain and maintain at its expense the following minimum limits of occurrence-based insurance coverage for the duration of this Agreement.

| <u>Type of Coverage</u>                                                                                                                                       | <u>Minimum Limits of Coverage</u>                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| A. Workers' Compensation<br>Employer's Liability                                                                                                              | Statutory<br>\$500,000/\$500,000/\$500,000         |
| <u>Type of Coverage</u>                                                                                                                                       | <u>Minimum Limits of Coverage</u>                  |
| B. Comprehensive General Liability<br>(Including Contractual Liability<br>and Completed Operations)<br>Bodily Injury and Property Damage<br>General Aggregate | <br><br>\$1,000,000 each occurrence<br>\$2,000,000 |
| C. Commercial Automobile Liability                                                                                                                            | \$1,000,000 combined single limit                  |

Such insurance policies shall name the City of Rapid City/The Monument as an additional insured with respect to all activities arising out of the performance of the work and/or services under this Agreement. Acceptable Certificates of Insurance and Endorsements confirming the above coverage shall be filed with the Owner before commencing any work and/or services. Such Certificates shall afford the Owner thirty (30) days written notice of cancellation or of a material change in coverage. The Owner's failure to obtain from the Contractor a Certificate of Insurance conforming to the foregoing requirements shall not be deemed a waiver of any of the foregoing requirements. This paragraph shall in no way limit the provisions of the indemnity section.

8) Prohibited Entity Certification. The Contractor must submit a Certification of Prohibited Entity Status with this signed contract (See Attachment C herein) that certifies that the Contractor is not a Prohibited Entity as defined in SDCL 5-18A-1(19A), defined as a company or organization which is ultimately owned or controlled by a foreign parent entity or the government of the People's Republic of China, the Republic of Cuba, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Russian Federation, or the Bolivarian Republic of Venezuela. This Certification shall be provided in a form acceptable to the City of Rapid City. The Contractor shall provide any information requested by the City to verify the certification, upon request; however the City may rely on the certification without conducting any further investigative research or inquiry.

9) This Agreement is made and entered into by the Executive Director of The Monument pursuant to the authority granted by SDCL 9-1-5 and Section 3.04.090 of the Rapid City Municipal Code.

10) The parties agree that the terms of this Agreement shall be governed by the laws of the State of South Dakota. In the event of any conflict of laws, the law of the State of South Dakota shall be controlling. Any legal action arising out of or relating to this agreement shall be brought only in the Circuit Court of the State of South Dakota, Seventh Judicial Circuit, located in Rapid City, Pennington County, South Dakota.

11) The provisions of this Agreement shall be deemed severable, and the invalidity or unenforceability of any provision shall not affect the validity and enforceability of the other provisions hereof. If any portion of this Agreement is unenforceable for any reason whatsoever, such provision shall be appropriately limited and given effect to the extent that it may be enforceable.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

\_\_\_\_\_

By: \_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PRINTED NAME

Its: \_\_\_\_\_

#### THE MONUMENT

\_\_\_\_\_  
Executive Director – Signature

\_\_\_\_\_  
Executive Director – Printed Name

***The Monument Board of Directors Project Award Date December 9, 2025.***

# **THE MONUMENT**

## **ATTACHMENT A**

### **TECHNICAL SPECIFICATIONS**

# **THE MONUMENT**

ICE ARENA

TECHNICAL SPECIFICATIONS

IPTV SYSTEMS

## PART 1 GENERAL

### 1.1 DESCRIPTION

- A. Contractor is responsible for providing all IPTV equipment as described and listed in the project RFP Bid Form document. All additional equipment needed to provide a complete turn-key system shall be listed by the Contractor in the "Additional Items Required" section of the RFP Bid Form document.
- B. Contractor is responsible for supplying complete and fully operational system(s) as intended by the RFP documents and any subsequent addendums. Prior to executing a contract for the project, contractor is responsible for notifying Owner of any equipment omissions in the RFP documents that may prevent the completion of fully operational system(s). If the Contractor fails to notify Owner of any equipment omissions, Contractor shall assume responsibility for providing the required equipment at no additional cost to Owner.
- C. Contractor shall field verify all work-site conditions prior to submitting shop drawings.
- D. All equipment (except Owner Furnished (OFE)) and materials shall be new (latest version at time of RFP) and shall conform to applicable UL, EIA, TIA, or ANSI guidelines. Remanufactured or "B" stock equipment will not be accepted without prior written consent from the Owner. Evidence of unauthorized remanufactured or "B" stock equipment on the project site will be deemed evidence of the Contractor's Failure to Perform the Work.
- E. Contractor shall take care during installation to prevent scratches, dents, chips, or disfiguration.
- F. Alternative solutions will be evaluated and must be submitted on a separate Proposal Pricing Form marked as "Voluntary Alternate". Alternates must include device data sheets and a narrative description of the alternate solution.
- G. Contractor shall field verify all work site conditions, including dimensions and site lines prior to submitting shop drawings.
- H. Contractor will provide and install "Head End" equipment listed in the RFP Bid Form and Technical Specifications.
- I. Contractor will provide single-line schematic drawings of all systems being provided and installed. Include existing systems in the updated drawings where new system device(s) may interface. Provide floor plans and elevations as required, including 3D or isometric views showing this work.
- J. Contractor is responsible for the provision and installation of all secondary structural steel (i.e., conduit and raceway supports, hardware mounting systems, etc.), as well as mounting brackets and hardware required to accommodate the new system(s). This includes all labor, materials, equipment, tools, transportation, and project management required to complete fully operational system(s) for the project.
- K. Contractor is responsible for assembly, secondary modifications (if necessary) and mounting of all system(s) components to new and/or existing structures.
- L. Owner will provide Primary Power at defined demarcation points as shown in the project drawings.
- M. Contractor is responsible for all power and electrical distribution from demarcation points (Secondary Power) to new system(s).
- N. Contractor will provide all Secondary Power connections/terminations required to power new system(s).
- O. Contractor may utilize available existing conduits for low voltage cabling with the owner's permission. Additional conduits and raceways required to complete a pathway to each system component will be furnished and installed by Contractor.
- P. Contractor is responsible for furnishing, installing, and terminating all required cabling needed to make new and related existing system(s) complete and fully operational.
- Q. Contractor shall grant Owner a license to use all proprietary software provided with this RFP for the life of the system(s).
- R. Manufacturer(s) of AV/IPTV components shall continue to make all parts necessary for continued full function of the system for a minimum of ten (10) years after acceptance of this project. Furthermore, upon "end-of-life" of any component used in the IPTV system, that is not replaced by a "backwards compatible" component, Manufacturer shall notify Owner of "end-of-life" status assigned to components of this system and shall give Owner an opportunity to buy spare parts from stock or final production run, at then commercially viable prices.

## 1.2 PROPOSER QUALIFICATIONS

- A. Owner seeks to contract with a qualified contractor for full performance of the work as described in this RFP. This will include the option to obtain a long-term service contract and support for all equipment supplied by the selected contractor. To ensure the chosen contractor has the long-term interests of Owner in mind, the following shall be required to submit an RFP for this project. Failure to submit acceptable responses to the listed requirements shall eliminate a contractor from consideration. The Owner, in its sole discretion, shall reserve the right to waive any or all requirements listed below:
1. The Proposer shall be or shall sub-contract with a certified dealer as required by the specified equipment manufacturers and provide evidence upon request by Owner or Owner's Consultant.
  2. Contractor shall provide a list of a minimum of three (3) facilities (facility, contact name, title, address, and current phone number) where the contractor has provided equipment and services of equivalent size and scope within the last five (5) years.
  3. Contractor is required to provide a Letter of Surety from their bonding agent, stating their ability to provide a 100% payment and performance bond if they are the successful Proposer.
  4. Contractor must provide a direct service employee or certified Contractor capable of providing maintenance response within 24 hours/7 days per week of a call for service.
  5. Contractor must have a minimum of 6 years' experience as an AV/IPTV contractor.

## 1.3 SUBMITTAL REQUIREMENTS

- A. Contractor is required to provide electronic submittals and shop drawings to the Owner within fifteen (15) calendar days of date shown on award notice, acknowledged with a binding letter of intent.
1. Contractor is responsible for ensuring that the dimensions and specifications of each component and all systems fit within the building allowances.
  2. Contractor will advise the Owner of any discrepancy that may affect the installation. If Contractor fails to notify Owner of any discrepancies, Contractor assumes responsibility for providing the required equipment and labor to correct such discrepancies at no additional cost to Owner.
  3. The following required submittals will be defined by guidelines established by the Owner and shall include, but not be limited to:
    - a. Utilizing the owners preferred method of delivery (Procore, ACC, etc.), submit one electronic set of shop drawings in PDF and .dwg formats, product data and samples together in one package within fifteen (15) calendar days of date shown on award notice to Contract and prior to ordering equipment.
    - b. Catalog data sheet pdf files, bound into a single file with title page, space for submittal stamps, and divider pages between sections.
    - c. A complete list of proposed equipment with reference to its corresponding specification paragraph number, or equipment title in specification paragraph order. Denote all approved substitutions.
    - d. Point-to-point wiring diagrams and an associated table of wire lists identifying every connection. Include all terminated system devices and ancillary components.
      - 1) Indicate locations of all components.
      - 2) Identify cables by types and wire numbers.
      - 3) Provide complete, detailed wiring diagrams for systems based on the contract documents. Include cable types, identification numbers, detailed connections, connector types, and cable lengths.
      - 4) Drawings shall comply with ANSI and International Electro Technical Commission recommendations and standards as appropriate. Provide drawing set cover sheet clearly dimensioning all cable details for each cable type and connector utilized in the system.
      - 5) Conduit riser diagrams showing required conduits and junction boxes along with types and quantities of cables contained in each conduit. Show details of weatherproofing, lightning protection and grounding, strain relief and cable support, fire stop protection, and wall penetrations.

- 6) Rack elevations indicating the proposed arrangement of mounted equipment. BTU load, weight, electrical power load and circuit information for each piece of equipment shall also be included in the rack elevation drawing.
  - 7) Detail drawings of all custom fabricated items and approved equipment modifications. Include complete parts lists, schematic diagrams, and all dimensions required for proper assembly.
  - 8) Drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels upon request.
  - 9) A list of all lower tier subcontractors and suppliers. List must include lower tier subcontractor's qualifications indicating performance of work similar to past projects of this type and scope.
  - 10) A project schedule in Gantt chart format outlining equipment delivery dates and installation start and finish dates. Project schedule shall be broken down into sufficient detail (work task and duration) to permit Owner the ability to monitor installation progress daily.
  - 11) Copies of all required business and Contractor licenses.
  - 12) Copies of proof of insurance.
  - 13) Approval of submitted items indicates only the acceptance of the manufacturer and quality. Specific requirements, arrangements, and quantities must comply with the intent of the Contract Documents as interpreted by the Owner unless specifically approved in writing.
  - 14) Submittals that are incomplete, deviate significantly from the requirements of the Contract Documents, or contain numerous errors will be returned without review for rework and re-submittal, and may result in back charges to the Contractor.
- e. Submit point-to-point wiring diagrams and typed wire lists identifying every connection. Indicate locations of all components. Identify cables by type, color, and wire numbers.
  - f. Submit rack layouts indicating the proposed arrangement of mounted equipment including power junction box location. Rack layouts shall include front and rear views.
  - g. Submit detail drawings of all custom fabricated items and approved equipment modifications. Include complete parts lists, schematic diagrams, and all dimensions required for proper assembly.
  - h. Submittal drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels.
  - i. LED population layout drawings shall be submitted for each backlit channel letter and/or signage element required under this scope of work. Photos confirming LED lighting layout shall be submitted for each backlit channel letter and/or signage element upon completion of fabrication and prior to shipping product to site.
  - j. Submittal drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels.
  - k. Submit a list of all lower tier subcontractors and suppliers. List shall include lower tier subcontractor's qualifications indicating performance of similar work on past projects of this type and scope.
  - l. Submit a project schedule in Gantt chart format outlining equipment delivery dates and installation start and finish dates. Project schedule shall be broken down into sufficient detail (work task and duration) to permit Owner to monitor installation progress on a daily basis.
  - m. Copies of all required business and contractor licenses.
  - n. Copies of proof of insurance.
  - o. Approval of submitted items indicates only the acceptance of the manufacturer and quality. Specific requirements, arrangements, and quantities shall comply with the intent of the Contract Documents as interpreted by the Owner unless specifically approved in writing.
  - p. Submittals that are incomplete, deviate significantly from the requirements of the Contract Documents, or contain numerous errors will be returned without review for rework and re-submittal, and may result in back charges to the contractor.

B. Contract Closeout Submittal

1. When the installation is substantially complete including the Testing Reports in Part 3 of this Section, Contractor shall submit two (2) complete initial hard copy sets of contract closeout submittals to the Owner for review. After review and approval of initial set, Owner shall return one (1) initial hard copy to Contractor with comments for updating. Contractor shall provide four (4) final sets of closeout submittals to Owner and one (1) electronic copy in PDF format. Closeout submittals shall include, but not be limited to:
  - a. Project Record Drawings (As-Built Drawings) including wiring schedules, final device locations in plan-view, final device locations in reflected ceiling plan-view, final device locations in section and elevation view, secondary steel structural drawings (plans and elevations), custom plate and panes details, system schematic diagrams, electrical power schematic drawings, and rack elevation detail drawings.
  - b. Electronic and hard copy of Operation & Maintenance Manual. (See h. below)
  - c. A list of all equipment provided and its location within the facility. List must include manufacturer name, model identifier, serial number, and any other pertinent information needed to obtain service, maintenance, and/or replacement.
  - d. A list of all Subcontractors who performed work for Contractor during installation. List must include company name, physical company address, phone number, and contact person(s).
  - e. Copies of all software, settings, and programs used in the control and operation of this system.
  - f. Copies of all equipment registration documentation.
  - g. Test reports for all new copper and fiber optic cable installed under this scope of work. Test reports must indicate that end-to-end signal loss does not exceed applicable industry standards.
  - h. Operation & Maintenance Manual

Upon substantial completion and prior to on-site training with the Owner, Contractor shall provide four (4) final Operation & Maintenance Manuals (O&M Manuals). O&M Manuals shall have tab dividers and shall be logically organized to provide easy access to information without the need to research through entire manual. All documents provided in the O&M Manual shall be written in English and shall provide sufficient detail as to be understood by an individual with no knowledge of AV/IPTV systems or the associated control equipment and/or operating systems. Contents of the O&M Manual shall include, but not be limited to:

    - 1) Table of Contents
    - 2) Description / overview of system(s) including key features and operational procedures.
    - 3) Full start up procedure for all systems equipment and any additional networking components written under the assumption that all equipment was in full powered-off mode.
    - 4) Full shutdown procedure for all systems equipment written under the assumption that the facility is in an extended power failure situation.
    - 5) Owner's Manuals for all third party and "off the shelf" type equipment provided by Contractor, e.g., KVM's, media converters, network switches/routers, and UPS battery backups.
    - 6) Small scale plans showing locations and circuit numbers for all system outlets and receptacles.
    - 7) Single-line block diagram.
    - 8) All third-party equipment and/or "off-the-shelf" equipment warranties and a notarized System Warranty.

#### 1.4 EQUIPMENT GENERAL SPECIFICATIONS

- A. All equipment and materials, except owner furnished, shall be new and the latest version at the time of bid and shall conform to applicable UL, ULC, CSA or ANSI provisions. Re-manufactured or "B" stock equipment will not be accepted without prior written consent from the Owner. Evidence of unauthorized re-manufactured or "B" stock equipment on the project site will be deemed evidence of the contractor's failure to perform the work. Contractor shall take care during installation to prevent scratches, dents, chips or disfiguration of equipment and materials supplied. All damaged equipment and/or materials shall be repaired or replaced at Owner's discretion. Contractor shall perform either option selected by Owner at no additional cost to the Owner.

- B. All cabling [power and data] is to be labeled at each end of the cable with a description in English OR with a reference to a wire designation on a wiring diagram. This includes all cables internal to the displays, all cables between displays and control room, and all cables internal to the control room. These diagrams must be part of the Project documentation submitted to the Owner at time of acceptance.
- C. Each device shall meet all of its published manufacturer's specifications. Verify performance as required.
- D. Provide an uninterruptable power supply (UPS) at the bottom of each rack supplied by Contractor. UPS shall have the capability of providing power to all equipment within the rack for a period of 20 minutes in the event of a power failure at the facility.
- E. Install all rack mounted equipment with Middle Atlantic Products HP Series truss head screws or approved equal.
- F. Some rack-mounted equipment may require shaft locks, security covers, or removal of knobs; provide and install during Acceptance Testing.
- G. Provide engraved self-adhesive phenolic labels at the front and rear of all rack-mounted signal processing equipment. Mount labels on the equipment chassis and attach in a neat and permanent manner. Embossed label will not be accepted. Label equipment with schematic enumeration reference, and with descriptive information regarding its function or area it is serving. Similarly, provide engraved labels at the rear only for equipment mounted in furniture consoles.
- H. All labeling shall be 1/8" block lettering unless noted otherwise. On dark panels or pushbuttons, letters shall be white. Letters shall be black on stainless steel, brushed natural aluminum plates or light-colored pushbuttons.
- I. Mounting Hardware exposed to the weather shall be aluminum, brass epoxy painted galvanized steel or stainless steel. Apply corrosion inhibitor to all threaded fittings.
- J. Unless directed otherwise, equipment racks shall be Middle Atlantic Products model MRK-4436, or approved equal, with accessories as noted below. Quantity of racks shall be as required to house all equipment supplied under this scope of work. Any unused rack mounting spaces shall have blank panels to fully enclose the rack assembly. Multiple racks shall be anchored together using appropriate ganging hardware. Standard solid rear door shall be replaced with Middle Atlantic Products model MW-VRD-44 vented rear door.
  - 1. Provide two (2) side panels per individual stand-alone rack or series of racks ganged together. The intent is to have an enclosed rack system. A single stand-alone rack would have two (2) side panels and a series of three (3) racks ganged together would also have two (2) side panels. Side panels shall be Middle Atlantic Products model SPN-44-36 or approved equal.
  - 2. Provide Middle Atlantic Products model MW-4QFT-FC integrated fan top, or approved equal, for each rack. Fan shall be thermostatically controlled to ensure in-rack temperatures of less than 100 degrees Fahrenheit.
  - 3. Provide two (2) Middle Atlantic Products model LT-GN-PL gooseneck work light for each rack required for this scope of work.
  - 4. Provide Middle Atlantic Products model PDT-2X1020T, or approved equal, in rack vertical power strip. Power strip shall have enough receptacles to accommodate all equipment housed in the associated rack with a minimum of two spare receptacles per rack.
- K. Any rear mounted rack equipment shall be placed so the equipment does not block access to the back of front mounted equipment.
- L. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment. Contractor shall install grommets around cut-outs and knockouts where conduit or chase nipples are not installed.
- M. Equipment Racks shall have a ground buss installed in each rack. Ground buss shall be insulated from the rack. Attach equipment rack to ground buss at one point using #4 insulated copper wire. Ground any equipment chassis without a three-conductor power cord directly to the buss bar using #12 insulated copper wire. Tie each and every power receptacle ground contact to the buss bar using #12 insulated copper wire. Interconnect signal cables shall be routed from junction boxes through metallic flexible conduit(s) (1" to 2" diameter) as appropriate. Flexible conduit shall be insulated from racks by approved insulating bushings.
- N. Power wiring and signal/data wiring shall be installed on opposite sides of rack. Contractor may determine which side is used for power and which side for signal. Method shall be kept the same for entire installation if multiple racks are required. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment.

## 1.5 QUALITY ASSURANCE

- A. All requirements of the latest published editions of the following standards shall apply, unless otherwise noted. In the event of conflict between cited or referenced standards, the more stringent shall govern.

1. National Electric Code (NEC).
  2. National Electrical Manufacturers Association (NEMA)
  3. American National Safety Institute (ANSI)
  4. Occupational Safety and Health Administration (OSHA)
  5. American Iron and Steel Institute (AISI)
  6. Underwriters Laboratories (UL)
  7. Federal Communications Commission (F.C.C.) Rules and Regulations, Part 76.
  8. Society of Cable Television Engineers (S.C.T.E.)
  9. Society of Motion Picture and Television Engineers (S.M.P.T.E.)
  10. American Society of Testing Materials (A.S.T.M.)
  11. National Cable Television Association (N.C.T.A)
  12. Electronic Industries Association (E.I.A.)
  13. Telecommunications Industries Association (T.I.A.)
  14. South Dakota Building Code – Most Current Revision
  15. Local Building Code – Most Current Revision
- B. Review all architectural, civil, structural, mechanical, electrical, and other project documents related to this work.
- C. Verify all dimensions and site conditions prior to starting work.
- D. Coordinate the specified work with all other trades.
- E. Maintain a competent supervisor and supporting technical personnel, acceptable to the Owner during the entire installation. Change of supervisor during the project shall not be permitted without prior written approval from the Owner.
- F. Provide all items not indicated in the drawings or mentioned in the specifications that are necessary, required, or appropriate for this work to realize a complete and fully operational system that performs in stable and safe manner.
- G. Review project documentation and continuously make known any conflicts discovered and provide all items necessary to complete this work to the satisfaction of the Owner without additional expense. In all cases where a device or item or equipment is referred to in singular number or without quantity, each such reference shall apply to as many such devices or items as are required to complete the work.
- H. Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this work as approved by the Owner, without additional cost to the Owner.
- I. Regularly examine all construction, and the work of others, which may affect Contractors work to ensure proper conditions exist at site for the equipment and devices before their manufacture, fabrication, or installation. Contractor shall be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this work.
- J. Promptly notify the Owner in writing of any difficulties that may prevent proper coordination or timely completion of this work. Failure to do so shall constitute acceptance of construction as suitable in all ways to receive this work, except for defects that may develop in the work of others after its execution.
- K. After installation, submit photographs showing cable entries and terminations within equipment racks, enclosures, and pedestals at the job site.

#### 1.6 WARRANTY AND SERVICE

- A. Contractor shall warrant labor and materials for twenty-four (24) months following the date of Final Acceptance.
- B. During the warranty period the system shall be free of defects and deficiencies and conform to the drawings and specifications with respect to the quality, function, and characteristics stated.
- C. Contractor shall repair or replace defects that occur in labor or materials within the warranty period. If repair is affected using Owners spare parts allotment, Contractor shall replenish all parts used to keep Owner's inventory at the amount required by the contract.

- D. On-site labor shall be included during the warranty period for any work beyond simple component replacement. Simple component replacement shall be defined as lighting unit or power supply replacement or the replacement of an internal display signal cable that does not require tools to perform the cable replacement.
- E. Failed parts shall be returned to the Contractor for repair at a service facility located in the United States. Contractor shall identify the location of its service facility in the documentation provided when submitting a bid for this work.
- F. The Contractor shall replace failed parts that cannot be repaired.
- G. Upon receipt of a failed part, Contractor shall return a repaired or replacement part to the Owner within fifteen (15) business days from receipt of failed part.
- H. Contractor shall supply at least one local service employee or local authorized service agent for servicing and repairing all equipment during the warranty period. Local service employee or local authorized service agent shall be located within 75 miles of Owner's facility.
- I. The local service employee or local authorized service agent shall be entity responsible for providing the following emergency response availability:
  - 1. Telephone service assistance and technical support from 8am to 11pm local time at Owner's facility, 7 days per week.
  - 2. Answer all service calls and requests for information within one (1) hour during the warranty period and provide on-site repair service within 24 hours.
  - 3. A parts exchange program, including same day shipment of exchange parts. The manufacturer shall keep a ready stock of key assemblies available to ship out upon notice of parts failure if part is not available in spare parts inventory at Owner's facility.
  - 4. The advance replacement should contain all of the shipping information and packaging necessary to return the defective part or assembly back to Contractor at no cost to the Owner.
- J. Warranty shall cover all equipment, including processors, controllers, operating systems, and software.
- K. Warranty shall include two annual on-site system check-ups by a qualified technician who is a full-time employee of the Contractor. Visit to occur approximately 2-3 weeks prior to the start of the second and third seasons or as determined by Owner.
- L. Contractor must notify Owner in writing within 90 days of expiration of warranty period.
- M. Check-up will include all regular maintenance; a complete inspection of all systems, parts replacement where required and a complete written report of all findings.
- N. All extended warranty pricing requested in this RFP shall include the same requirements as stated in this section unless specifically excluded on the bid form

END OF PART 1 GENERAL

PART 2 PRODUCTS

2.1 AV/IPTV EQUIPMENT

A. ACCEPTABLE MANUFACTURERS

1. IPTV System
  - a. Tripleplay – See Bid Form for Models and Quantities
2. LCD Displays
  - a. Samsung
  - b. LG
  - c. Sharp
3. LCD Mounts
  - a. Peerless
  - b. Chief
  - c. Premier
4. Service accessibility for all components of the displays shall be from front and rear.

B. SYSTEM REQUIREMENTS

1. Basis of Design is intended to include all major system components. Contractor is responsible for including all miscellaneous components to provide a complete and fully operational system.

END OF PART 2 PRODUCTS

## PART 3 EXECUTION

### 3.1 SCOPE OF WORK

- A. The following outlines the turnkey delivery and installation responsibilities that define the project scope of work. Any and all work outlined in this section is the responsibility of the Contractor unless otherwise noted. Contractor is required to provide all labor, materials, tools, supervision, and equipment to perform the following:
1. All dates referenced in this document are approximate projected dates and are subject to change.
  2. Coordinate and install rack mount equipment in MDF/IDF room determined by owner.
  3. Provide and install any required cabling, including analog and fiber optic cable as required.
  4. Provide and install any specified control panels and input plates in dedicated locations as shown in the design documents.
  5. Provide and install all equipment listed in the Bid Form document. Include all equipment not specifically listed but required to provide a completely functional system as part of this RFP.
  6. Coordinate with the Owner regarding the programming expected for functionality within the IPTV system throughout the facility.
  7. Provide DSP programming for and specified Graphical User Interfaces(s) (GUI) and system control
  8. Deliver sample DSP GUIs for review by the Owner at least six weeks prior to system completion. Owner will review and sign off on functionality or provide requests for revisions. Revisions to programming is the responsibility of the Contractor at no additional cost to the Owner through three programming revisions.
  9. Provide pin-protected UCI for all publicly accessible locations.
  10. Contractor is responsible for assembly, secondary modifications and mounting of specified components onto existing structures within the facility.
  11. Contractor is required to correspond with the project electrical contractor to confirm system power, conduit, and cabling work associated with this project.
  12. Contractor to provide all necessary protection for all facility components. Contractor is responsible for repair or replacement of any damaged facility components caused by the Contractor and/or any subcontractors hired by Contractor to perform work on site.
  13. Contractor is required to provide all labor, materials, tools, supervision, and equipment to perform the work outlined in this scope of work.
  14. Provide and install all equipment and displays listed in Part 2 – Products, including any and all equipment not specifically listed that is required to provide a completely functional system. The primary structure, catwalks and rear/side cladding will be provided by the Owner. All secondary steel required to install the displays shall be engineered, supplied, and installed by Contractor.
  15. Contractor to provide a fire alarm interface to automatically engage emergency evacuation messages on designated displays if required.
  16. Provide all required permits and licenses.
  17. Provide on-site installation supervisor.
  18. Deliver all Equipment to site and convey to appropriate locations within site as directed by the project.
  19. Store all Equipment in a safe and secure manner until installed or otherwise directed by the project.

### 3.2 GROUNDING AND SHIELDING

- A. Mount and enclose all electrical and electronic equipment in metal enclosures and equipment racks.
- B. Use EMT type conduit for all cabling outside of equipment racks, except where plenum rated cabling is used above lay-in ceilings, cable trays, and designated raceways. Rigid type conduit will be used for underground raceways.
- C. Use flexible conduits and PVC fittings to provide insulated connections of the building electrical raceways to equipment racks. Mount all equipment racks at the job site in a manner which provides electrical isolation from the building structure and electrical raceways.
- D. Provide a single Technical Ground at Equipment racks where necessary.

### 3.3 WIRING PRACTICES/INSTALLATION

- A. Provide rated cable for work to meet NEC codes.
- B. Provide wet rated electrical power cords that connect to the nearest electrical outlet provided by others if environmental conditions require. Appropriate AC power connections are to be field verified.
- C. Cables will be bundled, supported, and professionally installed. Include service and drip loops as necessary.
- D. Separate wiring of differing classifications by at least six (6) inches, wherever possible. Wherever lines of differing classification must come closer together than six (6) inches, cross them perpendicular to each other.
- E. Neatly harness wires together within racks by power level classification using horizontal and vertical wiring supports as required. Rigidly support all wires with fixed connection points. Leave service loops of sufficient lengths to allow rack hinges or slides to fully extend to facilitate access to rear panel connectors from the front of each rack. Do not use self-adhesive tie-wrap pads for support of cables unless fastened with screws.
- F. Exercise care in wiring to avoid damaging the cables and equipment. Use grommets around cut-outs and knockouts where conduit or chase nipples are not installed.
- G. Cut off unused wire ends approximately one-half inch (1/2 ") past the wire jacket. Fold them back over the jacket, and secure in place with heat-shrink tubing. In multi-conductor cables, preserve all unused conductors for future use. Failure to do so may result in replacement of cables at the contractor's expense.
- H. All fiber splicing will utilize the fusion splice method. The maximum allowable loss per fusion splice will be 0.5 dB.
- I. Pull mandrel one size smaller than the conduit, through entire length of all underground conduits.
- J. The bend radius for all cables will conform to manufacturer's specifications.

### 3.4 LABELING

- A. Label products in a logical, legible, and permanent manner corresponding to the Drawings. Wording, format, style, color, and arrangement of text will be subject to the consultant's approval.
- B. Submit samples and labeling schedule for approval upon request. Labeling will be verified at final system adjustment and commissioning.
- C. Label all wall plates for input, output, and control receptacles as well as connector mounting plates in all boxes using 1/8" lettering of contrasting color, as approved.
- D. Label all permanently installed wires on both ends with approved permanent clip-on type or sleeve type markers. Wrap-around adhesive labels will not be accepted unless completely covered with clear heat shrink tubing.
- E. Label all portable equipment with block letters using initials and/or words. Label all portable cables similarly with printed heat-shrinkable tags located 12 inches from the male connector end. Verify lettering through the consultant prior to engraving or printing.
- F. Label access panels and backboards with designations corresponding to the drawings.

### 3.5 ENGINEERING

- A. Label access panels and backboards with designations corresponding to the drawings.
- B. Contractor will provide stamped and sealed engineered drawings of all device mounting and rigging assemblies. Engineer must be certified in the projects state.
- C. Owner must approve all drawings in writing prior to the fabrication and installation of any equipment.
- D. Engineered drawings must include both structural and electrical.
- E. The Contractor is solely responsible for verification of the integrity of all engineering calculations. Contractor is responsible for verification of all information provided or implied.

### 3.6 TRAINING

- A. The Contractor at its own expense will provide designated Owner employees' operator and maintenance training.
- B. Training will be performed at the site by a qualified technician and shall occur either during installation of the equipment or immediately thereafter. O&M Manuals per Section 1.3.B shall be provided to Owner prior to training.
- C. The training shall cover the operation, routine maintenance and troubleshooting of the displays and control equipment.
- D. Furnish manufacturer provided training on the operation of the AV/IPTV system as specified and suggested by the manufacturer.

- E. Contractor will be required to have technician on site for the first event and continue to be on site for three (3) consecutive problem free major events as approved by the Owner. "Problem-free" constitutes an event where the system, and any other components installed by the Contractor, perform without failure during an event. It will be required that each successful event will be "signed off" by the Owner until three (3) consecutive events are achieved.
- F. Warranty period will commence at the conclusion of the third consecutive successful event

### 3.7 TESTING AND ACCEPTANCE

- A. Contractor must demonstrate the full capabilities of the provided systems and prove performance meets contractual specifications.
- B. Confirmation will be required of but not limited to the following functions: operation of each system component, including back-up systems, control functionality, integration with existing systems, diagnostic capabilities, screen brightness, color temperature and viewing angles.
- C. Contractor must provide all necessary testing equipment for acceptance.
- D. Upon notice from the Contractor of substantial completion and at a time to be mutually agreed upon, the Contractor will arrange for the testing of all operations of the systems comprised in scope of work at the time of substantial completion.
- E. The following items must be completed and signed off by an appropriate Owner official before the Owner will deem the system "Accepted"
  - 1. The Owner will not be responsible for any added costs as a result of an unsuccessful acceptance test.
  - 2. Acceptance of the system includes, but is not limited to, the completed installation of all physical components and the issuance of the Certificate of Approval for code compliance by the Code Authority having Jurisdiction.
  - 3. Tests of the system will not occur until after the system has been installed, and all work has been completed.
- F. Perform all "punch-list" work to correct inadequate performance or unacceptable conditions, as determined by the Owner representative, at no additional expense to the Owner.
- G. Upon completion of the Work, the Owner may elect to verify test data as part of acceptance procedure. Provide personnel and equipment, at the convenience of the Owner, to reasonably demonstrate system performance and to assist with such tests without additional cost to the Owner.

END OF PART 3 EXECUTION

| ANTHONY<br>JAMES<br>PARTNERS |              | THE MONUMENT<br>IPTV SYSTEM - ICE ARENA UPGRADES AND ADDITIONS<br>10.06.2025 |                                                                          |      |               | THE MONUMENT |  |
|------------------------------|--------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------|------|---------------|--------------|--|
| REF                          | MANUFACTURER | MODEL                                                                        | DESCRIPTION                                                              | QTY. | COST          | EXTENDED     |  |
| TRIPLEPLAY SUPPORT           |              |                                                                              |                                                                          |      |               |              |  |
|                              | TriplePlay   | TPS_SUPPT-PREMIUM                                                            | Support Package - Premium - Annual charge at 25% (Facility-wide support) | 1    |               |              |  |
| Sub Total                    |              |                                                                              |                                                                          |      |               |              |  |
| TRIPLEPLAY SUPPORT           |              |                                                                              |                                                                          |      |               |              |  |
| ICE ARENA - CONCESSIONS      |              |                                                                              |                                                                          |      |               |              |  |
|                              | Samsung      | QM55C                                                                        | 55" LCD Display - 500 nits                                               | 1    |               |              |  |
|                              | Peerless     | ST670                                                                        | Display Mount - Tilting Wall                                             | 1    |               |              |  |
|                              | TriplePlay   | SP2                                                                          | TPS Signage Player 4K video                                              | 1    |               |              |  |
|                              | TriplePlay   | TPS_SIGN-100+                                                                | Triplesign Client License                                                | 1    |               |              |  |
|                              | TriplePlay   | TPS_ENC-500+                                                                 | Encryption single service per end point (TV) 500 + end points            | 1    |               |              |  |
|                              | TriplePlay   | TPS_SCREENCON                                                                | Remote screen controller per screen (inc cable)                          | 1    |               |              |  |
|                              | Integration  | Integration                                                                  | Labor, Materials, Cables, Connectors, Lift Rental, Etc.                  | 1    |               |              |  |
|                              |              |                                                                              |                                                                          |      | PER LOCATION  |              |  |
| TOTAL                        |              |                                                                              |                                                                          | QTY  | 16            |              |  |
| ICE ARENA - SUITES           |              |                                                                              |                                                                          |      |               |              |  |
|                              | Samsung      | QM55C                                                                        | 55" LCD Display - 500 nits                                               | 1    |               |              |  |
|                              | Peerless     | ST670                                                                        | Display Mount - Tilting Wall                                             | 1    |               |              |  |
|                              | TriplePlay   | SP1                                                                          | TPS Signage Player 4K video (Owner-furnished)                            | 1    |               |              |  |
|                              | TriplePlay   | TPS_SIGN-100+                                                                | Triplesign Client License                                                | 1    |               |              |  |
|                              | TriplePlay   | TPS_ENC-500+                                                                 | Encryption single service per end point (TV) 500 + end points            | 1    |               |              |  |
|                              | TriplePlay   | TPS_SCREENCON                                                                | Remote screen controller per screen (inc cable)                          | 1    |               |              |  |
|                              | Integration  | Integration                                                                  | Labor, Materials, Cables, Connectors, Lift Rental, Etc.                  | 1    |               |              |  |
|                              |              |                                                                              |                                                                          |      | PER LOCATION  |              |  |
| TOTAL                        |              |                                                                              |                                                                          | QTY  | 14            |              |  |
| DISPLAYS SUBTOTAL            |              |                                                                              |                                                                          |      |               |              |  |
| SYSTEMS TOTAL                |              |                                                                              |                                                                          |      | Project Total |              |  |

## **THE MONUMENT**

ICE ARENA: BROADCAST PRODUCTION FACILITY

TECHNICAL SPECIFICATIONS

BROADCAST AND BROADCAST CABLING

## PART 1 GENERAL

### 1.1 DESCRIPTION

- A. The Contractor shall be responsible for providing all equipment as described to provide for a complete and turnkey Broadcast and Broadcast Cable System.
- B. The Contractor shall be responsible for the provision and installation of all secondary mounting brackets. This includes all labor, materials, equipment, tools, transportation, and project management required to complete a fully operational system(s) on the project.
- C. Contractor shall grant a license to use all proprietary software provided with this RFP for the life of the system.
- D. All equipment and materials shall be new (latest version at time of bid) and shall conform to applicable UL, CSA, or ANSI provisions. Re-manufactured or "B" stock equipment will not be accepted without prior written consent from the project. Evidence of unauthorized re-manufactured or "B" stock equipment on the project site will be deemed evidence of the Contractor's Failure to Perform the Work. Take care during installation to prevent scratches, dents, chips or disfiguration.

### 1.2 PROPOSER QUALIFICATIONS

- A. Contractor shall provide a list of a minimum of three (3) facilities (facility, contact name, title, address and current phone number) where the vendor has provided equipment and services of equivalent size and scope within the last five (5) years.
- B. Contractor shall provide a minimum of one (1) facility (facility, contact name, title, address and current phone number) where the vendor has provided equipment and services of equivalent size and scope that is at least five (5) years old.
- C. Contractor shall be required to provide a Letter of Surety from their bonding agent, stating their ability to provide a 100% payment and performance bond if they are the successful bidder.
- D. Contractor shall have a direct service employee or certified contractor capable of providing maintenance response within 2 hours of a call for service via remote session, 24/7 technical support via telephone, and ability to be onsite in 48 hours when required.

### 1.3 SUBMITTAL REQUIREMENTS

- A. Initial Submittals and Shop Drawings
  - 1. Contractor shall be required to provide submittals and shop drawings within thirty (30) calendar days of date shown on award notice. Contractor shall be responsible to ensure that the dimensions and specifications of each component and all systems fit within the building allowances. Contractor shall advise of any discrepancy that could affect installation. If Contractor fails to notify any discrepancies, Contractor shall assume responsibility for providing the client.
  - 2. Required equipment or correcting such discrepancies at no additional cost. The following required submittals will be defined by the guidelines established and shall include but not be limited to:
    - a. Digital sets of shop drawings, product data together in one cloud folder within thirty (30) calendar days of date shown on Award Notice to Contract and prior to ordering equipment.
    - b. Point-to-point wiring diagrams and typed wire lists identifying every connection. Include electronic devices such as switches, transformers and terminal blocks. Indicate locations of all components. Identify cables by types, colors and wire numbers. Complete, detailed wiring diagrams for the systems, based on the contract documents but including cable types, identification and color codes, and detailed wiring of connections, both at equipment and between equipment racks and wiring conduit, connector types, expansion loops and cable lengths. Drawings shall comply with ANSI and International Electrotechnical Commission recommendations and standards as appropriate. Provide drawing set cover sheet clearly dimensioning all cable preparation details for each cable type and connector utilized in the system.
    - c. Rack layouts indicating the proposed arrangement of mounted equipment including power junction box location and locations of conduit penetrations. Rack layouts shall include front and rear views. BTU loads for each piece of equipment should also be included on the rack layout drawing.

- d. Detail drawings of all custom fabricated items and approved equipment modifications. Include complete parts lists, schematic diagrams, and all dimensions required for proper assembly.
- e. Proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels. This includes the logo coordination and colors of the production consoles.
- f. A list of all lower-tier subcontractors and suppliers. The list shall include lower tier subcontractor's qualifications indicating performance of similar work on past projects of this type and scope. Any subcontractor does not remove the responsibility of the engineering and project management from the prime contractor.
- g. A project schedule in Gantt Chart format outlining equipment delivery dates and installation start and finish dates. Project schedule shall be broken down into sufficient detail (work task and duration).
- h. Copies of all required business and contractor licenses.
- i. Copies of proof of insurance.
- j. Approval of submitted items indicates only the acceptance of the manufacturer and quality. Specific requirements, arrangements, and quantities shall comply with the intent of the Contract Documents unless specifically approved in writing.
- k. Submittals that are incomplete, deviate significantly from the requirements of the Contract Documents, or contain numerous errors will be returned without review for rework and re-submittal, and may result in back charges to the Contractor.

B. Contract Closeout Submittal

1. When the installation is substantially complete, including the Testing Reports in Part 3 of this Section, Contractor shall submit two (2) complete initial hard copy sets of contract closeout submittals for review. After review and approval of initial set, return of one (1) initial hard copy to Contractor with comments for updating. Contractor shall provide final set of closeout submittals in electronic format. Closeout submittals shall include, but not be limited to:
  - a. Project Record Drawings (As-Built Drawings) including final secondary steel structural drawings, electrical drawings, and system block diagrams, rack layout drawings and wiring schedule. This shall be a digital copy as well as installed on the EIC computer.
  - b. An Operation & Maintenance Manual. This shall be a digital copy as well as installed on the EIC computer.
  - c. A list of all equipment provided and its location within the facility. List shall include manufacturer name, model identifier, serial number, and any other pertinent information needed to obtain service, maintenance, and/or replacement.
  - d. A list of all Subcontractors who performed work for Contractor during installation. List shall include company name, physical company address, phone number, and contact person(s).
  - e. Copies of all software, settings and programs used in the control and operation of this system.
  - f. Copies of all equipment registration documentation.
  - g. Test reports from an independent testing & inspection agency certifying that bolted and/or welded connections for primary secondary structural steel meet the minimum requirements of the engineered structural drawings, the governing building code, or as required by the building official; whichever is more restrictive.
  - h. All testing reports as specified in Section 3.8 – Testing and Acceptance.
  - i. Test reports for all new fiber optic cables installed under this scope of work. Test reports shall indicate end to end signal loss does not exceed a maximum dB loss per Section 3.7.K and/or 3.7.L.
2. Operation & Maintenance Manual
  - a. Upon substantial completion but prior to onsite training, Contractor shall provide digital copies of the Operation & Maintenance Manuals (O&M Manuals). O&M Manuals shall have folders and shall be logically organized to provide easy access to information without the need to research through the entire manual. All documents provided in the O&M Manual shall be written in English and shall provide sufficient detail as to be understood by an individual with no knowledge of audio components

or the associated control equipment and/or operating systems. Contents of the O&M Manual shall include, but not be limited to:

- i. Table of Contents
- ii. Description / overview of system(s) including key features and operational procedures.
- iii. Full start up procedure for all control room rack equipment and any additional audio components written under the assumption that all equipment was in full powered off mode.
- iv. Full shutdown procedure for all control room rack equipment and any additional audio components written under the assumption that the facility is in an extended power failure situation.
- v. Owner's Manuals for all third party and/or "off the shelf" type equipment provided by Contractor; e.g., KVM's, fiber modems, network switches/routers, and UPS battery backups.
- vi. Single-line block diagrams showing all major components of the systems.
- vii. All third-party equipment and/or "off the shelf" equipment warranties and a notarized System Warranty.

#### 1.4 EQUIPMENT GENERAL SPECIFICATIONS

- A. All equipment and materials shall be new and the latest version at the time of bid and shall conform to applicable UL, ULC, CSA or ANSI provisions. Re-manufactured or "B" stock equipment will not be accepted without prior written consent. Evidence of unauthorized re-manufactured or "B" stock equipment on the project site will be deemed evidence of the contractor's failure to perform the work. Contractor shall take care during installation to prevent scratches, dents, chips or disfiguration of equipment and materials supplied. All damaged equipment and/or materials shall be repaired or replaced.
- B. All cabling [minus equipment power] is to be labeled at each end of the cable with a description in English OR with a reference to a wire designation on a wiring diagram. These diagrams must be part of the Project documentation submitted at time of acceptance.
- C. Each device shall meet all its published manufacturer's specifications. Verify performance as required.
- D. Provide an uninterruptable power supply (UPS) at the bottom of each rack supplied by Contractor. UPS shall have the capability of providing power to all equipment within the rack for a period of 20 minutes in the event of a power failure at the facility.
- E. Install all rack mounted equipment with Middle Atlantic Products HP Series truss head screws, or approved equal.
- F. Some rack-mounted equipment may require shaft locks, security covers, or removal of knobs; provide and install during Acceptance Testing.
- G. Provide 2.0 mil gloss white polyester face stock; over-laminated with a 1.0 mil clear polyester film; 1.0 mil high-performance permanent pressure-sensitive adhesive. Mount labels on the equipment chassis and attach in a neat and permanent manner. Label equipment with schematic enumeration reference, and with descriptive information regarding its function or area it is serving.
- H. All labels shall be 1/8" block lettering unless noted otherwise. On dark panels or pushbuttons, letters shall be white. Letters shall be black on stainless steel, brushed natural aluminum plates or light-colored pushbuttons.
- I. Per IEC-268 standard, all XLR connectors not mounted on equipment shall be wired pin 2 hot (high), pin 3 low, and pin 1 screen (shield).
- J. Mounting Hardware exposed to the weather shall be aluminum, brass epoxy painted galvanized steel or stainless steel. Apply corrosion inhibitor to all threaded fittings.
- K. Equipment Racks shall be Middle Atlantic Products model MRK-44-36, MRK-44-42 or approved equal, with accessories as noted below. Quantity of racks shall be as required to house all equipment supplied under this scope of work. Any unused rack mounting spaces shall have blank panels to fully enclose the rack assembly. Multiple racks shall be anchored together using appropriate ganging hardware. Standard solid rear door shall be replaced with Middle Atlantic Products model MW-LVRD-44 vented rear door.
  1. Provide two (2) side panels per individual stand-alone rack or series of racks ganged together. The intent is to have an enclosed rack system. A single stand-alone rack would have two (2) side panels and a

series of three (3) racks ganged together would also have two (2) side panels. Side panels shall be Middle Atlantic Products model SPN-44-36, SPN-44-312 or approved equal.

2. Provide Middle Atlantic Products model MW-4QFT-FC integrated fan top, or approved equal, for each rack. Fan shall be thermostatically controlled to ensure in-rack temperatures of less than 100 degrees Fahrenheit.
  3. Provide two (2) Middle Atlantic Products model LT-GN-PL gooseneck work lights or approved equal, for each rack required for this scope of work.
  4. Provide Middle Atlantic Products model PDT-1220C-NS, (12 Outlet Vertical Strip) or approved equal, in rack vertical power strip. Power strip shall have enough receptacles to accommodate all equipment housed in the associated rack with a minimum of two spare receptacles per rack. Power connector to be a L5-20 20A or L5-30 30A twist lock plug as required.
- L. Any rear mounted rack equipment shall be placed so the equipment does not block access to the back of front mounted equipment.
- M. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment. Contractor shall install grommets around cut-outs and knock-outs where conduit or chase nipples are not installed.
- N. Equipment Racks shall have a ground buss installed in each rack. Ground buss shall be insulated from the rack. Attach equipment rack to ground buss at one point using #4 insulated copper wire. Ground any equipment chassis without a three-conductor power cord directly to the buss bar using #12 insulated copper wire. Tie each power receptacle ground contact to the buss bar using #12 insulated copper wire. Interconnect signal cables shall be routed from junction boxes through metallic flexible conduit(s) (1" to 2" diameter) as appropriate. Flexible conduit shall be insulated from racks by approved insulating bushings.
- O. Power wiring and signal/data wiring shall be installed on opposite sides of rack. Contractor may determine which side is used for power and which side for signal. Method shall be kept the same for entire installation, if multiple racks are required. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment.

#### 1.5 QUALITY ASSURANCE

- A. All requirements of the latest published editions of the following standards shall apply, unless otherwise noted. In the event of conflict between cited or referenced standards, the more stringent shall govern.
1. National Electric Code (NEC)
  2. National Electrical Manufacturers Association (NEMA)
  3. American National Safety Institute (ANSI)
  4. Occupational Safety and Health Administration (OSHA)
  5. American Iron and Steel Institute (AISI)
  6. Underwriters Laboratories (UL)
  7. Federal Communications Commission (FCC) Rules and Regulations, Part 76
  8. Society of Cable Telecommunications Engineers (SCTE)
  9. Society of Motion Picture and Television Engineers (SMPTE)
  10. American Society of Testing Materials (ASTM)
  11. The Internet & Television Association (NCTA)
  12. Electronic Industries Alliance (EIA)
  13. Telecommunications Industries Association (TIA)
- B. Review all architectural, civil, structural, mechanical, electrical, and other project documents relative to this work.
- C. Verify all dimensions and site conditions prior to starting work.
- D. Coordinate the specified work with all other trades.

- E. Maintain a competent supervisor and supporting technical personnel, acceptable to the Project during the entire installation. Change of supervisor during the project shall not be permitted without prior written approval from the Project.
- F. Provide all items not indicated on the drawings or mentioned in the specifications that are necessary, required or appropriate for this work to realize a complete and fully operational system that performs in stable and safe manner.
- G. Review project documentation and continuously make known any conflicts discovered and provide all items necessary to complete this work to the satisfaction of the Project without additional expense. In all cases where a device or item or equipment is referred to in singular number or without quantity, each such reference shall apply to as many such devices or items as are required to complete the work.
- H. Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this without additional cost.
- I. Regularly examine all construction, and the work of others, which may affect Contractors work to ensure proper conditions exist at site for the equipment and devices before their manufacture, fabrication or installation.
- J. Contractor shall be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this work.
- K. Promptly notify in writing of any difficulties that may prevent proper coordination or timely completion of this work. Failure to do so shall constitute acceptance of construction as suitable in all ways to receive this work, except for defects that may develop in the work of others after its execution.
- L. After installation, submit photographs showing cable entries and terminations within equipment racks, enclosures and pedestals at the job site.

#### 1.6 WARRANTY AND SERVICE

- A. Contractor shall warrant labor and materials for twenty four (24) months following the date of SUBSTANTIAL COMPLETION.
- B. In the event that the contractor does not meet Substantial Completion before the first event, the contractor will be responsible for event support for all events that use the system until substantial completion is reached. The (3) required events will not start until after substantial completion is reached.
- C. During the warranty period the system shall be free of defects and deficiencies and conform to the drawings and specifications with respect to the quality, function, and characteristics stated.
- D. Contractor shall repair or replace defects that occur in labor or materials within the warranty period.
- E. On-site labor shall be included during the warranty period for any work beyond simple component replacement. Simple component replacement shall be defined as all equipment that does not require tools to perform the equipment replacement.
- F. Failed parts shall be returned to the Contractor for repair at a service facility located in the United States. Contractor shall identify the location of its service facility in the documentation provided when submitting a bid for this work.
- G. The Contractor shall replace failed parts that cannot be repaired.
- H. Upon receipt of a failed part, Contractor shall return a repaired or replacement within three to five (3 - 5) business days from receipt of failed part.
- I. Contractor shall supply at least one local service employee or local authorized service agent for service and repair of all equipment during the warranty period. Local service employee or local authorized service agent shall be located within 75 miles of facility.
- J. The local service employee or local authorized service agent shall be the entity responsible for providing the following emergency response availability:
- K. Telephone service assistance and technical support available 24 hours, 7-days per week.
  - 1. Answer all service calls and requests for information immediately during the warranty period.
  - 2. The advance replacement should contain all the shipping information and packaging necessary to return the defective part or assembly back to Contractor at no cost.
- L. Warranty shall cover all equipment, including processors, controllers, operating systems, and software.

- M. Warranty shall include one annual on-site system check-ups by a qualified technician who is a full-time employee of the Contractor. Visit to occur approximately 2-3 weeks prior to the start of the second seasons.
- N. Check-up shall include all regular maintenance; including filter cleaning, a complete inspection of all systems, parts replacement where required and a complete written report of all findings.

END OF PART 1 GENERAL

PART 2 PRODUCTS

2.1 VIDEO REPLAY

- A. Refer to drawings and bid form for equipment, plates and cable requirements.
- B. Base Bid and all listed options are required. A vendor alternate tab is provided in the bid form to recommend equipment alternatives. Vendor alternates must meet minimum specifications as outlined in the main equipment list.

END OF PART 2 PRODUCTS

## PART 3 EXECUTION

### 3.1 SCOPE OF WORK

- A. The following outlines the turnkey delivery and installation responsibilities that define the project scope of work. All work outlined in this section is the responsibility of the Contractor unless otherwise noted. Contractor is required to provide all labor, materials, tools, supervision and equipment to perform the following:
  - 1. Provide and install all equipment listed in Part 2 – Products, including any and all equipment not specifically listed that is required to provide a completely functional system.
  - 2. All equipment listed in Part 2 should be considered the base bid. All alternative equipment will be considered as long as it meets the same specs as the base system. Please provide cut sheets for any alternative equipment you are presenting.
  - 3. Decommissioning of relevant existing system / cabling is deemed to be in this scope.
- B. Ensure that levels and impedances are properly matched between components.
- C. Provide all required permits and licenses.
- D. Provide on-site installation supervisor per Section 1.5.E.
- E. Coordinate work with other trades and coordinate scheduling with the construction supervisor to minimize delays.
- F. Deliver all Equipment to site and convey to appropriate locations within site as directed by the project.
- G. Store all Equipment in a safe and secure manner until installed, or as otherwise directed by the project.

### 3.2 GROUNDING AND SHIELDING

- A. Mount and enclose all electrical and electronic equipment in metal enclosures, pedestals or equipment racks.
- B. Use EMT type conduit for all wiring outside of equipment racks except plenum rated wiring above a lay-in ceiling, and outdoor conduits and raceways, where separate insulated ground wiring shall be supplied.
- C. Use flexible conduits and PVC fittings to provide insulated connections of the building's electrical raceways to equipment racks. Mount all equipment racks at the job site in a manner which provides electrical solution from the building structure and electrical raceways.

### 3.3 WIRING PRACTICES

- A. Where specific instructions are not given, perform all wiring in strict adherence to standard video engineering practices in accordance with the references listed in Section 1.5.
- B. Group all wiring into the following classifications by power level or signal type:
  - 1. Microphone Level
  - 2. Line Level Audio and DC Control Circuits
  - 3. Video Level
  - 4. Copper Data
  - 5. Fiber Data
  - 6. AC Power Circuits
- C. Separate wiring of differing classifications by at least six (6) inches, wherever possible. Wherever lines of differing classification must come closer together than six (6) inches, cross them perpendicular to each other.
- D. Neatly harness wires together within racks by power level classification using horizontal and vertical wiring supports as required. Rigidly support all wires with fixed connection points. Leave service loops of sufficient lengths to allow rack hinges or slides to fully extend to facilitate access to rear panel connectors from the front of each rack. Do not use self-adhesive ty-wrap pads for support of cables unless fastened with screws.
- E. Observe consistent polarity throughout the audio components as follows:
  - 1. Use only balanced differential inputs throughout the audio system:

2. Use approved transformers where directed to reduce objectionable system noise to acceptable levels.
- F. Exercise care in wiring to avoid damaging the cables and equipment. Use grommets around cut-outs and knock-outs where conduit or chase nipples are not installed.
- G. Cut off unused wire ends approximately one-half inch (1/2 ") past the wire jacket. Fold them back over the jacket, and secure in place with heat-shrink tubing. In multi-conductor cables, preserve all unused conductors for future use. Failure to do so may result in replacement of cables at the Contractor's expense.
- H. Make video connections using approved mechanical connectors. All connectors shall be insulated from mounting plates or panels. Label each connection point with a unique number.
- I. Make audio connections using rosin-core solder or approved mechanical connectors. Connect microphone, control, and line level wiring through approved connectors. Mount all terminal devices on a non-conductive (electrically) rigid surface. Provide 10% spare terminals at each location. Label each terminal with a unique number.
- J. All fiber splicing shall utilize the fusion splice method. The maximum allowable loss per fusion splice shall be .05 dB.
- K. Pull mandrel one size smaller than the conduit, through entire length of all underground conduits.
- L. Cable pulling lubrication shall be utilized when pulling cable in conduits.
- M. A dynamometer shall be used to measure pulling tension during long or difficult runs. The dynamometer is to be placed between the cable puller and the pull line to monitor pulling tension. The manufacturer's pulling tension maximum range shall not be exceeded.
- N. Pulling grips suitable for use with fiber cables shall be applied to the ends of the cable. Consult cable manufacturer to determine appropriate pulling grip and method of attachment. Breakaway or fuse links shall be used at the pulling grip. Insure that the correct fuse pin is installed in the fuse link.
- O. The bend radius for all cables shall conform to manufacturer's specifications.
- P. All electrical conductors installed under this contract, except where otherwise specified, shall be soft drawn annealed stranded copper having a conductivity of not less than 98% of pure copper and shall be Anaconda, Triangle, General or approved equal for power, and Belden, Remee, Clark or Gepco for all low voltage uses. Cable shall adhere to the following color standards:
  1. Analog Video – Black
  2. Digital Video – Blue (or approved, agreed upon alternate color)
  3. RGB – Magenta
  4. Sync – Green
  5. Data – Light Blue (or approved, agreed upon alternate color)
  6. Control – White
  7. Speaker – Grey
  8. Analog Audio – Red
  9. AES Audio – Red
  10. Mic Level - Brown

### 3.4 LABELING

- A. Label products in a logical, legible, and permanent manner corresponding to the Drawings. Wording, format, style, color and arrangement of text will be subject to the Contractor's approval. Submit samples and labeling schedule for approval. Labeling will be verified at final system commissioning.
- B. Label all wall plates for input, output, and control receptacles as well as connector mounting plates in all boxes using 1/8" engraved lettering filled with black or contrasting paint, as approved.
- C. Use 2.0 mil gloss white polyester face stock; over-laminated with a 1.0 mil clear polyester film; 1.0 mil high-performance permanent pressure-sensitive adhesive labels, squarely and permanently attached, to label the following:

1. Front of all rack mounted equipment including controls.
  2. Barrier strips, terminals, transformers, switches, relays and similar devices.
- D. Label pushbutton switches with lettering filled with contrasting color paint.
- E. Label all permanently installed wires on both ends with approved permanent sleeve type markers. Wrap-around adhesive labels will not be accepted unless completely covered with clear heat shrink tubing.
- F. Label all portable equipment using initials and/or words. Label all portable cables similarly with printed heat-shrinkable tags located 12 inches from the male connector end. Verify lettering through the Contractor prior to printing.

### 3.5 ELECTRICAL AND DATA WIRING

- A. The electrical design and installation of all branch circuits by the Contractor shall comply with NEC, state and local codes.
- B. The Contractor shall provide separate single-line diagrams for each type of signal.
- C. Electrical design and engineering must be reviewed and prior to any electrical work by the Contractor.
- D. The Contractor will be responsible for power distribution from the demarcation points noted on the included electrical drawings. Any additional electrical components required for a complete and fully operational system but not shown on the electrical drawings shall be the responsibility of the Contractor.
- E. Any additional raceway (conduit, cable tray, J hooks) required to provide a complete system for both power and signal/data shall be furnished and installed by Contractor. Any additional raceway required shall have routing of raceway approved prior to installation.
- F. The Contractor shall be responsible for termination and final connection of power to all elements. All secondary electrical panels must be clearly marked with names of the branch circuits controlled by each breaker to aid in troubleshooting or isolating problems. All electrical services, disconnects, and breaker panels are to be labeled with what they control and where they are fed from.
- G. Contractor shall not use wire nuts or electrical tape for any power or signal connection or any part of the work. All connections shall use a proper terminal block and spade terminal, or terminal block and direct connection as required. Covers shall be provided over all high power terminal blocks to prevent electrical shock.
- H. Any equipment not certified as required in Section 1.4.A. shall require on site certification by a listed testing agency. All cost associated with obtaining on site certification shall be the responsibility of the Contractor. Written proof of certification or equivalent will be required prior to any work being performed on site.
- I. Contractor shall provide six (6) spare strands of fiber in addition to the total amount of fiber that is required to provide video signal and/or data communication all video components installed by Contractor. All fiber shall be terminated and landed in an appropriate fiber patch panel. All new fiber supplied by Contractor shall be tested and shall not exceed maximum allowable dB loss per Section 3.7.K and/or Section 3.7.L.
- J. Multi-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 100 feet (30m) for 850nm fiber or a loss greater than 0.1 dB per 300 feet (100m) for 1300nm fiber.
- K. Single-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 600 feet (200m) for 1310nm fiber or a loss greater than 0.1 dB per 750 feet (250m) for 1550nm fiber.
- L. Contractor to provide all required fiber transmitters and receivers (including amplifiers where required). Contractor will be responsible to terminate and perform final connection of all cables. Cables will be routed from the specified control locations to the video components per Contractor's diagram once diagram has been approved.

### 3.6 AESTHETIC CONSIDERATIONS

- A. Contractor shall assume premium finishes on all elements not yet defined.
- B. Post contract award, the Contractor must provide a comprehensive outline of intended finish details of all video equipment that is to be located in public viewing areas for approval. Failure to submit these details shall make Contractor responsible for all finishes as required at no additional cost.
- C. The Contractor shall not visibly display its trademarks or insignia on any of the Equipment or structural elements within public view.

### 3.7 FINAL ADJUSTMENT AND COMMISSIONING

- A. Schedule a time to perform the Final Adjustment and Commissioning. Notify the Project at least seven (7) days in advance.
- B. Furnish a technician who is familiar with the system to assist the Contractor during the Final Adjustment and Commissioning.
- C. Record final settings on all equipment and submit with contract closeout documents.

### 3.8 TRAINING

- A. The Contractor, at its own expense, will provide designated operator and maintenance training.
- B. Training will be performed at the site by a qualified technician and shall occur either during installation of the equipment or immediately thereafter. O&M Manuals per Section 1.3.B shall be provided to Owner prior to training.
- C. The training shall cover the operation, routine maintenance and troubleshooting of the video replay system and control equipment.
- D. Training shall consist of at least 8 hours of instruction.
- E. Warranty period will commence at conclusion of the third consecutive successful event.

### 3.9 TESTING AND ACCEPTANCE

- A. Contractor must demonstrate the full capabilities of the provided systems and prove performance meets contractual specifications.
- B. Confirmation will be required of, but not limited to, the following functions: operation of each system component, including back-up systems, control functionality and integration with existing systems.
- C. Contractor must provide all necessary testing equipment for acceptance.
- D. Upon notice from the Contractor of substantial completion and at a time to be mutually agreed upon, the Contractor will arrange for the testing of all operations of the systems comprised in scope of work at the time of substantial completion.
- E. The following items must be completed and signed off by an appropriate official before it will deem the system "Accepted":
  - 1. Three Completed events with no equipment or system failures.
  - 2. The Project will not be responsible for any added costs as a result of an unsuccessful acceptance test.
  - 3. Acceptance of the system includes, but not limited to, the completed installation of all physical components as well as proper system functionality. Tests of the system shall not occur until after the system has been installed, and all work completed.
- F. Document all acceptance testing, calibration and correction procedures described herein. Include the following information:
  - 1. Performance date of the given procedure.
  - 2. Condition of performance of procedure.
  - 3. Type of procedure, and description.
  - 4. Parameters measured and their values, including values measured prior to calibration or correction, as applicable.
  - 5. The names of personnel conducting the procedure.
  - 6. The equipment used to conduct the procedure.
  - 7. Upon completion of initial tests and adjustments, submit written report of tests to the Project along with all documents, diagrams, and recorded drawings required herein.

### 3.10 FINAL PROCEDURES

- A. Perform any and all "punch-list" work to correct inadequate performance or unacceptable conditions, as determined by the Project, at no additional expense.
- B. Furnish all portable equipment to the Project along with complete inventory documentation. All portable equipment shall be presented in the original manufacturer's packing, complete with all included instructions, miscellaneous manuals, and additional documents.
- C. Provide new acceptance testing in the same format as initial test reports.
- D. Check, inspect, and if necessary, adjust all systems, equipment, devices and components specified, approximately thirty (30) days after the Projects acceptance.
- E. Upon completion of the Work, the Project may elect to verify test data as part of acceptance procedure. Provide personnel and equipment, at the convenience of the Project, to reasonably demonstrate system performance and to assist with such tests without additional cost.

END OF PART 3 EXECUTION

| INVENTORY ITEM                                             | REF   | GENERAL DESCRIPTION                                                                                                                                                                                                                 | POWER REQUIREMENTS | COST ACCURACY | SUB-TOTAL EST. COST | SUMMARY |    |   |
|------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|---------------------|---------|----|---|
| <b>2.0 BROADCAST CONTROL ROOM</b>                          |       |                                                                                                                                                                                                                                     |                    |               |                     |         |    |   |
| CAMERA SYSTEM SUBTOTAL                                     | 2.1   | The camera system consists of (2) Bolin PTZ cameras with 30x zoom lenses, an IP PTZ controller and the SDI/ENET SM fiber converters, and (2) Handheld Panasonic Cameras with 20x zoom lenses.                                       | N/A                | BID           | \$ -                | 1       | \$ | - |
| REPLAY SYSTEM SUBTOTAL                                     | 2.2   | This includes a 4x4 SDI replay system, SDI facility router and monitoring for the replay operator.                                                                                                                                  | N/A                | BID           | \$ -                | 1       | \$ | - |
| INTEGRATION SUBTOTAL                                       | 2.3   | This is for all the labor, material and travel to install the camera package and replay system on site.                                                                                                                             | N/A                | BID           | \$ -                | 1       | \$ | - |
| Option 1 - TRICASTER VIZION BUNDLE                         | OPT-1 | TriCaster Vizion Switcher/Graphics/Audio system. A completely configurable system of up to 16 SDI I/O and an option of perpetual or subscriptions licensing. Includes Graphics creation and the TriCaster Flex Dual switcher panel. | N/A                | BID           | \$ -                | 0       | \$ | - |
| Option 2 - WIRELESS CAM PACKAGE                            | OPT-2 | Includes (2) Teradek Bolt (6 GHZ) wireless systems. Transmit Video up to 750' Line of Sight.                                                                                                                                        | N/A                | BID           | \$ -                | 0       | \$ | - |
| Option 3 -JVC HANDHELD CAMERAS                             | OPT-3 | (2) JVC Camcorder systems with Fujinon 20x lenses. (This would replace the (2) Panasonic cameras).                                                                                                                                  | N/A                | BID           | \$ -                | 0       | \$ | - |
| SUB-TOTAL (IDENTIFIED OPTIONS)                             |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| <b>3.0 OTHER ITEMS NEEDED</b>                              |       |                                                                                                                                                                                                                                     |                    |               |                     |         |    |   |
| OTHER ITEMS NEEDED                                         | 3.1   | Items required to make a full and complete turnkey installation                                                                                                                                                                     | N/A                | BID           | \$ -                | 1       | \$ | - |
| SUB-TOTAL (IDENTIFIED OPTIONS)                             |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| <b>4.0 VENDOR ALTERNATIVES (ADD LINES AS NEEDED)</b>       |       |                                                                                                                                                                                                                                     |                    |               |                     |         |    |   |
| VENDOR ALTERNATE 1                                         | 4.1   |                                                                                                                                                                                                                                     | N/A                | BID           | \$ -                | 1       | \$ | - |
| VENDOR ALTERNATE 2                                         | 4.2   |                                                                                                                                                                                                                                     | N/A                | BID           | \$ -                | 1       | \$ | - |
| VENDOR ALTERNATE 3                                         | 4.3   |                                                                                                                                                                                                                                     | N/A                | BID           | \$ -                | 1       | \$ | - |
| VENDOR ALTERNATE 4                                         | 4.4   |                                                                                                                                                                                                                                     | N/A                | BID           | \$ -                | 1       | \$ | - |
| SUB-TOTAL (IDENTIFIED OPTIONS)                             |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| <b>FINANCIAL SUMMARY</b>                                   |       |                                                                                                                                                                                                                                     |                    |               |                     |         |    |   |
| 2.0 BROADCAST CONTROL ROOM                                 |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| 3.0 OTHER ITEMS NEEDED                                     |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| 4.0 VENDOR ALTERNATIVES (ADD LINES AS NEEDED)              |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| SUB-TOTAL (IDENTIFIED OPTIONS)                             |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| CONTINGENCY (7.5%)                                         |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| BONDING (1%) - RECOMMEND FINANCIAL TERMS IN LIEU           |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| TAXES (6.2%) - IF TAX EXEMPT, CERTIFICATE MUST BE PROVIDED |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |
| <b>GRAND TOTAL</b>                                         |       |                                                                                                                                                                                                                                     |                    |               |                     | \$ -    |    |   |

| REF                                                                                         | MANUFACTURER          | MODEL                       | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                     | QTY | UNIT | EXTENDED |
|---------------------------------------------------------------------------------------------|-----------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|----------|
| <b>CAMERA SYSTEM</b>                                                                        |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| <b>CAMERAS 1 - 2</b>                                                                        |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 1                                                                                           | Panasonic             | AG-CX350                    | UHD 4k 1080p camcorder with 20x optical zoom                                                                                                                                                                                                                                                                                                                                    | 2   |      | \$ -     |
| 2                                                                                           | Lexar                 | LSD1800256G-BNNU (Or Equiv) | 256GB Professional 1800x UHS-II SDXC Memory Card (GOLD Series)                                                                                                                                                                                                                                                                                                                  | 2   |      | \$ -     |
| 3                                                                                           | Elvid                 | Fieldvision 4KV2            | 7" On-camera monitor (OPTIONAL)                                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 4                                                                                           | Libec                 | ZC-1P                       | LANC Zoom Control (OPTIONAL)                                                                                                                                                                                                                                                                                                                                                    | 2   |      | \$ -     |
| 5                                                                                           | Cyanview              | RCP-QUATTRO                 | IP Camera controller - 4 cameras                                                                                                                                                                                                                                                                                                                                                | 1   |      | \$ -     |
| 6                                                                                           | Magnus                | VT-4000-PRO-2               | 2-Stage Video Tripod with Fluid Head                                                                                                                                                                                                                                                                                                                                            | 2   |      | \$ -     |
| 7                                                                                           | Magnus                | PB-3                        | Pan Handle for VT-4000 PRO and VT-4000-PRO-2                                                                                                                                                                                                                                                                                                                                    | 2   |      | \$ -     |
| 8                                                                                           | Acebil                | ST-7R PANA KIT4             | Shoulder Adapter with Cable for Panasonic AG-CX350                                                                                                                                                                                                                                                                                                                              | 2   |      | \$ -     |
| 9                                                                                           | Comprehensive         | BB-C-3GSDI-50               | High Definition 3G-SDI BNC to BNC Cable (50 ft)                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 10                                                                                          | Comprehensive         | BB-C-3GSDI-25               | High Definition 3G-SDI BNC to BNC Cable (25 ft)                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 11                                                                                          | Pearstone             | CAT6-S50B                   | Cat 6 Snagless Network Patch Cable (Black, 50')                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 12                                                                                          | Pearstone             | CAT6-S25B                   | Cat 6 Snagless Network Patch Cable (Black, 25')                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 13                                                                                          | Netgear               | GSM4230P-100NAS             | GSM4230P 24-Port Gigabit PoE+ Compliant Managed Network Switch with SFP (300W)                                                                                                                                                                                                                                                                                                  | 1   |      | \$ -     |
| 14                                                                                          | Thor                  | F-M1SDI-3G-ET-TX/RX         | Portable 3G SDI and 10/100/1000 Gigabit Ethernet CWDM Extender - Singlemode - ST/PC                                                                                                                                                                                                                                                                                             | 2   |      | \$ -     |
| 15                                                                                          | AJA                   | FS4                         | 4-Channel 12G-SDI/1-Channel UHD 4K Frame Synchronizer/Converter                                                                                                                                                                                                                                                                                                                 | 1   |      | \$ -     |
| 16                                                                                          | Lilliput              | PVM220S                     | 21.5" 3G-SDI/HDMI Quad-Split Broadcast Monitor, 1920 x 1080 LCD Display, 3G-SDI & HDMI In/Out (OPTIONAL)                                                                                                                                                                                                                                                                        | 1   |      | \$ -     |
| 17                                                                                          | Desview               | S24F                        | 24" UHD LED Quad Split-View Broadcast Monitor; 3840 x 2160 Resolution at 60 Hz, 10-Bit IPS Screen (OPTIONAL)                                                                                                                                                                                                                                                                    | 1   |      | \$ -     |
| <b>Camera System SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>CAMERAS 3 - 4 (PTZ)</b>                                                                  |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 18                                                                                          | Bolin                 | R9-230NX                    | Full HD NDI HX3 PTZ Camera (Black); 1/1.8" CMOS Sensor, 4.17MP, NDI HX3, 3G-SDI, HDMI 2.0, and IP Output, Up to 1080p60 Resolution Video Output, 30x Optical Zoom, 12x Digital Zoom, Wide 58.1° Horizontal Viewing Angle                                                                                                                                                        | 2   |      | \$ -     |
| 19                                                                                          | Bolin                 | KBD-1020N                   | NDI-Enabled IP PTZ Camera Controller                                                                                                                                                                                                                                                                                                                                            | 1   |      | \$ -     |
| 20                                                                                          | Bolin                 | C-WM3B (Or Equiv)           | PTZ Wall Mount Bracket (Large, Black)                                                                                                                                                                                                                                                                                                                                           | 2   |      | \$ -     |
| 21                                                                                          | Thor                  | F-M1SDI-3G-ET-TX/RX         | Portable 3G SDI and 10/100/1000 Gigabit Ethernet CWDM Extender - Singlemode - ST/PC                                                                                                                                                                                                                                                                                             | 2   |      | \$ -     |
| 22                                                                                          | Netgear               | G5516UP-100NAS              | 16-Port Gigabit PoE++ Compliant Unmanaged Switch (NEEDED ONLY IF USING NDI)                                                                                                                                                                                                                                                                                                     | 3   |      | \$ -     |
| 23                                                                                          | Lilliput              | PVM220S                     | 21.5" 3G-SDI/HDMI Quad-Split Broadcast Monitor, 1920 x 1080 LCD Display, 3G-SDI & HDMI In/Out (OPTIONAL)                                                                                                                                                                                                                                                                        | 1   |      | \$ -     |
| 24                                                                                          | Desview               | S24F                        | 24" UHD LED Quad Split-View Broadcast Monitor; 3840 x 2160 Resolution at 60 Hz, 10-Bit IPS Screen (OPTIONAL)                                                                                                                                                                                                                                                                    | 1   |      | \$ -     |
| <b>Camera System SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>CAMERA SYSTEM SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>REPLAY SYSTEM</b>                                                                        |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 25                                                                                          | Vizrt                 | 3P1                         | 3Play 3P1 IP Replay System with Control Surface (2 RU)                                                                                                                                                                                                                                                                                                                          | 1   |      | \$ -     |
| 26                                                                                          | AJA                   | GEN10                       | HD/SD/AES Sync Generator with Universal Power Supply                                                                                                                                                                                                                                                                                                                            | 1   |      | \$ -     |
| 27                                                                                          | AJA                   | C10DA                       | Analog BNC 1x6 Distribution Amplifier                                                                                                                                                                                                                                                                                                                                           | 1   |      | \$ -     |
| 28                                                                                          | Kramer - Sierra Video | ASPEN 32X32 3G HD-SDI       | ASPEN 32X32 3G HD-SDI RTR ZRU                                                                                                                                                                                                                                                                                                                                                   | 1   |      | \$ -     |
| 29                                                                                          | Kramer - Sierra Video | RPS-16/32                   | Redundant Power Supply for Aspen 16 & 32 Models                                                                                                                                                                                                                                                                                                                                 | 1   |      | \$ -     |
| 30                                                                                          | Kramer - Sierra Video | ASPEN 32X32 XY LAN RCP      | Remote Control Panel for the 32 x 32 3G HD Router (OPTIONAL)                                                                                                                                                                                                                                                                                                                    | 1   |      | \$ -     |
| 31                                                                                          | DECIMATOR             | DD-DMON-QUAD                | 4-Channel 3G-SDI Multiviewer                                                                                                                                                                                                                                                                                                                                                    | 1   |      | \$ -     |
| 32                                                                                          | AJA                   | Hi5-Plus                    | 3G-SDI to HDMI Mini-Converter                                                                                                                                                                                                                                                                                                                                                   | 1   |      | \$ -     |
| 33                                                                                          | Samsung               | BE43D-H                     | 43" UHD 4K HDR Commercial Television, Limited 3-Year Manufacturer Warranty                                                                                                                                                                                                                                                                                                      | 1   |      | \$ -     |
| <b>Replay System SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>REPLAY SYSTEM SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>INSTALLATION, MATERIALS AND LABOR</b>                                                    |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 34                                                                                          | Integration           | Labor                       | Integration Labor                                                                                                                                                                                                                                                                                                                                                               | 1   |      | \$ -     |
| 35                                                                                          | Integration           | Material                    | Integration Material                                                                                                                                                                                                                                                                                                                                                            | 1   |      | \$ -     |
| 36                                                                                          | Integration           | Travel                      | Integration Travel                                                                                                                                                                                                                                                                                                                                                              | 1   |      | \$ -     |
| 37                                                                                          | Integration           | Freight                     | Freight, Warranty, ETC.                                                                                                                                                                                                                                                                                                                                                         | 1   |      | \$ -     |
| <b>Integration SUBTOTAL</b>                                                                 |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>BROADCAST SUMMARY</b>                                                                    |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| <b>CAMERA SYSTEM SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>REPLAY SYSTEM SUBTOTAL</b>                                                               |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>Integration SUBTOTAL</b>                                                                 |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>BASE BID SUBTOTAL</b>                                                                    |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>OPTION 1 - TRICASTER VISION TOWER BUNDLE WITH FLEX CONTROL PANEL</b>                     |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 1                                                                                           | Vizrt                 | BDL-000000108               | TriCaster Vizion Tower Bundle with Flex Control Panel; Vizrt TriCaster Vizion Tower with 44 NDI Inputs and 16 SDI I/O (1-Year Standard Support, 3-Year Viz Flowics), Vizrt TriCaster Flex Dual Control Panel (Limited 1-Year Manufacturer Warranty), Vizrt Viz Connect Audio 8x4 Analog/NDI I/O Converter with Control & Monitoring, PS, (Limited 1-Year Manufacturer Warranty) | 1   |      | \$ -     |
| 2                                                                                           | Vizrt                 | SW-000000031                | 1-Year TriCaster Vizion Subscription                                                                                                                                                                                                                                                                                                                                            | 1   |      | \$ -     |
| <b>Option 1 - TRICASTER VIZION BUNDLE</b>                                                   |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>OPTION 2 - WIRELESS PACKAGE FOR HANDHELD CAMERAS</b>                                     |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 1                                                                                           | Teradeck              | 10-2260-G                   | Bolt 6 LT 750 3G-SDI/HDMI Wireless RX/TX Deluxe Kit (Gold Mount)                                                                                                                                                                                                                                                                                                                | 2   |      | \$ -     |
| 2                                                                                           | Anton/Bauer           | 8275-0151                   | Titon 90 2-Battery and Charger Travel Kit (Gold Mount)                                                                                                                                                                                                                                                                                                                          | 2   |      | \$ -     |
| <b>Option 2 - WIRELESS CAM PACKAGE</b>                                                      |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      | \$ -     |
| <b>OPTION 3 - JVC HANDHELD CAMERAS (THESE WOULD REPLACE THE PANASONIC HANDHELD PACKAGE)</b> |                       |                             |                                                                                                                                                                                                                                                                                                                                                                                 |     |      |          |
| 1                                                                                           | JVC                   | GYHM890F20                  | ProHD Shoulder Mount Camcorder with Fujinon XT20SX4.78MM Lens                                                                                                                                                                                                                                                                                                                   | 2   |      | \$ -     |
| 2                                                                                           | JVC                   | JA-70A                      | IDX 70W AC ADAPTER POWER SUPPLY                                                                                                                                                                                                                                                                                                                                                 | 2   |      | \$ -     |
| 3                                                                                           | Lexar                 | LSDSIPL128G-BNNU            | 128GB Professional SILVER PLUS UHS-I SDXC Memory Card                                                                                                                                                                                                                                                                                                                           | 4   |      | \$ -     |
| 4                                                                                           | JVC                   | SAK-LCD7                    | VIEWFINDER BRACKET FOR THE 7-INCH MONITORS (OPTIONAL)                                                                                                                                                                                                                                                                                                                           | 2   |      | \$ -     |
| 5                                                                                           | JVC                   | DT-X71HP                    | ProHD 7" 3G-SDI/HDMI On-Camera LCD Monitor (OPTIONAL)                                                                                                                                                                                                                                                                                                                           | 2   |      | \$ -     |

|                                        |               |                     |                                                                                                                       |   |  |           |          |
|----------------------------------------|---------------|---------------------|-----------------------------------------------------------------------------------------------------------------------|---|--|-----------|----------|
| 6                                      | JVC           | HZAS1G              | Zoom Control Unit for Canon and Fujinon Lenses ( <b>OPTIONAL</b> )                                                    | 2 |  | \$        | -        |
| 7                                      | JVC           | HZFR15G             | Focus control (Canon & Fujinon lenses) ( <b>OPTIONAL</b> )                                                            | 2 |  | \$        | -        |
| 8                                      | JVC           | KA-551U             | Tripod Adapter Plate                                                                                                  | 2 |  | \$        | -        |
| 9                                      | Manfrotto     | MVK504XTWINFA       | Fluid Video Head & 645 FAST Aluminum Tripod with Mid-Level Spreader                                                   | 2 |  | \$        | -        |
| 10                                     | Manfrotto     | MVAPANBARL          | Telescopic PVC-Free Pan Bar for Select Manfrotto Video Heads                                                          | 2 |  | \$        | -        |
| 11                                     | JVC           | RM-LP100            | Lens camera controller over IP                                                                                        | 1 |  | \$        | -        |
| 12                                     | Comprehensive | BB-C-3GSDI-50       | High Definition 3G-SDI BNC to BNC Cable (50 ft)                                                                       | 2 |  | \$        | -        |
| 13                                     | Comprehensive | BB-C-3GSDI-25       | High Definition 3G-SDI BNC to BNC Cable (25 ft)                                                                       | 2 |  | \$        | -        |
| 14                                     | Pearstone     | CAT6-S50B           | Cat 6 Snagless Network Patch Cable (Black, 50')                                                                       | 2 |  | \$        | -        |
| 15                                     | Pearstone     | CAT6-S25B           | Cat 6 Snagless Network Patch Cable (Black, 25')                                                                       | 2 |  | \$        | -        |
| 16                                     | Netgear       | XSM4216F-100NAS     | AV Line M4250 XSM4216F 16-Port Gigabit SFP+ Managed Network Switch                                                    | 1 |  | \$        | -        |
| 17                                     | Thor          | F-M1SDI-3G-ET-TX/RX | Portable 3G SDI and 10/100/1000 Gigabit Ethernet CWDM Extender - Singlemode - ST/PC                                   | 2 |  | \$        | -        |
| 18                                     | AJA           | FS4                 | 4-Channel 12G-SDI/1-Channel UHD 4K Frame Synchronizer/Converter                                                       | 1 |  | \$        | -        |
| 19                                     | Lilliput      | PVM220S             | 21.5" 3G-SDI/HDMI Quad-Split Broadcast Monitor, 1920 x 1080 LCD Display, 3G-SDI & HDMI In/Out ( <b>OPTIONAL</b> )     | 1 |  | \$        | -        |
| 20                                     | Desview       | S24F                | 24" UHD LED Quad Split-View Broadcast Monitor; 3840 x 2160 Resolution at 60 Hz, 10-Bit IPS Screen ( <b>OPTIONAL</b> ) | 1 |  | \$        | -        |
| <b>Option 3 - JVC HANDHELD CAMERAS</b> |               |                     |                                                                                                                       |   |  | <b>\$</b> | <b>-</b> |

| REF                         | MANUFACTURER | MODEL | DESCRIPTION | QTY | UNIT | EXTENDED |
|-----------------------------|--------------|-------|-------------|-----|------|----------|
| Broadcast Control Room      |              |       |             |     |      |          |
| 1                           |              |       |             | 1   |      | \$ -     |
| 2                           |              |       |             | 1   |      | \$ -     |
| 3                           |              |       |             | 1   |      | \$ -     |
| 4                           |              |       |             | 1   |      | \$ -     |
| 5                           |              |       |             | 1   |      | \$ -     |
| 6                           |              |       |             | 1   |      | \$ -     |
| 7                           |              |       |             | 1   |      | \$ -     |
| 8                           |              |       |             | 1   |      | \$ -     |
| 9                           |              |       |             | 1   |      | \$ -     |
| 10                          |              |       |             | 1   |      | \$ -     |
| 11                          |              |       |             | 1   |      | \$ -     |
| 12                          |              |       |             | 1   |      | \$ -     |
| 13                          |              |       |             | 1   |      | \$ -     |
| 14                          |              |       |             | 1   |      | \$ -     |
| 15                          |              |       |             | 1   |      | \$ -     |
| 16                          |              |       |             | 1   |      | \$ -     |
| 17                          |              |       |             | 1   |      | \$ -     |
| 18                          |              |       |             | 1   |      | \$ -     |
| 19                          |              |       |             | 1   |      | \$ -     |
| 20                          |              |       |             | 1   |      | \$ -     |
| 21                          |              |       |             | 1   |      | \$ -     |
| 22                          |              |       |             | 1   |      | \$ -     |
| 23                          |              |       |             | 1   |      | \$ -     |
| 24                          |              |       |             | 1   |      | \$ -     |
| 25                          |              |       |             | 1   |      | \$ -     |
| OTHER ITEMS NEEDED SUBTOTAL |              |       |             |     |      | \$ -     |

| REF                       | MANUFACTURER | MODEL | DESCRIPTION | QTY | UNIT | EXTENDED    |
|---------------------------|--------------|-------|-------------|-----|------|-------------|
| <b>VENDOR ALTERNATE 1</b> |              |       |             |     |      |             |
| 1                         |              |       |             | 1   |      | \$ -        |
| 2                         |              |       |             | 1   |      | \$ -        |
| 3                         |              |       |             | 1   |      | \$ -        |
| 4                         |              |       |             | 1   |      | \$ -        |
| 5                         |              |       |             | 1   |      | \$ -        |
| 6                         |              |       |             | 1   |      | \$ -        |
| <b>VENDOR ALTERNATE 1</b> |              |       |             |     |      | <b>\$ -</b> |
| <b>VENDOR ALTERNATE 2</b> |              |       |             |     |      |             |
| 1                         |              |       |             | 1   |      | \$ -        |
| 2                         |              |       |             | 1   |      | \$ -        |
| 3                         |              |       |             | 1   |      | \$ -        |
| 4                         |              |       |             | 1   |      | \$ -        |
| 5                         |              |       |             | 1   |      | \$ -        |
| 6                         |              |       |             | 1   |      | \$ -        |
| <b>VENDOR ALTERNATE 2</b> |              |       |             |     |      | <b>\$ -</b> |
| <b>VENDOR ALTERNATE 3</b> |              |       |             |     |      |             |
| 1                         |              |       |             | 1   |      | \$ -        |
| 2                         |              |       |             | 1   |      | \$ -        |
| 3                         |              |       |             | 1   |      | \$ -        |
| 4                         |              |       |             | 1   |      | \$ -        |
| 5                         |              |       |             | 1   |      | \$ -        |
| 6                         |              |       |             | 1   |      | \$ -        |
| 7                         |              |       |             | 1   |      | \$ -        |
| 8                         |              |       |             | 1   |      | \$ -        |
| 9                         |              |       |             | 1   |      | \$ -        |
| 10                        |              |       |             | 1   |      | \$ -        |
| 11                        |              |       |             | 1   |      | \$ -        |
| 12                        |              |       |             | 1   |      | \$ -        |
| <b>VENDOR ALTERNATE 3</b> |              |       |             |     |      | <b>\$ -</b> |
| <b>VENDOR ALTERNATE 4</b> |              |       |             |     |      |             |
| 1                         |              |       |             | 1   |      | \$ -        |
| 2                         |              |       |             | 1   |      | \$ -        |
| 3                         |              |       |             | 1   |      | \$ -        |
| 4                         |              |       |             | 1   |      | \$ -        |
| 5                         |              |       |             | 1   |      | \$ -        |
| 6                         |              |       |             | 1   |      | \$ -        |
| 7                         |              |       |             | 1   |      | \$ -        |

|                           |  |  |  |   |  |    |             |
|---------------------------|--|--|--|---|--|----|-------------|
| 8                         |  |  |  | 1 |  | \$ | -           |
| 9                         |  |  |  | 1 |  | \$ | -           |
| 10                        |  |  |  | 1 |  | \$ | -           |
| 11                        |  |  |  | 1 |  | \$ | -           |
| 12                        |  |  |  | 1 |  | \$ | -           |
| <b>VENDOR ALTERNATE 4</b> |  |  |  |   |  |    | <b>\$ -</b> |

\*\*ADD LINES AS NEEDED

# **THE MONUMENT**

ICE ARENA

TECHNICAL SPECIFICATIONS  
LED DISPLAY SYSTEM(S)

## PART 1 GENERAL

### 1.1 DESCRIPTION

- A. The Contractor shall be responsible for the provision and installation of all primary and secondary steel and mounting brackets/hardware required to accommodate the new systems onto owner supplied structures. This includes all labor, materials, equipment; tools, transportation, and project management required for a complete and fully operational system(s) on the project.
- B. Owner will provide sufficient power at each main display location in the form of a disconnect at the display location. Contractor shall provide all secondary power distribution from demarcation points to the new video displays and illuminated signage elements. Contractor shall provide all connections/terminations required to power new system(s). Contractor is responsible for providing stamped electrical drawings by a licensed electrical engineer in the state of South Dakota.
- C. Owner will provide sufficient power for each ribbon display location in the form of a disconnect at the designated electrical closet. Contractor shall provide all secondary power distribution from demarcation point to the new video displays. Contractor shall provide all connections/terminations required to power new system(s). Contractor is responsible for providing stamped electrical drawings by a licensed electrical engineer in the state of South Dakota.
- D. Owner will provide signal cable pathways/conduit as required to bring fiber for video and scoring cabling between the existing displays and control locations. New Displays may require new conduit and pathway by contractor. All additional conduit and raceways required to complete a path to the display shall be furnished and installed by Contractor. Contractor shall be responsible to furnish, install, and terminate all required cabling needed to make new system(s) complete and fully operational.
- E. A rendering package is provided as part of this bid package. The illustrations are to be construed as conceptual and not for construction purposes. Contractor shall be responsible for final engineering of the structural and electrical components required for new system(s), including professional engineering stamp by a licensed/registered engineer in the State of South Dakota.
- F. Contractor is responsible for supplying a complete and fully operational system as intended by the RFP documents and any subsequent addendums. Prior to entering into a contract for the project, Proposer is responsible for notifying Owner of any equipment omissions in the RFP documents that would prevent the completion of a fully operational system. If Contractor fails to notify Owner of any equipment omissions, Contractor shall assume responsibility for providing the required equipment at no additional cost to Owner.
- G. Contractor shall field verify all work site conditions, including dimensions and site lines prior to submitting shop drawings.
- H. The Contractor will be wholly responsible for any necessary logistic, staging, planning, etc. required to access and execute the work. This includes any demolition, clearing and put back necessary to access the project or to create staging or storage areas. Contractor shall return all existing conditions and improvements to a condition equal to the condition it was found upon mobilization.
- I. Contractor shall grant Owner a license to use all proprietary software provided with this RFP for the life of the system, including all software updates for the duration of the product lifecycle. The facility requires notification each time a software update is made to any and all systems.

### 1.2 PROPOSER QUALIFICATIONS

- A. Owner seeks to contract with a Proposer for the full performance of the work as described in this RFP and to obtain long-term service and support for all equipment supplied by the selected Proposer. In an effort to ensure the chosen Proposer has the long-term interests of Owner in mind, the following shall be required in order to submit a bid for this project. Failure to submit acceptable responses to all of these requirements shall eliminate a Proposer from consideration. The Owner, in its sole discretion, shall reserve the right to waive any or all of the requirements listed below.
  - 1. Proposer shall provide a list of a minimum of five (5) Professional or Division 1 facilities (facility, contact name, title, address and current phone number) where the Proposer has provided equipment and services of equivalent brand, size and scope within the last 3 years.

2. Proposer shall provide a minimum of two (2) Professional or Division 1 facilities (facility, contact name, title, address and current phone number) where the Proposer has provided equipment and services of equivalent brand, size and scope that is at least five (5) years old.
3. Proposer shall be required to provide a Letter of Surety from their bonding agent, stating their ability to provide a 100% payment and performance bond if they are the successful Proposer.
4. Proposer shall have a direct service employee or certified contractor capable of providing maintenance response within 2 hours of a call for service. In addition proposer must have a 24/7 help line available to troubleshoot system outages with facility personnel.
5. If Proposer is not the direct LED manufacturer, proposer to identify the LED manufacturer, location of factory and an executive level contact. All project references provided to meet the qualifications listed in this section must have been delivered using same manufacturer as proposed for this RFP.

### 1.3 SUBMITTAL REQUIREMENTS

#### A. Initial Submittals and Shop Drawings

1. Contractor shall be required to provide submittals and shop drawings to Owner within fifteen (15) calendar days of date shown on award notice, acknowledged with a binding letter of intent. Contractor shall be responsible for ensuring that the dimensions and specifications of each component and all systems fit within the building allowances. The Owner and AJP must review and approve all submittal documents prior to the start of work. Contractor shall advise the Owner of any discrepancy that could affect installation. If Contractor fails to notify Owner of any discrepancies, Contractor shall assume responsibility for providing the required equipment or correcting such discrepancies at no additional cost to Owner. The following required submittals will be defined by guidelines established by the Owner and shall include but not be limited to:
  - a. Submit one electronic set of shop drawings in PDF and .dwg formats, product data and samples together in one package within fifteen (15) calendar days of date shown on award notice to Contract and prior to ordering equipment.
  - b. Provide a PDF Binder with a complete list of proposed equipment with reference to its corresponding specification paragraph number or equipment title in specification paragraph order. Denote all approved substitutions.
  - c. Submit fabrication shop drawings for all displays including component weight and power calculations.
  - d. Submit structural engineered drawings for all primary and secondary steel framing required for this scope of work. Structural engineered drawings shall also include method of attachment for LED displays and all other signage elements required for this scope of work.
  - e. Submit point-to-point wiring diagrams and typed wire lists identifying every connection. Indicate locations of all components. Identify cables by type, color, and wire numbers.
  - f. Submit rack layouts indicating the proposed arrangement of mounted equipment including power junction box location. Rack layouts shall include front and rear views.
  - g. Submit detail drawings of all custom fabricated items and approved equipment modifications. Include complete parts lists, schematic diagrams, and all dimensions required for proper assembly.
  - h. Submittal drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels.
  - i. LED population layout drawings shall be submitted for each backlit channel letter and/or signage element required under this scope of work. Photos confirming LED lighting layout shall be submitted for each backlit channel letter and/or signage element upon completion of fabrication and prior to shipping product to site.
  - j. Submittal drawings shall indicate proposed color selections and finishes for all exposed surfaces and custom fabricated items. Submit actual color/finish samples, wall plates, and custom labels.
  - k. Submit a list of all lower tier subcontractors and suppliers. List shall include lower tier subcontractor's qualifications indicating performance of similar work on past projects of this type and scope.
  - l. Submit a project schedule in Gantt chart format outlining equipment delivery dates and installation start and finish dates. Project schedule shall be broken down into sufficient detail (work task and duration) to permit Owner to monitor installation progress on a daily basis.

- m. Copies of all required business and contractor licenses.
- n. Copies of proof of insurance.
- o. Approval of submitted items indicates only the acceptance of the manufacturer and quality. Specific requirements, arrangements, and quantities shall comply with the intent of the Contract Documents as interpreted by the Owner unless specifically approved in writing.
- p. Submittals that are incomplete, deviate significantly from the requirements of the Contract Documents, or contain numerous errors will be returned without review for rework and re-submittal, and may result in back charges to the contractor.

B. Contract Closeout Submittal

1. When the installation is substantially complete including the Testing Reports in Part 3 of this Section, Contractor shall submit two (2) complete initial hard copy sets of contract closeout submittals to the Owner for review. After review and approval of initial set, Owner shall return one (1) initial hard copy to Contractor with comments for updating. Contractor shall provide four (4) final sets of closeout submittals to Owner and one (1) electronic copy in PDF format. Closeout submittals shall include, but not be limited to:
  - a. Project Record Drawings (As-Built Drawings) including final screen fabrication drawings, secondary steel structural drawings, electrical drawings, system block diagrams, rack layout drawings, custom fabricated signage drawings (final fabrication version), and LED population and/or fluorescent lighting layout drawings for custom fabricated signage.
  - b. A list of all equipment provided and its location within the facility. List shall include manufacturer name, model identifier, serial number, and any other pertinent information needed to obtain service, maintenance, and/or replacement.
  - c. A list of all Subcontractors who performed work for Contractor during installation. List shall include company name, physical company address, phone number, and contact person(s).
  - d. Documentation certifying old video displays, matrix displays, signage elements and associated support structures that were demolished by Contractor prior to the installation of new equipment has been properly disposed of or recycled per local, provincial, and/or federal law(s).
  - e. Test reports from an independent testing & inspection agency certifying that bolted and/or welded connections for secondary structural steel meet the minimum requirements of the engineered structural drawings, the governing building code, or as required by the building official; whichever is more restrictive.
  - f. All testing reports as specified in Section 3.7 – Testing and Acceptance.
  - g. Test reports for all new fiber optic cable installed under this scope of work. Test reports shall indicate end-to-end signal loss does not exceed a maximum dB loss per Section 3.4.M and/or 3.4.N.
  - h. Operation & Maintenance Manual

Upon substantial completion and prior to on-site training with the Owner, Contractor shall provide four (4) final Operation & Maintenance Manuals (O&M Manuals). O&M Manuals shall have tab dividers and shall be logically organized to provide easy access to information without the need to research through entire manual. All documents provided in the O&M Manual shall be written in English and shall provide sufficient detail as to be understood by an individual with no knowledge of LED displays or the associated control equipment and/or operating systems. Contents of the O&M Manual shall include, but not be limited to:

    - 1) Table of Contents
    - 2) Description / overview of system(s) including key features and operational procedures.
    - 3) Full start up procedure for all control room rack equipment and LED display equipment written under the assumption that all equipment was in full powered off mode.
    - 4) Full shutdown procedure for all control room rack equipment and LED display equipment written under the assumption that the facility is in an extended power failure situation.
    - 5) Procedure for switching to back up LED display processors and back up graphics/animation servers.

- 6) Troubleshooting procedures for all LED displays, LED display processors, and all related equipment provided by Contractor. Troubleshooting procedures shall include demonstration photos and/or diagrams as required.
- 7) Maintenance procedures for all LED displays, LED display processors, and all related equipment provided by Contractor. Maintenance procedures shall include demonstration photos and/or diagrams as required. Contractor shall indicate whether maintenance procedures should be performed monthly, bi-annually, or annually.
- 8) Owner's Manuals for all third party and/or "off-the-shelf" type equipment provided by Contractor: e.g., KVM's, fiber modems, network switches/routers, and UPS battery backups.
- 9) All third-party equipment and/or "off-the-shelf" equipment warranties and a notarized System Warranty.

#### 1.4 EQUIPMENT GENERAL SPECIFICATIONS

- A. All equipment and materials, except owner furnished, shall be new and the latest version at the time of bid and shall conform to applicable UL, ULC, CSA or ANSI provisions. Re-manufactured or "B" stock equipment will not be accepted without prior written consent from the Owner. Evidence of unauthorized re-manufactured or "B" stock equipment on the project site will be deemed evidence of the contractor's failure to perform the work. Contractor shall take care during installation to prevent scratches, dents, chips or disfiguration of equipment and materials supplied. All damaged equipment and/or materials shall be repaired or replaced at Owner's discretion. Contractor shall perform either option selected by Owner at no additional cost to the Owner.
- B. All cabling [power and data] is to be labeled at each end of the cable with a description in English OR with a reference to a wire designation on a wiring diagram. This includes all cables internal to the displays, all cables between displays and control room, and all cables internal to the control room. These diagrams must be part of the Project documentation submitted to the Owner at time of acceptance.
- C. Each device shall meet all of its published manufacturer's specifications. Verify performance as required.
- D. Provide an uninterruptable power supply (UPS) at the bottom of each rack supplied by Contractor. UPS shall have the capability of providing power to all equipment within the rack for a period of 20 minutes in the event of a power failure at the facility.
- E. Install all rack mounted equipment with Middle Atlantic Products HP Series truss head screws or approved equal.
- F. Some rack-mounted equipment may require shaft locks, security covers, or removal of knobs; provide and install during Acceptance Testing.
- G. Provide engraved self-adhesive phenolic labels at the front and rear of all rack-mounted signal processing equipment. Mount labels on the equipment chassis and attach in a neat and permanent manner. Embossed label will not be accepted. Label equipment with schematic enumeration reference, and with descriptive information regarding its function or area it is serving. Similarly, provide engraved labels at the rear only for equipment mounted in furniture consoles.
- H. All engraving shall be 1/8" block lettering unless noted otherwise. On dark panels or pushbuttons, letters shall be white. Letters shall be black on stainless steel, brushed natural aluminum plates or light-colored pushbuttons.
- I. Per IEC-268 standard, all XLR connectors not mounted on equipment shall be wired pin 2 hot (high), pin 3 low, and pin 1 screen (shield).
- J. Mounting Hardware exposed to the weather shall be aluminum, brass epoxy painted galvanized steel or stainless steel. Apply corrosion inhibitor to all threaded fittings.
- K. Equipment Racks shall be Middle Atlantic Products model MRK-4436, or approved equal, with accessories as noted below. Quantity of racks shall be as required to house all equipment supplied under this scope of work. Any unused rack mounting spaces shall have blank panels to fully enclose the rack assembly. Multiple racks shall be anchored together using appropriate ganging hardware. Standard solid rear door shall be replaced with Middle Atlantic Products model MW-VRD-44 vented rear door.
  1. Provide two (2) side panels per individual stand-alone rack or series of racks ganged together. The intent is to have an enclosed rack system. A single stand-alone rack would have two (2) side panels and a series of three (3) racks ganged together would also have two (2) side panels. Side panels shall be Middle Atlantic Products model SPN-44-36 or approved equal.

2. Provide Middle Atlantic Products model MW-4QFT-FC integrated fan top, or approved equal, for each rack. Fan shall be thermostatically controlled to ensure in-rack temperatures of less than 100 degrees Fahrenheit.
3. Provide two (2) Middle Atlantic Products model LT-GN-PL gooseneck work light for each rack required for this scope of work.
4. Provide Middle Atlantic Products model PDT-2X1020T, or approved equal, in rack vertical power strip. Power strip shall have enough receptacles to accommodate all equipment housed in the associated rack with a minimum of two spare receptacles per rack.
- L. Any rear mounted rack equipment shall be placed so the equipment does not block access to the back of front mounted equipment.
- M. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment. Contractor shall install grommets around cut-outs and knockouts where conduit or chase nipples are not installed.
- N. Equipment Racks shall have a ground buss installed in each rack. Ground buss shall be insulated from the rack. Attach equipment rack to ground buss at one point using #4 insulated copper wire. Ground any equipment chassis without a three-conductor power cord directly to the buss bar using #12 insulated copper wire. Tie each and every power receptacle ground contact to the buss bar using #12 insulated copper wire. Interconnect signal cables shall be routed from junction boxes through metallic flexible conduit(s) (1" to 2" diameter) as appropriate. Flexible conduit shall be insulated from racks by approved insulating bushings.
- O. Power wiring and signal/data wiring shall be installed on opposite sides of rack. Contractor may determine which side is used for power and which side for signal. Method shall be kept the same for entire installation if multiple racks are required. Contractor shall exercise care when wiring racks to avoid damaging cables and equipment.

#### 1.5 QUALITY ASSURANCE

- A. All requirements of the latest published editions of the following standards shall apply, unless otherwise noted. In the event of conflict between cited or referenced standards, the more stringent shall govern.
  1. National Electric Code (NEC).
  2. National Electrical Manufacturers Association (NEMA)
  3. American National Safety Institute (ANSI)
  4. Occupational Safety and Health Administration (OSHA)
  5. American Iron and Steel Institute (AISI)
  6. Underwriters Laboratories (UL)
  7. Federal Communications Commission (F.C.C.) Rules and Regulations, Part 76.
  8. Society of Cable Television Engineers (S.C.T.E.)
  9. Society of Motion Picture and Television Engineers (S.M.P.T.E.)
  10. American Society of Testing Materials (A.S.T.M.)
  11. National Cable Television Association (N.C.T.A)
  12. Electronic Industries Association (E.I.A.)
  13. Telecommunications Industries Association (T.I.A.)
  14. South Dakota Building Code – Most Current Revision
  15. Local Building Code – Most Current Revision
- B. Review all architectural, civil, structural, mechanical, electrical, and other project documents related to this work.
- C. Verify all dimensions and site conditions prior to starting work.
- D. Coordinate the specified work with all other trades.
- E. Maintain a competent supervisor and supporting technical personnel, acceptable to the Owner during the entire installation. Change of supervisor during the project shall not be permitted without prior written approval from the Owner.

- F. Provide all items not indicated in the drawings or mentioned in the specifications that are necessary, required, or appropriate for this work to realize a complete and fully operational system that performs in stable and safe manner.
- G. Review project documentation and continuously make known any conflicts discovered and provide all items necessary to complete this work to the satisfaction of the Owner without additional expense. In all cases where a device or item or equipment is referred to in singular number or without quantity, each such reference shall apply to as many such devices or items as are required to complete the work.
- H. Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this work as approved by the Owner, without additional cost to the Owner.
- I. Regularly examine all construction, and the work of others, which may affect Contractors work to ensure proper conditions exist at site for the equipment and devices before their manufacture, fabrication, or installation. Contractor shall be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this work.
- J. Promptly notify the Owner in writing of any difficulties that may prevent proper coordination or timely completion of this work. Failure to do so shall constitute acceptance of construction as suitable in all ways to receive this work, except for defects that may develop in the work of others after its execution.
- K. After installation, submit photographs showing cable entries and terminations within equipment racks, enclosures, and pedestals at the job site.

#### 1.6 WARRANTY AND SERVICE

- A. Contractor shall warrant labor and materials for twenty-four (24) months following the date of Final Acceptance.
- B. During the warranty period the system shall be free of defects and deficiencies and conform to the drawings and specifications with respect to the quality, function, and characteristics stated.
- C. Contractor shall repair or replace defects that occur in labor or materials within the warranty period. If repair is affected using Owners spare parts allotment, Contractor shall replenish all parts used to keep Owner's inventory at the amount required by the contract.
- D. On-site labor shall be included during the warranty period for any work beyond simple component replacement. Simple component replacement shall be defined as lighting unit or power supply replacement or the replacement of an internal display signal cable that does not require tools to perform the cable replacement.
- E. Failed parts shall be returned to the Contractor for repair at a service facility located in the United States. Contractor shall identify the location of its service facility in the documentation provided when submitting a bid for this work.
- F. The Contractor shall replace failed parts that cannot be repaired.
- G. Upon receipt of a failed part, Contractor shall return a repaired or replacement part to the Owner within three - to five (3-5) business days from receipt of failed part.
- H. Contractor shall supply at least one local service employee or local authorized service agent for servicing and repairing all equipment during the warranty period. Local service employee or local authorized service agent shall be located within 75 miles of Owner's facility.
- I. The local service employee or local authorized service agent shall be entity responsible for providing the following emergency response availability:
  - 1. Telephone service assistance and technical support available 24 hours a day at Owner's facility, 7 days per week.
  - 2. Answer all service calls and requests for information within one (1) hour during the warranty period and provide on-site repair service within 24 hours.
  - 3. A parts exchange program, including same day shipment of exchange parts. The manufacturer shall keep a ready stock of key assemblies available to ship out upon notice of parts failure if part is not available in spare parts inventory at Owner's facility.
  - 4. The advance replacement should contain all of the shipping information and packaging necessary to return the defective part or assembly back to Contractor at no cost to the Owner.

- J. Warranty shall cover all equipment, including processors, controllers, operating systems, and software.
- K. Warranty shall include two annual on-site system check-ups by a qualified technician who is a full-time employee of the Contractor. Visit to occur approximately 2-3 weeks prior to the start of the second and third seasons or as determined by Owner.
- L. Contractor must notify Owner in writing within 90 days of expiration of warranty period.
- M. Check-up shall include all regular maintenance; including filter changes, a complete inspection of all systems, brightness level readings of LED displays, parts replacement where required and a complete written report of all findings.
- N. All extended warranty pricing requested in this RFP shall include the same requirements as stated in this section unless specifically excluded on the bid form
- O. In addition to the base warranty, Contractor will provide a guarantee against systemic parts failures for a period of seven years from final acceptance. A systemic parts failure is defined as a failure of more than 5% of a particular part or component in a display, over a 12-month period. If it is determined that a systemic parts failure has occurred, Contractor will be responsible for all costs to remedy the problem to the satisfaction of the Owner.
- P. Furthermore, if a particular system problem that resolves without repair presents itself in more than 2 consecutive events, Contractor will be responsible for providing on-site event support as well as system diagnosis, until the problem is identified and resolved. Some examples of this would be a signal flash, flickering, module(s) outage.

#### 1.7 SPARE PARTS

- A. Contractor shall supply a spare parts inventory containing 5% spare lighting units, 5% spare power supplies, and a minimum of one (1) of every other critical component including fiber modems. Supply a minimum of five (5) spare LED modules for any custom modules. Spare parts inventory shall be based on quantity of components used to manufacture the display(s). Contractor shall provide proposed spare parts inventory as part of the bid submission.
- B. At the time of final sign-off, Contractor shall supply the specified spare parts inventory regardless of spare parts used during initial "shake out", "burn in" and/or testing of newly installed displays.
- C. Manufacturer of the LED system components shall continue to make all parts necessary for the continued functioning of the system for a minimum of seven (7) years after acceptance of this project. Furthermore, upon end of life of any component used in the LED displays, that is not replaced by a "backwards compatible" component, Manufacturer shall notify Owner of end-of-life status being given to components of this system and shall give Owner an opportunity to buy spare parts from stock or a last production run, at then commercially viable prices.

END OF PART 1 GENERAL

PART 2 PRODUCTS

2.1 LED DISPLAY SCHEDULE

A. EXTERIOR MARQUEE

1. Quantity: Two (2) Outdoor 10 (mm) Video Display HDR Capable.
2. Minimum Active Area: 10' tall x 17.8' wide.
3. Minimum Resolution: 344 vertical pixels by 544 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front and rear.

B. EXTERIOR MARQUEE (Alternate 1 Increase Resolution)

1. Quantity: Two (2) Outdoor 8 (mm) Video Display HDR Capable.
2. Minimum Active Area: 10' tall x 17.8' wide.
3. Minimum Resolution: 384 vertical pixels by 672 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front and rear.

C. SOUTH END VIDEO DISPLAY

1. Quantity: One (1) Indoor 10 (mm) Video Display HDR Capable.
2. Minimum Active Area: 24.3' tall x 59.8' wide.
3. Minimum Resolution: 1232 vertical pixels by 3040 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front.

D. SOUTH END VIDEO DISPLAY (Alternate 2 Increase Resolution to 4mm)

1. Quantity: One (1) Indoor 4 (mm) Video Display HDR Capable.
2. Minimum Active Area: 24.3' tall x 59.8' wide.
3. Minimum Resolution: 1836 vertical pixels by 4563 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front

E. NORTH END VIDEO DISPLAY

1. Quantity: One (1) Indoor 6 (mm) Video Display HDR Capable.
2. Minimum Active Area: 9.45' tall x 24.25' wide.
3. Minimum Resolution: 480 vertical pixels by 1232 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front and rear.

F. NORTH END VIDEO DISPLAY (Alternate 3 increase resolution to 4mm)

1. Quantity: One (1) Indoor 4 (mm) Video Display HDR Capable.
2. Minimum Active Area: 9.45' tall x 24.25' wide.
3. Minimum Resolution: 702 vertical pixels by 1890 horizontal pixels.
4. Service accessibility for all components of the displays shall be from rear.

G. RIBBON BOARD

1. Quantity: One (1) indoor 6 (mm) Video Display.
2. Minimum Active Area: 1.10' tall x 464' wide.
3. Minimum Resolution: 96 vertical pixels by 25,384 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front.

H. RIBBON BOARD

1. Quantity: One (1) indoor 4 (mm) Video Display. (Alternate 4 Increase resolution to 4mm)
2. Minimum Active Area: 1.10' tall x 464' wide.
3. Minimum Resolution: 135 vertical pixels by 35,370 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front.

I. COURTSIDE TABLES

1. Quantity: Four (4) indoor 3.9 (mm) Video Displays
2. Minimum Active Area: 2.52' x 8'
3. Minimum Resolution: 192 vertical pixels by 640 horizontal pixels.
4. Service accessibility for all components of the displays shall be from front.

2.2 LED VIDEO DISPLAYS – OUTDOOR LED DISPLAY(S) SPECIFICATION

- A. LED Supplier: Only Cree, Multi-Color, Nation Star FM Series and Sinyopto GF Series LED's will be accepted. Gold wire bonds required.
- B. In accordance with the Joint Electron Engineering Council (JEDC Numbering System), all SMD (Surface Mount Device) Codes shall be made available prior to fabrication of LED cabinets
- C. Minimum Brightness: 7500nits (100% white with automatic color-correction "on") at startup.
- D. System must maintain a minimum brightness level of 7000 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- E. Display's intensity shall be adjustable to a minimum of 256 levels.
- F. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- G. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- H. Refresh rate shall be greater than 3,840+Hz.
- I. Video frame rate at or greater than 60 frames per second.
- J. Contrast ratio shall be greater than 4000:1.
- K. IP rating shall be no less than 66 front and 65 rear.
- L. Service accessibility as listed per display in LED Display Schedule Section.
- M. Pixel to Pixel Variation
  1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
  1. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
  2. 95% or more of the pixels within each module must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.006 of the mean chromaticity value for the module.
- N. Module to Module Variation
  1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.
  1. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
  2. 100% of the modules in a screen must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.006 of the mean chromaticity value for the screen.
  3. 100% of the adjacent modules in a screen must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.003 of each other.

- O. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- P. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- Q. Minimum of a 140° ( $\pm 70^\circ$ ) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- R. Minimum of a 130° (60°/70°) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.

## 2.3 LED VIDEO DISPLAYS – INDOOR LED DISPLAY(S) SPECIFICATIONS

- A. LED Supplier: Only Cree, Multi-Color, Nation Star FM Series and Sinyopto GF Series LED's will be accepted. Gold wire bonds required.
- B. In accordance with the Joint Electron Engineering Council (JEDC Numbering System), all SMD (Surface Mount Device) Codes shall be made available prior to fabrication of LED cabinets
- C. Minimum Brightness: 2000nits (100% white with automatic color-correction "on") at startup.
- D. System must maintain a minimum brightness level of 1500 nits throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.
- E. Display's intensity shall be adjustable to a minimum of 256 levels.
- F. Minimum 4,096 levels of intensity for each color (red, blue, pure green) 14-bit processing.
- G. 4,500°-9,000° Kelvin color temperature. Color temperature shall remain constant across specified horizontal and vertical viewing angles.
- H. Refresh rate shall be greater than 3,840+Hz.
- I. Video frame rate at or greater than 60 frames per second.
- J. Contrast ratio shall be greater than 4000:1.
- K. IP rating shall be no less than 66 front and 65 rear.
- L. Service accessibility as listed per display in LED Display Schedule Section.
- M. Pixel to Pixel Variation
  - 1. 95% or more of pixels within each module must have a luminance within +/- 4% of the mean luminance for the module.
  - 2. The average luminance of a column or row of pixels at the edge of a module or panel must be within +/- 2% of the average luminance of the module or panel.
  - 3. 95% or more of the pixels within each module must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.006 of the mean chromaticity value for the module.
- N. Module to Module Variation
  - 1. 100% of the modules in a screen must have a luminance within +/- 4% of the mean luminance for the screen.
  - 2. 100% of the adjacent modules (i.e., modules sharing a border) in a screen must have a luminance within +/- 3% of each other.
  - 3. 100% of the modules in a screen must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.006 of the mean chromaticity value for the screen.
  - 4. 100% of the adjacent modules in a screen must have a chromaticity value,  $\Delta u'v'$ , within +/- 0.003 of each other.
- O. All uniformity specifications above apply across all specified minimum horizontal and vertical viewing angles and are to be met for an all White, all Red, all Green, and all Blue screen display.
- P. All listed specifications must be maintained throughout the first 10,000 hours of use or 36 months from the time of acceptance, whichever is longer.

- Q. Minimum of a 140° (±70°) horizontal viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum.
- R. Minimum of a 140° (70°/70°) vertical viewing angle. Defined at 50% of full intensity, with automatic color-correction "on", at stated angle maximum

#### 2.4 LED DISPLAY – PROCESSING AND CONTROLS

- A. Video screen control system must provide the ability to manage brightness (multi-level), video input, image position: size and scale, adjustable gamma correction, remote power function (power on/off), color, color temperature, contrast, and sharpness.
- B. Processing to allow for electronic color and brightness calibration - block to block and pixel to pixel.
- C. The processor shall support the following inputs: 1080P-HDR, HD-SDI video in either 720p or 1080i, SD-SDI (480p) and SDI 16x9 anamorphic signal, HDMI and DVI video.
- D. The contractor is responsible for providing all required components, racks and wiring necessary to manage and control the video display from a location outside of the display housing.
- E. System architecture must allow for 100% processing and control redundancy. Back up units shall be installed in the equipment racks and shall be hot swappable.
- F. Acceptable Manufactures:
  - 1. Daktronics
  - 2. SANSI
  - 3. Colorlight
  - 4. Novastar H Series.

#### 2.5 LED OPERATING SYSTEM

- A. Provide a fully functional operating system capable of CG, exposure time tracking, and game operation. Systems must be capable of playing back industry standard still and animation file formats. It is understood that different operating control systems have preferred file formats. File conversion is acceptable.
- B. The system must have the ability to support DVE moves, enabling dynamic switching between full screen and vectored views with areas for sponsor ads, statistics, and game in progress data for the scoring system.
- C. The system must be capable of accepting a serial feed from the scoring controller and any and all 3rd party stats, sport ticker feeds, social media feeds and closed captioning as required.
- D. Image playback is to be stutter-free for both static and animated graphics.
- E. Contractor is responsible for providing all required components, racks and wiring necessary to manage and control the LED display from a location outside of the display housing.
- F. System architecture must allow for 100% processing and control redundancy. Back up units shall be installed in the equipment racks and shall be hot swappable.

#### 2.6 SCORING SYSTEM

- A. Provide and Install Wired Scoreboard Controllers, including backup
- B. Provide and Install Play Clocks. Spare Play Clock should include any clips/attachments pre-installed to allow for ease of replacement.
- C. Provide data distribution panel(s) to allow for Owner to bring data back to control room and/or production truck.
- D. Provide and Install Locker Room Clocks. Locker Room Clocks shall display Game Time when game is in progress, and Time of Day when game is not in progress.
- E. Provide and install full scoring system interface, including shot clocks, locker room clocks, hockey goal lights and horns. Two (2) sets of shot clocks, Two (2) sets of hockey goal lights, five (5) Locker Room Clocks and two (2) scoreboard horns.
- F. Provide at least one spare of each scoring/ timing component.

- G. Provide any associated equipment necessary to deliver scoring data from the controller into the Display processing system to be displayed on the video display.

## 2.7 SIGNAGE AND AESTHETICS

- A. Provide and install header signage and contrast shield for both primary displays as depicted and specified in the rendering package.

## 2.8 ANIMATION PACKAGE

- A. Provide 100 hours of content creation.

END OF PART 2 PRODUCTS

## PART 3 EXECUTION

### 3.1 SCOPE OF WORK

- A. The following outlines the turnkey delivery and installation responsibilities that define the project scope of work. Any and all work outlined in this section is the responsibility of the Contractor unless otherwise noted. Contractor is required to provide all labor, materials, tools, supervision, and equipment to perform the following:
1. The following outlines the turnkey delivery and installation responsibilities that define the project scope of work. All work outlined in this section is the responsibility of the Contractor unless otherwise noted. All dates referenced in this document are approximate projected dates and are subject to change.
  2. Contractor to provide all necessary protection for all facility components. Contractor is responsible for repair or replacement of any damaged facility components caused by the Contractor and/or any subcontractors hired by Contractor to perform work on site.
  3. Contractor is required to provide all labor, materials, tools, supervision, and equipment to perform the work outlined in this scope of work.
  4. Provide and install all equipment and displays listed in Part 2 – Products, including any and all equipment not specifically listed that is required to provide a completely functional system. The primary structure, catwalks and rear/side cladding will be provided by the Owner. All secondary steel required to install the displays shall be engineered, supplied, and installed by Contractor.
  5. Contractor shall be responsible to provide proper internal temperature and moisture control to keep all LED displays operating within the manufacturer's recommended temperature range. Contractor shall consider the highest ambient air temperature anticipated at the project location when designing internal cooling system.
  6. Power is provided to each display as shown in the project electrical drawings. Contractor shall provide all secondary power connections/terminations required to power new system(s). Contractor is responsible for providing stamped electrical drawings by a licensed electrical engineer in the state of South Dakota.
  7. Remote power is to be provided for each led display and illuminated lettering to allow for on/off capability from within the control room.
  8. Owner will provide signal cable pathways/conduit as required to bring fiber for video and scoring cabling between the displays and control locations. All additional conduit and raceways required to complete a path to the display shall be furnished and installed by Contractor. Contractor shall be responsible to furnish, install, and terminate all required cabling needed to make new system(s) complete and fully operational. Any new visible cables, conduits and raceway shall be painted with flat black finish.
  9. Contractor to provide a fire alarm interface to automatically engage emergency evacuation messages on designated displays.
  10. Provide all required permits and licenses.
  11. Provide on-site installation supervisor.
  12. Deliver all Equipment to site and convey to appropriate locations within site as directed by the project.
  13. Store all Equipment in a safe and secure manner until installed or otherwise directed by the project.

### 3.2 ENGINEERING

- A. The Contractor must submit drawings and calculations stamped by a licensed engineer in the state of South Dakota for the attachment points for any primary and secondary steel.
- B. Contractor is responsible for taking all seismic, wind and environmental considerations into account and making structural provisions for any such requirements.
- C. Owner must approve all drawings in writing prior to the fabrication and installation of any equipment.
- D. Engineered drawings are to include electrical.

### 3.3 STRUCTURAL CONSIDERATIONS

- A. Contractor is responsible to design, engineer, build, deliver, install, integrate, and commission complete turnkey displays as specified with all required secondary structure needed to support all display components.

- B. Flashing and any other related equipment shall be the responsibility of the Contractor to furnish and install.
- C. Contractor is responsible for erection of all materials related to the new equipment.
- D. Sub-structure is to be fabricated using structural steel and/or aluminum (optional). Contractor shall provide necessary protective separation when connecting dissimilar metals to prevent galvanic corrosion.
- E. Bolted and/or field welded connections shall be subject to special inspection by an independent testing & inspection agency certifying that bolted and/or welded connections meet the minimum requirements of the engineered structural drawings, the governing building code, or as required by the building official; whichever is more restrictive. Inspections shall take place prior to painting any connection.
- F. Documentation shall be provided to Owner verifying acceptable results from all special inspections. All items failing inspection shall be repaired or replaced and re-inspected at no additional cost to the Owner.
- G. All components to be painted and otherwise finished for exterior service conditions shall be warranted to be free of rust or other defects for a period of ten years. All exposed structure must be painted with a primer and two finish coats.
- H. All welders must be certified, and certificates must be on-site and available for inspection as requested.
- I. To minimize fading or oxidation, all primary structural elements must be primed and coated or galvanized.
- J. Damage to paint to the structure during the installation of secondary structure, video board and signage install shall be touched up by Contractor.

### 3.4 ELECTRICAL AND DATA

- A. The electrical design and installation of all branch circuits by the Contractor shall comply with NEC and local codes, as well as Owner regulations and guidelines.
- B. Owner shall provide remote power on/off for LED displays. Switches to be mounted into equipment racks along with other equipment provided by Contractor. Configuration of switches shall be submitted with shop drawings to be approved by Owner.
- C. The Contractor shall provide electrical and data one-line diagrams.
- D. Electrical design and engineering must be reviewed and approved by the Owner prior to any electrical work by the Contractor.
- E. The electrical scope of work being provided by the project electrician is shown on the electrical drawings. All additional electrical work past what is shown on the electrical drawings will be part of this scope of work. Work will consist of but not be limited to the extending of conduits from furnished disconnects and providing all distribution panels on the display structure and electrical closets. Any additional electrical components required for a complete and fully operational system but not shown on the electrical drawings shall be the responsibility of the Contractor.
- F. Contractor to provide a 4" x 4" J-Box at top/bottom of each rack with power circuit cabling terminating in 24" pig tails. Label each outlet as to which AC circuit is feeding it and provide the same information in the circuit breaker panel. Owner will provide all AC power and conduit to the equipment racks and will terminate AC power circuits within the J-Boxes.
- G. The Contractor shall be responsible for termination and final connect of power to all displays. All secondary electrical panels must be clearly marked with names of the branch circuits controlled by each breaker to aid in troubleshooting or isolating problems. All electrical services, disconnects, and breaker panels are to be labeled with what they control and where they are fed from.
- H. Contractor shall not use wire nuts or electrical tape for any power or signal connection or any part of the work including internal LED display power jumpers or power connections to signage elements. All connections shall use a proper terminal block and spade terminal, or terminal block and direct connection as required. Covers shall be provided over all high-power terminal blocks to prevent electrical shock.
- I. The use of SO cord or rubber jacket type power cables typically used on transportable installations or used on the installation of pitch side displays shall not be permitted for permanent installations. Strain relief on all connectors shall be per manufacturers' recommendations. Contractor shall submit manufacturers strain relief recommendations for all connectors during the submittal process.
- J. The Contractor will be responsible for providing stamped electrical drawings. A licensed/registered engineer in the state of South Dakota where this project is located shall stamp all electrical drawings.

- K. Any equipment not certified as required in Section 1.4.A. shall require on-site certification by a listed testing agency. All cost associated with obtaining on-site certification shall be the responsibility of the Contractor. Written proof of certification or equivalent will be required prior to any work being performed on-site.
- L. All fiber shall be terminated and landed in an appropriate fiber patch panel. All new fiber terminated by Contractor shall be tested and shall not exceed maximum allowable dB loss per Section 3.4.M and/or Section 3.4.N.
- M. Multi-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 100 feet (30m) for 850nm fiber or a loss greater than 0.1 dB per 300 feet (100m) for 1300nm fiber.
- N. Single-mode fiber tested shall not have a signal dB loss greater than 0.1dB per 600 feet (200m) for 1310nm fiber or a loss greater than 0.1 dB per 750 feet (250m) for 1550nm fiber.
- O. Contractor to provide all required fiber transmitters and receivers (including amplifiers where required). Contractor will be responsible to terminate and perform final connection of all cables. Cables will be routed from the specified control locations to the display components per Contractor's diagram once the Owner has approved diagram.

### 3.5 AESTHETIC CONSIDERATIONS

- A. At the time of the release of this RFP the Owner is still developing certain finishes and aesthetic design elements for consideration. Contractor shall assume premium finishes on all elements not yet defined.
- B. Prior to contract award, the Contractor must provide a comprehensive outline of all intended flashing and finish details for Owner approval. Failure to submit these details prior to contract award shall make Contractor responsible for all flashing and finishes as required by Owner at no additional cost to Owner.
- C. No exposed bolts, inverted U channels, or unfinished edges on LED displays or signage elements shall be permitted on any surface with public view. Any part of the secondary steel frame exposed to public view shall be covered with flashing to match the edge of the LED display.
- D. Unless specified differently on the AJP Drawings, the following shall serve as a minimum standard for products and finishes. Contractor shall be responsible to ensure that the material thickness provided is sufficient to prevent warping or "oil canning" on the span or sections of material installed.
  - 1. Metals
    - a. + .040" aluminum on internal baffling
    - b. + .090" aluminum on flashing
    - c. + .125" aluminum on any routed or primary surface
    - d. + 12ga/2.6mm stainless steel (visible)
  - 2. Plastics
    - a. + .117" thickness on thermoformed polycarbonates
    - b. + .177" thickness on flat polycarbonates
    - c. + .125" thickness on flat acrylics
  - 3. Finishes
    - a. + Approved Automotive Grade Enamels
    - b. + ASTM D3451-06 compliant Powder Coating
  - 4. Vinyl Films
    - a. + 3M, Avery, Oracal or other as approved.
    - b. + 9oz weight for any outdoor banner (UV coated)
- E. The Contractor shall not visibly display its trademarks or insignia on any of the Equipment or structural elements.

### 3.6 TRAINING

- A. The Contractor at its own expense will provide designated Owner employees' operator and maintenance training.
- B. Training will be performed at the site by a qualified technician and shall occur either during installation of the equipment or immediately thereafter. O&M Manuals per Section 1.3.B shall be provided to Owner prior to training.
- C. The training shall cover the operation, routine maintenance and troubleshooting of the displays and control equipment.
- D. Training shall consist of at least 24 hours (over the course of 3-5 days) of instruction.
- E. Contractor will be required to have a control systems operator and LED technician (both to be direct employees) on-site for the first event and continue to be on-site for three (3) consecutive problem free events. Events to be selected by Owner. "Problem-free" constitutes an event where the video and scoring displays, and any other components installed by the Contractor are without failure during an event. Each successful event will need to be signed off by the Owner until three (3) consecutive events are achieved.

### 3.7 TESTING AND ACCEPTANCE

- A. Contractor must demonstrate the full capabilities of the provided systems and prove performance meets contractual specifications.
- B. Confirmation will be required of but not limited to the following functions: operation of each system component, including back-up systems, control functionality, integration with existing systems, diagnostic capabilities, screen brightness, color temperature and viewing angles.
- C. Contractor must provide all necessary testing equipment for acceptance.
- D. Upon notice from the Contractor of substantial completion and at a time to be mutually agreed upon, the Contractor will arrange for the testing of all operations of the systems comprised in scope of work at the time of substantial completion.
- E. The following items must be completed and signed off by an appropriate Owner official before the Owner will deem the system "Accepted"
  - 1. LED Screens - Brightness and color uniformity shall be demonstrated and must meet the specification described. If the demonstration exhibits the display in noncompliance with the specifications, it will be the responsibility of the Contractor to make the necessary adjustments or to adjust, repair or replace the components necessary to meet the specifications. The Owner will not be responsible for any added costs as a result of an unsuccessful acceptance test.
  - 2. Certain LED video displays included in this RFP are required to maintain minimum parameters over a specified period of time. The Owner at its sole discretion may engage an independent testing agency to verify the display's specifications, at any time during the specified period of time. Cost for this testing will be borne by the Owner if display is complying. If the testing exhibits the display in noncompliance with the specifications, the cost of the testing will be the responsibility of the Contractor. Contractor will also be responsible for making the necessary adjustments or repair or replace the components necessary to meet the specifications. The Owner will not be responsible for any added costs as a result of an unsuccessful test.
  - 3. Functionality of each of the displays and their control systems, as specified, shall be demonstrated in its entirety.
  - 4. Acceptance of the system includes, but not limited to, the completed installation of all physical components and the issuance of the Certificate of Approval for code compliance by the Code Authority having Jurisdiction. Tests of the system shall not occur until after the system has been installed, and all work completed on the display systems.
- F. Document all acceptance testing, calibration and correction procedures described herein. Include the following information:
  - 1. Performance date of the given procedure.
  - 2. Condition of performance of procedure.
  - 3. Type of procedure, and description.

4. Parameters measured and their values, including values measured prior to calibration or correction, as applicable.
  5. The names of personnel conducting the procedure.
  6. The equipment used to conduct the procedure.
- G. Upon completion of initial tests and adjustments, submit written report of tests to the Owner along with all documents, diagrams, and recorded drawings required herein.
- H. Final Procedures
1. Perform any and all "punch-list" work to correct inadequate performance or unacceptable conditions, as determined by the Owner, at no additional expense to the Owner.
  2. Furnish all portable (including spare parts) equipment to the Owner along with complete inventory documentation. All portable equipment shall be presented in the original manufacturers packaging, complete with all included instructions, miscellaneous manuals, and additional documents.
  3. Provide new acceptance testing in the same format as initial test reports.
  4. Check, inspect, and if necessary, adjust all systems, equipment, devices, and components specified, at the Owner's convenience, approximately thirty (30) days after the Owners acceptance.
  5. Upon completion of the Work, the Owner may elect to verify test data as part of acceptance procedure. Provide personnel and equipment, at the convenience of the Owner, to reasonably demonstrate system performance and to assist with such tests without additional cost to the Owner.

END OF PART 3 EXECUTION

NOTE: FILL IN ONLY BLUE SHADED CELLS

**SUMMARY**

| LED DISPLAYS AND INSTALLATION                | VENDOR NAME |
|----------------------------------------------|-------------|
| SOUTH ENDZONE DISPLAY                        | \$0         |
| INSTALLATION - SOUTH ENDZONE DISPLAY         | \$0         |
| NORTH ENDZONE HANGING DISPLAY                | \$0         |
| INSTALLATION - NORTH ENDZONE HANGING DISPLAY | \$0         |
| RIBBON BOARD                                 | \$0         |
| INSTALLATION - RIBBON BOARD                  | \$0         |
| EXTERIOR MARQUEE                             | \$0         |
| INSTALLATION - EXTERIOR MARQUEE              | \$0         |
| COURTSIDE TABLES                             | \$0         |
| INSTALLATION - COURTSIDE TABLES              | \$0         |
| SCORING SYSTEM                               | \$0         |
| OPERATING SYSTEM                             | \$0         |
| ANIMATION PACKAGE                            | \$0         |
| EXCISE SALES TAX                             | \$0         |
| <b>GRAND TOTAL BASE BID</b>                  | <b>\$0</b>  |

**ALTERNATES**

|                                                              |     |
|--------------------------------------------------------------|-----|
| ALTERNATE 1- INCREASE NORTH ENDZONE BOARD RESOLUTION - 4mm   | \$0 |
| ALTERNATE 2- INCREASE SOUTH HANGING DISPLAY RESOLUTION - 4mm | \$0 |
| ALTERNATE 3- INCREASE RIBBON BOARD RESOLUTION - 4mm          | \$0 |
| ALTERNATE 4- INCREASE EXTERIOR MARQUEE RESOLUTION - 8mm      | \$0 |

| BID CLARIFICATIONS: STATE ANY EXCEPTIONS BEING TAKEN TO PRODUCT SPECS OR SCOPE OF WORK | VENDOR NAME |
|----------------------------------------------------------------------------------------|-------------|
|                                                                                        | ADD/DEDUCT  |
|                                                                                        | ADD/DEDUCT  |
|                                                                                        | ADD/DEDUCT  |

| BID CLARIFICATIONS: STATE ANY VOLUNTARY ALTERNATES (INCL. ADD/DEDUCTS) | VENDOR NAME |
|------------------------------------------------------------------------|-------------|
|                                                                        | ADD/DEDUCT  |
|                                                                        | ADD/DEDUCT  |
|                                                                        | ADD/DEDUCT  |

| SUB-CONTRACTORS AND LED SUPPLIERS | VENDOR NAME |
|-----------------------------------|-------------|
| STRUCTURAL SUBCONTRACTOR          |             |
| ELECTRICAL SUBCONTRACTOR          |             |
| INSTALLATION SUBCONTRACTOR        |             |
| CONTROL SYSTEM                    |             |
| LED MANUFACTURER                  |             |
| LED CHIP SUPPLIER                 |             |

| EXTENDED WARRANTY - PARTS AND LABOR | VENDOR NAME |
|-------------------------------------|-------------|
| YEAR 3                              |             |
| YEAR 4                              |             |
| YEAR 5                              |             |
| YEAR 6                              |             |
| YEAR 7                              |             |
| YEAR 8                              |             |
| YEAR 9                              |             |
| YEAR 10                             |             |
| <b>TOTAL</b>                        | <b>\$0</b>  |

Note: Extended warranty pricing should be based on annual payments, rather than upfront lump sum. Owner will reserve right to select option on an annual basis at provided price.

| EXTENDED WARRANTY PARTS ONLY | VENDOR NAME |
|------------------------------|-------------|
| YEAR 3                       |             |
| YEAR 4                       |             |

|         |     |
|---------|-----|
| YEAR 5  |     |
| YEAR 6  |     |
| YEAR 7  |     |
| YEAR 8  |     |
| YEAR 9  |     |
| YEAR 10 |     |
| TOTAL   | \$0 |

*Note: Extended warranty pricing should be based on annual payments, rather than upfront lump sum. Owner will reserve right to select option on an annual basis at provided price.*

| DETAILED SPECIFICATIONS                                |           |                   |
|--------------------------------------------------------|-----------|-------------------|
| INSTALLATION: GENERAL CONDITIONS                       |           | VENDOR NAME       |
| INSTALLATION SUB-TOTAL: GENERAL CONDITIONS             |           | \$0               |
| PROJECT MANAGEMENT                                     |           |                   |
| GENERAL CONDITIONS                                     |           |                   |
| ENGINEERING, PERMITS, FEES                             |           |                   |
| TRAINING AND EVENT SUPPORT                             |           |                   |
| TRAVEL AND EXPENSES                                    |           |                   |
| SOUTH ENDZONE DISPLAY                                  |           | SPEC. VENDOR NAME |
| PIXEL PITCH                                            | 6         |                   |
| QUANTITY                                               | 1         | 1                 |
| PIXEL HEIGHT (PHYSICAL)                                | 1,232     |                   |
| PIXEL LENGTH (PHYSICAL)                                | 3,040     |                   |
| TOTAL PIXELS                                           | 3,745,280 | 0                 |
| SYSTEM HEIGHT (F)                                      | 24.0      |                   |
| SYSTEM LENGTH (F)                                      | 60.0      |                   |
| TOTAL SQ. FT                                           | 1,440     | 0                 |
| PIXEL DENSITY SQ. FT                                   | 2,601     | #DIV/0!           |
|                                                        |           |                   |
| TOTAL DISPLAY PRICE                                    |           | \$0               |
| PROCESSING                                             |           | \$0               |
| SHIPPING                                               |           | \$0               |
|                                                        |           |                   |
| TOTAL SYSTEM PRICE                                     |           | \$0               |
| COST PER SQ. FT                                        |           | #DIV/0!           |
| COST PER PIXEL                                         |           | #DIV/0!           |
| SPECIFICATIONS                                         |           |                   |
| TOTAL POWER DRAW - MAX AMPS BASED ON 208V 3P           |           |                   |
| BRIGHTNESS (NITS)                                      | 1200      |                   |
| VIEWING ANGLE - HORIZONTAL                             | 140       |                   |
| VIEWING ANGLE - VERTICAL                               | 140       |                   |
| FABRICATION AND INSTALLATION:                          |           |                   |
| INSTALLATION SUB-TOTAL: LED                            |           | \$0               |
| REMOVAL AND DISPOSAL                                   |           |                   |
| PRIMARY AND SECONDARY STRUCTURAL STEEL                 |           |                   |
| HEAVY EQUIPMENT RENTAL                                 |           |                   |
| COMPONENT INSTALLATION                                 |           |                   |
| HEADER SIGNAGE                                         |           |                   |
| RGBW LIGHTING                                          |           |                   |
| CLADDING, TRIM, FLASHING AND FINISHES                  |           |                   |
| ELECTRICAL AND DATA                                    |           |                   |
| SOUTH ENDZONE DISPLAY ALTERNATE 1- INCREASE RESOLUTION |           | SPEC. VENDOR NAME |
| PIXEL PITCH                                            | 4         |                   |
| QUANTITY                                               | 1         | 1                 |
| PIXEL HEIGHT (PHYSICAL)                                | 1,836     |                   |
| PIXEL LENGTH (PHYSICAL)                                | 4,563     |                   |
| TOTAL PIXELS                                           | 8,377,668 | 0                 |
| SYSTEM HEIGHT (F)                                      | 24.0      |                   |
| SYSTEM LENGTH (F)                                      | 60.0      |                   |
| TOTAL SQ. FT                                           | 1,440     | 0                 |
| PIXEL DENSITY SQ. FT                                   | 5,818     | #DIV/0!           |
|                                                        |           |                   |
| TOTAL DISPLAY PRICE                                    |           | \$60,000          |
| PROCESSING                                             |           |                   |
| SHIPPING                                               |           |                   |

|                                              |         |             |
|----------------------------------------------|---------|-------------|
|                                              |         |             |
| TOTAL SYSTEM PRICE                           |         | \$0         |
| COST PER SQ. FT                              |         | #DIV/0!     |
| COST PER PIXEL                               |         | #DIV/0!     |
| SPECIFICATIONS                               |         |             |
| TOTAL POWER DRAW - MAX AMPS BASED ON 208V 3P |         |             |
| BRIGHTNESS (NITS)                            | 1200    |             |
| VIEWING ANGLE - HORIZONTAL                   | 140     |             |
| VIEWING ANGLE - VERTICAL                     | 140     |             |
| NORTH ENDZONE HANGING DISPLAY                | SPEC.   | VENDOR NAME |
| PIXEL PITCH                                  | 6       |             |
| QUANTITY                                     | 1       | 1           |
| PIXEL HEIGHT (PHYSICAL)                      | 480     |             |
| PIXEL LENGTH (PHYSICAL)                      | 1,232   |             |
| TOTAL PIXELS                                 | 591,360 | 0           |
| SYSTEM HEIGHT (F)                            | 9.5     |             |
| SYSTEM LENGTH (F)                            | 24.3    |             |
| TOTAL SQ. FT                                 | 229     | 0           |
| PIXEL DENSITY SQ. FT                         | 2,581   | #DIV/0!     |
|                                              |         |             |
| TOTAL DISPLAY PRICE                          |         |             |
| PROCESSING                                   |         |             |
| SHIPPING                                     |         |             |
|                                              |         |             |
| TOTAL SYSTEM PRICE                           |         | \$0         |
| COST PER SQ. FT                              |         | #DIV/0!     |
| COST PER PIXEL                               |         | #DIV/0!     |

| SPECIFICATIONS                                                 |           |         |
|----------------------------------------------------------------|-----------|---------|
| TOTAL POWER DRAW - MAX AMPS BASED ON 208V 3P                   |           |         |
| BRIGHTNESS (NITS)                                              | 1200      |         |
| VIEWING ANGLE - HORIZONTAL                                     | 140       |         |
| VIEWING ANGLE - VERTICAL                                       | 140       |         |
| FABRICATION AND INSTALLATION:                                  |           |         |
| INSTALLATION SUB-TOTAL: LED                                    |           | \$0     |
| PRIMARY AND SECONDARY STEEL                                    |           |         |
| CHAIN HOISTS AND CONTROL EQUIPMENT                             |           |         |
| HEAVY EQUIPMENT RENTAL                                         |           |         |
| COMPONENT INSTALLATION                                         |           |         |
| CLADDING, TRIM, FLASHING AND FINISHES                          |           |         |
| ELECTRICAL AND DATA                                            |           |         |
| NORTH ENDZONE HANGING DISPLAY- ALTERNATE 2 INCREASE RESOLUTION |           | SPEC.   |
| PIXEL PITCH                                                    | 4         |         |
| QUANTITY                                                       | 1         | 1       |
| PIXEL HEIGHT (PHYSICAL)                                        | 702       |         |
| PIXEL LENGTH (PHYSICAL)                                        | 1,890     |         |
| TOTAL PIXELS                                                   | 1,326,780 | 0       |
| SYSTEM HEIGHT (F)                                              | 9.5       |         |
| SYSTEM LENGTH (F)                                              | 24.3      |         |
| TOTAL SQ. FT                                                   | 229       | 0       |
| PIXEL DENSITY SQ. FT                                           | 5,790     | #DIV/0! |
|                                                                |           |         |
| TOTAL DISPLAY PRICE                                            |           |         |
| PROCESSING                                                     |           |         |
| SHIPPING                                                       |           |         |
|                                                                |           |         |
| TOTAL SYSTEM PRICE                                             |           | \$0     |
| COST PER SQ. FT                                                |           | #DIV/0! |
| COST PER PIXEL                                                 |           | #DIV/0! |
| SPECIFICATIONS                                                 |           |         |
| TOTAL POWER DRAW - MAX AMPS BASED ON 208V 3P                   |           |         |
| BRIGHTNESS (NITS)                                              | 1200      |         |
| VIEWING ANGLE - HORIZONTAL                                     | 140       |         |
| VIEWING ANGLE - VERTICAL                                       | 140       |         |

| RIBBON BOARD                                 | SPEC.     | VENDOR NAME |
|----------------------------------------------|-----------|-------------|
| PIXEL PITCH                                  | 6         |             |
| QUANTITY                                     | 1         | 1           |
| PIXEL HEIGHT (PHYSICAL)                      | 96        |             |
| PIXEL LENGTH (PHYSICAL)                      | 23,584    |             |
| TOTAL PIXELS                                 | 2,264,064 | 0           |
| SYSTEM HEIGHT (F)                            | 1.10      |             |
| SYSTEM LENGTH (F)                            | 464.0     |             |
| TOTAL SQ. FT                                 | 510       | 0           |
| PIXEL DENSITY SQ. FT                         | 4,436     | #DIV/0!     |
|                                              |           |             |
| TOTAL DISPLAY PRICE                          |           |             |
| PROCESSING                                   |           |             |
| SHIPPING                                     |           |             |
|                                              |           |             |
| TOTAL SYSTEM PRICE                           |           | \$0         |
| COST PER SQ. FT                              |           | #DIV/0!     |
| COST PER PIXEL                               |           | #DIV/0!     |
| SPECIFICATIONS                               |           |             |
| TOTAL POWER DRAW - MAX AMPS BASED ON 208V 3P |           |             |
| BRIGHTNESS (NITS)                            | 1200      |             |
| VIEWING ANGLE - HORIZONTAL                   | 140       |             |
| VIEWING ANGLE - VERTICAL                     | 140       |             |
| FABRICATION AND INSTALLATION:                |           |             |
| INSTALLATION SUB-TOTAL: LED                  |           | \$0         |
| REMOVAL AND DISPOSAL                         |           |             |
| HEAVY EQUIPMENT RENTAL                       |           |             |
| COMPONENT INSTALLATION                       |           |             |
| CLADDING, TRIM, FLASHING AND FINISHES        |           |             |
| ELECTRICAL AND DATA                          |           |             |

# **THE MONUMENT**

## **ATTACHMENT B**

### **GENERAL CONDITIONS**

## SECTION 7

### GENERAL CONDITIONS

#### 7.1 DEFINITIONS AND TERMS

That whenever any word or expression defined herein, or pronoun used in its stead, occurs in these specifications or other Contract documents, it shall have and is mutually understood to have the meaning herein given:

**Addendum or Addenda:** A change or changes to the bid proposal documents issued by the City of Rapid City prior to the time of opening of the proposals.

**Advertisement:** The public announcement inviting bids for work to be performed or materials to be provided.

**Anode:** The electrode or metallic surface location where DC current is discharged into a surrounding electrolyte and corrosion (oxidation with a loss of electrons) occurs in a corrosion cell. The opposite of a cathode.

**Appurtenances or Fittings:** Items including but not limited to valves, fittings, elbows, tees, foster adaptors, service saddles, glands, angles, bends, blow offs, restrained joints, flanges, couplings, spool pieces, miscellaneous piping, tapping saddles, or hydrants, including metallic glands, etc.

**As-Built Plans:** Drawings that reflect changes made during the construction process, recording differences between the original design and the completed project.

**Award:** The acceptance of a bid proposal by the City of Rapid City Council.

**Base Course:** The layer or layers of specified select material placed on a subbase or a subgrade to support a surface course.

**Bidder:** The individual, partnership, firm, corporation, or an acceptable combination thereof, such as a joint venture that is submitting a proposal.

**Bid Proposal, Bid or Proposal:** The written offer of a bidder, on the prescribed form, to perform the work at the prices quoted.

**Bid Schedule:** The list of bid items, together with estimated quantities appearing in the proposal form.

**Bridge:** A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, said structure having a length measured along the center of roadway of more than 20 feet between undercopings of abutments or extreme ends of

openings for multiple boxes and pipes where the clear distance between openings is less than half of the smaller contiguous opening.

**Bridge Length:** The greater dimension of a structure measured along the center of the roadway between backs of abutment, backwalls, or between ends of bridge floor.

**Bridge Roadway Width:** The clear width of structure measured at right angles to the center of the roadway between the bottom of curbs or, if curbs are not used, between the inner faces of parapet or railing.

**Calendar Day(s):** Unless herein otherwise expressly defined, shall mean a day or days of twenty-four hours each, beginning and ending at midnight.

**Cathode:** The electrode or metallic surface location where DC current is received or collected from a surrounding electrolyte and protection (reduction with a gain of electrons) occurs in a corrosion cell. The opposite of an anode.

**Cathodic Protection, (Cathodic Protect, Cathodically Protected, etc.):** An electrical method of reducing or eliminating corrosion by making previous anodic areas on a structure surface, turn into a cathode by creating a DC current flow to the structure surface.

**Cathodic Protection Criteria:** The NACE criteria for protected cathodic protection levels of a minimum of -0.85 volt to a copper/copper-sulfate reference electrode or a 100-millivolt polarization shift or more negative (instant off or IR accounted for) in accordance with NACE Standard SP0169. Selection of protective criteria per NACE Standard SP0169 to be at Engineer's discretion.

**Cathodic Protection Station (CPS):** An impressed current cathodic protection installation location usually consisting of a rectifier and groundbed.

**Cathodic Protection System:** Two common cathodic protection methods are galvanic anodes and impressed current cathodic protection systems. A galvanic anode system consists of galvanic anode materials (usually magnesium or zinc) that naturally corrodes or sacrifices itself and does not require an outside power source. An impressed current type system utilizes an outside power source usually a rectifier (that converts AC to DC current) and forces (impresses) current from a number of anodes (or groundbed) through the environment to the structure to be protected.

**Change Order:** A written order issued by the Engineer to the Contractor, covering changes in the plans, specifications, or quantities within the scope of the Contract and establishing the basis of payment and time adjustments for the work affected by the changes.

**City:** The City of Rapid City acting through its authorized representative(s).

**Contract or Contract Documents:** The written agreement between the Owner and the Contractor setting forth the obligations of the parties for the performance of the prescribed work.

**Contract Date or words Equivalent Thereto:** The date upon which this Contract, executed by the Contractor, is signed by the Owner.

**Contract Item, Bid Item or Pay Item:** A specific unit of work for which a price is provide in the Contract.

**Contract Performance Bond:** The security executed by the Contractor and furnished to the Owner to guarantee performance of the work in accordance with the Contract.

**Contract Time or Contract Days:** The number of working days allowed for performance and completion of the Contract or date work is to be completed, as stated in the Proposal and Contract.

**Contractor, Prime Contractor or the words Party of the Second Part:** The individual, partnership, firm, corporation, or joint venture contracting with the City of Rapid City for performance of the prescribed work covered by the Contract and his duly authorized agents or legal representatives.

**Commercial Source:** An established, lawful business operating in continual use as a source to the general public of materials or products relevant to the project.

**Compensable Delay:** Delay for which the Owner is liable in damages to the Contractor. Compensable delay is a subcategory of excusable delay, since all compensable delays will also be excusable delays. However, not all excusable delay is compensable.

**Crew Foreman:** See "Crew Superintendent" and "Contractor".

**Crew Superintendent:** An employee of the Contractor or subcontractor that directs a group of employees working for the Contractor or subcontractor to complete a specific type of work.

**Crushed Material:** Granular material with one or more crushed faces on at least 30% of the particles retained on the #4 sieve, unless more stringent requirements are specified.

**Culvert:** A structure not classified as a bridge which provides an opening under the roadway.

**Delay:** An increase in the time required for completion of the contract work beyond that originally contemplated by the parties at the time the Contract was signed.

**Developer:** A private individual, person, or entity, or corporation; other than the City of Rapid City; constructing public and/or private improvements covered under the City of Rapid City's jurisdiction and shall include his employees, contractors, successors, assigns, duly authorized agents and legal representatives.

**Development Project(s) or Project:** Project(s) to construct public and/or private improvements, within the jurisdiction of the City of Rapid City, in accordance with the Specifications, City approved plans and specifications, an or a permit issued by the City.

**Distribution Main:** A water main that is not a transmission main or a water service line that supplies one or more branch mains.

**Drain Anode:** A galvanic anode that is installed at foreign pipeline crossing locations with the intent that any interference current be discharged or drained from the affected pipeline by the drain anode.

**Drawings:** See "Plans".

**Electrically Continuous Pipeline:** A pipeline which has a linear electrical resistance equal to or less than the sum of the resistance (ohms) of the pipe plus the maximum allowable bond resistance for each joint as specified in this section.

**Electrically Continuous Wire:** A wire that demonstrates the ability to conduct current and that has a linear resistance (ohms) equal to or less than printed literature values for the different wire gauges and wire types. Resistance of 1,000 feet of stranded copper wire at 77°F for No. 12 AWG wire is 1.65 ohms and for No. 10 AWG wire is 1.04 ohms.

**Electrical Isolation:** The condition of being electrically isolated from other metallic structures (including, but not limited to, piping, reinforcement, casings, etc.) and the environment as defined in NACE SP0286.

**Employee:** Any person working on the project, that is under the direction of, control of, or receives compensation from the Contractor or a subcontractor.

**Engineer:** The Public Works Director, who has been employed by the City of Rapid City for this work, acting directly or through his duly authorized agents, such agents acting severally within the scope of the particular duties entrusted to them, responsible for engineering and engineering inspection, on the City's behalf.

**Equipment:** Machinery, tools, implements or apparatus together with supplies for maintenance and upkeep, necessary for the construction and completion of the work.

**Erosion Control:** Those items necessary to the completed work, which provide for the preservation of landscape materials and features. The rehabilitation and protection against erosion of areas disturbed by construction through seeding, sodding, mulching, and the placing of other ground covers. Such suitable planting and other improvements as may increase the effectiveness and enhance the appearance of the project and adherence to water quality regulations.

**Excusable Delay:** Unforeseeable delay, which excuses the Contractor's obligation to complete the work on time by extending performance time for contractually specified reasons.

**Exothermic (Thermite) Welds:** A metallurgical method of making electrical connections based on an exothermic reaction, which turns a mixture of copper oxide and aluminum into molten copper using specially designed graphite molds, steel or cast iron (ductile iron) charges, and wire sleeves.

**Extra Work:** An item of work not provided for in the Contract as awarded, but found by the Engineer to be essential to the satisfactory completion of the Contract within its intended scope.

**Fasteners:** To include but not be limited to bolts, nuts, washers, T-bolts, tie-rods, restraining devices, etc.

**Ferrous or Metallic Pipe:** Any pipe or fitting made of steel or iron, or pipe containing steel or iron as a principal structural material (such as steel, ductile iron, and cast iron), except reinforced concrete pipe or stainless steel.

**Fire Hydrant Lead:** That portion of the fire hydrant branch line from the main to the fire hydrant auxiliary valve.

**Fire Service Line:** Pipe and appurtenances delivering water from the City water distribution system to a building fire extinguishing system. Fire service lines may be located on private property or in public right of way (ROW) and are owned, operated, and maintained by the property being served.

**Foreign Owned:** Any buried pipe or cable not specifically owned or operated by the Owner.

**Functional and Performance Testing:** Tests necessary to demonstrate that installed equipment and systems function as specified and operate in the manner intended. Functional testing is a prerequisite to performance testing for equipment and systems specified to have a performance test.

**Incidental Items or Incidental Work:** Items of work, as shown on the plans and/or in the specifications, for which there are no bid items in the Bidder's Proposal. If no bid item for "Incidental Work" is included in the bid proposal, the cost of these items shall be included in the contract bid price for related work items. If a bid item for "Incidental Work" is included in the bid proposal, such work shall be included as a part of this work item.

**Inexcusable Delay:** Delay for which the Contractor is not entitled to a time extension or monetary compensation and may even be liable in damages to the Owner.

**Inspector:** The Engineer's authorized representative or representatives assigned to make detailed inspections of contract performance, limited to the particular duties entrusted to them.

**Joint Bonds:** A method of making the pipeline electrically continuous by connecting insulated copper wire(s) or strap(s) across each side of the pipe joint or fitting.

**"L" length:** The length of pipe from a fitting, valve, or feature that needs to have each pipe joint within that length restrained.

**Lead, Lead Wire, Joint Bonds, Pipe Connecting Wires, Cable:** Insulated copper conductor; the same as wire.

**Manufacturer's Representative:** Employee of manufacturer who is factory trained and knowledgeable in technical aspects of their products and systems.

**Materials:** Substances specified for use in the construction of the project.

**Mechanical Damage Protection:** Any material or equipment used to eliminate or minimize damage to the piping system (as might be caused from soil stresses and damage caused from rocks, debris, or other outside forces) without inhibiting or interfering with cathodic protection. (e.g., rock shield / rock guard materials are typically protective polyethylene mesh that protects pipeline and fitting coatings from rock backfill, intrusions and abrasions without interfering with the protection system.)

**Mils Dry Film Thickness (MDFT):** The thickness, expressed in mils, of an applied and cured coating or mastic. Mil is equivalent to 0.001 inch.

**Notice to Proceed:** The written authorization to begin work on the project.

**Owner, City, City of Rapid City, or Party of the First Part:** The City of Rapid City acting through its authorized representatives.

**Pavement Structure:** The combination of subbase, base course, and surface course placed on a subgrade to support and distribute the traffic load to the roadbed.

**Petrolatum:** A purified mixture of semisolid hydrocarbons obtained from petroleum jelly.

**Petroleum Wax:** A refined mixture of solid hydrocarbons, paraffin in nature, obtained from petroleum. Provided as a refined paraffin wax or microcrystalline wax forms.

**Pin Brazing:** A metallurgical method of making electrical connections based on an electric-arc silver solder brazing method using a specially designed portable brazing unit and gun with a hollow brazing pin containing silver solder and flux.

**Plans:** The drawings which show the location, character, and dimensions of the prescribed work, including layouts, profiles, cross sections, and all drawings and working drawings submitted to the City of Rapid City, if and when approved by the Engineer by issuance of a permit or approval of the actual drawings and specifications. Plans include all drawings submitted to the Contractor during the progress of the work.

**Plastic Reference Pipe:** Plastic conduit or pipe placed in soil next to structure to allow a portable reference electrode to be inserted into for structure-to-reference electrode potential measurements.

**Polyethylene Encasement:** A flat sheet or tube of polyethylene plastic that is typically 4-mils or 8-mils thick and meets the requirements of AWWA C105. The polyethylene encasement is a type of loose bonded coating that is wrapped around a ductile iron pipe, fitting, or valve box riser for corrosion protection.

**Polyethylene (PE) Pressure Pipe:** Polyethylene pressure pipe or water service line pipe shall be referred to herein as high density polyethylene (HDPE) water service line pipe. This needs to be revised. This definition is a little confusing because it could imply that all service line pipe is polyethylene or HDPE.

**Potential, Structure-to-Reference Electrode Potential (also Structure-To-Reference Electrode Voltage):** Common method to determine corrosion protection levels by measuring the difference in voltage (potential) between the subject metallic structure and the electrolyte in which it is buried or submerged, as measured to the standard specified reference electrode (usually a copper/copper sulfate reference electrode) placed in contact with the electrolyte.

**Private Fire Protection System:** Hydrants, valves, water pipes, and appurtenances, sprinkler systems, hose connections, and other equipment constructed for the purpose of providing fire protection for a building or group of buildings and supplied with water from a public water supply system. Private Fire Protection Systems are located on private property, although some components may be located in public ROW, and are owned, operated, and maintained by the property being served.

**Profile Grade:** The trace of a vertical plane usually intersecting the top surface of the proposed subgrade surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

**Project:** The work conducted in accordance with a contract with the City, approved plans and specifications, or the requirements of a permit.

**Project Manager (City):** The Director of Public Works, who has been employed by the City of Rapid City for this work, acting directly or through his duly authorized agents, such agents acting severally within the scope of the particular duties entrusted to them and is the designated decision making authority for the Engineer and the City.

**Project Manager (Contractor):** A contractor employee that is the designated decision making authority for the Contractor and subcontractors.

**Project Superintendent:** The Contractor's authorized representative in responsible charge of the contract work and directs the daily project operations.

**Property Water Distribution System:** For the purpose of this specification, Property Water Distribution System are those pipes within the building or the premises, which convey water from the water service pipe to the point of use. For purposes of this definition, the Property Water Distribution System begins 5 feet outside of the building and will usually be the same pipe material as the Water Service Line up to where it actually enters the building.

**Provide:** To both furnish and install.

**Public Sanitary Sewer Main:** Sewer pipes of at least 8 inches in diameter, which will be installed in public right-of-way or easements, will become a part of the City sewer system and will be owned, operated, and maintained by the City of Rapid City.

**Public Water Main:** Those pipes of at least 6 inches in diameter, which will be installed in public ROW or easements and will become a part of the City water distribution system and which will be owned, operated, and maintained by the City.

**Raceways:** Conduit, sheath, plastic or metal pipe, or electrical metallic conduit (EMT) for casing of electrical or cathodic protection cables.

**Right-of-Way:** A general term denoting the property interest acquired for or devoted to a highway use. May want to change for City reasons

**Road:** A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

**Roadbed:** The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

**Roadside:** A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

**Roadway:** The portion of a highway within limits of construction.

**Sewer Service or Sanitary Sewer Service:** The sanitary sewer line which connects a building to a public or private collection system and may include the service line directly outside the building to within five (5) feet of the building to the point where a connection to a public or private collection system occurs.

**Shoulder:** The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, emergency use, and lateral support of base and surface courses.

**Sidewalk:** That portion of the roadway primarily constructed for use by pedestrians.

**Special Provisions:** Additions and revisions to the standard and supplemental specifications applicable to the individual project.

**Specialty Items:** Those items of work specified in the proposal requiring special equipment, materials, or skills not normally required in typical construction work.

**Specifications:** A general term applied to all directions, provisions, and requirements pertaining to performance of the work.

**Standard Specifications:** The most current version of a book of specifications approved by the City of Rapid City for general applications and repetitive use.

**State:** The State of South Dakota acting through its authorized representative.

**Street:** A general term denoting a public way for purposes of vehicular travel.

**Structures:** Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features which may be encountered in the work and not otherwise classified.

**Subbase:** The layer or layers of specified or selected material of designated thickness placed on a subgrade to support a base course or a surface course.

**Subcontractor:** An individual, partnership, firm, corporation, or joint venture, to which the Contractor sublets a portion of the Contract.

**Subgrade:** The top surface of a roadbed upon which the pavement structure and shoulders, including curbs, are constructed.

**Submittals:** All drawings, diagrams, descriptive literature, illustrations, instructions, schedules, safety plans, operating plans, performance and test data, product data sheets, material safety data sheets, and similar materials prepared by the Contractor or a supplier to illustrate material or equipment or some portion of the work.

**Superintendent:** The Contractor's authorized representative in responsible charge of all of the Contract work.

**Superstructure:** The entire structure except the substructure.

**Supplemental Specifications:** Approved additions and revisions to the Standard Specifications.

**Surface Course:** One or more layers of a pavement structure designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate. The top layer sometimes called "Wearing Course".

**Test Station:** Insulated lead wire connections to the structure, which are brought to a test station terminal board or box in order to allow an electrical connection to be made to the structure for location, and corrosion and cathodic protection testing.

**Tight Bonded Coatings:** A dielectric coating that is bonded or physically attached to the pipe surface. Ductile iron pipe bituminous asphaltic shop coating does not qualify as an approved factory or shop applied tight bonded coating.

**Traffic:** Vehicles, pedestrians, and other modes of transportation.

**Transmission Main:** A water main that supplies many tributary branches, serves a large area, and has no or few service taps.

**Traveled Way:** The portion of the roadway for the movement of vehicles, exclusive of shoulders.

**Work:** The furnishing of all labor, materials, equipment, and other incidentals necessary to the successful completion of the project.

**Working Day:** A calendar day, other than holidays or Sundays, except as permitted in writing by the Engineer, on which weather and other conditions not under the control of the Contractor will permit construction operations to proceed for at least five (5) hours, with the normal working force engaged in performing the controlling item or items of work which would be in progress at that time.

**Written Notice or Written Order:** An order, issued in writing by the Engineer requiring performance by the Contractor without negotiation of any sort. Notice of a Written Order shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if Emailed, or delivered at or sent by registered mail to the last business address known to him who gives the notice.

That whenever in these Contract documents the words "as ordered," "as directed," "as required," "as permitted," "as allowed," or words or phrases of like import are used, it shall be understood that the order, direction, requirements, permission, or allowance of the Owner and the Engineer is intended.

Similarly, the words "approve," "reasonable," "suitable," or "acceptable," otherwise particularly specified herein, shall mean approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the Owner and Engineer.

## 7.2 ABBREVIATIONS

Whenever the following abbreviations are used in these specifications or on other Contract Documents, they are to be construed the same as the respective expressions and to mean the code or standard that is in effect at the date of advertisement for bids:

|        |                                                                    |
|--------|--------------------------------------------------------------------|
| AAN    | American Association of Nurserymen                                 |
| AAR    | Association of American Railroads                                  |
| AASHTO | American Association of State Highway and Transportation Officials |
| ABS    | Acrylonitrile Butadiene                                            |
| AC     | Asphalt Concrete                                                   |
| ACI    | American Concrete Institute                                        |
| ADA    | Americans with Disabilities Act                                    |
| AGC    | Associated General Contractors of America                          |
| AIA    | American Institute of Architects                                   |
| AISC   | American Institute of Steel Construction                           |
| AISI   | American Iron and Steel Institute                                  |

|         |                                                                       |
|---------|-----------------------------------------------------------------------|
| AMPP    | Association for Materials Protection and Performance                  |
| ANSI    | American National Standards Institute                                 |
| AOS     | Apparent Opening Size                                                 |
| ARA     | American Railway Association                                          |
| AREA    | American Railway Engineering Association                              |
| ASCE    | American Society of Civil Engineers                                   |
| ASLA    | American Society of Landscape Architects                              |
| ASTM    | American Society for Testing and Materials                            |
| AWG     | American Wire Gauge                                                   |
| AWPA    | American Wood Preservers' Association                                 |
| AWWA    | American Water Works Association                                      |
| AWS     | American Welding Society                                              |
| BB      | Beam Bolster                                                          |
| BBU     | Beam Bolster Upper                                                    |
| CBR     | California Bearing Ratio                                              |
| CLSM    | Controlled Low Strength Material                                      |
| FHWA    | Federal Highway Association                                           |
| FAA     | Federal Aviation Administration                                       |
| FRP     | Fiberglass Pipe                                                       |
| FSS     | Federal Specifications and Standards                                  |
| GAI-LAP | Geosynthetic Accreditation Institute Laboratory Accreditation Program |
| GSA     | General Services Administration                                       |
| GTX     | Audit Program for Geotextiles                                         |
| HDPE    | High Density Polyethylene                                             |
| HMA     | Hot Mix Asphalt                                                       |
| ICC     | Interstate Commerce Commission                                        |
| ICEA    | Insulated Cable Engineers Association, Inc.                           |
| IMSA    | International Municipal Signal Association                            |
| ITE     | Institute of Transportation Engineers                                 |
| ITIS    | Integrated Taxonomic Information System                               |
| ITS     | Intelligent Transportation System                                     |
| LED     | Light-Emitting Diode                                                  |
| LRFD    | Load Resistance Factor Design                                         |
| MARV    | Minimum Average Roll Value                                            |
| MASH    | Manual for Assessing Safety Hardware                                  |
| MCG     | Machine Control Grading                                               |
| MPEG    | Moving Picture Experts Group                                          |
| MSE     | Mechanically Stabilized Earth                                         |
| MUTCD   | Manual of Uniform Traffic Control Devices                             |
| NACE    | National Association of Corrosion Engineers                           |
| NASSCO  | National Association of Sewer Service Companies                       |
| NEC     | National Electrical Code                                              |
| NEMA    | National Electrical Manufacturer's Association                        |
| NIST    | National Institute of Standards and Technology                        |
| NTCIP   | National Transportation Communications for ITS Protocol               |
| NTPEP   | National Transportation Product Evaluation Program                    |
| OD      | Outer Diameter                                                        |
| OSHA    | Occupational Safety and Health Administration                         |

|        |                                                              |
|--------|--------------------------------------------------------------|
| PACP   | Pipeline Assessment Certification Program                    |
| PCC    | Portland Cement Concrete                                     |
| PLS    | Pure Live Seed                                               |
| PP     | Polypropylene                                                |
| PSM    | Plastic Sewer Main                                           |
| Psf    | Pounds per square foot                                       |
| psi    | Pounds per square inch                                       |
| psig   | Pounds per square inch Gauge                                 |
| PVC    | Polyvinyl Chloride                                           |
| RAP    | Recycled Asphalt Pavement                                    |
| RCP    | Reinforced Concrete Pipe                                     |
| RETMA  | Radio Electronic Television Manufacturer's Association       |
| RECP   | Rolled Erosion Control Product                               |
| ROW    | Right-of-way                                                 |
| SAE    | Society of Automotive Engineers                              |
| SB     | Slab Bolster                                                 |
| SBR    | Styrene-Butadiene Rubber                                     |
| SBU    | Slab Bolster Upper                                           |
| SDDANR | South Dakota Department of Agriculture and Natural Resources |
| SDDOT  | South Dakota Department of Transportation                    |
| SDR    | Standard Dimension Ratio                                     |
| SPE    | Society of Plastic Engineers                                 |
| SSPC   | Steel Structures Painting Council                            |
| SY     | Square Yard                                                  |
| UL     | Underwriters Laboratory                                      |
| UV     | Ultraviolet                                                  |
| VOC    | Volatile Organic Content                                     |

### **7.3 SUBHEADINGS AND TITLES**

The titles or subheadings used in this contract and on the contract plans and drawings and in the specifications, are understood to be for convenience of reference only, and shall not be taken or considered as being a part thereof, or as having any bearing on the interpretation thereof.

### **7.4 NATURE AND LOCATION OF WORK**

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract.

### **7.5 VERBAL STATEMENTS NOT BINDING**

It is understood and agreed that the written terms and provisions of the Contract Documents shall supersede all verbal statements of the Engineer or other representatives

of the City, and such statements shall not be effective or be construed as entering into, or forming a part of, or altering in any way whatsoever the written Contract.

## **7.6 WRITTEN NOTICE OR WRITTEN ORDER**

Notice of a Written Order shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if Emailed, or delivered at or sent by registered mail to the last business address known to him who gives the notice.

That whenever in these Contract documents the words "as ordered," "as directed," "as required," "as permitted," "as allowed," or words or phrases of like import are used, it shall be understood that the order, direction, requirements, permission, or allowance of the Owner and the Engineer is intended.

Similarly, the words "approve," "reasonable," "suitable," or "acceptable," otherwise particularly specified herein, shall mean approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the Owner and Engineer.

## **7.7 SCOPE, NATURE, AND INTENT OF CONTRACT PLANS AND SPECIFICATIONS**

The Contract shall include: Notice for Bids; Instructions to Bidders; Bid Proposal; Contract Form and Contract Bond; Notices; Insurance; Performance Bond; Special Conditions; General Conditions; Special Provisions; Standard Specifications; Detailed Specifications; Standard Drawings; Detailed Plans; Plans Drawings; Addendum; Change Orders; and agreements that are required to complete construction of the work, all of which constitute one instrument.

Detailed plans and/or specifications that are furnished by the Contractor to clarify or define the Owners contract must be approved by the Engineer prior to use. Upon approval, said plans and/or specifications shall be considered a part of this Contract.

The Contractor shall, in good and first-class workmanlike manner, and at his own cost and expense, furnish all of the labor, tools, materials, and equipment necessary to complete, ready for use, all of the work as designated and as described by the Contract Documents on file with the Finance Officer of the City of Rapid City, Rapid City, South Dakota.

The said specifications, plans, and contract are intended to supplement, but not necessarily duplicate, each other and together constitute one complete set, so that any work covered in the one and not in the other shall be executed just as if it had been set forth in the Contract, in order that the work shall be completed according to the complete design or designs as decided and determined by the Engineer. It is understood and agreed that the work shall be performed and completed according to the true spirit, meaning, and intent, of the contract and specifications.

The Contractor agrees that in undertaking to complete the work within the time herein fixed, he has taken into consideration and made allowances for all of the ordinary delays and hindrances incidental to such work, whether or not growing out of delays in securing

materials or equipment. Compensation for delays due to no fault of the Contractor may be negotiated.

The Contractor also agrees that all time limits stated in the Contract Documents are of the essence of the Contract.

All the work shall be done under the direct observation of the Engineer and to the entire satisfaction of the Engineer and the Owner and in accordance with the laws of the State of South Dakota and the Ordinances and Codes of the City of Rapid City.

## **7.8 DUTIES AND POWERS OF INSPECTORS**

Properly authorized inspectors shall be considered to be the representatives of the Engineer, limited to the duties and powers entrusted to him. It shall be their duty to inspect the materials and workmanship of those portions of the work to which they are assigned, either individually or collectively, under instructions of the Engineer and to report any and all deviations from the plans, specifications, and other contract provisions which may come to their notice. Any Inspector shall have the right to order the work entrusted to his supervision stopped if in his opinion such action becomes necessary, until the Engineer is notified and he has determined and ordered that the work shall proceed in due fulfillment of all contract requirements. The Engineer and his representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection.

## **7.9 SEPARATE CONTRACTS**

The Owner reserves the right to let other contracts in connection with this work. The Contractor 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 work with theirs.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. His failure so to inspect and report shall constitute an acceptance of the other contractors work as fit and proper for the reception of his work, except as to defects which may develop in the other contractors work after the execution of his work.

To insure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and the Drawings.

## **7.10 CONTRACT EXECUTION**

The selected Low Bidder agrees that he will execute the contract in accordance with the proposal as accepted and secure and furnish the required bonds and insurance within ten (10) calendar days from the date of mailing of said notice of bid award to him at his address as given on the proposal or within such additional time as may be allowed by the Engineer;

and that, upon his failure or refusal to do so within said time, the certified or cashier's check or bidder's bond accompanying this bid and the money payable thereon shall be forfeited to and become the property of the City of Rapid City as liquidated damages for such failure or refusal.

#### **7.11 COPIES OF CONTRACT**

Not less than two (2) copies (and as many more as may be required) of the bound volumes of the proposal, contract, and specifications shall be prepared, each shall contain an exact copy of the Contract signed by both parties thereto. Two (2) executed copies shall be filed with the City. Additional copies shall be filed where and as may be required.

#### **7.12 RESPONSIBILITY OF CONTRACTOR**

General Responsibility: The Contractor shall furnish all transportation, ways, works, machinery, and plant, and all suitable appliances required for the safe, proper, and lawful construction, maintenance, and use thereof. The Contractor shall be fully responsible for the materials and equipment used for the work and for safeguarding the work against damage or destruction until its final acceptance by the Engineer. The Contractor agrees to make no claims for damage to the work prior to final acceptance and will make no claims for damage to the materials except through negligence or willful act of the Owner.

Before the completion and acceptance of this Contract, Contractor shall be solely answerable for all damage to the Owner or the property of the Owner; to other Contractors, or other employees of the Owner; to the neighboring premises or to any private or personal property due to improper, illegal, or negligent conduct of himself or his subcontractors; employees or agents in and about said work or in the execution of the work covered by this Contract or any extra work undertaken herein provided; or to any defect in, or the improper use of, any scaffolding, shoring, apparatus, ways, works, machinery or plant. He shall indemnify and save harmless the Owner and its officers and agents from all claims relating to labor, materials, and methods used in executing the work.

#### **7.13 PERSONS IN RESPONSIBLE CHARGE**

The Contractor shall have on the site at all times a superintendent or a person in his employ who shall be in responsible charge of all work. The Contractor shall, in writing, give the Engineer the name of the person in responsible charge prior to beginning any work. Changes of persons in responsible charge during the course of performing the work shall be submitted, in writing, to the Engineer prior to instituting the change.

#### **7.14 ORDER OF COMPLETION OF WORK**

The Contractor shall, within ten (10) days after being instructed to do so in a written notice from the Engineer, commence the work to be done under this contract; and the rate of progress shall be such that work shall have been completed in accordance with the terms of this Contract, on or before the date of completion named in the proposal hereof.

**7.15 CONTRACTOR TO CHECK SPECIFICATIONS AND SCHEDULE**

The Contractor shall check all specifications, quantities, and schedules given to him by the Engineer and shall, upon discovery, notify the Engineer in writing of any discrepancy which he may discover between the plans and specifications or between either plans and specifications and physical site conditions; or if he observes site conditions not usually encountered on this type of work; or if he believes the plans and specifications require work which would violate laws, ordinances, or codes. Failure to follow this procedure shall preclude the Contractor from making any claim for damages resulting from the alleged discrepancy.

Should anything be omitted from the specifications, plans, and/or contract which is necessary to the clear understanding of the work, or should it appear various instructions are in conflict, then the Contractor shall secure written instructions from the Engineer before proceeding with the construction affected by such omissions or discrepancies. Failure to request written instructions shall constitute a waiver to any and all claims associated with the omission or conflict.

The Contractor will not be allowed to take advantage of any error or omission in the plans, specifications or contract documents, as full written instructions will be furnished by the Engineer, should such error or omission be discovered, and the Contractor shall carry out such instructions as if originally specified.

**7.16 CALCULATED DIMENSIONS TO GOVERN**

In case of discrepancy, calculated or written dimensions will govern over scaled dimensions.

**7.17 DRAWINGS FURNISHED BY CONTRACTOR**

The Contractor shall supply such working specifications and drawings of devices, castings and composite materials to be furnished under this Contract as are called for herein or are required by the Engineer to make clear the details of equipment and of devices.

**7.18 PATENTS**

It is further agreed that all royalties for patents or patent infringement claims, whether such patents are for processes or devices, that might be involved in the construction or use of the work, shall be included in the Contract amount and the Contractor shall satisfy all demands that may be made at any time for such, and shall be liable for any damages or claims for patent infringements; and the Contractor shall, at his own expense, defend any and all suits or proceedings that might be instituted at any time against the Owner for infringement or alleged infringement of any patent or patents involved in the work; and in case of an award of damages, the said Contractor shall pay such award; final payment to the Contractor by the Owner will not be made while any such suits or claims remain unsettled.

**7.19 INDEMNITY**

The Contractor shall indemnify and save harmless the Owner from and against all losses and all claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description brought or recovered against him, by reason of any act or omission of the said Contractor, his agents or employees, in the execution of the work or in the guarding of it and this shall include acts or omission of subcontractor.

The Contractor shall, and is hereby authorized to, maintain any part for such insurance, issued in the name of the Owner, as will protect the Owner from his contingent liability under this Contract, and the Owners right to enforce against the Contractor any provision of this Section shall be contingent upon the full compliance by the Owner with the terms of applicable insurance policy or policies, a copy of which shall be deposited with the Owner.

**7.20 INSURANCE**

The Contractor shall secure policies of insurance in amounts, form and companies satisfactory to the Owner, and as specified in the Contract.

**7.21 GUARANTEES**

The Contractor and any sureties under the Performance Bond guarantee to complete the project as specified and agree that loss as a result of any occurrence including acts of God, shall not relieve them of their obligation.

**7.22 CONTRACTOR LIABILITY INSURANCE**

The Contractor shall maintain insurance as will protect him from claims under Workmen's compensation acts and from any other claims for damages for personal injury, including death, which may arise from or by any subcontractor or anyone directly or indirectly employed by either of them.

**7.23 PERFORMANCE BOND**

The surety bond executed by the Contractor, issued to the Owner, shall be a guarantee:

- A.** For the faithful performance and completion of the work in strict accordance with the terms of the contract, specifications, and detailed plans;
- B.** For the payment to the Owner of all sums due or which may become due by the terms of the contract; as well as by reason of any violation thereof by the Contractor;
- C.** For the payment of all bills, including the hire, rental or lease of equipment or machinery, and the operators thereof, used on the work, and for all materials, lubricants, oils and gasoline used in or consumed in the construction of such work and for all labor performed in such work whether by sub-contract or otherwise;

- D. The payment of any and all judgments and costs of suits and actions brought against the Owner or officials thereof, for any cause whatsoever, arising from or on account of any injuries or damages to life or property suffered or sustained by any person, firm or corporation, caused by the Contractor, his or its agents, servants or employees in the construction of said work, or by or in consequence of any negligence, carelessness or misconduct in guarding or protecting the same, or any act or omission of the said Contractor his agents, servants, employees;
- E. And for the protection of the Owner against all suits and claims for infringements or alleged infringements of patent rights processes.

This section shall in no way be construed as limiting the obligation under the Performance Bond actually furnished, but may be an addition thereto.

The Owner agrees to mail a notice to the Contractor, calling his attention to any failure to comply with the requirements of the bond, not more than ten (10) days before notifying his bondsmen of such failure to comply with the terms of said bond.

#### **7.24 REEMPLOYMENT ASSISTANCE**

The Contractor to whom the Contract is awarded, will pay South Dakota Department of Labor and Regulations, all contributions and interest due under the Unemployment Compensation Law of South Dakota. Further, it is required that the Contractor furnish a certificate, prior to final payment, from the Department of Manpower Affairs that all contributions and interest due to the department in performance of that Contract have been paid.

#### **7.25 DISCRIMINATION**

The Contractor will not discriminate against any employee or applicant for employment because of race, sex, creed, color or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, sex, creed, color, or national origin. Such action shall include, but is not limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

The Contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the City, that all qualified applicants will receive consideration for employment without regard to race, sex, creed, color, or national origin.

The Contractor will send, to each labor union or representative or workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers representative of the contractor's commitments under Section 202 of Executive Order No.

11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, of the rules, regulations, and relevant orders of the Secretary of Labor.

The Contractor will furnish all information and reports required by Executive order No. 11246 of September 24, 1965, and by the rules, regulations, and order of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

In the event of the Contractor's noncompliance with the discrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

The Contractor will include the provisions of Section 7.21 in every subcontract or purchase order unless exemption by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved, in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States and the City to enter into such litigation to protect the interest of the United States and the City.

## **7.26 LABOR AND DISMISSAL OF EMPLOYEES**

The Contractor shall employ only persons who are competent and skillful in their respective lines of work, and local labor shall be given preference. Whenever the Engineer shall notify the Contractor that any person on the work is, in his opinion, incompetent, unfaithful, disorderly or under the influence of intoxicating substances, or refuses to carry out the provisions of this contract or uses threatening or abusive language to any persons, shall be immediately discharged from the work and shall not be re-employed thereon except with the consent of the Engineer.

## **7.27 LAWS AND ORDINANCE**

The Contractor shall keep himself fully informed of all existing and current regulations of the Owner, and County, State, and National Laws which in any way limit or control the actions or operations of those engaged upon the work, or affecting the materials supplied to or by them. He shall at all times observe and comply with, all ordinances, laws, rules and regulations and shall protect and indemnify the Owner and the Owner's officers and

agents against any claims or liability arising from or based on any violation of the same. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Drawings and Specifications are at variance therewith, he shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to the Engineer, he shall bear all costs arising therefrom. Such performance shall constitute a waiver of any and all claims associated with the work.

## **7.28 PERMITS AND LICENSES**

Unless otherwise specified, permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the Contractor. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified.

## **7.29 DIRT/DUST CONTROL**

All activities associated with this contract shall conform to Pennington County Ordinance #12, "Fugitive Dust Regulation." The Contractor shall obtain a dust control permit from the County Planning Office and furnish a copy to the Owner before beginning work on the project.

The Contractor shall make every reasonable effort to minimize fugitive dirt or dust as a result of construction activities. The Engineer may require the Contractor to water or take other actions necessary to prevent blowing dirt and/or dust and other nuisance conditions, at no additional cost to the Owner.

Upon substantial completion of construction at a given site or at any time prior to final project acceptance as directed by the Engineer, the Contractor shall clean up the project area(s) and remove all dirt and debris from the street and sidewalk surfaces to the satisfaction of the Engineer. In general, removal of the dirt and debris shall be conducted in such a way and/or at such a time as to minimize nuisance conditions of dirt and dust in the air, on vehicles, sidewalks, and buildings.

Specifically, the streets shall be swept with an approved, enclosed mechanical or vacuum-type sweeper, which picks up the dirt and debris and stores it for hauling and disposal off-site. The Contractor shall utilize a private sweeper whenever possible. However, he may request that the City Street Department do the sweeping if a private sweeper is not available when required. When the Contractor elects to utilize the City sweeper, he shall give the Engineer at least 72 hours' notice prior to the time the sweeper is desired. If the City sweeper is utilized, the City Street Department will then bill the Contractor for the use of the sweeper at the current hourly rate for sweeper and operator. If, in the opinion of the Engineer, the Contractor fails to make reasonable effort to minimize fugitive dust as a result of his construction activities, or refuses to take action when requested by the Engineer, the Engineer may elect to schedule the City sweeper to provide cleanup. The

City street Department will bill the Contractor at one and one-half times (1 1/2) the current hourly rate for the sweeper and operator.

### **7.30 CLAIMS AND DAMAGES**

Any claim for damage arising under this contract shall be made in writing to the party liable within ten (10) calendar days of the first observance of such damage, except as expressly stipulated otherwise, and shall be adjusted by agreement or by arbitration. Failure to comply with the notice requirement will result in denial of the claim.

In general, the Contractor may not recover for claims, which did not impact the critical path of the project.

The Contractor shall document his claim(s) in the following manner:

- A.** Provide an introduction and summary.
- B.** Provide a listing and explanation of subsurface information available in the bidding documents and/or through a reasonable site investigation.
- C.** Provide a report of the Contractor's site investigation.
- D.** Explain the conditions actually encountered.
- E.** Discuss the difference between actually encountered and anticipated conditions with emphasis on the impact of such things as delay, interference, disruption, changes in construction methods, and additional direct labor and equipment requirements.
- F.** Summarize the applicable laws and/or contract clauses.
- G.** Set forth the time extension claim with rational, detailed calculations.
- H.** Set forth the cost claim broken down to the smallest elements possible.

### **7.31 LIENS**

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all labor and materials for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Engineer, to indemnify the Owner against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

### 7.32 USE TAX LIABILITY

The Contractor shall be liable to pay the use tax on tangible personal property that is supplied by the City to the Contractor for performance of the Contract. The value of said personal property will be as indicated in Section 2.20 of the Contract. The Contractor shall be liable to pay all Federal, State, County, or local taxes required for labor and/or materials included in this Contract.

### 7.33 WORK MODIFICATIONS

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to, or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the Engineer shall have authority to verbally make minor changes in the work; but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Engineer, and no claim for an addition to the Contract Sum shall be valid unless so ordered and approved by the Council.

The value of any such extra work or change shall be determined in one or more of the following ways:

- A. By estimate and acceptance in a lump sum.
- B. By unit prices named in the Contract or subsequently agreed upon.
- C. By cost and percentage or by cost and a fixed fee.

If none of these methods is agreed upon, the Contractor, provided he receives an order as above, shall proceed with the work. In such case and also under case (c), he shall keep and present in such form as the Engineer may direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, the Engineer shall certify to the amount including reasonable allowance for overhead and profit, due to the contract, or pending final determination of value, payments on account of changes shall be made on the Engineer's Estimate. Work done on a Force Account basis shall be as follows:

1. **Labor:** For labor and supervisor in direct charge of the specific operations, the Contractor shall receive the rate of wage agreed upon in writing before beginning work or the actual rate paid in the event it is less than the agreed rate, for each and every hour that said labor and supervisor are actually engaged in such work.

If a laborer or supervisor is paid for "overtime" during a calendar week in which he is employed for part of that period on force account work, the Owner will pay to the Contractor a percentage of that portion of the overtime payment. For each such

employee, this percentage will be the ratio, which the total hours he worked on force account during the week bears to the total hours he worked during that week.

Overtime incurred due to the City requiring the Contractor to do force account work, during periods not normally worked, will be paid one hundred percent (100%) by the City. In order that the Engineer may verify wages paid and pro-rate overtime, the Contractor shall furnish to the Engineer certified payrolls during the period force account work is in progress.

An amount equal to fifteen percent (15%) of the sum for labor will also be paid the Contractor as compensation for administrative and overhead costs.

2. **Bond, Insurance, and Tax:** For property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions, excise taxes, and social security taxes on the force account work, the Contractor shall receive the actual cost, to which no percentage will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance, and tax. In lieu of furnishing itemized statements to substantiate these costs, of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and Social Security tax, the Contractor may elect to receive an amount equal to twenty-five percent (25%) of the actual labor costs (excluding the fifteen percent [15%] for administrative and overhead costs) as compensation for those costs.
3. **Materials:** For materials accepted by the Engineer and incorporated into the project, the Contractor shall receive the actual cost of such materials delivered onto the worksite, including transportation charges paid (exclusive of machinery rentals as hereinafter set forth), to which cost fifteen percent (15%) will be added as compensation for administrative and overhead costs.
4. **Equipment:** For machinery or special equipment, including fuel and lubricants, plus transportation costs, the use of which has been directed or authorized by the Engineer, the Contractor shall be paid at an agreed upon rate; or, failing mutual agreement, in accordance with provisions and rates set forth in the current edition of the South Dakota Department of Transportation Equipment Rental Rates, for actual time such equipment is in operation on the work, except that standby costs will not be paid. Nor will additional amounts be added for administration and overhead cost.
5. **Miscellaneous:** Additional allowance will not be made for general superintendence, cost of maintaining home office, standby costs, or other costs for which no specific allowance is herein provided.
6. **Compensation:** The Contractor's representative and the Engineer shall compare records of the cost of work done as ordered on a force account basis.
7. **Statements:** Payment will be made for work performed by force account based on itemized statements of the cost of such force account work detailed as follows:

- a) Certified payrolls showing worker name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman;
- b) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment;
- c) Quantities of materials, prices and extensions;
- d) Transportation of materials; and
- e) Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

Statements shall be accompanied and supported by receipted invoices for materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then, in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

8. To the sum of items A through C, shall be added ten percent (10%) for profit.

#### **7.34 EXTRA WORK AS PART OF CONTRACT**

If extra work orders are in accordance with the provisions of this Contract, such work shall be considered a part hereof and subject to each and all of its terms and requirements.

#### **7.35 UNKNOWN OR CONCEALED CONDITIONS**

Whenever, during excavating operations, the Contractor encounters a heretofore unknown underground utility or other unknown or unexpected physical condition, the existence of which could not have reasonably been foreseen or anticipated and which causes a significant delay and/or expense to the Contractor, he shall contact the Engineer, before such conditions are disturbed, for a determination as to whether compensation will be allowed.

Compensation may consist of a payment to the Contractor and/or an extension of contract time. However, no compensation will be allowed unless notice is given prior to disturbing the condition. Should the Engineer allow payment, he will pay for reasonable and justifiable costs involved in dealing with the condition as specified in Section 7.29 of these specifications.

Extra contract time shall be based on the actual time of the delay caused by encountering the condition.

#### **7.36 SUSPENSION AND ANNULMENT OF CONTRACT**

If the equipment, material, or work to be furnished under this contract shall be abandoned by the Contractor, or if this Contract shall be assigned or the work sublet by him, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the Owner, the performance of this Contract is unnecessarily delayed, or that the Contractor is willfully violating any of the conditions or covenants of this Contract or of the specifications, or is executing the same in bad faith or not in accordance with the terms of said Contract, or if the work be not fully completed within the time named in this Contract for its completion, or within the time to which the completion of this Contract may be extended, the Owner may notify the Contractor to discontinue all work, or any part thereof, then the Owner is hereby empowered to suspend or annul this Contract.

If this Contract be so annulled or suspended, the Contractor shall not be entitled to anything on account thereby, nor shall such annulment or suspension in any way affect the right of the owner to damages claimed by it on account of the failure of the Contractor, but such annulment must be ratified by the Owner before being of any force or effect. In the case of annulment of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the Owner, shall promptly remove any part or all of this equipment and supplies from the property of the Owner, failing which, the Owner shall have the right to remove such equipment and supplies at the expense of the Contractor.

### **7.37 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT**

If the work should be stopped under an order of any court, or other public authority, for a period of three months, through no act or fault of the Contractor or of anyone employed by him, then the Contractor may, upon seven (7) days' notice in writing to the Owner and the Engineer, stop work or terminate this Contract and recover from the Owner payment for all work executed and partially executed and reasonable profit.

### **7.38 ENGINEER'S RIGHT TO STOP WORK**

Should traffic, weather, or conditions caused by the actions or inactions of the Contractor dictate, the Engineer may issue a Stop Work Order to the Contractor. Upon receiving a Stop Work Order, the Contractor shall stop working and shall backfill and compact all open holes and/or trenches, properly sign, identify, and clean up the project to the satisfaction of the Engineer. When conditions improve, the Engineer will issue a Notice to Proceed for the remainder of the project. The Contractor will then have a ten (10) day equipment-ready period before contract time resumes. Remaining work shall be completed within the contract time.

### **7.39 SUGGESTIONS TO CONTRACTOR ADOPTED AT HIS OWN RISK**

Any plan or method of work suggested by the Engineer to the Contractor, not specified or required in the contract, adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and the Engineer and the Owner shall assume no responsibility therefore.

### **7.40 SUBLETTING OF CONTRACT**

The Contractor shall perform, with his own organization, work amounting to not less than fifty (50) percent of the original total contract price, except that any items designated by the City as "Specialty Items" so performed may be deducted from the original contract price before computing the amount of work required to be performed by the Contractor with his own organization.

Any items that have been selected as "Specialty Items" for the contract are listed as such in the proposal.

No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the Engineer. The Contractor shall request permission, in writing, to sublet, assign or otherwise dispose of any portion of the contract and shall list the names and addresses of proposed subcontractors. The Contractor shall provide a statement that the organization(s) which will perform the work is (are) particularly experienced and equipped for such work and shall provide proof that the proposed subcontractor(s) is (are) licensed to perform the work in South Dakota. The Contractor shall give assurance that all pertinent provisions of the prime contract, including the minimum wage for labor as stated in his proposal, shall apply to all work sublet, assigned or otherwise disposed of in any way. Such assurance shall be accomplished in the manner required by the Engineer. Consent to sublet, assign or otherwise dispose of any portion of the contract shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the Contract.

It will not be permissible for a Subcontractor to sublet work, but any work sublet to a Subcontractor can be canceled or reassigned upon request from the prime Contractor and approval of the Engineer.

The Contractor shall accept full responsibility for actions or omissions of his subcontractors and their employees as he would if they were his own. See paragraph 7.12 of these Specifications.

If evidence and investigation establish beyond reasonable doubt that a violation of the fifty percent (50%) subcontract rule is being or has been attempted through subterfuge whereby one Contractor's equipment is directly or indirectly leased to another Contractor, or whereby a significant part of one Contractor's regular working force is placed on the payroll of another Contractor, such a conclusion shall constitute a violation of the subcontract rule. This provision shall not be construed to include in the fifty percent (50%) limitation the lease of or use of equipment of a corporation or company wholly owned by the Prime Contractor.

In the case of violation of the subcontract rule, the Rapid City Council may suspend the bidding qualifications of such Contractors for a period of up to one year.

The value of work proposed for subcontract will be determined by multiplying that portion of the original contract item quantities to be sublet by the corresponding unit price as set forth in the contract.

If any phase of work involved on a contract item is sublet, the entire contract unit cost of the item will be used for determining the value of work. Materials provided by the

Contractor for a subcontractor on a particular work item will not qualify that item as work done by the Contractor.

Work performed with equipment not owned by the Prime Contractor will be considered subcontract work unless the origin of such equipment meets one of the following conditions:

- A.** Equipment supplied by an established equipment dealer on a rental or rental purchase agreement.
- B.** An occasional piece of equipment temporarily obtained from another Contractor or from an individual or company engaged in similar work.
- C.** Special equipment, not normally owned for the type of work involved.
- D.** Trucks used to haul gravel or other materials to the project.

Equipment used by a Subcontractor, must be owned by the Subcontractor or Prime Contractor, except that equipment listed above.

Should any subcontractor fail to perform in a satisfactory manner the work undertaken by him, such subcontract shall be immediately terminated by the Contractor upon written notice from the Owner.

Nothing contained in the contract documents will create a contractual relation between the City and any subcontractor.

#### **7.41 PUBLIC SAFETY AND WORK PROTECTION**

Whenever, in the opinion of the Engineer, the Contractor has not taken sufficient precaution for the safety of public or the protection of the work to be constructed under this contract, or of adjacent structures or property which may be injured by process of construction on account of such neglect, and whenever, in the opinion of the Engineer, an emergency shall arise and immediate action shall be considered necessary in order to protect the public or private personal property interest, then, the Engineer, with or without notice to the Contractor, may provide suitable protection to the said interests by causing such work to be done and material to be furnished and placed as the Engineer may consider necessary and adequate. The cost and expense of such work and material so furnished shall be borne by the Contractor, and if the same shall not be paid on presentation of the bills therefore, then such costs shall be deducted from any amounts due or to become due the Contractor. The performance of such emergency work under the direction of the Engineer shall in no way relieve the Contractor of responsibility for damages which may occur during or after such precaution has been duly taken by the Engineer.

#### **7.42 BARRICADES AND WARNING SIGNS**

The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public. Highways closed to traffic shall be protected by effective barricades, and obstructions shall be illuminated during hours of darkness. Suitable signs shall be provided to properly control and direct traffic.

The Contractor shall erect warning signs in advance of any place on the project where operations may interfere with the use of the road by traffic, and at all intermediate points where the new work crosses or coincides with an existing road.

It shall be the Contractor's responsibility to clear the work area of private vehicles as necessary.

All barricades, warning signs, lights, temporary signals, and other protective devices must conform with the current Manual of Uniform Traffic Control Devices.

#### **7.43 USE OF EXPLOSIVES**

When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives and shall meet all local, State, and Federal laws and requirements pertaining to explosives as well as Title 29, Code of Federal Regulations, Part 1926, Occupational Safety and Health Act regulations for construction (OSHA), and Title 30, Code of Federal Regulations, Mineral Resources, whichever is most restrictive, in the use, loading, transportation, and storage of explosives and blasting agents.

The Contractor shall obtain a blasting permit from the Rapid City Fire Department prior to the use of any explosives. The Fire Department may impose restrictions on the quantities, methods, and materials utilized for blasting.

The Contractor shall notify property owners and public and private utility companies having structures or facilities in proximity to the site of the work of their intention to use explosive. Such notice shall be given sufficiently in advance to enable them to protect their property from injury. In no case shall notice be given less than five (5) calendar days prior to the desired date of usage.

The Engineer may require the Contractor to monitor certain properties during actual blasting in order to determine effects of blasting. In some cases, the Engineer may require the use of a seismograph to document the forces of blasting.

It is recommended that, prior to blasting, the Contractor document the condition of structures in the vicinity of the work.

#### **7.44 PROTECTION OF UTILITIES AND PROPERTY**

The type, size, location, and number of all known underground utilities are approximate when shown on the plans. The Contractor shall be responsible for determining and verifying the existence, depth, and location of all underground utilities within the work limits.

The Contractor shall give reasonable notice to the owner or owners of steam, gas, water, sewer, and other pipe lines, or conduits, overhead and underground wire or other structures, either public or private, railroads and other owners of property, when such property is liable to injury or damage of the execution of the work, in order that the owner or owners of such utility or other property may locate, relocate, remove or protect the same.

If the Owner or owners of any private or public property liable to be affected, endangered, or damaged by the construction of this work, does not protect its or their property, then the Contractor shall do so.

The Contractor shall use every precaution on the work to prevent harm or accident to the property, passengers, employees, or patrons of utilities, either publicly or privately owned, and to any other person legitimately employed on the premises, and the Contractor shall assume all liability for damages accruing from any accident, which may be due to his carelessness, omission or neglect; he shall pursue the work under and along and near such property as may be liable to damage thereby, as rapidly as possible when once the work is begun.

The Contractor shall satisfactorily shore, support and protect any and all pipe and other structures or utilities and shall not be entitled to any damage or extra pay on account of any postponement, interference, or delay caused by any such structures being on the line of the work, whether such structures are shown on the plans or not. Contractor shall save Owner harmless from any and all liability or expense for injuries, damages, or repair to any public or private property.

#### **7.45 CONDEMNED MATERIALS AND STRUCTURES**

The Contractor, at his own expense, shall remove from the site of the work, without delay, all rejected and condemned materials or structures of any kind whether or not incorporated into the work and shall promptly remove and re-execute all condemned work and will bear the expense of making good any work destroyed or damaged by removal of defective work, and upon his failure to do so or to make satisfactory progress in so doing, within forty-eight (48) hours after the service of a written notice for the Engineer ordering such removal, the condemned materials, work, or structure may be removed by the Owner and the cost of such removal be taken out of the money that may be due or may become due the Contractor on account of or by virtue of this contract. No such rejected or condemned material shall again be offered for use by the Contractor under this or other contract under this project.

#### **7.46 MAIL BOXES**

When necessary, mail boxes shall be removed and reset in a manner prescribed by the Postmaster of the Federal Post Office, Rapid City, South Dakota. A copy of the postal regulations can be obtained from the Postmaster.

It is expected that the Contractor shall give his full cooperation to the postal department concerning mail delivery during the construction of this project.

The owner of any structurally unsound mail box post shall furnish a new post at his expense. However, the Contractor shall not remove such a post until he has notified the project inspector.

Costs associated with this item shall be incidental to the project.

#### **7.47 PROVIDING ACCESS**

The Contractor shall conduct construction activities in such a manner as to provide continuous access to all affected properties during the duration of the project, unless the specific activity precludes continuous access. At no time shall the Contractor park equipment in front of or in any other way block a driveway or other entrance such that there is no means of ingress and/or egress to or from a property. Should such a situation occur, the Contractor shall take the necessary steps to provide immediate and safe access to or from the property.

Failure to provide access in a timely manner will cause the Owner to take the necessary action and bill the Contractor one and one-half (1 and 1/2) times the cost incurred.

#### **7.48 SATURDAY, SUNDAY, HOLIDAY, AND NIGHT WORK**

No work shall be done on Sundays and legal holidays, except such work as is necessary for the proper care and protection of work already performed, and, in any case only with the written permission of the Engineer; or, in case of emergency, which also requires the immediate notification of the Engineer. The Contractor shall request, and must receive, in writing, permission from the Engineer to enable work on Sundays and legal Holidays, except such work as noted above.

No work shall be done on Saturdays, except for emergencies, without the permission of the Engineer. The Contractor shall request permission from the Engineer to work on a given Saturday a minimum of 24 hours in advance, except such work as noted above.

No work, except for emergencies, shall be done between the hours of 9 P.M. and 6 A.M. unless the Contractor first obtains the written permission of the Engineer; such permission may be revoked at any time by the Engineer if the Contractor fails to maintain, at night, adequate force and equipment for reasonable prosecution and supervision of the work, or if Contractor's operations are unnecessarily disruptive to the public.

Holidays observed by the City of Rapid City include: The first day of January, commonly known as New Year's Day; the Friday immediately preceding Easter, commonly known as Good Friday; the last Monday in May, commonly known as Memorial Day; the fourth day

of July, commonly known as Independence Day; the first Monday in September, commonly known as Labor Day; the eleventh day of November, commonly known as Veteran's Day; the fourth Thursday in November, commonly known as Thanksgiving Day; the Friday immediately following Thanksgiving Day; the twenty-fifth of December, commonly known as Christmas Day; and any other day declared by the City to be a holiday.

If the day of observance of the foregoing holidays is changed by enacted laws of the City of Rapid City, such day will be the day of observance of such holiday. Whenever any of the foregoing holidays fall on Sunday, the Monday immediately following shall also be observed as a holiday. Whenever any of the foregoing holidays fall on Saturday, the Friday immediately preceding shall also be observed as a holiday. Saturdays and Sundays will be considered the same as Holidays.

#### **7.49 WORK DONE WITHOUT LINES, GRADES, OR INSPECTION**

Any work done without lines or grades or without the inspection of an Inspector or other representative of the Engineer may be ordered removed and replaced at the Contractor's cost and expense. In-place testing or other verification data can be requested by the Engineer at the Contractor's expense. Disregard of this requirement shall result in a Stop Work Order being issued until the Contractor provides the Engineer with an acceptable plan of prior notification procedures.

#### **7.50 STAKING WORK**

The Engineer shall furnish all necessary labor and materials to set the necessary stakes for grade and alignment for all work, but it will be the Contractor's responsibility to preserve such stakes after they are once set by the Engineer. Stakes removed, damaged, etc. by Contractor negligence shall be replaced at Contractor expense. The Engineer may require the Contractor to replace the stakes or may elect to replace the stakes and charge the Contractor for the associated costs.

All work done under this Contract shall be done to the lines and grades shown on the plans or as staked by the Engineer. The Contractor shall keep the Engineer informed, a reasonable time in advance, nominally a period of one (1) full working day, of the times and places at which he wishes to do work, in order that lines and grades may be furnished, and necessary measurements for record and payment may be made with the minimum of inconvenience to the Engineer and of delay to the Contractor. The Contractor shall determine the meaning and intent of all stakes, measurements, and marks prior to commencing work. Contractor shall be responsible for protecting stakes from displacement.

#### **7.51 MATERIALS**

**A. General:** The Contractor shall furnish only new and best commercial quality material, equipment, appliances, and supplies for the work. Bid prices shall include all sales and other taxes payable on all items incorporated in the permanent work.

Anything specified by manufacturer's name or proprietary name shall be furnished exactly as called for unless followed by the words "or approved equivalent". The decision of equity, will be made by the Engineer.

- B. Samples:** When requested by the Engineer, samples or test specimens of materials to be used or offered for use in connection with this work shall be prepared at the expense of the Contractor and furnished by him in such quantities and sizes as may be required for proper examination and test, with all carriage charges prepaid and with information as to their sources. All samples shall be submitted in ample time to permit the making of proper tests, analyses, or examination before the time at which it is desired to incorporate the material into the work. The cost of making all tests, and the cost of materials used in such tests, shall be paid by the Contractor, unless otherwise specified. Tests other than those which can be made in the field by the Engineer or can be arranged to be made by him elsewhere, shall be made by a properly equipped laboratory of established reputation. Reports of all tests shall be mailed to the Owner, to the Engineer, and to the Contractor.
- C. Warranty:** The Contractor warrants to the Owner that all materials and equipment furnished and installed under this contract will be new unless otherwise specified, and shall be of good quality, free from defects, and in conformance with the plans and specifications. All materials not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

## 7.52 CLEANUP AND RESTORATION

The Contractor shall not allow the site of the work to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction period. The Engineer shall have the right to determine what is or is not waste material or rubbish and the manner and place of disposal.

The Owner reserves the right to require the Contractor to clean up all or any portion(s) of the project at any time prior to final project acceptance.

On or before the end of contract time, the Contractor shall, at his own expense, dismantle and/or remove all temporary structures built or furnished by him and shall replace or repair all areas disturbed as a result of this project to original condition or better.

If all other work has been completed, and winter weather, availability of materials such as hot mix asphalt or sod, or other conditions prevent complete cleanup and restoration, the Contractor shall clean up the project area(s) to the satisfaction of the Engineer prior to suspending work. After cleanup has been approved, the Engineer will issue a Stop Work Order, and contract time will stop. When conditions are once again suitable and/or materials are available, the Engineer will issue a Notice to Proceed, giving the Contractor ten (10) calendar days to resume cleanup and restoration.

All cleanup and restoration shall be completed within the remaining Contract time. If additional contract time is necessary, the Contractor shall request a time extension as set forth in these General Conditions.

If complete cleanup and restoration is not possible, for whatever reason, the Contractor will be responsible for satisfactorily maintaining all disturbed areas until such time as they are restored. Should any maintenance work be required on any portion of the project prior to issuance of the acceptance letter, the Contractor shall do so within forty-eight (48) hours of receiving notice from the Engineer. Failure to do so will cause the Owner to do the necessary work and bill the Contractor one and one-half (1 1/2) times the cost incurred.

#### **7.53 TESTING OF COMPLETED WORK**

Before final acceptance, all parts of the work shall be tested and each part shall be in good condition and proper working order or shall be placed in such condition and order at the expense of the Contractor, unless otherwise specified. All tests of completed work required under this contract shall be made under the direction of the Engineer by and at the expense of the Contractor, who shall repair at his own expense all damage resulting therefrom.

#### **7.54 PLACING WORK IN SERVICE**

If desired by the Owner, portions of the work, as substantially completed, may be placed in service, the Contractor to give proper access to the work for this purpose; but such use and operation shall not constitute an acceptance of the work, and the Contractor shall warrant the work as specified in Section 7.51. If such prior use increases the cost of or delays the work, the Contractor shall be entitled to such extra compensation, or extension of time, or both, as the Owner may determine.

#### **7.55 COMPLETION AND ACCEPTANCE OF WORK**

The Engineer, upon completion of the contract work, shall satisfy himself by examination and test that the work has been finally and fully completed in accordance with the Specifications and Contract, and report such completion to the Owner.

#### **7.56 ESTIMATED QUANTITIES**

The Contractor agrees that the quantities of work as stated in the Bid Proposal or indicated on the plans are only approximate, and that during the progress of the work the Owner may find it advisable, and shall have the right to omit portions of the work and to increase or decrease the quantities, and that the Owner reserves the right to add or to take from any items as may be deemed necessary or desirable. Under no circumstances or conditions will the Contractor be paid anything on account of anticipated profits upon the work or any portion thereof covered by this contract, which is not actually performed and which has not actually entered into the construction of said improvement.

#### **7.57 METHOD OF MEASUREMENT**

Unless specifically stated otherwise in this Contract, no extra measurement or measurements according to local custom of any kind shall be allowed in measuring the work under this Contract, but only the length, area, solid contents, number, weight, or time in standard units, as the case may be, shall be considered. The Contractor will be required at his expense to furnish all scales and equipment to properly weigh and measure the various units.

## 7.58 PAYMENT

**A. General:** In consideration of the faithful performance by the Contractor and of all the conditions, provisions, and covenants of this Contract and the Specifications to the satisfaction of the Owner, the Owner shall pay and the Contractor shall receive the prices stipulated in his Bid Proposal attached hereto and made a part hereof, as full compensation for everything furnished or done by the Contractor under this Contract. The Owner also agrees to pay in addition such amounts as may be agreed upon for alteration in accordance with Section 7.32 and for extra work in accordance with Section 7.33.

Unless otherwise specified, lump sum bid items will be paid for in one lump sum following 100 percent (100%) completion and acceptance of the item by the Engineer.

**B. Mobilization:** When there is a bid item for "Mobilization" in the Bid Proposal, payment for this item will be made for preparatory work and operations performed by the Contractor, including, but not limited to those necessary for the movement of his personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings, and other facilities necessary for work on the project; and for other work operations that must be performed, or for cost incurred before beginning work on the various items on the project site.

Cost of premiums on bonds and insurance for the contract are not to be included in mobilization. No separate measurement will be made for this item. Partial payment, when allowed, shall be made according to the following schedule:

1. Twenty-five percent (25%) of the amount bid for mobilization shall be paid when five percent (5%) of the original contract amount is paid.
2. An additional twenty-five percent (25%) of the amount bid for mobilization will be paid when ten percent (10%) of the original contract amount is paid.
3. An additional ten percent (10%) of the amount bid for mobilization will be paid when twenty-five percent (25%) of the original contract amount is paid.
4. The remaining forty percent (40%) of the amount bid for mobilization will be paid when fifty percent (50%) of the original contract amount is paid.

When no bid item for "Mobilization" is included in the Bid Proposal, such costs shall be considered incidental to the various work items. In such case, no additional payment will be made for mobilization.

## 7.59 PROJECT PAYMENT

- A. Partial Payment Project:** For a project specified as a Partial Payment Project in Section 2, INFORMATION AND INSTRUCTIONS TO BIDDERS, payments will be made once each month as the work progresses or as requested by the Contractor, whichever is longer. Said payments will be based upon estimates prepared by the Engineer of the value of the work performed and materials complete, in place, and for materials delivered, in accordance with the Contract.

No partial payment will be made when the total value of the work done since the last estimate amounts to less than \$2,500.00.

From the total of the amounts ascertained as payable, an amount equivalent to 12% of the amount on the Contract up to \$50,000.00; 5% of the next \$200,000.00; and 2 1/2% of the amount of the Contract in excess of \$250,000.00 will be deducted and retained by the City until after completion of the entire Contract in an acceptable manner. The balance, less all previous payment, shall be certified for payment.

When the work under Contract has been completed and accepted, and it is anticipated that preparation of the final estimate will not be completed within ninety (90) days of when the work has been substantially completed to the extent that only minor or incidental operations remain to fully complete all of the work under the Contract. If the completion of such work is deferred or delayed in compliance with Contract provisions or, upon order of the Engineer, suspending operations by virtue of weather or climactic conditions or because of seasonal restrictions provided for in the Contract, upon written request of the Contractor and consent of the surety provider, the Engineer may prepare an estimate as figured from Contract unit prices.

Payment, either in full or partial, for materials delivered to or stockpiled on the project and not yet incorporated in the work in their final position shall be as specified in Section 2, INFORMATION AND INSTRUCTION TO BIDDERS.

Partial progress payments will be made upon written request by the Contractor on specific items, as listed herein, which are stockpiled in a manner and location satisfactory to the Engineer.

- B. Single Payment - Assessed Projects:** For a project specified as a Single Payment - Assessed Project in Section 2, INFORMATION AND INSTRUCTIONS TO BIDDERS, there will be no partial payments under the Contract, but only one final payment when the work is fully completed; accepted by the Owner; final estimate determined; assessment roll issued and approved; and the assessment bonds issued by the Owner to cover the entire cost of the project.

As soon as the work has reached a point where the Engineer can finally determine the exact cost of the construction, the Engineer will make out his final estimate and assessment roll and determine the full costs of the work and submit them for approval.

After the final approval of the final estimate and assessment roll, the Owner shall, as quickly as practical, sell the special assessment bond for the work.

After the above-outlined procedures have been completed, and upon full completion of the work by the Contractor and acceptance of the work by the Engineer as filed with the Owner, the Owner shall pay to the Contractor, in cash, the full amount of his final estimate

- C. Single Payment - Non-Assessed Projects:** For a project specified as a Single Payment - Non-Assessed Project in Section 2, INFORMATION AND INSTRUCTIONS TO BIDDERS, one (1) lump sum final payment will be made after completion of the work, acceptance by the Engineer, and formal acceptance by the Owner.

## **7.60 DEDUCTION FOR UNCORRECTED WORK**

If the Engineer determines it inexpedient to correct damaged or nonconforming work, an equitable deduction from the contract price can be made upon certification of the amount by the Engineer.

## **7.61 PAYMENTS WITHHELD**

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any pay certificate to such extent as may be necessary to protect himself from loss on account of:

- A.** Defective work not remedied.
- B.** Claims or liens filed or reasonable evidence indicating probable filing of claims or liens.
- C.** Failure of the Contractor to make payments properly to subcontractors or for material, labor, or equipment.
- D.** A reasonable doubt that the Contract can be completed for the balance then unpaid.
- E.** Damage to another Contractor, work, or property.
- F.** Reasonable doubt that Contractor can complete the work within the stipulated contracted time.
- G.** The cost to the Owner resulting from failure to complete the work on time.
- H.** Failure to provide revised project schedules when requested by the Engineer.
- I.** Failure to provide acceptable construction and labor rate schedules.
- J.** Failure to provide a job superintendent who is in responsible charge of all work of the project and is on the job site when work is being performed.

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

## **7.62 VALUE ENGINEERING INCENTIVE**

- A.** General: Value Engineering Incentive applies to those cost reduction proposals initiated and developed by the Contractor for changing the drawings, designs, specifications, or other requirements of the contract. It does not apply to such proposal unless it is identified by the Contractor at the time of submission to the Owner as a Value Engineering Incentive proposal.

The cost reduction proposals contemplated are those that:

1. Would require a change order to this contract.
  2. Would result in savings to the City by providing less costly items or methods than those specified in the contract without impairing any of their essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance, and necessary standardized features.
- B.** Cost reduction proposals shall be processed in the same manner as prescribed for any proposal, which would require a change order. As a minimum, the following information shall be, submitted by the Contractor with each proposal:
1. A statement that this proposal is submitted as a Value Engineering Incentive.
  2. A description of the proposal.
  3. An itemization of the requirements of the contract, which would require a change and a recommendation of how to make each change.
  4. An estimate of the reduction in performance costs that will result from adoption of the proposal.
  5. A prediction of any effects the proposed change would have on other costs to the City.
  6. A statement of the time the change order must be issued to obtain the maximum cost reduction during the remainder of the contract and the reason for this time schedule.
  7. The dates of any previous submission of the proposals, including contract numbers and the actions of the City.
  8. A statement as to the effect the proposal would have on the time for completion of the project.

- C. The City shall not be liable for delay in acting upon a proposal submitted. The decision of the Engineer as to the acceptance of any such proposal shall be final and shall not be subject to Section (5.17). The Engineer may accept, in whole or in part, cost reduction proposals submitted by issuing a change order.

If a cost reduction proposal is accepted, an equitable price adjustment in the contract price and in other affected provisions of this contract shall be made in accordance with this Specification or other applicable provisions in this contract. The equitable adjustment shall be established by determining the effect of the proposal on the Contractor's cost of performance. When the cost of performance of this contract is decreased as a result of the change, the contract price shall be reduced by the following amount: The total estimated decrease in the Contractor's cost of performance less fifty percent (50%) of the difference between the amount of such total estimated decrease and net increase to the City which must reasonably be incurred as a result of application of the cost reduction proposal to this contract. If the change order results in an increase in the cost of performing the contract, this Specification shall not apply, and the increase shall be determined in accordance with Section 4.

- D. The substitution of one bid item for another bid item resulting in a decrease in the contract amount will not be considered as a saving under Value Engineering Incentive. When change involves the increase of one bid item and the decrease of another bid item, the change order will be made in conformance with the applicable clauses of Section 7.
- E. The Contractor may restrict the City's right to use or disclose the information submitted with a Value Engineering proposal for other purposes. Such restrictions must be in writing and be submitted with the proposal.
- F. If the proposal is accepted, this restriction shall be void, and the City may use, duplicate, or disclose, in whole or in part, data necessary to utilize such proposal.

### **7.63 DETERMINATION AND EXTENSION OF CONTRACT TIME**

The "Contract Time," or number of days allowed for the performance and completion of the work included in the contract, will be stated in the proposal and contract.

When the contract time is on a working day basis, the contract time will begin on the date determined in the Notice to Proceed and continue at the rate of one contract day charged for each day of the normal working week, Monday through Friday, except as described herein, until the work is complete. Holidays, Saturdays, and Sundays will not be included in the count of working days, except those days the Contractor has requested and been granted permission to work. No working day shall be charged when conditions beyond the control of the Contractor preclude prosecution of the work. Working days will be charged if the Contractor permits construction operations to proceed for five (5) or more hours of the day during the normal working week, or if the Contractor has requested, and been granted, permission to work on Holidays, Saturdays, or Sundays, and if, in the opinion of the

Engineer, conditions allow progress of work on items essential to the completion of the project for a period of five (5) or more hours of the day.

When the contract is on a calendar day basis, contract time shall be the time from the date determined in the Notice To Proceed to the date on which all work on the project shall be completed. Holidays, Saturdays and Sundays will be included in the count of calendar days. No calendar day shall be charged when conditions beyond the control of the contractor preclude prosecution of the work. Calendar days will be charged if the Contractor permits construction operations to proceed for five (5) or more hours of the day or if, in the opinion of the Engineer, conditions allow progress of work on items essential to the completion of the project for a period of five (5) or more hours of the day.

The Engineer will, upon written request, furnish the Contractor a statement showing the number of days charged to the contract. The Contractor will be allowed seven (7) calendar days from receipt in which to file a written protest setting forth in what respect said statement is incorrect; otherwise, the statement shall be deemed to have been accepted by the Contractor as correct. If the Engineer and the Contractor fail to reach an agreement on any statement of working days, the Engineer shall refer the statement in question to the Director of Public Works for his review and final decision.

When the contract completion time is a fixed calendar date, it shall be the date on which all work on the project shall be substantially completed. If work is not completed by the date specified, the Engineer will keep a record of working days charged after that date and will charge the Contractor on a working day basis.

Holidays, Saturdays, and Sundays will be excluded from the count of working days unless the Contractor has been granted permission to and/or utilizes such a day for construction work for five (5) or more hours of the day or if, in the opinion of the Engineer, conditions allow progress of work on items essential to the completion of the project for a period of five (5) or more hours of the day. The Contractor shall not carry on construction operations on Sundays or holidays without written permission from the Engineer, except for purposes of making emergency repairs and providing proper protection of the work, such as curing of concrete.

Days on which the work has been suspended by an action, non-action, or an omission made by the City, but through no fault of the Contractor, and days not worked because of strikes, lockouts, unusual delays in transportation, or any condition over which the Contractor has no control, shall not be counted against the contract time.

The number of days for performance allowed in the contract as awarded is based on the original quantities as outlined in the Bidder's Proposal. If satisfactory fulfillment of the contract requires performance of extra work or work on items with an increase in quantities that will take additional time to complete, the number of days allowed for performance shall be increased in the same proportion as the cost of increased work bears to the total original contract amount. Should the Contractor feel that the extension based on a monetary basis is insufficient for the increased work involved, he may submit written information, which will justify additional time. Such information must show how the increased work delays the overall completion of the entire project. Information shall be

submitted as soon as possible after the increased work has been performed. If, in the opinion of the Engineer, the information submitted justifies additional time, a Construction Change Order increasing the contract time will be prepared.

When the Contractor wishes to suspend contract time due to weather, he shall make a written request to the Engineer within ten (10) working days of the first weather day for which he desires a time suspension. Failure to comply with this notice requirement could result in denial of that request.

If the Contractor finds it impossible, for reasons beyond his control, fault, or negligence, to complete the work within the contract time as specified or as extended in accordance with the provisions of this subsection, he may, at any time, request to the Engineer for an extension of time, setting forth therein the reasons which he believes will justify the granting of his request. Such request shall be submitted within ten (10) days of the start of each occurrence for which an extension is desired. Failure to comply with notice requirements shall constitute a waiver, and failure to file a claim for additional compensation due to the delay at the time the Contractor requests the time extension bars him from claiming additional compensation for it.

The Contractor's plea that insufficient time was specified is not a valid reason for extension of time.

If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion in such amount as the conditions justify. Extension of contract time will be made when unanticipated delays (beyond the control of the Contractor) in delivery of critical materials results in a delay of the work. The Contractor shall notify the Engineer immediately when it becomes evident that there will be a delay in obtaining critical materials. The extended time for completion shall then be in force and effect the same as though it were the original time for completion.

When final acceptance has been duly made as prescribed in Section 7.55, the daily time charge will cease.

#### **7.64 LIQUIDATED DAMAGES**

For each working day, as specified, that any work shall remain uncompleted after the contract time specified for the completion of the work provided for in the contract, the sum specified in the following schedule will be deducted from any money due the Contractor not as a penalty but as liquidated damages; provided, however, that due amount will be taken off any adjustment of the contract time. Liquidated damages shall be understood to be compensation to the Owner for costs incurred directly by the Owner or indirectly by the users of the facility for the delay in completion of the work. These costs include, but are not limited to, increased travel times; loss of access to homes or businesses; inconvenience from loss of sewer or water uses; fire protection, etc., beyond those circumstances anticipated for timely completion of the work.

#### **SCHEDULE OF LIQUIDATED DAMAGES**

| <b>ORIGINAL CONTRACT AMOUNT</b> |                   | <b>AMOUNT OF<br/>LIQUIDATED<br/>DAMAGES PER<br/>WORKING DAY</b> |
|---------------------------------|-------------------|-----------------------------------------------------------------|
| From more than:                 | To and including: |                                                                 |
| \$ 0                            | \$ 50,000         | \$ 200.00                                                       |
| \$ 50,000                       | \$ 100,000        | \$ 250.00                                                       |
| \$ 100,000                      | \$ 500,000        | \$ 450.00                                                       |
| \$ 500,000                      | \$ 1,000,000      | \$ 650.00                                                       |
| \$ 1,000,000                    | \$ 2,000,000      | \$ 800.00                                                       |
| \$ 2,000,000                    | and up            | \$ 1,300.00                                                     |

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the Contract.

The Council may waive such portion of the liquidated damages as may accrue after the work is in condition for safe and convenient use by the public.

#### **7.65 PROJECT ACCEPTANCE AND WARRANTY PERIOD**

Final acceptance of the project by the Owner will be documented by the issuance of an acceptance letter, which is issued according to the following criteria:

- A.** Construction has been completed and the facilities can be put to their intended use.
- B.** All testing has been completed, and the required results have been met.
- C.** A warranty bond, or other equivalent surety, in an amount equivalent to ten percent (10%) of the total cost of the project/improvement has been provided to the City to secure the warranty for a period of two years.
- D.** As-Built plans have been submitted to the City.

The date of the acceptance letter documents the start of the two-year warranty period, during which the Contractor / Subdivider / Developer shall be notified in writing of any defects in the project and shall submit to the Public Works Dept. a construction schedule to correct the defects at their expense within ten (10) days of receipt of the notice. Failure to correct or undertake, with due diligence, to correct the deficiencies within the specified time may cause the Owner to make the necessary repairs and bill the Contractor / Subdivider / Developer one and one-half (1 1/2) times the costs incurred; providing, however, that in case of an emergency, where, in the judgment of the Owner, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor / Subdivider / Developer, and the Contractor / Subdivider / Developer shall pay the cost thereof.

The Owner reserves the right to extend the warranty period if excessive problems are apparent during the initial two-year period.

During a period of two years after the completion of the work covered by this contract and the final acceptance in writing thereof by the Owner, the Contractor shall make all needed repairs arising out of defective workmanship or materials furnished by the Contractor; or both, which in the judgment of the Owner shall become necessary during said period. The Owner is hereby authorized to make such repairs at the Contractor's expense, if within ten days after the receipt of a written notice to the Contractor, or his agent, the said Contractor shall neglect to make, or undertake with due diligence to make, the aforesaid repairs; providing, however, that in case of an emergency, where in the judgment of the Owner, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor and the Contractor shall pay the cost thereof.

#### **7.66 RELEASE OF LIABILITY**

No person, firm, or corporation other than the signer of this Contract as Contractor, now has any interest hereunder, and no claims shall be valid, and neither the Owner or any employee or agent thereof, shall be liable or held to pay any money except as herein provided. The acceptance by the Contractor of the payment shall operate as, and shall be a release to the Owner and every officer and agent thereof, from all claims and liability to the Contractor for anything done or furnished for or relating to the work or for any act or neglect of the Owner or any person relating to or affecting the work.

#### **7.67 DETAIL DRAWINGS AND INSTRUCTIONS**

The Engineer shall furnish with reasonable promptness, additional instructions, 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.

Unless otherwise provided in the Contract Documents, the Engineer, if requested, will furnish to the Contractor, free of charge, five (5) copies of drawings and specifications necessary for the execution of the work. The Contractor shall pay the Engineer for the cost of printing any additional copies of drawings and specifications to be furnished by the Engineer and requested by the Contractor.

The Contractor shall keep one copy of all drawings and specifications on the work site, in good order, available to the Engineer and to his representatives.

The drawings, specifications, and copies thereof furnished by the Engineer are his property. They are not to be used on other work, and with the exception of the signed Contract set, are to be returned to him on request, at the completion of the work.

#### **7.68 WAIVER OF RIGHTS**

Neither the inspection by the Owner or Engineer or any of their employees, nor any order by the Owner for payment of money, nor any payment for, or acceptance of, the whole or any part of the equipment, material, or work by the Owner or Engineer, nor any extension

of time, nor any possession taken by the Owner or its employees, shall operate as a waiver of any provision of this Contract, or of any power herein reserved to the Owner or any right to damages herein provided, nor shall any waiver of any breach in this Contract be held to be a waiver of any other or subsequent breach.

#### **7.69 RAPID CITY INFRASTRUCTURE DESIGN CRITERIA MANUAL**

Unless otherwise specified herein, all work done by the Contractor under this contract shall meet the applicable requirements of the Rapid City Infrastructure Design Criteria Manual.

#### **7.70 PRECONSTRUCTION MEETING**

Before the Contractor begins work under a City contract and before issuance of a Notice to Proceed, the Engineer will conduct a preconstruction meeting with the Contractor to establish project schedules and administrative requirements.

At the preconstruction meeting, the Contractor shall submit an acceptable written schedule, tentatively detailing the timing and sequence of major project components and showing critical construction activities and their interdependence. The Contractor, upon signing of the contract shall be required to furnish the Engineer a tentative schedule setting forth in detail the procedure he proposes to follow and giving the dates on which he expects to start and to complete separate portions of the work. If, at any time, in the opinion of the Engineer, proper progress is not being maintained, such changes shall be made in the schedule of operations as the Engineer shall direct or approve.

In addition, the Contractor shall submit a labor rate schedule for all anticipated personnel to be utilized on the project. The rate schedule shall be valid for the duration of the contract.

Submission of acceptable construction and labor rate schedules shall be a prerequisite for processing the first pay request.

The Contractor shall submit revised construction schedules periodically as directed by the Engineer to allow for changes in scheduling or whenever the present project status of critical path work items differs from the existing project schedule by more than one week. Revised schedules shall be submitted as a prerequisite for processing the subsequent pay request.

### **END OF SECTION**

# **THE MONUMENT**

## **ATTACHMENT C**

### **PROHIBITED ENTITY CERTIFICATION**

CERTIFICATION OF PROHIBITED ENTITY STATUS  
SDCL 5-18A-51

SDCL 5-18A-1(19A) defines “Prohibited Entity” as follows:

“[A]n organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company, or other entity or business association, including all wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates, of those entities or business associations, regardless of their principal place of business, which is ultimately owned or controlled by:

- (a) A foreign parent entity from the People's Republic of China, the Republic of Cuba, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Russian Federation, or the Bolivarian Republic of Venezuela; or
- (b) The government of the People's Republic of China, the Republic of Cuba, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Russian Federation, or the Bolivarian Republic of Venezuela.

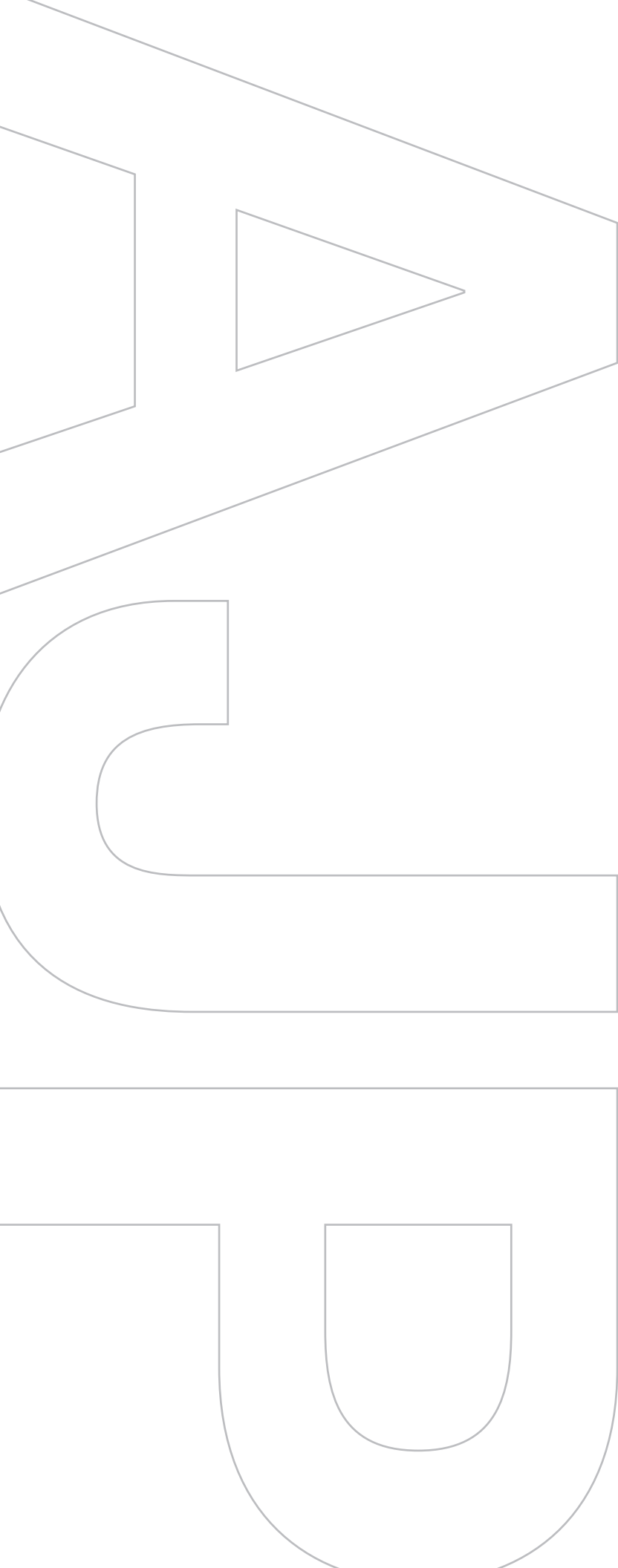
A prohibited entity does not include a citizen or legal permanent resident of the United States, or an individual foreign national;

The undersigned hereby certifies the following:

1. I am an authorized representative and agent of \_\_\_\_\_ (“Bidder”);
2. Check one:  
  
\_\_\_\_ Bidder is not a Prohibited Entity as defined by SDCL 5-18A-1(19A); or  
  
\_\_\_\_ Bidder is a Prohibited Entity pursuant to SDCL 5-18A-1(19A) but grounds for waiver exist pursuant to SDCL 5-18A-52. *If marking this option, provide the basis for the requested grounds for waiver.*
3. I understand that a Bidder who becomes a Prohibited Entity, as defined above, at any time after making this certification that it is not a Prohibited Entity, Bidder must provide written notice to the City, who may terminate the contract.
4. I understand that the City of Rapid City has the right to terminate a contract with any contractor who submits a false certification, and that any bidder who submits a false certification may be subject to suspension or debarment under SDCL 5-18D-12.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Contractor Business Name)  
By: \_\_\_\_\_  
Printed name: \_\_\_\_\_  
Title: \_\_\_\_\_



# ANTHONY JAMES PARTNERS.com

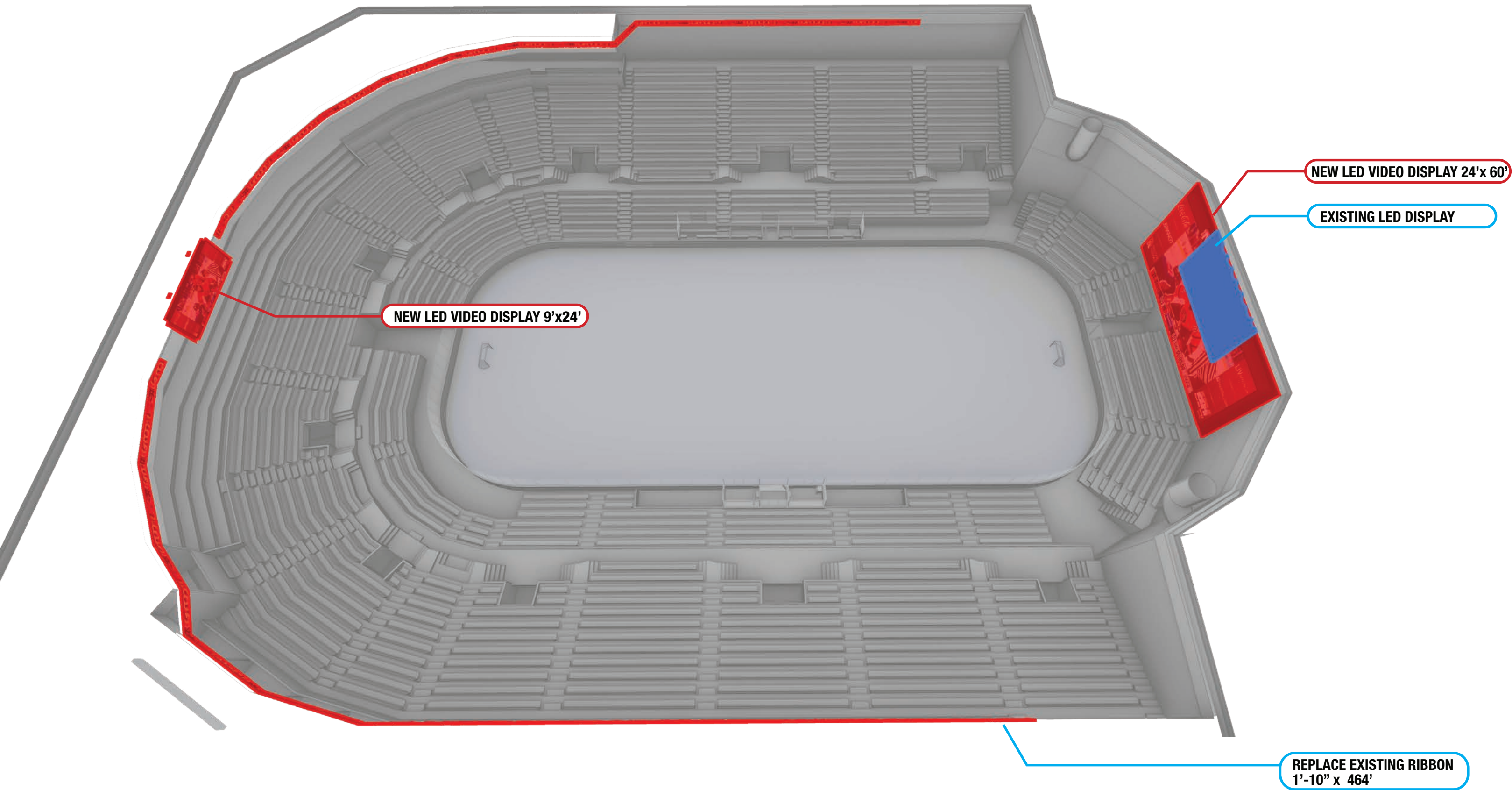
INDUSTRY-LEADING TECHNOLOGY CONSULTANT

## THE MONUMENT ICE ARENA CONCEPT RENDERINGS

09.26.25

ASSET OUTLINED IN THIS DOCUMENT REQUIRE FIELD SURVEY TO DETERMINE SIZING PRIOR TO FABRICATION OR INSTALLATION. DIMENSIONS NOTED ARE FOR ESTIMATION PURPOSES ONLY.

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LED ASSETS PLAN

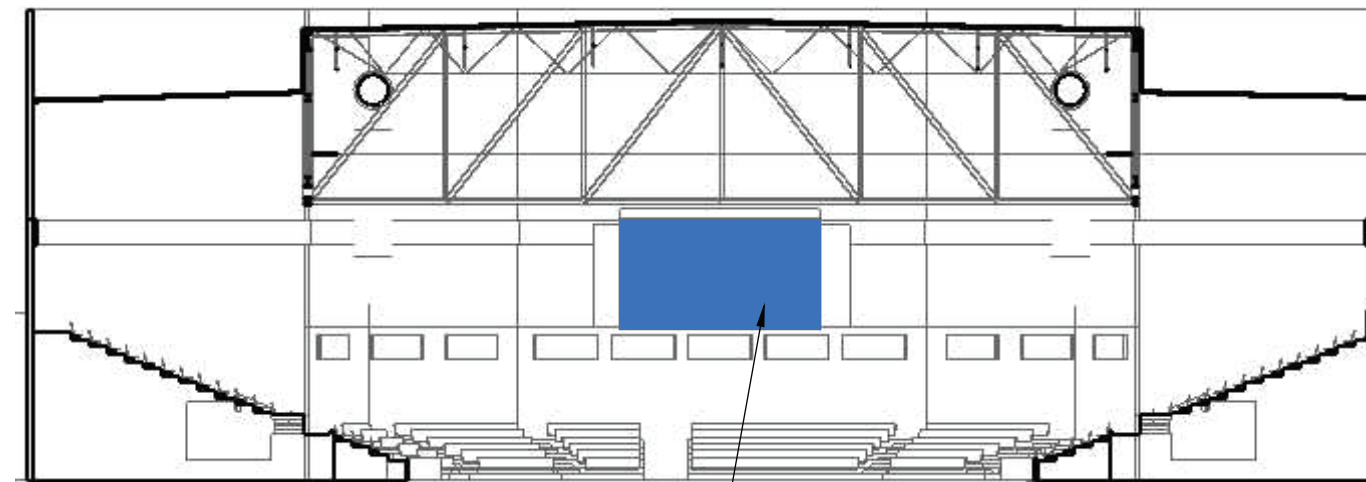
**ANTHONY  
JAMES  
PARTNERS**

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RICHMOND, VIRGINIA 23233 [www.anthonijamespartners.com](http://www.anthonijamespartners.com)

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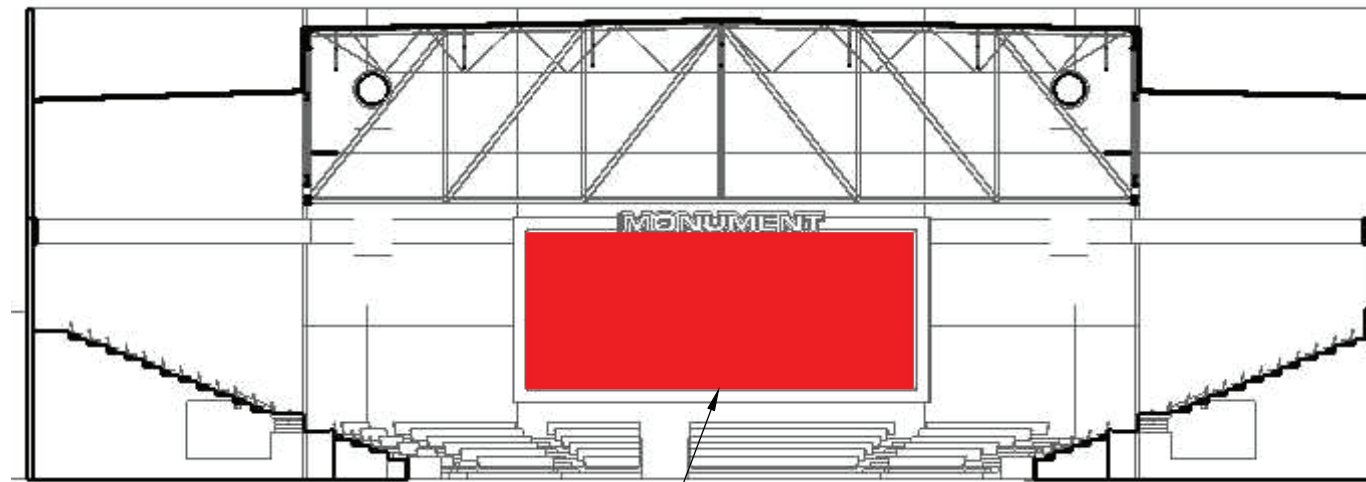
THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



EXISTING ENDZONE LED DISPLAY  
LED 17.3' x 31.2'  
OVERALL 20' x 48.5'

○ **EXISTING**  
1" = 20' (1:240)



ENDZONE LED DISPLAY  
24' x 60'

○ **PROPOSED LED VIDEO DISPLAY**  
1" = 20' (1:240)

## ENDZONE DISPLAY COMPARISON

**ANTHONY  
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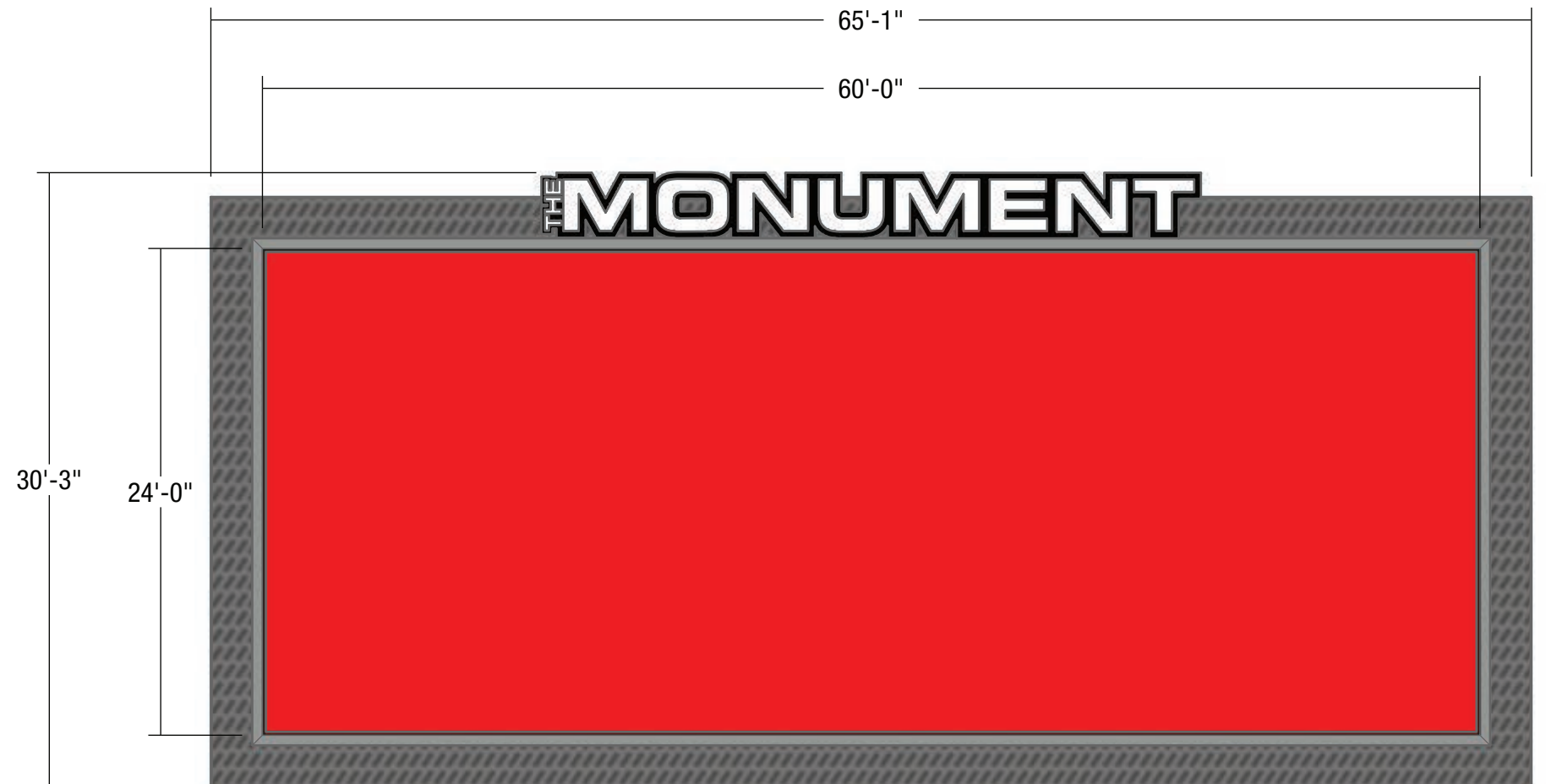
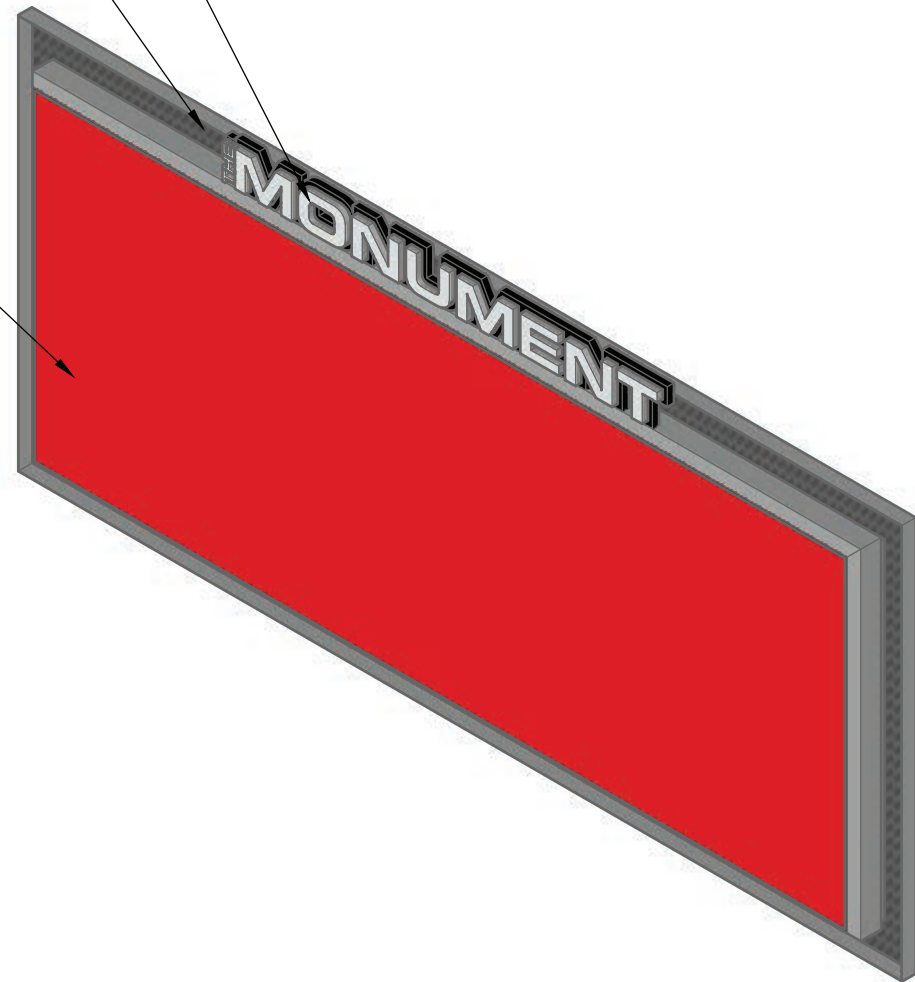
THE MONUMENT ICE ARENA

CONCEPT RENDERINGS

ILLUMINATED  
HEADER

RGBW COVE  
LIGHTING WITH  
PRINTED VINYL  
TEXTURE

LED VIDEO  
DISPLAY



 **LAYOUT**  
1/8" = 1'-0" (1:96)

## ENDZONE DISPLAY PROPOSED

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



## LED VIDEO DISPLAYS PROPOSED

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



## ENDZONE DISPLAY PROPOSED

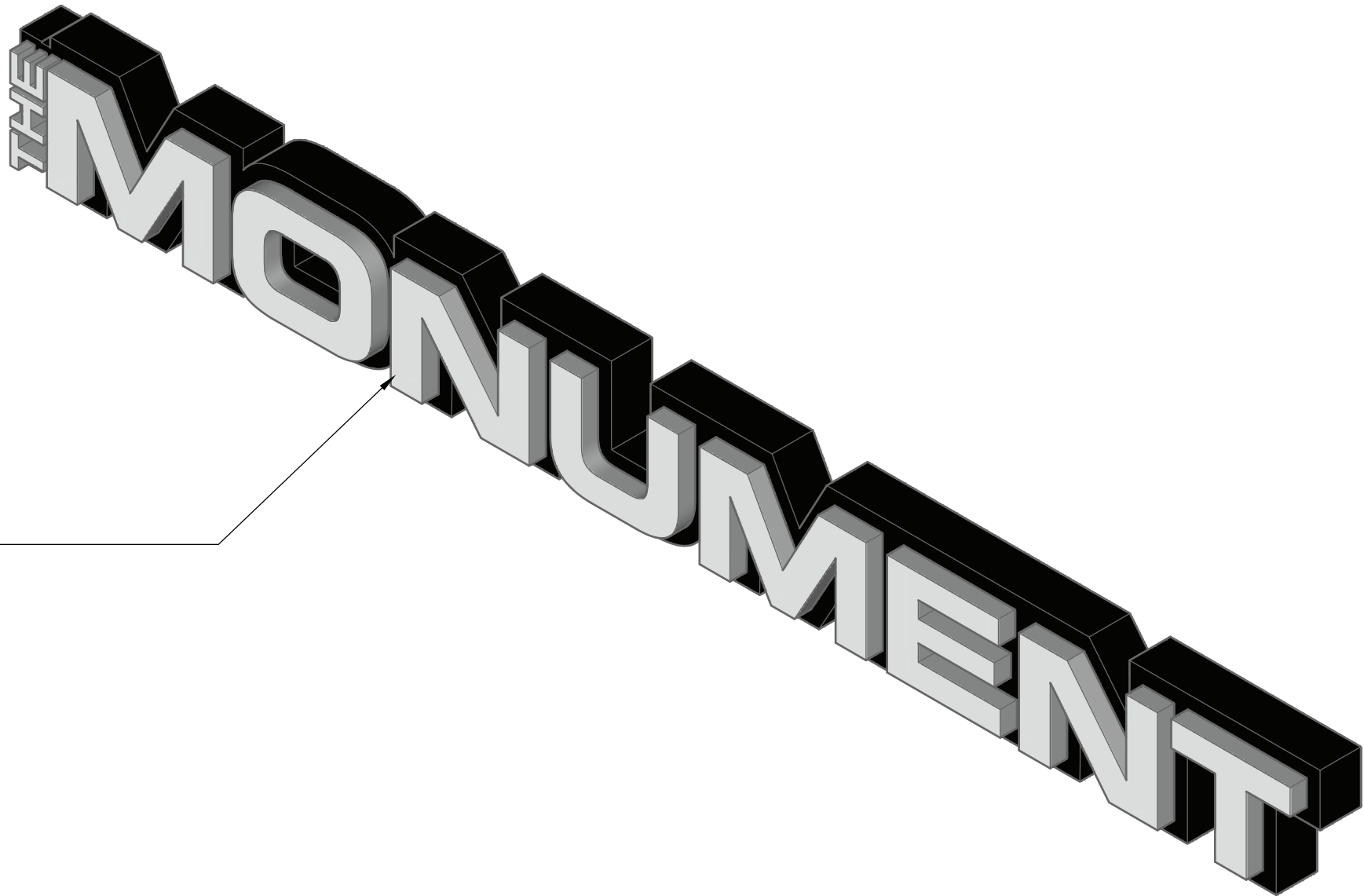
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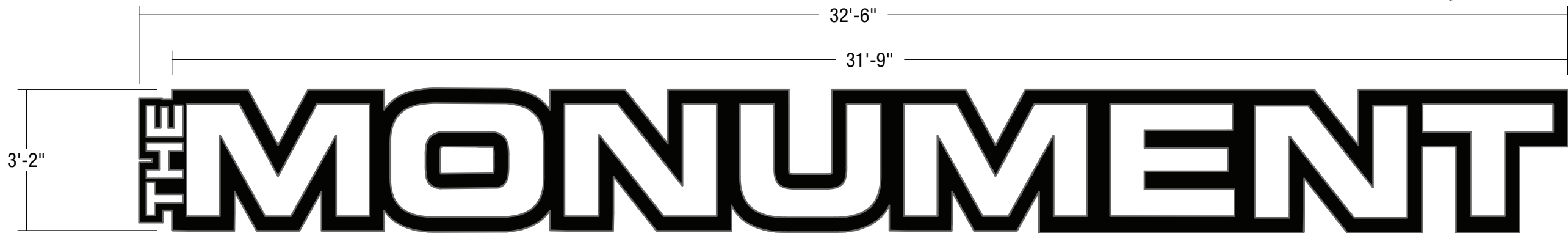
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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



WHITE FACE 5" DEEP CHANNEL LETTERS WITH  
12" REAR BACKER  
(COLORS TBD PRIOR TO FABRICATION)



 **LAYOUT**  
3/8" = 1'-0" (1:32)

**ENDZONE DISPLAY HEADER PROPOSED**

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



**ENDZONE DISPLAY HEADER PROPOSED**

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



## LED VIDEO DISPLAYS PROPOSED

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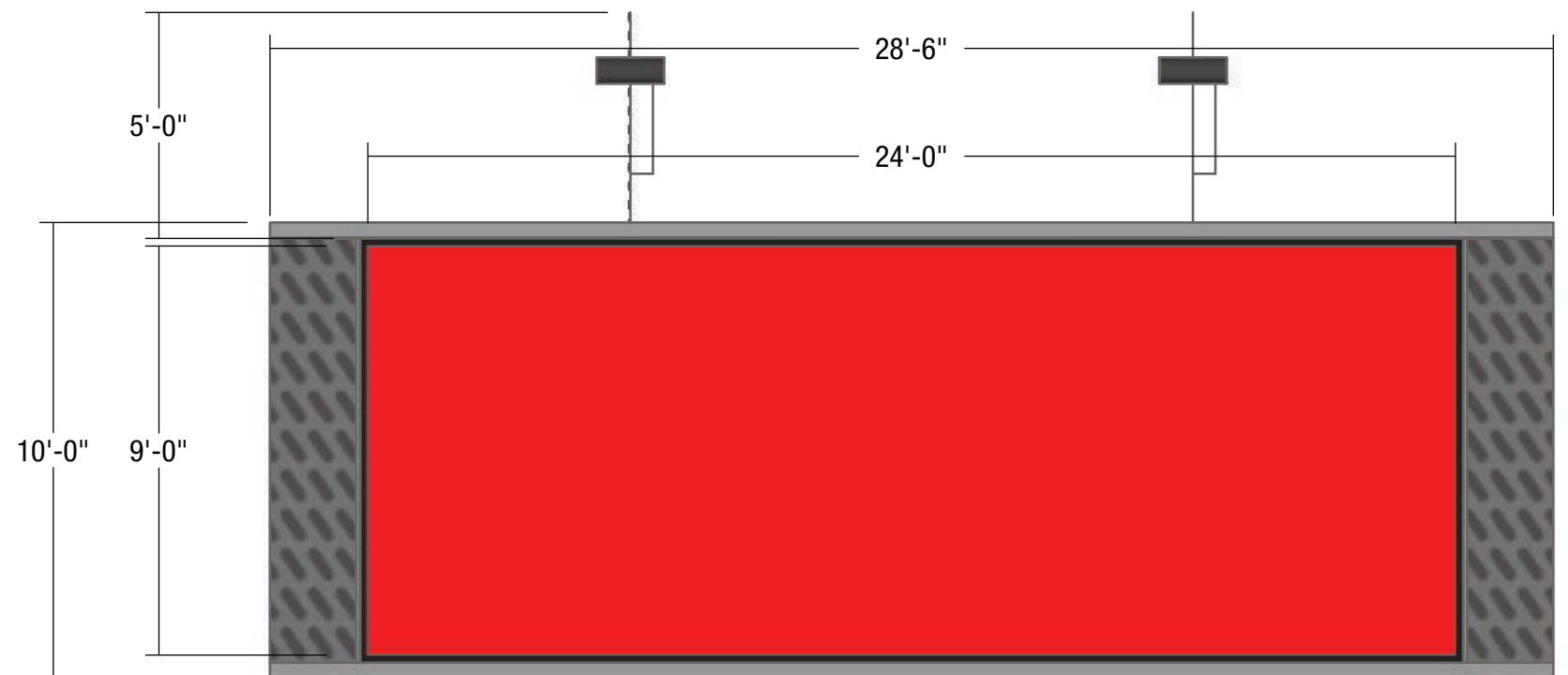
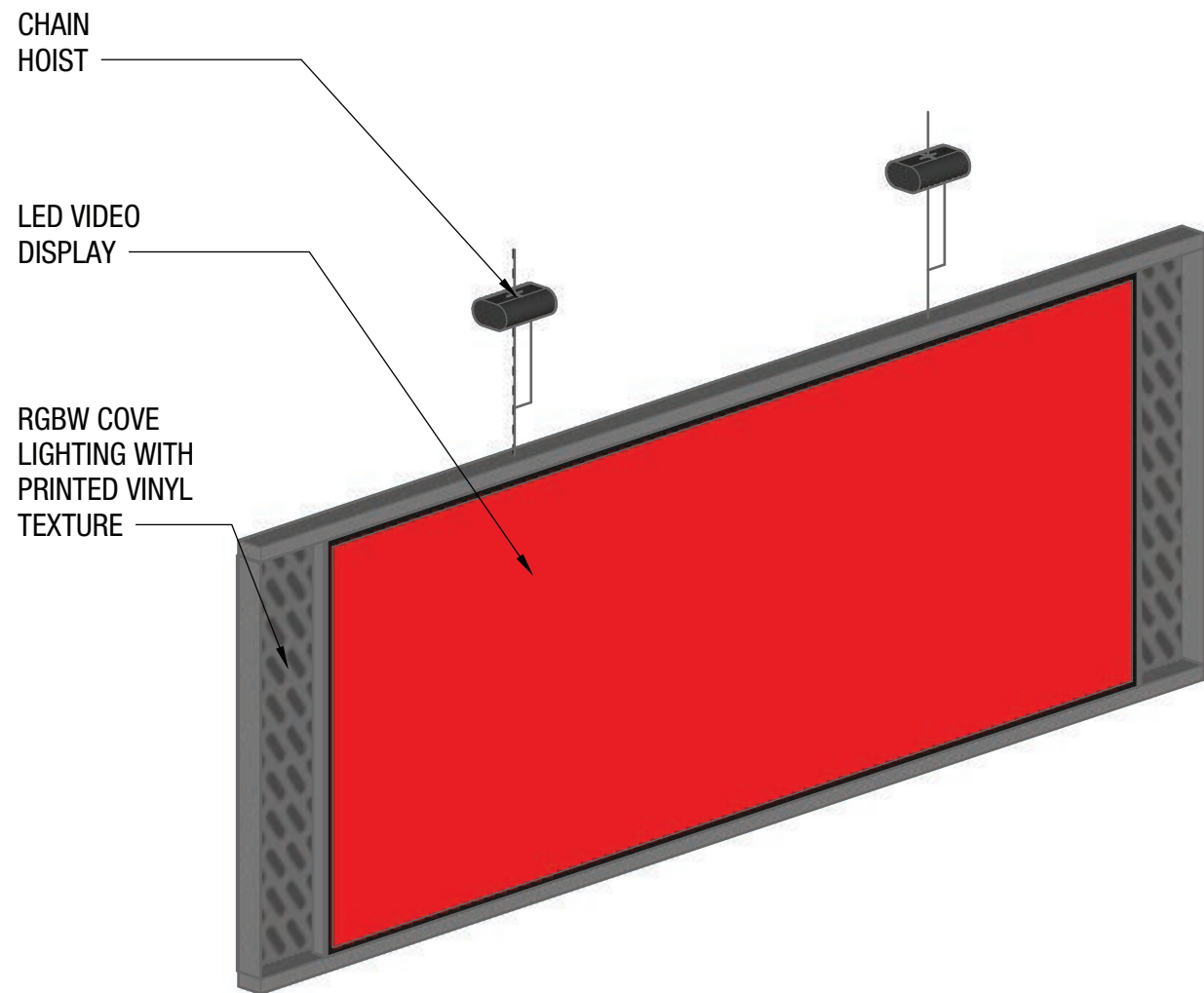
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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



**LAYOUT**  
1/4" = 1'-0" (1:48)

# HANGING DISPLAY PROPOSED

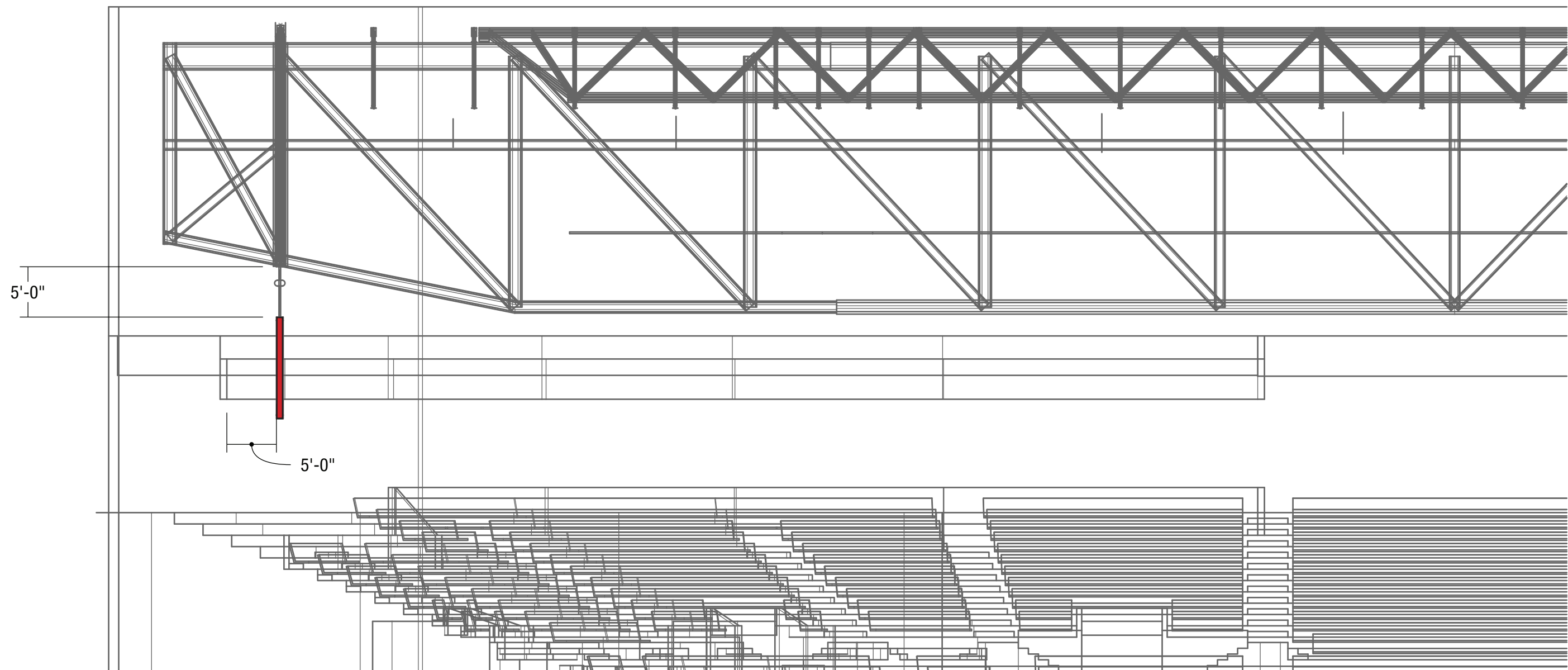
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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



SECTION  
3/32" = 1'-0" (1:128)

# HANGING DISPLAY PROPOSED

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



HANGING DISPLAY PROPOSED

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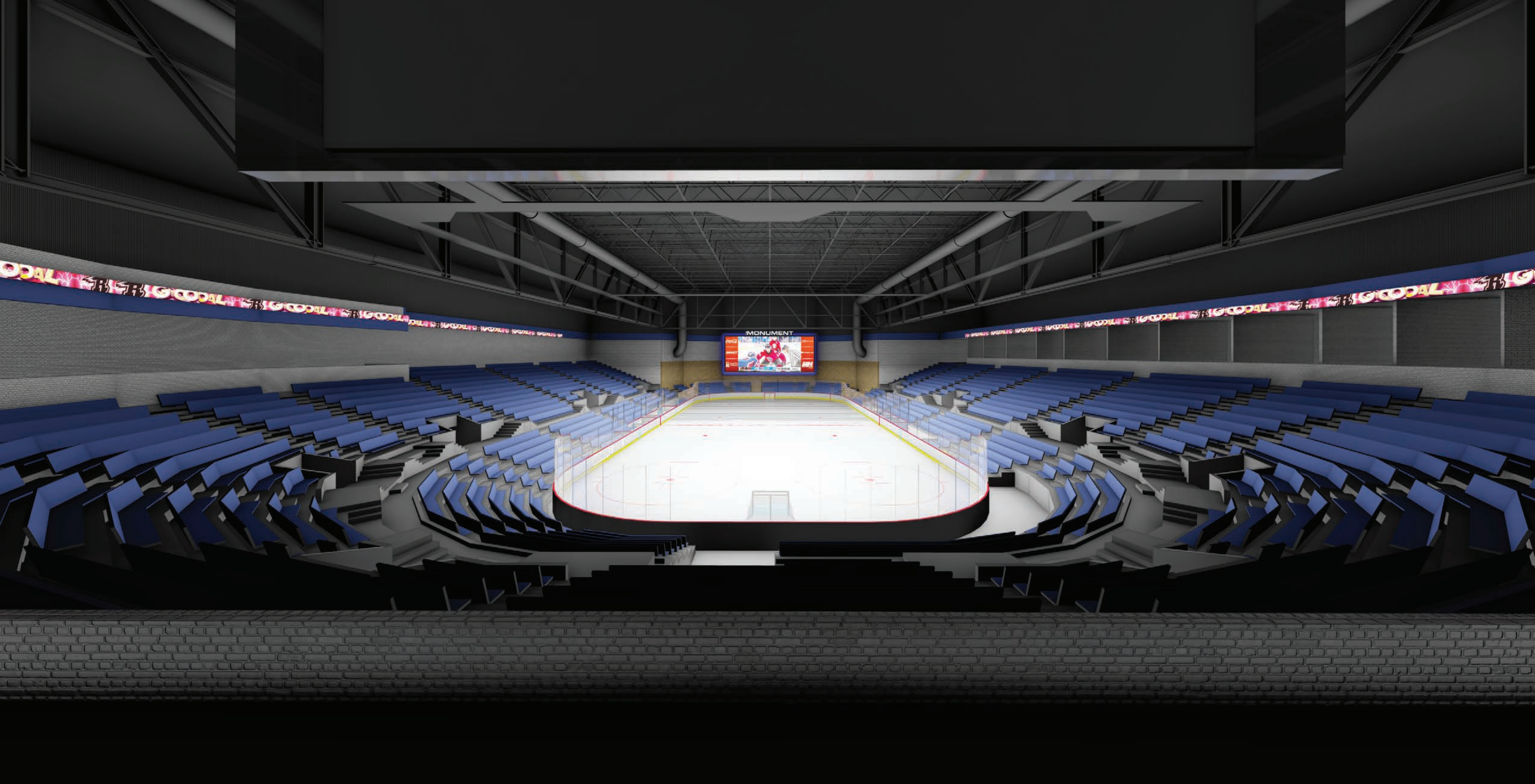
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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



# HANGING DISPLAY PROPOSED SIGHTLINE

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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



LED VIDEO DISPLAYS PROPOSED

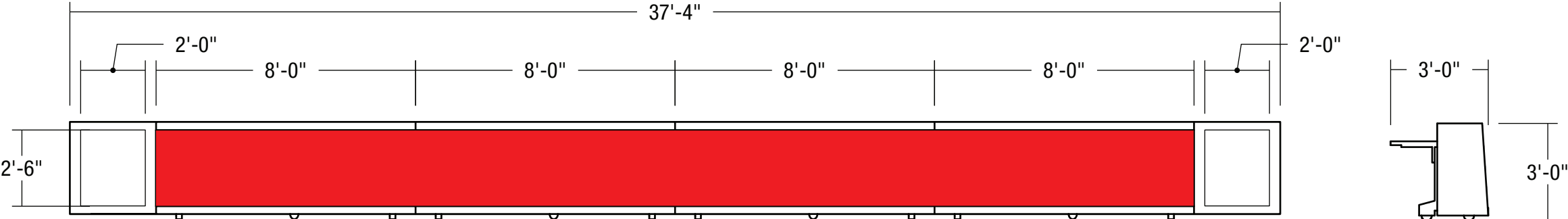
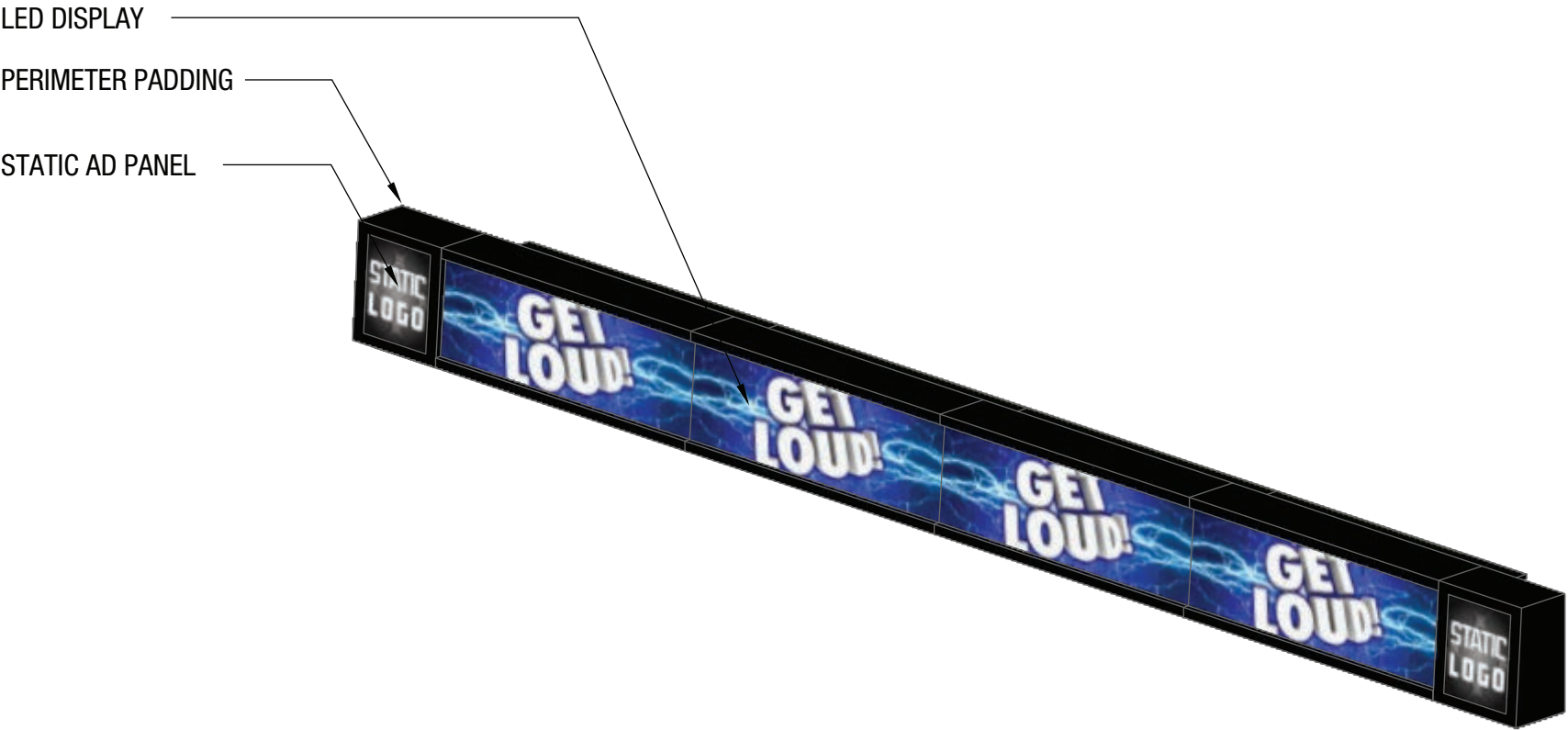
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THE MONUMENT ICE ARENA

CONCEPT RENDERINGS



 **COURTSIDE TABLE**  
1/4" = 1'-0"

 **COURTSIDE TABLE**  
1/4" = 1'-0"

COURTSIDE TABLE

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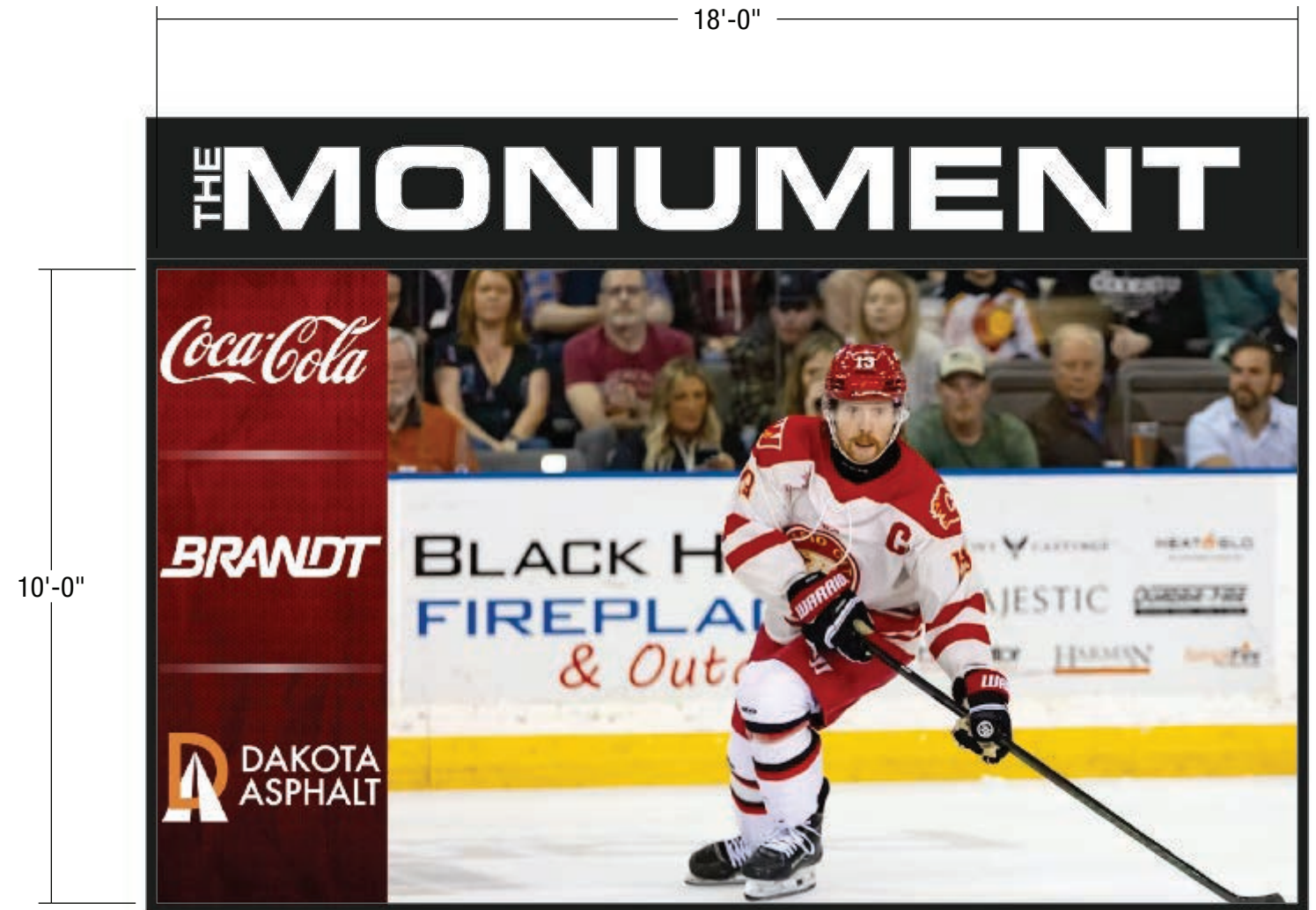
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THE MONUMENT ICE ARENA  
CONCEPT RENDERINGS

RELOCATED  
VENUE ID  
(QTY 2)

LED VIDEO  
DISPLAY  
(QTY 2)

EXISTING  
STRUCTURE



○ LAYOUT  
3/8" = 1'-0" (1:32)

## EXTERIOR MARQUEE (2-SIDED) PROPOSED REPLACEMENT

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THE MONUMENT ICE ARENA

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EXTERIOR MARQUEE (2-SIDED) PROPOSED REPLACEMENT

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CONCEPT RENDERINGS