

# INVITATION TO BID



**Fairgrounds Indoor Arena Roof**

**BID #6862-18**

**SUBMITTAL DUE:**

**July 12, 2018  
2:00 P.M.**

**BOULDER COUNTY PURCHASING  
1325 PEARL STREET  
BOULDER CO 80302**

**[Purchasing@bouldercounty.org](mailto:Purchasing@bouldercounty.org)**

**INVITATION TO BID**  
**Fairgrounds Indoor Arena Roof**

Notice is hereby given that Boulder County will accept sealed bids for the work to provide a new roof system at Boulder County Fairgrounds Indoor Arena, located at 9595 Nelson Road in Longmont 80501.

The general scope of work is to include all supervision, labor, materials, equipment, supplies, permits and incidental materials as required for the following per plans and specification:

- remove and replace all skylights and translucent panels with metal decking
- replace ridge vent
- repair rusted roof panels
- furnish and install rigid insulation over existing metal building roof
- provide a fully adhered TPO roofing system

Provide an alternate price for:

- In lieu of the 60 mil standard TPO roof membrane the Contractor shall provide add alternate pricing for the installation of a 115 mil fleece backed TPO sheet. In lieu of standard adhesives, the fleece back membrane shall be set in beads of the manufacturer's approved low rise foam adhesive. The adhesive beads shall be spaced 6" apart

Project Documents:

- a. Drawings Boulder County Fairgrounds Indoor Arena Roofing prepared by RoofTech Consultants, Inc., Dated 06/22/2018
- b. Project Manual Boulder County Fairgrounds Indoor Arena Roofing prepared by RoofTech Consultants, Inc., Dated 06/22/2018
- c. Boulder County Construction Contract & General Conditions

**MANDATORY PRE-BID CONFERENCE & Job Walk** will be held on **Thursday, July 5, 2018**, 10:00 am at the Project Site located at 9595 Nelson Road, Longmont, CO 80501. We will meet at the East Side of the Indoor arena. Access the site from Nelson Road at the entrance closest to the Humane Society. The Indoor Arena is the large enclosed building on your left. **BIDS FROM FIRMS NOT ATTENDING THE PRE-PROPOSAL CONFERENCE WILL NOT BE ACCEPTED.**

**Submittal Instructions:**

BIDs are due at the Administrative Services Information Desk or the email box (preferred) listed below, for time and date recording on or before **2:00 p.m. Mountain Time on July 12, 2018**. A bid opening will be conducted at 3:00 p.m. Mountain Time at county offices.

**Your response can be submitted in the following ways. Please note that email responses to this solicitation are preferred, but are limited to a maximum of 25MB capacity. NO ZIP FILES**

**ALLOWED. Electronic submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.**

**Email**            [purchasing@bouldercounty.org](mailto:purchasing@bouldercounty.org); identified as **BID # 6862-18** in the subject line.

-OR-

**US Mail**            One (1) unbound copy of your submittal, printed double-sided, 11 point, on at least 50% post-consumer, recycled paper must be submitted in a sealed envelope, clearly marked as **BID # 6862-18**, to the Administrative Services Information Desk located at 1325 Pearl Street, Boulder, CO 80302.

All BIDs must be received and time and date **recorded and verified** at the Administrative Services Information Desk by the above due date and time. Sole responsibility rests with the Offeror to see that their BID is received on time at the stated location(s). Any BID's received after due date and time will be returned to the bidder. No exceptions will be made.

The Board of County Commissioners reserve the right to reject any and all BIDs, to waive any informalities or irregularities therein, and to accept the proposal in whole, or portions of the proposal that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.

**Americans with Disabilities Act (ADA):**

If you need special services provided for under the Americans with Disabilities Act, contact the ADA Coordinator or the Human Resources office at (303) 441-3525 at least 48 hours before the scheduled event.

## TERMS AND CONDITIONS

1. Bidders are expected to examine the drawing, specifications, schedule of delivery, and all instructions. Failure to do so will be at the bidder's risk.
2. Each bidder shall furnish the information required in the Invitation to Bid.
3. The Contract/Purchase Order will be awarded to that responsible bidder whose submittal, conforming to the Invitation to Bid, will be most advantageous to the County of Boulder, price and other factors considered.
4. The County of Boulder reserves the right to reject any or all bids and to waive informalities and minor irregularities in bids received, and to accept any portion of or all items proposed if deemed in the best interest of the County of Boulder to do so.
5. No submittal shall be withdrawn for a period of thirty (30) days subsequent to the opening of bids without the consent of the County Purchasing Agent or delegated representative.
6. A signed purchase order or contract furnished to the successful bidder results in a binding contract without further action by either party.
7. Late or unsigned bids will not be accepted or considered. It is the responsibility of bidders to insure that the bid arrives at the Administrative Services Front Desk or appropriate email box prior to the time indicated in the "Invitation to Bid."
8. The proposed price shall be exclusive of any Federal or State taxes from which the County of Boulder is exempt by law.
9. Any interpretation, correction or change of the bid documents will be made by Addendum. Interpretations, corrections and changes of the bid documents made in any other manner will not be binding, and bidder shall not rely upon such interpretations, corrections and changes. The County's Representative will not be responsible for oral clarification.
10. Confidential/Proprietary Information: Bids submitted in response to this "Invitation to Bid" and any resulting contract are subject to the provisions of the Colorado Public (Open) Records Act, 24-72-201 et.seq., C.R.S., as amended. Any restrictions on the use or inspection of material contained within the bid and any resulting contract shall be clearly stated in the bid itself. Confidential/proprietary information must be readily identified, marked and separated/packaged from the rest of the bid. Co-mingling of confidential/proprietary and other information is NOT acceptable. Neither a bid, in its entirety, nor bid price information will be considered confidential/proprietary. Any information that will be included in any resulting contract cannot be considered confidential.
11. Boulder County promotes the purchase/leasing of energy efficient, materials efficient and reduced toxic level products where availability, quality and budget constraints allow. Bidders are expected whenever possible to provide products that earn the ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency with power management features enabled. Bidders are encouraged to offer products and equipment with post-consumer recycled-content materials. Products should be packaged and delivered with a minimum amount of recycled packaging that adequately protects the product, but is not excessive.
12. Pursuant to Colorado law (House Bill 1292), in any bidding process for public works in which a bid is received from a non-resident bidder who is from a state that provides a percentage bidding preference, a comparable percentage disadvantage shall be applied to the bid of that bidder. Bidders may obtain additional information from the Department of Personnel's website: <http://www.colorado.gov/dpa/>.

**INSURANCE AND W-9 REQUIREMENTS**  
**BID # 6862-18**  
**FAIRGROUNDS INDOOR ARENA ROOF**

**PAYMENT & PERFORMANCE BONDS**

**Both a payment and a performance bond are required for this project and must equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.**

**INSURANCE REQUIREMENTS**

**General Liability**                      \$1,000,000 Each Occurrence  
  \$2,000,000 General Aggregate  
  \$2,000,000 Products Completed Operations Aggregate  
  3 years Products/Completed Operations

**Umbrella /Excess Liability**        \$1,000,000

**Automobile Liability**                \$1,000,000 Each Accident  
  \*Including Hired & Non-Owned Auto

**Worker's Compensation and Employer's Liability**  
  Statutory limits

Note that the above insurance amounts are the minimum required for this project. **Proof of current insurance must be provided with your proposal in the form of a sample certificate or your proposal will be deemed non-responsive.** If you require a waiver of insurance requirements (e.g. Workers' Compensation and sole proprietorships) you may request one in your response with an explanation.

New certificates will be requested if the contract process takes more than 30 days after an award.

**W-9 REQUIREMENT**

Provide a copy of your business's W-9 with your proposal.

**SUBMITTAL SECTION**

**BID # 6862-18**

**FAIRGROUNDS INDOOR ARENA ROOF**

Provide a price for one and/or each item as listed below. Any alternates should be noted next to the Item below and any additional information shall be attached, following this page, reviewing the alternate pricing. Work shall be awarded based on the most responsible Bid that best satisfies the requirements of the project, not necessarily on the lowest price. Boulder County reserves the right to make the award on the basis of the Bid deemed most favorable to the County, to waive any informalities, or to reject any or all Bids.

**All work described in the Drawings, Specifications and Addenda for this project:**

**ITEM #1: BASE BID INDOOR ARENA ROOF:**

\_\_\_\_\_ dollars

(\$\_\_\_\_\_)

Duration\_\_\_\_\_ Working Days

Anticipated Start Availability: \_\_\_\_/\_\_\_\_/2018

**Add Alternate #1: 115 mil fleece backed TPO sheet, set in beads of the manufacturer's approved low rise foam adhesive**

\_\_\_\_\_ dollars

(\$\_\_\_\_\_)

NOTE:

1. Attention of Bidders is particularly called to the requirement for certificates of State Tax exemption for the Contractors and Subcontractors upon award of Contract. (Title 39-26-114, 1973, CRS as amended). **DO NOT INCLUDE SALES TAX IN THE BID PROPOSAL.** Questions regarding this provision should be referred to the Colorado State Department of Revenue, Sales Tax Division.
2. Performance Bonds and Labor/Material Payment Bonds are required if the total contract amount is in excess of Fifty Thousand Dollars (\$50,000). **Bid prices shall include the cost of any and all required Bonds.** For further information and requirements see the General Conditions.

**SIGNATURE PAGE**

**BID # 6862-18**

**FAIRGROUNDS INDOOR ARENA ROOF**

**Failure to complete, sign and return this signature page with your proposal may be cause for rejection.**

<b>Contact Information</b>	<b>Response</b>
Company Name including DBA	
List Type of Organization (Corporation, Partnership, etc.)	
Name and Title of Person Authorized to Contract with Boulder County	
Name and Title of Person Submitting Bid	
Email Address for Person Submitting Bid	
Company Address	
Company Phone Number	
Company Website	
Company Fax Number	

**By signing below I certify that:**

I am authorized to bid on my company's behalf.

I am not currently an employee of Boulder County.

None of my employees or agents is currently an employee of Boulder County.

I am not related to any Boulder County employee or Elected Official.

(Sole Proprietorships Only) I am not a Public Employees' Retirement Association (PERA) retiree.

\_\_\_\_\_  
**Signature of Person Authorized to Bid on  
Company's Behalf**

\_\_\_\_\_  
**Date**

Note: If you cannot certify the above statements, please explain in a statement of explanation.

**Pre Bid Meeting Location**





# BOULDER COUNTY FAIRGROUNDS INDOOR ARENA ROOFING

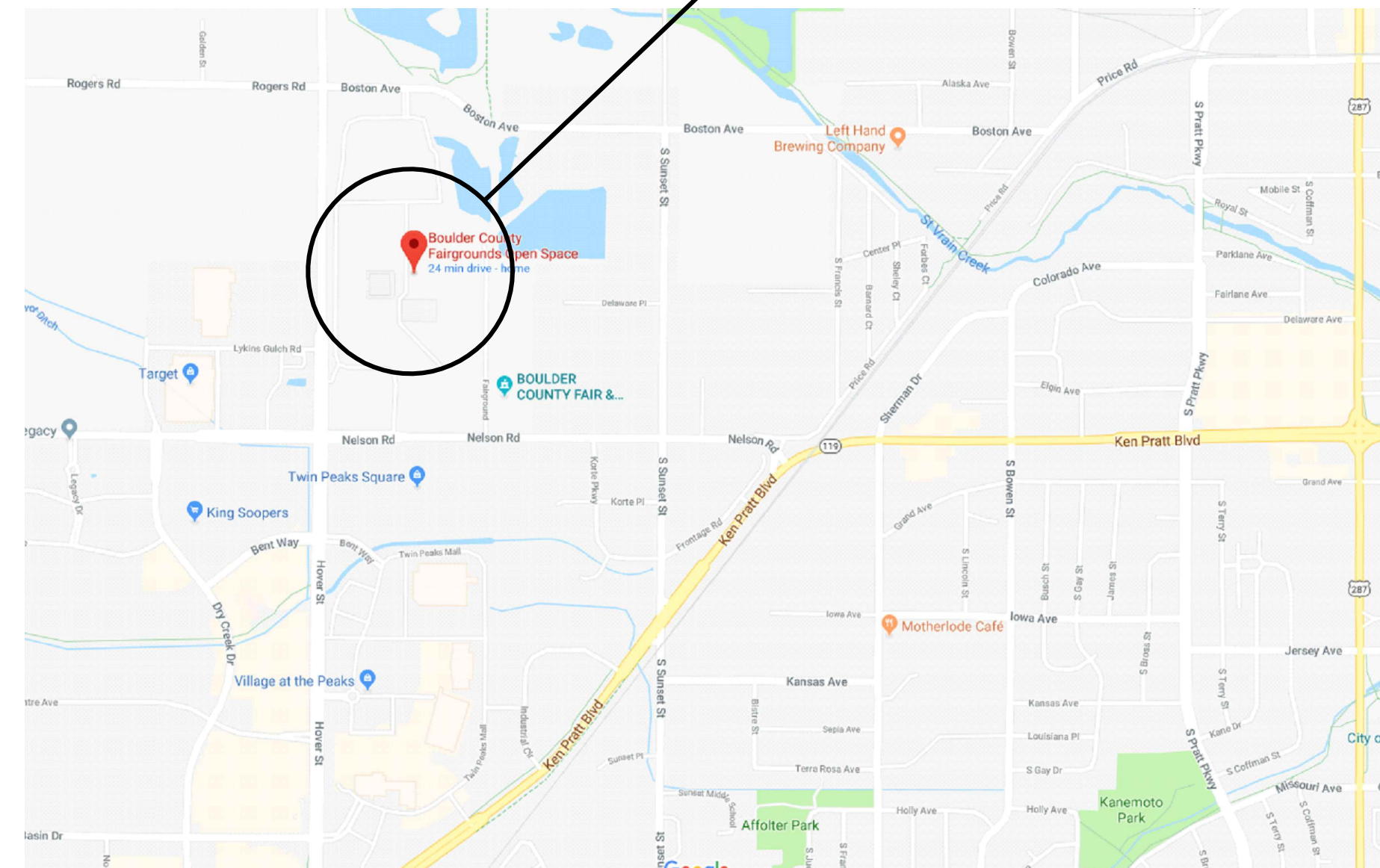


ROOFING CONSULTANT

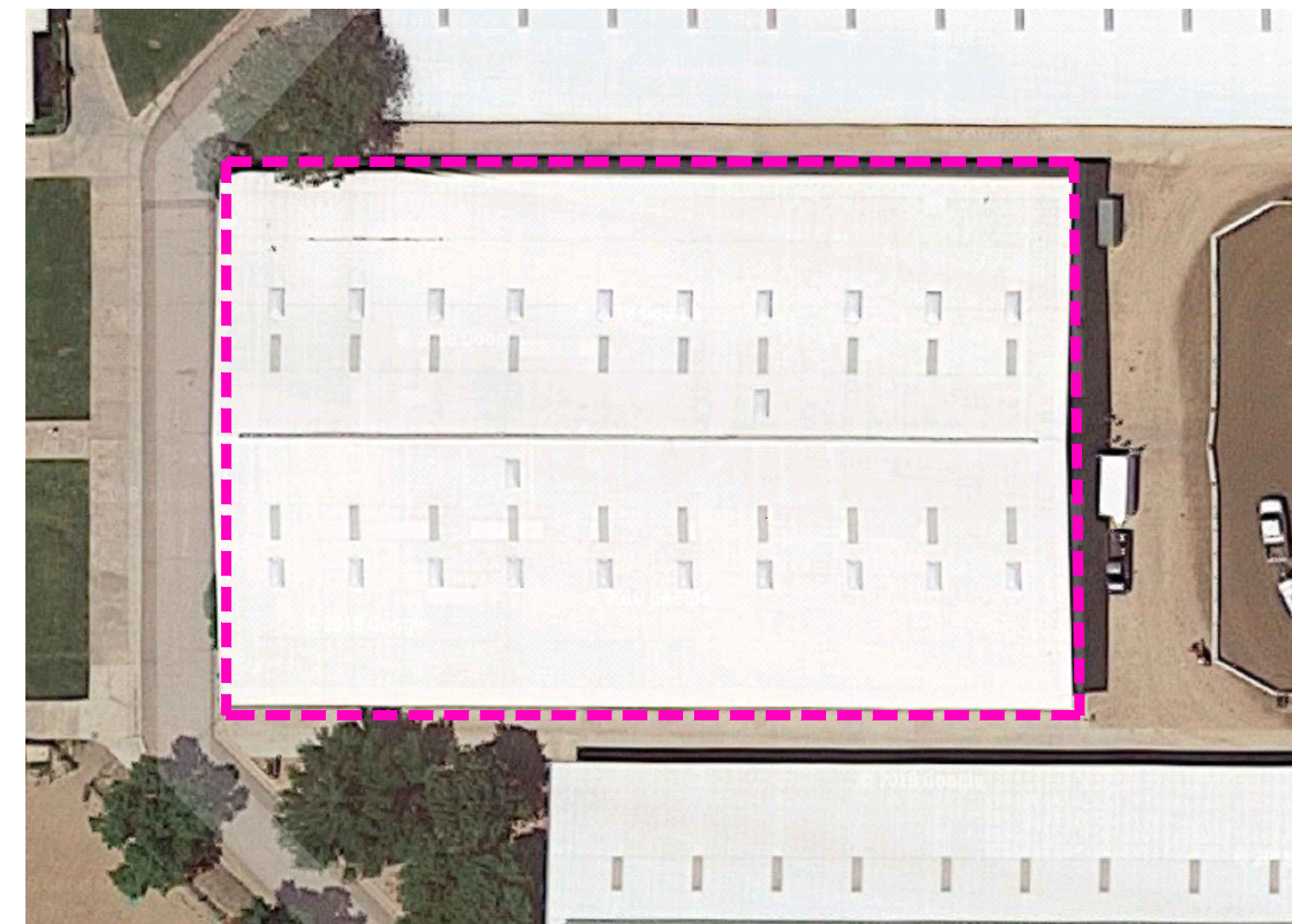


**RoofTech Consultants, Inc.**  
14828 W. 6TH Avenue, Unit B-8  
Golden, Colorado 80401  
Phone: (303) 233-1092  
Fax: (303) 233-2205

9595 NELSON RD.  
LONGMONT, CO 80501



VICINITY MAP



SATELLITE PHOTO

**Applicable Codes:**

- 2015 International Mechanical Code (IMC)
- 2015 International Building Code (IBC)
- 2015 International Plumbing Code (IPC)
- 2015 International Fuel Gas Code (IFGC)
- 2015 International Energy Conservation Code (IECC)

SHEET INDEX	
NUMBER	DESCRIPTION
ARCHITECTURAL	
G1.0	COVER SHEET
RD1.0	ROOF DEMOLITION PLAN
R1.0	ROOF PLAN
R2.0	ROOF DETAILS

REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: RD
DRAFTER: RDS	PROJECT #:
CHECKED BY: GT	DATE: 6/22/2018

**BOULDER  
FAIRGROUNDS INDOOR  
ARENA ROOFING**

9595 NELSON RD.  
LONGMONT, CO 80501

CADD FILE:  
BC FG Arena G1-0.DWG

**COVER SHEET**

DRAWING SCALE:  
NO SCALE

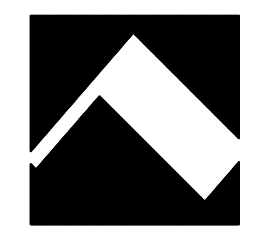
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SHEET 1 OF 4

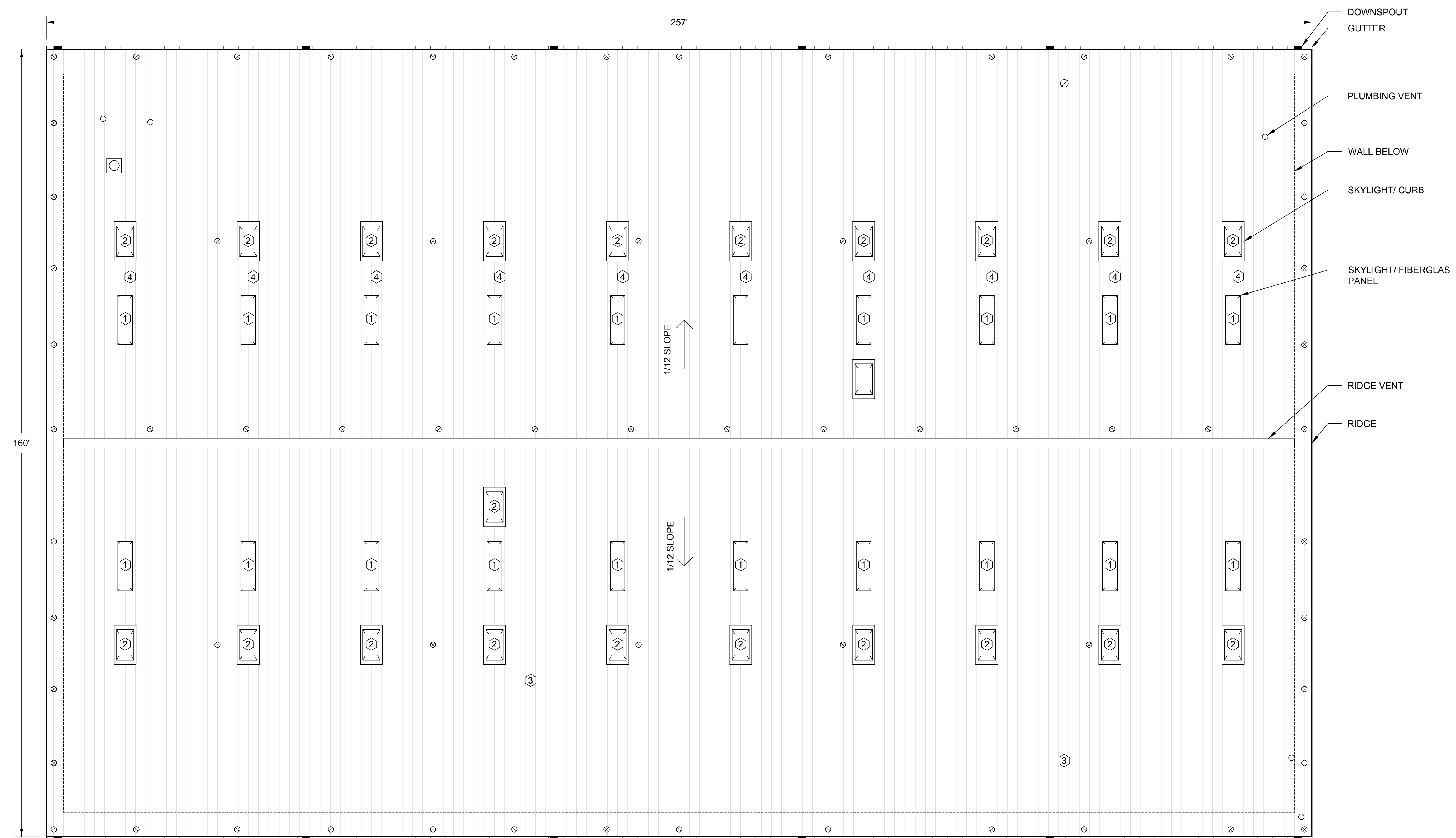




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REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: RD
DRAFTER: RDS	PROJECT #:
CHECKED BY: LR	DATE: 6/22/2018

**BOULDER FAIRGROUNDS INDOOR ARENA ROOFING**

9595 NELSON RD.  
LONGMONT, CO 80501

CADD FILE:  
BC FG ARENA R1-0.DWG

**ROOF PLAN**

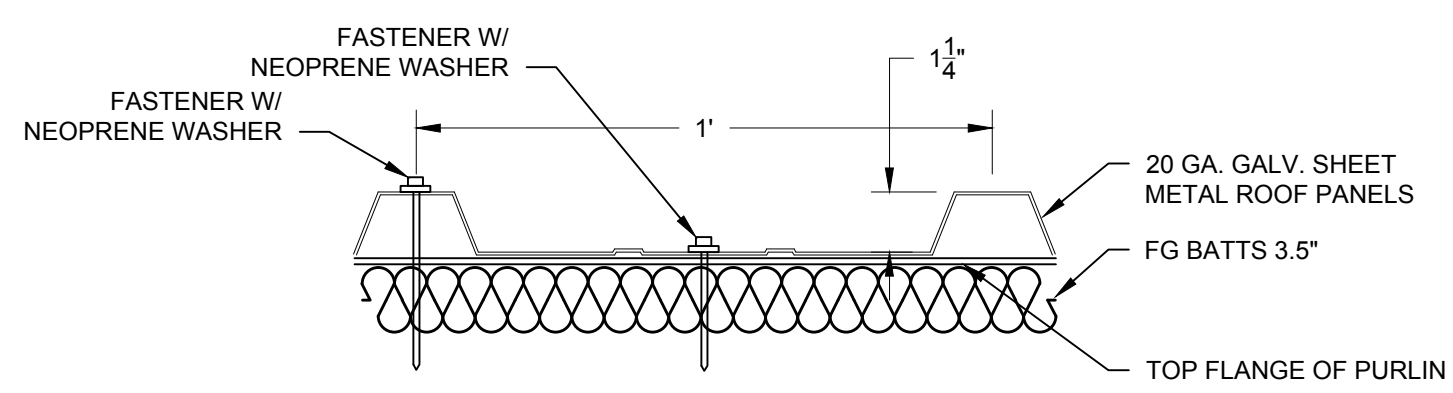
DRAWING SCALE:  
3/32" = 1'-0"

DRAWING #:

**RD1.0**

SHEET 2 OF 4

**ROOF DEMOLITION PLAN**  
 SCALE 3/32" = 1'-0" (1:128)



**A2 EXISTING ROOF SYSTEM**  
 SCALE 3" = 1'-0" (1:4)

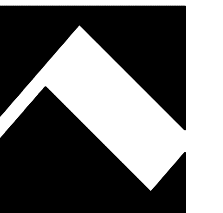
**DEMOLITION/DECK REPAIR NOTES:**

- ① REMOVE FLUSH SKYLIGHT PANELS & REPAIR DECK OPENING.
- ② REMOVE CURB MOUNTED SKYLIGHTS & REPAIR DECK OPENING.
- ③ OVERLAY A SHEET METAL DECK REPAIR OVER AREA, SCHEDULE 200 SF TOTAL.
- ④ LEVEL DIPS IN DECK (~3' X ~4') BETWEEN SKYLIGHTS BEFORE SETTING NEW ROOF.

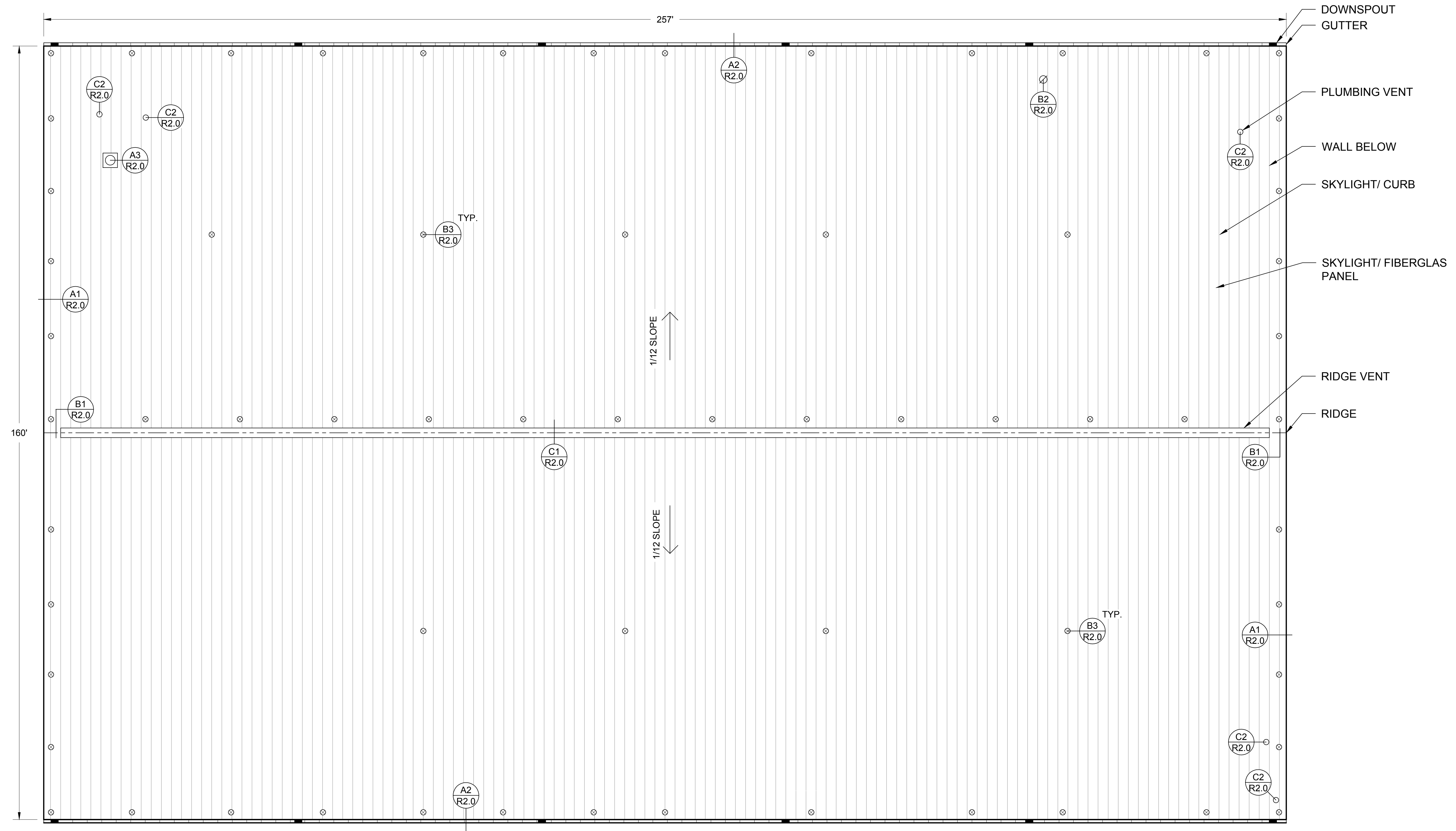
DECK REPAIRS SHALL BE MADE WITH 20 GA. GALV. STEEL PANELS BROKEN INTO SAME PROFILE A EXISTING. OVERLAP SIDE OF OPENING BY 1'. SCREW FASTEN REPAIR PANELS 1' O.C. ALONG EDGES.



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REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: RD
DRAFTER: RDS	PROJECT #:
CHECKED BY: LR	DATE: 6/22/2018

**BOULDER FAIRGROUNDS INDOOR ARENA ROOFING**

9595 NELSON RD.  
LONGMONT, CO 80501

CADD FILE:  
BC FG ARENA R1-0.DWG

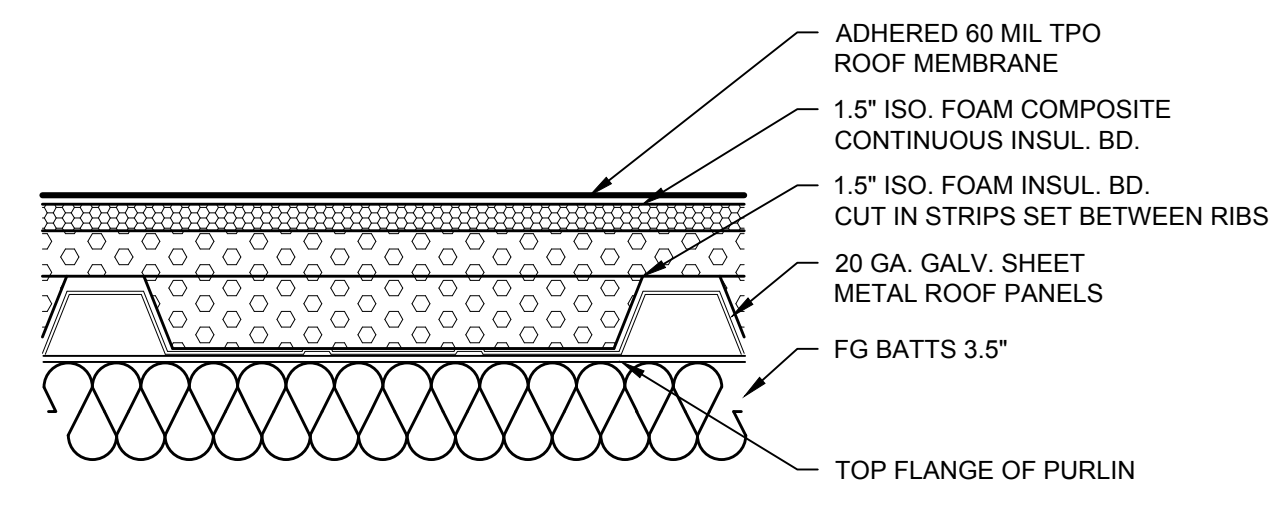
**ROOF PLAN**

DRAWING SCALE:  
3/32" = 1'-0"

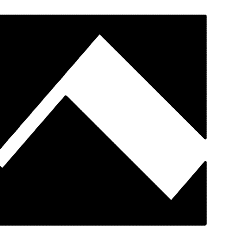
DRAWING #:  
**R1.0**

**ROOF PLAN**  
 SCALE 3/32" = 1'-0" (1:128)

- ROOFING NOTES:**
- OVERLAY TWO EACH RUSTED DECK LOCATIONS WITH NEW 20 GA. GALV. METAL DECK PANELS 5' X 3'. SCREW @ EDGES OF PANELS 1' O.C. SCHEDULE 125 SF OF RUSTED DECK OVERLAY REPAIR.
  - LEVEL 10 EACH DIPS IN THE DECK APPROX. 5' X 5' IN SIZE.

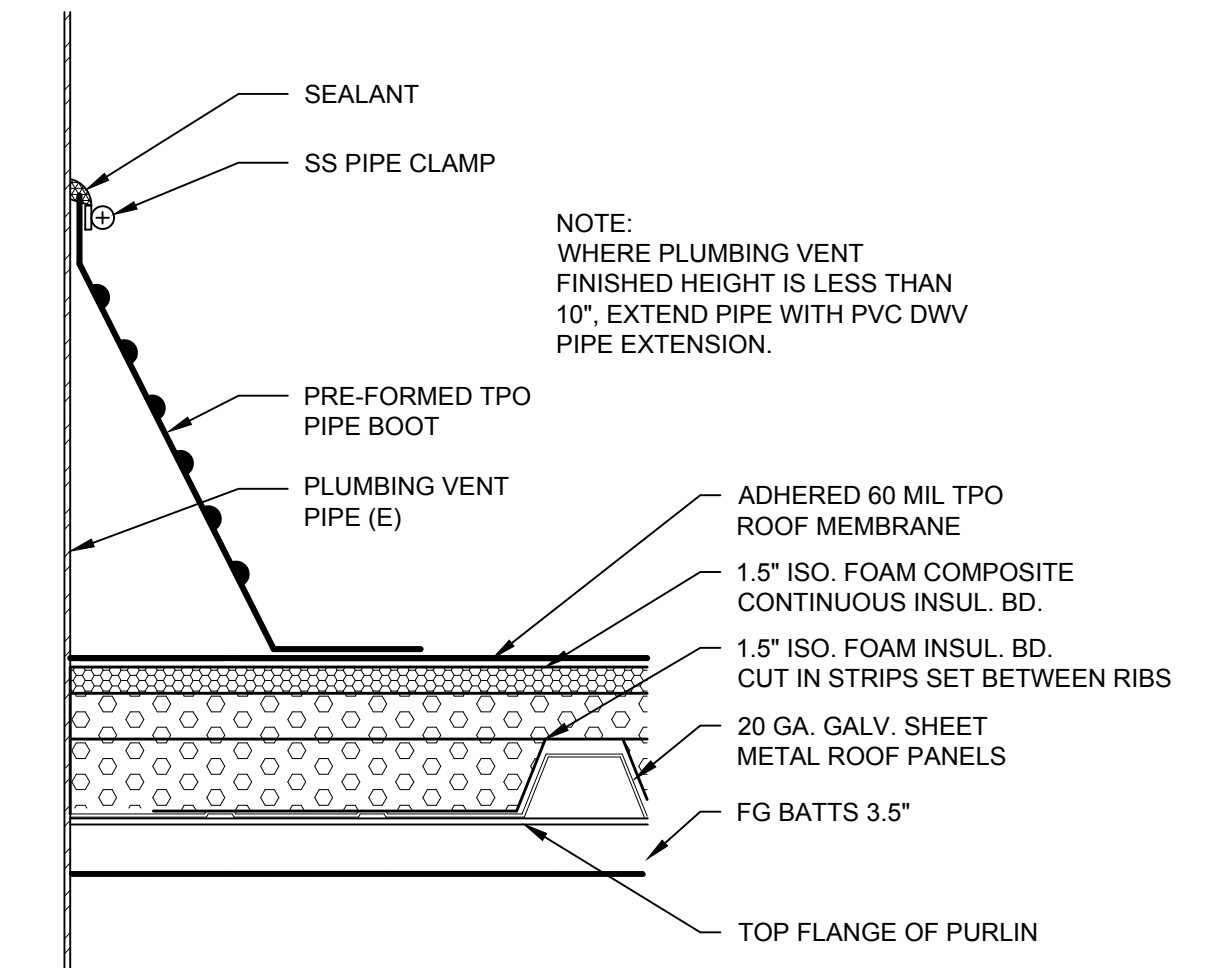


**NEW ROOF SYSTEM**  
 SCALE 3" = 1'-0" (1:4)

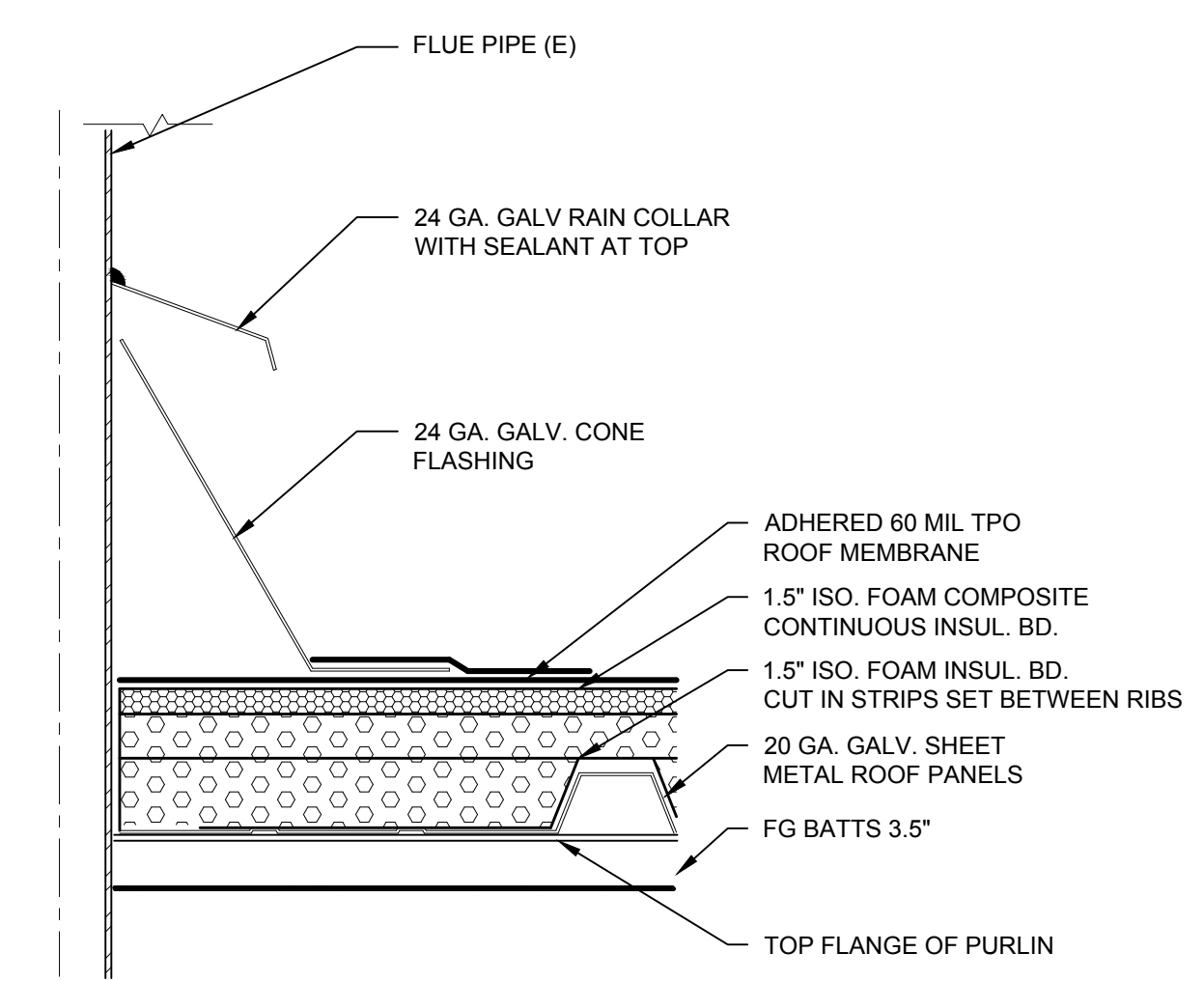


**NEW RIDGE VENT SPEC.**

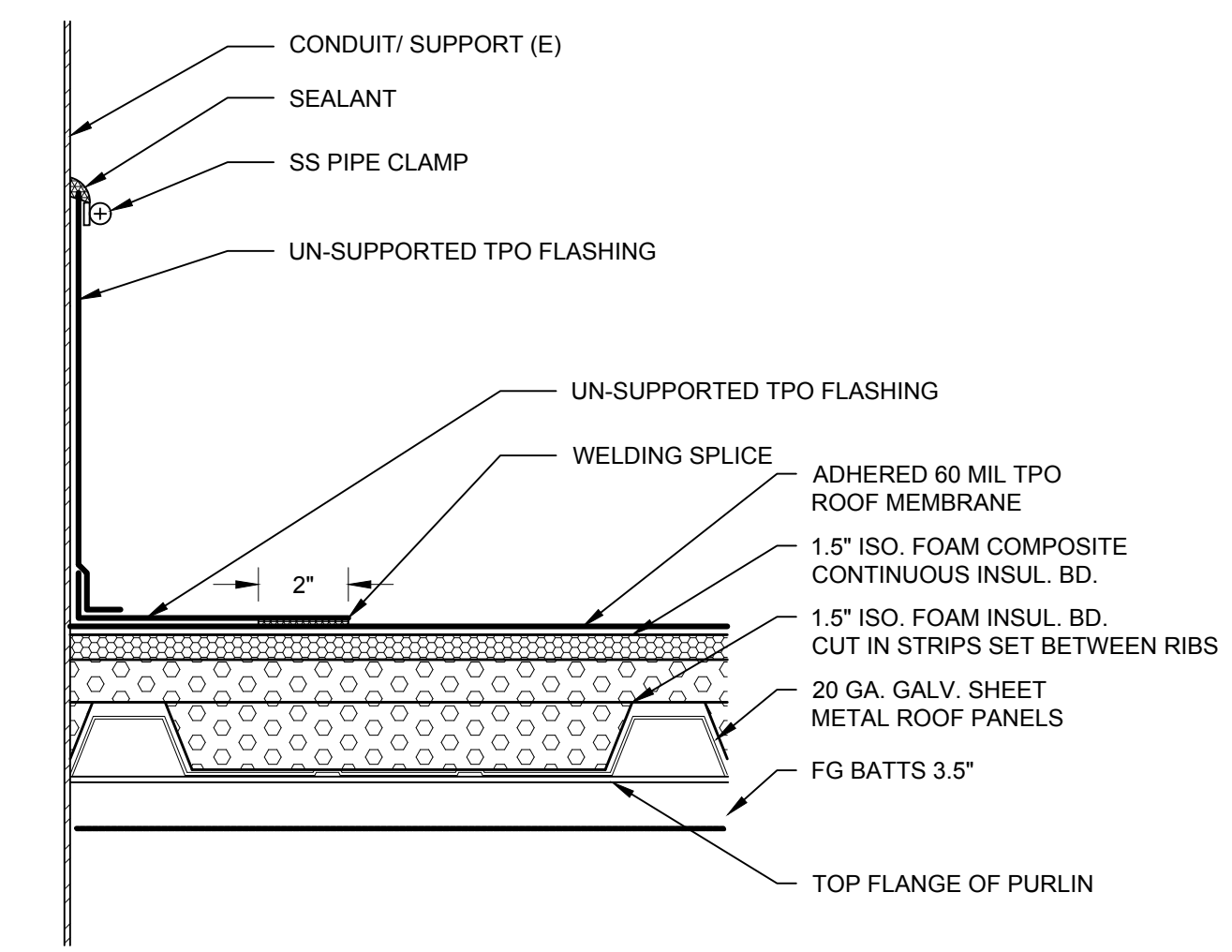
1. THE VENT SHALL BE CONSTRUCTED FROM MINIMUM 24 GA. PRE-FINISHED SHEET METAL COLORED WHITE.
2. VENT SHALL PROVIDE A MINIMUM OF 18" OF VENTILATION FREE SPACE PER LINEAL FOOT.
3. THE VENT SHALL HAVE A DURABLE, SELF-CLEANING COVER T BLOCK LARGE DEBRIS & INSECTS.
4. VENT SHALL BE DESIGNED SO THAT INDIVIDUAL SEGMENTS CAN BE JOINED TO MAKE THE FULL RUN ACROSS THE ROOF.
5. BASIS OF DESIGN IS COR-A-VENT FROM METALLIC PRODUCTS.



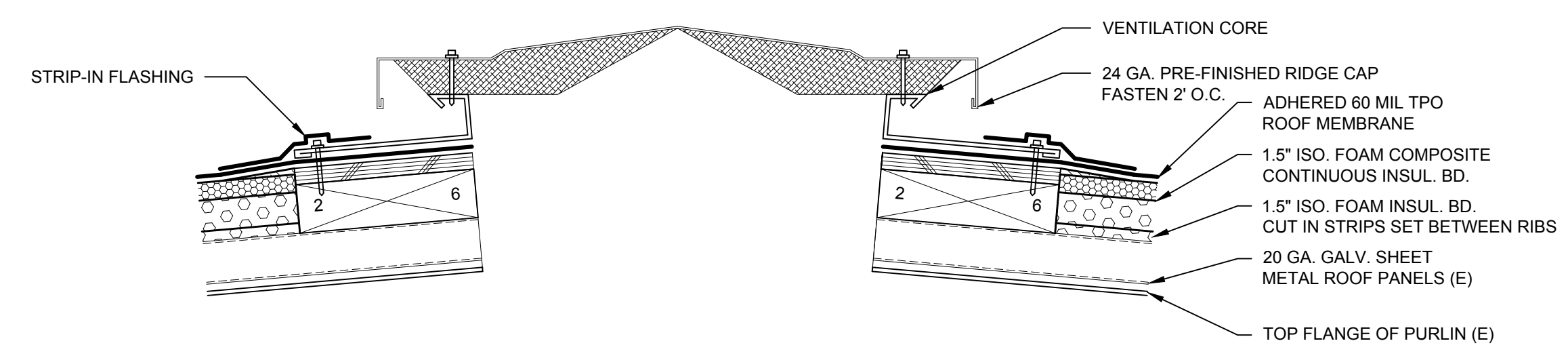
**C2 PLUMBING VENT FLASHING**  
 SCALE 3" = 1'-0" (1:4)



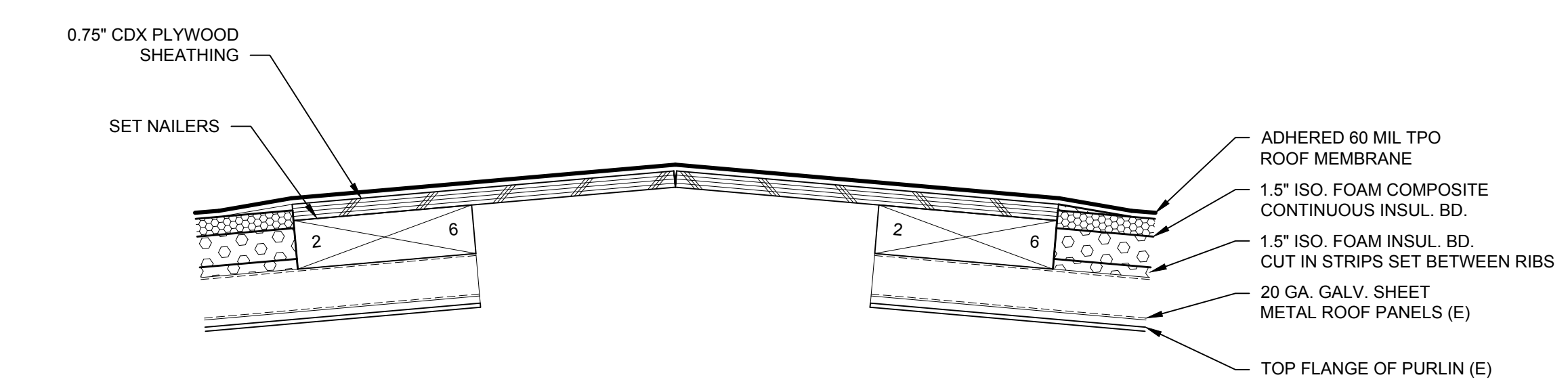
**B2 FLUE FLASHING**  
 SCALE 3" = 1'-0" (1:4)



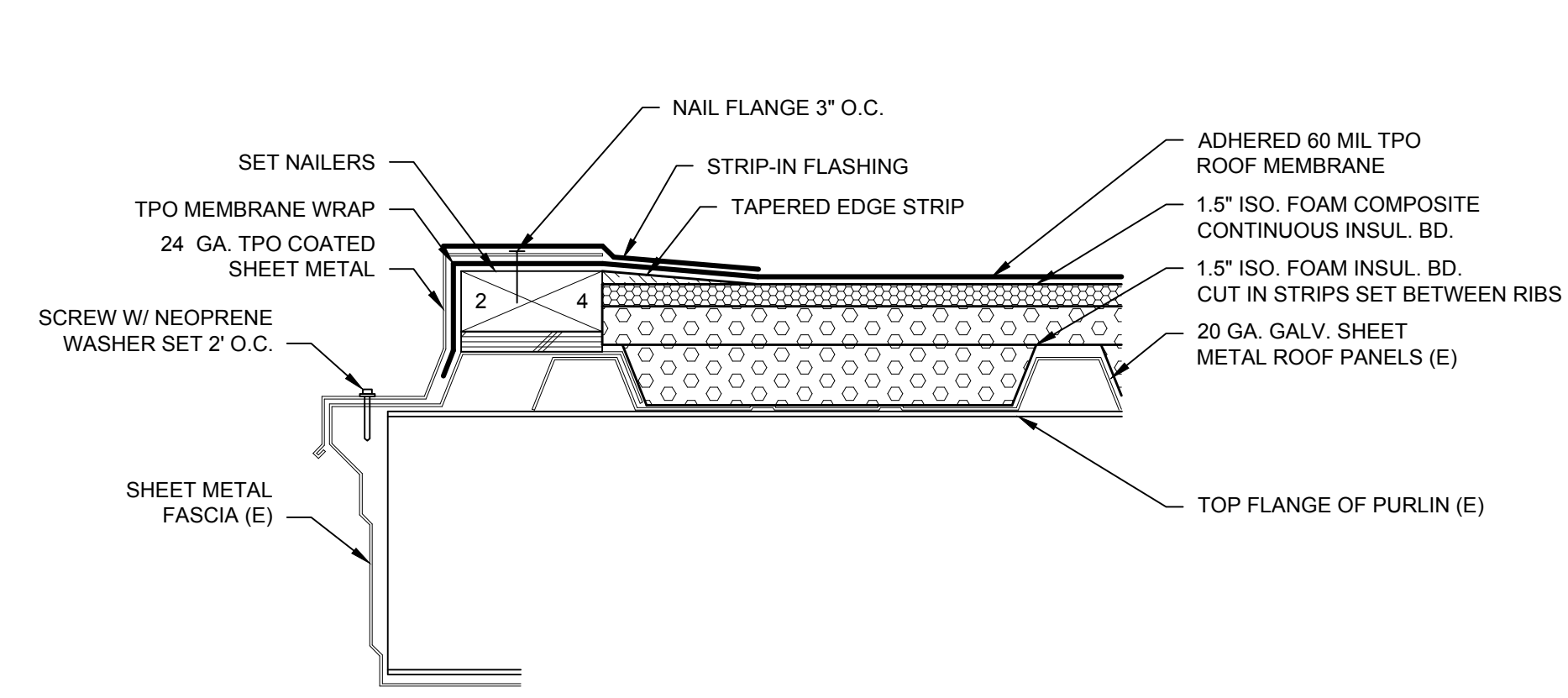
**B3 LIGHTNING AIR TERMINAL FLASHING**  
 SCALE 3" = 1'-0" (1:4)



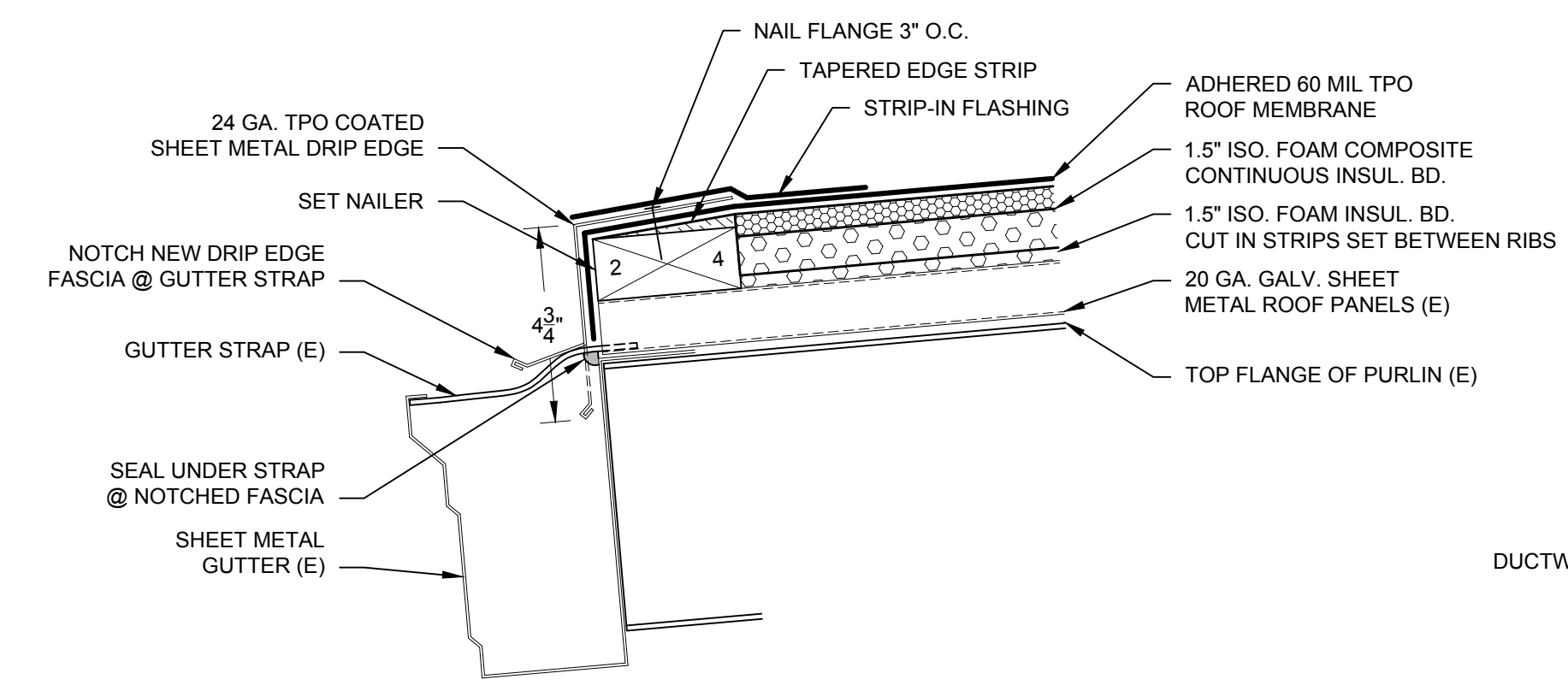
**C1 RIDGE VENT FLASHING**  
 SCALE 3" = 1'-0" (1:4)



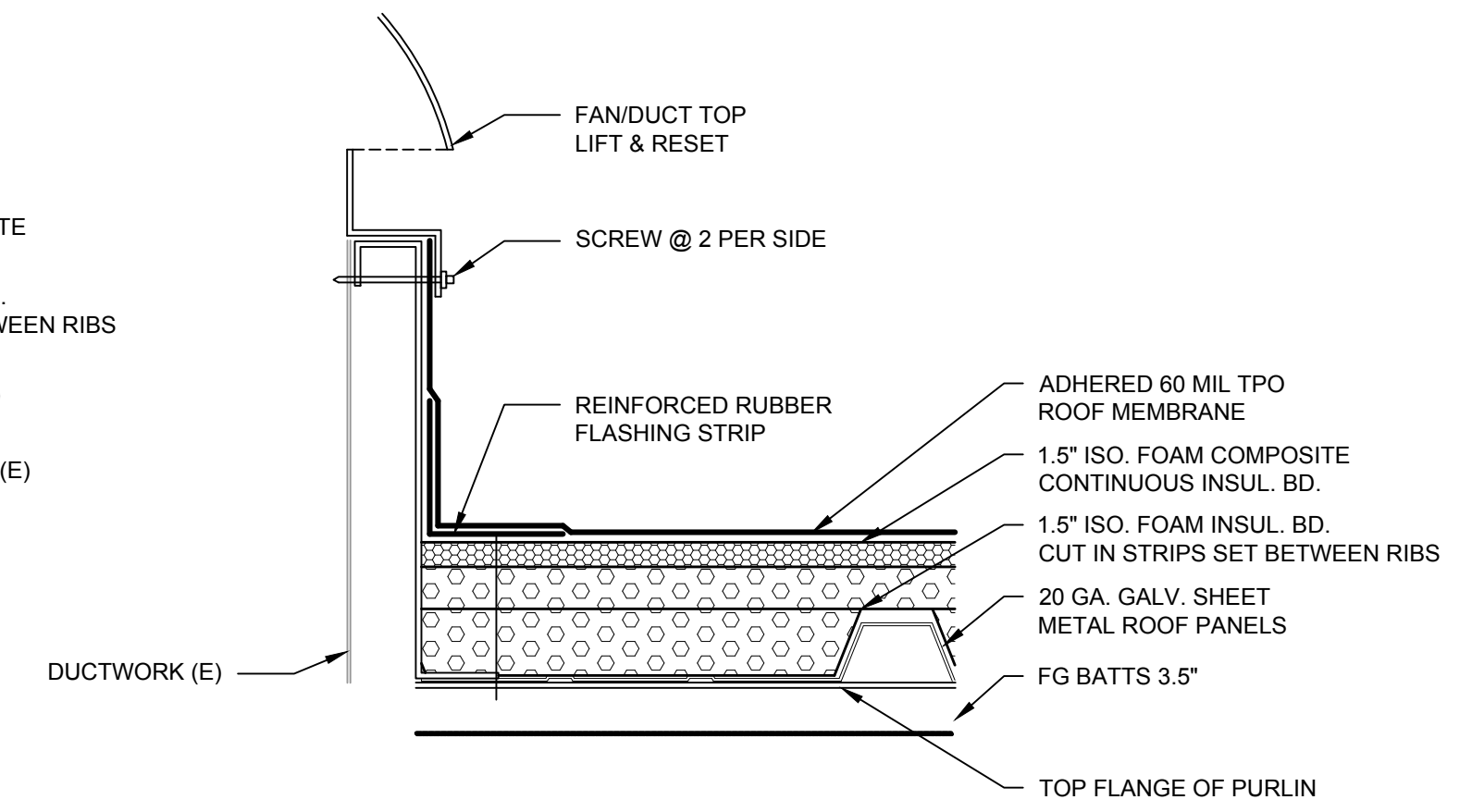
**B1 RIDGE ENDS FLASHING**  
 SCALE 3" = 1'-0" (1:4)



**A1 RAKE EDGE FLASHING**  
 SCALE 3" = 1'-0" (1:4)



**A2 EAVE EDGE FLASHING**  
 SCALE 3" = 1'-0" (1:4)



**A3 MECHANICAL CURB FLASHING**  
 SCALE 3" = 1'-0" (1:4)

REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: RD
DRAFTER: LR	PROJECT #:
CHECKED BY: GT	DATE: 6/22/2018

**BOULDER FAIRGROUNDS INDOOR ARENA ROOFING**

9595 NELSON RD.  
 LONGMONT, CO 80501

CADD FILE:  
 BC FG Arena R2-0.DWG

**ROOF DETAILS**

DRAWING SCALE:  
 3" = 1' - 0"

DRAWING #:  
**R2.0**



# Project Manual

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**Boulder County**  
**Boulder Fairgrounds Indoor Arena Roofing**  
6/22/2018



**Roof Tech Consultants, Inc.**  
14828 W. 6<sup>th</sup> Avenue, B-8  
Golden, Colorado 80401

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PROJECT MANUAL  
BOULDER COUNTY  
INDOOR ARENA ROOFING

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END SECTION 00 01 10	

## SECTION 01 11 00 – SUMMARY OF WORK

### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project consists of:
  - 1) Project Location: Boulder Fairgrounds – Indoor Arena: 9595 Nelson Rd. Longmont CO 80501
- B. The Work consists of:
  - 1) Replace Roofing Systems:
    - a) Demolition: Remove all associated flashings, copings and counterflashings not to be a part of the new roof system.
    - b) Set a layer of 1.5” thick fiberglass faced isocyanurate foam insulation board strips in between the standing seams of the metal roofing.
    - c) Cover the foam strips with a continuous layer of 1.5” thick Isocyanurate foam composite board. Simultaneously secure both layers of insulation with screw and plate insulation fasteners.
    - d) Set an adhered 60 mil white TPO roof membrane over the composite insulation boards.
    - e) Provide supported and unsupported TPO flashings.
    - f) Sheet metal flashings and counterflashing will be installed.
    - g) Provide new sheet metal flashing and counterflashings.
    - h) Provide a written 20 year warranty covering the new roofing material and labor in a leak free state at a no-dollar limit. Also provide a two year roofing contractor’s written warranty covering the new roofing in a leak free state.
- C. The Work will be constructed under a single prime contract.

#### 1.3 CONTRACT FORMS

- A. Refer to Project Manual Index

#### 1.4 SCOPE OF SERVICES

- A. The work of this Contract, except as otherwise specified, shall include all labor, materials, equipment and facilities necessary to produce the required result, all transportation and services, and all materials and equipment incorporated and intended to be incorporated in such results. The Work includes all fees, taxes, permit costs, insurance premiums, and costs for overhead, superintendence, temporary facilities, and other direct and indirect costs and expenses incidental to the performance of the Work.

#### 1.5 EXISTING CONDITIONS

- A. The Contractor shall accept the area of the work in its present condition and carefully examine the area of the work and determine for himself all existing conditions visually discernable and/or reasonably expected from his understanding of the Construction Documents.

#### 1.6 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have restricted use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited by the Owner's right to perform work and where indicated on the Plans.
- B. Confine operations at site to areas within the limits of the work of this Contract.
  - 1) Do not load structure with weight that will endanger structure.
  - 2) Do not reasonably encumber site with materials or equipment.
  - 3) Assume full responsibility for protection and safekeeping of products stored on premises.
  - 4) Move any stored products which interfere with operations of Owner.
  - 5) Obtain and pay for use of additional storage or work areas needed for operation.

#### 1.7 OCCUPANCY REQUIREMENTS

- A. The Owner will occupy the building during the project. The Contractor shall take reasonable means to not disrupt the operation of the building or its occupants.

#### 1.8 PROTECTION

- A. The Contractor shall make all necessary provisions for the protection of the public and traffic and the use of surrounding areas. He shall provide barriers and any other safeguards as required to protect the public in accordance with the local laws. The safeguards and protections shall be fully maintained in first-class condition during the entire construction period, and at no time shall required



Boulder County  
Indoor Arena Roofing

protection be removed. When required, provide all-night lights, lanterns, flares, etc. for night-time protection. All excavations shall be completely protected at all times.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

END OF SECTION 01 11 00

SECTION 01 14 13 – ACCESS AND SETUP

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Work Included: This specification section covers the allowable access location and setup procedures. Also covered are the phasing requirements for the installation of the new roofing.
- B. Related Work:
  - 1) The contractor shall submit engineering documentation indicating that any scaffolding or hoist equipment used on this job can operate within the project lifting and load parameters for the equipment design.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work of this Section.
- B. Only qualified personnel may use equipment or give signals to equipment operators.
- C. Operate all equipment within equipment design standards.
- D. Photograph all surfaces that are to be used for storage. Photographs need to be of sufficient clarity to indicate the condition of the storage surface and any adjacent walls, streets or sidewalks. Provide one set of the photographs to the Owner prior to the start of work. Contractor shall restore all affected surfaces to the same condition at job's end.

1.3 EQUIPMENT HANDLING

- A. Schedule equipment arrival with Building Staff so as not to interfere with normal facility operations.
- B. Do not block any roads or entrances without 72 hours of notification and Building Staff approval.
- C. Secure all delivered equipment and setup material against theft or vandalism.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION**

### 3.1 PHASING REQUIREMENTS

- A. The major phases of the project shall take place in a manner so that the roof is finished on a daily basis and the roof is watertight. Do not phase construct any portion of the roof without permission from Architect.

### 3.2 SITE ACCESS

- A. Site access locations are shown on the drawings. The Contractor must stay within these boundaries.
- B. Access to the site may be restricted by Building Events. Coordinate access requirements with the Building Staff.
- C. Limited amounts of water and electricity shall be provided by the Owner.
- D. Do not block or lock building exits or entrances without permission from the Building Staff.
- E. Setup areas must be kept clean or screened off.
- F. Interior access will not be allowed.
- G. If access openings must be cut to install new materials, coordinate with Building Staff. Obtain utility locate prior to cutting into any concealed spaces.

### 3.3 INTERIOR STORAGE AND ACCESS

- A. No interior access or storage is allowed. The one exception is for work that must be performed from the inside such as drain installation.

### 3.4 COMPLIANCE

- A. Do not permit materials not complying with provisions of this Section to be brought onto or stored at the job site.
- B. Promptly remove non-complying materials and replace with materials meeting the requirements of this Section.

### 3.5 DISPOSAL CHUTE

- A. A disposal chute must be used or a tarp that completely covers the side of the building.

END OF SECTION 01 14 13

01 14 16 CLIENT INTERFACE

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Work Included: This specification section covers the phasing, coordination and protection considerations that must be taken by the Contractor in order to protect the client in the building.

1.2 PERSONNEL

- A. Provide a single point of primary contact for the project. This person shall coordinate and notify the Client and Owner as to concerns. Likewise and concerns from the Client or Owner shall be relayed to this party first.
- B. Provide a point of contact on the roof for the Client and Owner so that at emergencies can be acted on immediately.

1.3 PHONE NUMBERS

- A. Submit emergency contact phone numbers of the Primary Contact, the Roof Top Contact and a number for emergency after hour problems.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION**

3.1 GENERAL COORDINATION

- A. While working on the roof, the Contractor will be required to coordinate the shutdown of any mechanical intakes in the area of work.
- B. A coordination meeting will be held to schedule the shutdown of these intakes.
- C. The Contractor must contact the Client Contact and the Principle Representative the day before any scheduled work indicating that work is planned for the next day.

3.2 ODOR CONTROL

- A. The Contractor shall not open any liquid containers near air intakes or other openings into the building. Work shall be staged so as to minimize the effects of odors on the interior building occupants.
- B. A 3' diameter barrel fan must be available on the job site to dilute any odors from

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the work.

END OF SECTION 01 14 16

SECTION 01 23 00 – ALTERNATES

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing Alternates.

1.3 DEFINITIONS

- A. Definition: An alternate is an amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1) The cost for each alternate is the net addition to the Contract Sum to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.
  - 1) Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.
- B. Notification: Immediately following the award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other Work of this Contract.
- D. Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each alternate.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION**

3.1 SCHEDULE A – SCHEDULE OF ALTERNATES

- A. In lieu of the 60 mil standard TPO roof membrane the Contractor shall provide add alternate pricing for the installation of a 115 mil fleece backed TPO sheet. In lieu of standard adhesives, the fleece back membrane shall be set in beads of the manufacturer's approved low rise foam adhesive. The adhesive beads shall be spaced 6" apart.

END OF SECTION 01 23 00

## SECTION 01 31 13 – COORDINATION

### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
  - 1) General project coordination procedures.
  - 2) Coordination Drawings.
  - 3) Administrative and supervisory personnel.
  - 4) General installation provisions.
  - 5) Cleaning and protection.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1) Division 1 Section "Access and Setup" specifies procedures accessing the site and allowable storage restrictions.
  - 2) Division 1 Section "Project Meetings" for progress meetings.
  - 3) Division 1 Section "Submittals" for preparing and submitting the Contractor's Construction Schedule.
  - 4) Division 1 Section "Materials and Equipment" for coordinating general installation.
  - 5) Division 1 Section "Contract Closeout" for coordinating contract closeout.

#### 1.3 COORDINATION

- A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
  - 1) Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.



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- 2) Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 3) Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
  - 4) Make provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
- 1) Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Separate Contractors: Coordinate with the work of separate contractors performing work concurrent with the work of this contract.
- D. Superintendent: A part-time superintendent representing the General Contractor shall be present at the site at times during construction activities.
- E. Foreman: Provide a full time qualified foreman that will be present during all aspects of the work.
- F. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
- 1) Preparation of schedules.
  - 2) Installation and removal of temporary facilities.
  - 3) Delivery and processing of submittals.
  - 4) Progress meetings.
  - 5) Project closeout activities.
- G. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
- 1) Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

#### 1.4 SUBMITTALS

#### **PART 2 - PRODUCTS (NOT APPLICABLE)**

#### **PART 3 - EXECUTION**

### 3.1 GENERAL INSTALLATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. Visual Effects: Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions, before starting each installation.
- G. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.

### 3.2 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

### 3.3 CLEANING AND PROTECTION

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous,

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damaging, or otherwise deleterious exposure during the construction period.  
Where applicable, such exposures include, but are not limited to, the following:

- 1) Water or ice.
- 2) Solvents.
- 3) Chemicals.
- 4) Puncture.
- 5) Abrasion.
- 6) Heavy traffic.
- 7) Combustion.
- 8) Unusual wear or other misuse.
- 9) Contact between incompatible materials.
- 10) Unprotected storage.
- 11) Improper shipping or handling.
- 12) Theft.
- 13) Vandalism.

END OF SECTION 01 31 13

## SECTION 01 31 19 – PROJECT MEETINGS

### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
  - 1) Preconstruction conferences.
  - 2) Progress meetings.
- B. The Contractor shall schedule, conduct and record the contents of the meetings and distribute typed minutes to all pertinent parties within two days after the meeting.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1) Division 1 Section "Coordination" for procedures for coordinating project meetings with other construction activities.
  - 2) Division 1 Section "Submittals" for submitting the Contractor's Construction Schedule.
  - 3) See individual specification sections for requirements for preinstallation meetings.

#### 1.3 PRECONSTRUCTION CONFERENCE

- A. Schedule a preconstruction conference before starting construction, at a time convenient to the Owner/Owner's Representative and the Architect, but no later than 15 days after execution of the Agreement. Hold the conference at the Project Site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: Authorized representatives of the Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress, including the

following:

- 1) Construction schedule.
- 2) Critical work sequencing.
- 3) Designation of responsible personnel.
- 4) Procedures for processing field decisions and Change Orders.
- 5) Procedures for processing Applications for Payment.
- 6) Distribution of Contract Documents.
- 7) Submittal of Shop Drawings, Product Data, and Samples.
- 8) Preparation of record documents.
- 9) Use of the premises.
- 10) Parking availability.
- 11) Office, work, and storage areas.
- 12) Equipment deliveries and priorities.
- 13) Safety procedures.
- 14) First aid.
- 15) Security.
- 16) Housekeeping.
- 17) Working hours.

D. Submittals: Contractor is responsible for submitting the following at the preconstruction conference:

- 1) Schedule of Values
- 2) List of major subcontractors
- 3) Construction schedule
- 4) Critical work sequencing

#### 1.4 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project Site at weekly intervals. Notify the Construction Manager and the Architect of scheduled meeting dates.
- B. Attendees: In addition to representatives of the Owner and the Architect, each subcontractor, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
  - 1) Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will

- be completed within the Contract Time.
- 2) Review the present and future needs of each entity present, including the following:
    - a) Interface requirements.
    - b) Time.
    - c) Sequences.
    - d) Status of submittals.
    - e) Deliveries.
    - f) Off-site fabrication problems.
    - g) Access.
    - h) Site utilization.
    - i) Temporary facilities and services.
    - j) Hours of work.
    - k) Hazards and risks.
    - l) Housekeeping.
    - m) Quality and work standards.
    - n) Change Orders.
    - o) Documentation of information for payment requests.

D. Reporting: No later than 3 days after each meeting, distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

- 1) Schedule Updating: Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

END OF SECTION 01 31 19

SECTION 01 33 00 – SUBMITTALS

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Certificates of Insurance in General Conditions
- C. Application for Payment in General Conditions
- D. Tax Data in General Conditions

1.2 SUMMARY

- A. All submittals shall be made electronically and sent directly to the Architects Office for review. Use the Submittal Register for every submittal. Submit pertinent items that may not be listed on the register.
- B. In general, submit information and data for all new roofing components and detailed accessories.
- C. Monthly submit a schedule indicating planned performance and actual performance in sufficient detail to track each trade. If contractor becomes more than 3 weeks behind the original anticipated schedule. A meeting shall be held where a plan shall be proposed by the Contractor for bringing the work back in line with the schedule.
- D. Submit all MSDS sheets prior to bringing materials on site.
- E. Submit engineering reports for any platforms, scaffolding or other load bearing accessories that may have to be erected in order to compete the work. The reports shall be detailed enough to establish that the scaffolding and platforms can be erected and maintained in a safe condition without jeopardizing the building or personnel.
- F. Highlight items intended for use if copies of pages are submitted with more than a single item on them.
- G. Indicate materials, finishes, sizes, thicknesses, configurations, reinforcements, fastenings, connections, supports, anchors, connections to other work, fabrication details, erection details, accessories, rough-in drawings, schedules, etc.
- H. Submit the materials list as indicated in various Divisions to the Architect/Engineer prior to the delivery of materials to the job site.
- I. Provide the Architect/Engineer with manufacturers instructions and Maintenance Manuals as indicated in various Divisions.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**  
SUBMITTALS

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END OF SECTION 01 33 00



SUBMITTAL REGISTER  
 ADHERED 60 MIL TPO ROOF SYSTEM  
 BOULDER COUNTY FAIRGROUNDS INDOOR ARENA  
 CONTRACTOR \_\_\_\_\_

SUB I.D. NO.	SPEC. DIV. NO.	TYPE OF SUB	DESCRIPTION OF MATERIAL	SUBMITTAL DATE	APPROVE/ REJECT	RESUBMIT BY	FINAL ACTION	REMARKS
1	01 11 00	LETTER	SAMPLE GUARANTY					
2	01 11 00	FORM	CONTRACTOR SUPPLIED SUBMITTAL REGISTER					WITH EACH SUBMITTAL
3	01 11 00	FORM	CONTRACTOR SUPPLIED SCHEDULE					
4	06 10 00	LETTER	WOOD PRESERVATIVE LITERATURE					
5	07 54 23	LETTER DRAWING	INSULATION					
6	07 54 23	LETTER	TPO MEMBRANE LITERATURE					
7	07 54 23	LETTER	ADHESIVES					
8	07 54 23	LETTER	FLASHING MATERIALS					
9	07 60 00	SAMPLE	PRE-FINISHED SHEET METAL SAMPLE					

SUBMITTAL REGISTER  
 ADHERED 60 MIL TPO ROOF SYSTEM  
 BOULDER COUNTY FAIRGROUNDS INDOOR ARENA  
 CONTRACTOR \_\_\_\_\_

10	07 54 23	LETTER	CUT EDGE SEALANT AND WATER BLOCK					
11	07 92 00	LETTER	SEALANTS					
12	07 54 23	LETTER	FASTENER LITERATURE					
13		LETTER	SUBCONTRACTOR LIST					
14		LETTER	EMERGENCY CONTACTS					

This submittal register lists the major items to be submitted for this project. Submit any other material items not shown but will be used in the construction of this roofing project.

SECTION 01 42 00 – REFERENCE STANDARDS AND DEFINITIONS

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic contract definitions are included in the Conditions of the Contract.
- B. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited.
- C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Architect, requested by the Architect, and similar phrases.
- D. "Approved": The term "approved," when used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the Architect's duties and responsibilities as stated in the Conditions of the Contract.
- E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.
- I. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

- 1) The term "experienced," when used with the term "installer," means

having a minimum of 5 previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.

- 2) Trades: Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- J. "Project Site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- K. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

### 1.3 SPECIFICATION CONTENT EXPLANATION

- A. Specification Content: This Specification uses certain conventions regarding the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
- 1) Abbreviated Language: Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2) Streamlined Language: The Specifications generally use the imperative mood and streamlined language. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
    - a) The words "shall be" are implied where a colon (:) is used within a sentence or phrase.

### 1.4 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the

extent referenced. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with 2 or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer to the Architect before proceeding for a decision on requirements that are different but apparently equal, and where it is uncertain which requirement is the most stringent.
  - 1) Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the Architect for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1) Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Gale Research Co.'s "Encyclopedia of Associations," available in most libraries.
- F. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in the Contract Documents, are defined to mean the associated names. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.
- G. Federal Government Agencies: Names and titles of federal government standard- or Specification-producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard- or Specification-producing agencies of the federal government. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.

1.5 GOVERNING REGULATIONS AND AUTHORITIES

- A. Copies of Regulations: Obtain copies of the following regulations and retain at the Project Site to be available for reference by parties who have a reasonable need.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

END OF SECTION 01 42 00

SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.
- B. Temporary utilities include, but are not limited to, the following with Contractor responsible for costs of meters and all use-charges associated with temporary utilities:
  - 1) Water service and distribution.
  - 2) Temporary electric power and light.
  - 3) Ventilation.
- C. Support facilities include, but are not limited to, the following:
  - 1) Storage sheds.
  - 2) Temporary enclosures.
  - 3) Hoists and temporary elevator use.
  - 4) Waste disposal services.
  - 5) Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
  - 1) Temporary fire protection.
  - 2) Barricades, warning signs, and lights.
  - 3) Enclosure fence for the site.
  - 4) Environmental protection.
  - 5) Windstorm protection.

1.3 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
  - 1) Building code requirements.

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- 2) Health and safety regulations.
  - 3) Utility company regulations.
  - 4) Police, fire department, and rescue squad rules.
  - 5) Environmental protection regulations.
- B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
- 1) Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

#### 1.4 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of permanent service.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Provide new materials. If acceptable to the Architect, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
- B. Lumber and Plywood: Comply with requirements in Division 6 Section "Rough Carpentry."
- C. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of fifteen (15) or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.
- D. Water: Provide potable water approved by local health authorities.
- E. Open-Mesh Fencing: Provide 0.120-inch- (3-mm-) thick, galvanized 2-inch (50-



mm) chain-link fabric fencing 6 feet (2 m) high with galvanized barbed-wire top strand and galvanized steel pipe posts, 1-1/2 inches (38 mm) I.D. for line posts and 2-1/2 inches (64 mm) I.D. for corner posts.

## 2.2 EQUIPMENT

- A. Owner will provide reasonable amount of electrical power (110 volt, single phase) for the project. Contractor must make maintain and remove at job's end all connections.
- B. General: Provide new equipment. If acceptable to the Architect, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
- C. Water Hoses: Provide 3/4-inch (19-mm), heavy-duty, abrasion-resistant, flexible rubber hoses 100 feet (30 m) long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.
- D. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
- E. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- F. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- G. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.
  - 1) Comply with NFPA 10 and FPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.
  - 1) Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
  - 2) Provide adequate capacity at each stage of construction.
  - 3) Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.
  - 4) Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect. Neither the Owner nor Architect will accept cost or use charges as a basis of claims for Change Orders.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
  - 1) Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
  - 2) Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood or similar materials.
  - 3) Close openings through floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.
  - 4) Where temporary wood or plywood enclosure exceeds 100 sq. ft. (9.2 sq. m) in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.
- B. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- C. Temporary Elevator Use: Not allowed.
- D. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of

combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Architect.
- B. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- C. Enclosure Fence: Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated, and if not indicated enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
  - 1) Provide open-mesh, chain-link fencing as specified herein with posts set in a compacted mixture of gravel and earth of height required by applicable regulatory agencies, but in no case less than 6 feet.
- D. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
  - 1) Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- E. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

### 3.5 WINDSTORM LOSS PREVENTION

- A. All insulation and roofing materials shall be permanently fastened to the roof

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- deck as it is applied.
- B. All construction materials shall be adequately protected against wind damage during storage.

END OF SECTION 01 50 00

## SECTION 01 73 29 – CUTTING AND PATCHING

### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for cutting and patching of nominally completed work to accommodate coordination, other work, testing, etc.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1) Division 1 Section "Coordination" for procedures for coordinating cutting and patching with other construction activities.
  - 2) Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
    - a) Requirements of this Section apply to mechanical and electrical installations. Refer to Division 15 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

#### 1.3 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Owner requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
  - 1) Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
  - 2) Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
  - 3) List products to be used and firms or entities that will perform Work.
  - 4) Indicate dates when cutting and patching will be performed.

- 5) Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
- 6) Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
- 7) Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of unsatisfactory work.

#### 1.4 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
  - 1) Obtain approval of the cutting and patching proposal before cutting and patching structural elements.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner.

#### 1.5 WARRANTY

- A. Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required.

### **PART 2 - PRODUCTS**

#### 2.1 MATERIALS, GENERAL

### **PART 3 - EXECUTION**

#### 3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and

patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

- 1) Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

### 3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
  - 1) Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.
  - 1) In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2) To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  - 3) Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
  - 4) Comply with requirements of applicable Division 2 Sections where cutting and patching requires excavating and backfilling.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
  - 1) Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

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- 2) Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
- 3) Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.

3.4 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION 01 73 29



SECTION 01 77 00 – CONTRACT CLOSEOUT

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
  - 1) Inspection procedures.
  - 2) Project record document submittal.
  - 3) Operation and maintenance manual submittal.
  - 4) Submittal of warranties.
  - 5) Final cleaning.
- B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 16.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
  - 1) In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
    - a) Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
    - b) If 100 percent completion cannot be shown, include a list of incomplete items (Contractor's Punch List), the value of incomplete construction, and reasons the Work is not complete.
  - 2) Advise the Owner of pending insurance changeover requirements.
  - 3) Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
  - 4) Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits,

- operating certificates, and similar releases.
  - 5) Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
  - 6) Complete final cleanup requirements, including touchup painting.
  - 7) Touch up and otherwise repair and restore marred, exposed finishes.
- B. Inspection Procedures: On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued (Architect's Punch List).
- 1) The Architect will repeat inspection when requested and assured that the Work is substantially complete. If a third inspection is required, cost to cover the Architect's and Construction Manager's time and associated expenses will be deducted from Contractor's payment.
  - 2) Results of the completed inspection will form the basis of requirements for final acceptance.

#### 1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
- 1) Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
  - 2) Submit an updated final statement, accounting for final additional changes to the Contract Sum.
  - 3) Submit a signed copy of the Architect's final inspection list of items to be completed or corrected, endorsed and dated by the Architect. The signed copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.
- B. Reinspection Procedure: The Architect will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Architect.
- 1) Upon completion of reinspection, the Architect will prepare a certificate of final acceptance. If the Work is incomplete, the Architect will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
  - 2) If necessary, reinspection will be repeated once, and if a subsequent visit

is required, funds associated with the Architect's and Construction Manager's inspection will be deducted from the Contractor's payment.

## 1.5 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Architect's reference during normal working hours.
- B. Record Drawings: "Mylar" sepias of Contract Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
  - 1) Contractor shall pay all reproduction costs including sepias and prints.
  - 2) Mark new information that is important to the Owner but was not shown on Contract Drawings or Shop Drawings.
  - 3) Note related change-order numbers where applicable.
  - 4) Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.
  - 1) Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
  - 2) Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
  - 3) Note related record drawing information and Product Data.
  - 4) Upon completion of the Work, submit record Specifications to the Architect for the Owner's records.
- D. Record Product Data: Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.
  - 1) Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.

- 2) Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
  - 3) Upon completion of markup, submit complete set of record Product Data to the Architect for the Owner's records.
- E. Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with the Architect and the Owner's personnel at the Project Site to determine which
- F. Samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's Sample storage area.
- G. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Construction Manager for the Owner's records.

## **PART 2 - PRODUCTS (NOT APPLICABLE)**

## **PART 3 - EXECUTION**

### **3.1 CLOSEOUT PROCEDURES**

- A. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures.

### **3.2 FINAL CLEANING**

- A. General: The General Conditions require general cleaning during construction. Regular site cleaning is included in Division 1 Section "Construction Facilities and Temporary Controls."
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- 1) Complete the following cleaning operations before requesting inspection for certification of Substantial Completion.
    - a) Remove labels that are not permanent labels.

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- b) Vacuum clean carpeted surfaces and similar soft surfaces and mop and/or wax as required all hard surface flooring.
  - c) Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
  - d) Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
  - e) Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
  - f) Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.
- C. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- D. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
- 1) Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

END OF SECTION 01 77 00

SECTION 01 78 36 – WARRANTIES

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties beyond one year.
  - 1) Refer to the General Conditions for terms of the Contractor's period for correction of the Work.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1) Division 1 Section "Submittals" specifies procedures for submitting warranties.
  - 2) Division 1 Section "Contract Closeout" specifies contract closeout procedures.
  - 3) Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.
  - 4) Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 DEFINITIONS

- A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### 1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

#### 1.5 SUBMITTALS

- A. Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

#### **PART 2 - PRODUCTS (NOT APPLICABLE)**

#### **PART 3 - EXECUTION (NOT APPLICABLE)**

END OF SECTION 01 78 36

SECTION 02 41 13 – SELECTIVE DEMOLITION

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Work included: Demolish and remove from the site those items so indicated on the Drawings and specified herein.
- B. The Work specified herein applies to the roof replacement project at the Boulder Fairgrounds Indoor Arena. The major demolition work items are as follows:
  - 1) Replace Roofing:
    - a) Remove and dispose of the roofing and sheet metal flashings not designated to remain.
    - b) Remove and dispose of any items not designated to remain so as to facilitate with the installation of the new roofing system.
    - c) Remove the existing curb and flush mounted skylights.
  - 2) General:
    - a) During the work on the roof, collect material as it is removed and dispose of. Take caution that wind does not spread material.
    - b) Make sure demolished materials do not plug roof drains.
    - c) Make sure wind does not broadcast adhesives and asphalt.
- C. Related Work: Documents affecting Work of this Section include, but are not necessarily limited to, General Conditions, and Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are trained and experienced in the necessary crafts and who are completely familiar with the requirements and the methods needed for proper performance of Work of this Section.

1.3 PRODUCT HANDLING.

- A. Comply with pertinent requirements listed in Division 7.

**PART 2 - PRODUCTS**

- 2.1 No products are required in this section.



### **PART 3 - EXECUTION**

#### 3.1 SURFACE CONDITIONS

- A. General:
  - 1) Prior to start of demolition, carefully study the Drawings and these Specifications.
  - 2) In company with the Architect/Engineer and Owner, visit the site and verify the extent of demolition to be performed under this Contract.
- B. Using only the means and equipment approved for this purpose by the governmental agencies having jurisdiction, demolish and completely remove from the jobsite the existing construction designated to be removed.
- C. Shut off, cap, and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
- D. Demolished material shall be considered to be property of the Contractor and shall be completely removed from the jobsite.
- E. Use means necessary to prevent dust becoming a nuisance to the Owner, surrounding areas, and other Work being performed on or near the site.

END OF SECTION 02 41 13

## SECTION 06 10 00 – ROUGH CARPENTRY

### **PART 1 - GENERAL**

#### 1.1 DESCRIPTION

- A. Work Included: Provide wood, nails, bolts, screws, framing anchors and other rough hardware, and other items needed and perform rough carpentry for the construction shown on the Drawings, as specified herein, and as needed for the complete and proper installation.
- B. Related Work: Documents affecting work in this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- C. The work is primarily associated with the installation of new wood nailers and curbs. All wood shall be compliant with AWPA U1, Use Category 3B and fire preservative treated (Non-Com).

#### 1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work of this Section.
- B. Codes and Standards: In addition to complying with the pertinent codes and regulations of governmental agencies having jurisdiction unless otherwise specifically directed or permitted by the Architect comply with:
  - 1) "Product Use Manual" of the Western Wood Products Association for the selection and use of products included in that manual.
  - 2) "Plywood Specification and Grade Guide" of the American Plywood Association.

#### 1.3 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01 34 00.
- B. Deliver the materials to the job site, in a safe manner, out of the way of traffic, and shored up off the ground surface.
- C. Identify framing lumber as to grades, and store each grade separately from other grades.
- D. Protect materials with adequate waterproof wrapping.
- E. Use extreme care in off loading of lumber to prevent damage, splitting, and breaking of materials.

### **PART 2 - PRODUCTS**

## 2.1 GRADE STAMPS

- A. Identify framing lumber by the stamp of the Western Pine Inspection Bureau, or such other grade stamp as is approved in advance by the Architect.
- B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association.
- C. Identify other materials of the Section by the appropriate stamp of the agency approved in advance by the Roofing Consultant.

## 2.2 MATERIALS

- A. Provide materials in quantities needed for Work as shown on the Drawings, and meeting or exceeding the following standards of quality:
  - 1) Horizontal framing members: Douglas Fir-Hemlock, Pine, construction grade.
  - 2) Plywood Sheathing: Structural II, CDX, exterior; or standard sheathing with exterior glue.
  - 3) Steel Items: Comply with ASTM A7 or ASTM A36. Use galvanized steel in exterior locations.
  - 4) Machines Bolts: Comply with ASTM A307.
  - 5) Lag Bolts: Comply with Fed Spec FF-B-561.
  - 6) Nails: Use common except as otherwise noted. Comply with Fed Spec FF-N-1. Use galvanized at exterior locations.

## 2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

## **PART 3 - EXECUTION**

### 3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 DELIVERIES

- A. Stockpile materials sufficiently in advance of need to assure their availability in a timely manner for this work.
- B. Make as many trips to the job site as are needed to deliver materials of this Section in a timely manner to ensure orderly progress of the Work.

### 3.3 COMPLIANCE

- A. Do not permit materials not complying with provisions of this Section to be brought onto or stored at the job site.
- B. Promptly remove non-complying materials and replace with materials meeting the requirements of this Section.

### 3.4 WORKMANSHIP

- A. Produce joints which are tight, true, and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- B. Carefully select members. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing, and will allow making of proper connections. Cut out and discard defects which render a piece unable to serve its intended function. Lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.
- C. Do not shim any component.

### 3.5 GENERAL FRAMING

- A. In addition to framing operation normal to the fabrication and erection as indicated on the Drawings, install wood blocking and backing required for the work of other trades.
- B. Set horizontal and sloped members with crown up.
- C. Do not notch, cut, or bore members for pipes, ducts, or conduits or for other reasons except as shown on the Drawings or as specifically approved in advance by the Architect.
- D. Make bearings full unless otherwise indicated on the Drawings.
- E. Finish bearing surfaces on which structural members are to rest so as to give sure and even support.
- F. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.

### 3.6 BLOCKING AND BRIDGING

- A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.
- B. Install solid block between joists at points of support and wherever sheathing is discontinuous. Blocking may be omitted where joists are supported on metal hangers.

### 3.7 ALIGNMENT

- A. Nailing:

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- 1) Use only common wire nails or spikes, except where otherwise specifically noted on the Drawings.
- 2) Provide penetration into the piece receiving the point of not less than 1/2 the length of the nail or spike, provided, however, that 16d nails may be used to connect two pieces of 2" (nominal) thickness.
- 3) Nail without splitting wood.
- 4) Pre-bore as required.
- 5) Remove split members and replace with members complying with the specified requirements.

B. Bolting:

- 1) Drill holes 1/16" larger in diameter than the bolts being used.
- 2) Drill straight and true from one side only.
- 3) Do not bear bolt threads on wood, but use washers under head and nut where both bear on wood, and use washers under all nuts.

C. Screws:

- 1) For lag screws and wood screws, pre-bore holes same diameter as roof of threads, enlarging holes to shank diameter for length of shank.

END OF SECTION 06 10 00

SECTION 07 54 23 – TPO SINGLE PLY ROOFING

**PART 1 - GENERAL**

- 1.1 DESCRIPTION: Furnish the labor, administration, materials and equipment to integrate the work into the overall building system so as to provide a leak free, TPO (Thermoplastic Poly Olefin) elastomeric roof system. The system is an assembly of components including the insulation, roofing membrane, metal flashings, and all related parts necessary to complete the assembly.
- 1.2 Provide new insulated TPO roof systems where shown. The roofing systems must meet FM 1-75 Approval and shall be covered by a manufacturer's 20 year written leak free no-dollar limit warranty.
- A. Section Includes:
- 1) Adhered TPO Roofing Membrane.
  - 2) Roof Insulation.
  - 3) Flashings.
  - 4) TPO Sealants & Adhesives.
- 1.3 APPLICATOR'S QUALIFICATIONS
- A. Prior to the Notice of Award, the Contractor shall submit evidence that his company is an approved roofer for the membrane material manufacturer providing the membrane and has five years continuous successful experience in applying TPO roofing systems.
- 1.4 QUALITY ASSURANCE
- A. A roofing consultant has been engaged to provide part time inspection of materials and workmanship. The Contractor shall provide a minimum of one weeks notice to the Architect/Engineer prior to the start of roofing operations so that such services can be scheduled.
- B. Except as modified and supplemented herein, follow the published requirements and written recommendations of the TPO membrane and other material manufacturers. Concerning methods of application industry standards apply only when this contract does not address the matter. Industry Standards shall be pre-defined in the "NRCA (National Roofing Contractors Association) Manual of Roofing and Waterproofing".
- C. Manufacturer's QC Visits: The waterproofing manufacturer's representative shall attend the pre-construction conference and any meetings that are associated with other trades interfacing with the waterproofing system. The waterproofing membrane manufacturer shall make a minimum of an initial visits followed by monthly visits to assess the quality of the work. A final inspection by the

manufacturer's representative shall also be required.

D. Qualifications:

- 1) Qualifications of Contractor: Contractor shall be approved by the membrane manufacturer to install the specified roof system and shall be eligible to receive the specified warranty upon completion of the work. Such approval shall have been issued and in effect for not less than two years prior to the bid opening date.
- 2) Qualifications of Installers: Use adequate number of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work in this section. In acceptance or rejection of the work, no allowance will be made for lack of skill on the part of the workers. Technicians working on the project shall have received training by the roof membrane manufacturer for the procedures necessary to perform the specified work.
- 3) Supervisor Qualifications: Supervisor shall be certified by the membrane manufacturer. Certification shall have been issued at least 2 years prior to bid date.
- 4) Manufacturer Representation: Membrane manufacturer shall be represented by a full time individual or firm based in Colorado. Products represented by part time or regional entity will not qualify.

E. U.L. Listing: Provide materials bearing Underwriters Laboratories (U.L.) marking on bundle, package or container indicating that materials have been produced under U.L.'s classification and follow-up service.

F. FM Listing: Provide roofing system and roof covering material that have been evaluated by Factory Mutual for fire spread, wind uplift and hail damage, and bearing FM Class 1 approval markings.

## 1.5 REFERENCES

- A. *Factory Mutual Research Approval Guide* – Factory Mutual Research Corporation, An FM Global Affiliate.
- B. *Roofing Materials and Systems Directory and Fire Resistance Directory* – Underwriters Laboratories Inc.

## 1.6 SUBMITTALS

- A. When submitting manufacturer's literature, highlight all items pertaining to this project. See Division 1 for other items.
- B. Submit to the Architect/Engineer the items listed in the Submittal Register found in Division 1, and any other pertinent items not listed but necessary to complete the construction.
- C. Submit current manufacturer's literature for all items shown above. Also submit

literature for any other items which may have a direct bearing on the quality of the finished roofing.

- D. Provide certification that materials meet the ASTM and Federal Specifications.

## 1.7 PRE-CONSTRUCTION CONFERENCE

- A. Prior to the start of work hold a pre-construction conference covering all aspects of the new roof installation. The meeting attendees shall include the manufacturer's representative along with the roofing subcontractor's foreman and superintendent. At a minimum, the following items must be addressed:

- 1) Mobilization and staging.
- 2) Protection of the public.
- 3) Storage location for materials.
- 4) Environmental installation requirements.
- 5) Protection of new roofing.
- 6) Tie-into new roofing.
- 7) Construction of new drain sumps.
- 8) Fume control.
- 9) Manufacturer's inspections.
- 10) Warranty requirements.

## 1.8 MATERIAL STORAGE AND HANDLING

- A. Where applicable, the Contractor shall store material in accordance with the material manufacturer's recommendation as to temperature.
- B. All insulation and water sensitive products shall be protected from the elements at all times. Such materials are to be stored in an enclosure or securely covered with a waterproof tarp; the plastic wrappers on the insulation products shall not be used as a means of weather protection.
- C. All materials shall be labeled for ready identification. Labels shall include the name of the manufacturer and product description.
- D. The Contractor shall store only that material on the roof that can be used in one day. Material stored on the roof shall be scattered so as not to apply a concentrated load to the roofing system (greater than 20 psf). No materials shall be stored on new roofing unless a protective layer of plywood with a foam insulation base is used.
- E. The Contractor shall use extreme care when transporting materials to the roof surface. Damaged materials shall not be installed and must be removed from the job site.
- F. The Contractor shall provide all required storage enclosures and safeguards.
- G. Materials shall be delivered in their original, unopened containers, clearly labeled. No materials shall be stored below 40 degrees F. Should any materials be stored below this temperature, they may not be installed until they are restored to a temperature greater than this.



- H. No materials shall be stored on surfaces with slopes greater than ½” per foot.
- I. Extreme caution must be used to properly secure the materials from wind.

#### 1.9 ENVIRONMENTAL REQUIREMENTS

- A. Roofing materials shall not be installed in rain or snow. Roofing materials shall not be applied when there is heavy dew or frost on the roofing area. Application will not be allowed when the forecasted daily high temperature is less than 50 degrees or the wind speed is greater than 15 MPH.
- B. Do not heat the solvent based materials with an open flame in order to bring to a proper application temperature. Store materials in a heated location overnight if necessary.
- C. Provide drum heaters to properly maintain adhesive materials.

#### 1.10 PROTECTION

- A. Adjacent surfaces shall be protected from stain and disfigurement during the demolition and application of roofing materials.
- B. The Contractor shall keep the building interior protected from the elements at all times. Representatives from the Contractor shall be available in one hours notice should an emergency occur.

#### 1.11 SCHEDULE

- A. Work is to be performed on a daily basis with each section completed before progressing to the next section of roofing unless specifically directed otherwise by the A/E.
- B. Completion of work will be defined as the installation of all specified roof preparation, insulation, field membrane, flashings, termination bars, and caulking.

#### 1.12 DEFECTS

- A. Conditions which may be detrimental to the completion or performance of the specified work shall be reported in writing to the Architect/Engineer prior to commencing such work. Such work shall not start until defects have been corrected.

### **PART 2 - PRODUCTS**

#### 2.1 ABBREVIATIONS

- A. ASTM American Society for Testing and Materials
- B. AWPB American Wood Preservers Bureau
- C. FM Factory Mutual

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- D. FS Federal Specification or Federal Standard
- E. SMACNA Sheet Metal and Air Conditioning Contractors National Assoc., Inc.
- F. UL Underwriters Laboratories
- G. WWPA Western Wood Products Association

2.2 APPLICABLE PUBLICATIONS

- A. The following publications of the issue listed below and referred thereafter by basic designation only form a part of this specification to the extent indicated by the references thereto (use latest publication):

2.3 ASTM PUBLICATIONS:

- A. ASTM A 307 Bolts & Nuts
- B. ASTM A 526 Galvanized Steel
- C. ASTM C 1289 Isocyanurate Foam Roof Insulation
- D. ASTM C 1177 Gypsum Substrate Board
- E. ASTM C 6878 TPO Roofing Membrane

2.4 FEDERAL STANDARDS/SPECIFICATIONS:

- A. TT-S 230C Sealing Compound

2.5 ROOF SYSTEM COMPONENTS

- A. Foam Insulation: Install fiberglass faced isocyanurate foam insulation meeting ASTM C 1289, Type II, Class I, Grade 2.
- B. Composite Board: Provide a composite insulation board with a isocyanurate foam insulation core with a high density isocyanurate foam top layer that is 0.5" thick. Foam core shall meet ASTM C 1289, Type II, Class 2, Grade 2. The composite board's top layer of high density isocyanurate foam shall meet ASTM C 1289, Type II, Class 4, Grade 1.
- C. Insulation Attachment: Secure the all layers of foam insulation with FM Approved screw and plate fasteners simultaneously.
- D. TPO Roofing: Fully adhered 60 mil fire rated TPO sheet over composite insulation board. Finished construction must provide UL Class A surface. Products from Manville, Firestone and Carlisle are approved. Sheet shall meet ASTM D6878 requirements.
- E. Accessories: Supply manufacturer required accessory products such as cut edge sealant in order to fully construct TPO membrane system.
- F. Accessories:
  - 1) Termination Bar: Where termination bars are indicated, they shall be a minimum 1/8" x 1" extruded aluminum, with caulk lip as required.

- 2) Batten Strips: Where batten strips are indicated, they shall be minimum 1” x .043” Galvalume steel strip.
- 3) Screw Fasteners: Corrosion-resistant, self-tapping, self-drilling #14 screw with low profile head meeting Factory Mutual 4470 requirements.
- 4) Corrosion-resistant, factory-made metal batten strip, bar, or individual locking metal plates as indicated in details.
- 5) TPO Coated Sheet Metal: 24 gauge galvanizes sheet metal with a factory applied TPO coating.

## 2.6 PRODUCTS SUPPLIED BY OTHER MANUFACTURERS

- A. Temporary water cutoff shall be constructed with hot asphalt or sprayed polyurethane foam sealant.
- B. Exposed sealant joints at termination bars and roof related sheet metal shall be constructed with one part polyurethane sealant; NP-1 by Sonneborn or approved equal.
- C. All other materials not specifically described but required for a complete and proper installation of the work in this section shall be as selected by the Contractor, approved by the manufacturer, and subject to the approval of the A/E.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Deliver all materials to the site in a dry condition with labels intact. Either enclose materials in a trailer or cover with a waterproof tarpaulin to protect from the weather and moisture.
- B. For materials delivery in quantity to the site, obtain and submit a certification that the materials meet the required specification.
- C. Work so that each area of the membrane is completed the same day it is begun. This includes all base flashings.
- D. Two, thirty-gallon per minute puddle type pumps must be available on the job in case water must be removed from the roof surface on an emergency basis.
- E. The workers will not have access to the interior of the building unless it is related to associated interior work.

### 3.2 PREPARATION

- A. Prepare all surfaces according to applicable specification sections.
- B. Perform any and all measures necessary to protect the work of other trades from damage due to performance of work specified under this section. Contractor shall restore to original condition any damage caused during performance of such work.
- C. Surfaces scheduled to receive roofing are to be free of any standing water, frost,

snow, or loose debris.

- D. Substrate is to be smooth, free of sharp projections, and free of obvious depressions.
- E. Cover any asphalt coated surfaces to receive roof membrane or flashing material.
- F. All metal fittings shall be in place before roofing.
- G. All nailers shall be securely installed prior to roofing.
- H. At start of each workday, drains located within daily work area shall be temporarily plugged to prevent debris from falling into the drain. Plugs to be removed at the end of each workday.

### 3.3 OPERATIONAL PROCEDURES

- A. Install temporary tie-ins and water cut-offs at the end of each workday. Remove all temporary tie-ins at the beginning of each workday.
- B. Except for expedient temporary work, do not roof during inclement weather as defined in the General Section of the Specification. Remove all temporary work prior to installing permanent components and materials.
- C. Confine equipment, storage of materials, debris, operations and movement of workers within the limits established for access at the pre-construction conference.
- D. Protect the building, all contents, and surrounding areas from damage, and building occupants from injury during the work. Do not affect the normal conduct of operations of the personnel in the building. Repairs must be made to all damage caused by lack of such protection to the Owner's satisfaction. If they determine that the repairs are beyond the Contractor's ability, then they will have the repairs performed by others and may charge the Contractor for these repairs.
- E. Remove daily all debris from the demolition and installation of the roof.
- F. When wheeled or other traffic over the partially or fully completed roofing is unavoidable, use adequate plywood protection for the membrane.
- G. Provide fifteen pound fire extinguishers at the point of application of any solvent based materials. The extinguishers should be Type A, B, C. No open flames shall be allowed around any of the solvent based products.

### 3.4 DEMOLITION

- A. Remove the existing coating system as detailed in Section 02 41 13.
- B. If conditions are uncovered that would be detrimental to the application of the specified work, immediately notify the representative of the Owner.

### 3.5 INSULATION INSTALLATION

- A. Cut the insulation to fit snugly around penetrations and at the perimeters. No insulation gaps of over 1/4" shall be allowed. If gaps greater than this are created, then they shall be eliminated using trimmed pieces of isocyanurate insulation glued in place.

- B. Insulation boards shall be fully adhered with the 4' dimension staggered if possible.
- C. Follow additional applicable requirements of the roof insulation manufacturer and membrane manufacturer. No wet insulation shall be included in the final construction.
- D. Install tapered insulation with slope direction as indicated on the approved shop drawings. Miter cut all panels at valleys for tight fit and alignment throughout valley length.
- E. Install tapered saddles in valleys, where indicated on the approved drawings in the sizes shown. End of saddle shall provide for slope into the sump at the drainage device. End of saddle shall be of sufficient width at sump such that flat spots do not occur in valley. Saddle slope shall be twice the field slope.
- F. When a tapered insulation system is installed along a perimeter edge of uniform nailer height, utilize tapered edge strip along nailers as tapered insulation thickness decreases for smooth transition and for proper support for the membrane system.
- G. Utilize tapered insulation panels and tapered edge strips to construct sumps at roof drains, scuppers and gutters where detailed. Sump size shall be as shown in approved shop drawings. Delete thermal insulation within sumps, as required, for installation of tapered panels so as to provide continuous slope down to drainage device, without creating a sharp/steep sloped transition. At no time shall slope within drain sump exceed 1:12, unless otherwise noted in drawings.
- H. Install tapered crickets on the upslope side of all rectangular penetrations greater than 2'-0" in width perpendicular with slope. Cricket slope shall be twice the field's slope.
- I. Utilize tapered edge strip at transitions in construction of more than 1/4" to provide a smooth transition and proper support for the membrane system or subsequent insulation layer. Field cut and shape edge strip as required. Direct slope of edge strip so as to provide for proper drainage.
- J. Verify that tapered insulation is properly installed according to the approved shop drawings and that no irregularities exist that will result in ponding water in the finished roof system.

### 3.6 MEMBRANE INSTALLATION

- A. Except as modified and supplemented herein, apply membrane to meet the requirements and recommendations of the membrane manufacturer.
- B. Surfaces which have been contaminated by bitumen or other products which are not compatible with the membrane, flashings, or adhesives shall be cleaned prior to the application of any roofing materials. If the surfaces can be cleaned, they shall be covered with a thin layer of plywood.
- C. Lift all mechanical unit and other roof top items as necessary to facilitate the proper installation of the membrane and flashings. Unit must be reset and brought back to proper functioning condition as soon as possible after the application of the roofing system. HVAC and other mechanical units require 96

hours of written notice from the Contractor to the Owner before approval can be given for this type of work.

- D. Over the new insulation system, unroll the TPO sheet without stretching. Allow sheet to relax for 1/2 hour prior to seaming operations.
- E. Work with largest sheets possible.
- F. When placing the membrane, ensure factory and field fabricated seams do not intersect drain sumps. Seams through drain sumps will not be approved.
- G. Fold membrane back approximately in half so as to expose the underside. Sweep the mating surface and insulation to remove contaminants.
- H. Apply bonding adhesive with roller to both the underside of the membrane and the insulation. Keep bonding adhesive out of seam area. Bonding adhesive shall be applied at rates directed by the manufacturer.
- I. Allow bonding adhesive to flash off until tacky. Roll the coating portion of the sheet into the coated substrate slowly and evenly to avoid wrinkling.
- J. Repeat the process on the remaining half sheet.
- K. Overlap each successive sheet at side laps and all end laps 3" minimum. Sheets shall be spliced so that 2.75" minimum splice tape seam results.
- L. Heat weld all field formed TPO to TPO membrane seams unless indicated otherwise by manufacturer.
- M. On a daily basis, seams shall be checked for voids or other deficiencies, repairs made and lap seam sealant applied where required.
- N. Place cut edge seam sealant on any field cut edges of the TPO membrane.
- O. All T-joints at factory seams and field formed seams shall be covered with 6" diameter, TPO patches.
- P. Repair all cuts, punctures, wrinkles within 18" of seams, wrinkles running toward seams, or wrinkles that can be pinched and folded over. Wrinkles requiring repair shall be cut out and patched. Seam cleaner, seam primer, splice adhesive and lap sealant shall be used for all repairs. All cuts and punctures shall be repaired the same day they are discovered.

### 3.7 FLASHING INSTALLATION

- A. Clean all surfaces to be flashed prior to the application of any new materials.
- B. Bond the specified flashing materials to the substrate in such a manner as to avoid loose spots, sags, and wrinkles. Flash all items in the configuration shown on the Drawings.
- C. Flashings shall be constructed and terminated as indicated. Care shall be taken when drilling into brick or terra cotta surfaces. The specified water cutoff sealant shall be applied behind the top edges of the flashings. All base flashing details that are terminated to surfaces of walls shall be detailed using a termination bar and a subsequent sheet metal counterflashing. Termination bars shall be fastened at all prepunched holes using appropriate fasteners. All fasteners heads and top edges of termination bars shall be sealed using a one part, polyurethane sealant.
- D. Where possible, pre-manufactured, TPO pipe boots shall be used in lieu of field wrapping of pipes.

3.8 SEALANT

- A. Clean the substrate as best possible so no contaminants such as bitumen and dust remain.
- B. If required, prime the surface with the primer recommended by the manufacturer. Also, use sealant backing if required by manufacturer.

END OF SECTION 07 54 23

SECTION 07 60 00 – SHEET METAL FLASHING AND TRIM

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Work included: Provide flashings and sheet metal not specifically described in other Sections of these Specifications but required to prevent penetration of water through the exterior shell of the building.
- B. This Section covers sheet metal accessories needed for the project but are not sold by the roof system manufacturer.
- C. Related work: Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.
- B. In addition to complying with pertinent codes and regulations, comply with pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published by the Sheet Metal and Air Conditioning Contractors National Association (SMACNA).
- C. Standard commercial items may be used for flashing, trim, reglets, and similar purposes provided such items meet or exceed the quality standards specified.

1.3 SUBMITTALS

- A. When submitting manufacturer's literature, highlight all items pertaining to this project.
- B. Submit to the Roofing Consultant the manufacturer's latest published materials and samples along with any other items necessary for construction.
- C. Submit current manufacturer's literature for all items proposed to be provided under this Section.
- D. Provide certification that materials meet the state ASTM and Federal specifications.
- E. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades.
- F. Manufacturer's recommended installation procedures which, when approved by the Roofing Consultant, will become the basis for accepting or rejecting actual installation procedures used on the Work.



#### 1.4 PRODUCT HANDLING

- A. Comply with pertinent sections of Division 7.

### **PART 2 - PRODUCTS**

#### 2.1 MATERIALS AND GAGES

- A. Where sheet metal is required, and no material or gage is indicated on the Drawings, provide the highest quality and gage commensurate with the referenced standards.

#### 2.2 GALVANIZED IRON

- A. Provide sheet metal or sheet iron of a standard brand of open-hearth copper-bearing steel, copper-molybdenum iron, or pure iron sheets.
- B. Zinc coating:
  - 1) Where galvanizing is required, provide zinc coating by hot-dip galvanize to all surfaces.
- C. Weight:
  - 1) Provide not less than 1-1/4 oz. per sq. ft., nor more than 1-1/2 oz. per sq. ft., to surfaces required to be galvanized.
  - 2) Comply with ASTM A93.

#### 2.3 PRE-FINISHED SHEET METAL

- A. Provide factory applied Kynar 500 or equal finish.

#### 2.4 NAILS, RIVETS AND FASTENERS

- A. Use only soft iron rivets having rust-resistive coating, galvanized nails, and cadmium plated screws and washers in connection with galvanized iron and steel.

#### 2.5 ALUMINUM

- A. Where aluminum is shown, use flat stock of 6063-T5 alloy in thicknesses indicated. Use appropriate fasteners so as not to create galvanic action.

#### 2.6 FLUX

- A. Where flux is required, use raw muriatic acid.

2.7 SOLDER

- A. Where solder is required, comply with ASTM B32.

2.8 SCREWS

- A. Provide new stainless steel screw fasteners at wall panels where existing screws are to be removed for installation of new flashings and counterflashings. Screw shall be of same type and size and shall integral washer flanges with neoprene washers.
- B. At all other locations where new fasteners are called out, provide fastener of same type of material as that to be fastened. Do not use screws smaller than #10.

2.9 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Roofing Consultant.

**PART 3 - EXECUTION**

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 WORKMANSHIP

- A. General:
  - 1) Form sheet metal accurately and to the dimensions and shapes required, finishing molded and broken surfaces with true, sharp, and straight lines and angles and, where intercepting other members, coping to an accurate fit and soldering securely.
  - 2) Unless otherwise specifically permitted by Architect, turn exposed edges back with 1/2" hem.
  - 3) Form, fabricate, and install sheet metal to adequately provide for expansion and contraction in the finished Work.
- B. Weatherproofing:
  - 1) Finish watertight and weathertight where so required.
  - 2) Make lock seam work flat and true to line, sweating full of solder.

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- 3) Make lock seams and lap seams, when soldered, at least 1/2" wide.
- 4) Where lap seams are not soldered, lap according to pitch, but in no case less than 3".
- 5) Make flat and lap seams in the direction of flow.

C. Joints:

- 1) Provide 3" splice joint at perimeter trim metal and at counterflashings. Set lap in 2 beads of sealant. Secure with 1/2" splice into hem and two pop rivets of same type of metal as flashing material.
- 2) Join other parts with rivets or sheet metal screws where necessary for strength and stiffness.
- 3) Provide suitable watertight expansion joints for runs of more than 40'-0", except where closer spacing is indicated on the Drawings or required for proper installation.

D. Fastening:

- 1) For fastening into brick or concrete use soft metal jacketed pre-drilled drive-pins, 1/4" in diameter.

3.3 EMBEDMENT

- A. Embed metal in connection with roofs in a solid bed of sealant, using materials and methods which may be described in sections of Division 7.

3.4 TESTS

- A. Upon request of the Roofing Consultant, demonstrate by hose or standing water that the flashing and sheet metal are completely watertight.

END OF SECTION 07 60 00

SECTION 07 92 00 – SEALANT AND CAULKING

**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Section covers sealant and caulking material and application.

1.2 QUALITY CONTROL

- A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 30 00, SUBMITTALS.
- B. Manufacturer's installation instructions for each product used.
- C. Cured samples of exposed sealants for each color where required to match adjacent material.
- D. Manufacturer's Literature and Data:
  - 1) Caulking compound
  - 2) Primers
  - 3) Sealing compound, each type, including compatibility when different sealants are in contact with each other.

1.4 PROJECT CONDITIONS

- A. Environmental Limitations:
  - 1) Do not proceed with installation of joint sealants under following conditions:
    - a) When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 4.4 °C (40 °F).
    - b) When joint substrates are wet.
- B. Joint-Width Conditions:
  - 1) Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications

indicated.

C. Joint-Substrate Conditions:

- 1) Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

1.5 DELIVERY, HANDLING, AND STORAGE:

- A. Deliver materials in manufacturers' original unopened containers, with brand names, date of manufacture, shelf life, and material designation clearly marked thereon.
- B. Carefully handle and store to prevent inclusion of foreign materials.
- C. Do not subject to sustained temperatures exceeding 5 °C (90 °F) or less than 32 °C (40 °F).

**PART 2 - PRODUCTS**

2.1 SEALANTS:

A. S-1:

- 1) ASTM C920, polyurethane.
- 2) Type M.
- 3) Class 25.
- 4) Grade NS.
- 5) Shore A hardness of 20-40

2.2 COLOR:

- A. Sealants used with exposed masonry shall match color of mortar joints.
- B. Sealants used with unpainted concrete shall match color of adjacent concrete.
- C. Color of sealants for other locations shall be light gray or aluminum, unless specified otherwise.

2.3 JOINT SEALANT BACKING:

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

- 1) Type C: Closed-cell material with a surface skin.

#### 2.4 PRIMER:

- A. As recommended by manufacturer of caulking or sealant material.
- B. Stain free type.

### **PART 3 - EXECUTION**

#### 3.1 INSPECTION:

- A. Inspect substrate surface for bond breaker contamination and unsound materials at adherent faces of sealant.
- B. Coordinate for repair and resolution of unsound substrate materials.
- C. Inspect for uniform joint widths and that dimensions are within tolerance established by sealant manufacturer.

#### 3.2 PREPARATIONS:

- A. Prepare joints in accordance with manufacturer's instructions and SWRI.
- B. Clean surfaces of joint to receive caulking or sealants leaving joint dry to the touch, free from frost, moisture, grease, oil, wax, lacquer paint, or other foreign matter that would tend to destroy or impair adhesion.
  - 1) Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants.
  - 2) Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include the following:
    - a) Concrete.
    - b) Masonry.
    - c) Unglazed surfaces of ceramic tile.
  - 3) Remove laitance and form-release agents from concrete.
  - 4) Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
    - a) Metal.
    - b) Glass.
    - c) Porcelain enamel.
    - d) Glazed surfaces of ceramic tile.

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- C. Do not cut or damage joint edges.
- D. Apply masking tape to face of surfaces adjacent to joints before applying primers, caulking, or sealing compounds.
  - 1) Do not leave gaps between ends of sealant backings.
  - 2) Do not stretch, twist, puncture, or tear sealant backings.
  - 3) Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- E. Apply primer to sides of joints wherever required by compound manufacturer's printer instructions.
  - 1) Apply primer prior to installation of back-up rod or bond breaker tape.
  - 2) Use brush or other approved means that will reach all parts of joints.
- F. Take all necessary steps to prevent three sided adhesion of sealants.

3.3 SEALANT DEPTHS AND GEOMETRY:

- A. At widths up to 6 mm (1/4 inch), sealant depth equal to width.
- B. At widths over 6 mm (1/4 inch), sealant depth 1/2 of width up to 13 mm (1/2 inch) maximum depth at center of joint with sealant thickness at center of joint approximately 1/2 of depth at adhesion surface.

3.4 INSTALLATION:

- A. General:
  - 1) Apply sealants and caulking only when ambient temperature is between 5 degrees C and 38 degrees C (40 and 100 degrees F).
  - 2) Do not use polysulfide base sealants where sealant may be exposed to fumes from bituminous materials, or where water vapor in continuous contact with cementitious materials may be present.
  - 3) Do not use sealant type listed by manufacture as not suitable for use in locations specified.
  - 4) Apply caulking and sealing compound in accordance with manufacturer's printer instructions.
  - 5) Avoid dropping or smearing compound on adjacent surfaces.
  - 6) Fill joints solidly with compound and finish compound smooth.
  - 7) Tool joints to concave surface unless shown or specified otherwise.
  - 8) Finish paving or floor joints flush unless joint is otherwise detailed.
  - 9) Apply compounds with nozzle size to fit joint width.
  - 10) Test sealants for compatibility with each other and substrate. Use only compatible sealant.
- B. For application of sealants, follow requirements of ASTM C1193 unless specified otherwise.

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3.5 CLEANING:

- A. Fresh compound accidentally smeared on adjoining surfaces: Scrape off immediately and rub clean with a solvent as recommended by the caulking or sealant manufacturer.
- B. After filling and finishing joints, remove masking tape.
- C. Leave adjacent surfaces in a clean and unstained condition.

END OF SECTION 07 92 00





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- a. The County, in its sole discretion, may elect to extend the term of this Contract. In the event the County elects to exercise this right, it shall send notice to Contractor, pursuant to paragraph 15, of its intent to extend the term of the Contract. The notice shall set forth the length of the extension.
  - b. Upon mutual agreement by the parties, this Contract may be renewed for four additional one-year periods through   date   during which time this Contract shall be in full force and effect, subject to the termination provisions of paragraph 14. If this option to renew is exercised, the parties shall execute a written agreement no later than thirty (30) days before the expiration of this Contract or any subsequent renewals.
  - c. All of the provisions of this Contract shall remain in full force and effect during any extension or renewed term except that the scope of services and compensation to be paid to Contractor during any extension or renewed term shall be mutually agreed upon prior to the commencement of any extension or renewed term. The agreed upon scope of services and compensation shall be reduced to writing, signed by both parties, and attached to this Contract.
  - d. **TEN CALENDAR DAYS BEFORE THE COMMENCEMENT OF ANY EXTENDED TERM THE CONTRACTOR SHALL SUBMIT TO THE COUNTY PROOF OF INSURANCE AS REQUIRED IN PARAGRAPH 9.**
  - e. Should the Parties fail to agree upon the scope of services or compensation to be paid to Contractor for any extension or renewed term, or should Contractor fail to submit the required documents within the time period specified in paragraph 5(d), then this Contract shall terminate at the end of the then current term and no extension or renewal of the term of the Contract shall occur.
6. Quality of Performance: The Contractor shall perform the Contract in a manner satisfactory and acceptable to the County. The County shall be the sole judge of the quality of performance.
7. Schedule of Work: The Contractor shall perform the Work during the hours designated by the County so as to avoid inconvenience to the County and its personnel and interference with the County's operations.
8. Indemnity: The Contractor shall be liable and responsible for any and all damages to persons or property caused by or arising out of the actions, obligations, or omissions of the Contractor, its employees, agents, representatives or other persons acting under the Contractor's direction or control in performing or failing to perform the Work under this Contract. The Contractor will indemnify and hold harmless the County, its elected and appointed officials, and its employees, agents and representatives (the "indemnified parties"), from any and all liability, claims, demands, actions, damages, losses, judgments, costs or expenses, including but not limited to attorneys' fees, which may be made or brought or which may result against any of the indemnified parties as a result

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or on account of the actions or omissions of the Contractor, its employees, agents or representatives, or other persons acting under the Contractor's direction or control.

9. Insurance Requirements: The Contractor shall procure and maintain at its own expense, and without cost to the County, the following kinds and minimum amounts of insurance for purposes of insuring the liability risks which the Contractor has assumed until this Contract has expired or is terminated:

a. Commercial General Liability.

Coverage should be provided on an Occurrence form, ISO CG0001 or equivalent. The policy shall be endorsed to include Additional Insured endorsements CG 2010 (or equivalent), Designated Construction Projects General Aggregate Endorsement CG2503 (or equivalent) and Additional Insured (for products/completed operations) CG 2037 (or equivalent). Minimum limits required of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products Completed Operations Aggregate". The County requires Products/Completed Operations coverage to be provided 2 years after completion of construction. An endorsement must be included with the certificate.

b. Automobile Liability.

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

c. Workers' Compensation and Employer's Liability.

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease-Policy Limit/\$100,000 Disease-Each Employee.

d. Umbrella / Excess Insurance

Umbrella/Excess Liability insurance in the amount \$1,000,000.00, following form.

*This insurance is a broad, high-limit policy, which acts in excess of the underlying primary insurance policy. This coverage is designed to provide additional liability limits beyond the primary insurance limits, and is triggered upon the underlying limits becoming exhausted.*

**THE STATED INSURANCE LIMITS FOR ALL COVERAGES ARE MINIMUM AMOUNTS; DEPENDING ON THE CONTRACT, HIGHER LIMITS MAY BE REQUIRED OR ADVISABLE. CONTACT RISK MANAGEMENT IF YOU HAVE ANY QUESTIONS ABOUT MINIMUM LIMITS. DELETE THIS PARAGRAPH WHEN FINALIZING THE CONTRACT.**

The Contractor shall provide a Certificate of Insurance to Boulder County demonstrating that the insurance requirements have been met prior to the commencement of Work under this Contract. Boulder County shall be named as an additional insured for General Liability and Pollution Liability, as designated in the contract. Additional insured shall be endorsed to the policy.

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**THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS:** *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insured.*

Contractor shall forward certificates of insurance directly to (\_\_\_\_\_) **Agency / Department Representative's Name & Address**).

**Notice of Cancellation:** Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to the County, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. If any insurance company refuses to provide the required notice, the Contractor or its insurance broker shall notify the County of any cancellation, suspension, and/or nonrenewal of any insurance within seven (7) days of receipt of insurers' notification to that effect.

Please forward certificates to the county representative named above.

10. **Nondiscrimination:** The Contractor agrees to comply with the letter and spirit of the Colorado Anti-Discrimination Act, C.R.S. § 24-34-401, *et seq.*, as amended, and all applicable local, state and federal laws respecting discrimination and unfair employment practices. Boulder County prohibits unlawful discrimination on the basis of race, color, religion, gender, gender identity, national origin, age 40 and over, disability, socio-economic status, sexual orientation, genetic information, or any other status protected by applicable federal, state or local law and the Boulder County Policy manual (of which is available upon request).

11. **Nondiscrimination Provisions Binding on Subcontractors:** In all solicitations by the Contractor for any Work related to this Contract to be performed under a subcontract, either by competitive bidding or negotiation, the Contractor shall notify each potential subcontractor of the Contractor's obligations under this Contract, and of all pertinent regulations relative to nondiscrimination and unfair employment practices.

12. **Information and Reports:** The Contractor will provide to authorized governmental representatives, including those of the County, State and Federal Government, all information and reports which they may require for any purpose authorized by law. The Contractor will permit such authorized governmental representatives access to the Contractor's facilities, books, records, accounts, and any other relevant sources of information. Where any information required by any such authorized government representative is in the exclusive possession of a person other than the Contractor, then such Contractor shall so certify to the County, and shall explain what efforts it has made to obtain the information.

13. **Independent Contractor:** The Parties recognize and agree that the Contractor is an independent contractor for all purposes, both legal and practical, in performing services under this Contract, and that the Contractor and its agents and employees are not agents or employees of Boulder County for any purpose. As an independent contractor, the Contractor shall be responsible for employing and directing such personnel and agents as it requires to perform the services purchased under this Contract, shall exercise complete authority over its personnel and agents, and shall be fully responsible for their actions.

**BOULDER COUNTY CONTRACT**  
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**Contractor acknowledges that it is not entitled to unemployment insurance benefits or workers' compensation benefits from Boulder County, its elected officials, agents, or any program administered or funded by Boulder County. Contractor shall be entitled to unemployment insurance or workers' compensation insurance only if unemployment compensation coverage or workers' compensation coverage is provided by Contractor, or some other entity that is not a party to this Contract. Contractor is obligated to pay federal and state income tax on any monies earned pursuant to this Contract.**

14. Termination and Related Remedies:

- a. The other provisions of this Contract notwithstanding, financial obligations of Boulder County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise made available. **Boulder County is prohibited by law from making financial commitments beyond the term of its current fiscal year.** The County has contracted for goods and/or services under this Contract and has reason to believe that sufficient funds will be available for the full term of the Contract. Where, however, for reasons beyond the control of the Board of County Commissioners as the funding entity, funds are not allocated for any fiscal period beyond the one in which this Contract is entered into, the County shall have the right to terminate this Contract by providing seven (7) days written notice to the Contractor pursuant to paragraph 15, and will be released from any and all obligations hereunder. If the County terminates the Contract for this reason, the County and the Contractor shall be released from all obligations to perform Work and make payments hereunder, except that the County shall be required to make payment for Work which has been performed by the Contractor prior to the effective date of termination under this provision; and, conversely, the Contractor shall be required to complete any Work for which the County has made payment prior to providing written notice to the Contractor of the termination.
- b. The preceding provisions notwithstanding, the County may terminate this Contract, either in whole or in part, for any reason, whenever the County determines that such termination is in the County's best interests. Such termination shall be effective after the County provides seven (7) days written notice to the Contractor pursuant to paragraph 15.
- c. In the event the County exercises either of the termination rights specified in paragraphs 14(a) or 14(b), this Contract shall cease to be of any further force and effect, with the exception of all Contract remedies which are specified herein and may otherwise be available to the parties under the law, and with the exception of any rights or liabilities of the parties which may survive by virtue of this Contract.

15. Notices: For purposes of the notices required to be provided under paragraphs 5, 9, and 14, all such notices shall be in writing, and shall be either sent by Certified U.S. Mail - Return Receipt Requested, Electronic Mail, or hand-delivered to the following representatives of the parties at the following addresses:

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For the County: (enter DH/EO's name, Department, Mailing and Email Address)

For the Contractor: (enter Contractor's name, Mailing and Email Address)

In the event a notice is mailed pursuant to the provisions of this paragraph, the time periods specified in paragraph 14 shall commence to run on the day after the postmarked date of mailing.

16. Statutory Requirements: This Contract is subject to all statutory requirements that are or may become applicable to counties or political subdivisions of the State of Colorado generally. Without limiting the scope of this provision, the Contract is specifically subject to the following statutory requirement:

Contract payments may be withheld pursuant to C.R.S. § 38-26-107 if the County receives a verified statement that the Contractor has not paid amounts due to any person who has supplied labor or materials for the project.

17. Prohibitions on Public Contract for Services:

Pursuant to Colorado Revised Statutes (C.R.S.), § 8-17.5-101, et seq., as amended, the Contractor shall meet the following requirements prior to signing this Contract (public contract for service) and for the duration thereof:

- a. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- b. The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- c. At the time of signing this public contract for services, the Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.
- d. The Contractor shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.
- e. If Contractor obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall: notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and, terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous sentence, the subcontractor does not stop employing or contracting with the illegal alien; except that the contractor shall not terminate the contract with the

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subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

- f. Contractor shall comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
  - g. If Contractor violates any provisions of this Section of this Contract the County may terminate this Contract for breach of contract. If the Contract is so terminated, the Contractor shall be liable for actual and consequential damages to the County.
18. Amendments: This Contract may be altered, amended or repealed only on the mutual agreement of the County and the Contractor by a duly executed written instrument.
19. Assignment: This Contract shall not be assigned or subcontracted by the Contractor without the prior written consent of the County.
20. Complete Agreement/Binding Effect: This Contract represents the complete agreement between the Parties hereto and shall be fully binding upon the successors, heirs, and assigns of the Parties, if any, during the term hereof.
21. Governing Law: The laws of the State of Colorado shall govern the interpretation and enforcement of this Contract. Any litigation that may arise between the parties involving the interpretation or enforcement of the terms of this Contract shall be initiated and pursued by the parties in the Courts of the 20<sup>th</sup> Judicial District of the State of Colorado and the applicable Colorado Appellate Courts.
22. Breach: Any waiver of a breach of this Contract shall not be held to be a waiver of any other or subsequent breach of this Contract. All remedies afforded in this Contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided herein or by law.
23. Termination of Prior Agreements: This Contract cancels and terminates, as of its effective date, all prior agreements between the parties relating to the services covered by this Contract, whether written or oral or partly written and partly oral.
24. Invalidity Provision: Should any of the provisions of this Contract be held to be invalid or unenforceable, then the balance of the agreement shall be held to be in full force and effect as though the invalid portion was not included; provided, however, that should the invalidity or unenforceability go to the essence of the agreement or be of substantial nature, then the Party or Parties who would receive the benefit of the provision, were it not invalid or unenforceable, shall have the option to terminate this Contract, forthwith .
25. Third Party Beneficiary: The enforcement of the terms and conditions of this Contract and all rights of action relating to such enforcement shall be strictly reserved to the County and the

**BOULDER COUNTY CONTRACT**  
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Contractor, and nothing contained in this Contract shall give or allow any claim or right of action whatsoever by any other or third person. It is the express intent of the parties to this Contract that any person receiving services or benefits under this Contract shall be deemed an incidental beneficiary only.

26. Conflict of Provisions: In the event of any conflict between the terms of this Contract and the terms of any attachments or addenda, the terms of this Contract shall control.

27. Governmental Immunity: Nothing in this Contract shall be construed in any way to be a waiver of the County's immunity protection under the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as amended.

28. Representations and Warranties: Contractor represents and warrants the following to The County, as a material inducement to the County to execute this Contract, which representations and warranties shall survive the execution and delivery of this Contract, any termination of this Contract, and the final completion of the work.

- a. Execution of this Contract and performance thereof is within the Contractor's duly authorized powers;
- b. Any individual executing this Contract is authorized to do so by the Contractor;
- c. The Contractor is authorized to do business in the State of Colorado and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over the Work and the project; and
- d. The Contractor and its subcontractors, if any, are financially solvent, able to pay all debts as they mature, and possessed of sufficient working capital to complete the work and perform all obligations under the Contract.

29. Execution by Counterparts; Electronic Signatures: This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. The Parties approve the use of electronic signatures for execution of this Contract Only the following two forms of electronic signatures shall be permitted to bind the Parties to this Contract: (1) Electronic or facsimile delivery of a fully executed copy of a signature page; (2) The image of the signature of an authorized signer inserted onto PDF format documents. All use of electronic signatures shall be governed by the Uniform Electronic Transactions Act, C.R.S. §§ 24-71.3-101 to 121.

**[Signature Page to Follow]**



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IN WITNESS WHEREOF, the Parties have executed and entered into this Contract as of the latter day and year indicated below.

Executed by Boulder County on \_\_\_\_\_.  
(date)

**COUNTY OF BOULDER**  
**STATE OF COLORADO**

**ATTEST:** \_\_\_\_\_

By: \_\_\_\_\_  
Administrative Assistant  
Clerk to the Board of Commissioners

(seal)

By: \_\_\_\_\_  
Chair  
Board of County Commissioners

Executed by Contractor on \_\_\_\_\_.  
(date)

**CONTRACTOR:**

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Print Name: \_\_\_\_\_

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Fairgrounds Indoor Arena Roofing**

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**CONTRACTOR’S CERTIFICATION OF COMPLIANCE**

Pursuant to Colorado Revised Statutes, § 8-17.5-101, et seq., as amended, as a prerequisite to entering into a contract for services with Boulder County, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, et seq., in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached contract for services.

CONTRACTOR:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name (Print or Type)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Note: Registration for the E-Verify Program can be completed at: <https://e-verify.uscis.gov/enroll/>.

# **BOULDER COUNTY CONTRACT GENERAL CONDITIONS**

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## **A. COUNTY'S (OWNER'S) RESPONSIBILITIES**

1. Information on services under the control of the County (hereinafter referred to also as the Owner) shall be furnished by the County with reasonable promptness to avoid delay in the orderly progress of the Work.
2. Based on the observations of the County's Representative and an evaluation of the Contractor's Applications for Payment, the County will determine the amounts owing to the Contractor and will issue Certificates for Payment in accordance with the General Conditions on Progress Payments and Final Payments.
3. The Owner's Representative will be the interpreter of the requirements of the Contract Documents. He will make decisions on all claims, disputes or other matters in question between the Contractor and the Owner but he will not be liable for the results of any interpretation or decision rendered in good faith. Decisions of the Architect will be final, if consistent with the intent of the Contract Documents.
4. The Owner's Representative will have authority to reject Work which does not conform to the Contract Documents.
5. The Owner's Representative will have the authority to contact any regulatory agency concerning any alleged regulatory violation and to secure regulatory ruling or suspend work until such ruling is obtained. Such delays if confirmed to be an infraction or variance may give rise to charges against the Contractor by the County for delay of timely completion of contract work.
6. The Owner's Representative will review and approve or take other appropriate action upon the Contractor's submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents.

## **B. CONTRACTOR'S RESPONSIBILITIES**

1. The Contractor shall supervise and direct the Work, using his best skill and attention and he shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
2. Unless otherwise specifically provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work whether or not incorporated or to be incorporated in the Work.
3. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him.
4. The Contractor warrants to the County that all materials and equipment incorporated in the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract

## **BOULDER COUNTY CONTRACT GENERAL CONDITIONS**

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Documents. All Work not conforming to these requirements may be considered defective.

5. Unless otherwise provided in the Contract Documents, the Contractor shall pay all sales, consumer, use and other similar taxes which are legally enacted at the time bids are received and the Contractor will obtain any permits and pay governmental fees, licenses and inspections necessary for the proper execution and completion of the Work.
6. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the Work, and shall promptly notify the County if the Drawings and Specifications are at variance therewith. If the Contractor performs any work contrary to such laws, ordinances, rules or regulations, he shall bear all costs arising therefore.
7. The contractor shall be solely responsible for the acts and omissions of his employees, Subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the Contractor.
8. The Contractor shall review, approve and submit all Product Data and Samples required by the Contract Documents. The Work shall be in accordance with approved submittals.
9. The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials or rubbish from and about the Project as well as his tools, construction equipment, machinery and surplus materials.
10. The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the County harmless from loss on account thereof.
11. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract documents and the County's representative including storage of any materials or equipment.
12. The Contractor shall promptly correct any Work rejected by the County as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed, and shall correct any Work found to be defective or nonconforming within a period of one year from the Date of Substantial Completion of the Contract or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents. The provisions of this Article apply to Work done by Subcontractors or Support Services as well as to Work done by direct employees of the Contractor. Corrections shall be made at no expense to the County.
13. Safety:
  - a. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. The Contractor shall give all notices and comply with the applicable laws,

## BOULDER COUNTY CONTRACT GENERAL CONDITIONS

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ordinances, rules, regulations, and orders of any public authority bearing on the safety of persons and property and on their protection from damage, injury or loss. The Contractor shall take all reasonable steps to minimize inconvenience to users of the site and shall take all reasonable precautions for the safety to, and shall provide all reasonable protection to prevent damage, injury, or loss to:

- i. All employees on the work site and all other persons, including visitors and passersby who may be affected by the work;
    - ii. All the work and all materials and equipment to be incorporated therein; and
    - iii. All property at the site or adjacent thereto.
  - b. The Contractor shall designate a responsible member of the Contractor's organization at the site who shall be assigned the duty of the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the County. This person will also work closely with the County's work superintendent on safety issues and attend regular safety discussions as set by the County's work superintendent.
  - c. In the event the County's superintendent or his designee notifies the Contractor's superintendent of any unsafe conditions or practices, the Contractor shall immediately take all actions required under paragraph 14a to ensure the safety of the work. If the condition or practice continues to present an imminent hazard, the County shall have the authority to stop the work until the condition has been remedied at no expense to the County. In no event shall the County be responsible for ensuring the safety of the work or for remedying the unsafe condition.
14. Liabilities: The Contractor shall promptly remedy all loss or damage to any property or persons caused in whole or in part by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or by any one for whose acts or omissions any of them may be liable. These obligations are in addition to any other obligations under this contract.
15. Performance Bond and Labor and Materials Bond:
- a. Prior to the execution of the Contract by the County, the Contractor shall furnish and deliver to the County a Performance Bond and a Labor and Materials Payment Bond acceptable to the County, in a sum equal to the nearest integral of One Hundred Dollars (\$100) in excess of the Contract price, duly executed by a Corporate Surety qualified and licensed to do business in Colorado and maintaining a general agent therein. Such bond shall comply with the provisions of Section 38-26-106, CRS. **Such bonds are only required if the amount of the contract price is in excess of Fifty Thousand Dollars (\$50,000).**

## **BOULDER COUNTY CONTRACT GENERAL CONDITIONS**

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- b. Unless otherwise specified in the Bidding Documents, the bonds shall be written in the form AIA Documents A312, Performance Bond and Labor and Material Payment Bond.
- c. The Bidder shall require the Attorney-in-Fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his Power of Attorney.

16. No Fumes Clause:

The use of any product that causes fumes or irritants to permeate through or into the building and would cause a reasonable person physical distress or discomfort, such that it would be necessary to vacate users of the building, is strictly prohibited during business hours. Violators will be subject to a \$5,000.00 per day fine for noncompliance. Any exception to this will require written approval from the County's Representative. The Contractor and County acknowledge and agree that the liquidated damages specified herein are reasonable in amount and are not disproportionate to anticipated actual damages. The County shall have the right to deduct liquidated damages from any amount due or that may become due to the Contractor, or to collect such liquidated damages from the Contractor or its surety.

**C. WORK BY OWNER OR BY SEPARATE CONTRACTORS**

- 1. The Owner reserves the right to perform work related to the Project with his own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar conditions of the Contract. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, he shall make such claims as provided below.
- 2. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined by OWNER if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph.
- 3. Any claim for an extension in the Contract Time shall be based on written notice delivered by the party making the claim to the other party promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by OWNER if

**BOULDER COUNTY CONTRACT  
GENERAL CONDITIONS**

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OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph.

4. The Contractor shall afford the Owner and separate contractor's reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate his Work with theirs as required by the Contract Documents.
5. Any costs caused by defective or ill-timed work shall be borne by the party responsible therefore.

**D. CHANGES IN THE WORK**

1. The County may order additions, deletions, or modifications in the Work by issuing a change order signed by its authorized representatives. These changes will not invalidate the Contract; however, the Contract sum and Contract time will be adjusted accordingly by unit prices or by negotiated amount where unit prices are not provided.
2. The Contract sum and the Contract time may be changed only by Change Order.
3. The cost or credit to the County from a change in the Work shall be determined by mutual agreement.
4. Questions concerning changes, modifications and other construction problems are to be submitted to the County for interpretations.

**E. SCHEDULING**

1. Work is to begin after the County has notified the Contractor to proceed, and a work schedule has been agreed to by the County and Contractor. The County and Contractor shall each have copies of this schedule.
2. The Contractor shall promptly inform the County of items which will not be delivered or accomplished according to the initial schedule.
3. If the Contractor is delayed at any time in the progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, or by any other cause which the County determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable times as the County may determine.

**F. PROGRESS PAYMENTS**

1. If this contract is for one hundred fifty thousand dollars (\$150,000) or less, partial payments shall be authorized by the County for work completed, if the Contractor is performing satisfactorily. Partial payments will be made based upon invoices submitted by the Contractor and certified by the County. Ten percent (10%) of each amount certified by the County shall be retained by the County until final payment is made. The Contractor shall

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make partial payments to his Subcontractors in the same manner as the County pays him, provided the Subcontractor is performing satisfactorily.

2. If this contract is for more than one hundred fifty thousand dollars (\$150,000), partial payments of compensation due under this contract are subject to the provisions of Section 24-91-101, et. seq. CRS. If this contract exceeds One Hundred Fifty Thousand Dollars (\$150,000), partial payments shall be authorized by the County for work completed, based upon invoices submitted by the Contractor, if the Contractor is performing satisfactorily. Five percent (5%) of the calculated value of any work completed shall be retained until work is completed, The withheld percentage of the contract price of any such work, improvement, or construction shall be retained until the contract is completed satisfactorily and finally accepted by the public entity. If the public entity finds that satisfactory progress is being made in all phases of the contract, it may, upon written request by the Contractor, authorize payment from the withheld percentage. Before such payment is made, the public entity shall determine that satisfactory and substantial reasons exist for the payment and shall require written approval from any surety furnishing bonds for the contract work. The Contractor shall make partial payments of the amount due to each his subcontractors in the same manner as the public entity is required to pay the Contractor under this statue, provided that the subcontractor is satisfactorily performing under his contract with the Contractor.
3. If it becomes necessary for the County to take over the completion of any contract, all of the amounts owing the contractor, including the withheld percentage, shall be applied: First, toward the cost of completion of the contract; second, toward performance of the public entity's withholding requirement set forth in section 38-26-107, C.R.S.; third, to the surety furnishing bonds for the contract work, to the extent such surety has incurred liability or expense in completing the contract work or made payments pursuant to section 38-26-106, C.R.S.; then, to the contractor. Such retained percentage as may be due any contractor shall be due and payable as provided by section 38-26-107,C.R.S.
4. Payments may be withheld on account of:
  - a. defective work not remedied;
  - b. claims filed;
  - c. failure of the Contractor to make payments properly to Subcontractors or for labor, materials, or equipment;
  - d. failure to carry out the Work in accordance with the Contract Documents; or
  - e. failure to keep the designated superintendent on the site.
  - f. failure to obtain any necessary permits or licenses necessary to carry out the Work under this Contract.

**G. PREREQUISITES TO SUBSTANTIAL COMPLETION**

1. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certificates and similar documents.
2. Furnish a list giving the names, addresses and phone numbers of all subcontractors and materials suppliers who provided labor and/or materials for the work, with identification of the labor and/or materials provided.
3. Obtain and submit releases enabling Owner's full use of the work and access to services and utilities, including occupancy permits, and similar releases.



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4. Submit Record Drawings, maintenance manuals, operating instructions, and similar final records information.
5. Deliver tools, spare parts, extra stocks of materials, and similar physical items to Owner.
6. Make final change-over of locks and transmit keys to Owner.
7. Complete startup testing of systems, and instructions of Owner's operating/maintenance personnel. Discontinue (or change over) and remove from project site temporary facilities and services, along with construction tools and facilities, mock-up, and similar elements.
8. Complete final cleanup requirements.

### **H. SUBSTANTIAL COMPLETION**

The Work (or a specified part thereof) has progressed to the point where, in the opinion of OWNER as evidenced by OWNER'S definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph N of these GENERAL CONDITIONS TO BOULDER COUNTY BUILDING CONSTRUCTION CONTRACT. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

### **I. SUBSTANTIAL COMPLETION PROCEDURES**

1. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that OWNER issue a certificate of Substantial Completion.
2. Within a reasonable time thereafter, OWNER and CONTRACTOR shall make an inspection of the Work to determine the status of completion.
3. If OWNER does not consider the Work substantially complete, OWNER will notify CONTRACTOR in writing giving the reasons therefore.
4. If OWNER considers the Work substantially complete, OWNER will prepare and deliver to CONTRACTOR a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment.
  - a. OWNER will within fourteen days execute and deliver to CONTRACTOR a definitive certificate of Substantial Completion with a list of items to be completed or corrected reflecting any changes from the tentative certificate.
  - b. At the time of delivery of the tentative certificate of Substantial Completion OWNER will deliver to CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance,

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heat, utilities, insurance and warranties. Unless CONTRACTOR objects in writing and so informs OWNER prior to OWNER'S issuing the definitive certificate of Substantial Completion, OWNER'S aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

5. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

### **J. LIENS**

No Mechanics lien may be held against a publicly owned building in the State of Colorado. Protections are limited to those set out below.

### **K. DEDUCTIONS FOR UNCORRECTED WORK**

If the County determines that there is a need to correct work which has not been performed in accordance with the Contract, an equitable deduction from the Contract price may be authorized by change order.

### **L. ACCESS TO WORK**

The County and any architect/engineer retained by the County shall at all times have access to the work.

### **M. FINAL PAYMENT**

1. Within ten (10) days after the Contractor's written declaration of completion of the Work, the County will make a final inspection thereof to determine whether the Work has been completed in accordance with the Contract Documents. If a list of deficiencies results from such final inspection, the Contractor shall promptly rectify all items appearing thereon, before final payment will be made. When the County indicates acceptance of the Work, the Contractor may requisition final payment, including retainage on account of the Contract price.
2. Final payment is subject to the provisions of Section 38-26-107, CRS. Any proposed final settlement for this work shall be duly advertised at least ten (10) days prior thereto by publication at least twice in a public newspaper of general circulation. Any creditor that has furnished labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed on this project by the Contractor or its Subcontractors, or that supplies rental machinery, tools, or equipment to the extent used in the prosecution of the work, whose claim therefore has not been paid by the Contractor or the Subcontractor at any time up to and including the time of final settlement, may file with the County a verified statement of the amount due and unpaid. Such amounts claimed shall thereafter be retained by the County from final settlement pursuant to the provisions of the statute.
3. In any event, final payment shall not be authorized until all inspections have been completed, and all work has been completed.

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4. The making of final payments shall constitute a waiver of all claims by the County except those arising from:
  - a. unsettled claims
  - b. faulty or defective Work appearing after Substantial Completion
  - c. failure of the Work to comply with the requirements of the Contract Documents
  - d. terms of any special warranties required by the Contract Documents.
5. The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

**N. TESTS**

The Contractor shall provide such equipment and facilities as the Architect may require for conducting field tests and for collecting and forwarding samples. The Contractor shall not use any material or equipment represented by samples found to be unacceptable. The Owner shall pay testing laboratory costs for materials testing. The Contractor shall give the Architect and testing laboratory timely notice for required tests.

**O. MEASUREMENTS**

Before ordering any materials or doing any work, the Contractor shall verify all measurements at the project and shall be responsible for the correctness of same. No extra charge or compensation shall be allowed on account of difference between actual dimensions and the measurements indicated on the Drawings. Any difference that may be found shall be submitted to the Owner for consideration before proceeding with the work. The Architect and Owner shall not be responsible for the scaling of Drawings.

END OF GENERAL CONDITIONS