

# ADDENDUM 1.0

October 22, 2020



**Comma-Q**  
Architecture

109 N Rouse Ave, Ste 1  
Bozeman, MT 59715  
(406) 585-1112  
www.commaq.com

Project: **Harrison Extruder Food Lab**

**MSU CPDC #19-0117**

Location: **Montana State University**

Project #: **19-0117**

Bid Date: **October 29, 2020**

Acknowledgment of receipt of this addendum is required on bid form

---

## NOTICE TO BIDDERS:

You are hereby notified of the following clarification of, addition or revisions to, the Bid Documents for the above referenced project.

The following information is being issued to all plan holders of record as of the date of this Addendum. It is the responsibility of each Bidder to notify his/her sub-contractors, suppliers, etc., and to verify all items covered by the Contract Documents, including Addenda, as related to their bids, prior to bid submittal.

This Addendum is hereby made part of the project requirements and contract documents for "**Harrison Extruder Food Lab, MSU CPDC #19-0117**" prepared by Comma-Q Architecture, Inc. and dated **October 1, 2020**. **Be sure to acknowledge this Addendum on your Bid Form(s)**. This addendum consists of the items listed below and the following attachments:

---

## 1 GENERAL

1.1 NO ITEMS

## 2 PROJECT MANUAL

2.1 **AT SECTION 07 2119 SPRAY APPLIED INSULATION:** at item 2.2 MATERIALS, A. Foamed-in-Place Insulation, change the line 6. to read as follows:

"6. Surface Burning Characteristics: ASTM E84 Class 1 material (provide an approved product per Factory Mutual standards if available). Flame spread/smoke developed index of 25/450, maximum, when tested in accordance with ASTM E84.

## 3 DRAWINGS

3.1 **AT SHEET FP2.1, LEVEL 1 EXTRUSION LAB** revise 2/FP2.1 Level 1 Fire Sprinkler Plan as shown on the attached sheet.

## 4 PRIOR APPROVALS:

4.1 RESPONSES TO PRIOR APPROVAL REQUESTS ARE AS SHOWN BELOW. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SUBSTITUTED EQUIPMENT MATCHES THE EXTERIOR DIMENSIONS, WEIGHT, AND CONFIGURATION OF THE SPECIFIED EQUIPMENT. THE CONTRACTOR IS SPECIFICALLY REMINDED THAT THE INDIVIDUAL PRODUCTS MUST MEET OR EXCEED THE QUALITY AND PERFORMANCE OF THE PRODUCT ORIGINALLY SPECIFIED.

Mechanical Prior Approved Manufacturers

- Manual Volume Dampers: Pottorff
- Louvers: Pottorff
- Insulated Flexible Duct: Hart & Cooley
- Diffusers, Registers and Grilles: Titus
- Variable Air Volume Boxes: Titus
- Inline Mounted Ventilators: Carnes Company

Lighting prior approved manufacturers:

- Type A1: Metalux
- Type A1: DayBrite
- Type A1: Elite
- Type F1: Metalux
- Type F1: DayBrite
- Type F1: Elite
- Type X1: Sure-Lites
- Type X1: Chloride
- Type X1: Emergi-Lite
- Controls: Eaton/Cooper

## 5 ATTACHMENTS

### 5.1 SHEET FP2.1 – LEVEL 1 EXTRUSION LAB

END OF ADDENDUM 1.0

**FIRE SPRINKLER SYSTEM SPECIFICATIONS**

**PART 1 - GENERAL**

**1.1 SCOPE**

- A. Furnish and install an automatic sprinkler system to protect the entire remodel area, as shown on the drawings, with accessories as necessary. Connect system to a water supply of sufficient pressure to ensure full and sustained water discharge immediately from sprinkler heads when opened by fire at rated heat temperatures. Water supply shall conform to NFPA water supply requirements.
- B. All portions of the systems shall be installed in accordance with the drawings, details, and specifications and as required by jurisdictional authorities and codes. The position is taken that the Owner is entitled to a project which meets or exceeds the minimum requirements of nationally recognized fire protection standards. All efforts and installations shall be directed toward this end. Where there is conflict between the contract drawings and/or specifications, and the requirements of the jurisdictional authorities or codes, the conflict shall be brought to the attention of the Engineer at least ten (10) days prior to bidding or be resolved at no cost to the Owner. If the contractor has not identified conflicts to the Engineer, he shall be responsible for complying with the most restrictive (expensive) methods.
- C. The intent of these specifications is to describe the complete systems to be installed, including minor details of work or materials not specifically mentioned or shown on the drawings, but necessary for the successful operation and completion of the installation. Contractor shall provide all minor details of work or materials necessary for a complete system even if not specifically mentioned or shown on the drawings. This includes any fittings, offsets, valves, hangers, bracing or piping that may be necessary due to field conditions or coordination with other trades.
- D. Work to be performed under this section shall include, but not be limited to the following:
  1. Automatic Wet Pipe fire sprinkler system.
    - a. Pipe and fittings.
    - b. Hangers and supports.
    - c. Earthquake bracing.
    - d. Valves.
    - e. Water flow and tamper switches.
    - f. Specialties.

**1.2 REGULATORY AGENCIES**

- A. The term jurisdictional authority used in this section of the specification shall include, as applicable, but not be limited to the following:
  1. Bozeman Fire Marshal.
  2. Insurance Services Office or Insuring Authority having jurisdiction.
  3. Owner.

- A. The design and installation of all systems of fire protection shall conform to all requirements of applicable codes and publications herein defined:
  1. International Building Code (2018)
  2. NFPA#13 (2016)
  3. All State and local ordinances
  4. Underwriters' Laboratories
  5. American Society of Testing Materials
  6. American National Standards Institute
  7. Occupational Safety and Health Administration

**1.3 SUBMITTALS**

- A. General
  1. These drawings are for bid purposes only. The successful contractor shall submit complete shop drawings, calculations and materials submittal data to the authority having jurisdiction for approval and to the engineer for review.
  2. The successful Contractor shall provide submittal data as required under other portions of this specification.
  3. Work on the project shall not begin until submittals have been accepted by the Authority Having Jurisdiction and the Engineer.
- B. Working Drawings
  1. Working drawings (floor plans - detailed working drawings), showing dimensions, ducts, lights, or other items affecting the fire protection systems shall be submitted to the Engineer and jurisdictional agencies for review and approval. All items identified in NFPA # 13 for proper working drawings shall be complied with. After approvals from jurisdictional agencies have been returned to the Contractor, they shall be submitted to the Engineer for final acceptance.
  2. Working drawings shall be prepared in AutoCAD or compatible software.
- C. Catalog/Product Information
  1. Product data on all materials intended for use and as indicated on the working drawings shall be submitted to the Engineer and the jurisdictional agencies for approval. Product data shall be highlighted to clearly indicate the materials used.
- D. Hydraulic Calculations
  1. Hydraulic calculations shall be submitted to the Engineer and the Authority Having Jurisdiction for approval. Calculations shall be provided to substantiate the pipe sizes shown on working drawings.
- E. Installer's Qualifications
  1. All systems of fire protection shall be installed by a licensed (for the location of installation) Fire Protection Contractor, fully experienced in fire protection installation as required and specified herein.
  2. All installers shall be competent and shall hold an endorsement by the State of Montana. Prior to beginning work, current Contractor's and Installer's license and endorsements shall be on file with the Department of Commerce Professional and Occupational Licensing Bureau (301 South Park, P.O. Box 200513, Helena, MT 59620-0513)
  3. Submit installer's qualifications for approval including Contractor's license and endorsement of sprinkler system installer for the project.
- F. Close-Out
  1. Record Drawings required per paragraph 1.5 and Operation and Maintenance Manuals required per paragraph 1.6, shall be submitted for approval.

**1.4 JOB CONDITIONS**

- A. The Contractor shall investigate the structural, mechanical, electrical, and finished conditions affecting the piping, and shall arrange the equipment accordingly; furnishing required fittings, offsets and accessories. Route fire protection piping to avoid interference with duct work and drain piping. In the event it becomes necessary to make field changes in pipe locations due to building construction, the Contractor shall consult with the Engineer before making any changes. Any such changes required shall be made without added cost to the Owner.
  - B. The Contractor shall determine, and be responsible for, the proper locations and type of inserts for hangers, chases, sleeves, and other openings in the construction required for fire protection work, and shall obtain this information well in advance of the construction progress to avoid delay of the work.
  - C. The drawings indicate approximate locations of sprinkler heads and conceptual routing of piping. Contractor is responsible for final locations and routing. Contractor shall review all contract documents including architectural, structural, mechanical, electrical, etc. for actual contract conditions.
  - D. All fees and permits specifically required for fire protection work, not obtained by others as specified elsewhere shall be applied for and paid for by this Contractor.
- 1.5 RECORD DRAWINGS**
- A. One approved set of drawings shall be maintained on the job at all times.
  - B. One set of "As-Built" drawings shall be kept on the job at all times. "As-Built" drawings shall be kept current daily. "As-Built" drawings shall be available at all times to Engineer for review and use.
  - C. One reproducible set of "As-Built" drawings shall be provided to the Engineer upon completion of the work.

**1.6 OPERATION AND MAINTENANCE MANUALS**

- A. Three (3) sets of operating and maintenance instructions shall be provided the Owner upon completion. Manuals shall include, as a minimum, the following:
  1. "As-Built" Drawings
  2. Catalog cut sheets of all materials installed
  3. Equipment maintenance manuals
  4. Acceptance Test Certificate
  5. Certification of Owner Training
  6. Contractor Guarantees and Warranty
  7. "As-Built" Auto CAD drawing (.dwg) file or equal on CD
- B. One (1) copy of NFPA #25 (2002) shall be provided to the Owner.
- C. If Operation and Maintenance Manuals are not provided within 30 days of final testing, the Engineer may accomplish such work. Cost of Operation and Maintenance Manuals shall be \$1,000.00. Cost of Operation and Maintenance Manuals will be withheld from the contractor's final payment.

**1.7 TRAINING**

- A. The Fire Protection Contractor shall instruct the Owner in the operation of the systems. Instruction shall continue until the Owner is fully satisfied that he understands the operation of his system.
- B. Contractor shall obtain Owner's dated signature that all training has been accomplished and is acceptable to the Owner.

**1.8 GUARANTEES AND WARRANTIES**

- A. The Fire Protection Contractor shall guarantee to the Owner in writing, all equipment and workmanship for a period of one (1) year after the fire protection system has been placed in continuous service and has been accepted by all authorities having jurisdiction.
- B. The Fire Protection Contractor shall not be held responsible for improper or negligent maintenance by the Owner after operating and maintenance indoctrination has been given the Owner.

**PART 2 - PRODUCTS**

**2.1 FIRE SPRINKLER SYSTEM EQUIPMENT**

- A. Where contract documents indicate specific model number or manufacturer; Contractor may substitute identical equipment approved for fire protection use. Similar equipment may be substituted if Contractor submits revised design, substituted materials, and revised calculations for approval.

**2.2 AUTOMATIC SPRINKLERS**

- A. All sprinklers shall be of similar design and from a single manufacturer.
- B. The operating temperature of sprinklers shall be as required by the specific location of installation in accordance with NFPA #13 requirements.
- C. Sprinklers shall conform to the following schedule:
  1. Brass upright or pendent sprinklers may be used in all attic, mechanical, storage or other non-public spaces or areas where piping is exposed.
  2. White recessed pendent sprinklers shall be used in all finished areas, offices, classrooms, etc.
  3. Where surface mounted obstructions will not allow for recessed installation, two-piece escutcheons may be used, if approved by the Engineer, to extend sprinklers to a maximum deflector distance as allowed by NFPA or U.L. listing.
  4. White concealed pendent sprinklers shall be installed in finished areas where requested by the owner. Coordinate head types with Architect.
- D. All sprinklers shall be quick-response glass bulb type.
  1. Match Existing Sprinkler makes and models

**PART 3 - EXECUTION**

**3.1 DESIGN CRITERIA**

- A. The intent is for the Contractor to provide a complete automatic fire sprinkler system as required. This Contractor shall be responsible for surveying the site, existing construction, and new construction, and providing the complete fire sprinkler system.
- B. The contractor shall design the fire protection piping system. Piping shall be installed by the Contractor so as not to interfere with the installation of other piping, ductwork or light fixtures. The fire protection system supplier shall coordinate with all other construction trades prior to installing the fire protection system piping.
- C. All piping shall be run concealed wherever possible. Where piping is run exposed, special notation shall be evident and conspicuous on the drawings. Exposed piping shall be routed as high as practical and coordinated with the Architect to minimize aesthetic impact on the building. Any exposed piping determined to be a problem by the Architect shall be relocated by the Contractor.
- D. Automatic sprinkler system piping to be hydraulically calculated in accordance with NFPA #13 to the point of connection verified for flow characteristics. The manual standpipe system shall be hydraulically calculated in accordance with NFPA #14 to the inlet of the fire department connection. The hydraulic calculations shall contain a minimum 10% pressure cushion.
- E. The Contractor is responsible for the design of the fire protection system and complying will all applicable Standards and Codes. The preparation of all shop drawings and hydraulic calculations shall be accomplished by a Professional Engineer licensed in Montana and competent in fire protection or by a NICET Level III Design Technician.

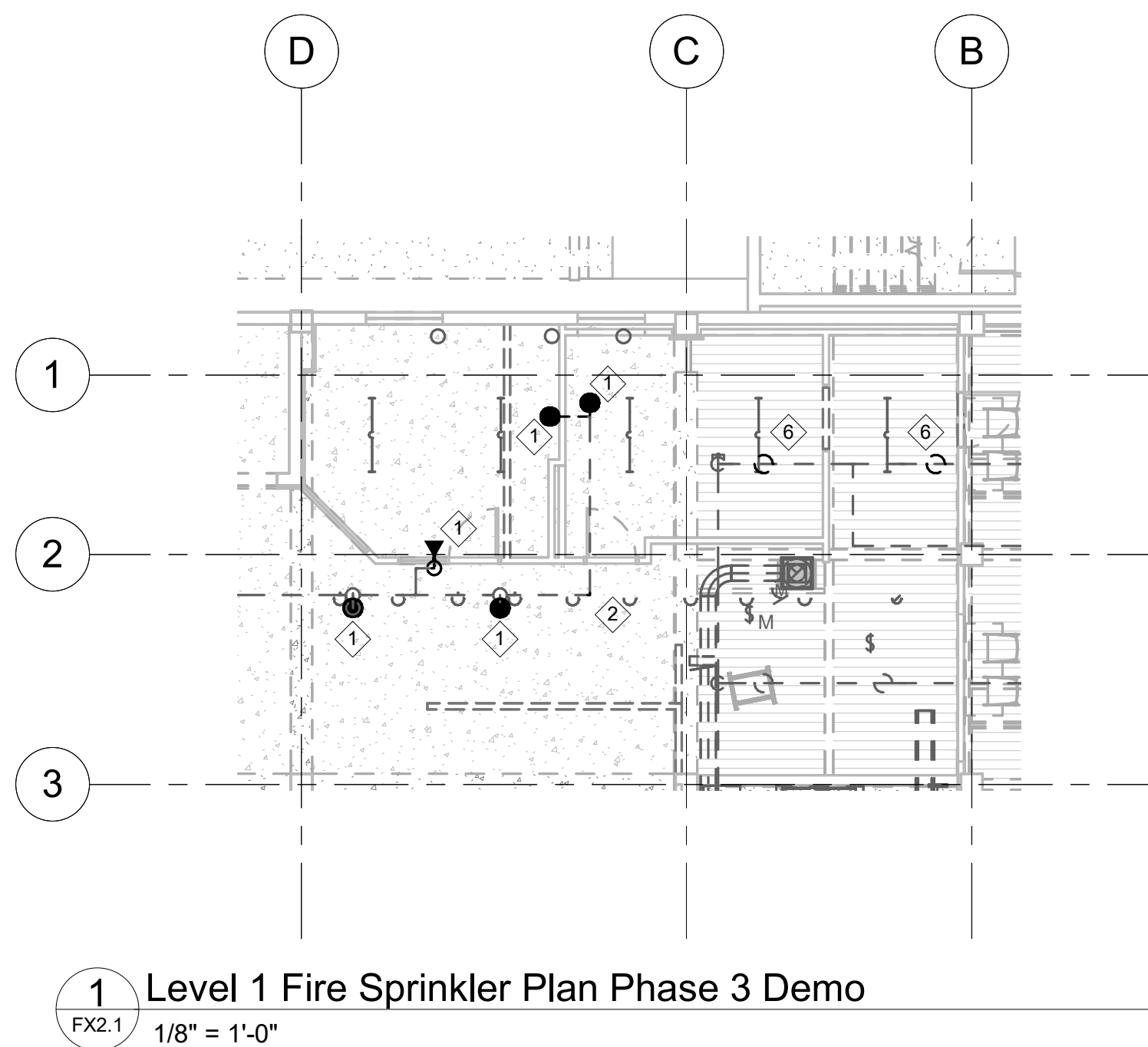
**3.2 INSTALLATION**

- A. Where details of installation are not given, the installation shall be made using manufacturer's recommended practices or at the direction of the Engineer.
- B. Contractor shall complete the fire protection systems ready for operation, in all respects, as soon as possible. When system is complete and ready for continuous operation, activate the system for its intended use. After system has been activated for continuous use, water charges will be paid by the Owner.
- C. This Contractor shall remove from the building, all rubbish and unused materials due to or connected with this installation.
- D. The surface of all piping shall be cleaned and left ready for painting.

**3.2 TESTING**

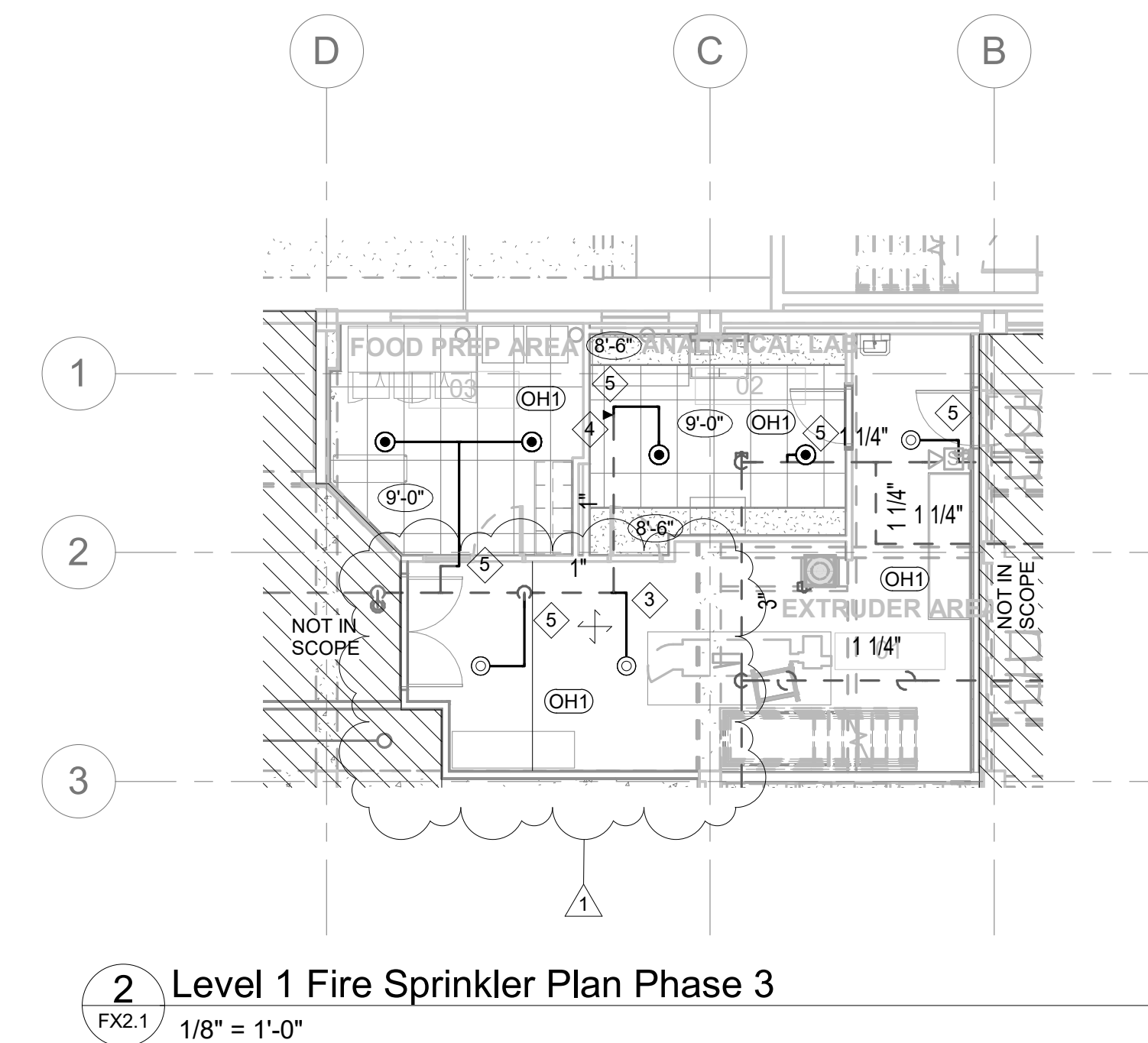
- A. All testing shall be accomplished in accord with NFPA standards and requirements.
- B. This Contractor shall call for inspection and complete Contractor's Material and Test Certificates signed by the authority having jurisdiction.
- C. The entire sprinkler system shall be hydrostatically tested at not less than 200 psig pressure for a period of not less than two (2) hours with no pressure drop in the system.
- D. All testing shall be witnessed by a representative of the Engineer or Owner.
- E. Where jurisdictional authority's standards are more stringent than the above test, they shall prevail.
- F. Furnish copies of Aboveground Test Certificate with close-out documentation.

**END OF SECTION**



1 Level 1 Fire Sprinkler Plan Phase 3 Demo

FX2.1 1/8" = 1'-0"



2 Level 1 Fire Sprinkler Plan Phase 3

FX2.1 1/8" = 1'-0"

**GENERAL NOTES**

1. ALL CEILING HEIGHTS AS NOTED.
  2. ALL COUPLINGS TO BE ZERO FLEX/RIGID UNLESS OTHERWISE NOTED AND/OR REQUIRED BY CODE.
  3. PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL PENETRATIONS IN FINISHED ROOMS.
  4. ALL ROOMS ARE CLASSIFIED AS LIGHT HAZARD OCCUPANCY (0.10 GPM/SQ FT OVER 1500 SQ FT - 100 GPM HOSE) PER NFPA 13 UNLESS OTHERWISE NOTED WITH SYMBOLS BELOW.
- (OH1) ORDINARY HAZARD I OCCUPANCY (0.15 GPM/SQ FT OVER 1500 SQ FT - 250 GPM HOSE)

**KEY NOTES**

1. DEMO EXISTING SPRINKLER AND BRANCH LINE BACK TO EXISTING FITTING TO EXTENTS SHOWN.
2. DEMO EXISTING ELBOW.
3. INSTALL NEW TEE AND ROUTE NEW BRANCH LINE TO NEW SPRINKLER AS SHOWN.
4. INSTALL NEW FLEGS.
5. ROUTE NEW PIPE FROM EXISTING OUTLET TO NEW SPRINKLER LOCATION AS SHOWN.
6. DEMO EXISTING UPRIGHT SPRINKLER.



MSU-CPDC  
MONTANA STATE UNIVERSITY  
BOZEMAN, MONTANA  
PHONE: 406.994.5413  
FAX: 406.994.5665

Harrison Extruder Food Lab  
MONTANA STATE UNIVERSITY



DRAWN BY:	TEB	
REVIEWED BY:	JAA	
REV.	DESCRIPTION	DATE
1	Addendum 01	10/22

PPA#19-0117  
A/E#17-02-06  
Consultant #:

SHEET TITLE  
LEVEL 1  
EXTRUSION LAB

SHEET  
FP2.1

DATE  
10-14-2020