



Purchasing Division

Invitation for Bid

IFB-4094-15-DH

Clean Agent Fire Extinguishing System for Mesa County Sheriff's Office, Evidence Storage

Responses Due:

September 3, 2015 prior to 3:00pm

Accepting Electronic Responses Only

Responses Only Submitted Through the Rocky Mountain E-Purchasing System (RMEPS)

<https://www.rockymountainbidsystem.com/default.asp>

(Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

Purchasing Representative:

Duane Hoff Jr., Senior Buyer

duaneh@gjcity.org

970-244-1545

This document has been developed specifically to solicit competitive responses for this solicitation, and may not be the same as previous City of Grand Junction/Mesa County solicitations. All vendors are urged to thoroughly review this solicitation prior to responding. Submittal by **FAX OR HARD COPY IS NOT ACCEPTABLE** for this solicitation.

Invitation for Bids

Clean Agent Fire Extinguishing System for Mesa County Sheriff's
Office, Evidence Storage

Table of Contents

Section 1	Instruction to Bidders
Section 2	General Contract Conditions
Section 3	Statement of Work
Section 4	Contractor's Bid Form
	Price Proposal/Bid Schedule Form
	Attachments

1. Instructions to Bidders

- 1.1. **Purpose:** The City of Grand Junction, on behalf of Mesa County, is soliciting competitive bids from qualified and interested companies for all labor, equipment, and materials required to remove and dispose of existing wet sprinkler system, and install new clean agent fire extinguishing system. All dimensions and scope of work should be verified by Contractors prior to submission of bids.
- 1.2. **Mandatory Site Visit/Briefing:** **Prospective bidders are required to attend a site visit/briefing on August 24, 2015 at 10:00am.** Meeting location shall be at Mesa County Sheriff's Office, 215 Rice Street, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).
- 1.3. **The Owner:** The Owner is the City of Grand Junction and/or Mesa County, Colorado and is referred to throughout this Solicitation. The term Owner means the Owner or his authorized representative.
- 1.4. **Submission:** **Each proposal shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (<https://www.rockymountainbidssystem.com/default.asp>).** *This site offers both "free" and "paying" registration options that allow for full access of the Owner's documents and for electronic submission of proposals. (Note: "free" registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our **"Electronic Vendor Registration Guide"** at <http://www.gjcity.org/BidOpenings.aspx> for details. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **800-835-4603**)
- 1.5. **Printed Form for Price Bid:** All Price Bids must be made upon the Contractor's Bid Form attached, and should give the amounts both in words and in figures, and must be signed and acknowledged by the bidder.
- 1.6. **Exclusions:** No oral, telephonic, emailed, or facsimile bid will be considered
- 1.7. **Contract Documents:** The complete IFB and bidder's response compose the Contract Documents. Copies of these documents can be obtained from the City Purchasing website, <http://www.gjcity.org/BidOpenings.aspx>.
- 1.8. **Examination of Specifications:** Bidders shall thoroughly examine and be familiar with the project Statement of Work. The failure or omission of any Offeror to receive or examine any form, addendum, or other document shall in no way relieve any Offeror from any obligation with respect to his bid. The submission of a bid shall be taken as evidence of compliance with this section.

- 1.9. **Questions Regarding Statement of Work:** Any information relative to interpretation of Scope of Work or specifications shall be requested of the Purchasing Representative, in writing, in ample time prior to the response time.
- 1.10. **Addenda & Interpretations:** If it becomes necessary to revise any part of this solicitation, a written addendum will be posted electronically on the City's website at <http://www.gjcity.org/BidOpenings.aspx>. The Owner is not bound by any oral representations, clarifications, or changes made in the written specifications by Owner, unless such clarification or change is provided in written addendum form from the City Purchasing Representative.
- 1.11. **Taxes:** The Owner is exempt from State retail and Federal tax. The bid price must be net, exclusive of taxes.
- 1.12. **Offers Binding 60 Days:** Unless otherwise specified, all formal offers submitted shall be binding for sixty (60) calendar days following opening date, unless the Bidder, upon request of the Purchasing Representative, agrees to an extension.
- 1.13. **Collusion Clause:** Each bidder by submitting a bid certifies that it is not party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any and all bids shall be rejected if there is evidence or reason for believing that collusion exists among bidders. The Owner may, or may not, accept future bids for the same services or commodities from participants in such collusion.
- 1.14. **Public Disclosure Record:** If the bidder has knowledge of their employee(s) or sub-contractors having an immediate family relationship with a City/County employee or elected official, the bidder must provide the Purchasing Representative with the name(s) of these individuals. These individuals are required to file an acceptable "Public Disclosure Record", a statement of financial interest, before conducting business with the City/County.

2. General Contract Conditions for Construction Projects

- 2.1. **The Contract:** This Invitation for Bid, submitted documents, and any negotiations, when properly accepted by the City/County, shall constitute a contract equally binding between the City/County and Contractor. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The contract may be amended or modified with Change Orders, Field Orders, or Addendums.
- 2.2. **The Work:** The term Work includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.
- 2.3. **Execution, Correlation, Intent, and Interpretations:** The Contract Documents shall be signed in not less than triplicate by the Owner (City/County) and Contractor.

City/County will provide the contract. By executing the contract, the Contractor represents that he/she has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents. The Contract Documents are complementary, and what is required by any one, shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment and other items necessary for the proper execution and completion of the scope of work as defined in the technical specifications and drawings contained herein. All drawings, specifications and copies furnished by the City/County are, and shall remain, City/County property. They are not to be used on any other project, and with the exception of one contract set for each party to the contract, are to be returned to the owner on request at the completion of the work.

- 2.4. The Owner:** The Owner is the City of Grand Junction and/or Mesa County, Colorado and is referred to throughout the Contract Documents. The term Owner means the Owner or his authorized representative. The Owner shall, at all times, have access to the work wherever it is in preparation and progress. The Contractor shall provide facilities for such access. The Owner will make periodic visits to the site to familiarize himself generally with the progress and quality of work and to determine, in general, if the work is proceeding in accordance with the contract documents. Based on such observations and the Contractor's Application for Payment, the Owner will determine the amounts owing to the Contractor and will issue Certificates for Payment in such amounts, as provided in the contract. The Owner will have authority to reject work which does not conform to the Contract documents. Whenever, in his reasonable opinion, he considers it necessary or advisable to insure the proper implementation of the intent of the Contract Documents, he will have authority to require the Contractor to stop the work or any portion, or to require special inspection or testing of the work, whether or not such work can be then be fabricated, installed, or completed. The Owner will not be responsible for the acts or omissions of the Contractor, and sub-Contractor, or any of their agents or employees, or any other persons performing any of the work.
- 2.5. Contractor:** The Contractor is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents. The term Contractor means the Contractor or his authorized representative. The Contractor shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Work, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Contractor shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Contractor shall not commence work without clarifying Drawings, Specifications, or Interpretations.
- 2.6. Sub-Contractors:** A sub-contractor is a person or organization who has a direct contract with the Contractor to perform any of the work at the site. The term sub-contractor is referred to throughout the contract documents and means a sub-contractor or his authorized representative.

- 2.7. Award of Sub-Contractors & Other Contracts for Portions of the Work:** As soon as practicable after bids are received and prior to the award of the contract, the successful Contractor shall furnish to the Owner, in writing for acceptance, a list of the names of the sub-contractors or other persons or organizations proposed for such portions of the work as may be designated in the proposal requirements, or, if none is so designated, the names of the sub-contractors proposed for the principal portions of the work. Prior to the award of the contract, the Owner shall notify the successful Contractor in writing if, after due investigation, has reasonable objection to any person or organization on such list. If, prior to the award of the contract, the Owner has a reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the successful Contractor may, prior to the award, withdraw their proposal without forfeiture of proposal security. If the successful Contractor submits an acceptable substitute with an increase in the proposed price to cover the difference in cost occasioned by the substitution, the Owner may, at their discretion, accept the increased proposal or may disqualify the Contractor. If, after the award, the Owner refuses to accept any person or organization on such list, the Contractor shall submit an acceptable substitute and the contract sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued. However, no increase in the contract sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting a name with respect thereto prior to the award.
- 2.8. Supervision and Construction Procedures:** The Contractor shall supervise and direct the work, using his best skill and attention. 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.
- 2.9. Warranty:** The Contractor warrants to the Owner that all materials and equipment furnished under this contract 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 Documents. All work not so conforming to these standards may be considered defective. If required by Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. If within ten (10) days after written notice to the Contractor requesting such repairs or replacement, the Contractor should neglect to make or undertake with due diligence to the same, the City may make such repairs or replacements. All indirect and direct costs of such correction or removal or replacement shall be at the Contractor's expense. The Contractor will also bear the expenses of making good all work of others destroyed or damaged by the correction, removal or replacement of his defective work.
- 2.10. Permits, Fees, & Notices:** The Contractor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the work. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the Contract

Documents are at variance in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by approximate modification. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he shall assume full responsibility and shall bear all costs attributable.

- 2.11. Responsibility for Those Performing the Work:** The Contractor shall be responsible to the Owner for the acts and omissions of all his employees and all sub-contractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.
- 2.12. Use of the Site:** The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.
- 2.13. Cleanup:** 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 work he shall remove all his waste materials and rubbish from and about the project, as well as all his tools, construction equipment, machinery and surplus materials.
- 2.14. Insurance Requirements:** The selected Bidder agrees to procure and maintain, at its own cost, policy(s) of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by the Bidder pursuant to this Section. Such insurance shall be in addition to any other insurance requirements imposed by this Contract or by law. The Bidder shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Section by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types. Bidder shall procure and maintain and, if applicable, shall cause any Subcontractor of the Bidder to procure and maintain insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Owner. All coverage shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by the Bidder pursuant to this Section. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Minimum coverage limits shall be as indicated below unless specified otherwise in the Special Conditions:

(a) Worker Compensation insurance to cover obligations imposed by applicable laws for any employee engaged in the performance of work under this Contract, and Employers' Liability insurance with minimum limits of:

One Million Dollars (\$1,000,000) each accident,
One Million Dollars (\$1,000,000) disease - policy limit, and
One Million Dollars (\$1,000,000) disease - each employee

(b) General Liability insurance with minimum combined single limits of:

One Million Dollars (\$1,000,000) each occurrence and
One Million Dollars (\$1,000,000) per job aggregate.

The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall include coverage for explosion, collapse, and underground hazards. The policy shall contain a severability of interests provision.

(c) Comprehensive Automobile Liability insurance with minimum combined single limits for bodily injury and property damage of not less than:

One Million Dollars (\$1,000,000) each occurrence and
One Million Dollars (\$1,000,000) aggregate

This policy shall provide coverage to protect the contractor against liability incurred as a result of the professional services performed as a result of responding to this Solicitation.

With respect to each of Bidder's owned, hired, or non-owned vehicles assigned to be used in performance of the Work. The policy shall contain a severability of interests provision. The policies required by paragraphs (b), and (c) above shall be endorsed to include the City and/or County, and the City's and/or County's officers and employees as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the Owner, its officers, or its employees, or carried by or provided through any insurance pool of the Owner, shall be excess and not contributory insurance to that provided by Bidder. No additional insured endorsement to any required policy shall contain any exclusion for bodily injury or property damage arising from completed operations. The Bidder shall be solely responsible for any deductible losses under any policy required above.

2.15. Indemnification: The Contractor shall defend, indemnify and save harmless the Owner, and all its officers, employees, insurers, and self-insurance pool, from and against all liability, suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the Contractor, or of any Contractor's agent, employee, sub-contractor or supplier in the execution of, or performance under, any contract which may result from proposal award. Contractor shall pay any judgment with cost which may be obtained against the Owner growing out of such injury or damages.

2.16. Miscellaneous Conditions: Material Availability: Contractors must accept responsibility for verification of material availability, production schedules, and other pertinent data prior to submission of bid. It is the responsibility of the bidder to notify the Owner immediately if materials specified are discontinued, replaced, or

not available for an extended period of time. OSHA Standards: All bidders agree and warrant that services performed in response to this invitation shall conform to the standards declared by the US Department of Labor under the Occupational Safety and Health Act of 1970 (OSHA). In the event the services do not conform to OSHA standards, the Owner may require the services to be redone at no additional expense to the Owner.

- 2.17. Time:** The Contract Time is the period of time allotted in the Contract Documents for completion of the work. The date of commencement of the work is the date established in a Notice to Proceed. If there is no Notice to Proceed, it shall be the date of the Contract or such other date as may be established therein, or as established as entered on the Bid Form. The Date of Substantial Completion of the work or designated portions thereof is the date certified by the Owner when construction is sufficiently complete, in accordance with the Contract Documents.
- 2.18. Progress & Completion:** The Contractor shall begin work on the date of commencement as defined in the Contract, and shall carry the work forward expeditiously with adequate forces and shall complete it within the contract time.
- 2.19. Payment & Completion:** The Contract Sum is stated in the Contract and is the total amount payable by the Owner to the Contractor for the performance of the work under the Contract Documents. Upon receipt of written notice that the work is ready for final inspection and acceptance and upon receipt of application for payment, the Owner's Project Manager will promptly make such inspection and, when he finds the work acceptable under the Contract Documents and the Contract fully performed, the Owner shall make payment in the manner provided in the Contract Documents.
- 2.20. Quantities of Work and Unit Price:** Materials or quantities stated as unit price items in the Bid are supplied only to give an indication of the general scope of the Work. The City does not expressly or by implication agree that the actual amount of Work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit item of the Work without a change in the unit price. The City also reserves the right to make changes in the Work including the right to delete any bid item in its entirety or add additional bid items.
- 2.21. Bid Bond:** Each Bid shall as a guaranty of good faith on the part of the Bidder be accompanied by a Bid Guaranty consisting of: a certified or cashier's check drawn on an approved national bank or trust company in the state of Colorado, and made payable without condition to the City; or a **Bid Bond** written by an approved corporate surety in favor of the City. The amount of the Bid Guaranty shall not be less than 5% of the total Bid amount. Once a Bid is accepted and a Contract is awarded, the apparent successful bidder has ten calendar days to enter into a contractor in the form prescribed and to furnish the bonds with a legally responsible and approved surety. Failure to do so will result in forfeiture of the Bid Guaranty to the City as Liquidated Damages.

- 2.22. Performance & Payment Bonds:** Contractor shall furnish a Performance and a Payment Bond, each in an amount at least equal to that specified for the contract amount as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These bonds shall remain in effect for the duration of the Warranty Period (as specified in the Special Conditions). Contractor shall also furnish other bonds that may be required by the Special Conditions. All bonds shall be in the forms prescribed by the Contract Documents and be executed by such sureties as (1) are licensed to conduct business in the State of Colorado and (2) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the Authority Act. If the surety on any bond furnished by the Contractor is declared bankrupt, or becomes insolvent, or its rights to do business in Colorado are terminated, or it ceases to meet the requirements of clauses (1) and (2) of this section, Contractor shall within five (5) days thereafter substitute another bond and surety, both of which shall be acceptable to the City.
- 2.23. Retention:** The Owner will deduct money from the partial payments in amounts considered necessary to protect the interest of the Owner and will retain this money until after completion of the entire contract. The amount to be retained from partial payments will be five (5) percent of the value of the completed work, and not greater than five (5) percent of the amount of the Contract. When the retainage has reached five (5) percent of the amount of the Contract no further retainage will be made and this amount will be retained until such time as final payment is made.
- 2.24. Contingency/Force Account:** Contingency/Force Account work will be authorized by the Owner's Project Manager and is defined as minor expenses to cover miscellaneous or unforeseen expenses related to the project. The expenses are not included in the Drawings, Specifications, or Scope of Work and are necessary to accomplish the scope of this contract. Contingency/Force Account Authorization will be directed by the Owner through an approved form. Contingency/Force Account funds are the property of the Owner and any Contingency/Force Account funds, not required for project completion, shall remain the property of the Owner. Contractor is not entitled to any Contingency/Force Account funds, that are not authorized by Owner or Owner's Project Manager.
- 2.25. Protection of Persons & Property:** The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain, as required by existing safeguards for safety and protection, and all reasonable precautions, including posting danger signs or other warnings against hazards promulgating safety regulations and notifying owners and users of adjacent utilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct by the Contractor in the execution of the work, or in consequence of the non-execution thereof by the

Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or it shall make good such damage or injury in an acceptable manner.

- 2.26. Changes in the Work:** The Owner, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions or other revisions, the contract sum and the contract time being adjusted accordingly. All such changes in the work shall be authorized by Change Order and shall be executed under the applicable conditions of the contract documents. A Change Order is a written order to the Contractor signed by the Owner issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time. The contract sum and the contract time may be changed only by Change Order.
- 2.27. Claims for Additional Cost or Time:** If the Contractor wishes to make a claim for an increase in the contract sum or an extension in the contract time, he shall give the Owner written notice thereof within a reasonable time after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the work, except in an emergency endangering life or property in which case the Contractor shall precede in accordance with the regulations on safety. No such claim shall be valid unless so made. Any change in the contract sum or contract time resulting from such claim shall be authorized by Change Order.
- 2.28. Minor Changes in the Work:** The Owner shall have authority to order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents.
- 2.29. Field Orders:** The Owner may issue written Field Orders which interpret the Contract Documents in accordance with the specifications, or which order minor changes in the work in accordance with the agreement, without change in the contract sum or time. The Contractor shall carry out such Field Orders promptly.
- 2.30. Uncovering & Correction of Work:** The Contractor shall promptly correct all work rejected by the Owner 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 competed. The Contractor shall bear all costs of correcting such rejected work, including the cost of the Owner's additional services thereby made necessary. If within one (1) year after the date of completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the contract documents, any of the work found to be defective or not in accordance with the contract documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discover of condition. All such defective or non-conforming work under the above paragraphs

shall be removed from the site where necessary and the work shall be corrected to comply with the contract documents without cost to the Owner. The Contractor shall bear the cost of making good all work of separate Contractors destroyed or damaged by such removal or correction. If the Owner prefers to accept defective or non-conforming work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the payment or contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.

- 2.30. Amendment:** No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All amendments to the contract shall be made in writing by the Owner.
- 2.31. Assignment:** The Contractor shall not sell, assign, transfer or convey any contract resulting from this IFB, in whole or in part, without the prior written approval from the Owner.
- 2.32. Compliance with Laws:** Bids must comply with all Federal, State, County and local laws governing or covering this type of service and the fulfillment of all ADA (Americans with Disabilities Act) requirements.
- 2.33. Confidentiality:** All information disclosed by the Owner to the Contractor for the purpose of the work to be done or information that comes to the attention of the Contractor during the course of performing such work is to be kept strictly confidential.
- 2.34. Conflict of Interest:** No public official and/or City/County employee shall have interest in any contract resulting from this IFB.
- 2.35. Contract Termination:** This contract shall remain in effect until any of the following occurs: (1) contract expires; (2) completion of services; (3) acceptance of services or, (4) for convenience terminated by either party with a written *Notice of Cancellation* stating therein the reasons for such cancellation and the effective date of cancellation.
- 2.36. Employment Discrimination:** During the performance of any services per agreement with the Owner, the Contractor, by submitting a Bid, agrees to the following conditions:
- 2.36.1.** The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, handicap, or national origin except when such condition is a legitimate occupational qualification reasonably necessary for the normal operations of the Contractor. The Contractor agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

- 2.36.2.** The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, shall state that such Contractor is an Equal Opportunity Employer.
- 2.36.3.** Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- 2.37. Immigration Reform and Control Act of 1986 and Immigration Compliance:** The Offeror certifies that it does not and will not during the performance of the contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 and/or the immigration compliance requirements of State of Colorado C.R.S. § 8-17.5-101, *et.seq.* (House Bill 06-1343).
- 2.38. Ethics:** The Contractor shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official, or agent of the Owner.
- 2.39. Failure to Deliver:** In the event of failure of the Contractor to deliver services in accordance with the contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Contractor responsible for any costs resulting in additional purchase and administrative services. This remedy shall be in addition to any other remedies that the Owner may have.
- 2.40. Failure to Enforce:** Failure by the Owner at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the Owner to enforce any provision at any time in accordance with its terms.
- 2.41. Force Majeure:** The Contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the Contractor, unless otherwise specified in the contract.
- 2.42. Independent Contractor:** The Contractor shall be legally considered an Independent Contractor and neither the Contractor nor its employees shall, under any circumstances, be considered servants or agents of the Owner. The Owner shall be at no time legally responsible for any negligence or other wrongdoing by the Contractor, its servants, or agents. The Owner shall not withhold from the contract payments to the Contractor any federal or state unemployment taxes, federal or state income taxes, Social Security Tax or any other amounts for benefits to the Contractor. Further, the Owner shall not provide to the Contractor any insurance coverage or other benefits, including Workers' Compensation, normally provided by the Owner for its employees.
- 2.43. Nonconforming Terms and Conditions:** A bid that includes terms and conditions that do not conform to the terms and conditions of this Invitation for Bid is subject to

rejection as non-responsive. The Owner reserves the right to permit the Contractor to withdraw nonconforming terms and conditions from its bid prior to a determination by the Owner of non-responsiveness based on the submission of nonconforming terms and conditions.

- 2.44. Ownership:** All plans, prints, designs, concepts, etc., shall become the property of the Owner.
- 2.45. Oral Statements:** No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this document and/or resulting agreement. All modifications to this request and any agreement must be made in writing by the Owner.
- 2.46. Patents/Copyrights:** The Contractor agrees to protect the Owner from any claims involving infringements of patents and/or copyrights. In no event shall the Owner be liable to the Contractor for any/all suits arising on the grounds of patent(s)/copyright(s) infringement. Patent/copyright infringement shall null and void any agreement resulting from response to this IFB.
- 2.47. Remedies:** The Contractor and Owner agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.
- 2.48. Venue:** Any agreement as a result of responding to this IFB shall be deemed to have been made in, and shall be construed and interpreted in accordance with, the laws of the City of Grand Junction, Mesa County, Colorado.
- 2.49. Expenses:** Expenses incurred in preparation, submission and presentation of this IFB are the responsibility of the company and cannot be charged to the Owner.
- 2.50. Sovereign Immunity:** The Owner specifically reserves its right to sovereign immunity pursuant to Colorado State Law as a defense to any action arising in conjunction to this agreement.
- 2.51. Non-Appropriation of Funds:** The contractual obligation of the Owner under this contract is contingent upon the availability of appropriated funds from this fiscal year budget as approved by the City Council or Board of County Commissioners from this fiscal year only. State of Colorado Statutes prohibit obligation of public funds beyond the fiscal year for which the budget was approved. Anticipated expenditures/obligations beyond the end of the current Owner's fiscal year budget shall be subject to budget approval. Any contract will be subject to and must contain a governmental non-appropriation of funds clause.
- 2.52. Cooperative Purchasing:** Purchases as a result of this solicitation are primarily for the City/County. Other governmental entities may be extended the opportunity to utilize the resultant contract award with the agreement of the successful provider and the participating agencies. All participating entities will be required to abide by the specifications, terms, conditions and pricings established in this Bid. The quantities furnished in this bid document are for only the City/County. It does not

include quantities for any other jurisdiction. The City or County will be responsible only for the award for its jurisdiction. Other participating entities will place their own awards on their respective Purchase Orders through their purchasing office or use their purchasing card for purchase/payment as authorized or agreed upon between the provider and the individual entity. The City/County accepts no liability for payment of orders placed by other participating jurisdictions that choose to piggy-back on our solicitation. Orders placed by participating jurisdictions under the terms of this solicitation will indicate their specific delivery and invoicing instructions.

- 2.53. Keep Jobs in Colorado Act:** Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a). If Contractor claims it is entitled to a waiver pursuant to C.R.S. §8-17-101(1), Contractor shall state that there is insufficient Colorado labor to perform the work such that compliance with Article 17 would create an undue burden that would substantially prevent a project from proceeding to completion, and shall include evidence demonstrating the insufficiency and undue burden in its response.

Unless expressly granted a waiver by the Owner pursuant to C.R.S. §8-17-101(1), Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a).

2.53.1. "Public project" is defined as:

- (a) any construction, alteration, repair, demolition, or improvement of any land, building, structure, facility, road, highway, bridge, or other public improvement suitable for and intended for use in the promotion of the public health, welfare, or safety and any maintenance programs for the upkeep of such projects
- (b) for which appropriate or expenditure of moneys may be reasonably expected to be \$500,000.00 or more in the aggregate for any fiscal year
- (c) except any project that receives federal moneys.

3. Statement of Work

3.1. General: The City of Grand Junction, on behalf of Mesa County, is soliciting competitive bids from qualified and interested companies for all labor, equipment, and materials required to remove and dispose of existing wet sprinkler system, and install new clean agent fire extinguishing system. All dimensions and scope of work should be verified by Contractors prior to submission of bids.

3.2. Special Conditions & Provisions:

3.2.1 Mandatory Site Visit/Briefing: Prospective bidders are required to attend a site visit/briefing on August 24, 2015 at 10:00am. Meeting location shall be at Mesa County Sheriff's Office, 215 Rice Street, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).

3.2.2 Warranty: In addition to the Contractor one year warranty, Contractor shall supply a Manufacturer's product warranty consistent with industry standards.

3.2.3 Contractor Staging Area: Awarded Contractor shall coordinate with Owner for proposed project staging area. Mesa County shall provide a staging and storage area on location.

3.2.4 Pricing: Pricing shall be all inclusive to include, but not be limited to: all labor, equipment, supplies, materials, freight (F.O.B. Destination – Freight Pre-paid and Allowed to each site), travel, and all other costs related to the successful completion of each project site.

The Owner shall not pay nor be liable for any other additional costs including but not limited to: taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

3.2.5 Freight/Shipping: All freight/shipping shall be F.O.B. Destination – Freight Pre-Paid and Allowed to the project site.

3.2.6 Product/Materials Quantities: Contractor shall be responsible for determining all measurements for correctness, and all quantities of products/materials required for successful project completion.

3.2.7 Product Ordering: Upon Contract Award, Contactor(s) may begin order product prior to the project start times in order to have products and supplies ready and available when project is scheduled to begin.

3.2.8 Sub-Contractor's List: See Section 2.7 "Award of Sub-Contractors & Other Contracts for Portions of the Work". **Each Contractor and their sub-contractors shall be required to pass a back ground check.**

3.2.9 References: Bidder shall provide a minimum of three (3) **references** with their names, addresses and telephone numbers that can attest to your experience in projects of similar scope and size.

3.2.10 Bid Response Submittal: Contractor shall provide the following information with their bid response:

- Contractor's Response Form
- Price Proposal Form

- Bid Bond
- References
- Product warranty information

3.2.11 Award Criteria: Award criteria shall include the following:

- Submittal of all required and requested solicitation documents
- References
- Attendance of Mandatory Site Visit.
- Bid Bond submitted with Bid Response.
- Approved product warranty

3.3. Scope of Work: See attached specifications, scope of work, and drawings. Note: the new system shall be Brand Name Only to the specifications stated in the solicitation documents.

3.4. IFB Tentative Time Schedule:

Invitation For Bids available	August 14, 2015
Site Visit/Briefing	August 24, 2015
Inquiry deadline, no questions after this date	August 26, 2015
Addendum Posted	August 28, 2015
Submittal deadline for proposals	September 3, 2015
Board of Commissioners Approval	September 28, 2015
Contract execution (unless Council approval required)	September 28, 2015
Bonding & Insurance Cert due	September 7, 2015
Work begins no later than	October 1, 2015
Final Completion	December 31, 2015

3.5. Questions Regarding Scope of Services:

Duane Hoff Jr., Senior Buyer
 City of Grand Junction
duaneh@gjcity.org

4. Contractor's Bid Form

Bid Date: _____

Project: IFB-4094-15-DH "Clean Agent Fire Extinguishing System for Mesa County Sheriff's Office, Evidence Storage"

Bidding Company: _____

Name of Authorized Agent: _____

Email _____

Telephone _____ **Address** _____

City _____ **State** _____ **Zip** _____

The undersigned Bidder, in compliance with the Invitation for Bids, having examined the Instruction to Bidders, General Contract Conditions, Statement of Work, Specifications, and any and all Addenda thereto, having investigated the location of, and conditions affecting the proposed work, hereby proposes to furnish all labor, materials and supplies, and to perform all work for the Project in accordance with Contract Documents, within the time set forth and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Contractor's Bid Form is a part.

The undersigned Contractor does hereby declare and stipulate that this offer is made in good faith without collusion or connection to any person(s) providing an offer for the same work, and that it is made in pursuance of, and subject to, all terms and conditions of the Instructions to Bidders, the Specifications, and all other Solicitation Documents, all of which have been examined by the undersigned.

The Contractor also agrees that if awarded the Contract, to provide insurance certificates within ten (10) working days of the date of Notification of Award. Submittal of this offer will be taken by the Owner as a binding covenant that the Contractor will be prepared to complete the project in its entirety.

The Owner reserves the right to make the award on the basis of the offer deemed most favorable, to waive any formalities or technicalities and to reject any or all offers. It is further agreed that this offer may not be withdrawn for a period of sixty (60) calendar days after closing time. Submission of clarifications and revised offers automatically establish a new thirty day (30) period.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents.

State number of Addenda received: _____.

It is the responsibility of the Bidder to ensure all Addenda have been received and acknowledged.

PRICE BID SCHEDULE: IFB-4094-15-DH Clean Agent Fire Extinguishing System for Mesa County Sheriff's Office, Evidence Storage

Item No.	Description	Price Proposal
1	Provide all labor, materials, equipment, supplies permits/fees, freight/delivery, installation, etc., for removal and disposal of current fire sprinkler system, and installation of a new clean agent fire extinguishing system, as per the solicitation documents.	
	TOTAL PRICE	

Total Bid Price Written:

By signing below, the Undersigned agree to comply with all terms and conditions contained herein.

Company: _____

Authorized Signature: _____

Title: _____

PROJECT SCOPE OF WORK

Scope of Work

The scope of this project will be to remove the evidence storage area zone from the main building wet sprinkler system and install a new MX 1230 Fire Extinguishing Agent. The project is at the Mesa County's Sheriff's Office, Evidence Storage area located at 215 Rice St. The items stored in the Evidence Room are high value and protection is of the utmost importance. The new system shall reduce the damage caused by the extinguishing agent. The new system shall tie back to the main fire alarm panel located in master control. The main building fire alarm panel is an EST System. The contractor shall be responsible for but not limited to the following

- A. Removing all old equipment
- B. Install new control panel and devices
- C. System programming and testing
- D. Contractor is responsible for all electrical connections, conduits and power runs
- E. New system shall communicate with current EST system
- F. Perform start up testing on all equipment in accordance with the factory specifications
- G. Provide equipment manufacture numbers in bid proposal
- H. Provide equipment specification sheet and product information in bid proposal
- I. Contractor is responsible for all equipment mounting
- J. Contractor is responsible for ALL Permits
- K. Contractor is responsible for all mechanical connections as required by NFPA
- L. Contractor is responsible for all Electrical connects

Equipment: MX 1230 Fire Extinguishing Agent, MX-320 Intelligent Addressable Fire Alarm System

Working hours will be from 7:00 am to 5:00 pm, Monday to Friday,
Project Dates: *October 31, 2015 - December 31, 2015*

SECTION 21 22 00 - CLEAN-AGENT FIRE-EXTINGUISHING SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Piping and piping specialties.
2. Extinguishing-agent containers.
3. Extinguishing agent.
4. Detection and alarm devices.
5. Control and alarm panels.
6. Accessories.
7. Connection devices for and wiring between system components.
8. Connection devices for power and integration into building's fire-alarm system.

1.2 System Description

- A. The clean agent system shall serve the Evidence Storage and adjacent areas as outlined on the drawings. It shall be part of the scope of work to seal the space to be protected by the clean agent system to meet the requirements of the Fire Protection Contractor's pressure integrity test.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For clean-agent fire-extinguishing system signed and sealed by a qualified professional engineer.

1. Include plans, elevations, sections, details, and attachments to other work.
2. Include design calculations.
3. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
4. Wiring Diagrams: For power, signal, and control wiring.

- C. Permit Approved Drawings: Working plans, prepared according to NFPA 2001, that have been approved by authorities having jurisdiction. Include design calculations.

- D. Field quality-control reports.

- E. Operation and maintenance data.

- F. Seismic Qualification Certificates: For extinguishing-agent containers and control panels from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

1.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. FM Global Compliance: Provide components that are FM Approved and that are listed in FM Global's "Approval Guide."
- C. UL Compliance: Provide equipment listed in UL's "Fire Protection Equipment Directory."

PART 2 - PRODUCTS

2.1 CLEAN-AGENT SYSTEMS

- A. Manufacturers: Subject to compliance with requirements
 - 1. Novec 1230.
- B. Description: Clean-agent fire-extinguishing system shall be an engineered system for total flooding of the hazard area including the room cavity above the ceiling and below the ceiling. System includes separate zones above and below the ceiling. If smoke is detected below the ceiling, extinguishing agent shall be discharged in zones above and below the ceiling. If smoke is detected above the ceiling, extinguishing agent shall be discharged in the zone above the ceiling only.
- C. Delegated Design: Design clean-agent fire-extinguishing system and obtain approval from authorities having jurisdiction. Design system for Class A, B, and C fires as appropriate for areas being protected, and include safety factor. Use clean agent indicated and in concentration suitable for normally occupied areas.
- D. Cross-Zoned Detection: Devices located in two separate zones. Sound alarm on activating single-detection device, and discharge extinguishing agent on actuating single-detection device in other zone.
- E. System Operating Sequence:
 - 1. Actuating First Detector: Visual indication on annunciator panel. Energize audible and visual alarms (slow pulse), shut down air-conditioning and ventilating systems serving protected area, close doors in protected area, close duct smoke dampers and send signal to fire-alarm system.
 - 2. Actuating Second Detector: Visual indication on annunciator panel. Energize audible and visual alarms (fast pulse), shut down power to protected equipment, start time delay for extinguishing-agent discharge for 30 seconds, and discharge extinguishing agent.
 - 3. Extinguishing-agent discharge will operate audible alarms and strobe lights inside and outside the protected area.
- F. Manual stations shall immediately discharge extinguishing agent when activated.
- G. Operating abort switches will delay extinguishing-agent discharge while being activated, and switches must be reset to prevent agent discharge. Release of hand pressure on the switch will cause agent discharge if the time delay has expired.
- H. EPO: Will terminate power to protected equipment immediately on actuation.
- I. Low-Agent Pressure Switch: Initiate trouble alarm if sensing less than set pressure.
- J. Power Transfer Switch: Transfer from normal to stand-by power source.
- K. Seismic Performance: Fire-suppression piping and containers shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
 - 1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

2.2 PIPING MATERIALS

- A. See " Dodecafluoro-2-methyl-pentane-3-one Agent Piping Applications". Article for applications of pipe, tube, fitting, and joining materials.
- B. Piping, Valves, and Discharge Nozzles: Comply with types and standards listed in NFPA 2001, Section "Distribution," for charging pressure of system.

2.3 PIPE AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, Type S, Grade B or ASTM A 106/A 106M, Grade A ; Schedule 40, Schedule 80, and Schedule 160, seamless steel pipe.
 - 1. Threaded Fittings:
 - a. Malleable-Iron Fittings: ASME B16.3, Class 300.
 - b. Flanges and Flanged Fittings: ASME B16.5, Class 300 unless Class 600 is indicated.
 - c. Fittings Working Pressure: 620 psig minimum.
 - d. Flanged Joints: Class 300 minimum.
 - 2. Forged-Steel Welding Fittings: ASME B16.11, Class 3000, socket pattern.
 - 3. Steel, Grooved-End Fittings: FM Approved and NRTL listed, ASTM A 47/A 47M malleable iron or ASTM A 536 ductile iron, with dimensions matching steel pipe and ends factory grooved according to AWWA C606.
- B. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness unless thickness or specific material is indicated.
- C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel.
- D. Welding Filler Metals: Comply with AWS D10.12M/D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- E. Steel, Keyed Couplings: UL 213, AWWA C606, approved or listed for clean-agent service, and matching steel-pipe dimensions. Include ASTM A 536, ductile-iron housing, rubber gasket, and steel bolts and nuts.

2.4 VALVES

- A. General Valve Requirements:
 - 1. UL listed or FM Approved for use in fire-protection systems.
 - 2. Compatible with type of clean agent used.
- B. Container Valves: With rupture disc or solenoid and manual-release lever, capable of immediate and total agent discharge and suitable for intended flow capacity.
- C. Valves in Sections of Closed Piping and Manifolds: Fabricate to prevent entrapment of liquid, or install valve and separate pressure relief device.
- D. Valves in Manifolds: Check valve; installed to prevent loss of extinguishing agent when container is removed from manifold.

2.5 EXTINGUISHING-AGENT CONTAINERS

- A. Description: Steel tanks complying with ASME Boiler and Pressure Vessel Code: Section VIII, for unfired pressure vessels. Include minimum working-pressure rating that matches system charging pressure, valve, pressure switch, and pressure gage.
1. Finish: Manufacturer's standard color, enamel or epoxy paint.
 2. Manifold: Fabricate with valves, pressure switches, and connections for multiple storage containers, as indicated.
 3. Manifold: Fabricate with valves, pressure switches, selector switch, and connections for main- and reserve-supply banks of multiple storage containers.
 4. Storage-Tank Brackets: Factory- or field-fabricated retaining brackets consisting of steel straps and channels; suitable for container support, maintenance, and tank refilling or replacement.

2.6 FIRE-EXTINGUISHING CLEAN AGENT

- A. CF₃CF₂C(O)CF(CF₃)₂ Clean Agent: Dodecafluoro-2-methyl-pentane-3-one.
1. Manufacturers: Subject to compliance with requirements
 - a. Novec 1230

2.7 DISCHARGE NOZZLES

- A. Equipment manufacturer's standard one-piece brass or aluminum alloy of type, size, discharge pattern, and capacity required for application.

2.8 CONTROL PANELS

- A. Description: FM Approved or NRTL listed, including equipment and features required for testing, supervising, and operating fire-extinguishing system.
- B. Power Requirements: 120/240-V ac; with electrical contacts for connection to system components and fire-alarm system, and transformer or rectifier as needed to produce power at voltage required for accessories and alarm devices.
- C. Enclosure: NEMA ICS 6, Type 1, enameled-steel cabinet.
1. Mounting: Recessed flush with surface.
- D. Supervised Circuits: Separate circuits for each independent hazard area.
1. Detection circuits equal to the required number of zones, or addressable devices assigned to the required number of zones.
 2. Manual pull-station circuit.
 3. Alarm circuit.
 4. Release circuit.
 5. Abort circuit.
 6. EPO circuit.
- E. Control-Panel Features:
1. Electrical contacts for shutting down fans, activating dampers, and operating system electrical devices.
 2. Automatic switchover to standby power at loss of primary power.
 3. Storage container, low-pressure indicator.
 4. Service disconnect to interrupt system operation for maintenance with visual status indication on the annunciator panel.

- F. Annunciator Panel: Graphic type showing protected, hazard-area plans, as well as locations of detectors and abort, EPO, and manual stations. Include lamps to indicate device-initiating alarm, electrical contacts for connection to control panel, and stainless-steel or aluminum enclosure.
- G. Standby Power: Sealed lead calcium batteries with capacity to operate system for 24 hours and alarm for minimum of 15 minutes. Include automatic battery charger that has a varying charging rate between trickle and high depending on battery voltage, and that is capable of maintaining batteries fully charged. Include manual voltage control, dc voltmeter, dc ammeter, electrical contacts for connection to control panel, automatic transfer switch, and suitable enclosure.

2.9 DETECTION DEVICES

A. General Requirements for Detection Devices:

1. Comply with NFPA 2001, NFPA 72, and UL 268.
2. 24-V dc, nominal.

B. Ionization Detectors: Dual-chamber type, having sampling and referencing chambers, with smoke-sensing element.

C. Photoelectric Detectors: LED light source and silicon photodiode receiving element.

D. Signals to the Central Fire Alarm Control Panel: Any type of local system trouble is reported to the central fire alarm control panel as a composite "trouble" signal. Alarms on each system zone are individually reported to the central fire alarm control panel as separately identified zones.

2.10 MANUAL STATIONS

A. General Description: Semirecessed FM Approved or NRTL listed, with clear plastic hinged cover, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.

B. Manual Release: "MANUAL RELEASE" caption, and red finish. Unit can manually discharge extinguishing agent with operating device that remains engaged until unlocked.

C. Abort Switch: "ABORT" caption, momentary contact, with green finish.

D. EPO Switch: "EPO" caption, with yellow finish.

2.11 SWITCHES

A. Description: FM Approved or NRTL listed, where available, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.

1. Low-Agent Pressure Switches: Pneumatic operation.
2. Power Transfer Switches: Key-operation selector, for transfer of release circuit signal from main supply to reserve supply.
3. Door Closers: Magnetic retaining and release device or electrical interlock to cause the door operator to drive the door closed.

2.12 ALARM DEVICES

A. Description: Listed and labeled by an NRTL or FM Approved, low voltage, and surface mounting. Comply with requirements in Division 28 Section "Digital, Addressable Fire-Alarm System" or Division 28 Section "Zoned (DC Loop) Fire-Alarm System" for alarm and monitoring devices.

B. Bells: Minimum 6-inch diameter.

- C. Horns: 90 to 94 dBA.
- D. Strobe Lights: Translucent lens, with "FIRE" or similar caption.

2.13 ELECTRICAL POWER AND WIRING

- A. Electrical power, wiring, and devices are specified in Division 26.

PART 3 - EXECUTION

3.1 HFC 227EA AGENT PIPING APPLICATIONS

- A. Flanged pipe and fittings and flanged joints may be used to connect to specialties and accessories and where required for maintenance.
- B. NPS 2 and Smaller: Schedule 40, steel pipe; malleable-iron threaded fittings; and threaded joints.
- C. NPS 2-1/2 and Larger: Schedule 40, steel pipe; forged-steel welding fittings; and welded joints.

3.2 CLEAN-AGENT PIPING INSTALLATION

- A. Install clean-agent extinguishing piping and other components level and plumb, according to manufacturers' written instructions.
- B. Grooved Piping Joints: Groove pipe ends according to AWWA C606 dimensions. Assemble grooved-end steel pipe and steel, grooved-end fittings with steel, keyed couplings and lubricant according to manufacturer's written instructions.
- C. Install extinguishing-agent containers anchored to substrate.
- D. Install pipe and fittings, valves, and discharge nozzles according to requirements listed in NFPA 2001, Section "Distribution."
 - 1. Install valves designed to prevent entrapment of liquid, or install pressure relief devices in valved sections of piping systems.
 - 2. Support piping using supports and methods according to NFPA 13.
 - 3. Install seismic restraints for extinguishing-agent containers and piping systems.
 - 4. Install control panels, detection system components, alarms, and accessories, complying with requirements of NFPA 2001, Section "Detection, Actuation, and Control Systems," as required for supervised system application.
- E. Drawings indicate general arrangement of piping, fittings, and specialties.
- F. Where installing piping adjacent to equipment, allow space for service and maintenance.
- G. Connect electrical devices to control panel and to building's fire-alarm system. Electrical power, wiring, and devices are specified in Division 28 Section "Digital, Addressable Fire-Alarm System" or Division 28 Section "Zoned (DC Loop) Fire-Alarm System."
- H. Identify piping, extinguishing-agent containers, other equipment, and panels according to NFPA 2001.
- I. Install signs at entry doors for protected areas to warn occupants that they are entering a room protected with a clean-agent fire-extinguishing system.

- J. Install signs at entry doors to advise persons outside the room the meaning of the horn(s), bell(s), and strobe light(s) outside the protected space.

3.3 FIELD QUALITY CONTROL

- A. Perform tests and inspections.

- 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

- B. Tests and Inspections:

- 1. After installing clean-agent extinguishing piping system and after electrical circuitry has been energized, test for compliance with requirements.
- 2. Perform each electrical test and visual and mechanical inspection stated in NETA ATS, Sections "Inspection and Test Procedures" and "System Function Tests." Certify compliance with test parameters.
- 3. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
- 4. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation. Remove malfunctioning units, replace with new units, and retest.
- 5. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

- C. Units will be considered defective if they do not pass tests and inspections.

- D. Prepare test and inspection reports.

3.4 SYSTEM FILLING

- A. Preparation:

- 1. Verify that piping system installation is completed and cleaned.
- 2. Check for complete enclosure integrity.
- 3. Check operation of ventilation and exhaust systems.

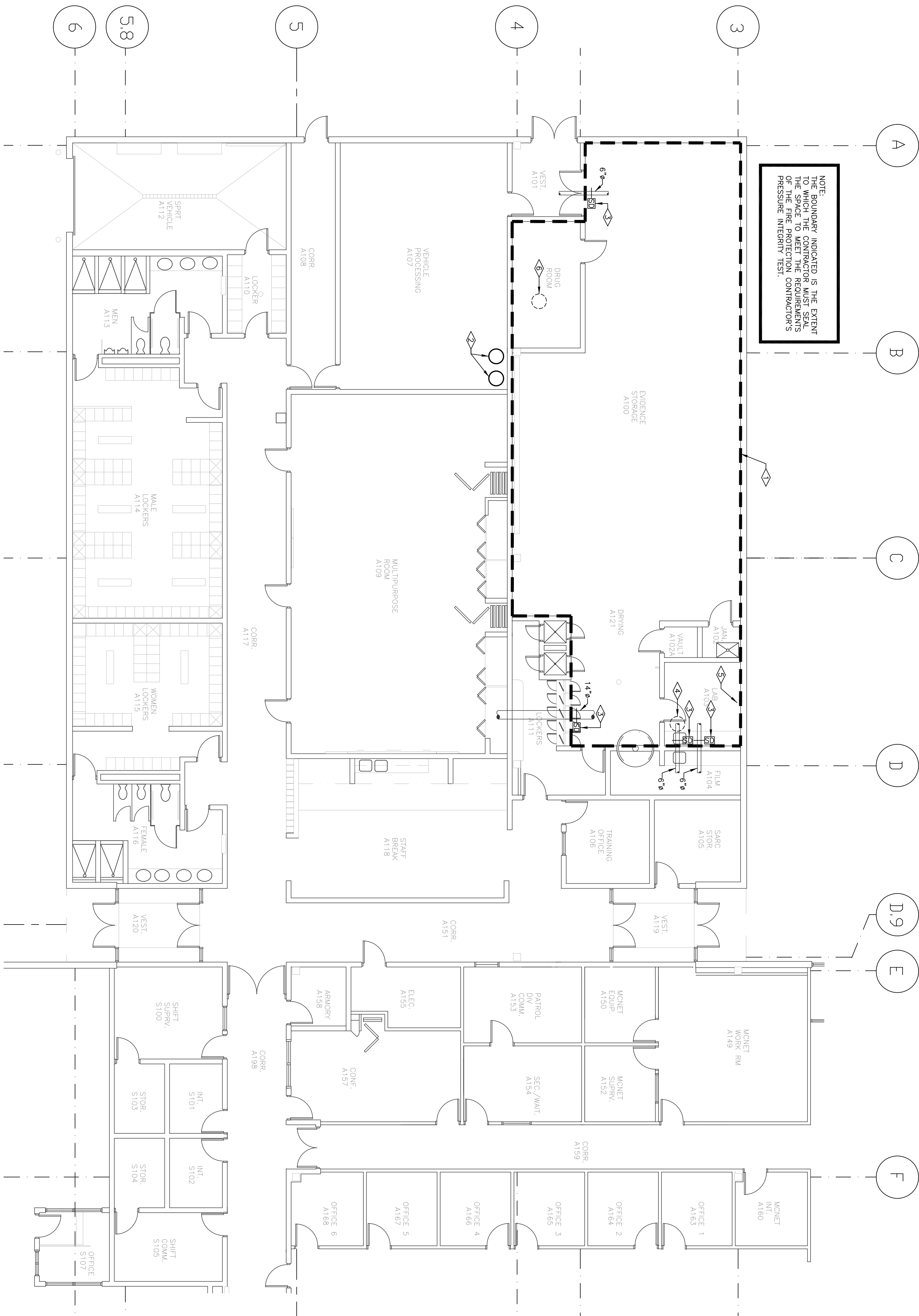
- B. Filling Procedures:

- 1. Fill extinguishing-agent containers with extinguishing agent, and pressurize to indicated charging pressure.
- 2. Install filled extinguishing-agent containers.
- 3. Energize circuits.
- 4. Adjust operating controls.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain clean-agent fire-extinguishing systems.

END OF SECTION 21 22 00



NOTE:
THE BOUNDARY INDICATED IS THE EXTENT OF THE CLEAN AGENT FIRE SUPPRESSION SYSTEM. THE SPACE TO MEET THE REQUIREMENTS OF THE FIRE PROTECTION CONTRACTORS' PRESSURE INTEGRITY TEST.

PARTIAL 1ST FLOOR MEP PLAN
SCALE: 1/8"=1'-0"
NORTH

- GENERAL CLEAN AGENT SYSTEM NOTES:**
1. THE ENTIRE PERIMETER OF THE SPACE TO BE PROTECTED MUST BE SEALED TO ENSURE THE AGENT IS HELD IN THE SPACE UPON RELEASE. THE SPACE MUST BE SEALED TO MEET THE REQUIREMENTS OF THE FIRE PROTECTION CONTRACTORS' PRESSURE INTEGRITY TEST.
 2. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL A FULLY FUNCTIONAL MINIMAX CLEAN AGENT FIRE PROTECTION SYSTEM. THIS SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - 2.1. NOVEC 1230 CLEAN AGENT FIRE SUPPRESSION SYSTEM FOR THE EVIDENCE ROOM, DRUG ROOM, LAB, AND OTHER ANGLIARY SPACES OUTLINED ON THE DRAWING. THE AREA OF THE SPACE IS APPROXIMATELY 2,290 FT² AND THE VOLUME IS APPROXIMATELY 57,250 FT³. FIRE PROTECTION CONTRACTOR TO VERIFY THE VOLUME OF THE SPACE. NO UNDER FLOOR SPACE IS ASSOCIATED WITH THIS PROJECT.
 - 2.2. AGENT RELEASE CONTROL PANEL, AGENT TANK(S), AND AMOUNT OF NOVEC MEANS.
 - 2.2.1. CLEAN AGENT RESERVOIR, AND SMOKE DETECTION BY CONVENTIONAL MEANS.
 - 2.3. A MINIMUM OF THE FOLLOWING: (2) MANUAL RELEASE STATIONS, (2) ABORT STATIONS, (5) HORN/STROBES, AND (8) NOZZLES.
 - 2.4. WARNING SIGNS, REQUIRED PIPING, CONDUTS, WIRING, AND FITTINGS.
 - 2.5. LABORS TO INSTALL DETECTION AND CONTROL FOR CLEAN AGENT SYSTEM AND PIPING FOR CLEAN AGENT SYSTEM. ALSO, INCLUDE ONE ROOM INTEGRITY TEST AND ONE FINAL WITH LOCAL AUTHORITY HAVING JURISDICTION.
 - 2.6. SYSTEM TO INCLUDE AGENT RELEASING PANEL WITH CONTROL RELAYS FOR HVAC INTERLOCK AND MAIN BUILDING FIRE ALARM INTERLOCK. CONTRACTOR TO INCLUDE WIRING FROM THE RELEASE PANEL TO THE HVAC EQUIPMENT AND MAIN BUILDING FIRE ALARM PANEL. ALSO, INCLUDE WIRING TO THE EPO SWITCHES.
 3. CONTRACTOR SHALL PROVIDE PATCHING, PAINTING, AND SEALING OF ROOM FOR INTEGRITY TESTING.
 4. A LICENSED ELECTRICIAN SHALL PROVIDE THE 120/1/60 ELECTRICAL WORK.
 5. CONTRACTOR SHALL PROVIDE PAINTING AND SPECIAL IDENTIFICATION OF PIPING.
 6. CONTRACTOR SHALL PROVIDE AND INSTALL LOW LEAKAGE SMOKE DAMPERS WHERE EXISTING DUCTWORK PENETRATES THE ENVELOPE OF THE CLEAN AGENT SYSTEM BOUNDARY. CONTRACTOR SHALL VERIFY ALL SMOKE DAMPER SIZES PRIOR TO ORDERING.
 7. THE EXISTING WET SPRINKLER SYSTEM SHALL BE REMOVED FROM THE SPACE SERVED BY THE CLEAN AGENT SYSTEM. VERIFY ALL OTHER PORTIONS OF THE BUILDING SERVED BY THE WET SPRINKLER SYSTEM REMAIN FUNCTIONAL.
- FLAG NOTES:**
- ◇ DASHED LINE INDICATES THE VOLUME TO BE INCLUDED IN THE NOVEC 1230 CLEAN AGENT GAS FIRE SUPPRESSION SYSTEM.
 - ◇ POTENTIAL LOCATION OF CLEAN AGENT TANK(S).
 - ◇ PROVIDE AND INSTALL LOW LEAKAGE SMOKE DAMPER IN EXISTING DUCTWORK. DAMPER SHALL CLOSE UPON ACTIVATION OF THE CLEAN AGENT SYSTEM.
 - ◇ EXISTING ROOF MOUNTED EXHAUST FAN EF-15 SHALL BE DE-ENERGIZED UPON ACTIVATION OF THE CLEAN AGENT SYSTEM.
 - ◇ THE EXISTING EXHAUST FAN SERVING THE FUME HOOD SHALL DE-ENERGIZE UPON ACTIVATION OF THE CLEAN AGENT SYSTEM.
 - ◇ THE EXISTING EXHAUST FAN SERVING THE DRUG ROOM SHALL DE-ENERGIZE UPON ACTIVATION OF THE CLEAN AGENT SYSTEM.

1. THE CONTRACTOR SHALL VERIFY THE EXISTING SYSTEMS AND SHALL VERIFY THE PROTECTION OF THE EXISTING SYSTEMS. THE CONTRACTOR SHALL VERIFY THE PROTECTION OF THE EXISTING SYSTEMS AND SHALL VERIFY THE PROTECTION OF THE EXISTING SYSTEMS. THE CONTRACTOR SHALL VERIFY THE PROTECTION OF THE EXISTING SYSTEMS AND SHALL VERIFY THE PROTECTION OF THE EXISTING SYSTEMS.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers
569 S. Westgate Dr., Suite 1
Grand Junction, CO 81505
phone: 970-241-8709, fax: 970-241-9514

**MCSO EVIDENCE STORAGE
CLEAN AGENT FIRE SUPPRESSION**
215 RICE STREET
GRAND JUNCTION, COLORADO 81503

DATE	ISSUED FOR
07/17/15	OWNER REVIEW
08/07/15	BID SET

DATE: 07/17/2015
JOB NO: 15-113
DRAWN BY: BCE
CHECKED BY: BCE
SCALE: AS SHOWN
SHEET NUMBER: **MEP1-1**