

SAN FRANCISCO COMMUNITY COLLEGE DISTRICT

Invitation For Informal Bid – CUPCCAA, PCC 22000

Ocean Campus

**Science Hall  
Fire Alarm Upgrade Project**



IFB # 2024-041

Bids due **January 18, 2024, at 2:00 PM**

at

Ocean Campus – Bungalow 606  
50 Frida Kahlo Way, San Francisco, CA 94112

**DOCUMENT 00 01 05**  
**ENUMERATION OF CONTRACT DOCUMENTS**

1. Notice Inviting Informal Bids
2. Instructions to Bidder
3. Bid Form and Proposal
4. Bid Bond
5. Designated Subcontractors List
6. Site Visit Certification
7. Non-Collusion Declaration
8. Agreement for Construction Services (Small Projects)
9. Performance Bond
10. Payment Bond
11. Special Conditions
12. Workers' Compensation Certification
13. Prevailing Wage Certification
14. Drug-Free Workplace Certification
15. Tobacco-Free Environment Certification
16. Lead-Based Materials Certification
17. Registered Subcontractor List
18. CCSF SBE Rules Regs and Reqs Final 10-2018 V.2
19. Specifications
20. Exhibit "A" Scope of Work
21. Drawings Sheets: FA-0.01 through FA-4.01.

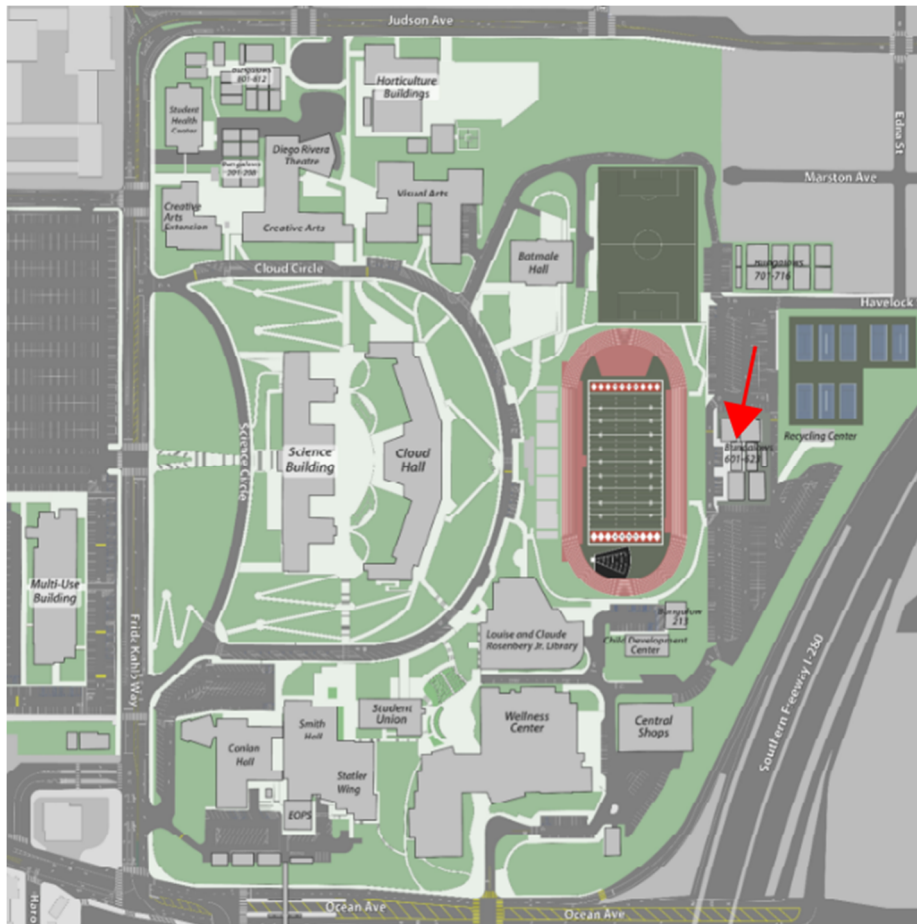
## **NOTICE INVITING INFORMAL BIDS**

Notice is hereby given that the governing board ("Board") of the San Francisco Community College District ("District") will receive sealed bids for the following project, **Science Hall Fire Alarm Upgrade Project**, Bid No. **IFB # 2024-041** Bid Package **IFB # 2024-041 Science Hall Fire Alarm Upgrade Project** "Project" or "Contract"). The Project consists of all labor, materials equipment and services necessary to install new fire alarm devices and pathways for a fully functioning fire alarm system as shown in the plans. Contract Documents are available as of January 3, 2024, for review and may be downloaded from the District's website:

<https://www.ccsf.edu/about-ccsf/administration/finance-and-administration/office-facilities-and-capital-planning/bid-opportunities>

Use the ["**CUPCAA Informal Bids**"] drop down menu.

Sealed Bids will be received until **2:00 p.m., January 18, 2023**, at the **Districts' Facilities Office Located at 50 Frida Kahlo Way B606, San Francisco, CA, 94112**, at or after which time the bids will be opened and publicly read aloud. All bids shall be on the form provided by the District and must be responsive. Location and map of bid drop-off and opening:



To bid on this Project, the Bidder is required to be registered as a public works contractor with the Department of Industrial Relations and to possess one or more of the following State of California Contractor Licenses: **C-10 - Electrical Contractor**. The Bidder's license(s) must remain active and in good standing throughout the term of the Contract.

A mandatory pre-bid conference and site visit will be held on **January, 10 2024**, at **10:00 a.m.** at **Science Hall 50 Frida Kahlo Way San Francisco, CA 94112**, California ("Site Visit"). All participants are required to sign-in. Failure to attend or tardiness will render bid ineligible. The Site Visit Certification is included in this bid package and must be submitted with the Bid. Please schedule a site visit with Shante Jordan by contacting him at **ce\_sjordan@ccsf.edu** or by calling **(415)417-4862**.

### **Bid Schedule**

**January 10, 2024, at 10 a.m. Site Walk**

**January 12, 2024, by 5 p.m. Pre-Bid RFIs Due**

**January 15, by 5 p.m. Final Addendum (If applicable)**

**January 18, by 2 p.m. Bids Due**

The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Work. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.

The successful Bidder shall comply with all requirements of Division 2, Part 7, Chapter 1, of the Labor Code and Title 8 of the California Code of Regulations. For all work performed pursuant to this Contract, the Contractor and all subcontractors shall pay all workers not less than the general prevailing rate of per diem wages and for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, ("DIR") for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the District or the DIR website at: <http://www.dir.ca.gov>. This Project is subject to labor compliance monitoring and enforcement by the DIR.

The Bidder and all Subcontractors under the Bidder shall comply with applicable federal, State, and local requirements relating to COVID-19 or other public health emergency/epidemic/pandemic including, if required, preparing, posting, and implementing a Social Distancing Protocol.

END OF DOCUMENT

## **INSTRUCTIONS TO BIDDERS**

Contractors shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

San Francisco Community College District ("District") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

1. Bids are requested for a general construction contract, or work described in general, ("Work") for the following project: **IFB # 2024-041 Science Hall Fire Alarm Upgrade** ("Project").
2. District will receive sealed Bids from Bidders as stipulated in the Notice to Bidders.
3. The District has prequalified bidders pursuant to Public Contract Code section 20651.5. Only prequalified Bidders will be eligible to submit a Bid for this Project. Any Bid submitted by a Bidder who is not prequalified shall be deemed nonresponsive and will not be considered.
4. District will receive sealed bids from bidders as stipulated in the Notice to Bidders.
  - a. All bids must be sealed in an envelope, marked with the name and address of the Bidder, name of the Project, the Project Number and/or bid number, and time of bid opening.
  - b. Bids must be submitted to the District Office located at **50 Frida Kahlo Way B606, San Francisco, CA 94112** by date and time shown in the Notice to Bidders
  - c. Bids must contain all documents as required herein.
5. Bidders are advised that on the date that bids are opened, telephones will not be available at the District Offices for use by bidders or their representatives.
6. Bids will be opened at or after the time indicated for receipt of bids.
7. Bidders must submit Bids on the documents titled Bid Form and Proposal and must submit all other required District forms. Bids not submitted on the District's required forms shall be deemed nonresponsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
8. Bidders shall not modify the Bid Form and Proposal or qualify their bids. Bidders shall not submit to the District a re-formatted, re-typed, altered, modified, or otherwise recreated version of the Bid Form and Proposal or other District-provided document.
9. Bids shall be clearly written and without erasure or deletions. District reserves the right to reject any bid containing erasures, deletions, or illegible contents.
10. Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any Bid as

non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form and Proposal:

- a. Bid Bond on the District's form, or other security.
  - b. Designated Subcontractors List.
  - c. Site Visit Certification, if a site visit was required.
  - d. Non-Collusion Declaration.
  - e. SBE Certification letters from the Department of General Services (if applicable) – State of California or San Francisco Contract Monitoring Division for all Contractors and Subcontractors listed as certified SBE or SLBE firms.
  - f. CCSF SBE Rules and Regulations Form 1: Identification listing of subcontractors, truckers, suppliers, and subconsultants.
  - g. CSF SBE Rules and Regulations Form 2: Equal opportunity and non-discrimination in employment and workforce compliance certification.
11. Bidders must submit with their Bids a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of amount of base Bid, plus all additive alternates ("Bid Bond"). If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by District. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.
  12. If Bidder to whom a contract is awarded ("Contract" or "Agreement") fails or neglects to enter into Contract and submit required bonds, insurance certificates, and all other required documents, within **SEVEN (7)** calendar days after the date of the Notice of Award, District may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by District as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of District. It is agreed that calculation of damages District may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.
  13. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of the Project, ("Subcontractor") including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid. Failure to submit this list when required by law shall result in bid being deemed nonresponsive and the bid will not be considered.
  14. All of the listed subcontractors are required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.

- a. An inadvertent error in listing the California contractor license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
  - b. An inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
    - (1) The subcontractor is registered prior to the bid opening.
    - (2) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.
    - (3) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
15. If a mandatory pre-bid conference and site visit ("Site Visit") is required as referenced in the Notice to Bidders, then Bidders must submit the Site Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
  16. Bidders shall submit the Non-Collusion Declaration with their Bids. Bids submitted without the Non-Collusion Declaration shall be deemed non-responsive and will not be considered.
  17. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the Department of Industrial Relations, are available upon request at the District's principal office. Prevailing wage rates are also available on the internet at <http://www.dir.ca.gov>.
  18. Submission of Bid signifies careful examination of the District's proposed Contract Documents for the Project and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a Bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
    - a. Bidder has visited the Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Project and Work sites, locality, actual conditions, as-built conditions, and all local

conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;

- b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Work Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
- c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
- d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution(s) thereof by the District is/are acceptable to Bidder;
- e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;
- f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and Proposal and the Contract that it performed prior to bidding. Contractor under this Contract is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.
- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Contractor may only rely, on the accuracy of limited types of information.
  - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Contractor is required to



make such verification as a condition to bidding. In submitting its Bid, Contractor shall rely on the results of its own independent investigation. In submitting its Bid, Contractor shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.

- (2) As to any subsurface condition shown or indicated in the Contract Documents, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions that the Contractor has drawn from such information; nor is the District responsible for subsurface conditions that are not specifically shown (for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).

h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:

- (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and
- (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.
- (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Contractor may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Contractor must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.

19. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The District is not responsible and/or liable in any way for a Contractor's damages and/or claims related, in any way, to that Contractor's basing its bid on any requested substitution that the District has not approved in advance and in writing. Contractors and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:

- a. District must receive any notice of request for substitution of a specified item a minimum of **TEN (10)** calendar days prior to bid opening. The Successful Bidder will not be allowed to substitute specified items unless properly noticed.
  - b. Within 35 days after the date of the Notice of Award, the Successful Bidder shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
  - c. Approved substitutions, if any, shall be listed in Addenda. District reserves the right not to act upon submittals of substitutions until after bid opening.
  - d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.
20. Bidders may examine any available "as-built" drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.
  21. All questions about the meaning or intent of the Contract Documents are to be directed via email to the District to **Shante Jordan at [ce\\_sjordan@ccsf.edu](mailto:ce_sjordan@ccsf.edu)**. Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda and emailed, faxed, mailed, or delivered to all parties recorded by the District as having received the Contract Documents. Questions received less than **FIVE (5)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
  22. Addenda may also be issued to modify other parts of the Contract Documents, as deemed advisable by the District.
  23. Each Bidder must acknowledge each Addendum in its Bid Form and Proposal by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be obtained from the District.
  24. The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.
  25. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the District shall select the Bidder to whom to award the Contract by lot. In the event all Bids exceed the informal bid threshold of \$200,000, the District's Governing Board may elect to pass

a resolution to award the Contract at \$212,500 or less to the lowest responsible Bidder, in accordance with Public Contract Code section 22034(d).

26. **Time for Completion:** District may issue a Notice to Proceed within **NINETY (90) days** from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.
- a. In the event that the District desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed.
  - b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond a 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to District within **TEN (10)** calendar days after receipt by Contractor of District's notice of postponement.
  - c. It is further understood by the Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
  - d. Should the Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible Bidder.
27. The Bidder to whom a Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to reject the bid as non-responsive.
- a. **Agreement:** To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.
  - b. **Performance Bond** (100% of Contract Price): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - c. **Payment Bond** (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - d. Insurance Certificates and Endorsements, as required.
  - e. Workers' Compensation Certification.

- f. Prevailing Wage and Related Labor Requirements Certification.
  - g. Tobacco-Free Environment Certification.
  - h. Drug-Free Workplace Certification.
  - i. Hazardous Materials Certification.
  - j. Lead-Based Materials Certification.
  - k. Registered Subcontractors List: Must include Department of Industrial Relations (DIR) registration number of each subcontractor for all tiers.
28. Any Bid protest by any Bidder regarding any other Bid must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** business day following Bid opening.
- a. Only a Bidder who has actually submitted a Bid, and who could be awarded the Contract if the bid protest is upheld, is eligible to submit a Bid protest. Subcontractors are not eligible to submit Bid protests. A Bidder may not rely on the bid protest submitted by another Bidder.
  - b. A Bid protest must contain a complete statement of any and all bases for the protest and all supporting documentation. Materials submitted after the Bid protest deadline will not be considered.
  - c. The protest must refer to the specific portions of all documents that form the basis for the protest.
    - (1) Without limitation to any other basis for protest, an inadvertent error in listing the California contractor's license number on the Designated Subcontractors List shall not be grounds for filing a Bid protest or grounds for considering the Bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
    - (2) Without limitation to any other basis for protest, an inadvertent error listing an unregistered subcontractor shall not be grounds for filing a Bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
      - (i) The Subcontractor is registered prior to the Bid opening.
      - (ii) The Subcontractor is registered and has paid the penalty registration fee within 24 hours after the Bid opening.
      - (iii) The subcontractor is replaced by another registered Subcontractor pursuant to Public Contract Code section 4107.
  - d. The protest must include the name, address and telephone number of the person representing the protesting party.

- e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
  - f. The procedure and time limits set forth in this paragraph are mandatory and are each Bidder's sole and exclusive remedy in the event of Bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.
29. District reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, to re-bid, and to reject the Bid of any Bidder if District believes that it would not be in the best interest of the District to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive any inconsequential deviations or irregularities in any bid. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.
30. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.
31. It is the policy of the District that no qualified person shall be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award of contract, based on race, color, gender, sexual orientation, political affiliation, age, ancestry, religion, marital status, national origin, medical condition or disability. The Successful Bidder and its subcontractors shall comply with applicable federal and state laws, including, but not limited to the California Fair Employment and Housing Act, beginning with Government Code section 12900, and Labor Code section 1735.
32. Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

**BID FORM AND PROPOSAL**

To: Governing Board of San Francisco Community College District ("District" or "Owner")

From: \_\_\_\_\_  
(Proper Name of Bidder)

The undersigned declares that the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, have been read, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. **IFB # 2024-041** ("Work") for the following project known as: **Science Hall Fire Alarm Upgrade** ("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

**Allowances:**

<b><u>#1. Existing Infrastructure or Finish Reconfiguration.</u></b>	
<b>Twenty Thousand</b> _____ dollars (in words)	<b><u>\$20,000.00</u></b>
Allowances (to be included in base bid)	

**Base Bid:**

_____	dollars	\$ _____
<b><i>Line A: INITIAL ESTIMATE</i></b>		
_____	Twenty Thousand _____ dollars	\$ _____ +20,000.00
<b><i>Line B: ALLOWANCE #1</i></b>		
_____	dollars	\$ _____
<b><i>BASE BID (Line A: Initial Estimate + Line B: Allowance #1)</i></b>		
<b><i>Bidder acknowledges and agrees that the Base Bid accounts for any and all Allowance(s).</i></b>		

**Additive/Deductive Alternates:**

**Additional Detail Regarding Calculation of Base Bid**

1. **Allowance.** The Bidder's Base Bid shall include an allowance of **\$20,000.00** for Existing Infrastructure or Finish Reconfiguration.

The above allowance shall only be allocated for District approved items at the District's sole discretion. Contractor shall not bill for or be due any portion of this allowance unless the District has identified specific work, Contractor has submitted a price for that work or the District has proposed a price for that work, the District has

accepted the cost for that work, and the District has prepared an Allowance Expenditure Directive incorporating that work. Contractor hereby authorizes the District to execute a unilateral deductive change order at or near the end of the Project for all or any portion of the allowance not allocated.

2. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) as described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
3. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager or other official point of contact for the District before Bid date to verify the issuance of any clarifying Addenda.
4. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all Work within the time specified in the Contract Documents.
5. **The liquidated damages clause of the Agreement is hereby acknowledged.**
6. It is understood that the District reserves the right to reject this Bid and that the Bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
7. The following documents are attached with this Bid Form and Proposal:
  - Bid Bond on the District's form or other security
  - Registered Subcontractors List
  - Site Visit Certification
  - Non-Collusion Declaration
  - SBE Certification letters from the Department of General Services (if applicable) – State of California or San Francisco Contract Monitoring Division for all Contractors and Subcontractors listed as certified SBE or SLBE firms.
  - CCSF SBE Rules and Regulations Form 1: Identification listing of subcontractors, truckers, suppliers, and subconsultants.
  - CCSF SBE Rules and Regulations Form 2: Equal opportunity and non-discrimination in employment and workforce compliance certification.

8. Receipt and acceptance of the following Addenda is hereby acknowledged:

No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____

9. Bidder acknowledges that the license required for performance of the Work is a \_\_\_\_\_ license.
10. Bidder hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.
11. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations.
12. Bidder hereby certifies that its bid includes sufficient funds to permit Bidder to comply with all local, state or federal labor laws or regulations during the Project, including payment of prevailing wage, and that Bidder will comply with the provisions of Labor Code section 2810(d) if awarded the Contract.
13. Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
14. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
15. Bidder expressly acknowledges that it is familiar with and capable of complying with applicable federal, State, and local requirements relating to COVID-19 or other public health emergency/epidemic/pandemic including, if required, preparing, posting, and implementing a Social Distancing Protocol.
16. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.
17. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further



certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

Name of Bidder \_\_\_\_\_

Type of Organization \_\_\_\_\_

Signature \_\_\_\_\_

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

Title \_\_\_\_\_

Address of Bidder \_\_\_\_\_

Taxpayer's Identification No. of Bidder \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

E-mail \_\_\_\_\_ Web page \_\_\_\_\_

Contractor's License No(s): No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Public Works Contractor Registration No.: \_\_\_\_\_

END OF DOCUMENT

**BID BOND**

**(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, \_\_\_\_\_, as Principal ("Principal"),

and \_\_\_\_\_, as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of California and authorized to do business as a surety in the State of California, are held and firmly bound unto the San Francisco Community College District ("District") of San Francisco County, State of California, as Obligee, in an amount equal to ten percent (10%) of the Base Bid plus alternates, in the sum of

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

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the District for all Work specifically described in the accompanying bid for the following project: IFB # 2024-041 Science Hall Fire Alarm Upgrade ("Project" or "Contract").

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the Contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within seven (7) days of the date of the District's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone Number of California Agent of Surety

**Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

END OF DOCUMENT

**DESIGNATED SUBCONTRACTORS LIST**  
**(Public Contact Code Sections 4100-4114)**

Bidder acknowledges and agrees that it must clearly set forth below the name, location and California contractor license number of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or who will specially fabricate and install a portion of the Work according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent (0.5%) of Bidder's total Base Bid and the kind of Work that each will perform. Vendors or suppliers of materials only do not need to be listed.

Bidder acknowledges and agrees that, if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law. In case more than one subcontractor is named for the same kind of Work, state the portion of the kind of Work that each subcontractor will perform.

If alternate bid(s) is/are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the Base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder's total Base Bid plus alternate(s).

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_

CA Cont. Lic. #: \_\_\_\_\_ Location: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

Portion of Work: \_\_\_\_\_

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

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

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

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

END OF DOCUMENT

**SITE VISIT CERTIFICATION**  
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID  
IF SITE VISIT WAS MANDATORY

PROJECT: IFB # 2024-041 Science Hall Fire Alarm Upgrade

Check option that applies:

\_\_\_\_\_ I certify that I visited the Site of the proposed Work, received the attached \_\_\_ pages of information, and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

\_\_\_\_\_ I certify that \_\_\_\_\_ (Bidder's representative) visited the Site of the proposed Work, received the attached \_\_\_\_\_ pages of information, and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the San Francisco Community College District, its Architect, its Engineers, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

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

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

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

**NON-COLLUSION DECLARATION**  
**To Be Executed By Bidder And Submitted With Bid**  
**Public Contract Code Section 7106**

The undersigned declares:

I am the \_\_\_\_ of \_\_\_\_, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_[date], at \_\_\_\_[city], \_\_\_\_[state].

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

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

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

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

END OF DOCUMENT

**AGREEMENT FOR CONSTRUCTION SERVICES (SMALL PROJECTS)**

**AGREEMENT NUMBER** \_\_\_\_\_

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_ ("Contractor") and San Francisco Community College District ("District") ("Contract").

1. The Contractor shall furnish to the District for a total price of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) ("Contract Price"), the following services ("Services" or "Work"):

\_\_\_\_\_ See Exhibit "A" \_\_\_\_\_

2. Contractor shall perform the Work Science Hall Ocean Campus, 50 Frida Kahlo Way, San Francisco, CA 94112 ("Site"). The Project is the scope of Work performed at the Site.
3. 3. Work shall be completed within Forty-Five days (45) consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed.

It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents (as defined herein) including, without limitation, the Drawings and Specifications and submission of all documents required to secure funding or by the Division of the State Architect ("DSA") for close-out of the Project, under the direction and supervision of, and subject to the approval of, the District or its authorized representative.

4. Contractor agrees that if the Work is not completed within the Contract Time and/or pursuant to the completion schedule, construction schedule, or project milestones developed pursuant to provisions of the Contract, it is understood, acknowledged, and agreed that the District will suffer damage which is not capable of being calculated. Pursuant to Government Code section 53069.85, Contractor shall pay to the District, as fixed and liquidated damages for these incalculable damages, the sum of Five Hundred Dollars (\$ 500) per day for each and every calendar day of delay beyond the Contract Time or beyond any completion schedule, construction schedule, or project milestones established pursuant to the Contract.
5. This Contract incorporates by this reference the Terms and Conditions attached hereto. Contractor, by executing this Contract, agrees to comply with all the Terms and Conditions.

[REMAINDER OF PAGE INTENTIONALLY BLANK]



6. This Contract incorporates by this reference the Contract Documents attached hereto. Contractor, by executing this Contract, agrees to comply with all obligations set forth in the Contract Documents. The Contract Documents include only the following documents, as indicated:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Notice to Bidders                                  | <input type="checkbox"/> Roofing Project Certification                      |
| <input checked="" type="checkbox"/> Instructions to Bidders                            | <input checked="" type="checkbox"/> Registered Subcontractors List          |
| <input checked="" type="checkbox"/> Bid Form and Proposal                              | <input checked="" type="checkbox"/> Insurance Certificates and Endorsements |
| <input checked="" type="checkbox"/> Bid Bond   | <input checked="" type="checkbox"/> Performance Bond                        |
| <input checked="" type="checkbox"/> Non-collusion Declaration                          | <input checked="" type="checkbox"/> Payment Bond                            |
| <input type="checkbox"/> Iran Contracting Act Certification                            | <input checked="" type="checkbox"/> Specifications                          |
| <input checked="" type="checkbox"/> Designated Subcontractors List                     | <input checked="" type="checkbox"/> Plans                                   |
| <input checked="" type="checkbox"/> Notice to Proceed                                  | <input checked="" type="checkbox"/> Special Conditions                      |
| <input checked="" type="checkbox"/> Prevailing Wage Certification                      | <input checked="" type="checkbox"/> Exhibit "A" ("Scope of Work")           |
| <input checked="" type="checkbox"/> Workers' Compensation Certification                | <input type="checkbox"/> Federal Debarment Certification                    |
| <input checked="" type="checkbox"/> Drug-Free Workplace Certification                  | <input type="checkbox"/> Federal Byrd Anti-Lobbying Certification           |
| <input checked="" type="checkbox"/> Tobacco-Free Environment Certification             | <input type="checkbox"/> COVID-19 Vaccination / Testing Certification       |
| <input checked="" type="checkbox"/> Asbestos & Other Hazardous Materials Certification | <input type="checkbox"/> _____ [Other]                                      |
| <input checked="" type="checkbox"/> Lead-Product(s) Certification                      | <input type="checkbox"/> _____ [Other]                                      |

7. Contractor shall not commence the Work under this Contract until the Contractor has submitted and the District has approved the performance bond, payment (labor and material) bond, the certificate(s) and the endorsement(s) of insurance required under the Terms and Conditions and the District has issued a Notice to Proceed.

8. Payment for the Work shall be made in accordance with the Terms and Conditions.

9. The Design Professional In General Responsible Charge for the Project is Pamela Collier ("Architect"), the construction manager on the Project is Roxana Vargas Greenan ("Construction Manager"), and the project inspector on the Project is Edward Poon ("Project Inspector"). Contractor hereby acknowledges that the Architect, the Construction Manager, the Project Inspector, and the Division of the State Architect have authority to approve and/or suspend Work if the Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. No work shall be carried on except with the knowledge and under the inspection of said Project Inspector. Project Inspector shall have free access to any or all parts of work at any time. Contractor shall furnish Project Inspector reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector fully informed respecting progress, manner of work, and character of materials. The Contractor shall be liable for any delay caused by its non-compliant Work or its failure to provide proper notification for inspection

10. Inspection and acceptance of the Work shall be performed by Alberto Vasquez of the Facilities Department of the District.

11. Any notice required or permitted to be given under this Contract shall be deemed to have been given, served, and received if given in writing and either personally delivered or deposited in the United States mail, registered or certified mail, postage prepaid, return receipt required, or sent by overnight delivery service, or facsimile or email, addressed as follows:

**District**

San Francisco Community College District  
ATTN: Marian Lam  
50 Frida Kahlo Way B606,  
San Francisco, CA 94112  
EMAIL: facilites@ccsf.edu

**Contractor**

Name: \_\_\_\_\_  
ATTN: \_\_\_\_\_  
[ADDRESS]  
[FAX]  
[EMAIL]

Any notice personally given or sent by facsimile or email shall be effective upon receipt. Any notice sent by overnight delivery service shall be effective the business day next following delivery to the overnight delivery service. Any notice given by mail shall be effective three (3) days after deposit in the United States mail.

12. Contractor shall guarantee all labor and material used in the performance of this Contract for a period of one (1) year from the date of the District's written approval of the Work.

13. Each party has the full power and authority to enter into and perform this Contract, and the person signing this Contract on behalf of each party has been properly authority and empowered to enter into this Contract.

14. By signing this Contract, Contractor certifies, under penalty of perjury, that all the information provided in the Contract Documents is true, complete, and correct.

ACCEPTED AND AGREED on the date indicated below:

Dated: \_\_\_\_\_, 20\_\_

Dated: \_\_\_\_\_, 20\_\_

**SAN FRANCISCO COMMUNITY COLLEGE DISTRICT**

**Contractor:** \_\_\_\_\_

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

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

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

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

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

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

Address: \_\_\_\_\_

License No.: \_\_\_\_\_

Telephone: \_\_\_\_\_

Registration No.: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Address: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-Mail: \_\_\_\_\_

[REMAINDER OF PAGE INTENTIONALLY BLANK; INFORMATION REGARDING CONTRACTOR FOLLOWS]

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**Information regarding Contractor:**

Type of Business Entity:  
 Individual  
 Sole Proprietorship  
 Partnership  
 Limited Partnership  
 Corporation, State: \_\_\_\_\_  
 Limited Liability Company  
 Other: \_\_\_\_\_

\_\_\_\_\_  
Employer Identification and/or  
Social Security Number

**NOTE: Section 6041 of the Internal Revenue Code (26 U.S.C. 6041) and Section 1.6041-1 of Title 26 of the Code of Federal Regulations (26 C.F.R. 1.6041-1) requires the recipients of \$600.00 or more to furnish their taxpayer information to the payer. In order to comply with these requirements, the District requires the Contractor to furnish the information requested in this section.**

[REMAINDER OF PAGE INTENTIONALLY BLANK; TERMS AND CONDITIONS FOLLOW]

## **TERMS AND CONDITIONS TO AGREEMENT**

1. **NOTICE TO PROCEED:** District shall provide a Notice to Proceed to Contractor pursuant to the Contract at which time Contractor shall proceed with the Work.
2. **STANDARD OF CARE:** Contractor shall perform, diligently prosecute and complete the Work in a good and workmanlike manner within the Contract Time, and in strict conformity with all Contract Documents.
3. **SITE EXAMINATION:** Contractor has examined the Site and certifies that it accepts all measurements, specifications and conditions affecting the Work to be performed at the Site. By submitting its quote, Contractor warrants that it has made all Site examination(s) that it deems necessary as to the condition of the Site, its accessibility for materials, workers and utilities, and Contractor's ability to protect existing surface and subsurface improvements. No claim for allowance of time or money will be allowed as to any other undiscovered condition on the Site.
4. **PERMITS, LICENSES AND REGISTRATION:** Contractor and all of its employees, agents, and subcontractors shall secure and maintain in force, at Contractor's sole cost and expense, all licenses, registration and permits as are required by law, in connection with the furnishing of materials, supplies, or services herein listed.
5. **PROJECT INSPECTION CARD:** Contractor shall verify that forms DSA 152 Project Inspection Card (or current version) are issued for the Project prior to commencement of construction.
6. **NOTIFICATION:** Contractor shall notify the Architect and Project Inspector, in writing, of the commencement and completion of construction of each and every aspect of the work at least 48 hours in advance by submitting form DSA 156 (or current version) to the Project Inspector. Forms are available on the DSA's website at: <http://www.dgs.ca.gov/dsa/Forms.aspx>.
7. **LABOR, MATERIALS AND EQUIPMENT:** Contractor shall furnish all tools, equipment, apparatus, facilities, transportation, labor, and material necessary to furnish the services herein described, the services to be performed at such times and places as directed by and subject to the approval of the authorized District representative indicated in the Work specifications attached hereto. Unless otherwise specified, all materials shall be new and previously unused, and of the manufacturer's latest model or the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.
8. **SUBSTITUTIONS:** No substitutions of material from those specified in the Work Specifications shall be made without the prior written approval of the District. Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute, as well as any costs that the District incurs for professional services, including DSA fees. District may deduct those costs from any amounts owing to Contractor for the review of the request for substitution, even if the request for substitution is not approved. Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one-hundred percent (100%) of the net difference between the substitute and the originally specified material.
9. **INDEPENDENT CONTRACTOR STATUS:** While engaged in carrying out the Services of this Contract, the Contractor is an independent contractor, and not an officer, employee, agent, partner, or joint venture of the District. Contractor shall be solely responsible for its own Workers' Compensation insurance, taxes, and other similar charges or obligations. Contractor shall be liable for its own actions, including its negligence or gross negligence, and shall be liable for the acts, omissions, or errors of its agents or employees.
10. **CONTRACTOR SUPERVISION:** Contractor shall provide competent supervision of personnel employed on the job Site, use of equipment, and quality of workmanship.
11. **WORKERS:** Contractor shall at all times enforce strict discipline and good order among its employees and the employees of its subcontractors and shall not employ or work any unfit person or anyone not skilled in work assigned to him or her. Any person in the employ of the Contractor or a subcontractor whom the District may deem incompetent or unfit shall be dismissed from the Site and shall not again be employed at Site without written consent from the District.
12. **SUBCONTRACTORS:** Subcontractors, if any, engaged by the Contractor for any Service or Work under this Contract shall be subject to the approval of the District. Contractor agrees to bind every subcontractor by the terms of the Contract as far as such terms are applicable to

subcontractor's work, including, without limitation, all registration, indemnification, insurance, bond, and warranty requirements. If Contractor shall subcontract any part of this Contract, Contractor shall be fully responsible to the District for acts and omissions of its subcontractor and of persons either directly or indirectly employed by itself. Nothing contained in the Contract Documents shall create any contractual relations between any subcontractor and the District.

13. **SAFETY AND SECURITY:** Contractor is responsible for maintaining safety in the performance of this Contract. Contractor shall be responsible to ascertain from the District the rules and regulations pertaining to safety, security, and driving on school grounds, particularly when children are present.
14. **LEAD-BASED PAINT:** Pursuant to the Lead-Safe Schools Protection Act (Education Code section 32240 et seq.) and other applicable law, no lead-based paint, lead plumbing and solders, or other potential sources of lead contamination shall be utilized on this Project, and only trained and state-certified contractors, inspectors and workers shall undertake any action to abate existing risk factors for lead. Pursuant to the Renovation, Repair and Painting Rule (title 40 of the Code of Federal Regulations part 745 (40 CFR 745)), all contractors who disturb lead-based paint in a six square-foot area or greater indoors or a 20-square-foot area or greater outdoors must be trained by an EPA-accredited provider and certified by the EPA. Contractor must execute the Lead-Based Paint Certification, if applicable.
15. **CLEAN UP:** Debris shall be removed from the Site. The Site shall be in order at all times when work is not actually being performed and shall be maintained in a reasonably clean condition.
16. **PROTECTION OF WORK AND PROPERTY:** Contractor shall erect and properly maintain at all times, as required by conditions and progress of the Work, all necessary safeguards, signs, barriers, lights, and security persons for protection of workers and the public, and shall post danger signs warning against hazards created by the Work. In an emergency affecting life and safety of life or of Work or of adjoining property, Contractor, without special instruction or authorization from District, is permitted to act at his discretion to prevent such threatened loss or injury.
17. **FORCE MAJEURE:** The Contractor shall be excused from performance hereunder during the time and to the extent that it is prevented from obtaining delivery, or performing by act of God, fire, strike, loss, or shortage of transportation facilities, lock-out, commandeering of materials, products, plants, or facilities by the government, when satisfactory evidence thereof is presented to the District, provided that it is satisfactorily established that the non-performance is not due to the fault or neglect of the Contractor.
18. **CORRECTION OF ERRORS:** Contractor shall perform, at its own cost and expense and without reimbursement from the District, any work necessary to correct errors or omissions which are caused by the Contractor's failure to comply with the standard of care required herein. Schedule delays resulting from unauthorized work shall be Contractor's responsibility.
19. **NO RELIEF FROM OBLIGATIONS BASED ON REVIEW BY OTHER PERSONS:** Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents by act or omission of the District, Architect, Construction Manager, Project Inspector, or DSA or other entities having jurisdiction including, but not limited to, administration of the Contract, review of submittals, or by tests, observation, inspection, or permit/interconnection approvals.
20. **DISTRICT'S RIGHT TO PERFORM WORK:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, after **FORTY-EIGHT (48)** hours' written notice to the Contractor, may make good such deficiencies, without prejudice to any other remedy it may have, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the District shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.
21. **ACCESS TO WORK:** District representatives, Architect, and Project Inspector shall at all times have access to the Work wherever it is in preparation or in progress. Contractor shall provide safe and proper facilities for such access.
22. **OCCUPANCY:** District reserves the right to occupy buildings at any time before formal Contract completion and such occupancy shall not constitute final acceptance or approval of any part of the

Work covered by this Contract, nor shall such occupancy extend the date specified for completion of the Work.

23. **PAYMENT:** On a monthly basis, Contractor shall submit an application for payment based upon the estimated value for materials delivered or services performed under the Contract as of the date of submission ("Application for Payment"). Within thirty (30) days after District's approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The District may withhold or deduct from any payment an amount necessary to protect the District from loss because of: (1) liquidated damages which have accrued as of the date of the application for payment; (2) any sums expended by the District in performing any of Contractor's obligations under the Contract which Contractor has failed to perform or has performed inadequately; (3) defective Work not remedied; (4) stop payment notices as allowed by state law; (5) reasonable doubt that the Work can be completed for the unpaid balance of the Total Contract price or by the scheduled completion date; (6) unsatisfactory prosecution of the Work by Contractor; (7) unauthorized deviations from the Contract; (8) failure of the Contractor to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract or by District during the prosecution of the Work; (9) erroneous or false estimates by the Contractor of the value of the Work performed; (10) any sums representing expenses, losses, or damages, as determined by the District, incurred by the District for which Contractor is liable under the Contract; and (11) any other sums which the District is entitled to recover from Contractor under the terms of the Contract or pursuant to state law, including section 1727 of the California Labor Code. The failure by the District to deduct any of these sums from a progress payment shall not constitute a waiver of the District's right to such sums. The District shall retain five percent (5%) from all amounts owing as retention. Retention shall be paid pursuant to Public Contract Code sections 7107, 7200 and 7201.
24. **CHANGE IN SCOPE OF WORK:** Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition, or deletion is approved in advance and in writing by a valid change order executed by the District. Contractor specifically understands, acknowledges, and agrees that the District shall have the right to request any alterations, deviations, reductions, or additions to the Project or Work, and the cost thereof shall be added to or deducted from the amount of the Contract Price by fair and reasonable valuations. Contractor also agrees to provide the District with all information requested to substantiate the cost of the change order and to inform the District whether the Work will be done by the Contractor or a subcontractor. In addition to any other information requested, Contractor shall submit, prior to approval of the change order, its request for a time extension (if any), as well as all information necessary to substantiate its belief that such change will delay the completion of the Work. If Contractor fails to submit its request for a time extension or the necessary supporting information, it shall be deemed to have waived its right to request such extension. Overhead and Profit for work performed by Prime Contractor shall, not to exceed fifteen percent (15%). Overhead and Profit for work performed by any and all tiers of subcontractor, shall, not to exceed 10 percent (10%). Overhead and Profit for work performed other than Prime Contractor shall not exceed 5 percent (5%).
25. **INDEMNIFICATION:** To the furthest extent permitted by California law, Contractor shall indemnify and hold harmless the District, its agents, representatives, officers, consultants, employees, and volunteers (the "Indemnified Parties") from any and all demands, injuries, losses, expenses, liabilities, claims, suits, and actions (the "Claims") of any kind, nature, and description, including, but not limited to, attorneys' fees and costs, directly or indirectly arising from, arising out of, connected with, or resulting from, in whole or in part, the performance of this Contract unless the Claims are caused wholly by the sole or active negligence or willful misconduct of the Indemnified Parties and/or defects in design furnished by the Architect, as found by a court or arbitrator of competent jurisdiction, in which case the Contractor's indemnification and hold harmless obligation shall be reduced by the proportion of the Indemnitees' and/or Architect's liability.

28.1 Contractor shall also, to the furthest extent permitted by California law, defend the Indemnified Parties at Contractor's own expense, including attorneys' fees and costs, from

any and all Claims directly or indirectly arising from, arising out of, connected with, or resulting from the performance of this Contract unless the claims are caused wholly by the sole or active negligence or willful misconduct of the Indemnified Parties and/or defects in design furnished by the Architect, as found by a court or arbitrator of competent jurisdiction, in which case, without impacting Contractor's obligation to provide an immediate and ongoing defense of the Indemnified Parties, the Contractor's defense obligation shall be retroactively reduced by the proportion of the Indemnitees' and/or Architect's liability. The District shall have the right to accept or reject any legal representation that Contractor proposes to defend the District.

- 28.2 Pursuant to Public Contract Code section 9201, the District shall provide timely notification to Contractor of the receipt of any third-party claim relating to this Contract. The District shall be entitled to recover its reasonable costs incurred in providing said notification.
- 28.3 If the Indemnitees provide their own defense due to failure to timely respond to tender of defense, rejection of tender of defense, or conflict of interest of proposed counsel, Contractor shall reimburse Indemnitees for any expenditures, including reasonable attorney's fees and costs.
- 28.4 The District may retain so much of the moneys due the Contractor as shall be considered necessary, until disposition of any such suit, claims or actions for damages or until the District has received written agreement from the Contractor that it will unconditionally defend the Indemnified Parties, and pay any damages due by reason of settlement or judgment.
- 28.5 The Contractor's defense and indemnification obligations hereunder shall survive the completion of Work, including the warranty/guarantee period, and the termination of the Contract.

26. **PAYMENT BOND AND PERFORMANCE BOND:** Contractor shall not commence the Work until it has provided to the District, in a form acceptable to the District, a Payment (Labor and Material) Bond and a Performance Bond, each in an amount equivalent to one hundred percent (100%) of the Contract Price issued by a surety admitted to issue bonds in the State of California and otherwise acceptable to the District.

27. **CONTRACTOR'S INSURANCE:**

- 30.1 The Contractor shall procure and maintain at all times it performs any portion of the Services the following insurance with minimum limits not less than the amount indicated below. If Contractor normally carries insurance in an amount greater than the minimum amounts required by District, that greater amount shall become the minimum required amount of insurance for purposes of the Contract. Therefore, Contractor hereby acknowledges and agrees that all insurance carried by it shall be deemed liability coverage for all actions it performs in connection with the Contract.

Type of Coverage	Minimum Requirement
<b>Commercial General Liability Insurance</b> , including Bodily Injury, Personal Injury, Property Damage, Advertising Injury, and Medical Payments Each Occurrence General Aggregate	 \$ 1,000,000 \$ 2,000,000
<b>Automobile Liability Insurance - Any Auto</b> Each Occurrence General Aggregate	 \$ 1,000,000
<b>Workers' Compensation</b>	Statutory Limits
<b>Employer's Liability</b>	\$ 1,000,000

- 30.1.1 **Commercial General Liability and Automobile Liability Insurance.**  
Commercial General Liability Insurance and Any Automobile Liability Insurance that shall protect the Contractor, the District, and the State from all claims of

bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising performing any portion of the Services. (Form CG 0001 and CA 0001, or forms substantially similar, if approved by the District.)

30.1.2 **Workers' Compensation and Employers' Liability Insurance.** Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees performing any portion of the Services. In accordance with provisions of section 3700 of the California Labor Code, the Contractor shall be required to secure workers' compensation coverage for its employees. If any class of employee or employees engaged in performing any portion of the Services under this Contract are not protected under the Workers' Compensation Statute, adequate insurance coverage for the protection of any employee(s) not otherwise protected must be obtained before any of those employee(s) commence performing any portion of the Services.

#### 29.1.3 **Pollution Liability Insurance**

29.1.4 Contractor shall procure and maintain Pollution Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, including natural resource damage, cleanup costs, removal, storage, disposal, and/or use of the pollutant arising from operations under this Contract, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. Coverage shall apply to sudden and/or gradual pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants, including asbestos. This coverage shall be provided in a form at least as broad as Insurance Services Offices, Inc. (ISO) Form CG 2415, or Contractor shall procure and maintain these coverages separately.

29.1.5 Contractor warrants that any retroactive date applicable to coverage under the policy shall predate the effective date of the Contract and that continuous coverage will be maintained or an extended reporting or discovery period will be exercised for a period of three (3) years, beginning from the time that the Work under the Contract is completed.

29.1.6 If Contractor is responsible for removing any pollutants from a site, then Contractor shall ensure that Any Auto, including owned, non-owned, and hired, is included within the above policies and at the required limits, to cover its automobile exposure from transporting the pollutants from the site to an approved disposal site. This coverage shall include the Motor Carrier Act Endorsement, MCS 90.

30.2 **Proof of Insurance.** The Contractor shall not commence performing any portion of the Services until all required insurance has been obtained and certificates indicating the required coverage have been delivered in duplicate to the District and approved by the District. Certificates and insurance policies shall include the following:

30.2.1 A clause stating: "This policy shall not be canceled until notice has been mailed to the District, stating date of cancellation. Date of cancellation shall not be less than thirty (30) days after date of mailing notice."

30.2.2 Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation notice will be sent, and length of notice period.

30.2.3 **An endorsement stating that "the District and its Governing Board, agents, representatives, employees, trustees, officers, consultants, and volunteers" are named additional insured under all policies** except Workers' Compensation Insurance, and Employers' Liability Insurance.



- 30.2.4 All policies except the Workers' Compensation Insurance, and Employers' Liability Insurance Policies shall be written on an occurrence form.
- 30.2.5 An endorsement shall also state that Contractor's insurance policies shall be primary to any insurance or self-insurance maintained by District.
- 30.2.6 An endorsement shall also state that there shall be a waiver of any subrogation.
- 30.2.7 Contractor's insurance limit shall apply separately to each insured against whom a claim is made or suit is brought.
- 30.3 **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District.
28. **WARRANTY/QUALITY:** Unless a longer warranty is called for elsewhere in the Contract Documents, the Contractor, manufacturer, or their assigned agents shall guarantee the workmanship, product or service performed against defective workmanship, defects or failures of materials for a minimum period of one (1) year from filing the Notice of Completion with the county in which the Site is located. All workmanship and merchandise must be warranted to be in compliance with applicable California energy, conservation, environmental, and educational standards.
29. **CONFIDENTIALITY:** The Contractor shall maintain the confidentiality of all information, documents, programs, procedures, and all other items that Contractor encounters while performing the Contractor's Work to the extent allowed by law. This requirement shall be ongoing and shall survive the expiration or termination of this Contract and specifically includes all student, parent, and disciplinary information.
30. **LIMITATION OF DISTRICT LIABILITY:** District's financial obligations under this Contract shall be limited to the payment of the compensation provided in this Contract. Notwithstanding any other provision of this Contract, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, or lost bonding capacity, arising out of or in connection with this Contract for the services performed in connection with this Contract.
31. **COMPLIANCE WITH LAWS:** Contractor shall give all notices and comply with all laws, ordinance, rules and regulations bearing on conduct of the Work as indicated or specified. If Contractor observes that any of the Work required by this Contract is at variance with any such laws, ordinance, rules or regulations, Contractor shall notify the District, in writing, and, at the sole option of the District, any necessary changes to the scope of the Work shall be made and this Contract shall be appropriately amended in writing, or this Contract shall be terminated effective upon Contractor's receipt of a written termination notice from the District. If Contractor performs any work that is in violation of any laws, ordinances, rules or regulations, without first notifying the District of the violation, Contractor shall bear all costs arising therefrom.
32. **LABOR CODE REQUIREMENTS:** Contractor represents that Contractor and all Subcontractors shall not be presently debarred, suspended, proposed for disbarment, declared ineligible or excluded pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7. The Contractor shall comply with all applicable provisions of the California Labor Code, Division 3, Part 7, Chapter 1, Articles 1 – 5, including, without limitation, the payment of the general prevailing per diem wage rates for public work projects of more than one thousand dollars (\$1,000). Copies of the prevailing rate of per diem wages are on file with the District or available online at <http://www.dir.ca.gov/>. In addition, the Contractor and each subcontractor shall comply with Chapter 1 of Division 2, Part 7 of the California Labor Code, beginning with Section 1720, and including Section 1735, 1777.5 and 1777.6, forbidding discrimination, and Sections 1776, 1777.5 and 1777.6 concerning the employment of apprentices by Contractor or subcontractors. Willful failure to comply may result in penalties, including loss of the right to bid on or receive public works contracts.

- 37.1 **Registration:** Contractor and its subcontractor(s) shall be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and in accordance with Labor **Code** section 1771.1.
- 37.2 **Registered Subcontractor List:** Within 30 days of the award of contract or prior to commencing the Work under this Contract, whichever occurs first, Contractor shall provide District all information required by Labor Code section 1773.3, as amended by Stats. 2017, Ch. 28, Sec. 21, for Company and all tiers of Subcontractors to enable District to provide notice to the Department of Industrial Relations (DIR) of the Contract (PWC-100 form). Contractor shall submit and maintain an updated Registered Subcontractor List including all Subcontractors of any tier furnishing labor, material, or equipment to the Project.
- 37.3 **Certified Payroll Records:** Contractor and its subcontractor(s) shall upload certified payroll records ("CPR") electronically using California Department of Industrial Relations' (DIR) eCPR System by uploading the CPRs by electronic XML file or entering each record manually using the DIR's iform (or current form) online directly to the DIR on no less than every 30 days while Work is being performed and within 30 days after the final day of Work performed on the Project, and within ten (10) days of any request by the District or Labor Commissioner at <http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html> or current application and URL, showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each subcontractor in connection with the Work.
- 37.4 **Labor Compliance:** Contractor shall perform the Work of the Project while complying with all the applicable regulations, including section 16000, et seq., of Title 8 of the California Code of Regulations and is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations.
33. **ANTI-DISCRIMINATION:** Contractor herein agrees to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246; and all administrative rules and regulations found to be applicable to Contractor and all of its subcontractors. In addition, the Contractor agrees to require like compliance by all its subcontractor(s).
34. **ANTI-TRUST CLAIM:** Contractor and its subcontractor(s) agree to assign to the District all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or a subcontract. This assignment shall be made and become effective at the time the District tenders final payment to the Contractor, without further acknowledgment by the parties.
35. **CONTRACTOR CLAIMS:** In the event of any demand by Contractor for (A) a time extension, including, without limitation, for relief from damages or penalties for delay assessed by the District under the Contract, (B) payment by the District of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or to which Contractor is not otherwise entitled to, or (C) an amount of payment disputed by the District, the parties shall attempt to resolve the dispute by those procedures set forth in Public Contract Code section 9204 and/or Article 1.5 (commencing with section 20104) of Chapter 1, Part, 3, Division 2, of the Public Contract Code, if applicable, the provisions of which are each attached hereto and incorporated herein by this reference. If a claim, or any portion thereof, remains in dispute upon satisfaction of all applicable dispute resolution requirements, the Contractor shall comply with all claims presentation requirements as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of Government Code as a condition precedent to the Contractor's right to bring a civil action against the District. For purposes of those provisions, the running of the time within which a claim must be presented to the District shall be tolled from the time the Contractor submits its written claim until the time the claim is denied, including any time utilized by any

applicable meet and confer process. Pending resolution of the dispute, Contractor and its subcontractors shall continue to perform the Work under the Contract, including the disputed work, and shall not cause a delay of the Work during any dispute, claim, negotiation, mediation, or arbitration proceeding, except by written agreement of the District.

36. **ATTORNEY FEES/COSTS:** Should litigation be necessary to enforce any terms or provisions of this Contract, then each party shall bear its own litigation and collection expenses, witness fees, court costs and attorney's fees.
37. **TERMINATION:** If Contractor fails to perform the Services and Contractor's duties to the satisfaction of the District, or if Contractor fails to fulfill in a timely and professional manner Contractor's obligations under this Contract, or if Contractor violates any of the terms or provisions of this Contract, District shall have the right to terminate this Contract and/or Contractor's right to perform the Work of the Contract for cause effective immediately upon the District giving written notice thereof to the Contractor. The Contractor and its performance bond surety, if any, shall be liable for all damages caused to the District by reason of the Contractor's failure to perform and complete the Contract. District shall also have the right in its sole discretion to terminate the Contract and/or Contractor's right to perform the Work of the Contract for its own convenience upon District giving three (3) days' written notice thereof to the Contractor. In case of a termination for convenience, Contractor shall be paid for the actual cost for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise. Termination shall have no effect upon any of the rights and obligations of the parties arising out of any transaction occurring prior to the effective date of termination. In the event termination for cause is determined to have not been for cause, the termination shall be deemed to have been a termination for convenience effective as of the same date as the purported termination for cause.
38. **ASSIGNMENT OF CONTRACT:** Contractor shall not assign or transfer in any way any or all of its rights, burdens, duties, or obligations under this Contract without the prior written consent of the District.
39. **TIME IS OF THE ESSENCE:** Time is of the essence in the performance of and compliance with each of the provisions and conditions of this Contract.
40. **CALCULATION OF TIME:** For the purposes of this Contract, "days" refers to calendar days unless otherwise specified.
41. **GOVERNING LAW:** This Contract shall be governed by and construed in accordance with the laws of the State of California with venue of any action in a County in which the District administration office is located.
42. **BINDING CONTRACT:** This Contract shall be binding upon the parties hereto and upon their successors and assigns, and shall inure to the benefit of said parties and their successors and assigns.
43. **DISTRICT WAIVER:** District's waiver of any term, condition, covenant or waiver of a breach of any term, condition or covenant shall not constitute the waiver of any other term, condition or covenant or the waiver of a breach of any other term, condition or covenant.
44. **CAPTIONS AND INTERPRETATIONS:** Paragraph headings in this Contract are used solely for convenience, and shall be wholly disregarded in the construction of this Contract. No provision of this Contract shall be interpreted for or against a party because that party or its legal representative drafted such provision, and this Contract shall be construed as if jointly prepared by the parties.
45. **INVALID TERM:** If any provision of this Contract is declared or determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, the legality, validity or enforceability of the remaining parts, terms and provisions shall not be affected thereby, and said illegal, unenforceable or invalid part, term or provision will be deemed not to be a part of this Contract.
46. **PROVISIONS REQUIRED BY LAW DEEMED INSERTED:** Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and this Contract shall be read and enforced as though it were included therein.
47. **ENTIRE CONTRACT:** This Contract sets forth the entire agreement between the parties hereto and fully supersedes any and all prior agreements, understandings, written or oral, between the

parties hereto pertaining to the subject matter thereof.

48. **NO ORAL MODIFICATIONS:** No oral agreement or conversation with any officer, agent, or employee of District, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

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**Public Contract Code section 9204**

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the

public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on their own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

## **Public Contract Code sections 20104 – 20104.6**

### **§ 20104.**

(a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b) (1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

### **§ 20104.2.**

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

**§ 20104.4.**

The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

**§ 20104.6.**

(a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

END OF DOCUMENT



**PERFORMANCE BOND**  
(100% OF CONTRACT PRICE)

**(Note: Contractor must use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the Governing Board ("Board") of the San Francisco Community College District ("District") and \_\_\_\_\_ ("Principal") have entered into a contract ("Agreement") for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB # 2024-041 Science Hall Fire Alarm Upgrade** \_\_\_\_\_ (Project Name)

("Project") which Agreement dated \_\_\_\_\_, 20\_\_\_\_, and all of the Contract Documents attached to or forming a part of the Agreement, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Agreement to furnish a bond for the faithful performance of the Agreement.

NOW, THEREFORE, the Principal and \_\_\_\_\_ ("Surety") are held and firmly bound unto the Board of the District in the penal sum of

\_\_\_\_\_ Dollars (\$\_\_\_\_\_), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Agreement and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the District, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

Surety expressly agrees that the District may reject any contractor or subcontractor proposed by Surety to fulfill its obligations in the event of default by the Principal. Surety shall not utilize Principal in completing the Work nor shall Surety accept a Bid from Principal for completion of the Work if the District declares the Principal to be in default and notifies

Surety of the District's objection to Principal's further participation in the completion of the Work.

As a condition precedent to the satisfactory completion of the Agreement, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Agreement, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Agreement, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Agreement or to the Work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Agreement or to the work or to the specifications.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(Affix Corporate Seal)

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone No. of California Agent of Surety

**Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.**

END OF DOCUMENT

**PAYMENT BOND**

Contractor's Labor & Material Bond  
(100% Of Contract Price)

**(Note: Contractor MUST use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the Governing Board ("Board") of the San Francisco Community College District (or "District") and \_\_\_\_\_, ("Principal") have entered into a contract ("Agreement") for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB # 2024-041 Science Hall Fire Alarm Upgrade** (Project Name) ("Project") which Agreement dated \_\_\_\_\_, 20\_\_\_\_, and all of the Contract Documents attached to or forming a part of the Agreement, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the Work, to file a good and sufficient bond with the body by which the Agreement is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and \_\_\_\_\_ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Agreement or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(Affix Corporate Seal)

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone No. of California Agent of Surety

**Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.**

END OF DOCUMENT

## **SPECIAL CONDITIONS**

### **1. Mitigation Measures**

Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act. (See Public Resources Code section 21000 *et seq.*)

### **2. Modernization Projects**

**2.1. Access.** Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Work is to start. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by the Contractor, unless at the discretion of the District, other arrangements are made in advance.

**2.2. Maintaining Services.** The Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with the District. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.

**2.3. Maintaining Utilities.** The Contractor shall maintain in operation during duration of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.

**2.4. Confidentiality.** Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of this Agreement and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.

**2.5. Work During Instructional Time.** By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to school operations and any use of school facilities by the public up to, and including, rescheduling specific work activities, at no additional cost to District.

**2.6. No Work During Student Testing.** Contractor shall, at no additional cost to the District and at the District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State or Federally-required tests.

### **3. Badge Policy For Contractors**

**3.1.** All Contractors doing work for the District will provide their workers with identification badges. These badges will be worn by all members of the Contractor's staff who are working in a District facility. Badges must be filled out in full and contain the following information:

**3.1.1.** Name of Contractor

**3.1.2.** Name of Employee

**3.1.3.** Contractor's address and phone number

**3.2.** Badges are to be worn when the Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.

**3.3.** Continued failure to display identification badges as required by this policy may result in the individual being removed from the Project or assessment of fines against the Contractor.

**WORKERS' COMPENSATION CERTIFICATION**

PROJECT/CONTRACT NO.: IFB#2024-041 Science Hall Fire Alarm Upgrade Project between San Francisco Community College District ("District") and \_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

Labor Code section 3700, in relevant part, provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state; and/or
- b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

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

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

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

(In accordance with Labor Code sections 1860 and 1861, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

**PREVAILING WAGE AND  
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: IFB 2024-041 Science Hall Fira Alarm Upgrade Project between San Francisco Community College District ("District") and \_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project including, without limitation, labor compliance monitoring and enforcement by the Department of Industrial Relations.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

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

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

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

END OF DOCUMENT



## **DRUG-FREE WORKPLACE CERTIFICATION**

PROJECT/CONTRACT NO.: IFB # 2024-041 Science Hall Fire Alarm Upgrade project between San Francisco Community College District ("District") and \_\_\_\_\_  
\_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The District is not a "state agency" as defined in the applicable section(s) of the Government Code, but the District is a local agency and public school district under California law and requires all contractors on District projects to comply with the provisions and requirements of Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990.

Contractor must also comply with the provisions of Health & Safety Code section 11362.3 which prohibits the consumption or possession of cannabis or cannabis products in any public place, including school grounds, and specifically on school grounds while children are present.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
  - (1) The dangers of drug abuse in the workplace.
  - (2) The person's or organization's policy of maintaining a drug-free workplace.
  - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
  - (4) The penalties that may be imposed upon employees for drug abuse violations.
- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the

prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the District determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the aforementioned Act.

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990 and Health and Safety Code section 11362.3.

Date: \_\_\_\_\_  
Proper Name of Contractor: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

END OF DOCUMENT

**TOBACCO-FREE ENVIRONMENT CERTIFICATION**

PROJECT/CONTRACT NO.: IFB # 2024-041 Science Hall Fire Alarm Upgrade between San Francisco Community College District ("District") and \_\_\_\_\_  
\_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq., Business and Professions Code section 22950 et seq. and District Board Policies, all District sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school owned vehicles and vehicles owned by others while on District property. The prohibition on smoking includes the use of any electronic smoking device that creates an aerosol or vapor, in any manner or in any form, and the use of any oral smoking device for the purpose of circumventing the prohibition of tobacco smoking. Further, Health & Safety Code section 11362.3 prohibits the smoking or use of cannabis or cannabis products in any place where smoking tobacco is prohibited.

I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

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

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

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

END OF DOCUMENT

**HAZARDOUS MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: IFB # 2024-041 Science Hall Fire Alarm Upgrade between San Francisco Community College District ("District") and \_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for District.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the District's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the District.
6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein. Contractor certifies that it is knowledgeable of, and shall comply with, all laws applicable to the Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

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

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

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

END OF DOCUMENT

## **LEAD-BASED MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: IFB # 2024-041 Science Hall Fire Alarm Upgrade between San Francisco Community College District ("District") and \_\_\_\_\_ ("Contractor" or "Bidder") ("Contract" or "Project").

This certification provides notice to the Contractor that:

- (1) Contractor's work may disturb lead-containing building materials.
- (2) Contractor shall notify the District if any work may result in the disturbance of lead-containing building materials.
- (3) Contractor shall comply with the Renovation, Repair and Painting Rule, if lead-based paint is disturbed in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors.

### **1. Lead as a Health Hazard**

Lead poisoning is recognized as a serious environmental health hazard facing children today. Even at low levels of exposure, much lower than previously believed, lead can impair the development of a child's central nervous system, causing learning disabilities, and leading to serious behavioral problems. Lead enters the environment as tiny lead particles and lead dust disburse when paint chips, chalks, peels, wears away over time, or is otherwise disturbed. Ingestion of lead dust is the most common pathway of childhood poisoning; lead dust gets on a child's hands and toys and then into a child's mouth through common hand-to-mouth activity. Exposures may result from construction or remodeling activities that disturb lead paint, from ordinary wear and tear of windows and doors, or from friction on other surfaces.

Ordinary construction and renovation or repainting activities carried out without lead-safe work practices can disturb lead-based paint and create significant hazards. Improper removal practices, such as dry scraping, sanding, or water blasting painted surfaces, are likely to generate high volumes of lead dust.

Because the Contractor and its employees will be providing services for the District, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the District. All school buildings built prior to 1978 are presumed to contain some lead-based paint until sampling proves otherwise.

### **2. Overview of California Law**

Education Code section 32240 et seq. is known as the Lead-Safe Schools Protection Act. Under this act, the Department of Health Services is to conduct a sample survey of schools in the State of California for the purpose of developing risk factors to predict lead contamination in public schools. (Ed. Code, § 32241.)

Any school that undertakes any action to abate existing risk factors for lead is required to utilize trained and state-certified contractors, inspectors, and workers. (Ed. Code, § 32243, subd. (b).) Moreover, lead-based paint, lead plumbing, and solders, or other potential sources of lead contamination, shall not be utilized in the construction of any new school facility or the modernization or renovation of any existing school facility. (Ed. Code, § 32244.)

Both the Federal Occupational Safety and Health Administration ("Fed/OSHA") and the California Division of Occupational Safety and Health ("Cal/OSHA") have implemented safety orders applicable to all construction work where a contractor's employee may be occupationally exposed to lead.

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to that regulation. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. It includes, but is not limited to, the following:

- a. Demolition or salvage of structures where lead or materials containing lead are present;
- b. Removal or encapsulation of materials containing lead;
- c. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- d. Installation of products containing lead;
- e. Lead contamination/emergency cleanup;
- f. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- g. Maintenance operations associated with the construction activities described in the subsection.

Because it is assumed by the District that all painted surfaces (interior as well as exterior) within the District contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532.1).

Contractor shall notify the District if any Work may result in the disturbance of lead-containing building materials. Any and all Work that may result in the disturbance of lead-containing building materials shall be coordinated through the District. A signed copy of this Certification shall be on file prior to beginning Work on the Project, along with all current insurance certificates.

**3. Renovation, Repair and Painting Rule, Section 402(c)(3) of the Toxic Substances Control Act**

The EPA requires lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint. Pursuant to the Renovation, Repair and Painting Rule (RRP), renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with training by a EPA-accredited training provider, and fully and adequately complying with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

The RRP requirements apply to all contractors who disturb lead-based paint in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors. If a DPH-certified inspector or risk assessor determines that a home constructed before 1978 is lead-free, the federal certification is not required for anyone working on that particular building.

**4. Contractor's Liability**

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify, and hold harmless the District, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

If lead disturbance is anticipated in the Work, only persons with appropriate accreditation, registrations, licenses, and training shall conduct this Work.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including, but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the District.

The Contractor shall provide the District with any sample results prior to beginning Work, during the Work, and after the completion of the Work. The District may request to examine, prior to the commencement of the Work, the lead training records of each employee of the Contractor.

THE CONTRACTOR HEREBY ACKNOWLEDGES, UNDER PENALTY OF PERJURY, THAT IT:

1. HAS RECEIVED NOTIFICATION OF POTENTIAL LEAD-BASED MATERIALS ON THE OWNER'S PROPERTY;
2. IS KNOWLEDGEABLE REGARDING AND WILL COMPLY WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS GOVERNING WORK WITH, AND DISPOSAL, OF LEAD.

THE UNDERSIGNED WARRANTS THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF AND BIND THE CONTRACTOR. THE DISTRICT MAY REQUIRE PROOF OF SUCH AUTHORITY.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

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

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

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

END OF DOCUMENT

**REGISTERED SUBCONTRACTORS LIST**  
**(Labor Code Section 1771.1)**

PROJECT: IFB # 2024-041 Science Hall Fire Alarm Upgrade

Date Submitted (for Updates): \_\_\_\_\_

Contractor acknowledges and agrees that it must clearly set forth below the name and Department of Industrial Relations (DIR) registration number of each subcontractor **for all tiers** who will perform work or labor or render service to Contractor or its subcontractors in or about the construction of the Work **at least two (2) weeks before the subcontractor is scheduled to perform work**. This document is to be updated as all tiers of subcontractors are identified.

Contractor acknowledges and agrees that, if Contractor fails to list as to any subcontractor of any tier who performs any portion of Work, the Contract is subject to cancellation and the Contractor will be subjected to penalty under applicable law.

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_



**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_  
DIR Registration #: \_\_\_\_\_  
Portion of Work: \_\_\_\_\_

Date: \_\_\_\_\_

Name of Contractor: \_\_\_\_\_

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

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

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

END OF DOCUMENT

# San Francisco Community College District



## SMALL BUSINESS ENTERPRISE (SBE) PROGRAM FOR CONSTRUCTION CONTRACTING

### RULES, REGULATIONS, REQUIREMENTS, AND FORMS

#### 1.01 GENERAL INFORMATION

1. Bidders must agree to comply with the requirements of the San Francisco Community College District's (District's) SBE Program to be eligible for an award of a construction contract. The Bidder is responsible for and must comply with all the details contained in the SBE Rules, Regulations, Requirements, and Forms.

Copies of the SBE Program for construction contractors are available on the District's web site at: [www.ccsf.edu/facilities](http://www.ccsf.edu/facilities).

2. The following agencies maintain lists of certified SBEs:

<p><b>State of California</b> <b>Department of General Services (DGS)</b> <b>Office of Small Business and DVBE Services</b> 707 3rd Street, 1st Floor, Room 400 West Sacramento, CA 95605 Phone: (916) 375-4940 FAX: (916) 375-4950 <a href="http://www.dgs.ca.gov/pd">www.dgs.ca.gov/pd</a></p>	<p><b>City &amp; County of San Francisco</b> <b>Contract Monitoring Division (CMD)</b> City &amp; County of San Francisco Contract Monitoring Division 30 Van Ness Avenue, Suite 200 San Francisco, CA 94102 Phone: (415) 581-2310 <a href="http://www.sfgov.org/cmd">www.sfgov.org/cmd</a></p>
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## 1.02 REQUIRED FORMS TO BE SUBMITTED

### 1. Forms that must be submitted with the bid:

Form 1: IDENTIFICATION LISTING OF SUBCONTRACTORS, TRUCKERS, SUPPLIERS, AND SUBCONSULTANTS

Form 2: EQUAL OPPORTUNITY AND NON-DISCRIMINATION IN EMPLOYMENT AND WORKFORCE COMPLIANCE CERTIFICATION

### 2. Additional forms to be submitted by the successful Bidder after the execution of the contract:

Form 3: MONTHLY SUBCONTRACTOR/SUBCONSULTANT PROGRESS REPORT (submitted with each invoice listing all subcontractors, suppliers, truckers and their fees included in the invoice)

Form 4: EXIT REPORT AFFIDAVIT AND FINAL PAYMENT REPORT (submitted before release of retention listing the SBE subcontractors, suppliers, and truckers and their total payments)

## 1.03 INSTRUCTIONS FOR COMPLETING THE SBE FORMS

### Form 1: IDENTIFICATION LISTING OF SUBCONTRACTORS, TRUCKERS, SUPPLIERS, AND SUBCONSULTANTS

Form 1 must be submitted with the bid to identify *ALL* subcontractors, suppliers, truckers and subconsultants performing on the bid. Form 1 is also used to demonstrate how the Bidder will meet the SBE subcontracting goal, as well as determining if the bidder is eligible for a bid discount. The SBE goal is set forth in the Invitation for Bid.

### Form 2: EQUAL OPPORTUNITY AND NON-DISCRIMINATION IN EMPLOYMENT AND WORKFORCE COMPLIANCE CERTIFICATION

Form 2 must be submitted with the bid and signed by the Bidder.

### Form 3: MONTHLY SUBCONTRACTOR/SUBCONSULTANT PROGRESS REPORT

Form 3 should be attached to each request for a progress payment. If the payment request for a subcontractor, supplier, trucker, or subconsultant is included in the requested progress payment, the amount for each business should be specified on the form. Otherwise, the form should state “not applicable.”

The directions for each field of Section II are as follows:

- *Name of Subcontractors, Truckers, Suppliers, and Subconsultants:* List each subcontractor, trucker, supplier, and subconsultant requesting payment for the reported month.
- *Work Performed this Month:* List the services provided by each subcontractor, trucker, supplier, and subconsultant.
- *Invoice No. and Amount Invoiced Current Month:* List the invoice number and the amount invoiced by the subcontractor, trucker, supplier, or subconsultant for the current month.
- *Amount Paid Current Month:* List the amount paid to the subcontractor, trucker, supplier, or subconsultant for the current month.
- *Amount Paid to Date:* List the amount paid to date to the listed subcontractor, trucker, supplier, or subconsultant.

## **Form 4: EXIT REPORT AFFIDAVIT AND FINAL PAYMENT REPORT**

Form 4 should be submitted with the final progress payment application and signed by the Bidder, including all joint venture partners. The Bidder should list *ALL* subcontractor, supplier, trucker, and subconsultant payments to date. Final payment will not be released without submittal of this Form.

### **1.04 BIDDER'S CONTRACT REQUIREMENTS**

The Bidder must comply with the SBE participation goals that are applied to the original contract whenever a change order is required. A revised Form 1 must be submitted with the Change Order indicating how the SBE participation percentages will be met. No payment on the Change Order will be made until the revised Form 1 is submitted and approved by the District.

The Bidder must include in any subcontract a SBE provision that provides a remedy for the Bidder's non-compliance with the commitment to utilize SBE subcontractors, suppliers, truckers, and subconsultants. This contractual provision shall include an agreement by the Bidder to compensate the SBE subcontractor, supplier, or trucker if the Bidder does not fulfill its commitment to utilize the SBE. This contractual provision shall also state that it is enforceable in a court of competent jurisdiction.

Suggested language for the agreement between the Bidder and the subcontractor, supplier, trucker, or subconsultant is as follows:

Bidder shall fulfill its commitment to utilize and compensate business name to the full extent agreed to under contract with the San Francisco Community College District. In the event the Bidder does not fulfill its commitment to utilize the SBE subcontractor, the Bidder shall nonetheless compensate the subcontractor for the amount specified in its contract with the San Francisco Community College District. This provision shall be enforceable in a court of competent jurisdiction.

### **1.05 SBE QUALIFICATION REQUIREMENTS**

SBEs that are certified with State of California Department of General Services or City & County of San Francisco Contract Monitoring Division are eligible to meet the SBE goal and receive the SBE bid discount.

### **1.06 SUBSTITUTION, REMOVAL OR CONTRACT MODIFICATION OF SBE**

- 1) No SBE subcontractor, supplier, trucker or other business listed on Form 1 is to be substituted or removed from the contract or have its contract modified in any way without prior written District approval.
- 2) Prior to District approval the subcontractor or subconsultant must be notified in writing of the proposed substitution and be provided the reason(s) for the substitution.

- 3) In the event of a SBE substitution the Bidder shall be required to make a good faith effort to replace the substituted subcontractor with another SBE.
- 4) During the term of the contract any willful failure to comply with the participation goals agreed upon by the Bidder in the bid shall be deemed a material breach of contract.

## **1.07 NON-COMPLIANCE AND SANCTIONS**

A complaint of discrimination or non-compliance concerning SBE participation initiated by any party after the contract award will be processed in accordance with the SBE Program and the following Rules and Regulations:

- 1) If the District determines there is cause to believe that a Bidder has failed to comply with any of these requirements, the District shall attempt to resolve the non-compliance through conciliation.
- 2) If the non-compliance cannot be resolved, the District shall submit to the Bidder a written Finding of Noncompliance. The Bidder shall be given ten (10) calendar days to appeal the Finding of Noncompliance, or otherwise it will be final.

### **A. Willful or Bad Faith Non-Compliance**

1. The District may require reports, information, and documentation from the Bidder as is reasonably necessary to determine compliance with the requirements of the District's SBE Program Rules, Regulations, Requirements, and Forms for construction contracting.
2. If the District determines that there is cause to believe that any Bidder or subcontractor/subconsultant has failed to comply in good faith with any of the requirements of the District SBE Program or contract provisions pertaining to SBE utilization, the District is empowered to conduct an investigation. After affording the Bidder notice and an opportunity to be heard, the District may impose sanctions for each violation.
3. Such sanctions shall include, but are not limited to the following:
  - a. Declare the Bidder non-responsive and ineligible to receive the award subject to possible forfeiture of the bid bond.
  - b. Declare the Bidder an irresponsible bidder and disqualify the Bidder from eligibility for providing goods or services to the District for a period of five (5) years, with a right to review and reconsideration by the District after two (2) years upon a showing of corrective action indicating violations would not recur.
  - c. Declare that the Bidder has willfully failed to comply and impose as liquidated damages, whichever is the greatest:

- 1) An amount equal to the Bidder's net profit
- 2) Ten percent (10%) to the total amount of the contract
- 3) One thousand dollars (\$1,000)

B. Appeal of Willful or Bad Faith Non-compliance Finding

1. The Bidder or subcontractor may appeal the District's decision to sustain, reverse, or modify the findings and sanctions imposed within ten (10) calendar days of the District's issuing a finding.

### **1.08 SBE BID PROTEST PROCEDURES**

Any Bidder or subcontractor that has submitted a bid for a construction project and has knowledge of or suspects a violation by another Bidder or subcontractor, and feels that relevant bids should be rendered non-responsive because of violations of the District's SBE policy, may file a formal protest by identifying in writing the violation, particular project, and bid due date.

The District must receive the protest within ten (10) calendar days after the bid opening date. All protest notices must be sent to the attention of City College of San Francisco, Office of Facilities Planning and Construction, 50 Phelan Avenue, B606, San Francisco, CA 94112.

## **1.09 FREQUENTLY ASKED QUESTIONS**

### **What is an SBE?**

A Small Business Enterprise is defined as an independently owned and operated business which is not dominant in its field of operation. The principal office must be located in California, and the officers must be domiciled in California. With its affiliates, the business must have 100 or fewer employees and the following average annual gross receipts of \$10 million or less in the previous three years.

### **If I am a SBE Bidder, can I count myself towards the SBE goals?**

Yes, both SBE Bidders and their SBE subcontractors can be counted toward the goal. However, in order to be eligible for the bid discount, the Bidder must be a certified SBE and must meet the SBE subcontracting goals with certified SBE subcontractors.

### **What firms count towards the SBE subcontracting goals?**

SBE subcontractors and truckers that perform a commercially useful function count towards the SBE subcontracting goal. The District will consider that a commercially useful function as a distinct element of the work required by the bid specifications in accordance with normal industry practice.

The District will count sixty percent (60%) of the materials, supplies, and services purchased from SBE suppliers. A supplier is a firm that owns, operates, or maintains a warehouse or store in which the materials, supplies, or equipment described in the specifications and required under the contract are bought, kept in stock, and regularly sold to the public in the usual course of business.

### **Do I have to meet the SBE goals if I do not plan to use any subcontractors?**

Yes, you do need to meet the SBE goal or provide the Good Faith Effort. If you do not contract with SBE subcontractors to meet the participation goal and do not document a Good Faith Effort, your bid could be passed over

### **What is considered proof of certification?**

A letter or certificate stating the expiration date of the certification is considered adequate proof of certification. Proof of certification for each SBE subcontractor used to meet the goals must be attached to Form 1. Firms certified by the City & County of San Francisco Contract Monitoring Division are required to include a Certification Affidavit as to meeting the District's size standard.



### **Where can I find qualified SBEs?**

The California Department of General Services maintains a list of firms accessible from the Internet at [www.dgs.ca.gov/pd/Programs/OSDS](http://www.dgs.ca.gov/pd/Programs/OSDS).

The City & County of San Francisco Contract Monitoring Division maintains a list of firms at [www.sfgov.org/CMD](http://www.sfgov.org/CMD).

### **How is the bid discount applied?**

The bid discount is given to SBE bidders who have met the SBE goal using SBE subcontractors. Eligible bidders receive a bid discount of five percent up to \$50,000 on their base bid. Bid tabulations will take into account the apparent low bid based upon the bid discount adjustments. The contractor receiving the bid discount would still be paid the amount bid, if deemed the lowest responsible bidder.

### **Who do I contact to get more Information?**

For more information, contact the District at (415) 239-3055 or [facilities@ccsf.edu](mailto:facilities@ccsf.edu).

**FORM 1: IDENTIFICATION LISTING OF SUBCONTRACTORS, TRUCKERS, SUPPLIERS, AND SUBCONSULTANTS**

Project Name: \_\_\_\_\_ Bid Date: \_\_\_\_\_

**Bidder/Consultant Information**

Bidder/Consultant Company Name:		
Business Address:		
Telephone:	Facsimile:	E-Mail:
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female	Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

**Joint Venture Participation**  Yes  No

Joint Ventures complete this section and attach a copy of the Joint Venture agreement form.

List All Joint Venture Partners	SBE / SLBE Certification	Address, Telephone, Fax and E Mail	Percent of Contract Dollars Awarded to Each Partner
	<input type="checkbox"/> DGS <input type="checkbox"/> CMD		
	<input type="checkbox"/> DGS <input type="checkbox"/> CMD		
	<input type="checkbox"/> DGS <input type="checkbox"/> CMD		

**Subcontractor/Subconsultant Trucker, and Supplier Information**

SBE Goal Met:  Yes  No

Complete this section for ALL proposed subcontractors, truckers, suppliers, and subconsultants to work on the contract.

Company Name:		E-Mail:
Business Address:		Type of Work:
Phone Number/Facsimile:	Award or Percent of Work:	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female	Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

Company Name:		E-Mail:
Business Address:		Type of Work:
Phone Number/Facsimile:	Award or Percent of Work:	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female	Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

**\*Ethnicity Codes** CH = Chinese JA= Japanese  
 (Tracking AI = American Indian CA= Caucasian  
 Purposes Only) ME = Middle Eastern HA= Hispanic American  
 AA = African American OT= Other  
 FA = Filipino American

- Certification Agencies**
- California Department of General Services (DGS)
  - City & County of San Francisco Contract Monitoring Division (CMD)

**FORM 1: IDENTIFICATION LISTING OF SUBCONTRACTORS, TRUCKERS, SUPPLIERS, AND SUBCONSULTANTS**

**Subcontractor/Subconsultant, Trucker, and Supplier Information**

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

<b>Company Name:</b>		E-Mail:	
Business Address:		Type of Work:	
Phone Number/Facsimile:		<b>Award or Percent of Work:</b>	
Gender of Owner: <input type="checkbox"/> Male <input type="checkbox"/> Female		Ethnicity of Owner:	Certification: <input type="checkbox"/> DGS <input type="checkbox"/> CMD

**\*Ethnicity Codes** CH = Chinese      JA= Japanese  
 (Tracking AI = American Indian      CA= Caucasian  
 Purposes Only) ME = Middle Eastern      HA= Hispanic American  
 AA = African American      OT= Other  
 FA = Filipino American

- Certification Agencies**
- California Department of General Services (DGS)
  - City & County of San Francisco Contract Monitoring Division (CMD)

**FORM 2: EQUAL OPPORTUNITY AND NON-DISCRIMINATION IN EMPLOYMENT AND WORKFORCE COMPLIANCE CERTIFICATION**

The San Francisco Community College District recognizes that it must be build an equal opportunity. (Board Policy 3.02) It is the intent of the Board of Trustees that all prospective bidders shall be in compliance with the provisions of the Equal Employment Opportunity Commission guidelines. (Board Policy 7.09) Each business, prior to being awarded a contract must certify that it does not engage in discriminatory employment practices and it must provide information that verifies its compliance as an equal opportunity employer. The undersigned represents that affirmative steps will be taken to accomplish these policy objectives:

**CERTIFICATION**

The undersigned is authorized to execute this certificate on behalf of (insert company name) \_\_\_\_\_ and does hereby certify that the information stated herein are true and correct. The undersigned does further certify that (insert company name) \_\_\_\_\_ shall not discriminate against any employee or applicant for employment because of race, color, religion, creed, national origin, gender, age, marital status, disability, or sexual orientation, and shall comply with all applicable provisions of State and Federal requirements regarding equal employment opportunity and affirmative action reporting and compliance programs.

Furthermore, the undersigned acknowledges the following hiring policy and will take affirmative steps to accomplish said policy objectives:

*“It is the policy of the San Francisco Community College District to encourage its Construction and Construction-related Contractors to recruit and hire students and graduates of San Francisco City College as well as residents of the City and County of San Francisco as their employees.”*

Project Name: \_\_\_\_\_

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

Owner or Authorized Representative: \_\_\_\_\_

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

Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_

Address: \_\_\_\_\_

By:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date Signed

**FORM 3: MONTHLY SUBCONTRACTOR/SUBCONSULTANT PROGRESS REPORT**

The Prime Contractor/Consultant must complete the Prime Monthly Subcontractor, Trucker, Supplier and Subconsultant Progress Report with the monthly progress payment application.

Project Name: \_\_\_\_\_

**SECTION I**

Prime Name and Address	Telephone Number, Email Address and Facsimile	Amount Invoiced This Month	Total Paid to Date

**SECTION II**

Name of Subcontractors, Truckers, Suppliers and Subconsultants	Work Performed this Month	Invoice No. and Amount Invoiced Current Month	Amount Paid Current Month	Amount Paid to Date

\_\_\_\_\_  
Signature of Owner or Authorized Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

For further instructions on completing FORM 3 please see page 3 of this document. Further questions should be directed to the District at (415) 239-3055 or [facilities@ccsf.edu](mailto:facilities@ccsf.edu).

**FORM 4: EXIT REPORT AFFIDAVIT AND FINAL PAYMENT REPORT**

To be completed by the Prime Contractor/Consultant, including all joint venture partners, and submitted to SFCCD with the final progress payment application. Final payment will not be released without submittal of this required Form.

**PART 1: Final Payment Report**

Project Name: \_\_\_\_\_

Contract Start Date: \_\_\_\_\_

- 1. Original Prime Contract Amount: \$ \_\_\_\_\_
- 2. Total Contract Modifications: \$ \_\_\_\_\_
- 3. Total Contract Value including Modifications (Line 1 + Line 2): \$ \_\_\_\_\_
- 4. Total Amount Invoiced this Reporting Period Including Final Payment: \$ \_\_\_\_\_
- 5. Total Amount Paid to Date: \$ \_\_\_\_\_

**PART 2: Subcontractor, Trucker, Supplier, or Subconsultant Payment Report**

Name of Subcontractors, Truckers, Suppliers, and Subconsultants	Total Award Amount	Amount Paid to Date

**FORM 4: EXIT REPORT AFFIDAVIT AND FINAL PAYMENT REPORT CONTINUED...**

**PART 3: Exit Report Affidavit**

I declare, under penalty of perjury under the laws of the State of California, that the information on this Form is complete and accurate, and that the amounts owed to the subcontractors, truckers, suppliers, and subconsultants will be paid within 15 days of receiving SFCCD's final payment under the Contract. The Prime Contractor/Consultant, including each joint venture partner, must sign this form

\_\_\_\_\_  
Owner/Authorized Representative (Signature)

\_\_\_\_\_  
Owner/Authorized Representative (Signature)

\_\_\_\_\_  
Name (Please Print)

\_\_\_\_\_  
Name (Please Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Firm Name

( ) \_\_\_\_\_  
Telephone

( ) \_\_\_\_\_  
Telephone

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner/Authorized Representative (Signature)

\_\_\_\_\_  
Owner/Authorized Representative (Signature)

\_\_\_\_\_  
Name (Please Print)

\_\_\_\_\_  
Name (Please Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Firm Name

( ) \_\_\_\_\_  
Telephone

( ) \_\_\_\_\_  
Telephone

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

### Exhibit "A" Scope of Work

Contractor to perform work according to *PACIFIC AUXILIARY FIRE ALARM CO. FA Drawings* sheet FA-0.01 thru FA-4.01 and specifications. Contractor to comply with General Notes on sheet FA-0.01 and bill of material for new equipment.

Contractor shall comply with all applicable local, state, and federal codes and regulations, as well as compliance checklist, general notes (as applicable), California Building Code and C.E.C Title 24 as noted in drawings.

Contractor to retain District's FA vendor as noted in drawings:

Pacific Auxiliary Fire Alarm Co., 95 Boutwell Street – San Francisco, CA 94124 License: C10-229167

Contractor to provide updated record drawings including all new Horn Strobes, Wall Strobes, Wall Horns, and Smoke Detectors locations. Contractor to provide record drawings to architect upon project completion.

The existing fire alarm system shall be 100% operational at the conclusion of each work day. If the existing system is not completely operational at the end of each work day, the installing contractor shall provide a fire watch for the building until the system is restored.

DSA notes from FA-0.01 are to be incorporated. Tests shall be made with the DSA Inspector of Record (IOR). Note that this is an active instruction building and work schedules should be coordinated with active spaces in use. Final testing should be off hours or early morning.

Contractor has inspected the site and understands necessary pathway requirements for new devices. All required pathways are included in this scope of work.

All required work performed by Pacific Auxiliary Fire Alarm Co. is included in base bid amount.

Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to school operations and any use of school facilities by the public up to, and including, rescheduling specific work activities, at no additional cost to District. The contractors' work schedule must be approved by the District prior to starting work.

Contractor to furnish, install, and include necessary pathways and wiring for new, relocated, and replacement Horn Strobes, Wall Strobes, Wall Horns and Smoke Detectors for a fully functional system as indicated in drawings. Final counts shall be determined from *PACIFIC AUXILIARY FIRE ALARM CO. FA Drawings*. **Note - existing devices annotated (R/E): replace existing device in place with new.**

BILL OF MATERIAL - 50FRIDA008-CO1					
Symbol	Qty	Model	Description	Supplier	CSFM
<b>EXISTING EQUIPMENT</b>					
FACP	N/A	NFS-640	Existing Intelligent Fire Alarm Control Panel	Notifier	*7165-0028:0214
	N/A	ACPS-2406	Existing Intelligent Power Supply/Charger	Notifier	*7165-0028:0214
<b>NEW EQUIPMENT</b>					
Ⓢ	19	FSP-951	Intelligent Smoke Detector	Notifier	7272-0028:0503
	19	B300-6	Intelligent Base	System Sensor	7300-1653:0109
F	2	NBG-12LX	Addressable Manual Pull Station (mount to 4" Square Deep box)	Notifier	7300-0028:0199
ⓈWP	1	P2RK	Horn Strobe, Selectable Candela, White, Wall Mount, Weatherproof (mount to 4" Square Deep box)	System Sensor	7125-1653:0188
Ⓢ	153	P2WLED	Horn Strobe, Selectable Candela, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653:0526
Ⓢ	59	SWLED	Strobe, Selectable Candela, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653:0526
ⓈH	5	HWL	Horn, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653:0189
* CSFM LISTING IS EXPIRED					



# FIRE ALARM SYSTEM-IMPROVEMENT

**FIRE ALARM SYSTEM IMPROVEMENT  
SCIENCE HALL BUILDING  
50 FRIDA KAHLO WAY  
SAN FRANCISCO, CA 94103**

**DSA# 105191**

**FIRE ALARM SYSTEM DESIGNED AND PROVIDED BY:  
PACIFIC AUXILIARY FIRE ALARM COMPANY  
95 BOUTWELL STREET, SAN FRANCISCO, CA 94124  
CA CONTRACTORS LICENSE NUMBER C10-229167**



ISSUE #	DATE	DESCRIPTION
ISSUE 1	08/07/2023	Project Design Initiated
ISSUE 2	08/08/2023	Panel Revision
ISSUE 3	11/03/2023	Panel Revision Progress 50%CD
ISSUE 4	12/15/2023	Program 90% Set

**CONSTRUCTION NOTE:**  
UNTIL THESE DRAWINGS HAVE BEEN APPROVED BY THE FIRE DEPARTMENT AND AN OFFICIAL PERMIT HAS BEEN ISSUED, THEY ARE CONSIDERED CONCEPTUAL AND ARE SUBJECT TO CHANGE.

**NON-INFRINGEMENT STATEMENT**  
IT IS THE DESIGN PROFESSIONAL'S SOLE RESPONSIBILITY TO OBTAIN NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES HAVING JURISDICTION OVER THE PROJECT AND TO VERIFY THAT THE DESIGN DESCRIBED IN THIS SET OF DRAWINGS DOES NOT ADVERSELY IMPROVE THE BASIC LIFE-SAFETY SYSTEMS OF THE BUILDING.

**CUSTOMER:**  
**FIRE ALARM SYSTEM IMPROVEMENT  
SCIENCE HALL BUILDING  
50 FRIDA KAHLO WAY  
SAN FRANCISCO, CA 94103**

<p><b>STAMPS</b></p>	
<p><b>TITLE</b> <b>FIRE ALARM COVER SHEET</b></p>	
<p><b>DRAWN BY:</b> JF</p>	<p><b>CHECKED BY:</b> JW</p>
<p><b>JOB NUMBER:</b> S0FRIDA008</p>	
<p><b>SHEET NUMBER</b> <b>FA-0.01</b></p>	

Drawing Index			
SHEET NUMBER		SHEET CONTENTS OR DESCRIPTION	NOTE
1	FA-0.01	Fire Alarm Cover Sheet	
2	FA-1.0B	Fire Alarm Basement Overall	
3	FA-1.0Ba	Fire Alarm Basement North	
4	FA-1.0Bb	Fire Alarm Basement South	
5	FA-1.01	Fire Alarm First Floor Overall	
6	FA-1.01a	Fire Alarm First Floor North	
7	FA-1.01b	Fire Alarm First Floor South	
8	FA-1.02	Fire Alarm Second Floor Overall	
9	FA-1.02a	Fire Alarm Second Floor North	
10	FA-1.02b	Fire Alarm Second Floor South	
11	FA-1.03	Fire Alarm Third Floor Overall	
12	FA-1.03a	Fire Alarm Third Floor North	
13	FA-1.03b	Fire Alarm Third Floor South	
14	FA-1.0R	Fire Alarm Roof Floor Overall	
15	FA-1.0Ra	Fire Alarm Roof Floor North	
16	FA-2.01	Fire Alarm Single Line Riser	
17	FA-4.01	Fire Alarm Installation & Wiring Detail	
17	TOTAL NUMBER OF SHEETS IN THIS PACKAGE		

**Scope of Work**

The scope of the project will include removing existing notification appliances, replacing existing notification appliances in place with new, adding new notification appliances, smoke detectors and manual pull stations to an existing fire alarm system.

**Sequence of Operation**

.This is a full evacuation building. See Operations Matrix for details.

**Circuit Performance:**  
SLC --- Class B NAC --- Class B

BILL OF MATERIAL - 50FRIDA008-CO1					
Symbol	Qty	Model	Description	Supplier	CSFM
<b>EXISTING EQUIPMENT</b>					
IFACP	N/A	NFS-640	Existing Intelligent Fire Alarm Control Panel	Notifier	*7165-0028.0214
	N/A	ACPS-2406	Existing Intelligent Power Supply/Charger	Notifier	*7165-0028.0214
<b>NEW EQUIPMENT</b>					
ⓐ	19	FSP-951	Intelligent Smoke Detector	Notifier	7272-0028.0503
	19	B300-6	Intelligent Base	System Sensor	7300-1653.0109
ⓑ	2	NBG-12LX	Addressable Manual Pull Station (mount to 4" Square Deep box)	Notifier	7300-0028.0199
ⓐⓑ	1	P2RK	Horn Strobe, Selectable Candela, White, Wall Mount, Weatherproof (mount to 4" Square Deep box)	System Sensor	7125-1653.0188
ⓐⓑ	153	P2WLED	Horn Strobe, Selectable Candela, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653.0526
ⓐ	59	SWLED	Strobe, Selectable Candela, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653.0526
ⓐ	5	HWL	Horn, White, Wall Mount (mount to 4" Square Deep box)	System Sensor	7135-1653.0189

\* CSFM LISTING IS EXPIRED

----- EXISTING DEVICE OR WIRING  
\_\_\_\_\_ NEW DEVICE OR WIRING

Building Information	
ADDRESS:	50 FRIDA KAHLO WAY, SAN FRANCISCO, CA
OWNER:	CITY COLLEGE OF SAN FRANCISCO 50 FRIDA KAHLO WAY SAN FRANCISCO, CA 94112
CONSTRUCTION TYPE:	TYPE IA
TYPE OF BUILDING:	LOW-RISE
FULLY SPRINKLERED:	PARTIALLY SPRINKLERED BASEMENT ONLY
OCCUPANCY:	A-2, A-3, B, M & S-1
NUMBER OF FLOORS:	1 STORY FLOOR- WITH BASEMENT
MONITORING COMPANY:	RAPID RESPONSE MONITORING SERVICES INC.

Fire Alarm Operational Matrix												
INITIATING DEVICE	FUNCTION											
	Activate Audible/Visual Devices on all floors	Activate FACP Pico, Display Alpha-numeric Custom Message	Activate Articulator Pico, Display Alpha-numeric Custom Message	Release Door Holders on all floors	Shut Down Associated Fan	Drop Smoke Guard Curtain on Floor of Alarm	Recall Elevators to Primary Landing (except Pico)	Recall Elevators to Alternate Landing (Stairwell)	Alarm signal to off-site monitoring	Trouble signal to off-site monitoring		
<b>ALARM CONDITION -</b>												
Manual Pull Station	X	X	X								X	
Area Smoke Detector	X	X	X	X								X
Area Heat Detector	X	X	X	X								X
Duct Detector	X	X	X	X	X							X
Elev Lobby Smoke Detector (Except Ground Fl)	X	X	X	X		X	X					X
Elev Lobby Smoke Detector (Ground Fl)	X	X	X	X		X		X	X			X
Elev Machine Room Smoke Detector	X	X	X	X			X					X
<b>TROUBLE CONDITION -</b>												
System / Circuit Trouble		X	X									X

1. APPLICABLE STANDARD NFPA 72, as adopted and amended in CBC Chapter 35.
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FPLR OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
19. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL." CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
21. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER NFPA 72, FIGURE 17.8.2.
22. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
23. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
24. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
25. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
26. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

**APPLICABLE CODES:**

2001 CALIFORNIA BUILDING CODE (CBC) - Part 2, Title 24 (Based on the 1997 Uniform Building Code, with California, and San Francisco Amendments)

2001 CALIFORNIA ELECTRICAL CODE (CEC) - Part 3, Title 24 (Based on the 1997 National Electrical Code, with California, and San Francisco Amendments)

2001 CALIFORNIA MECHANICAL CODE (CMC) - Part 4, Title 24 (Based on the 2000 Uniform Mechanical Code, California, and San Francisco Amendments)

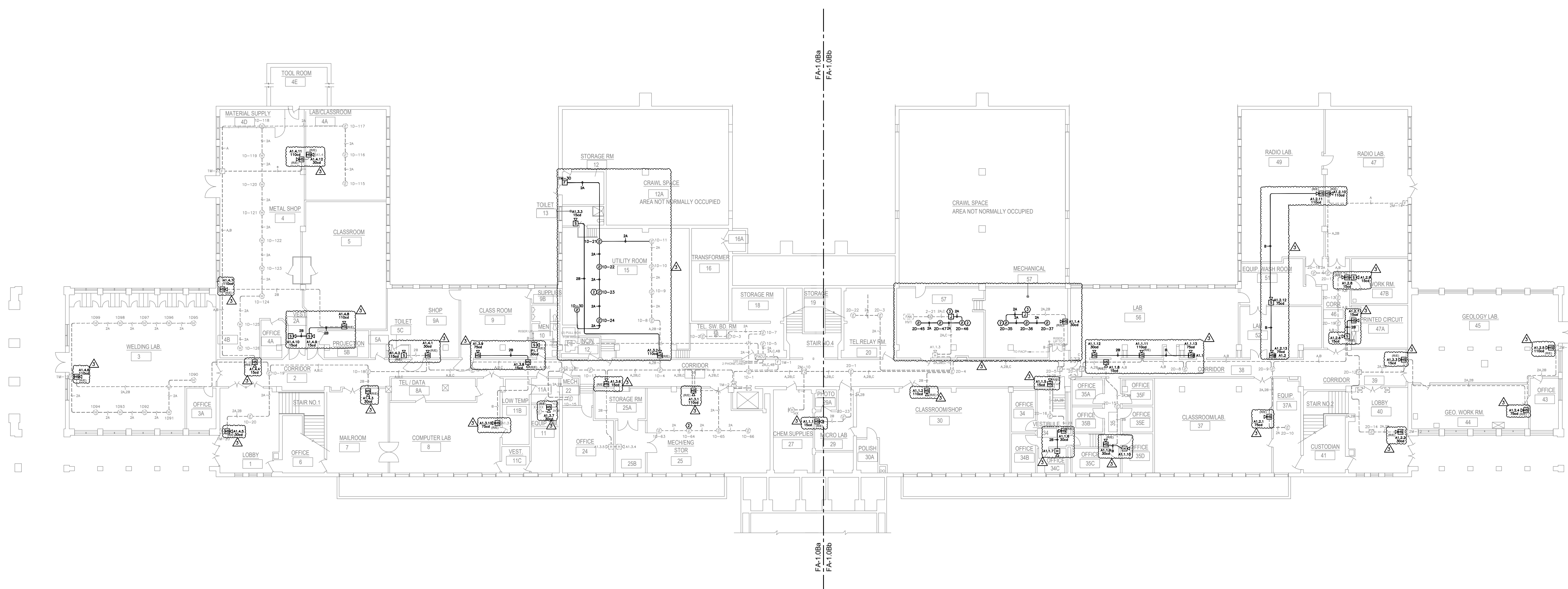
2001 CALIFORNIA FIRE CODE (CFC) - Part 9, Title 24 (Based on the 2000 Uniform Fire Code)

2001 CALIFORNIA REFERENCE STANDARDS CODE, Part 12, Title 24 (1997 Uniform Building Codes and Standards and California Amendments)

PUBLIC SAFETY - Title 19, California Code of Regulations, State Fire Marshal Regulations

NFPA 72 - 1999 National Fire Alarm Code and California Amendments

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**1 BASEMENT LEVEL OVERALL**  
 FA-1.08 SCALE: 1/16"=1'

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

— NEW DEVICE/WIRE  
 - - - EXISTING DEVICE/WIRE

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	"M" FOR MODULE OR "D" FOR DETECTOR
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P=FACU, A=ACPS	POWER SUPPLY #
DEVICE #	CIRCUIT #

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- NOT USED THIS SHEET
- MOUNT A DETECTOR IN EACH BEAM POCKET
- REMOVE EXISTING DEVICE PROVIDE COVER AND EXTEND WIRES TO NEW CIRCUIT. MAINTAIN INTEGRITY OF DOWN STREAM DEVICES.

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR
A	SLC LOOP	2	16	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U O N.

**CONSTRUCTION NOTE:**  
 UNTIL THESE DRAWINGS HAVE BEEN APPROVED BY THE FIRE DEPARTMENT AND AN OFFICIAL PERMIT HAS BEEN ISSUED, THEY ARE CONSIDERED CONCEPTUAL AND ARE SUBJECT TO CHANGE.

**NON-INFRINGEMENT STATEMENT**  
 IT IS THE DESIGN PROFESSIONAL'S ASSURANCE AND SIGNATURE APPEARS ON THIS DRAWING, THAT THE DESIGN DESCRIBED IN THIS SET OF DRAWINGS DOES NOT ADVERSELY IMPROVE ON THE BASIC LIFE-SAFETY SYSTEMS OF THE BUILDING.

This drawing is not and shall remain the PROPERTY OF PACIFIC AUXILIARY FIRE ALARM COMPANY, whether the project for which it was made is EXECUTED or NOT it is to be used by PACIFIC AUXILIARY FIRE ALARM COMPANY RESERVING OWNERSHIP NOT TO BE used by anyone else in any form without the AGREEMENT IN WRITING WITH PACIFIC AUXILIARY FIRE ALARM COMPANY.

These drawings and specifications have been prepared by PACIFIC AUXILIARY FIRE ALARM COMPANY for their exclusive use in accordance with Sec. 8757.3 of the Professional Engineers Act of the State of California.

**CUSTOMER:**

**FIRE ALARM SYSTEM IMPROVEMENT  
 SCIENCE HALL BUILDING  
 50 FRIDA KAHLO WAY  
 SAN FRANCISCO, CA 94103**

DATE: 01/10/24

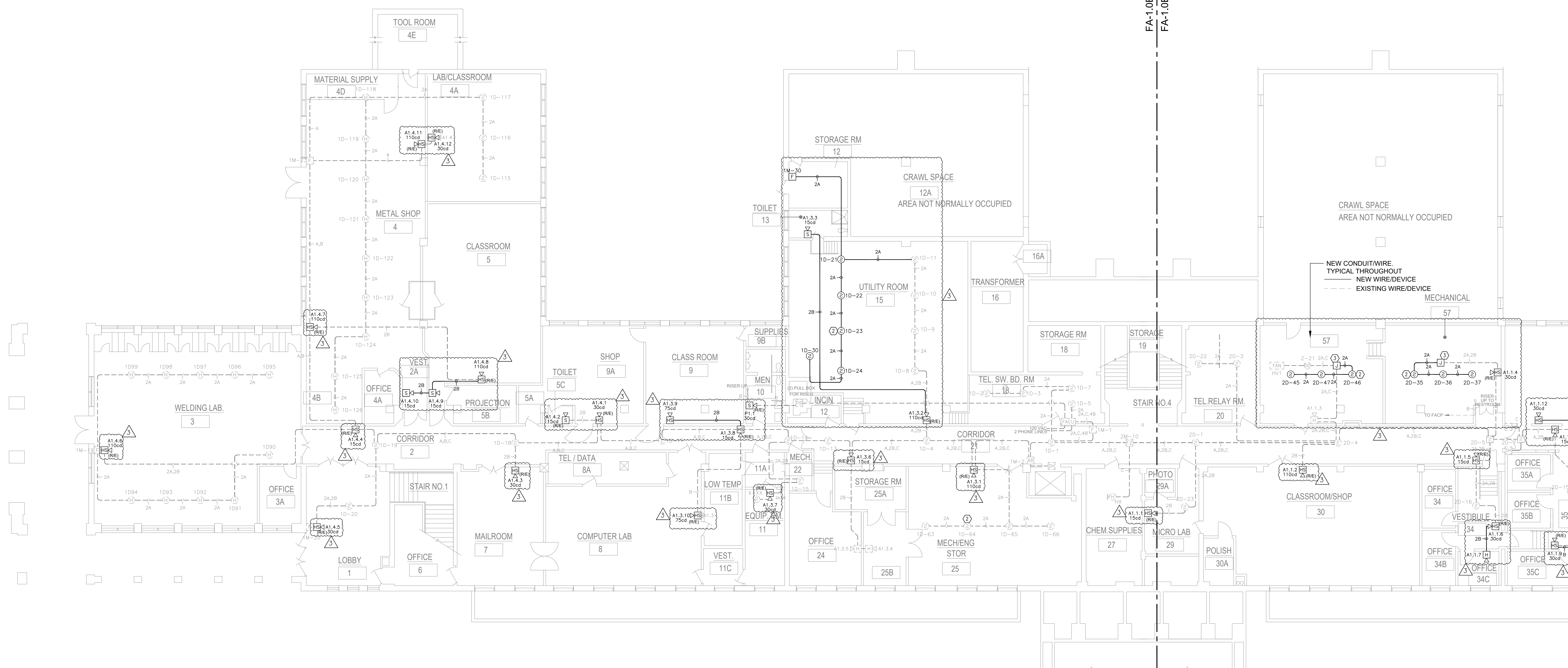
**FIRE ALARM BASEMENT LEVEL OVERALL**

DRAWN BY: JF CHECKED BY: JF  
 JOB NUMBER: S0PRDA008

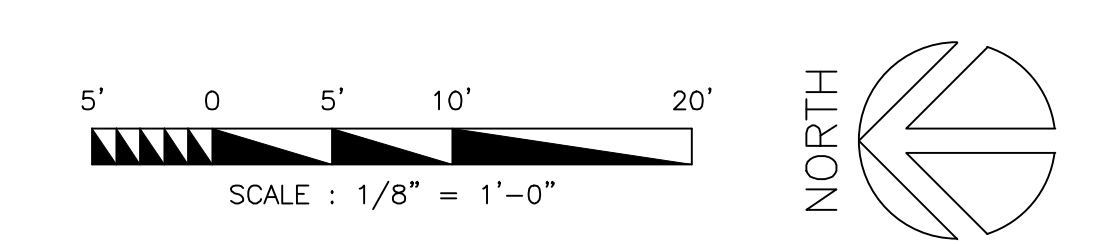
SHEET NUMBER  
**FA-1.08**

FILE: Z:\proj\Plan\50 Frida Kahlo Way\_CSP\_Plan\_50\_Science\_Hall\_Building\_Fire\_Alarm\_System\_Improvement\_Level\_08.dwg USER: jf Date: 1/10/24 TIME: 11:07 AM

ISSUE #	DATE	DESCRIPTION
ISSUE 1	08/07/2023	Project Design Initiated
ISSUE 2	08/08/2023	Permit Revision
ISSUE 3	11/02/2023	Permit Revision Progress DRNG
ISSUE 4	11/16/2023	Progress 90% Set



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBa



**DEVICE SYMBOLS LEGEND**

FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

**DEVICE ASSIGNMENT LEGEND**

LOOP CONTROLLER CARD NUMBER
"M" FOR MODULE OR "D" FOR DETECTOR
DEVICE ADDRESS
<b>HORN/STROBE ASSIGNMENT</b>
P=FACU, A=ACPS
POWER SUPPLY #
DEVICE #
CIRCUIT #

**GENERAL NOTE:**

1. 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

- ① NOT USED THIS SHEET
- ② MOUNT DETECTOR IN BEAM POCKET
- ③ REMOVE EXISTING DEVICE PROVIDE COVER AND EXTEND WIRES TO NEW CIRCUIT. MAINTAIN INTEGRITY OF DOWN STREAM DEVICES.

**WIRING LEGEND**

WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	THW	JACKETED	SHIELDED	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR
A	SLC LOOP	2	16	X	X	X	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	X	X	X	THRN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	X	X	X	THRN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**CONSTRUCTION NOTE:**  
 UNTIL THESE DRAWINGS HAVE BEEN APPROVED BY THE FIRE DEPARTMENT AND AN OFFICIAL PERMIT HAS BEEN ISSUED, THEY ARE CONSIDERED CONCEPTUAL AND ARE SUBJECT TO CHANGE.

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**CUSTOMER:**  
**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

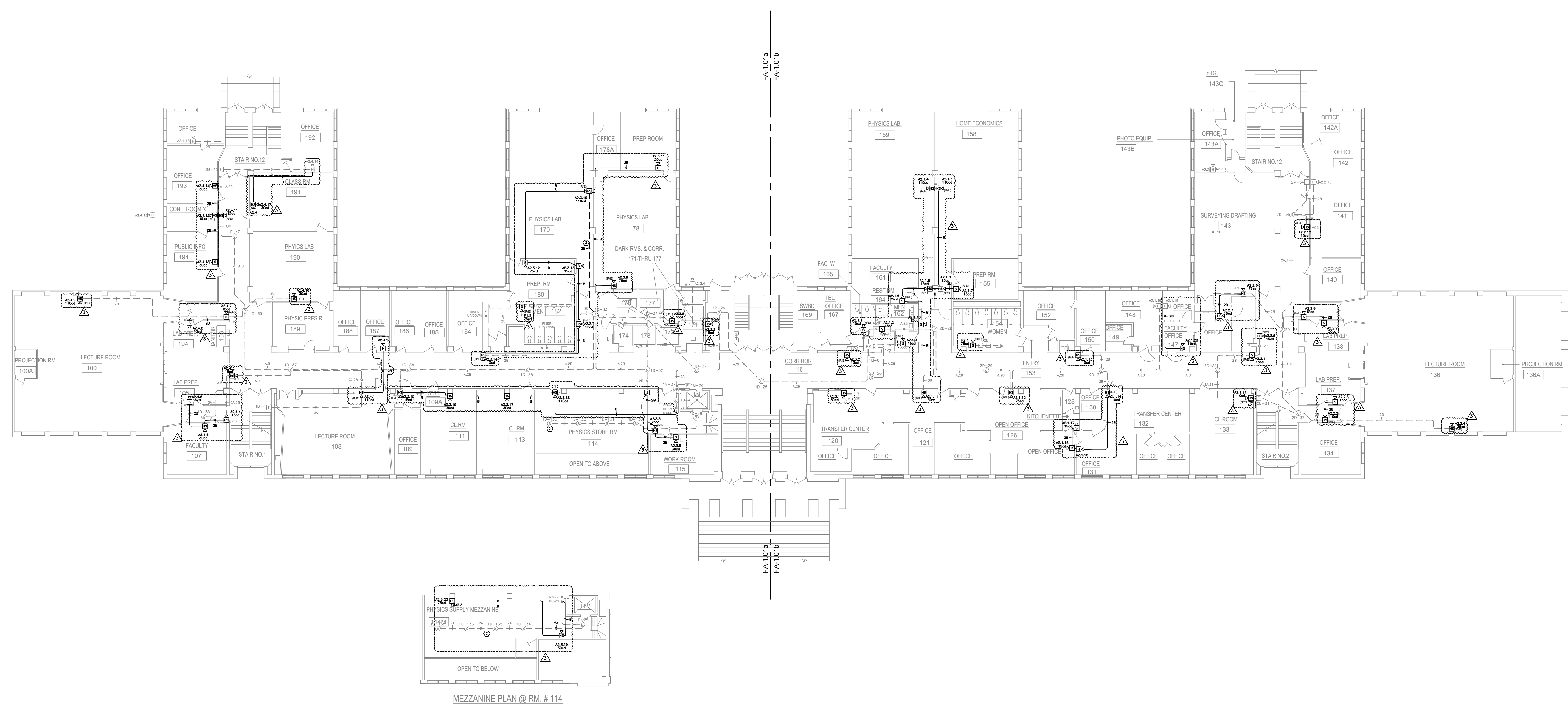
**TITLE**  
**FIRE ALARM**  
**BASEMENT LEVEL**  
**NORTH**

**DRAWN BY:** PT  
**CHECKED BY:** JN  
**JOB NUMBER:** SFFR24008

**SHEET NUMBER**  
**FA-1.0Ba**

FILE: Z:\Floor Plans\50 Frida Kahlo Way\DCSF\4650\_Plan\SPR24008-001\_SOURCE\_HALL\_BLDG\_FA\_SYS\_UPDATE\_DSA\_SUBMITTAL\FA-1.0Ba-b-BASEMENT\_LEVEL.dwg USER: ppatil DATE: Dec 19 2023 TIME: 11:07 AM





**1 FIRST FLOOR OVERALL**  
 FA-1.01 SCALE: 1/16"=1'

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

— NEW DEVICE/WIRE  
 — EXISTING DEVICE/WIRE

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P=FAUCU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

- MOUNT ABOVE DOOR
- MOUNT A DETECTOR IN EACH BEAM POCKET
- DISCONNECT RETURN FEED FROM DEVICE. NEW RETURN CIRCUIT TO BE RUN THROUGH NEW DEVICES.

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR	
A	SLC LOOP	2	16	X X X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

P.E. SEAL

**CONSTRUCTION NOTE:**  
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**NON-INFRINGEMENT STATEMENT**  
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These drawings and specifications have been prepared by PACIFIC AUXILIARY FIRE ALARM COMPANY for their exclusive use in accordance with Sec. 807.3 of the Professional Engineers Act of the State of California.

**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

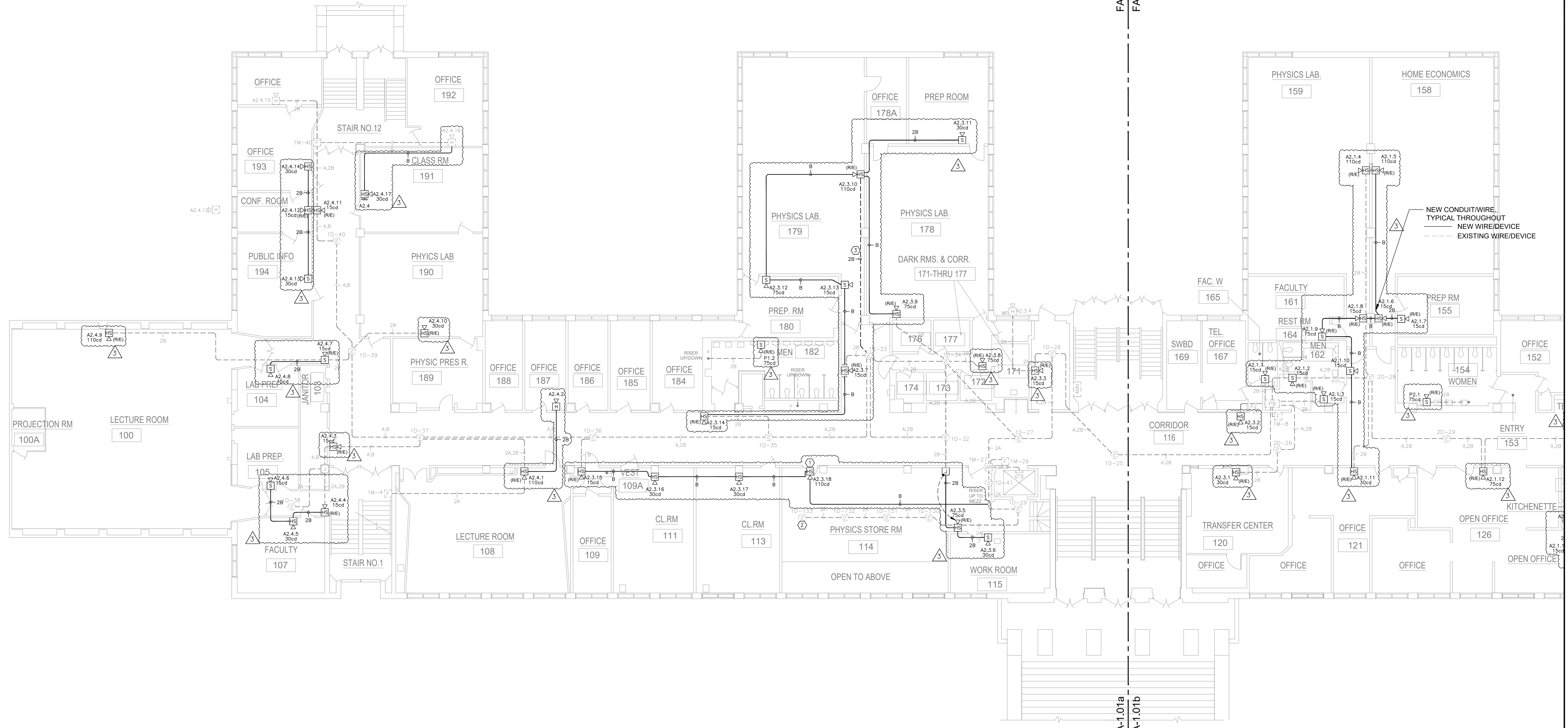
STAMPS

TITLE  
**FIRE ALARM**  
**FIRST LEVEL OVERALL**

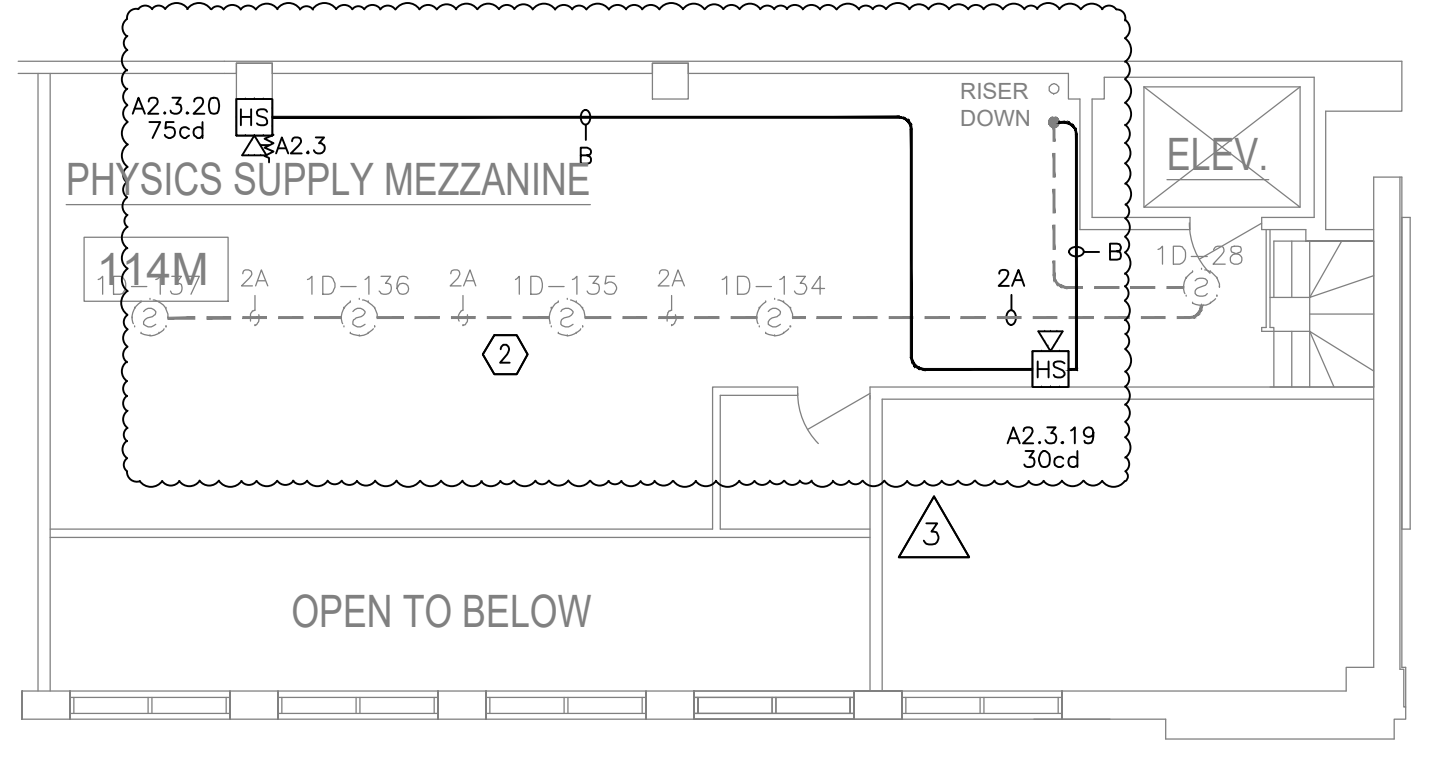
DRAWN BY: PP CHECKED BY: JN  
 JOB NUMBER: SFFRIDA008

SHEET NUMBER  
**FA-1.01**

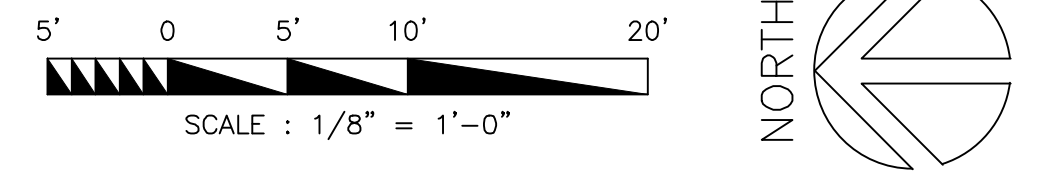
FILE: Z:\proj\Plan\50 Frida Kahlo Way\DCSF\04 SUBMITTAL\FA-1-01a-b FIRST LEVEL MEZZANINE.dwg USER: psaf DATE: 06/19/2023 TIME: 11:07:00



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dB(A)



MEZZANINE PLAN @ RM. # 114



FILE: Z:\Draws\Plan\50 Frida Kahlo Whg\DCSF\_04\_50\_Plan\SPR01008-001\_SOURCE\_HALL\_BLDG\_FA\_SYS\_UPGRADE\_DSA\_SUBMITTAL\FA-1-01a-b-FRST\_LEVEL\_MEZZANINE.dwg USER: rsh/f DATE: 06/19/2023 TIME: 11:07 AM

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	

HORN/STROBE ASSIGNMENT	
P=FACU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- ① MOUNT ABOVE DOOR
- ② MOUNT DETECTOR IN BEAM POCKET
- ③ REMOVE CONDUIT AND EXISTING WIRES

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR	
A	SLC LOOP	2	16	X X X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**CONSTRUCTION NOTE:**  
 UNTIL THESE DRAWINGS HAVE BEEN APPROVED BY THE FIRE DEPARTMENT AND AN OFFICIAL PERMIT HAS BEEN ISSUED, THEY ARE CONSIDERED CONCEPTUAL AND ARE SUBJECT TO CHANGE.

**NON-INFRINGEMENT STATEMENT:**  
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**CUSTOMER:**

**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS

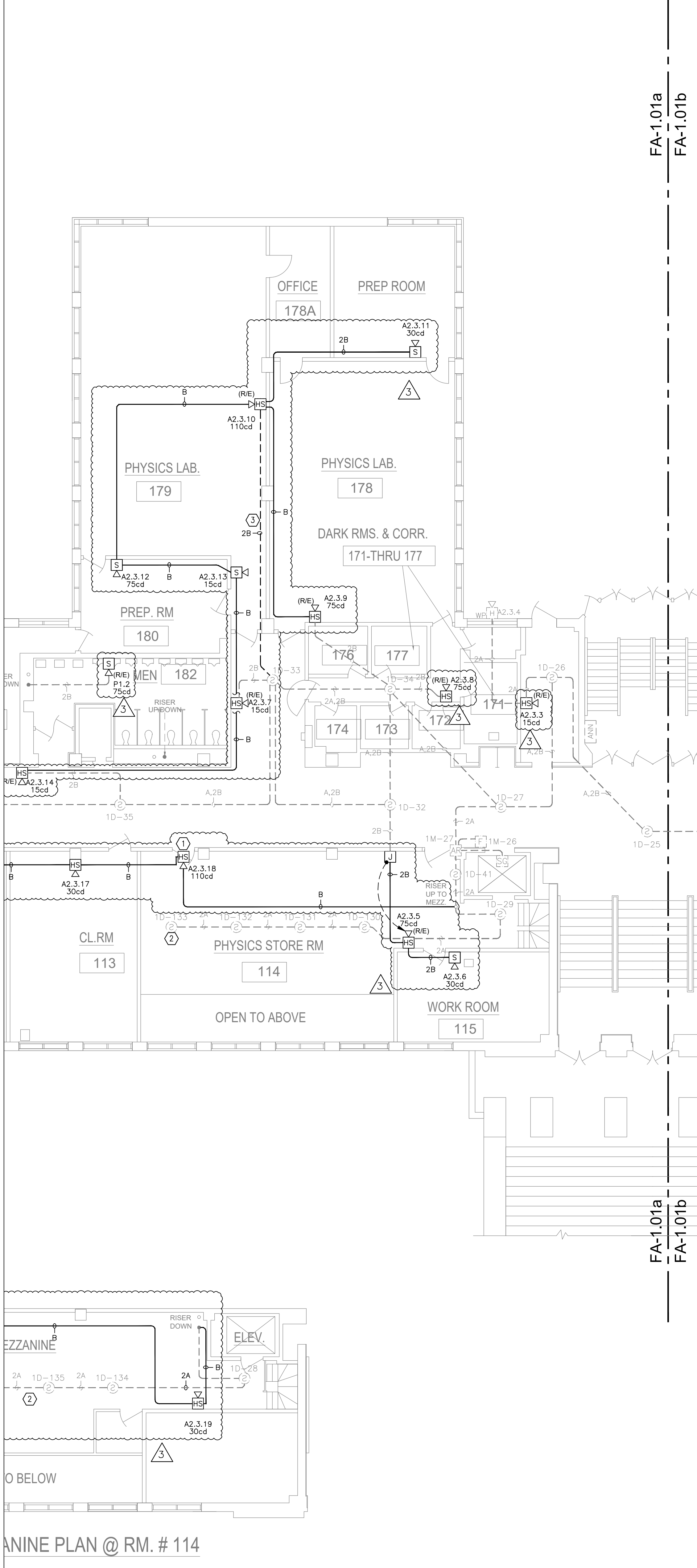
TITLE

**FIRE ALARM**  
**FIRST LEVEL**  
**NORTH**

DRAWN BY: PF CHECKED BY: JH  
 JOB NUMBER: SPR01008

SHEET NUMBER

**FA-1.01a**



ANINE PLAN @ RM. # 114

FA-1.01a  
 FA-1.01b

FILE: Z:\Draw Plans\50 Frida Kahlo Why\_GCSF\_Arch\_50 Upgrade\_DSA SUBMITTAL\FA-1.01a-b FIRST LEVEL-HEZZANINE.dwg USER: psaf DATE: 06/19/2023 TIME: 11:07 am

Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBa

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P=FACU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

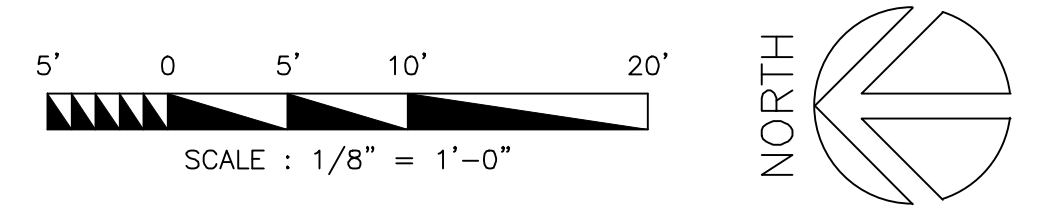
- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- RELOCATE DEVICE AND MOUNT ABOVE DOOR
- MOUNT DETECTOR IN BEAM POCKET

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RECOMMENDED WIRE TYPE OR EQUIVALENT:	COLOR	
A	SLC LOOP	2	16	X X X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U O N.



**CONSTRUCTION NOTE:**  
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**NON-INFRINGEMENT STATEMENT**  
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**CUSTOMER:**

**FIRE ALARM SYSTEM IMPROVEMENT  
 SCIENCE HALL BUILDING  
 50 FRIDA KAHLO WAY  
 SAN FRANCISCO, CA 94103**

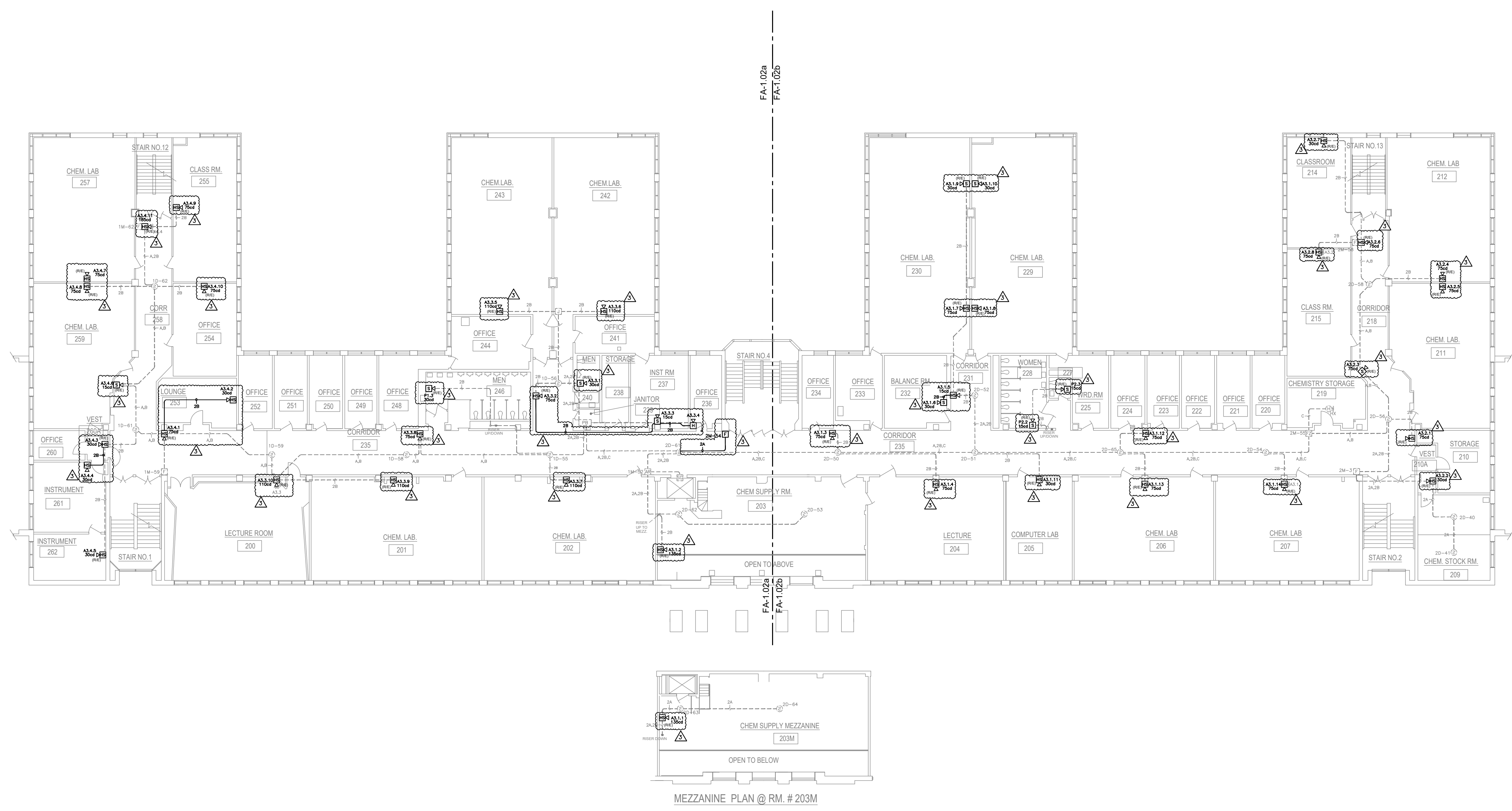
STAMPS

DATE: 11/16

**FIRE ALARM  
 FIRST LEVEL  
 SOUTH**

DRAWN BY: JF CHECKED BY: JF  
 JOB NUMBER: SDFRADA08

SHEET NUMBER  
**FA-1.01b**



**1 SECOND FLOOR OVERALL**  
 FA-1.02 SCALE: 1/16"=1'

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	"M" FOR MODULE OR "D" FOR DETECTOR
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P= FACU, A= ACPS	POWER SUPPLY #
XF=	DEVICE #
C=	CIRCUIT #

**GENERAL NOTE:**  
 1. 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**  
 ① NOT USED THIS SHEET

WIRING LEGEND							
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR	
A	SLC LOOP	2	16	X	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

P.E. REAL

**CONSTRUCTION NOTE:**  
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**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS

DATE

**FIRE ALARM SECOND LEVEL OVERALL**

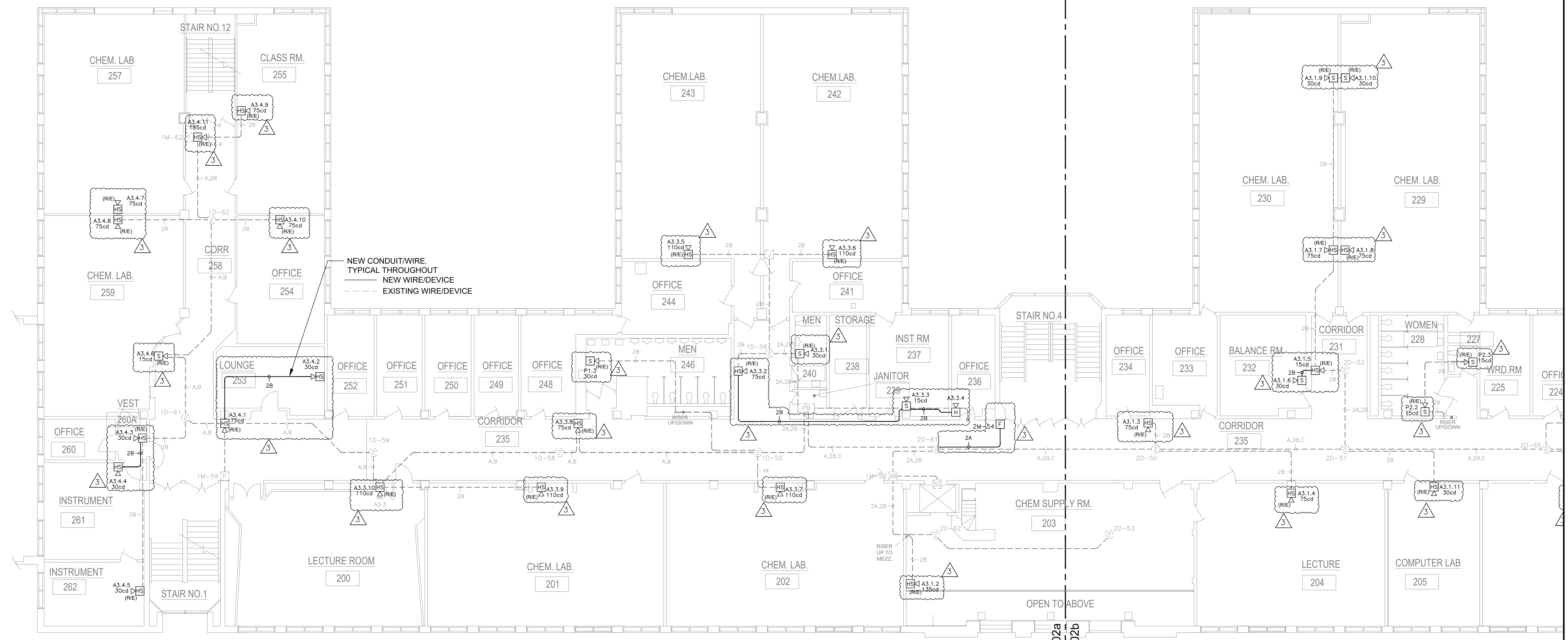
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 JOB NUMBER: S01FRIDA008

SHEET NUMBER  
**FA-1.02**

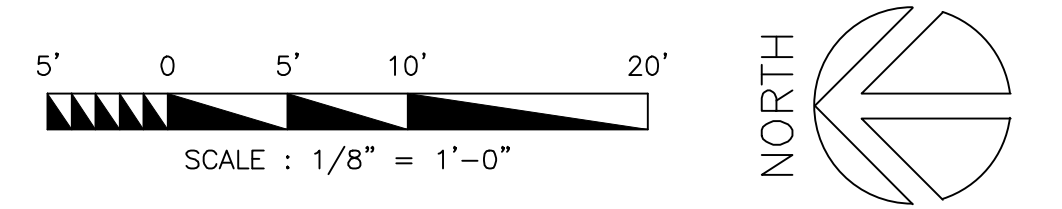
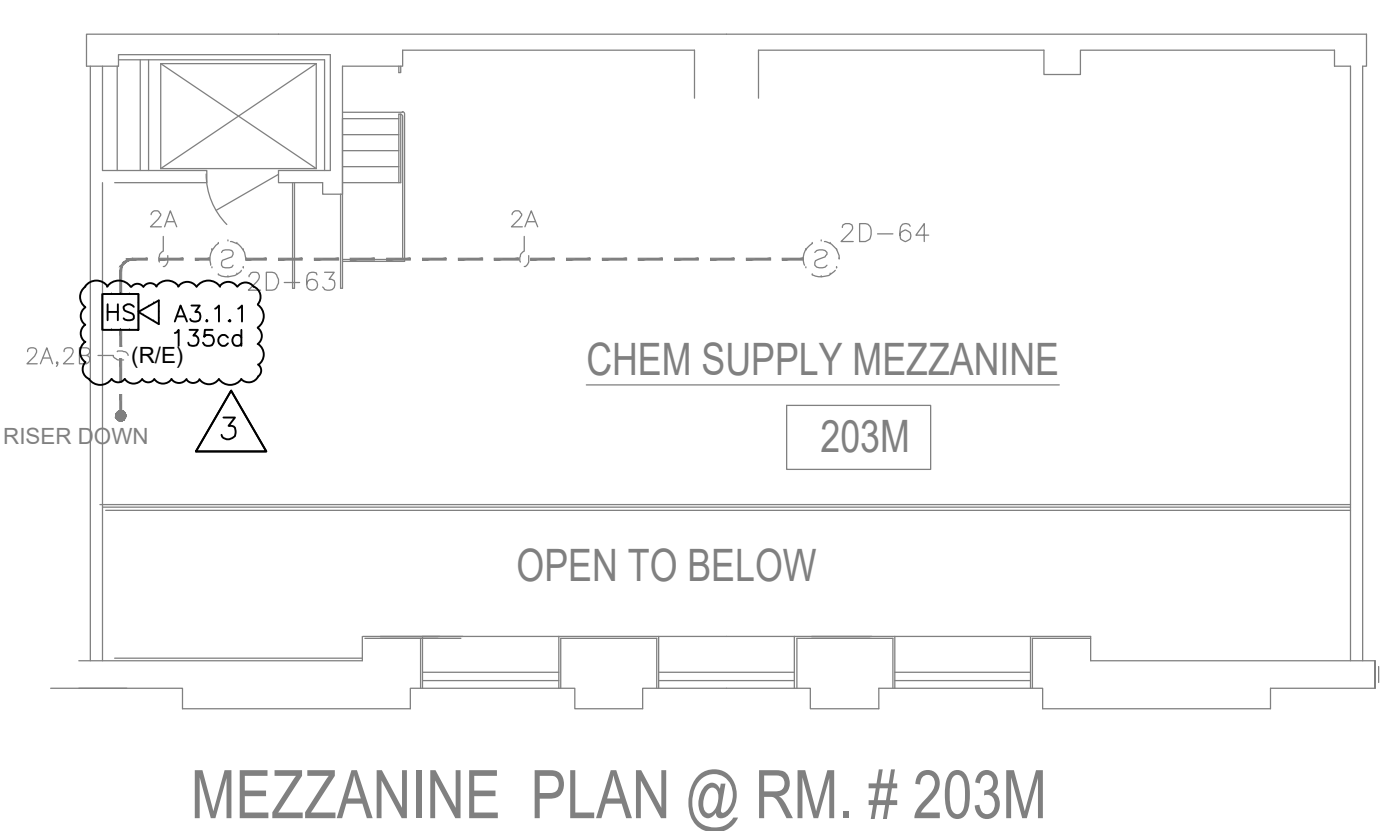
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 DATE: 12/18/2023 11:07 AM



ISSUE #	DATE	DESCRIPTION
ISSUE 0	08/07/2023	Project Design Initiated
ISSUE 1	08/08/2023	Permit Revisions
ISSUE 2	11/03/2023	Permit Revisions Progress 50% CD
ISSUE 3	12/18/2023	Program Set Out



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBA



**DEVICE SYMBOLS LEGEND**

FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

**DEVICE ASSIGNMENT LEGEND**

ADDRESSABLE DEVICE ASSIGNMENT	
	LOOP CONTROLLER CARD NUMBER
	"M" FOR MODULE OR "D" FOR DETECTOR
	DEVICE ADDRESS

HORN/STROBE ASSIGNMENT	
	P=FACU, A=ACPS
	POWER SUPPLY #
	DEVICE #
	CIRCUIT #

**GENERAL NOTE:**

1. 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

① NOT USED THIS SHEET

**WIRING LEGEND**

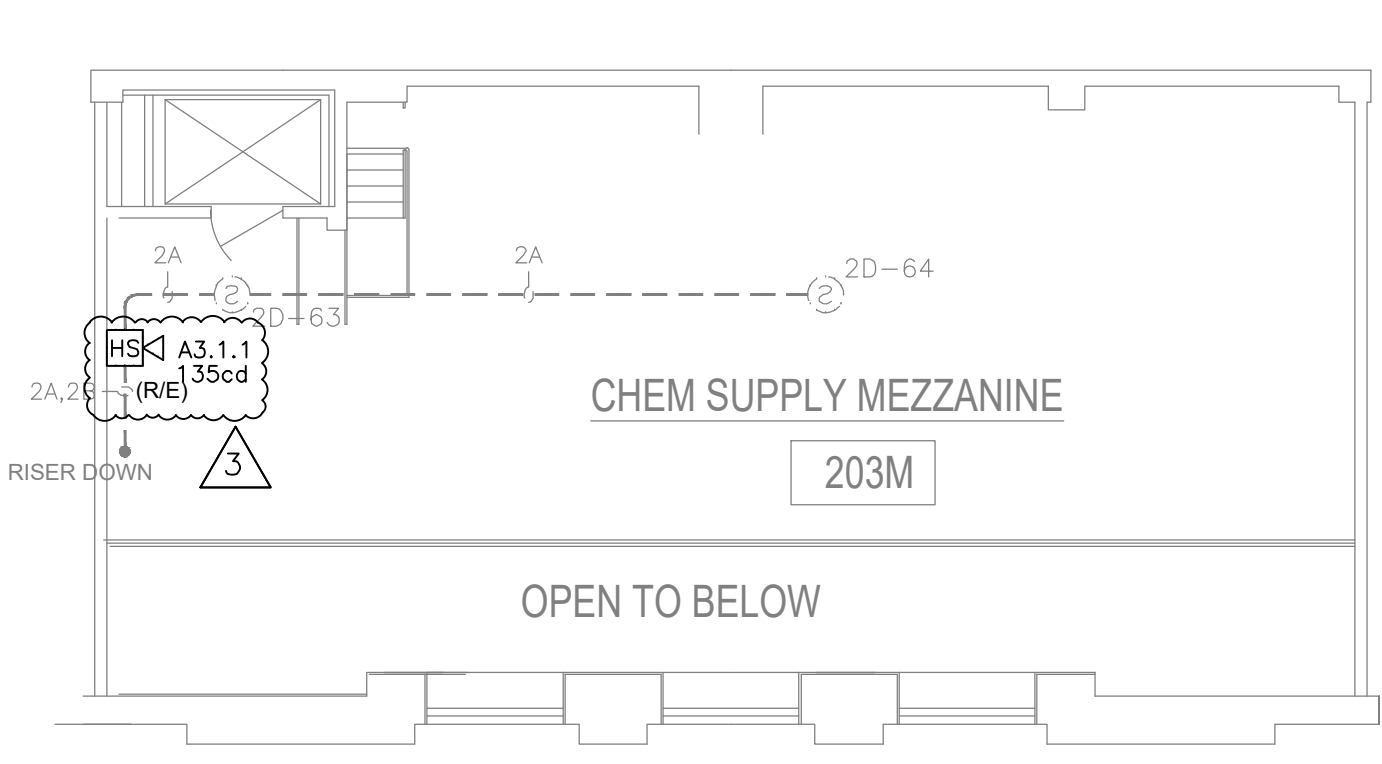
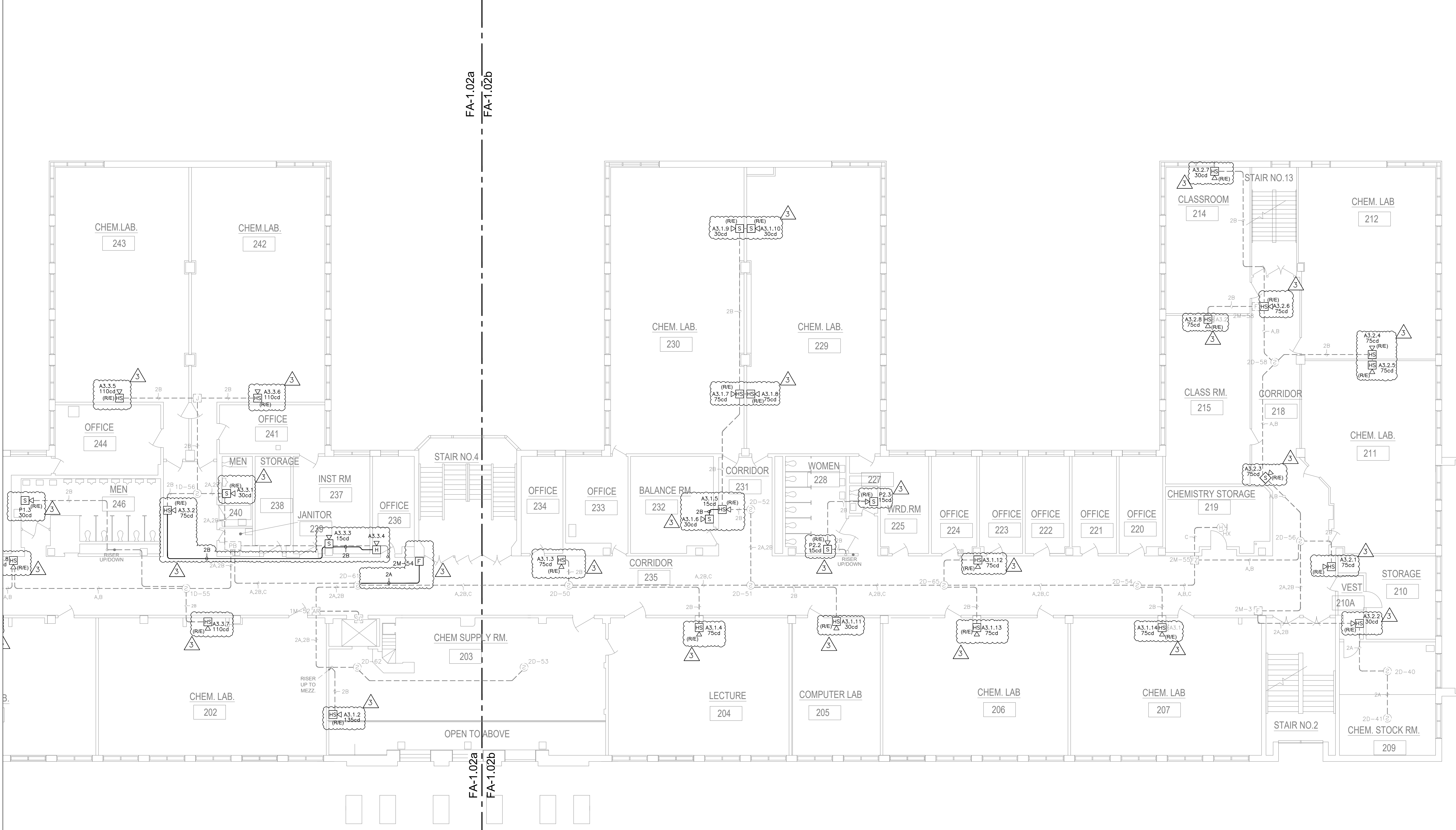
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	THWST	JACKETED	SHIELDED	RECOMMENDED WIRE TYPE OR EQUIVALENT:	COLOR
A	SLC LOOP	2	16	X	X	X	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	X	X	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	X	X	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

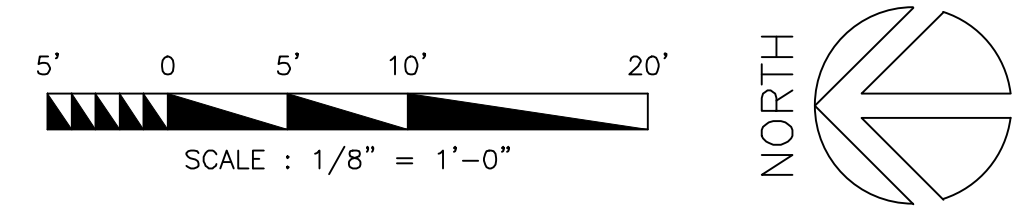
**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS	
TITLE	<b>FIRE ALARM SECOND LEVEL NORTH</b>
DRAWN BY	PP
CHECKED BY	JW
JOB NUMBER	SOPRCA008
SHEET NUMBER	<b>FA-1.02a</b>

FILE:Z:\Draw Plans\50 Frida Kahlo Way\DCSF\_aka\_50\_Plan\SOPRCA008-001\_SOURCE\_HALL\_BLDG\_FA\_SYS\_UPGRADE\_DSA\_SUBMITTAL\FA-1.02a-1\_SECOND LEVEL-MEZZANINE.dwg (SOPR.dwg) DATE:Dec 19 2023 TIME: 11:07 am



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBA



**DEVICE SYMBOLS LEGEND**

FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

**DEVICE ASSIGNMENT LEGEND**

LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	
<b>HORN/STROBE ASSIGNMENT</b>	
P=ACU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

- NOT USED THIS SHEET

**WIRING LEGEND**

WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	THW	JACKETED	SHIELDED	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR
A	SLC LOOP	2	16	X	X	X	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X				THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X				THHN	RED/BLK

ALL WIRING IS IN CONDUIT U O N.

**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS

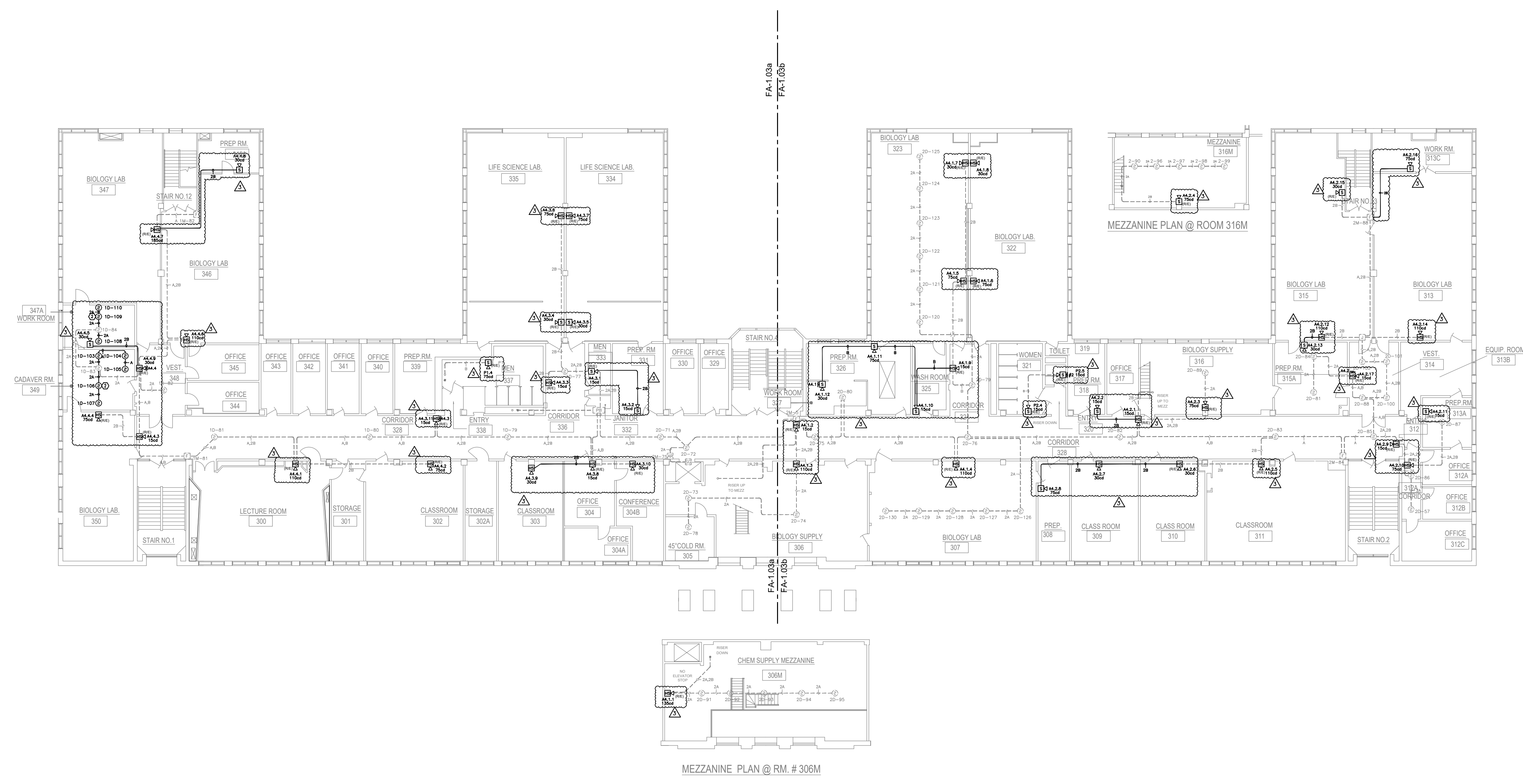
DATE

**FIRE ALARM SECOND LEVEL SOUTH**

DRAWN BY: JF CHECKED BY: JF  
 JOB NUMBER: S0FRIDA008

SHEET NUMBER  
**FA-1.02b**

FILE: Z:\proj\Plan\50 Frida Kahlo Way\DCSF\ok\_50\_Plan\SPRIBU08-001\_SOURCE\_HALL\_BLDG\_FA\_SYS\_UPGRADE\_DSA\_SUBMITTAL\FA-1.02b-4\_SECOND\_LEVEL-MEZZANINE.dwg  
 USER: jf DATE: 12/18/2023 TIME: 11:07 AM



**1 THIRD FLOOR OVERALL**  
 FA-1.03 SCALE: 1/16"=1'

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

— NEW DEVICE/WIRE  
 - - - EXISTING DEVICE/WIRE

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P=FAUCU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

- NOT USED THIS SHEET
- MOUNT A DETECTOR IN EACH BEAM POCKET

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR	
A	SLC LOOP	2	16	X X X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**CONSTRUCTION NOTE:**  
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**NON-INFRINGEMENT STATEMENT**  
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**FIRE ALARM SYSTEM IMPROVEMENT  
 SCIENCE HALL BUILDING  
 50 FRIDA KAHLO WAY  
 SAN FRANCISCO, CA 94103**

**TITLE**  
**FIRE ALARM  
 THIRD LEVEL  
 OVERALL**

**STAMPS**

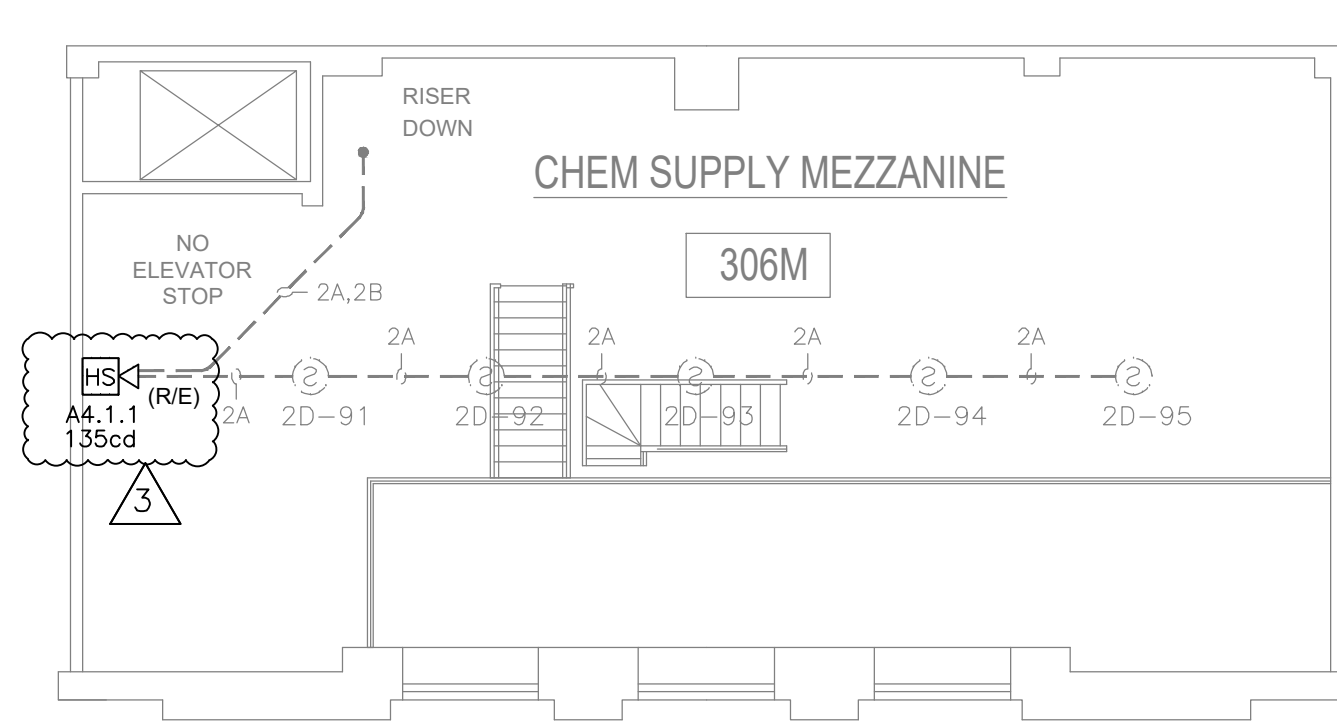
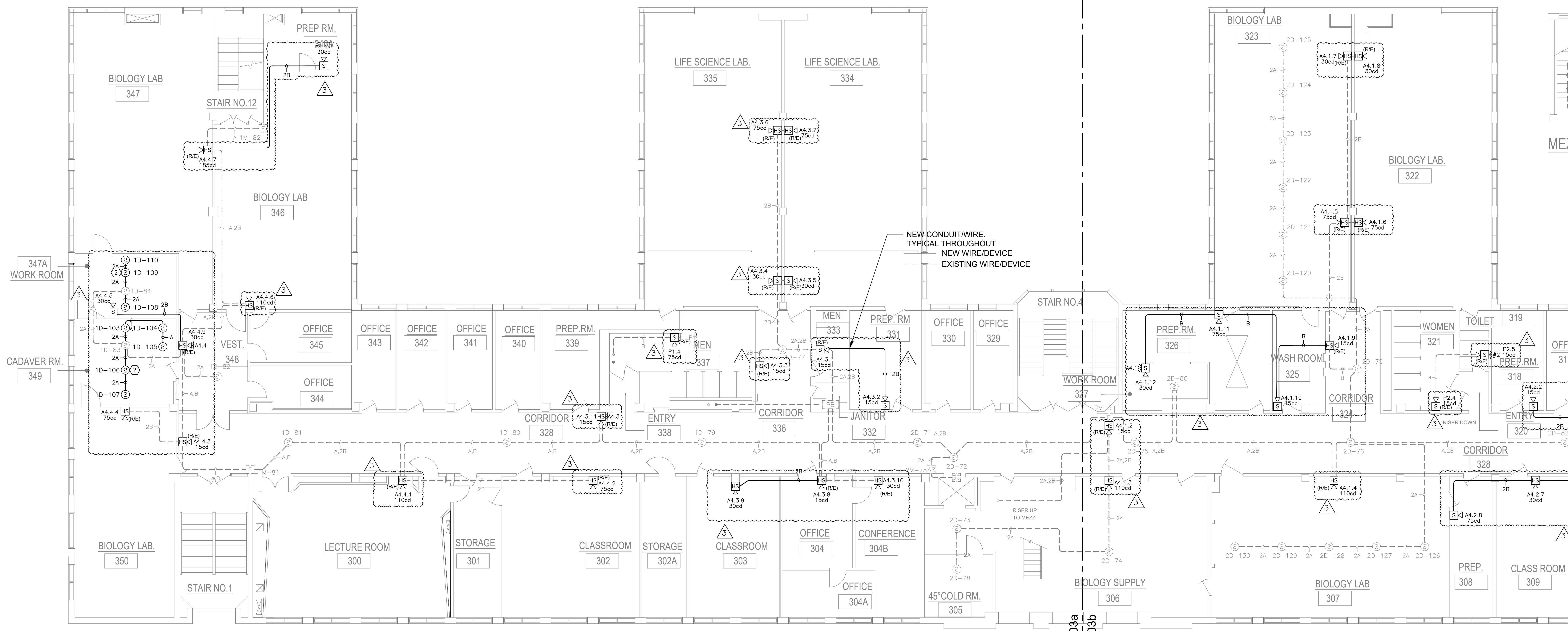
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DRAWN BY: *PT* CHECKED BY: *JW*  
 JOB NUMBER: SFPRD008

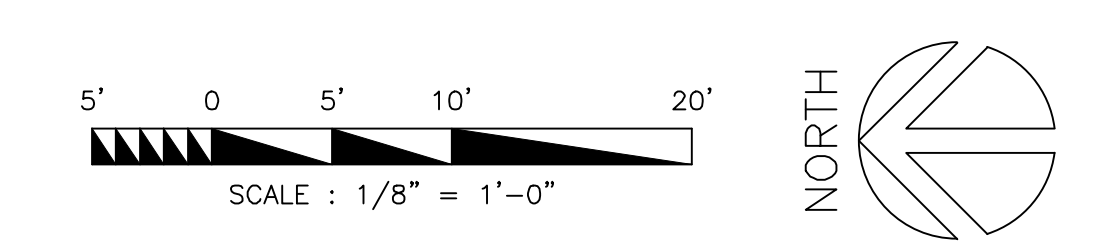
**SHEET NUMBER**  
**FA-1.03**

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ISSUE #	DATE	DESCRIPTION
ISSUE 0	08/07/2023	Project Design Initiated
ISSUE 1	08/08/2023	Permit Review
ISSUE 2	11/02/2023	Permit Review Progress DRNG
ISSUE 3	11/16/2023	Progress 50% Set



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dB(A)



DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	"M" FOR MODULE OR "D" FOR DETECTOR
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P= FACU, A=ACPS	POWER SUPPLY #
DEVICE #	CIRCUIT #

**GENERAL NOTE:**  
 1. 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**  
 ① NOT USED THIS SHEET  
 ② MOUNT DETECTOR IN BEAM POCKET

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND. AWG.	SOLID	THINW	RECOMMENDED WIRE TYPE OR EQUIVALENT	COLOR
A	SLC LOOP	2 16	X	X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2 12	X	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2 14	X	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**CONSTRUCTION NOTE:**  
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**NON-INFRINGEMENT STATEMENT**  
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**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS

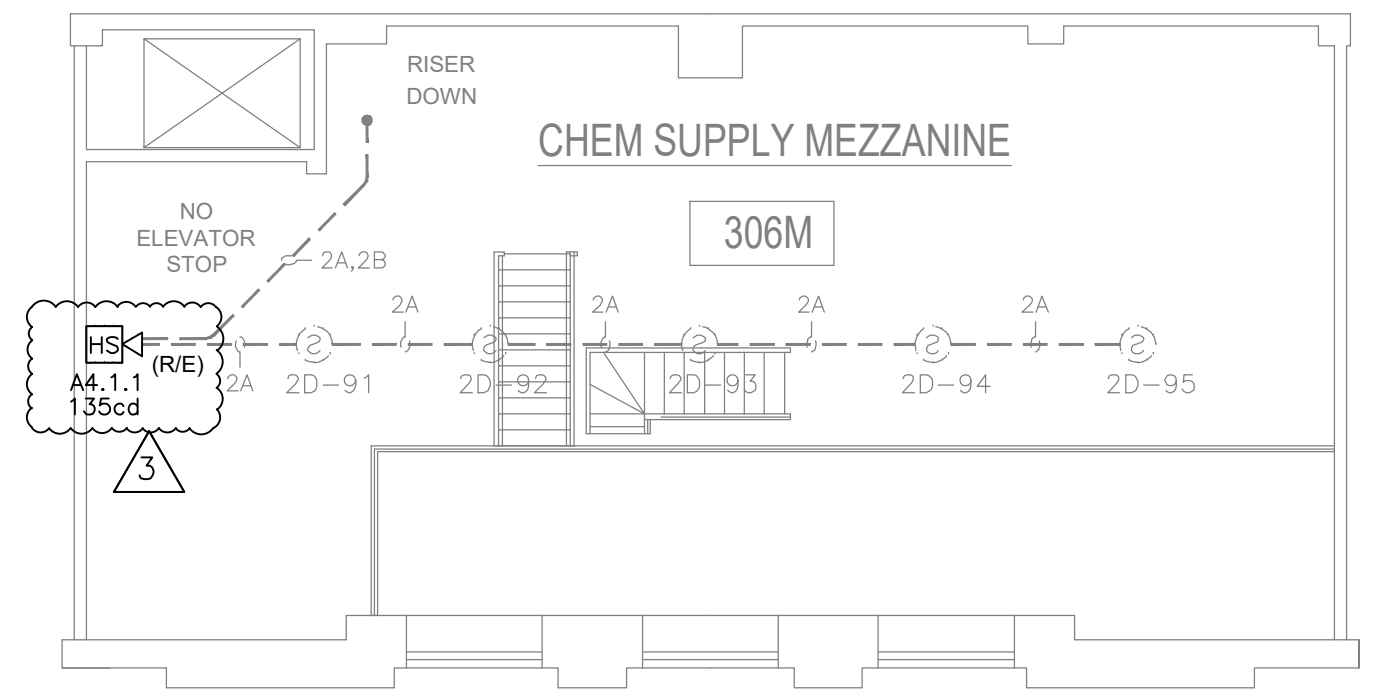
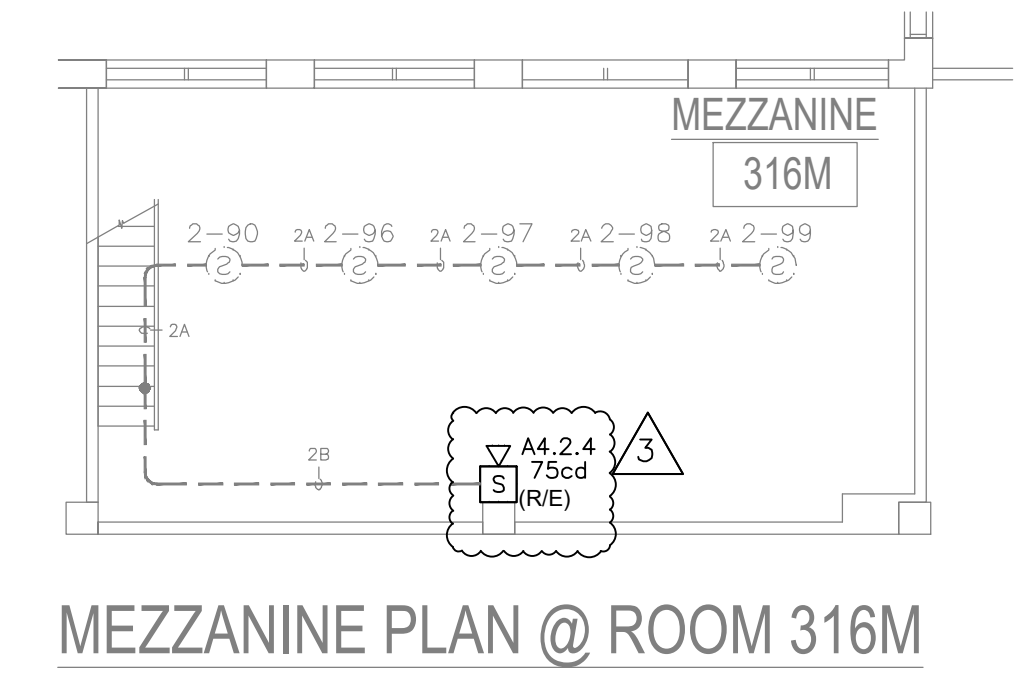
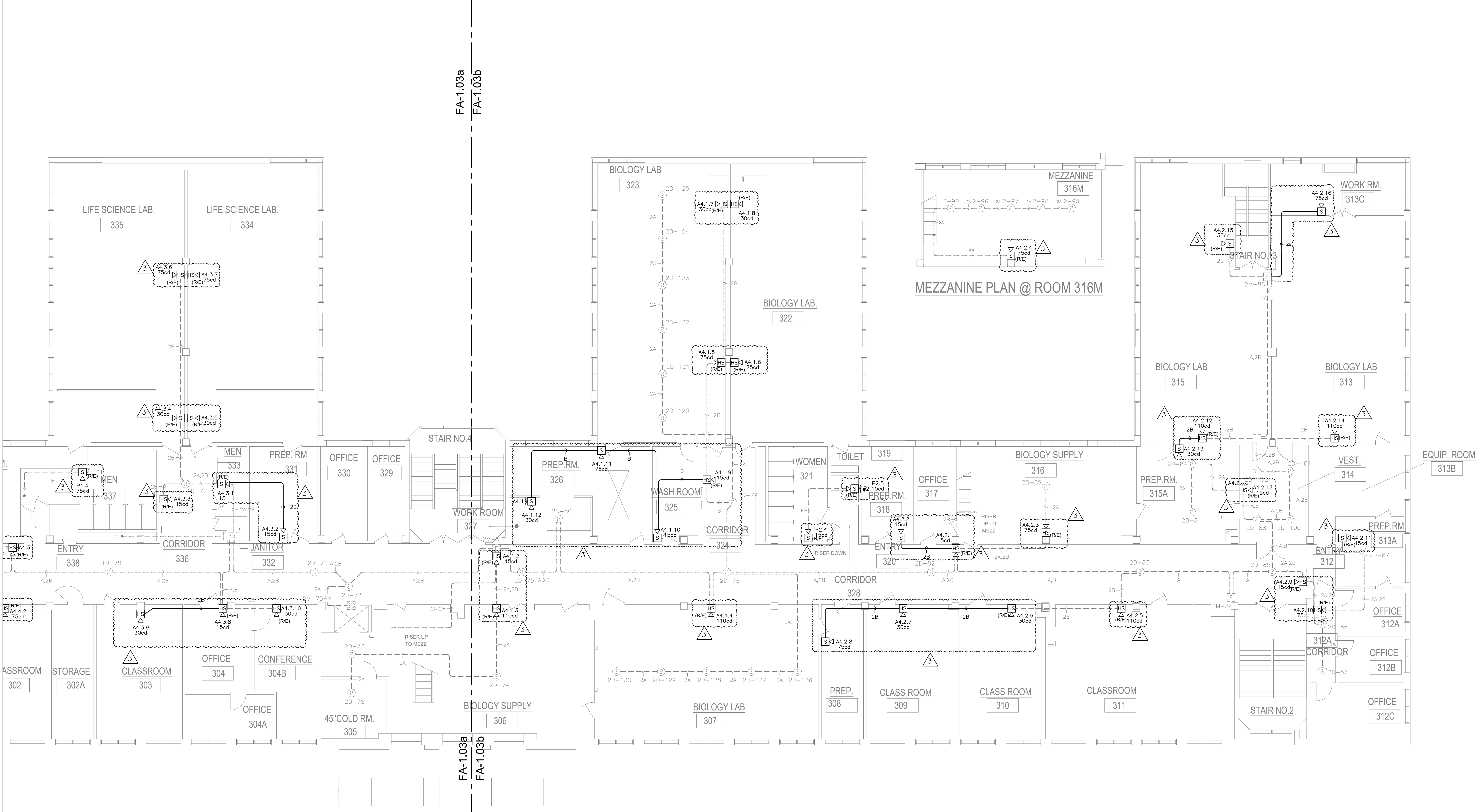
TITLE

**FIRE ALARM THIRD LEVEL NORTH**

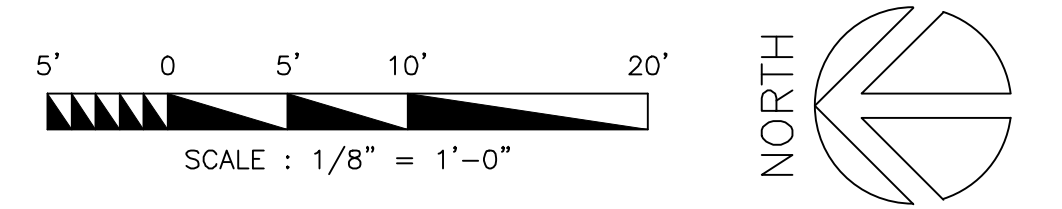
DRAWN BY: FF CHECKED BY: JN  
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SHEET NUMBER  
**FA-1.03a**

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Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBa



FILE: Z:\Draw\Plan\50 Frida\Kahlo\_Way\DCSF\_aka\_50\_Plan\SPRIBU08-001\_SOUNDC\_HALL\_BLDG\_FA\_SYS\_UPGRADE\_DSA\_SUBMITTAL\FA-1-03b-4\_THRD LEVEL-MEZZANINE.dwg USER: jpf/af DATE: Dec 18 2023 TIME: 11:07 am

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

——— NEW DEVICE/WIRE  
 - - - - - EXISTING DEVICE/WIRE

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
LOOP CONTROLLER CARD NUMBER	
"M" FOR MODULE OR "D" FOR DETECTOR	
DEVICE ADDRESS	
HORN/STROBE ASSIGNMENT	
P=FACU, A=ACPS	
POWER SUPPLY #	
DEVICE #	
CIRCUIT #	

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- NOT USED THIS SHEET
- NOT USED THIS SHEET

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RECOMMENDED WIRE TYPE OR EQUIVALENT:	COLOR	
A	SLC LOOP	2	16	X X X	WEST PENN D990 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS

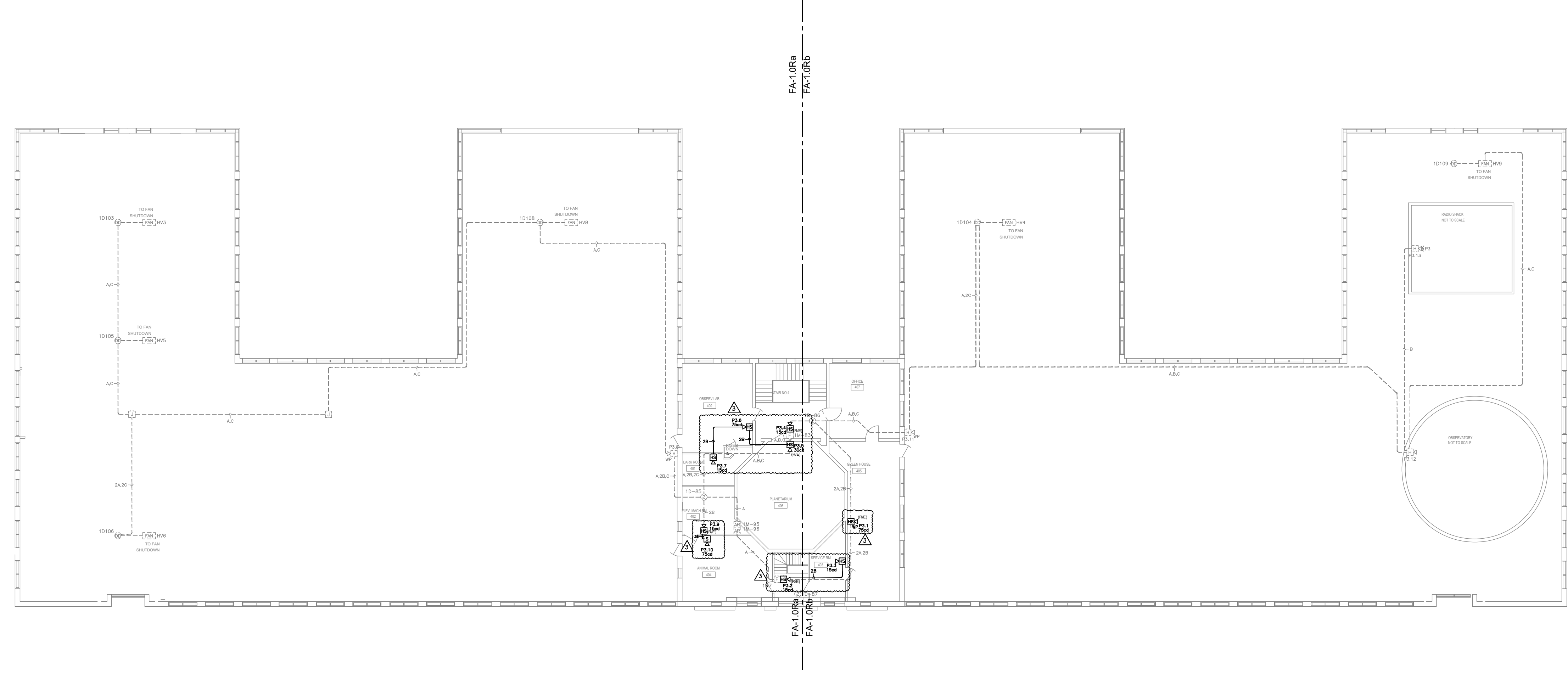
DATE: 12/18/23

**FIRE ALARM THIRD LEVEL SOUTH**

DRAWN BY: JF CHECKED BY: JF  
 JOB NUMBER: S0PRDA008

SHEET NUMBER  
**FA-1.03b**

ISSUE #	DATE	DESCRIPTION
ISSUE 0	09/07/2023	Project Design Initiated
ISSUE 1	09/08/2023	Permit Revisions
ISSUE 2	11/02/2023	Permit Revisions Progress 50% DO
ISSUE 3	11/16/2023	Progress 90% Set



**1 ROOF OVERALL**  
 FA-1.0R SCALE: 1/16"=1'

DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
	LOOP CONTROLLER CARD NUMBER
	"M" FOR MODULE OR "D" FOR DETECTOR
	DEVICE ADDRESS
HORN/STROBE ASSIGNMENT	
	P=FAUCU, A=ACPS
	POWER SUPPLY #
	DEVICE #
	CIRCUIT #

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES**

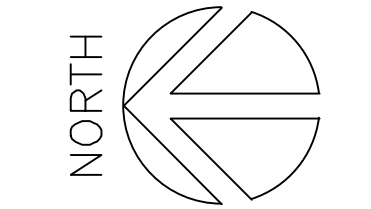
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- NOT USED THIS SHEET

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	THINW.	JACKETED
A	SLC LOOP	2	16	X	X	X
B	HORN/STROBE CIRCUIT	2	12	X		
D	DOOR HOLDER CIRCUIT	2	14	X		

RECOMMENDED WIRE TYPE OR EQUIVALENT: WEST PENN D990 - FPLR  
 THHN  
 THHN  
 THHN

COLOR: RED/BLK, RED/BLK

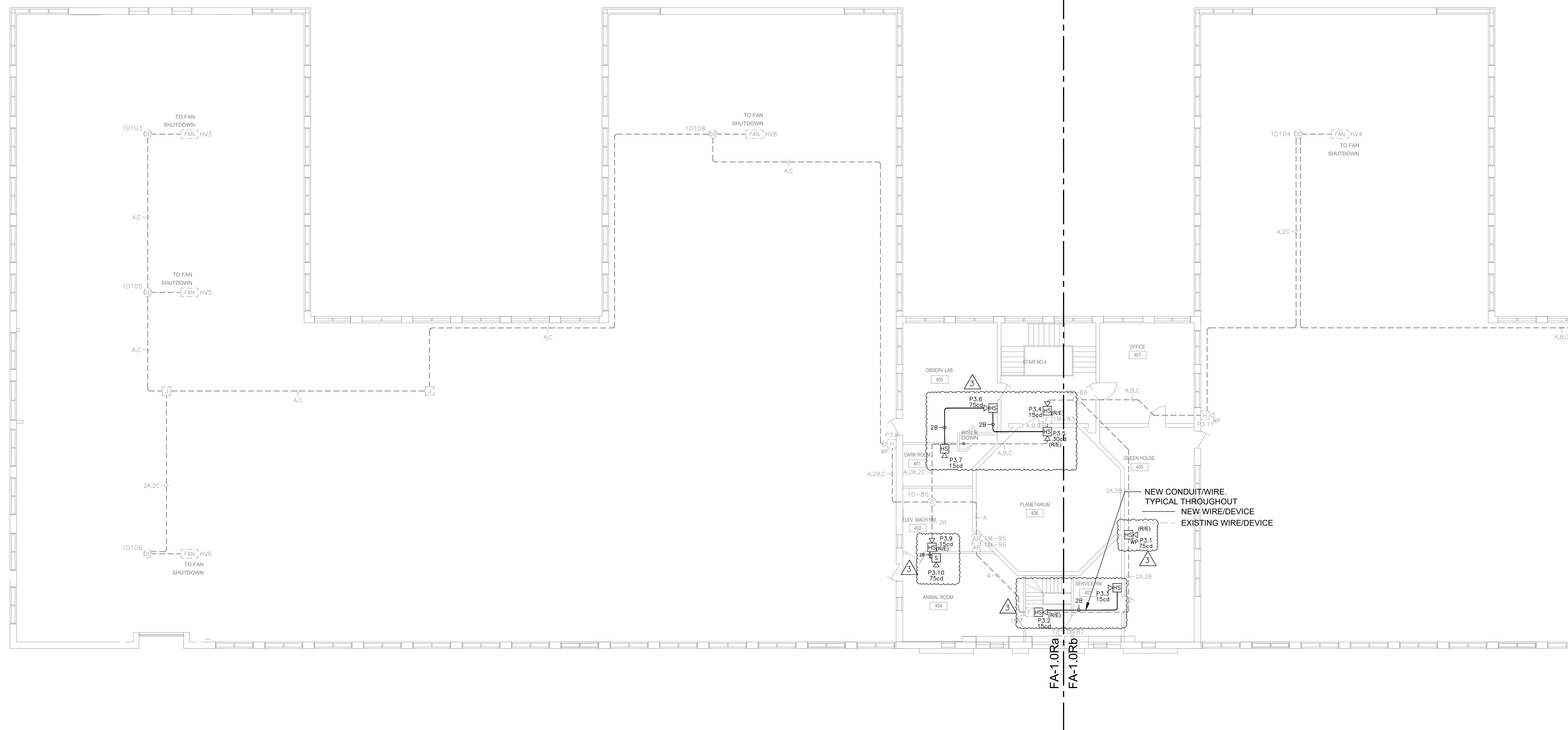
ALL WIRING IS IN CONDUIT U.O.N.



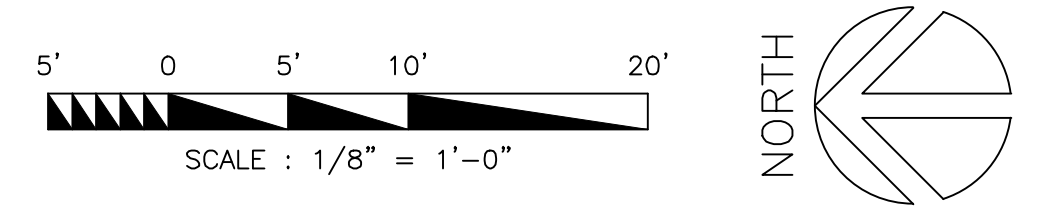
**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

STAMPS	
TITLE	
<b>FIRE ALARM ROOF LEVEL OVERALL</b>	
DRAWN BY: JF	CHECKED BY: JF
JOB NUMBER: S0FRIDA008	
SHEET NUMBER	
<b>FA-1.0R</b>	

FILE: Z:\proj\Plan\50 Frida Kahlo Way\DCS\FA-1.0R.dwg USER: papaf DATE: 10/19/2023 TIME: 11:07 am



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBA



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DEVICE SYMBOLS LEGEND	
FIRE ALARM CONTROL UNIT	FIRE SMOKE DAMPER
REMOTE POWER SUPPLY	HVAC FAN UNIT
LCD ANNUNCIATOR PANEL	WATERFLOW SWITCH
TERMINAL CABINET	VALVE TAMPER SWITCH
PULL BOX	MAGNETIC DOOR HOLDER
SMOKE DETECTOR	SMOKE GUARD DOOR CONTROLLER
SMOKE DETECTOR WITH RELAY BASE	END OF LINE RESISTOR
HEAT DETECTOR	WEATHERPROOF
DUCT DETECTOR WITH RELAY	REPLACE EXISTING IN PLACE WITH NEW
DUCT DETECTOR	
HEAT DETECTOR (CONV) EXPLOSION PROOF	
ADDRESSABLE CONTROL MODULE	
FIRE ALARM PULL STATION	
ADDRESSABLE MONITOR MODULE	
ADDRESSABLE MINI-MONITOR MODULE	
ADDRESSABLE DUAL MONITOR MODULE	
ADDRESSABLE RELAY	
DETECTOR MONITORING MODULE	
CEILING STROBE	
CEILING HORN STROBE	
WALL STROBE	
WALL HORN STROBE	
WALL HORN	

DEVICE ASSIGNMENT LEGEND	
ADDRESSABLE DEVICE ASSIGNMENT	
	LOOP CONTROLLER CARD NUMBER
	"M" FOR MODULE OR "D" FOR DETECTOR
	DEVICE ADDRESS
HORN/STROBE ASSIGNMENT	
	P=FACU, A=ACPS
	POWER SUPPLY #
	DEVICE #
	CIRCUIT #

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- NOT USED THIS SHEET
- REMOVE DEVICE ENSURE CONTINUITY OF CIRCUIT FOR DOWNSTREAM DEVICES. PROVIDE COVER PLATE.

WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	THINW.	JACKETED
A	SLC LOOP	2	16	X	X	X
B	HORN/STROBE CIRCUIT	2	12	X	X	X
D	DOOR HOLDER CIRCUIT	2	14	X		X

RECOMMENDED WIRE TYPE OR EQUIVALENT: WEST PENN D990 - FPLR  
 THHN  
 THHN

COLOR: RED/BLK, RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**CONSTRUCTION NOTE:**  
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**CUSTOMER:**  
**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

**TITLE:**  
**FIRE ALARM**  
**ROOF LEVEL**  
**NORTH**

**SHEET NUMBER:**  
**FA-1.0Ra**

ISSUE #	DATE	DESCRIPTION
ISSUE 0	08/07/2023	Project Design Initiated
ISSUE 1	08/08/2023	Permit Revision
ISSUE 2	11/02/2023	Permit Revision/Progress DRN20
ISSUE 3	11/16/2023	Progress 90% Set

CONTRACTOR	OWNER	PROJECT

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**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
 50 FRIDA KAHLO WAY  
 SAN FRANCISCO, CA 94103

**FIRE ALARM ROOF LEVEL SOUTH**

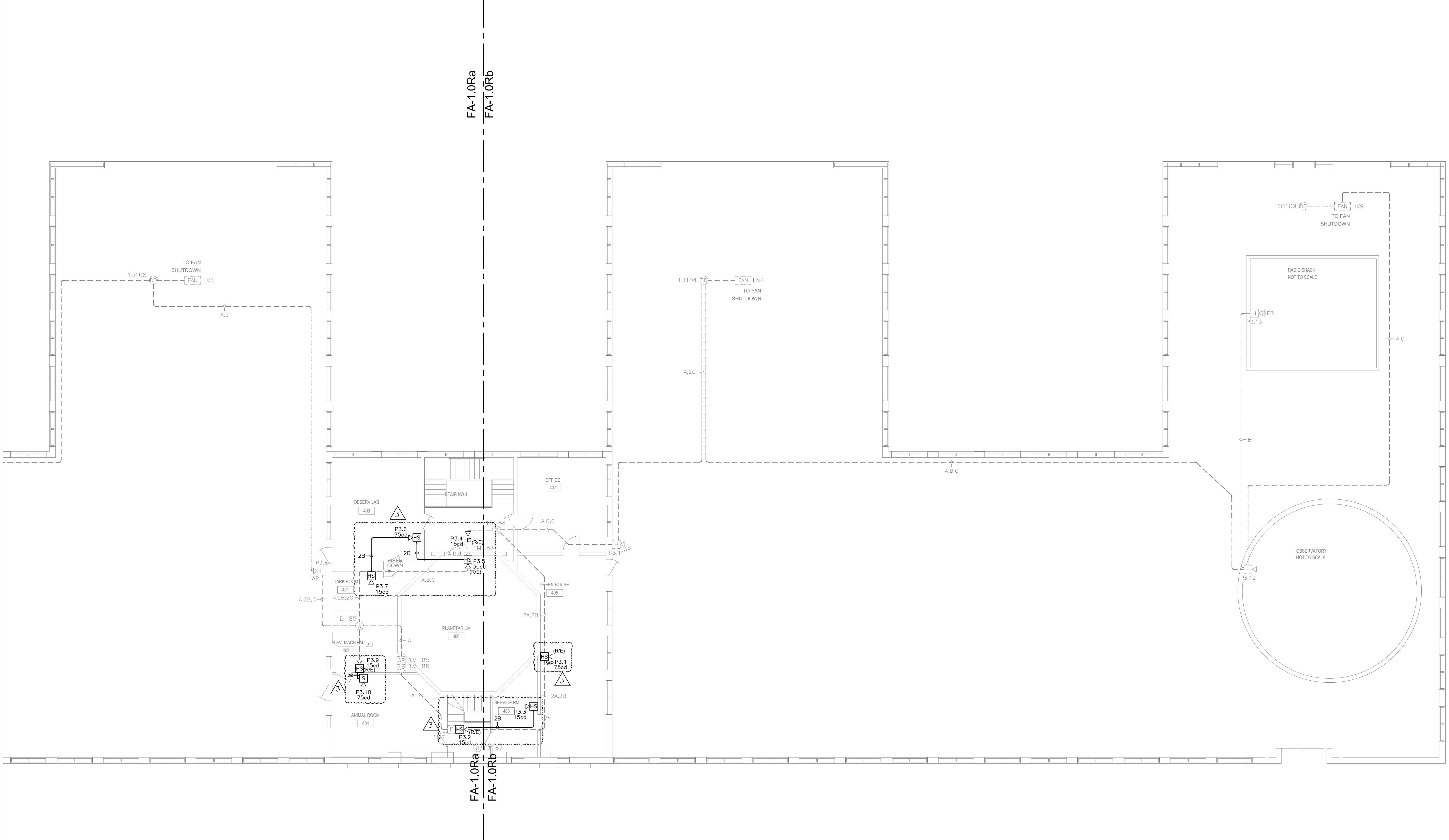
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STAMPS

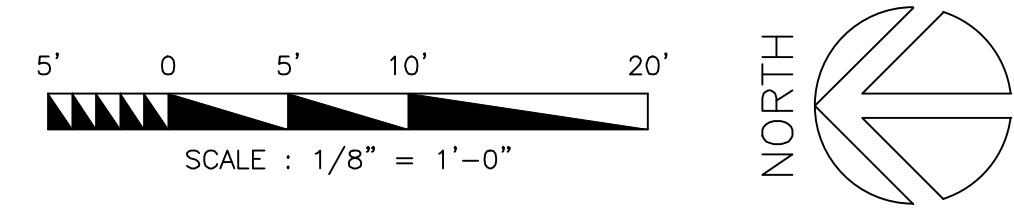
DRAWN BY: PP CHECKED BY: JW

JOB NUMBER: SFPD24068

SHEET NUMBER  
**FA-1.0Rb**



Per DSA Bulletin GL-2 the average ambient sound level for all occupied spaces is 45dBA



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 USER: ppj/af DATE: 06/19/2023 TIME: 11:07 am

DEVICE SYMBOLS LEGEND		DEVICE ASSIGNMENT LEGEND	
FACU	FIRE ALARM CONTROL UNIT	FSD	FIRE SMOKE DAMPER
FCPS	REMOTE POWER SUPPLY	FAN	HVAC FAN UNIT
LCD	LCD ANNUNCIATOR PANEL	WS	WATERFLOW SWITCH
TC	TERMINAL CABINET	VS	VALVE TAMPER SWITCH
PB	PULL BOX	MD	MAGNETIC DOOR HOLDER
SD	SMOKE DETECTOR	SGDC	SMOKE GUARD DOOR CONTROLLER
SR	SMOKE DETECTOR WITH RELAY BASE	ELR	END OF LINE RESISTOR
HD	HEAT DETECTOR	WP	WEATHERPROOF
DR	DUCT DETECTOR WITH RELAY	(R/E)	REPLACE EXISTING IN PLACE WITH NEW
DD	DUCT DETECTOR		
XP	HEAT DETECTOR (CONV) EXPLOSION PROOF		
AM	ADDRESSABLE CONTROL MODULE	<b>HORN/STROBE ASSIGNMENT</b>	
FP	FIRE ALARM PULL STATION	P=	FACU, A=ACPS
MM	ADDRESSABLE MONITOR MODULE	PS=	POWER SUPPLY #
MDM	ADDRESSABLE MINI-MONITOR MODULE	XX	DEVICE #
DDM	ADDRESSABLE DUAL MONITOR MODULE		CIRCUIT #
ALR	ADDRESSABLE RELAY		
DM	DETECTOR MONITORING MODULE		
CS	CEILING STROBE		
CHS	CEILING HORN STROBE		
WS	WALL STROBE		
WHS	WALL HORN STROBE		
WH	WALL HORN		

**GENERAL NOTE:**

- 120 VAC DEDICATED POWER WITH GROUND. CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

**SHEET NOTES:**

- NOT USED THIS SHEET
- REMOVE DEVICE ENSURE CONTINUITY OF CIRCUIT FOR DOWNSTREAM DEVICES. PROVIDE COVER PLATE.

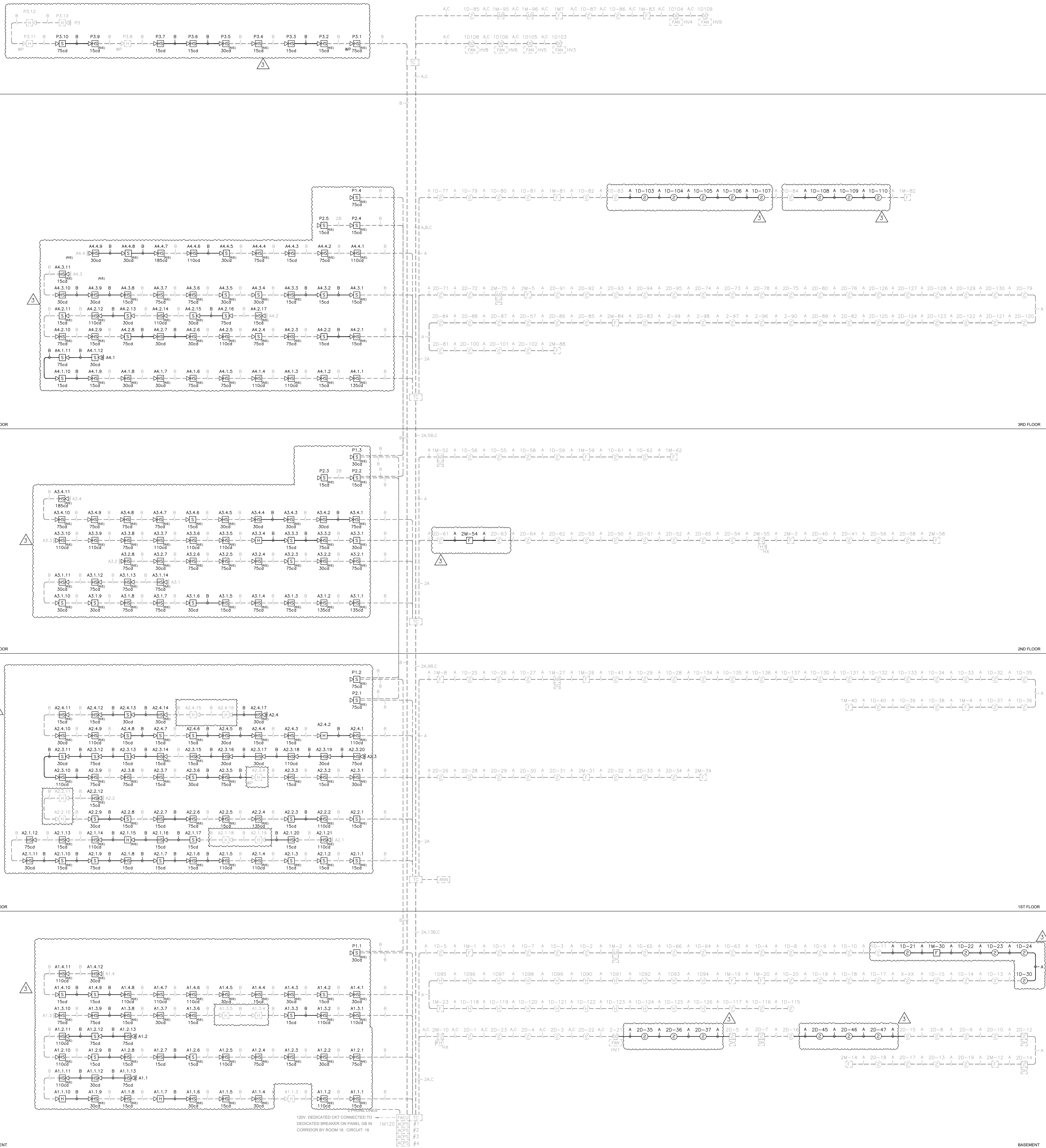
WIRING LEGEND						
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	SOLID	PLASTIC	JACKETED
A	SLC LOOP	2	16	X	X	X
B	HORN/STROBE CIRCUIT	2	12	X	X	X
D	DOOR HOLDER CIRCUIT	2	14	X	X	X

RECOMMENDED WIRE TYPE OR EQUIVALENT: WEST PENN D990 - FPLR  
 THHN  
 THHN

COLOR: RED/BLK, RED/BLK

ALL WIRING IS IN CONDUIT U O N.





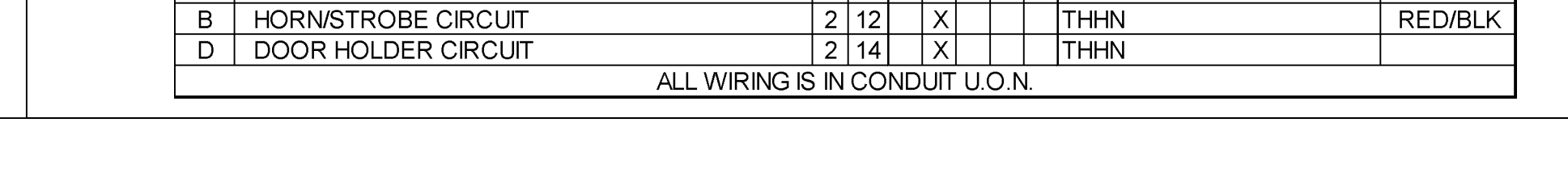
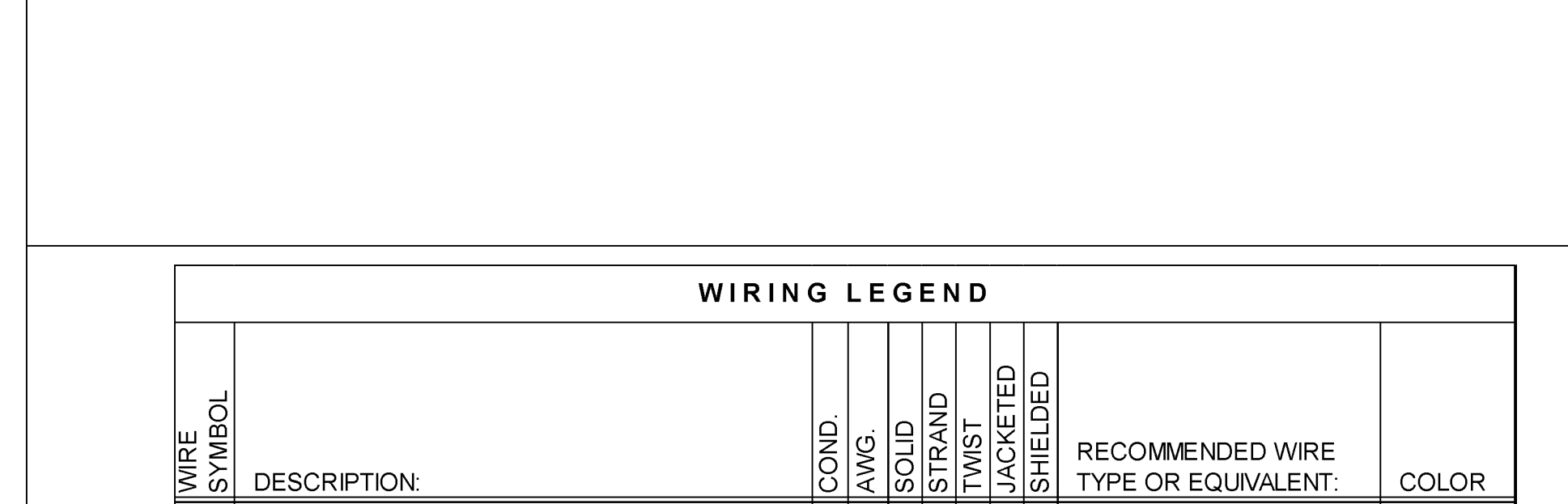
### DEVICE SYMBOLS LEGEND

	FIRE ALARM CONTROL UNIT		FIRE SMOKE DAMPER
	REMOTE POWER SUPPLY		HVAC FAN UNIT
	LCD ANNUNCIATOR PANEL		WATERFLOW SWITCH
	TERMINAL CABINET		VALVE TAMPER SWITCH
	PULL BOX		MAGNETIC DOOR HOLDER
	SMOKE DETECTOR		SMOKE GUARD DOOR CONTROLLER
	SMOKE DETECTOR WITH RELAY BASE		END OF LINE RESISTOR
	HEAT DETECTOR		WEATHERPROOF
	DUCT DETECTOR WITH RELAY		REPLACE IN PLACE WITH NEW
	DUCT DETECTOR		
	HEAT DETECTOR (CONV) EXPLOSION PROOF		
	ADDRESSABLE CONTROL MODULE		
	FIRE ALARM PULL STATION		
	ADDRESSABLE MONITOR MODULE		
	ADDRESSABLE MINI-MONITOR MODULE		
	ADDRESSABLE DUAL MONITOR MODULE		
	ADDRESSABLE RELAY		
	DETECTOR MONITORING MODULE		
	CEILING STROBE		
	CEILING HORN STROBE		
	WALL STROBE		
	WALL HORN STROBE		
	WALL HORN		

— NEW DEVICE WIRE  
— EXISTING DEVICE WIRE

### DEVICE ASSIGNMENT LEGEND

ADDRESSABLE DEVICE ASSIGNMENT		HORN/STROBE ASSIGNMENT	
	LOOP CONTROLLER CARD NUMBER		P=Facu, A=ACPS
	TM FOR MODULE OR ID FOR DETECTOR		POWER SUPPLY #
	DEVICE ADDRESS		DEVICE #
			CIRCUIT #



**PACIFIC AUXILIARY FIRE ALARM CO.**  
 94 BROADWAY STREET SAN FRANCISCO CA 94102  
 415.779.9494 FAX 415.445.4830  
 C-104 229167

**A RapidFire Company**  
 SAFETY & SECURITY

ISSUE #	DATE	DESCRIPTION
ISSUE 1	08/07/2003	Project Design Initiated
ISSUE 2	08/08/2003	Permit Revisions
ISSUE 3	11/02/2003	Permit Revisions Progress 50%
ISSUE 4	11/10/2003	Progress 90% Set

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**FIRE ALARM SYSTEM IMPROVEMENT**  
**SCIENCE HALL BUILDING**  
**50 FRIDA KAHLO WAY**  
**SAN FRANCISCO, CA 94103**

**STAMPS**

**TITLE**  
**FIRE ALARM**  
**SINGLE LINE RISER**

**WIRING LEGEND**

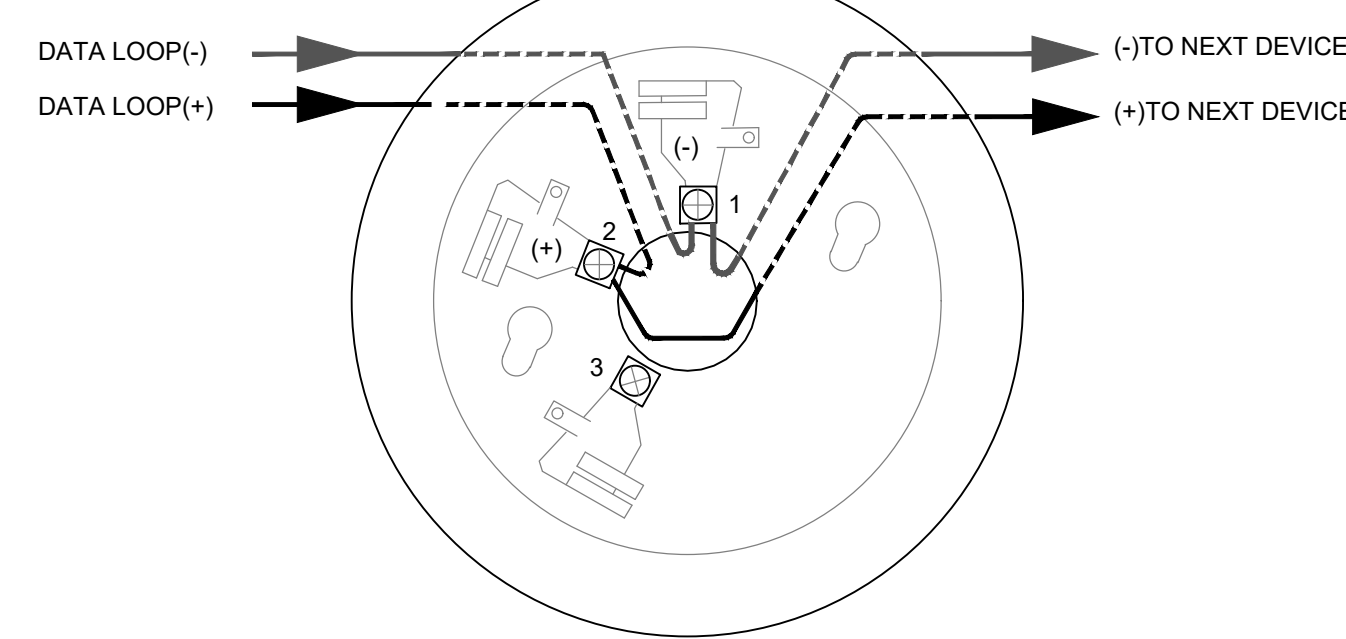
WIRE SYMBOL	DESCRIPTION	COND.	AWG.	RWG.	STAND.	TWIST.	JACKETED.	SHIELDED.	RECOMMENDED WIRE TYPE OR EQUIVALENT.	COLOR
A	SLC LOOP	2	16	X	X	X	X	X	WEST PENN D900 - FPLR	RED/BLK
B	HORN/STROBE CIRCUIT	2	12	X	X	X	X	X	THHN	RED/BLK
D	DOOR HOLDER CIRCUIT	2	14	X	X	X	X	X	THHN	RED/BLK

ALL WIRING IS IN CONDUIT U.O.N.

**FA-2.01**

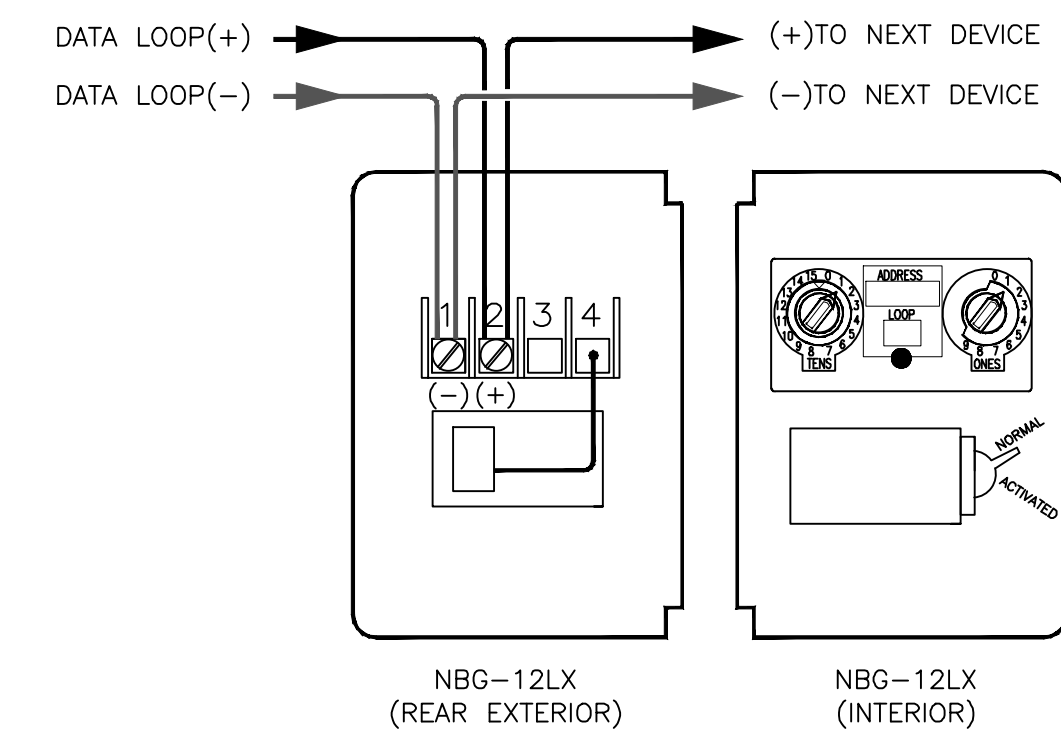
FILE: Z:\Floor Plans\50 Frida Kahlo Way\_JCSF\_46\_50\_Plan\SPRINGS-001\_SCIENCE HALL BLDG FA SYS UPGRADE.DWG SUBMITTAL\FA-201\_SINGLE LINE RISER.dwg USER: jcsf DATE: Dec 19 2003 TIME: 11:07 AM

MOUNTING OPTIONS
4" DEEP OCTAGONAL BOX
4" DEEP SQUARE BOX

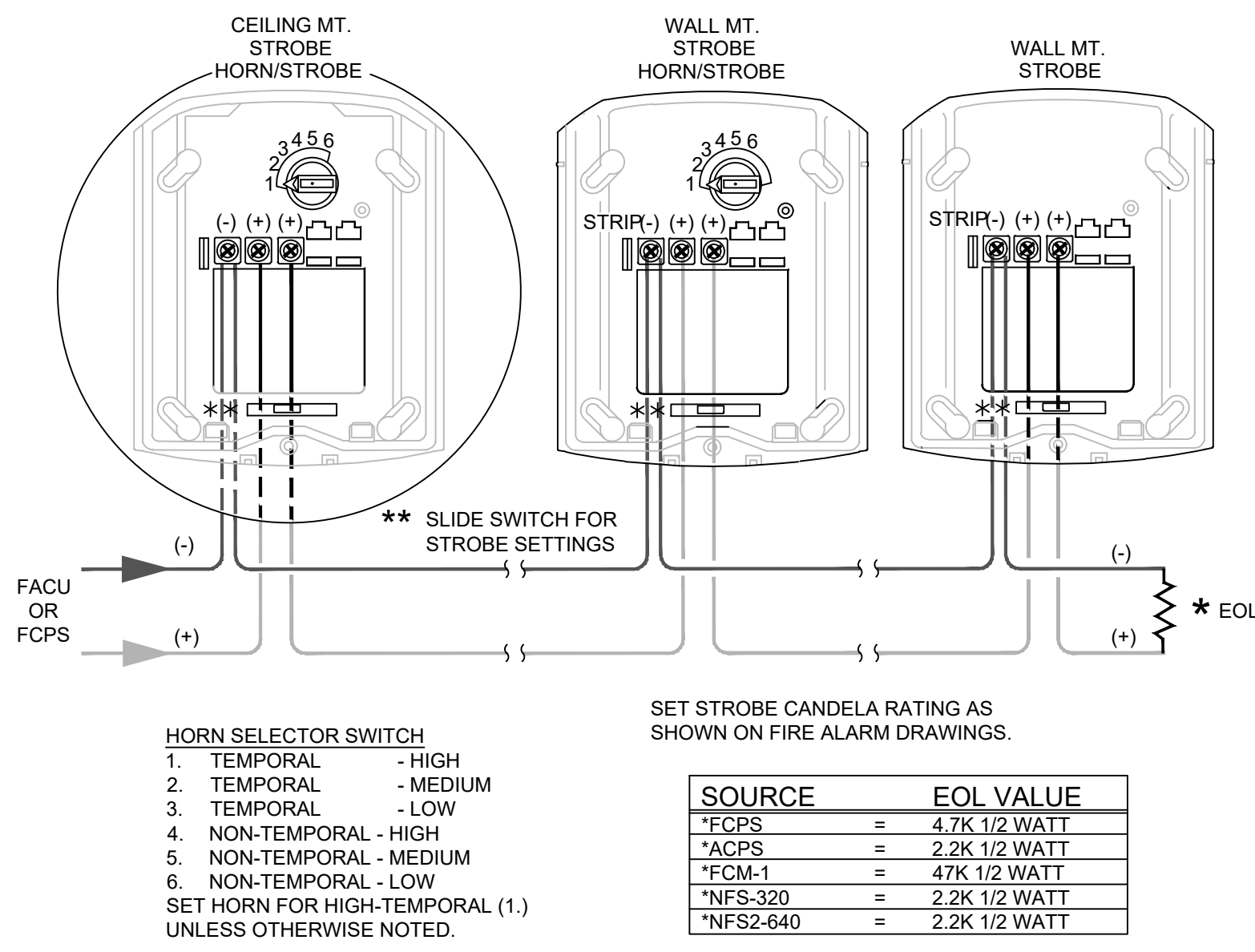


1 STANDARD DETECTOR BASE  
FA-4.01 WIRING DETAIL

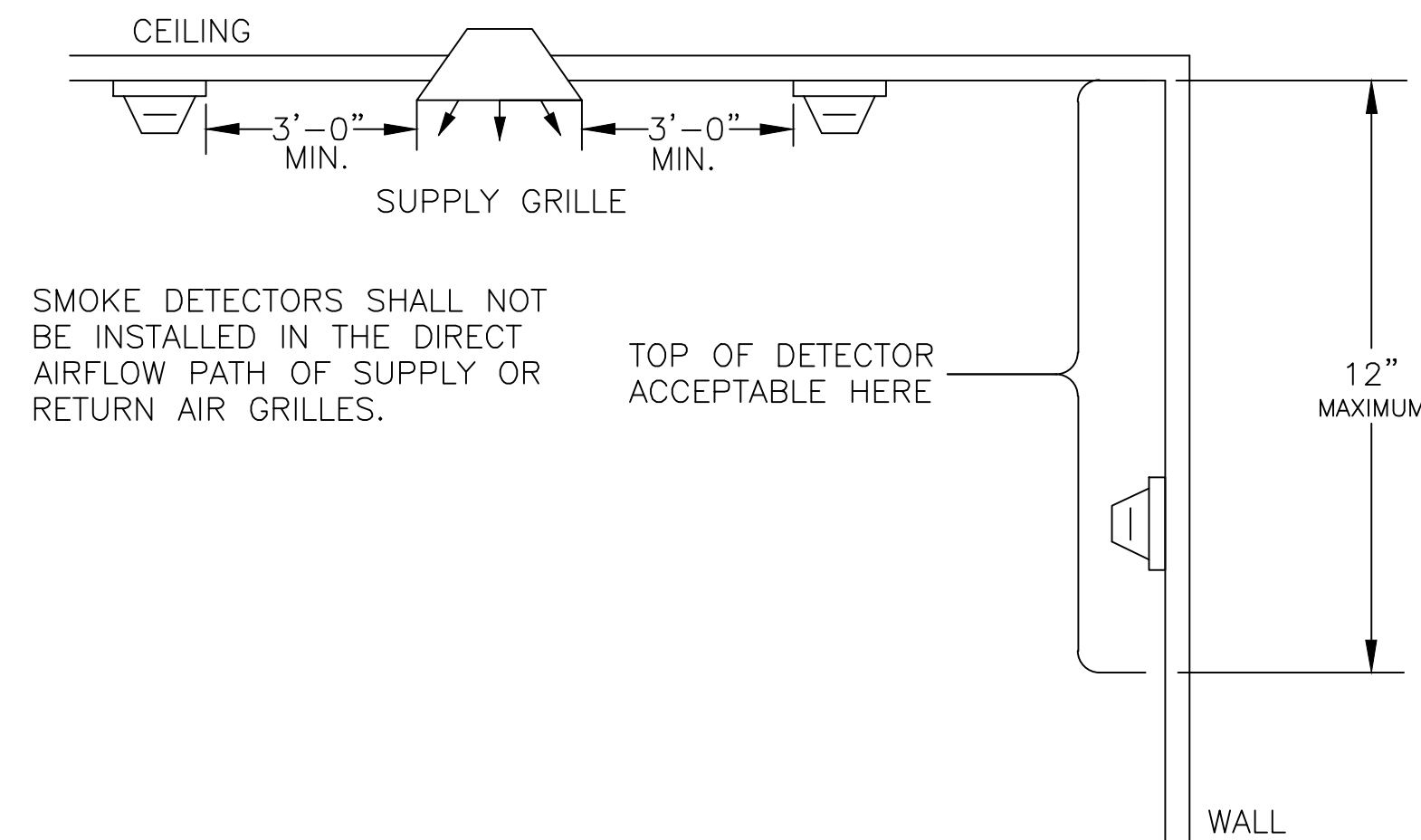
MOUNTING OPTIONS
4" DEEP SQUARE BOX WITH EXTENSION RING



2 ADDRESSABLE PULL STATION  
FA-4.01 WIRING DETAIL



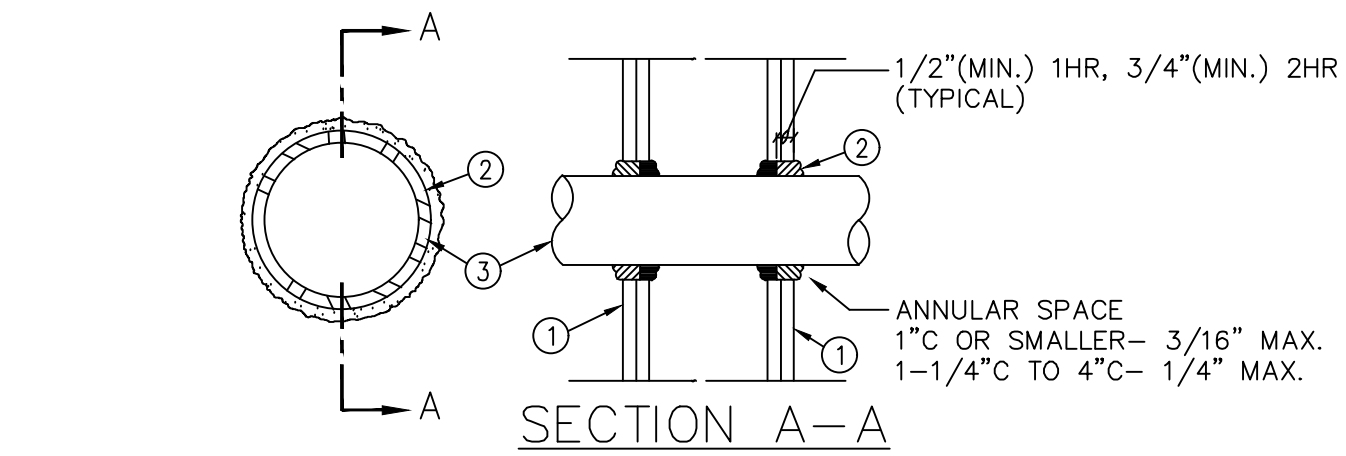
3 HORN STROBE NOTIFICATION CIRCUIT  
FA-4.01 WIRING DETAIL



4 SMOKE DETECTOR INSTALLATION  
FA-4.01 MOUNTING DETAIL

- ALL LABELS SHALL BE OF A TYPE WHICH IS APPROPRIATE FOR THE ENVIRONMENT IN WHICH IT IS INSTALLED.
- FIELD DEVICES SHALL BE LABELED WITH CIRCUIT IDENTIFICATION. LABELS SHALL BE BLACK ON WHITE "P-TOUCH" LABELS SHALL BE AFFIXED TO THE RESPECTIVE DEVICE.
  - ADDRESSABLE DEVICES SHALL BE IDENTIFIED WITH THE FIRE ALARM SYSTEM CIRCUIT NUMBER AND INDIVIDUAL ADDRESS. AUDIBLE AND VISUAL DEVICES SHALL BE IDENTIFIED WITH THE SIGNAL CIRCUIT NUMBER AND DEVICE ADDRESS.
  - LABELS ON MANUAL PULL STATIONS SHALL BE AFFIXED TO THE TOP OF THE STATION.
  - LABELS ON AREA SMOKE OR HEAT DETECTORS SHALL BE AFFIXED TO THE SIDE OF THE DETECTOR BASE.
  - LABELS ON DUCT SMOKE DETECTORS SHALL BE AFFIXED TO FACE OF THE DETECTOR AND ON THE REMOTE TEST STATION.
  - LABELS ON AUDIBLE AND VISUAL DEVICES SHALL BE AFFIXED TO THE SIDE OF THE DEVICE.
  - LABELS ON ADDRESSABLE INTERFACE MODULES SHALL BE AFFIXED TO THE FACE OF THE MODULE OR JUNCTION BOX IN WHICH THE MODULE IS MOUNTED. IN ADDITION, THE MODULE FUNCTION SHALL BE IDENTIFIED.
  - PROVIDE, WITH EACH DUCT DETECTOR REMOTE INDICATOR, A PLATE-MOUNTED LAMICOID LABEL WHICH SHALL IDENTIFY THE ASSOCIATED FAN SYSTEM AND WHETHER THE DUCT SMOKE DETECTOR IS IN THE SUPPLY OR RETURN AIRSTREAM. FOR EXAMPLE AHJ-1 RETURN DUCT DETECTOR.

5 DEVICE LABELING  
FA-4.01 INSTALLATION DETAIL



- NOTES:
- WALL ASSEMBLY—THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNERS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
    - STUDS—WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. O.C. WITH NOM 2 BY 4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. O.C.
    - WALLBOARD, GYPSUM—NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13-1/2 IN.
  - PIPE OR CONDUIT—NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 12 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON SOIL PIPE, NOM 12 IN. DIAM (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOM 6 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE IS USED, MAX F RATING OF FIRE SYSTEM (ITEM 3) IS 2 HR. STEEL PIPES OR CONDUITS LARGER THAN CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
  - FILL VOID OR CAVITY MATERIAL—CAULK—CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND MIN A MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW.

MAX PIPE OR CONDUIT DIAM. IN.	ANNULAR SPACE, IN.	F RATING, HR.	T RATING, HR.
1	0 TO 3/16	1 OR 2	0+ 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
4	0 TO 1-1/2#	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/8 TO 3/8	1 OR 2	0

+ WHEN COPPER PIPE IS USED, T RATING IS 0. H. #0 TO 1-1/2 IN. ANNULAR SPACE APPLIES ONLY WHEN TYPE CP-25 WB+ CAULK IS USED AND ONLY WHEN THE MIN THICKNESS OF THE GYPSUM WALLBOARD IS 5/8 IN FOR 1 HR. RATED WALLS AND 1-1/4 IN FOR 2 HR. RATED WALLS.

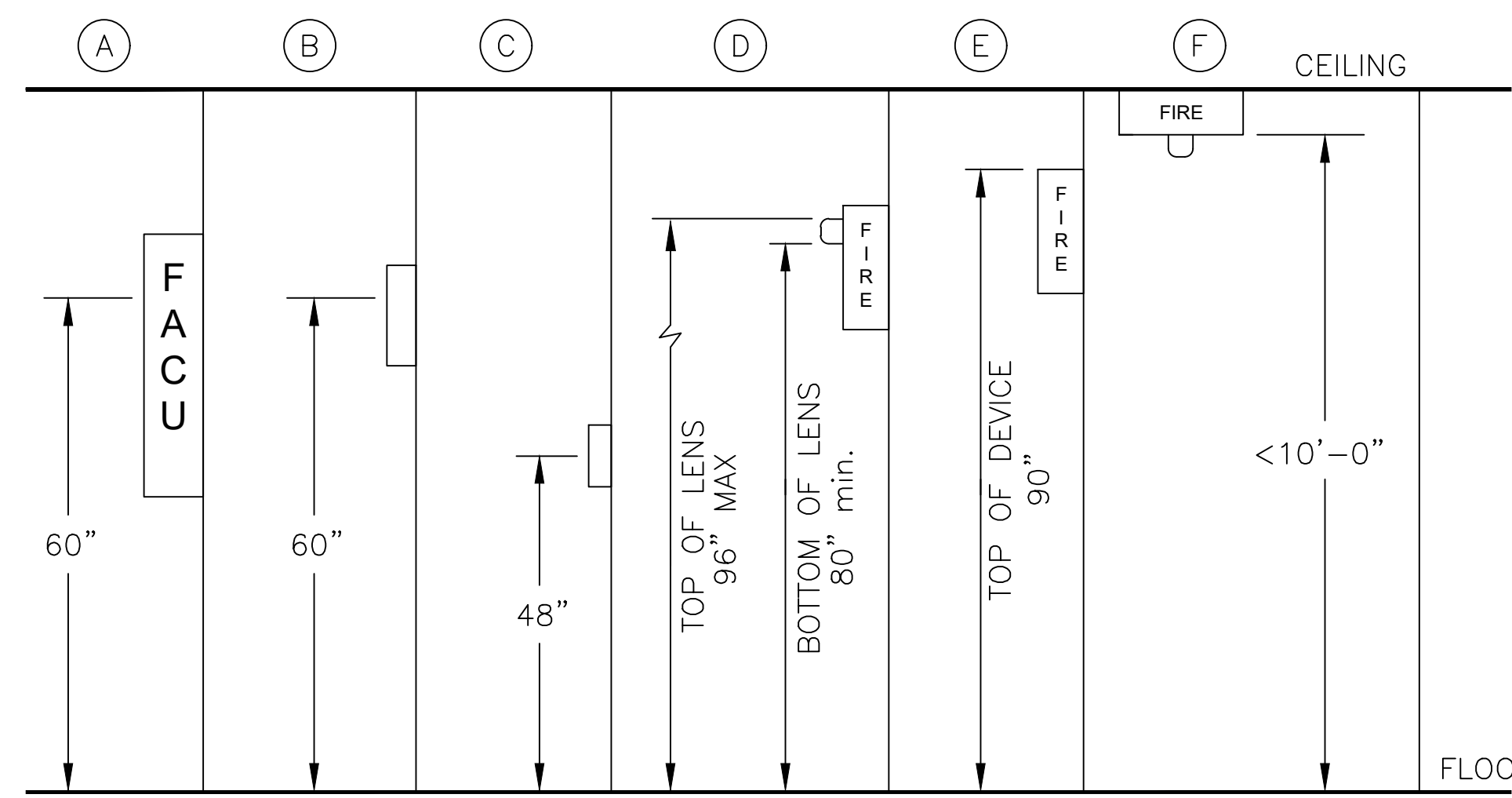
MINNESOTA MINING & MFG. CO. — CP 25WB+

XULZ SYSTEM NO. 101001

F RATINGS — 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)  
T RATING 0, 1, 2, 3 AND 4 HR (SEE NOTE 3)  
L RATING AT AMBIENT — LESS THAN 1 CM/50 FT  
L RATING AT 400° — LESS THAN 1 CM/50 FT

\* BEARING THE UL CLASSIFICATION MARKING — PENETRATIONS FOR CONCRETE FLOORS — AS PER THE CALIFORNIA BUILDING CODE, EXCEPTION PERTAINING TO STEEL PIPE; PENETRATIONS FOR SINGLE CONCRETE FLOORS SHALL HAVE CONCRETE, GROUT, OR MORTAR INSTALLED THE FULL THICKNESS OF THE FLOOR OR THE THICKNESS REQUIRED TO MAINTAIN THE FIRE RESISTIVE RATING TEST

7 FIRE STOP PENETRATION DETAILS  
FA-4.01 INSTALLATION DETAIL



6 ELEVATION - MOUNTING DETAILS  
FA-4.01 MOUNTING DETAIL

\* WIRING DETAILS ARE FOR REFERENCE ONLY. ALWAYS FOLLOW MANUFACTURERS PUBLISHED INSTALLATION/WIRING INSTRUCTIONS.

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ISSUE 1	08/08/2023	Permit Revisions
ISSUE 2	11/02/2023	Permit Revisions Progress 50% <sup>02</sup>
ISSUE 3	12/18/2023	Progress 80% <sup>02</sup>

P.E. SEAL

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CUSTOMER

FIRE ALARM SYSTEM IMPROVEMENT  
SCIENCE HALL BUILDING  
50 FRIDA KAHLO WAY  
SAN FRANCISCO, CA 94103

STAMPS

TITLE  
**FIRE ALARM WIRING & INSTALLATION DETAILS**

DRAWN BY: JF    CHECKED BY: JW  
JOB NUMBER: 109394008

SHEET NUMBER  
**FA-4.01**



***A RapidFire Company***  
SAFETY & SECURITY

**Fire Alarm  
Product Submittal  
For  
Fire Alarm System  
Improvement**

**Bid Spec Book  
CCSF Science Hall Legacy  
50 Frida Kahlo Way  
San Francisco, Ca 94103**

**12/13/23**

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# Equipment Submittal Table of Contents

#	Part Description	Part Manufacture	Part #	Part CSFM	Page #
1	NFS-640 FACP Unit	Notifier	NFS-640	7165-0028-0214	1
2	Photo Smoke Detector	Notifier	FSP-951	7272-0028-0503	15
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4	Addressable Pull Station	Notifier	NBG-12LX	7150-0028-0199	27
5	Wp Red Horn/Strobe	System Sensor	P2RK	7125-1653-0188	31
6	Wall Horn/Strobe White L	System Sensor	P2WLED	7135-1653-0526	37
7	Wall Strobe White LED	System Sensor	SWLED	7300-1653-0525	37
8	Wall White Horn	System Sensor	HW	7135-1653-0189	45

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**NFS-640****Intelligent Addressable  
Fire Alarm System****Intelligent Fire Alarm Control Panels****General**

The NFS-640 intelligent Fire Alarm Control Panel is part of the ONYX® Series of Fire Alarm Controls from NOTIFIER.

As a stand-alone small-to-large system, or as a large network, the ONYX® Series of products meets virtually every application requirement.

Designed with modularity and for ease of system planning, the NFS-640 can be configured with just a few devices for small building applications, or for a large campus or high-rise application. Simply add additional peripheral equipment to suit the application.

**Features**

- One, expandable to two, isolated intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7.
- Up to 159 detectors (any mix of ion, photo, thermal, or multi-sensor) and 159 modules (N.O. manual stations, two-wire smoke, notification, or relay) per SLC. 318 devices per loop/636 per FACP or network node.
- Standard 80-character display, 640-character large display, or display-less (a node on a network).
- Network option – 103 nodes supported (NFS-640, NCA Network Annunciator, or NCS Network Control Station) using wire or fiber-optic connections.
- 6.0 amp switch mode power supply with four Class A/B built-in Notification Appliance Circuits (NAC). Selectable System Sensor strobe synchronization.
- Built-in Alarm, Trouble, and Supervisory relays.
- Up to 64 output circuits per FACP or network node; circuits configurable online.
- **VeriFire® Tools** offline program option. Sort Maintenance Reports by compensation value (dirty detector), peak alarm value, or address.
- Autoprogramming and Walk Test reports.
- Optional universal 636-point DACT.
- 80-character remote annunciators (up to 32).
- EIA-485 annunciators, including custom graphics.
- Printer interface (80-column and 40-column printers).
- History file with 800-event capacity in nonvolatile memory, plus separate 200-event alarm-only file.
- Alarm Verification selection per point, with tally.
- Autoprogramming and Walk Test reports.
- Positive Alarm Sequence (PAS) Presignal.
- Silence inhibit and Auto Silence timer options.
- March time / temporal / California two-stage coding / strobe synchronization.
- Field-programmable on panel or on PC, with **VeriFire® Tools** program check, compare, simulate.
- Full QWERTY keypad.
- Charger for up to 90 hours of standby power.
- Non-alarm points for lower priority functions.
- Remote ACK/Signal Silence/System Reset/Drill via monitor modules.
- Automatic time control functions, with holiday exceptions.
- Surface Mount Technology (SMT) electronics.
- Extensive, built-in transient protection.



**NFS-640 shown in CAB-B4 with  
NCA 640-character display.**

- Powerful Boolean logic equations.

**NCA 640-CHARACTER DISPLAY FEATURES:**

- Backlit, 640-character display.
- Supports SCS Series smoke control system in both HVAC or FSCS modes (not UL-Listed for FSCS).
- Printer and CRT EIA-232 ports.
- EIA-485 annunciator and terminal mode ports.
- Alarm, Trouble, Supervisory, and Security relays.

**FLASHSCAN® INTELLIGENT FEATURES:**

- Poll 318 devices in less than two seconds.
- Activate up to 159 outputs in less than five seconds.
- Multicolor LEDs blink device address during Walk Test.
- Fully digital, high-precision protocol (U.S. Patent 5,539,389).
- Manual sensitivity adjustment — nine levels.
- Pre-alarm intelligent sensing — nine levels.
- Day/Night automatic sensitivity adjustment.
- Sensitivity windows:
  - **Ion** – 0.5 to 2.5%/foot obscuration.
  - **Photo** – 0.5 to 2.35%/foot obscuration.
  - **Laser (VIEW®)** – 0.02 to 2.0%/foot obscuration.
  - **Acclimate Plus™** – 0.5 to 4.0%/foot obscuration.
  - **HARSH™** – 0.5 to 2.35%/foot obscuration.
- Drift compensation (U.S. Patent 5,764,142).
- Degraded mode — in the unlikely event that the CPU-640 microprocessor fails, FlashScan® detectors revert to degraded operation and can activate the CPU-640 NAC circuits and alarm relay. Each of the four built-in panel circuits includes a Disable/Enable switch for this feature.

- Multi-detector algorithm involves nearby detectors in alarm decision (U.S. Patent 5,627,515).
- Automatic detector sensitivity testing.
- Maintenance alert (two levels).
- Self-optimizing pre-alarm.

**VIEW® (VERY INTELLIGENT EARLY WARNING) SMOKE DETECTION TECHNOLOGY:**

- Revolutionary spot laser design.
- Advanced intelligent sensing algorithms differentiate between smoke and non-smoke signals (U.S. Patent 5,831,524).
- Addressable operation pinpoints the fire location.
- No moving parts to fail or filters to change.
- Early warning performance comparable to the best aspiration systems at a fraction of the lifetime cost.

**ACCLIMATE PLUS™**

**LOW-PROFILE INTELLIGENT MULTI-SENSOR:**

- Detector automatically adjusts sensitivity levels without operator intervention or programming. Sensitivity increases with heat.
- Microprocessor-based technology; combination photo and thermal technology.
- FlashScan® or classic mode compatible with NFS-640.
- Low-temperature warning signal at 40°F ± 5°F (4.44°C ± 2.77°C).

**HARSH™ HOSTILE-AREA SMOKE HEAD:**

- Provides early warning of smoke detection in environment where traditional smoke detectors are not practical.
- The detector's filters remove particulates down to 30 microns in size.
- Intake fan draws air into photo chamber, while airborne particles and water mist are removed.

- Requires auxiliary 24 VDC from system or remote power supply.

**RELEASING FEATURES:**

- Ten independent hazards.
- Sophisticated cross-zone (three options).
- Delay timer and Discharge timers (adjustable).
- Abort (four options).
- Low-pressure CO<sub>2</sub> listed.

**VOICE AND TELEPHONE FEATURES:**

- Solid state message generation.
- Hard-wired voice control module options.
- Firefighter telephone option.
- 30- to 120-watt high-efficiency amplifiers (AA Series).
- Backup tone generator and amplifier option.
- Multichannel voice transponder (XPIQ).

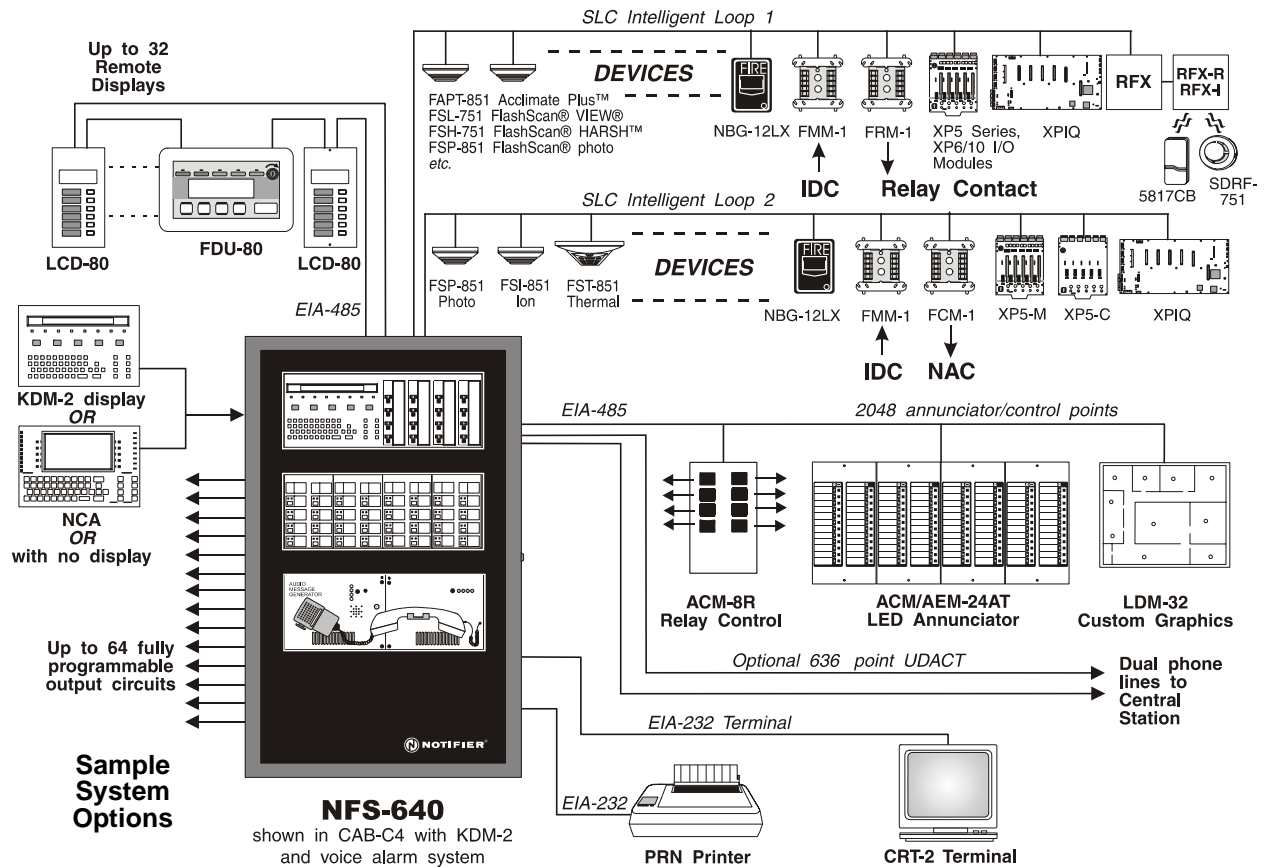
**HIGH-EFFICIENCY OFFLINE SWITCHING 3.0 AMP POWER SUPPLY (6.0 A IN ALARM):**

- 120 or 220/240 VAC.
- Displays battery current/voltage on panel (with display).

**FlashScan® Exclusive World-Leading Detector Protocol**

At the heart of the NFS-640 is a set of detection devices and device protocol — FlashScan® (U.S. Patent 5,539,389). FlashScan® is an all-digital protocol that gives superior precision and high noise immunity.

In addition to providing quick identification of an active input device, this protocol can also activate many output devices in a fraction of the time required by competitive protocols. This high





speed also allows the NFS-640 to have the largest device per loop capacity in the industry — 318 points — yet every input and output device is sampled in less than two seconds. The micro-processor-based FlashScan® detectors have bicolor LEDs that can be coded to provide diagnostic information, such as device address during Walk Test.

## Intelligent Sensing

Intelligent sensing is a set of software algorithms that provide the NFS-640 with industry-leading smoke detection capability. These complex algorithms require many calculations on each reading of each detector, and are made possible by the very-high-speed microcomputer used by the NFS-640.

**Drift Compensation and Smoothing:** Drift compensation allows the detector to retain its original ability to detect actual smoke, and resist false alarms, even as dirt accumulates. It reduces maintenance requirements by allowing the system to automatically perform the periodic sensitivity measurements required by NFPA 72. Smoothing filters are also provided by software to remove transient noise signals, such as those caused by electrical interference.

**Maintenance Warnings:** When the drift compensation performed for a detector reaches a certain level, the performance of the detector may be compromised, and special warnings are given. There are three warning levels: (1) Low Chamber value, usually indicative of a hardware problem in the detector; (2) Maintenance Alert, indicative of dust accumulation that is near but below the allowed limit; (3) Maintenance Urgent, indicative of dust accumulation above the allowed limit.

**Sensitivity Adjust:** Nine sensitivity levels are provided for alarm detection. These levels can be set manually, or can change automatically between day and night. Nine levels of pre-alarm sensitivity can also be selected, based on predetermined levels of alarm. Pre-alarm operation can be latching or self-restoring, and can be used to activate special control functions.

**Self-Optimizing Pre-Alarm:** Each detector may be set for “Self-Optimizing” pre-alarm. In this special mode, the detector “learns” its normal environment, measuring the peak analog readings over a long period of time, and setting the pre-alarm level just above these normal peaks.

**Cooperating Multi-Detector Sensing:** A patented feature of this intelligent sensing is the ability of a smoke sensor to consider readings from nearby sensors in making alarm or pre-alarm decisions. Without statistical sacrifice in the ability to resist false alarms, it allows a sensor to increase its sensitivity to actual smoke by a factor of almost two to one.

## Field Programming Options

**Autoprogram** is a timesaving feature of the NFS-640. It is a special software routine that allows the NFS-640 to “learn” what devices are physically connected and automatically load them in the program with default values for all parameters. Requiring less than one minute to run, this routine allows the user to have almost immediate fire protection in a new installation, even if only a portion of the detectors are installed.

**Keypad Program Edit (with KDM-2)** The NFS-640, like all NOTIFIER intelligent panels, has the exclusive feature of program creation and editing capability from the front panel keypad, **while continuing to provide fire protection**. The architecture of the NFS-640 software is such that each point entry carries its own program, including control-by-event links to other points. This allows the program to be entered with independent per-point segments, while the NFS-640 simultaneously monitors other (already installed) points for alarm conditions.

**VeriFire® Tools** is an offline programming and test utility that can greatly reduce installation programming time, and increase confidence in the site-specific software. It is Windows® based and provides technologically advanced capabilities to aid the

installer. The installer may create the entire program for the NFS-640 in the comfort of the office, test it, store a backup file, then bring it to the site and download from a laptop into the panel.

ENTER PROG OR STAT PASSWORD, THEN ENTER  
<ESCAPE TO ABORT> \*\*\*\*\*

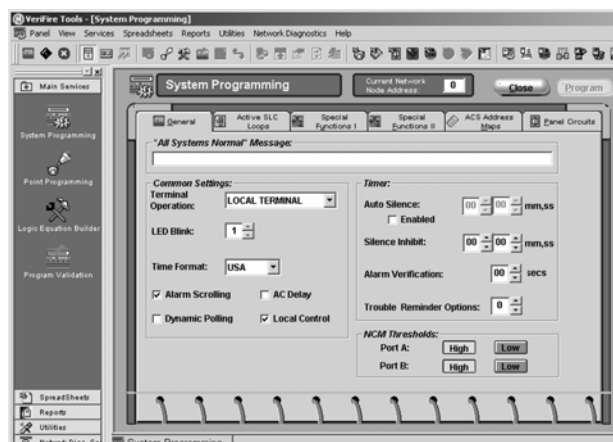
0=CLR 1= AUTO 2=POINT 3=PASSWORD 4=MESSAGE

Above: Keypad program editing.

Below: Autoprogram function.

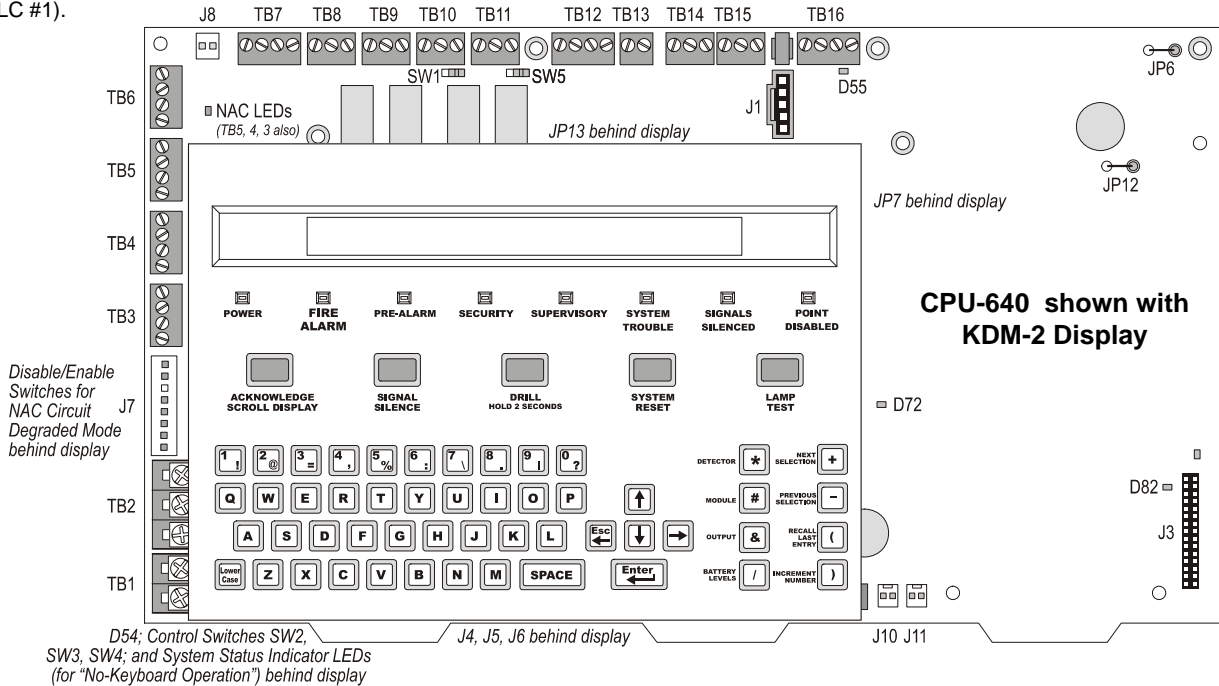
AUTOPROGRAM PLEASE WAIT

L1:80 DETS, 15 MODS L2:93 DETS, 35 MODS  
PANEL OUTPUTS:24 BELLS: 04



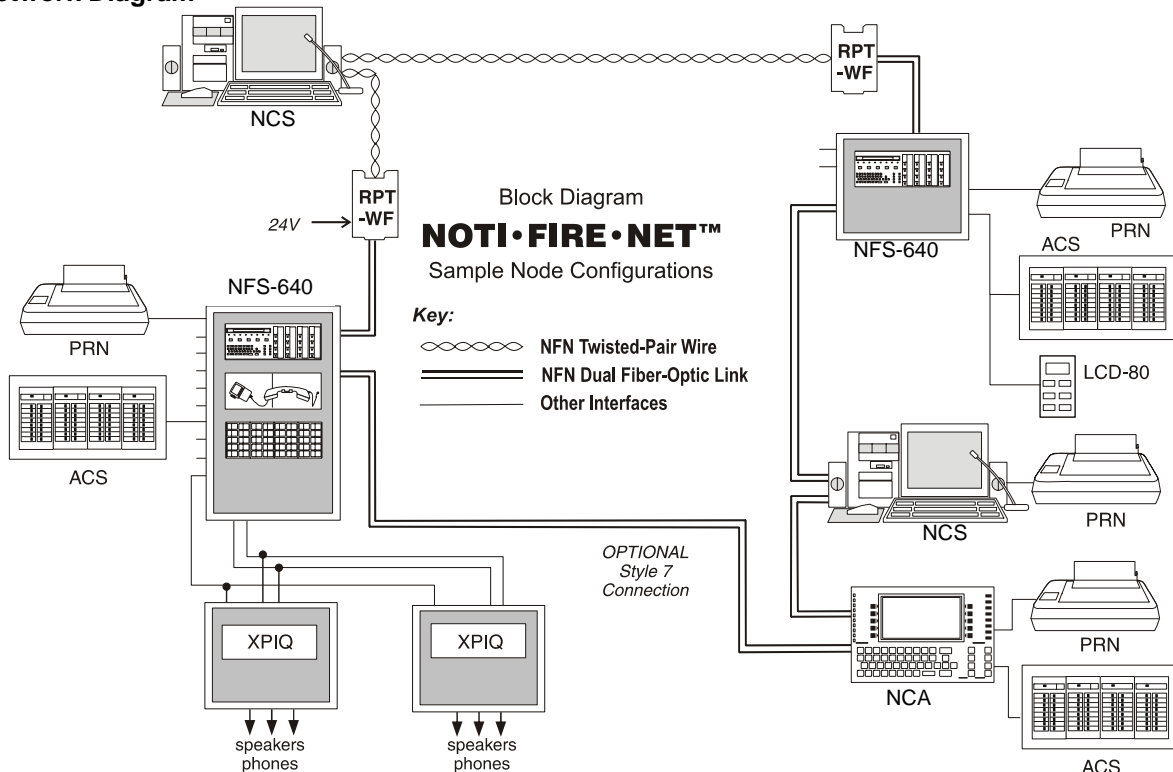
VeriFire Tools System Programming screen

**TOP, LEFT to RIGHT:** J8 Zone Code Input; TB7 DC Power (24 VDC power-limited, both resettable and non-resettable available); TB8 Alarm Relay; TB9 Trouble Relay; TB10 Supervisory Relay; TB11 Security Relay; SW1, SW5 Relay Switches; JP13 General Board Earth Fault Jumper; TB12 EIA-485 Terminal Mode (supervised); TB13 EIA-485 ACS Mode (supervised); TB14 EIA-232 Printer; TB15 EIA-232 PC Terminal; J1 NUP (network/service connection: power-limited, supervised); TB16 SLC #1 Connections (detectors, modules; supervised); D55 Main SLC Ground Fault LED; JP7 Charger Disable Jumper; JP12 200MA Jumper; JP6 Earth Fault Jumper (SLC #1).



**LEFT SIDE, TOP to BOTTOM:** TB6 NAC #1, TB5 NAC #2, TB4 NAC #3, TB3 NAC #4 (all NAC circuits power-limited and supervised, and each NAC TB has an NAC LED to the right of it); J7 Accessory Power; Disable/Enable Switches for Degraded Mode; TB2 AC Power Connection; TB1 Battery Connection (overcurrent protected). **BOTTOM, LEFT to RIGHT:** D54 AC On LED; System Status Indicator LEDs for “No-Keyboard Operation”; System Switches SW2 (Acknowledge), SW3 (Silence), SW4 (Reset) for “No-Keyboard Operation”; J4 KDM-2 Connector; J5, J6 Panel Circuits (ONYX® Panel Output Modules, supervised); D72 General Board Ground Fault LED; J10 Security Tamper Switch; J11 Auxiliary Trouble Input; D82 AC Power LED; J3 LEM-320 Connector (SLC Loop #2).

### Network Diagram



## Placement of Equipment in Chassis and Cabinet

The following guidelines outline the NFS-640's flexible system design.

**Rows:** The first row of equipment in the cabinet mounts in chassis **CHS-M2**. Mount the second, third, or fourth rows of equipment in chassis **CHS-4MB** (see NFS-640 Installation Manual regarding panel output modules) or **CHS-4L** (for voice components, see Voice Alarm System Manual).

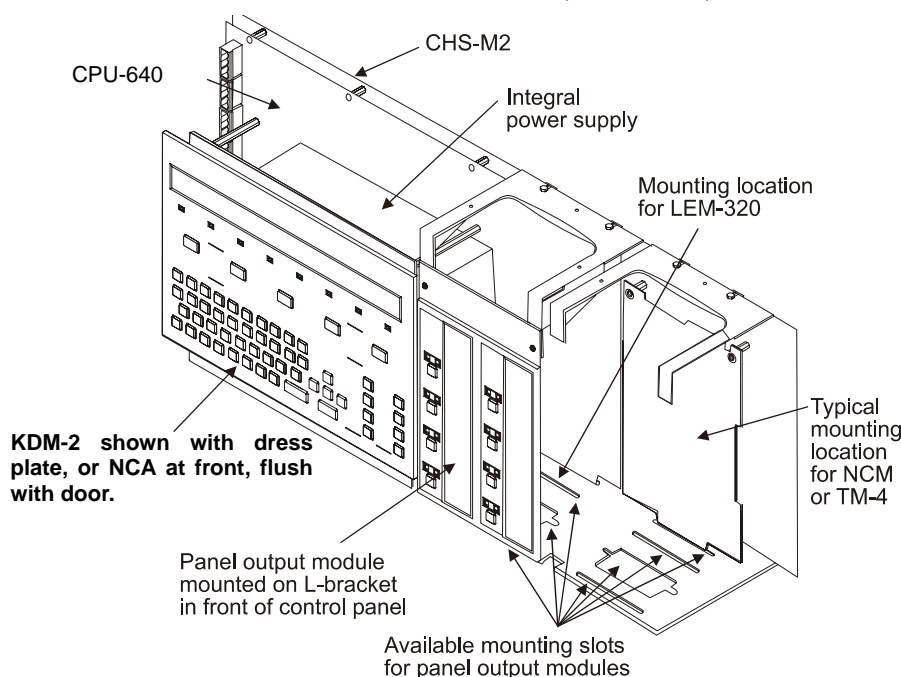
**Wiring:** When designing the cabinet layout, consider separation of power-limited and non-power-limited wiring as discussed in the NFS-640 Installation Manual.

**Positions:** A chassis offers four basic side-by-side positions for components; the number of modules that can be mounted in each position depends on the chassis model and the size of the individual module. There are a variety of standoffs and hardware items available for different combinations and configurations of components.

It is critical that all mounting holes of the NFS-640 are secured with a screw or standoff to ensure continuity of Earth Ground.

**Layers:** The CHS-M2 accepts four layers of equipment, including the control panel. The **CPU-640** fills three positions (left to right) in the first-installed layer (the back of the chassis); its integral power supply occupies (the left) two positions in the next two layers; the optional display occupies (the left) two positions at the front, flush with the door. Panel output modules can be mounted in several layers with standoffs or an L-bracket as required. Some equipment, such as the **NCA**, may be door-mounted directly in front of the control panel. The NCA mounts onto the DP-DISP or ADP-4B. The NCA can be used as a primary display for the NFS-640 by directly connecting their network ports (required in Canadian stand-alone applications).

**Expansion:** Installing an **LEM-320** Loop Expander Module adds a second SLC loop to the control panel. The LEM-320 is mounted onto the CPU-640, occupying the middle-right, second (back) slot on the chassis. If networking two or more control panels, each unit requires a **NCM-W** (wire) or **NCM-F** (fiber) Network Control Module. The NCM-W/F can be installed in any panel output module position (see manual); the default position is at the back of the chassis next to the control panel. **Option boards** can be mounted in front of the LEM-320 or NCM modules; for ease of access, complete installation of those devices before mounting another layer.



## KDM-2 Controls and Indicators

**Program Keypad:** QWERTY type (keyboard layout).

**8 LED indicators:** Power; Fire Alarm; Pre-Alarm; Security; Supervisory; System Trouble; Signals Silenced; Points Disabled.

**Membrane Switch Controls:** Acknowledge/Scroll Display; Signal Silence; Drill; System Reset; Lamp Test.

**LCD Display:** 80 characters (2 x 40) with long-life LED backlight.

## Configuration Guidelines

*Stand-alone and network systems require a main display. On single-CPU systems (one CPU-640/-640E), display options are the KDM-2 or the NCA. On network systems (two or more CPU-640/-640Es), at least one NCA or NCS annunciation device is required. Other options listed as follows:*

**KDM-2:** 80-character backlit LCD display with QWERTY programming and control keypad. Order two BMP-1 blank modules and DP-DISP mounting plate separately. *Requires top row of a cabinet. Required for each stand-alone 80-character display system. The KDM-2 may mount in network nodes to display "local" node information as long as at least one NCA or NCS network display is on the system to display network information.*

**NCA:** Network Control Annunciator, 640 characters. On single CPU-640/-640E systems, the NCA is the Primary Display for the panel and connects directly to the CPU-640/-640E. On network systems (two or more CPU-640/-640Es), one network display (either NCA or NCS) is required for every system. On network systems, the NCA connects (and requires) an NCM network communications module. Mounts in a row of FACP node or in two annunciator positions. Mounting options include the DP-DISP, ADP-4B, or in an annunciator box, such as the ABS-2D. In CAB-4 top-row applications, a DP-DISP and two BMP-1 blank modules are required for mounting. See *NCA data sheet DN-6858*.

**CPU-640:** Central processing unit with integral 3.0 amp (6.0 A in alarm) power supply for an NFS-640 system. Includes CPU; one Signaling Line Circuit expandable to two; installation, programming and operating manuals. *Order one per system or as necessary (up to 103 network nodes) on a network system.*

**CPU-640E:** Same as CPU-640 but requires 220 VAC, 1.5 amp, (3.0 A in alarm).

**CHS-M2:** Mounting chassis for CPU-640. One required for each CPU-640/640E.

**DP-DISP:** Dress panel for top row in cabinet with CPU-640/640E installed.

**BMP-1:** Blank module for unused module positions.

## System Modules

The NFS-640 includes the ability to communicate with up to eight conventional modules each with up to eight circuits. Any mix of notification, relay, speaker, or telephone may be used. Choose any combination of up to eight output modules: ICM/ICE, CRM/CRE, DCM-4 or VCM/VCE. Panel modules mount on either: the two far-right positions of the DP-DISP (next to the primary display); or on any of the four positions on the CHS-4N chassis (CHS-4MN kit required).

**NOTES:** 1) *These modules/expanders are NOT to be used for releasing applications.* 2) *For additional information on these panel output modules and expanders, see data sheet DN-6859.*

**CHS-4MB:** Expansion Chassis. Mounts up to four modules. Includes CHS-4N, MP-1B (Module Dress Panel), and Expander Ribbon Cable.

**ICM-4RK:** Notification Appliance Circuit Module, provides four Style Y (Class B) or Style Z (Class A) alarm Notification Appliance Circuits. Maximum signaling current is 3.0 amps per circuit or 6.0 amps per module, subject to power supply limitations (includes auxiliary power harness, ELRs and slide-in labels).

Includes ON/OFF controls and ON/OFF LEDs.

**ICE-4:** Notification Appliance Circuit Expander, expands ICM-4 to provide a total of eight Style Y or Style Z alarm Notification Appliance Circuits. Circuit ratings are same as ICM-4.

**NOTE:** *Maximum of one per ICM-4RK. May also be used to add four Notification Appliance Circuits to VCM-4.*

**CRM-4RK:** Control Relay Module, four Form-C relay contacts, rated at 5.0 A, 120 VAC or 28 VDC (resistive) per circuit. Includes manual ON/OFF controls and LEDs.

**CRE-4:** Control Relay Expander, expands CRM-4 to provide a total of eight Form-C relay contacts. Note: maximum of one per CRM-4RK. May also be connected to add four relays to ICM-4, TCM-2, TCM-4, or VCM-4.

**VCM-4RK:** Voice Control Module provides four Style Y (25 and 70 Vrms) and Style Z (25 Vrms only) speaker circuits, eight manual select switches and indicators, slide-in labels, and plug-in terminal blocks. Move jumper to convert to telephone circuits with remote ring signal and local call-in flash. May be expanded to eight circuits with VCE-4, ICE-4, or CRE-4.

**VCE-4:** Voice Control Expander adds four circuits to VCM-4. Note: VCM-4/ VCE-4 combination must be eight speaker or eight phone circuits.

**DCM-4RK:** Dual Channel Module provides four Class B (Style Y, 25 & 70 Vrms) or Class A (Style Z, 25 Vrms only) speaker circuits plus four channel A/B select relays. Not expandable.

## OTHER OPTION MODULES

**ARM-4:** Auxiliary Relay Module, four Form-C relays controlled by a relay module (CRM-4 or CRE-4). N.O. contacts rated 20 amps; N.C. contacts rated 10 amps at 125 VAC and 30 VDC.

**NOTE:** *Maximum of one for each CRM-4 or CRE-4.*

**VCC-1B:** Voice Control Center. Provides a variety of user-selectable tones on a single channel. Up to two different tones or messages may be selected on a single channel. Also provides optional digital voice message capability and on-site programmable voice messages. Includes Audio Message Generator (AMG-1) microphone, cables, dress panels, and instructions.

**VTCC-1B:** Voice/Telephone Control Center. Provides all that the VCC-1 provides plus two-way Fire Fighters Telephone (FFT-7) capability.

**TCC-1B:** Telephone Control Center. Provides a stand-alone two-way Fire Fighters telephone (FFT-7S).

Includes cables, dress panel and instructions.

**RM-1/RM-1SA:** Remote microphone assemblies, mount on ADP-4 (RM-1) dress panel or CAB-RM/-RMR (RM-1SA) stand-alone cabinets. See DN-6728.

**AMG-E:** Audio Message Generator (without microphone). Order in addition to VCC-1 or VTCC-1 if two-channel system is required.

**FFT-7/FFT-7S:** Fire Fighters Telephone control with master handset.

**FTM-1:** Firephone Control Module connects a remote firefighter telephone to a centralized telephone console. Reports status to panel. Wiring to jacks and handsets is supervised.

**AA-30:** Audio Amplifier, 30 watts. Switch-mode power. Includes amplifier and audio input supervision, backup input, and automatic switchover, power supply, cables. See *AA Series data sheet, DN-3224.*

**AA-120/AA-100:** Audio Amplifier provides up to 120 watts of 25 Vrms audio power for the NFS-640. The amplifier contains an integral chassis for mounting to a CAB-B4, -C4, or -D4 backbox (consumes one row). Switch-mode power. Includes audio input and amplified output supervision, backup input, and automatic switchover to backup tone. Order the AA-100 for 70.7 Vrms systems and 100 watts of power. See *AA Series data sheet, DN-3224.*

**VROM-(n):** Factory-programmed message for installation in AMG-1. Provides up to 24 seconds of evacuation message on nonvolatile memory chip. Choose one of many standard messages available. Up to two of these messages may be installed in one AMG. Includes VROM, instructions for installation and operation, and written text of message. See *VROM data sheet, DN-3576.*

**VRAM-1:** Field-programmed memory to be installed in AMG-1. Provides up to 24 seconds of field-programmable evacuation message on nonvolatile memory chip. Message is programmed from microphone or cassette tape. Up to two of these nonvolatile memory chips may be installed in one AMG. Includes VRAM and instructions for installation and operation.

**APS-6R:** Auxiliary Power Supply (expander). Provides up to 6.0 amperes of regulated power for compatible Notification appliance circuits. Includes battery input and transfer relay, and over-current protection. Mounts on one of four positions on a CHS-4L or CHS-4 chassis. See *APS-6R data sheet, DN-5952.*

**ACPS-2406:** 6.0 amp addressable charger power supply. See *ACPS-2406 data sheet, DN-6834.*

**FCPS-24:** The FCPS-24 is a remote six-amp (four-amp continuous) repeater/power supply. See *FCPS-24 data sheet, DN-5132.*

**FCPS-24S6/-24S8:** Remote six-amp and eight-amp power supplies with battery charger. See *FCPS-24S6/-24S8 datasheet, DN-6927.*

**UZC-256:** Programmable Universal Zone Coder provides positive non-interfering successive zone coding. Microprocessor-controlled, field-programmable from IBM®-compatible PCs (requires optional programming kit). See *UZC-256 data sheet, DN-3404.*

**LCD-80/LCD-80TM/FDU-80:** 80-character, backlit LCD display. Mounts up to 6,000 ft. (1828.8 m) from panel. Up to 32 per NFS-640. See *LCD-80/80TM (DN-3198) and FDU-80 (DN-6820) data sheets.*

**ACS:** Annunciator Control Modules ACM-16AT, AEM-16AT, ACM-32A, and AEM-32A. See *data sheets, DN-0524 and DN-6862.*

**AFM:** Annunciator Fixed Modules AFM-16A, AFM-16AT, and AFM-32A. See *AFM data sheet, DN-0056*.

**LDM:** Lamp Driver Modules LDM-32, LDM-E32, and LDM-R32. See *LDM data sheet, DN-0551*.

**ACM-8R:** Remote Relay Module with eight Form-C contacts. Can be located up to 6,000 ft. (1828.8 m) from panel on four wires. See *ACM-8R data sheet, DN-3558*.

**SCS:** Smoke control station; eight (expandable to 16) circuits. See *SCS data sheet, DN-4818*.

**RPT-485:** Repeats EIA-485 over twisted pair or converts to fiber-optic medium. See *RPT data sheet, DN-4737*.

**XP5:** The XP5-M and XP5-C provide FlashScan® transponder points. See *XP5 data sheet, DN-6625*.

**XP:** The XP Series Transponder provides conventional monitor and control points (CLIP mode only). See *XP Series data sheet, DN-0759*.

**XPIQ:** The XPIQ quad intelligent voice transponder for distributed multichannel voice evacuation systems, an integrated audio amplification and distribution subsystem controlled by FACP. Capable of playing up to four simultaneous messages. Accepts up to four 25-watt amplifiers. See *XPIQ data sheet, DN-6823*.

**CHS-4:** Chassis for mounting up to four APS-6Rs.

**CHS-4L:** Low-profile four-position Chassis. Mounts two AA-30 amplifiers or one AMG-E and one AA-30.

**DP-1B:** Blank Dress panel. Provides dead-front panel for unused tiers or to cover AA-30, AA-120, or one AMG-E and one AA-30.

**CAB-4 Series:** The CAB-4 Series cabinets are fabricated from 16-gauge steel with unique full-front LEXAN®, reverse-silk-screened for durability. The cabinet assembly consists of two basic parts: a Backbox (SBB\_4), and a Locking Door (DR\_4) that may hinge right or left. Cabinets are available in four sizes, "A" through "D", with one to four tiers. A trim ring option is available for semi-flush mounting. See *CAB-4 Series data sheet, DN-6857*.

**CAB-M Series:** Marine cabinets required for Lloyd's Register or U.S. Coast Guard listed use. See *DN-5063*.

#### **COMPATIBLE DEVICES, EIA-232 PORTS**

**PRN-5:** 80-column printer. See *DN-6769*.

**PRN-6:** 80-column printer. See *DN-6956*.

**VS4095/S2:** Printer, 40-column, 24 V. Mounted in external backbox. Order from *Keltron, Inc.* See *DN-3260*.

**CRT-2:** Video display terminal. See *DN-3756*.

#### **COMPATIBLE DEVICES, EIA-485 PORTS**

**ACS Series:** Remote serial annunciator/control systems. See *DN-0524*.

**FDU-80:** Remote LCD display, 80 characters, with LEDs. See *DN-6820*.

**LCD-80:** Remote LCD display, 80 characters. See *DN-3198*.

**LCD-80TM:** Remote LCD display, 80 characters, terminal mode. See *DN-3198*.

**LDM Series:** Remote custom graphic driver modules. See *DN-0551*.

**ACM-8R:** Remote relay module. 8 Form-C relays. See *DN-3558*.

**RPT-485 Series:** Repeater, isolator and/or fiber-optic modem. See *DN-4737*.

**UDACT:** Universal Digital Alarm Communicator Transmitter, 636 channel. See *DN-4867*.

**UZZ-256:** Zone Coder. Up to 256 programmable codes. See *DN-3404*.

#### **COMPATIBLE INTELLIGENT DEVICES**

**BEAMHK:** Heating kit for transmitter/receiver unit of FSB-200(S) below. See *DN-6985*.

**BEAMHRK:** Heating kit for use with the reflector of FSB-200(S) below. See *DN-6985*.

**BEAMLRK:** Long-range accessory kit, FSB-200(S) below.

**BEAMMRK:** Multi-mount kit, FSB-200(S) below.

**BEAMSMK:** Surface-mount kit, FSB-200(S) below.

**FSB-200:** Intelligent beam smoke detector. See *DN-6985*.

**FSB-200S:** Intelligent beam smoke detector with integral sensitivity test. See *DN-6895*.

**FSI-851:** Low-profile FlashScan® ionization detector, will replace FSI-751. See *DN-6934*.

**FSI-751:** Low-profile FlashScan® ionization detector. See *DN-6714*.

**FSP-851:** Low-profile FlashScan® photoelectric detector, will replace FSP-751. See *DN-6935*.

**FSP-751:** Low-profile FlashScan® photoelectric detector. See *DN-6714*.

**FSP-851T:** Low-profile FlashScan® photoelectric detector with 135°F (57°C) thermal, will replace FSP-751T. See *DN-6935*.

**FSP-751T:** Low-profile FlashScan® photoelectric detector with 135°F (57°C) thermal. See *DN-6714*.

**FST-851:** FlashScan® thermal detector 135°F (57°C), will replace FST-751. See *DN-6936*.

**FST-751:** FlashScan® thermal detector 135°F (57°C). See *DN-6716*.

**FST-851R:** FlashScan® thermal detector 135°F (57°C) with rate-of-rise, will replace FST-751R. See *DN-6936*.

**FST-751R:** FlashScan® thermal detector 135°F (57°C) with rate-of-rise. See *DN-6716*.

**FST-851H:** FlashScan® 190°F (88°C) high-temperature thermal detector. See *DN-6936*.

**FSD-751P:** FlashScan® photo duct detector with housing. See *DN-6821*.

**FSD-751PL:** Low-flow FlashScan® photo duct detector with housing, will replace FSD-751P. See *DN-6955*.

**FSD-751RP:** FlashScan® photo duct detector with relay and housing.

**FSD-751RPL:** Low-flow FlashScan® photo duct detector with relay and housing, will replace FSD-751RP. See *DN-6955*.

**FAPT-851:** FlashScan® Acclimate Plus™ low-profile multi-sensor detector, will replace FAPT-751. See *DN-6937*.

**FAPT-751:** Acclimate Plus™ low-profile multisensor detector. See *DN-6833*.

**FSH-751:** FlashScan® HARSH™ Hostile Area Smoke Head. See *DN-6875*.

**FSL-751:** FlashScan® VIEW® laser photo detector, will replace LPX-751. See *DN-6886*.

**LPX-751:** Low-profile VIEW® laser photo detector. See *DN-5306*.

**B224RB:** Low-profile relay base.

**B224BI:** Isolator base for low-profile detectors.

**B710LP:** Low-profile base. Standard U.S. style.

**B501:** European-style, 4" (10.16 cm) base.

**B501BH:** Sounder base, includes B501 base above. Constant tone.

**B501BHT:** Sounder base, includes B501 base above. Temporal three tone.

**FMM-1:** FlashScan® monitor module. See *DN-6720*.

**FDM-1:** FlashScan® dual monitor module. See *DN-6720*.

**FZM-1:** FlashScan® two-wire detector monitor module. See *DN-6720*.

**FMM-101:** FlashScan® miniature monitor module. See *DN-6720*.

**FCM-1:** FlashScan® NAC control module. See *DN-6724*.

**FRM-1:** FlashScan® relay module. See *DN-6724*.

**FSM-101:** FlashScan® pull station monitor module.

**NBG-12LX:** Manual fire alarm station, addressable. See *DN-6726*.

**ISO-X:** Isolator module. See *DN-2243*.

**XP Series:** Transponder. See *DN-0759*.

**XP5-M:** FlashScan® transponder, five monitor points. See *DN-6625*.

**XP5-C:** FlashScan® transponder, five control points or Form-C relays. See *DN-6625*.

**XP6-C:** FlashScan® six-circuit supervised control module. See *DN-6924*.

**XP6-MA:** FlashScan® six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone. See *DN-6925*.

**XP6-R:** FlashScan® six-relay (Form-C) control module. See *DN-6926*.

**XP10-M:** FlashScan® ten-input monitor module. See *DN-6923*.

**XPIQ:** Intelligent quad transponder. See *DN-6823*.

#### **OTHER OPTIONS**

**DPI-232:** Direct Panel Interface, specialized modem for extending serial data links to remotely located FACPs and/or peripherals. See *DN-6870*.

**LEM-320:** Loop Expander Module. Expands each 640 to two Signaling Line Circuits. See *DN-6881*.

**TM-4:** Transmitter Module. Includes three reverse-polarity circuits and one municipal box circuit. Mounts in panel module position (single-address-style) or in CHS-M2 position. See *DN-6860*.

**NCM-W:** Network Communications Module, Wire. Order one NCM per network node (CPU-640 or NCA). See *DN-6861*.

**NCM-F:** Network Communications Module, Fiber. Order one NCM per network node (CPU-640 or NCA). See *DN-6861*.

**NCS5-W-ONYX:** Network Control Station, Wire. UL-Listed graphics PC with mouse, 17" color flat-screen LCD monitor. Order as necessary for network systems. Each NCS consumes one of 103 network addresses. See *DN-6868 (previous NCS-W)*, *ONYX® DN-6869*.

**NCS5-F-ONYX:** Network Control Station, Fiber. UL-Listed graphics PC with mouse, 17" color flat-screen LCD monitor. Order as necessary for network systems. Each NCS consumes one of 103 network addresses. See *DN-6868 (previous NCS-F)*, *ONYX® DN-6869*.

**VeriFire-TCD:** VeriFire® Tools CD-ROM. Contains programming software for the NFS-640, NCA, and XPIQ. Includes local panel connection cable. Programming PC requires a serial port connection. See *DN-6871*.

**ACM-24AT:** ONYX® Series ACS annunciator – up to 96 points of annunciation with Alarm or Active LED, Trouble LED, and switch per circuit. Active/Alarm LEDs can be programmed (by powered-up switch selection) by point to be red, green, or yellow; the Trouble LED is always yellow. See *DN-6862*.

**AEM-24AT:** Same LED and switch capabilities as ACM-24AT, expands the ACM-24AT to 48, 72, or 96 points. See *DN-6862*.

**ACM-48A:** ONYX® Series ACS annunciator – up to 96 points of annunciation with Alarm or Active LED per circuit. Active/Alarm LEDs can be programmed (by powered-up switch selection) in groups of 24 to be red, green, or yellow. Expandable to 96 points with one AEM-48A. See *DN-6862*.

**AEM-48A:** Same LED capabilities as ACM-48A, expands the ACM-48A to 96 points. See *DN-6862*.

**BAT Series:** Batteries. NFS-640 utilizes two 12 volt, 12 to 55 AH batteries. See *DN-6933*.

**PS Series:** Batteries. NFS-640 utilizes two 12 volt, 12 to 55 AH batteries. See *DN-1109*.

**NFS-LBB:** Battery Box (required for batteries over 25 AH).

**BR:** Same as above but red.

# SYSTEM SPECIFICATIONS

## System Capacity

- Intelligent Signaling Line Circuits .....1 expandable to 2
- Intelligent detectors ..... 159 per loop
- Addressable monitor/control modules ..... 159 per loop
- Programmable internal hardware and output circuits (4 standard) ..... 68
- Programmable software zones ..... 99
- Special programming zones ..... 14
- LCD annunciators per CPU-640/-640E and NCA (*observe power*) ..... 32
- ACS annunciators per CPU-640/-640E .....32 address x 64 points
- ACS annunciators per NCA .....32 address x 64 or 96 points

**NOTE:** The NCA supports up to 96 annunciator address points per ACM-24/48.

## Specifications

- Primary input power, **CPU-640 board:** 120 VAC, 50/60 Hz, 3.0 amps. **CPU-640E board:** 220/240 VAC, 50/60 Hz, 1.5 Amps.
- **Total** output 24 V power: 6.0 A in alarm.

**NOTE:** The power supply has a total of 6.0 Amps of available power. This is shared by all internal modules.

- Standard notification circuits (4): 2.5 A each.
- Four-wire detector power: 1.25 A.
- Non-resettable regulated power outputs: 1.25 A each.
- Battery charger range: 12 AH – 55 AH. Use separate cabinet for batteries over 25 AH.
- Optional high-capacity (25 – 120 AH) battery charger: CHG-120 (see CHG-120 data sheet, DN-6040).
- Float rate: 27.6 V.

## Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic

components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

## Agency Listings and Approvals

The listings and approvals below apply to the basic NFS-640 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S635
- **ULC:** CS118
- **FM APPROVED** *Exceptions – CPU-640E, PRN-5, Proprietary service*
- **CSFM:** 7165-0028:214, 7170-0028:216
- **MEA:** 317-01-E
- **City of Chicago**
- **City of Denver**
- **Lloyd's Register:** 02/60007
- **U.S. Coast Guard:** 161.002/42/1
- **China Classification Society (CCS):** #NL05T00001 (*NFS-640E*)
- **CCCF:** Certif. # 2003081801600815

## Standards

The NFS-640 complies with the following UL Standards and NFPA 72 Fire Alarm Systems requirements :

- **UL 864** (Fire)
- **UL 1076** (Burglary)
- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **REMOTE STATION** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **PROPRIETARY** (Automatic, Manual and Waterflow). *Not applicable for FM.*
- **EMERGENCY VOICE/ALARM.**

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This document is not intended to be used for installation purposes.  
We try to keep our product information up-to-date and accurate.  
We cannot cover all specific applications or anticipate all requirements.  
All specifications are subject to change without notice.



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www.notifier.com

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**EXISTING EQUIPMENT**  
**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION**  
**OFFICE OF THE STATE FIRE MARSHAL**  
**FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM**  
**LISTING SERVICE**



Page 1 of 3

LISTING No. 7165-0028:0214

CATEGORY: 7165 -- FIRE ALARM CONTROL UNIT (COMMERCIAL)

LISTEE: NotifierOne Fire-Lite Place, Northford, CT 06472-1653  
 Contact: Vladimir Kireyev (203) 484-6277 Fax (203) 484-7309  
 Email: vladimir.kireyev@honeywell.com

DESIGN: Model NFS-640, NFS-640E fire alarm control units. Local, auxiliary, remote station (PPU), proprietary (PPU), central station (PPU), automatic, manual, waterflow and sprinkler supervisory services. Refer to listee's data sheet for detailed product description and operational considerations. System components:

- CPU-640, 640E CPU Board
- NCA Network Communication Annunicator
- NCM-W/F Network Control Module
- LEM-320 Loop Expander Module
- KDM-2 Keyboard Display Module
- TM-4 Transmitter Module
- CAB-4 Series Enclosure
- TR-A4, -B4, -C4, -D4 Trim Ring
- DP-DISP Display Dress Panel
- DP-1B Blank Panel
- BMP-1 Blank Module
- XPDP, DPDW-1B, DPSW-1B, VP-2B Dress Panels
- CHS-4MB, -M2, -4L, -4N Chassis
- NFS-LBB, BB-25, BB-17 Battery Box
- BP-4 Battery Panel
- STS-1 Security Tamper Swith
- UDACT Universal DACT
- UZC-256 Universal Zone Coder
- ACM-8R, -16AT, -32A, 24AT, -48A Annunciator Control Module
- AEM-16AT, AEM-32A, 24AT, -48A Annunciator Expander Modules
- AFM-16A, AFM-16AT, AFM-32A Annunciator Fixed Modules
- AKS-1B Annunciator Key Switch
- RPT-W, RPT-485W, RPT-485WF Repeater Wire
- RPT-F Repeater Fiber
- \*SCS-8 Smoke Control Station
- \*SCE-8 Smoke Control Expander
- \*SCS-8L Smoke Control Lamp Driver Station
- \*SCE-8L Smoke Control Expander Lamp
- LCD-80 Liquid Crystal Display
- LCD-80TM AnnunciatorTerminal Module LCD

\*Rev. 06-24-2009 fm



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2013**Listing Expires **June 30, 2014**

Authorized By: **JAMES PARSEGIAN, Program Coordinator**  
*Fire Engineering Division*

LDM-32, -E32, -R32 Lamp Driver Module  
 RA400, -400Z, FDU-80 Remote Annunciators  
 FFT-7, -7S Fire Fighter's Telephone  
 FHS Fireman's Handset  
 FPJ Fireman's Phone Jack  
 RPJ-1 Remote Fireman's Phone Jack  
 VCM-4RK Voice Control Module  
 VCE-4 Voice Control Expander  
 ARM-4 Auxiliary Relay Module  
 AMG-1, -E Audio Message Generator  
 AA-30, -100, -120 Amplifiers  
 \*Rev. 06-24-2009 fm  
 Listing No. 7165-0028:214  
 Page 2 of 2  
 ABF-1B,-1DB,-2B,-2DB,-4B,-4DB Annunciator Enclosures  
 ABS-1TB, -2B Annunciator Surface Box  
 APS-6R/APS-6RE Auxiliary Power supply  
 ACPS-2406 Addressable Power Supply & Battery Charger  
 CHG-120 Battery Charger  
 FCPS-24 Field Charger/Power Supply  
 DCM-4RK Dual Channel Module  
 CCM-1 Communication Module  
 CRM-4RK Control Relay Module  
 CRE-4 Control Relay Expander  
 ICM-4RK Indicating Control Expander  
 ICE-4 Indicating Circuit Expander  
 ISO-X Isolator Module  
 XP5-M, XP5-C Transponder  
 XPIQ Transponder Quad Intelligent Audio  
 XPC-8 Transponder Control Module  
 XPM-8, XPM-8L Transponder Monitor Modules  
 XPP-1 Transponder Processor  
 XPR-8 Transponder Relay Module  
 PRN-5 Printer  
 VS4095 Keltron Remote Printer  
 CRT-2 Display Terminal  
 ACT-1, -2 Audio Coupling Transformer  
 RM-1, RM-1SA Remote Microphone  
 NBG-12LX Addressable Manual Pull Station  
 NBG-12LRA Agent Release Abort Station  
 FZM-1 Interface Module  
 REL-2.2K Releasing Supervision Kit

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.

\*Rev. 06-24-2009 fm



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2013**

Listing Expires **June 30, 2014**

Authorized By: **JAMES PARSEGIAN, Program Coordinator**  
*Fire Engineering Division*

- MARKING:** Listee's name, model number, electrical rating and UL label.
- APPROVAL:** Listed as fire alarm control unit for use with separately listed compatible initiating and indicating devices. \*Also suitable for high-rise applications.  
These control units can generate the distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal as required per NFPA 72, 2002 Edition.  
This control unit meets the requirements of UL-864, \*9th Edition Standard
- NOTE:**
1. For Fire Alarm Verification Feature (Delay of fire alarm), the maximum Retard/Reset/Restart period must be adjusted to 30 seconds or less.
  2. Combined with 7170-0028:214

\*Rev. 06-24-2009 fm



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Date Issued: **July 01, 2013**

Listing Expires **June 30, 2014**

Authorized By: **JAMES PARSEGIAN, Program Coordinator**  
*Fire Engineering Division*

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## FSP-951 Series

### Intelligent Plug-In Photoelectric Smoke Detectors



Intelligent/Addressable Devices

#### General

The NOTIFIER FSP-951 Series intelligent plug-in smoke detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards. The FSP-951 Series detector sensitivity can be programmed in the control panel software. Sensitivity is continuously monitored and reported to the panel. Point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for selective maintenance when chamber contamination reaches an unacceptable level. Dual electronic thermistors add 135°F (57°C) fixed temperature thermal sensing on the FSP-951T. The FSP-951R is a remote test capable detector for use with DNR Series duct detector housings. FSP-951 series detectors are available for both FlashScan® and CLIP applications as designated.

#### Features

- New modern profile for improved aesthetics.
- Designed to meet UL268 7th Edition.
- Stable communication technique with noise immunity.
- Low standby current.
- Two-wire SLC connection.
- Compatible with FlashScan® and CLIP protocol systems.
- Rotary, decimal addressing (1-99 on CLIP systems, 1-159 on FlashScan systems).
- Optional remote, single-gang LED accessory.
- Dual LED design provides 360° viewing angle.
- Visible bi-color LEDs blink green every time the detector is addressed, and illuminate steady red on alarm (*FlashScan systems only*).
- Remote test feature from the panel.
- Walk test with address display (an address on 121 will blink the detector LED: 12-[pause]-1 (*FlashScan systems only*)).
- Built-in functional test switch activated by external magnet.
- Built-in tamper-resistant feature.
- Sealed against back pressure.
- Expanded color options.
- SEMS screws for wiring of the separate base.
- Optional relay, isolator, and sounder bases.

#### Specifications

##### Sensitivity:

- UL Applications: 0.5% to 4.0% per foot obscuration.
- ULC Applications: 0.5% to 3.5% per foot obscuration.

**Size:** 2.0" (5.3 cm) high; base determines diameter.

- B300-6: 6.1" (15.6 cm) diameter.
- B501: 4" (10.2 cm) diameter.

For a complete list of detector bases see DN-60981.

**Shipping weight:** 3.4oz (96.4g)

##### Operating Temperature range:

- FSP-951, 0°C to 50°C (32°F to 122°F).
- FSP-951T, 0°C to 38°C (32°F to 100°F).



FSP-951 in B300-6 Base

- FSP-951R installed in a DNR/DNRW, -20°C to 70°C (-4°F to 158°F).

**UL/ULC Listed Velocity Range:** 0-4000 ft/min. (1219.2 m/min.), suitable for installation in ducts.

**Relative Humidity:** 10%-93% noncondensing.

**Thermal Ratings:** Fixed-temperature setpoint 135°F (57°C).

##### DETECTOR SPACING AND APPLICATIONS

NOTIFIER recommends spacing detectors in compliance with NFPA 72. In low airflow applications with smooth ceiling, space detectors 30 feet (9.1m). For specific information regarding detector spacing, placement, and special applications refer to NFPA 72. *System Smoke Detector Application Guide*, document A05-1003, is available at [systemsensor.com](http://systemsensor.com)

##### ELECTRICAL SPECIFICATIONS

**Voltage Range:** 15-32 volts DC peak.

**Standby Current (max. avg.):** 200µA @ 24VDC (one communication every five seconds with LED enabled).

**LED Current (max.):** 4.5mA @ 24 VDC ("ON").

#### Installation

FSP-951 series plug-in detectors use a separate base to simplify installation, service, and maintenance.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see DN-60981.

**NOTE:** 1) Because of inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring. 2) When using relay or sounder bases, consult the ISO-X(A) installation sheet I56-1380 for device limitations between isolator modules and isolator bases.

## Agency Listings and Approvals

These listings and approvals apply to the detectors specified in this document. In some cases, certain detectors or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL/ULC Listed: S911
- FM Approved
- CSFM: 7272-0028:0503

## Product Line Information

### NOTE:

- Detectors must be mounted to one of the Intelligent Bases listed below.
- "A" suffix indicates ULC Listed model.
- "IV" suffix indicates FlashScan® and CLIP device.

**FSP-951:** White, low-profile intelligent photoelectric sensor, FlashScan only.

**FSP-951A:** Same as FSP-951 but with ULC listing.

**FSP-951-IV:** Ivory, low-profile intelligent photoelectric sensor.

**FSP-951A-IV:** Same as FSP-951-IV but with ULC listing.

**FSP-951T:** White, same as FSP-951 but includes a built-in 135°F (57°C) fixed-temperature thermal device. FlashScan only.

**FSP-951TA:** Same as FSP-951T but with ULC listing.

**FSP-951T-IV:** Ivory, same as FSP-951T but includes a built-in 135°F (57°C) fixed-temperature thermal device.

**FSP-951TA-IV:** Same as FSP-951T-IV but with ULC listing.

**FSP-951R:** White, low-profile intelligent photoelectric sensor, remote test capable. For use with DNR/DNRW. FlashScan only.

**FSP-951RA:** Same as FSP-951R but with ULC listing. For use with DNRA.

**FSP-951R-IV:** Ivory, low-profile intelligent photoelectric sensor, remote test capable. For use with DNR/DNRW.

**FSP-951RA-IV:** Same as FSP-951R-IV but with ULC listing. For use with DNRA.

### INTELLIGENT BASES

**NOTE:** For details on intelligent bases, see DN-60981

**B300-6:** White, 6" base, standard flanged low-profile mounting base.

**B300-6-IV:** Ivory, 6" base, standard flanged low-profile mounting base.

**B300A-6:** Same as B300-6, ULC listed.

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed.

**B300-6-BP:** Bulk pack of B300-6, package contains 10

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10.

**B224RB-WH:** White, relay base.

**B224RB-IV:** Ivory, relay base.

**B224RBA-WH:** White, relay base, ULC listing.

**B224RBA-IV:** Ivory, relay base, ULC listing.

**B224BI-WH:** White, *isolator* detector base.

**B224BI-IV:** Ivory *isolator* detector base.

**B224BIA-WH:** White, *isolator* detector base, ULC listing.

**B224BIA-IV:** Ivory *isolator* detector base, ULC listing.

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol.

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol.

**B200SA-WH:** Same as B200S-WH, ULC listing.

**B200SA-IV:** Same as B200S-IV, ULC listing.

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications).

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications, ULC listing).

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SRA-WH:** Same as B200SR-WH with, ULC listing.

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listing.

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

### MOUNTING KITS AND ACCESSORIES

**TR300:** White, replacement flange for B210LP(A) base.

**TR300-IV:** Ivory, replacement flange for B210LP(A) base.

**RA100Z(A):** Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300(A)-6.

**M02-04-00:** Test magnet.

**M02-09-00:** Test magnet with telescoping handle.

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This document is not intended to be used for installation purposes.  
We try to keep our product information up-to-date and accurate.  
We cannot cover all specific applications or anticipate all requirements.  
All specifications are subject to change without notice.

For more information, contact Notifier. Phone: (800) 627-3473, FAX: (203) 484-7118.  
[www.notifier.com](http://www.notifier.com)

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**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7272-0028:0503
<b>CATEGORY:</b>	7272 - SMOKE DETECTOR-SYSTEM TYPE-PHOTOELECTRIC
<b>LISTEE:</b>	Notifier One Fire-Lite Place, Northford, CT, 06472 Contact: Brant, Lisa (203) 484-6105 (203) 484-7309 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	<p>Models <b>FSP-951</b>, FSP-951-SELFT, FSP-951R, FSP-951T, FSP-951T-ISO, NP-200, NP-200R, and NP-200T analog addressable, photoelectric smoke detectors for open area and duct installations. Models FSP-951T, FSP-951T-SELFT, FSP-951T-ISO and NP-200T have complementary heat detectors. All models are similar except for population/depopulation of components on the Printed Wiring Board for the intended features. *All models may be followed by a two digit suffix, indicating the color of the detector's enclosure: no suffix for white, -IV for ivory, -BL for black.</p> <p>Refer to listee's Installation and Maintenance Instruction for additional detailed product description and operational considerations.</p>
<b>RATING:</b>	24 VDC
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, model number, electrical rating, and UL label.
<b>APPROVAL:</b>	Listed as photoelectric smoke detectors. Detectors are for use with separately listed bases: Model B710LP (CSFM No. 7300-0028:0173); System Sensor Models B224BI, B224RB (CSFM No. 7300-1653:0126); B200S, B200SR (CSFM No. 7300-1653:0213); B200S-LF, B200SR-LF (CSFM No. 7300-1653:0238); B501, B210LP, B300-6, B300-6-IS (CSFM No. 7300-1653:0109). System Sensor duct detector housings Models DNR and DNRW (CSFM No. 3240-1653:0209) and separately listed compatible fire alarm control units. The Models FSP-951-SELFT and FSP-951T-SELFT are not Listed for use in duct environments. Refer to manufacturer's Installation Manual for details. All models comply with the applicable requirements in ANSI/UL 268, Smoke Detectors for Fire Alarm Systems, 7th Edition.



**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

**NOTES:**

The photoelectric type detectors are generally more effective at detecting slow, smoldering fires that smolder for hours before bursting into flame. Sources of these fire may include cigarettes burning in the couch or bedding. The ionization type detectors are generally more effective at detecting fast, flaming fires that consume combustible materials rapidly and spread quickly. Sources of these fires include paper burning in a waste container or a grease fire in the kitchen.

\*Revision 10-10-22 VWW



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**Date Issued: 04/21/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Victor Wong**, Program Coordinator  
Fire Engineering & Investigations Division

## Intelligent Bases Standard, Relay, Isolator, Sounder, and Low-Frequency Sounder Bases

### General

To meet local code and application requirements, NOTIFIER® offers standard 4" and 6" bases, as well as, specialty base designs including relay, isolator, sounder and low frequency sounder options for the new 900 Series of addressable detectors as well as previous generations.

The standard 4" and 6" bases offer a plug-in detector base intended for use in intelligent systems, with screw terminals identified with a (+ and -). The 4" base offers a compact design while the 6" base provides compatibility with a wider range of junction boxes.

The specialty bases support application driven requirements. These bases employ a separate mounting plate that installs on various junction box sizes to eliminate unsightly surface-mount boxes. The mounting plate enables pre-wiring of all connections to speed and simplify installation.

Relay bases provide one form-C contact relay for control of auxiliary functions, such as door closure and elevator recall. The relay can operate in two different modes (short and long delay). The activation time for the short delay is 60-100 milliseconds, while the activation time for the long delay is 6-10 seconds. A shunt with pin headers, located on the base PC board, is used to set the delay timing.

Isolator bases allow the Signaling Line Circuit (SLC) loop to operate under fault conditions created from a short circuit preventing an entire communication loop from being disabled. The base isolates the section of the loop containing the short circuit from the remainder of the circuit and automatically restores when the fault is corrected.

Sounder and low frequency sounder bases are designed for new and existing dwelling unit applications. They offer maximum flexibility in installation, configuration, and operation to meet or exceed UL 268 and UL 464 requirements. The low frequency sounder bases are designed to meet the NFPA 72 sleeping space requirement to produce a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent. Studies show that a lower frequency, centered around 520 Hz, is the most ideal to wake sleeping occupants, even those with mild to severe hearing loss.

The B200SR sounder and -LF sounder bases (B200SR-WH/B200SR-IV/B200SR-LF-WH/B200SR-LF-IV) are fully compatible with existing B501BH Series sounder base installations. The device enables users to select one of two B501-supported tones (ANSI Temporal 3 or Continuous) through a jumper.

The B200S sounder and -LF sounder bases (B200S-WH/B200S-IV/B200S-LF-WH/B200S-LF-IV) adopt the same address as the detector, but use a unique device type on the loop. The Fire Alarm Control Panel (FACP) can use that address to command an individual sounder — or a group of sounders — to activate. The command set from the FACP can be tailored to multiple event-driven tone outputs allowing selection of volume (75 or 85 dBA), tone (ANSI Temporal 3, ANSI Temporal 4, or March Time) and group. In addition, some FACP's will enable custom tone patterns. The B200S series sounder bases recognize the System Sensor synchronization protocol. This enables them to be used as a component of the general evacuation signal — along with other System Sensor AV appliances — when connected to a power supply or FACP output capable of generating the System Sensor synchronization pulses.



B300-6 Standard  
6" Base (White)



B200S-WH  
Sounder Base (White)



B501-WHITE Flangeless  
4" Base (White)



B501-BL Flangeless  
4" Base (Black)

### Specifications

**NOTE:** Specifications applies to all model variants "A", "-BL", "-LF", "-IV", "-WH", "-WHITE". See Product Line Information for detailed model description.

#### Diameter

- B501-WHITE: 4" (10.16 cm) diameter.
- B300-6: 6.1" (15.49 cm) diameter.
- B224BI, B224RB: 6.2" (15.748 cm) diameter.
- B200S, B200SR, B200SCOA: 6.875" (17.46 cm) diameter.

#### Wire gauge:

- B224BI, B224RB: 14 to 24 AWG.
- B300-6, B210LP, B501, B200S, B200SR, B200SCOA: 12 to 24 AWG

#### Temperature range:

- B224BI, B224RB, B200S, B200SR, B200SCOA: 32°F to 120°F (0°C to 49°C).
- B300-6, B210LP, B501: -4°F to 150°F (-20°C to 66°C).

#### Humidity range: 10% to 93% RH, non-condensing.

**System temperature and humidity ranges:** This system meets NFPA requirements for operation at 0°C to 49°C (32°F to 120°F); and at a relative humidity (non-condensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per ULC. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F).

## Electrical Ratings

### FOR B300-6 SERIES BASES:

**Operating voltage:** 15 to 32 VDC

**Standby current:** 170  $\mu$ A maximum

### FOR B501 SERIES BASES:

**Operating voltage:** 15 to 32 VDC

**Standby current:** 150  $\mu$ A maximum

### FOR B200 SERIES BASES:

**External supply voltage:** 16 to 33 VDC (FWR)

**Standby current:**

500  $\mu$ A maximum.

**Alarm current:**

- B200S(A)(-IV)(-WH)
  - 35 mA maximum at high-volume setting
  - 15 mA maximum at low-volume setting
- B200S-LF(-IV)(-WH) High-volume setting:
  - 70 mA maximum @ 33.0 VDC
  - 90 mA maximum @ 24.0 VDC
  - 140 mA maximum @ 16.0 VDC
- B200S-LF(-IV)(-WH) Low-volume setting:
  - 15 mA maximum @ 33.0 VDC
  - 20 mA maximum @ 24.0 VDC
  - 25 mA maximum @ 16.0 VDC
- B200SR(A)(-IV)(-WH)
  - 35 mA maximum
- B200SR-LF(-IV)(-WH)
  - 65 mA maximum @ 33.0 VDC
  - 90 mA maximum @ 24.0 VDC
  - 125 mA maximum @ 16.0 VDC
- B200SCOA(-IV)(-WH)
  - 40mA Max (DC)
  - 70mA Max (FWR)

**SLC operating voltage:** 15 to 32 VDC

**SLC standby current:** See applicable sensor specification.

**Sound output:**

- B200S(A)(-LF)(-IV)(-WH), high-volume\*: Greater than 85 dBA minimum.
- B200S(A)(-LF)(-IV)(-WH), low-volume\*: Greater than 75 dBA minimum.
- B200SR(A)(-LF)(-IV)(-WH)\*: Greater than 85 dBA minimum.
- B200SCOA(-IV)(-WH), high-volume\*\*: Greater than 87 dBA minimum.
- B200SCOA(-IV)(-WH), low-volume\*\*: Greater than 85 dBA minimum

\*Measured in a UL reverberant room at 10 feet, 24 Volts (continuous tone)

\*\*Measured in a ULC anechoic room at 10 feet, 24 Volts continuous tone)

### FOR B224BI, B224RB (A) (-IV) (-WH):

**Operating voltage:** 15 to 32 VDC (powered by SLC)

**Standby ratings:** <450  $\mu$ A maximum @ 24 VDC

**Set time (B224RB(A)(-IV)(-WH) only):** short delay 60-100 milliseconds; long delay 6-10 seconds

**Reset time (B224RB(A)(-IV)(-WH) only):** 20 milliseconds maximum

**Relay characteristics (B224RB(A)(-IV)(-WH) only):** two-coil latching relay; one Form-C contact; ratings (UL/CSA): 0.9 A @ 125 VAC, 0.9 A @ 110 VDC, and 3.0 A @ 30 VDC

## Product Line Information

### INTELLIGENT BASES

**NOTE:** "A" suffix indicates ULC Listed model.

**NOTE:** "-IV" suffix indicates Ivory color model.

**NOTE:** "-BL" suffix indicates Black color model.

**NOTE:** "-WH" and "-WHITE" suffix indicates White color model.

**B210LP:** Flanged mounted base.

**B210LPA:** Same as B210LP; ULC listed.

**B210LPBP:** Bulk pack of B210LP, contains 10.

**B300-6:** White, 6" base, standard flanged low-profile mounting base.

**B300A-6:** Same as B300-6, ULC listed.

**B300-6-BP:** Bulk pack of B300-6, package contains 10;.

**B300-6-IV:** Ivory, 6" base, standard flanged low-profile mounting base.

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed.

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10.

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed.

**B224RB-WH:** White, relay base.

**B224RB-IV:** Ivory, relay base.

**B224RBA-WH:** White, relay base, ULC listed.

**B224RBA-IV:** Ivory, relay base, ULC listed.

**B224BI-WH:** White, isolator detector base.

**B224BI-IV:** Ivory isolator detector base.

**B224BIA-WH:** White, isolator detector base, ULC listed.

**B224BIA-IV:** Ivory isolator detector base, ULC listed.

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan® protocol.

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan® protocol.

**B200SA-WH:** Same as B200S-WH, ULC listed.

**B200SA-IV:** Same as B200S-IV, ULC listed.

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications).

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications, ULC listing).

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SRA-WH:** Same as B200SR-WH, ULC listed.

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listed.

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

#### **MOUNTING KITS AND ACCESSORIES**

**TR300:** White, replacement flange for B210LP(A), B300(A)-6 bases.

**TR300-IV:** Ivory, replacement flange for B210LP(A), B300(A)-6-IV bases.

**RA100Z(A):** Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300(A)-6.

**M02-04-00:** Test magnet.

**M02-09-00:** Test magnet with telescoping handle.

**CK300:** White, detector color kit. Pack of 10.

**CK300-IR:** White, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

**CK300-IV:** Ivory, detector color kit. Pack of 10.

**CK300-IR-IV:** Ivory, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

**CK300-BL:** Black, detector color kit. Pack of 10.

**CK300-IR-BL:** Black, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

#### **Agency Listings and Approvals**

The listings and approvals below apply to intelligent bases as noted. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC Listed:** S1115
- **FM Approved**
- **CSFM:** 7300-1653:0109, 7300-1653:0126, 7300-1653:0213, 7300-1653:0236

#### **Junction Box Selection Guide**

Base Models	Single Gang	Double Gang	3.5" Oct.	4.0" Oct.	4.0" Sq.	4.0" Sq. with 3.0" mud ring	50 mm	60 mm	70 mm	75 mm
B200S, B200SR, B200SCOA	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
B501	No	No	Yes	No	No	Yes	Yes	Yes	Yes	No
B210LP, B300-6	Yes	No	Yes	Yes	Yes	Yes	No	No	No	No
B224BI, B224RB	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No

**NOTE:** Box depth contingent on base and wire size.

Refer to National Electric Code or applicable local codes for appropriate recommendations.

**NOTE:** Applies to all model variants "A", "-BL", "-LF", "-IV", "-WH", and "-WHITE". See Product Line Information for detailed model description.



This document is not intended to be used for installation purposes.

We try to keep our product information up-to-date and accurate.

We cannot cover all specific applications or anticipate all requirements.

All specifications are subject to change without notice.

#### **NOTIFIER**

12 Clintonville Road  
Northford, CT 06472  
203.484.7161  
www.notifier.com

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**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7300-1653:0109
<b>CATEGORY:</b>	7300 - FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES
<b>LISTEE:</b>	System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL, 60174 Contact: Brant, Lisa (203) 484-6105 (203) 484-7309 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	Models B401, B401B, B401R, B401BR, B401BR-750, B401R-750, B402B, B404B, B404BT, B406B, B501, B501B, 14506587-002, B501BH, B501BHT, B401BH, B110LP, B110RLP, B110RLP750, B112LP, B114LP, B114LPBT, B116LP, B210LP, B501-BL, B501-IV, *B501-WHITE, B300-6, B300-6-IV, B300-6-IS detector bases. Refer to listee's data sheet for detailed product description and operational considerations.
<b>RATING:</b>	
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, *model number, *electrical rating and UL label.
<b>APPROVAL:</b>	Listed as detector bases for use with separately listed compatible detectors. *Refer to Manufacturers Installation Instruction Manual for details.
<b>NOTES:</b>	Formerly 7300-1209:128

\*Rev 04-03-18 gt



This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

**Date Issued: 04/21/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Victor Wong**, Program Coordinator  
Fire Engineering & Investigations Division

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# NBG-12LX

## Addressable Manual Pull Station



Intelligent/Addressable Devices

### General

The Notifier NBG-12LX is a state-of-the-art, dual-action (i.e., requires two motions to activate the station) pull station that includes an addressable interface for any Notifier intelligent control panel except FireWarden series panels. Because the NBG-12LX is addressable, the control panel can display the exact location of the activated manual station. This leads fire personnel quickly to the location of the alarm.

### Features

- Maintenance personnel can open station for inspection and address setting without causing an alarm condition.
- Built-in bicolor LED, which is visible through the handle of the station, flashes in normal operation and latches steady red when in alarm.
- Handle latches in down position and the word “ACTIVATED” appears to clearly indicate the station has been operated.
- Captive screw terminals wire-ready for easy connection to SLC loop (accepts up to 12 AWG/3.25 mm<sup>2</sup> wire).
- Can be surface mounted (with SB-10 or SB-I/O) or semi-flush mounted. Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- Smooth dual-action design.
- Meets ADAAG controls and operating mechanisms guidelines (Section 4.1.3[13]); meets ADA requirement for 5 lb. maximum activation force.
- Highly visible.
- Attractive shape and textured finish.
- Key reset.
- Includes Braille text on station handle.
- Optional trim ring (BG12TR).
- Meets UL 38, Standard for Manually Actuated Signaling Boxes.
- Up to 99 NBG-12LX stations per loop on CLIP protocol loops.
- Up to 159 NBG-12LX stations per loop on FlashScan® protocol loops.
- Dual-color LED blinks green to indicate normal on FlashScan® systems.

### Construction

Shell, door, and handle are molded of durable polycarbonate material with a textured finish.

### Specifications

- Shipping Weight: 9.6 oz. (272.15 g)
- Normal operating voltage: 24 VDC.
- Maximum SLC loop voltage: 28.0 VDC.
- Maximum SLC loop current: 375  $\mu$ A.
- Temperature Range: 32°F to 120°F (0°C to 49°C)
- Relative Humidity: 10% to 93% (noncondensing)
- For use indoors in a dry location



NotifiPullStation.jpg

**The NBG-12LX  
Addressable Manual Pull Station**

### Installation

The NBG-12LX will mount semi-flush into a single-gang, double-gang, or standard 4" (10.16 cm) square electrical outlet box, or will surface mount to the model SB-10 or SB-I/O surface backbox. If the NBG-12LX is being semi-flush mounted, then the optional trim ring (BG12TR) may be used. The BG12TR is usually needed for semi-flush mounting with 4" (10.16 cm) or double-gang boxes (not with single-gang boxes).

### Operation

Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once latched, the word “ACTIVATED” (in bright yellow) appears at the top of the handle, while a portion of the handle protrudes from the bottom of the station. To reset the station, simply unlock the station with the key and pull the door open. This action resets the handle; closing the door automatically resets the switch.

Each manual station, on command from the control panel, sends data to the panel representing the state of the manual switch. Two rotary decimal switches allow address settings (1 – 159 on FlashScan® systems, 1 – 99 on CLIP systems).

### Architectural/Engineering Specifications

Manual Fire Alarm Stations shall be non-coded, with a key-operated reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key. An operated station shall automatically condition itself so as to be visually detected as activated. Manual stations shall be constructed of red-colored polycarbonate material with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in white letters, 1.00 inches (2.54 cm) or larger. Stations shall be suitable for surface

mounting on matching backbox SB-10 or SB-I/O; or semi-flush mounting on a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box, and shall be installed within the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements. Manual Stations shall be Underwriters Laboratories listed.

Manual stations shall connect with two wires to one of the control panel SLC loops. The manual station shall, on command from the control panel, send data to the panel representing the state of the manual switch. Manual stations shall provide address setting by use of rotary decimal switches.

The loop poll LED shall be clearly visible through the front of the station. The LED shall flash while in the normal condition, and stay steadily illuminated when in alarm.

## Product Line Information

**NBG-12LX:** Dual-action addressable pull station. Includes key locking feature.

**SB-10:** Surface backbox; metal.

**SB-I/O:** Surface backbox; plastic.

**BG12TR:** Optional trim ring.

**17021:** Keys, set of two.

**NY-Plate:** New York City trim plate

## Agency Listings and Approvals

In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S692 (listed for Canadian and non-Canadian applications)
- **MEA:** 67-02-E
- **CSFM:** 7150-0028:199
- **BSMI:** C1313066760047
- **U.S. Coast Guard:** 161.002/23/3 (AFP-200); 161.002/27/3 (AM-2020/AFP-1010; 161.002/42/1 (NFS-640)
- **Lloyd's Register:** 02/6007 (NFS-640); 94/60004 (E2) (AFP-200); 03/60011 (E1); 07/60007 (NFS2-3030)
- **FM Approved**

**Patented:**

U.S. Patent No. D428,351; 6,380,846; 6,314,772; 6,632,108.

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All specifications are subject to change without notice.



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For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.  
[www.notifier.com](http://www.notifier.com)



**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7150-0028:0199
<b>CATEGORY:</b>	7150 - FIRE ALARM PULL BOXES
<b>LISTEE:</b>	Notifier One Fire-Lite Place, Northford, CT, 06472 Contact: Brant, Lisa (203) 484-6105 (203) 484-7309 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	Models NBG-12, NBG-12S, NBG-12LR, NBG-12LRA, NBG-12LAO, NBG-12LAOB, NBG-12-LO, NBG-12LOB, NBG-12W, NBG-12LW, NBG-12NC, NBG-12WP, NBG-12LWP, NBG-12L, <b>NBG-12LX</b> , NBG-12LA, NBG-12PS, NBG-12LSP, NBG-12LPS, NBG-12LPSP, NBG-12SP, NOT-BG12LX, NBG-12LXSP, NBG-12LXBL and NBG-12LXP fire alarm pull boxes. All units except Model NBG-12S are dual action pull stations. Models NBG-12LR and NBG-12LRA are intended for agent releasing device. Refer to listee's data sheet for detailed product description and operational considerations.
<b>RATING:</b>	
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, model number, rating, and UL label.
<b>APPROVAL:</b>	Listed as fire alarm pull boxes for use with separately listed compatible fire alarm control units. Models NBG-12WP, NBG-12LW, NBG-12W, NBG-12LWP, NBG-12LAO, NBG-12LO, NBG-12LAOB and NBG-12LOB are intended for outdoor use when installed with Models WBB, SB-I/O, or WP-10 back box. Refer to listee's Installation Instruction Manual for details.  These manual pull boxes meet the requirements of UL Standard 38, 1999 Edition and California amendments which the controls and operating mechanisms required to be operable at no more than 5lbs. force with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
<b>NOTES:</b>	

\*Corrected 10-08-12 bh



**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**



This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

**Date Issued: 04/21/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Victor Wong**, Program Coordinator  
Fire Engineering & Investigations Division



## Outdoor Selectable-Output Horns, Strobes, and Horn Strobes

*SpectrAlert® Advance outdoor selectable-output horns, strobes, and horn strobes are rich with features that cut installation times and maximize profits.*



**SPECTRAlert**  
**ADVANCE**  
from System Sensor

### Features

- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Universal mounting plate for wall- and ceiling-mount units
- Mounting plate shorting spring tests wiring continuity before devices are installed
- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Rated from  $-40^{\circ}\text{F}$  to  $151^{\circ}\text{F}$
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and three volume selections
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products

The SpectrAlert Advance series offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

SpectrAlert Advance outdoor horns, strobes, and horn strobes can be used indoors or outdoors in wet or dry applications, and can provide reliable operation from  $-40^{\circ}\text{F}$  to  $151^{\circ}\text{F}$ .

Like the entire SpectrAlert Advance product line, these devices include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, which make installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

All horns, strobes, and horn strobes use a universal mounting plate with an onboard shorting spring that tests wiring continuity before the device is installed, protecting devices from damage. In addition, field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections enables installers to easily adapt devices to suit a wide range of application requirements.

### Agency Listings



S4011 (chimes, horn strobes, horns)  
S3593 (outdoor and alert strobes)



3023572



MEA452-05-E



7300-1653-187 (outdoor strobes)  
7125-1653-188 (horn strobes,  
chime strobes)  
7135-1653-189 (horns, chimes)

## SpectrAlert Advance Outdoor Horn, Strobe, and Horn Strobe Specifications

### Architect/Engineer Specifications

#### General

SpectrAlert Advance outdoor horns, strobes and horn strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Outdoor SpectrAlert Advance products shall operate between –40 and 151 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

#### Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_, listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

#### Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_, listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

### Physical/Electrical Specifications

<b>Operating Temperature</b>	–40°F to 151°F (–40°C to 66°C)
<b>Strobe Flash Rate</b>	1 flash per second
<b>Nominal Voltage</b>	Regulated 12 DC/FWR or regulated 24 DC/FWR <sup>1</sup>
<b>Operating Voltage Range<sup>2</sup></b>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
<b>Input Terminal Wire Gauge</b>	12 to 18 AWG
<b>Ceiling-Mount Dimensions (including lens)</b>	6.8" diameter × 2.5" high (173 mm diameter × 64 mm high)
<b>Wall-Mount Dimensions (including lens)</b>	5.6" L × 4.7" W × 2.5" D (142 mm L × 119 mm W × 64 mm D)
<b>Horn Dimensions</b>	5.6" L × 4.7" W × 1.3" D (142 mm L × 119 mm W × 33 mm D)
<b>Wall-Mount Weatherproof Back Box Dimensions (SA-WBB)</b>	5.7" L × 5.1" W × 2.0" D (145 mm L × 130 mm W × 51 mm D)
<b>Ceiling-Mount Weatherproof Back Box Dimensions (SA-WBBC)</b>	7.1" diameter × 2.0" high (180 mm diameter × 51 mm high)

#### Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

## UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)						UL Max. Horn Current Draw (mA RMS)					
	Candela	8–17.5 Volts		16–33 Volts		Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR			DC	FWR	DC	FWR
<b>Standard Candela Range</b>	15	123	128	66	71	Temporal	High	57	55	69	75
	15/75	142	148	77	81	Temporal	Medium	44	49	58	69
	30	NA	NA	94	96	Temporal	Low	38	44	44	48
	75	NA	NA	158	153	Non-Temporal	High	57	56	69	75
	95	NA	NA	181	176	Non-Temporal	Medium	42	50	60	69
	110	NA	NA	202	195	Non-Temporal	Low	41	44	50	50
	115	NA	NA	210	205	Coded	High	57	55	69	75
<b>High Candela Range</b>	135	NA	NA	228	207	Coded	Medium	44	51	56	69
	150	NA	NA	246	220	Coded	Low	40	46	52	50
	177	NA	NA	281	251						
	185	NA	NA	286	258						

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)										
DC Input	8–17.5 Volts		16–33 Volts		30	75	95	110	115	
	15	15/75	15	15/75						
Temporal High	137	147	79	90	107	176	194	212	218	
Temporal Medium	132	144	69	80	97	157	182	201	210	
Temporal Low	132	143	66	77	93	154	179	198	207	
Non-Temporal High	141	152	91	100	116	176	201	221	229	
Non-Temporal Medium	133	145	75	85	102	163	187	207	216	
Non-Temporal Low	131	144	68	79	96	156	182	201	210	
<b>FWR Input</b>										
Temporal High	136	155	88	97	112	168	190	210	218	
Temporal Medium	129	152	78	88	103	160	184	202	206	
Temporal Low	129	151	76	86	101	160	184	194	201	
Non-Temporal High	142	161	103	112	126	181	203	221	229	
Non-Temporal Medium	134	155	85	95	110	166	189	208	216	
Non-Temporal Low	132	154	80	90	105	161	184	202	211	

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)										
DC Input	16–33 Volts				FWR Input	16–33 Volts				
	135	150	177	185		135	150	177	185	
Temporal High	245	259	290	297	Temporal High	215	231	258	265	
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258	
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256	
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281	
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267	
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262	

## Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

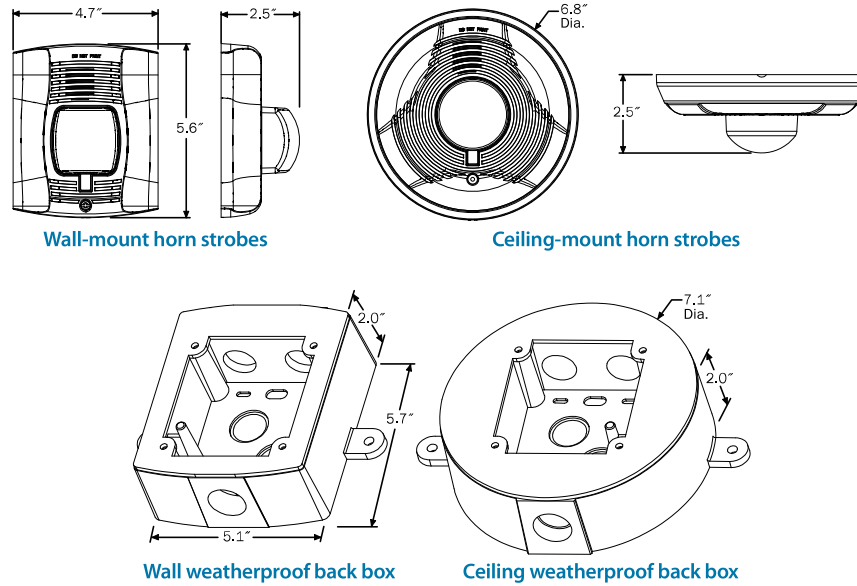
Strobe Output (cd)	
Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	
95	44
110	70
115	110
135	115
150	135
177	150
185	177

## Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)											
Switch Position	Sound Pattern	dB	8–17.5 Volts		16–33 Volts		24-Volt Nominal				
			DC	FWR	DC	FWR	Reverberant		Anechoic		
1	Temporal	High	78	78	84	84	88	88	99	98	
2	Temporal	Medium	74	74	80	80	86	86	96	96	
3	Temporal	Low	71	73	76	76	83	80	94	89	
4	Non-Temporal	High	82	82	88	88	93	92	100	100	
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98	
6	Non-Temporal	Low	75	75	81	81	88	84	96	92	
7 <sup>†</sup>	Coded	High	82	82	88	88	93	92	101	101	
8 <sup>†</sup>	Coded	Medium	78	78	85	85	90	90	97	98	
9 <sup>†</sup>	Coded	Low	75	75	81	81	88	85	96	92	

<sup>†</sup>Settings 7, 8, and 9 are not available on 2-wire horn strobe.

## SpectrAlert Advance Dimensions



## SpectrAlert Advance Ordering Information

Model	Description
<b>Wall Horn Strobes</b>	
P2RK*†	2-Wire Horn Strobe, Standard cd, Red, Outdoor
P2RHK*†	2-Wire Horn Strobe, High cd, Red, Outdoor
P2WK*†	2-Wire Horn Strobe, Standard cd, White, Outdoor
P2WHK*†	2-Wire Horn Strobe, High cd, White, Outdoor
P4RK†	4-Wire Horn Strobe, Standard cd, Red, Outdoor
P4WK	4-Wire Horn Strobe, Standard cd, White, Outdoor
P2RHK-120	2-Wire Horn Strobe, High cd, Red, Outdoor, 120 V
<b>Wall Strobes</b>	
SRK*†	Strobe, Standard cd, Red, Outdoor
SRHK*†	Strobe, High cd, Red, Outdoor
SWK*†	Strobe, Standard cd, White, Outdoor
SWHK*†	Strobe, High cd, White, Outdoor

### Notes:

\* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2RK-P.

† Add "-R" to model number for weatherproof replacement device (no back box included), especially for use with weatherproof outdoor flush mounting plate, WTP and WTPW.

"Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.

Model	Description
<b>Ceiling Horn Strobes</b>	
PC2RK	2-Wire Horn Strobe, Standard cd, Red, Outdoor
PC2RHK	2-Wire Horn Strobe, High cd, Red, Outdoor
PC2WK	2-Wire, Horn Strobe, Standard cd, White, Outdoor
PC2WHK	2-Wire, Horn Strobe High cd, White, Outdoor
PC4WK	4-Wire, Horn Strobe, Standard cd, White, Outdoor
PC4WHK	4-Wire, Horn Strobe, High cd, White, Outdoor
<b>Ceiling Strobes</b>	
SCRK	Strobe, Standard cd, Red, Outdoor
SCRHK	Strobe, High cd, Red, Outdoor
SCWK	Strobe, Standard cd, White, Outdoor
SCWHK	Strobe, High cd, White, Outdoor
<b>Horns</b>	
HRK	Horn, Red, Outdoor



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Product specifications subject to change without notice. Visit [systemsensor.com](http://systemsensor.com) for current product information, including the latest version of this data sheet.  
A05-0456-001 • 06/09 • #2190





**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7125-1653:0188
<b>CATEGORY:</b>	7125 - FIRE ALARM DEVICES FOR THE HEARING IMPAIRED
<b>LISTEE:</b>	System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL, 60174 Contact: Brant,Lisa (203) 484-6105 (203) 484-7309 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	Models CHSR and CHSW Chime/Strobes.  Models P2R, P2W, P2RH and P2WH Horn/Strobes two-wire type, rectangular enclosure.  Models PC2R, PC2W, PC2RH and PC2WH Horn/Strobes two-wire type, round enclosure  Models P4R, P4W, P4RH and P4WH Horn/Strobes four-wire type, rectangular enclosure.  Models PC4R, PC4W, PC4RH and PC4WH Horn/Strobes* four-wire type, round enclosure.  All models are intended for indoor use only unless other wise indicated. Models may be followed by the suffix "K" indicating indoor or outdoor use, or may be followed by suffix "P" for plain housing with no lettering. "K" suffix models are suitable for outdoor applications at temperatures from -40°F to +151°F (-40°C to +66°C) and are rated NEMA 4X when used with the System Sensor weather proof back boxes models SA-WBB (Wall), SA-WBBW (Wall), SA-WBBC (Ceiling) and *SA-WBBCW (Ceiling). Refer to listee's data sheet for additional detailed product description and operational considerations.
<b>RATING:</b>	Standard Horn/Strobes and Chime/Strobes 8 - 17.5 or 16-33 VDC/FWR  Hi CD Horn/Strobes 16-33 VDC/FWR
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, model number, electrical rating, and UL label.
<b>APPROVAL:</b>	Listed as *horn/strobes or chime/strobes suitable for signaling appliances and equipment for the hearing impaired applications when used with separately listed compatible fire alarm control units. Horn/strobes with -K suffix are suitable for indoor or outdoor use, ceiling or wall mount. Chime section is suitable for private mode and indoor use only.  Horn/Strobes or chime/strobes* can generate the distinctive three-pulse audible Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 2010 Edition. Refer to listee's Installation Instruction Manual for details.
<b>NOTES:</b>	



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BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

\*Corrected 12-15-  
11 bh



This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

**Date Issued: 04/21/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Victor Wong**, Program Coordinator  
Fire Engineering & Investigations Division



# L-Series and L-Series with LED Indoor Selectable Horns, Strobes and Horn Strobes

*System Sensor L-Series and L-Series with LED audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.*



## Features

- LED technology provides lower current draw
- Digital Voltage Meter (DVM) diagnostic test points for Horn Strobes and Strobes
- Common aesthetics across the L-Series platform
- Standard and compact sizes
- Tamper-resistant construction
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Field-selectable candela settings on ceiling units: 15, 30, 75, 95, 115, 150, and 177
- Rotary switches for candela, tone and volume selections
- Mounting plate provides plug-in design for easier installation and shorting springs to check wiring continuity
- Electrically compatible with legacy SpectrAlert, SpectrAlert Advance and L-series devices
- Synchronization through use of UL approved power supplies that support System Sensor Sync protocol or System Sensor MDL3 Sync Module
- Horns, Strobes and Horn Strobes listed for wall or ceiling use

## The System Sensor L-Series and L-Series with LED platform

offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draw and modern aesthetics. LED lighting technology offers significantly lower current draw compared to older Xenon bulbs across a full candela range. This improves design flexibility for notification appliance circuits (NACs) while also reducing power supply requirements allowing for simpler and lower cost installations.

Flexible design options meet virtually any application requirement: wall or ceiling mount, standard or compact sizes, red or white color choices, bezel kits for alternate markings and languages, and LED color lenses for distinctive visual signaling. In addition, installers can easily adapt devices using field selectable candela, tone and volume settings using rotary switches.

The L-Series and L-Series with LED line is developed to simplify installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults. The universal mounting plate includes an onboard shorting spring, so installers can test wiring continuity before the device is installed.

In addition, the System Sensor L-Series with LED notification appliances offer a new diagnostic test point feature that allows you to measure device voltage with a digital voltage meter (DVM) without removing the appliance from the wall or ceiling. The DVM test points are discreetly located on the face of the notification appliance which enable faster troubleshooting and end of line (EOL) voltage checks while greatly reducing the risk of misplacing or damaging appliances during troubleshooting.

## Agency Listings



## L-Series and L-Series with LED Specifications

Physical/Electrical Specifications	
Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage, LED Strobes and Horn Strobes	Regulated 24 VDC
Nominal Voltage, Horns	Regulated 12 VDC or regulated 24 DC/FWR
Operating Voltage Range, LED Strobes and Horn Strobes	16 to 33 V (24 V nominal)
Operating Voltage Range, Horns	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG

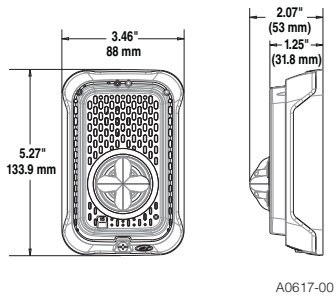
## UL/ULC Current Draw Data, Horn Tones, and Sound Output Data

UL/ULC Maximum Strobe Current Draw (mA)			
Candela Range	Candela Rating	16–33 Volts	
		Wall	Ceiling
Candela Range	15	18	18
	30	22	22
	75	70	70
	95	75	75
	110	85	—
	115	—	90
	135	105	—
	150	—	110
	177	—	115
	185	120	—

UL/ULC Maximum Horn Current Draw (mA RMS)				
Sound Pattern	dB	8–17.5 Volts		
		DC	DC	FWR
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

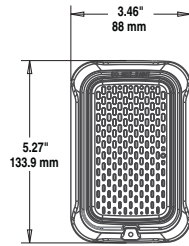
UL/ULC Maximum Horn Strobe Current Draw (mA) and Sound Output (dBA)														
Switch Pos.	Sound Pattern	Volume Setting	Current Draw (mA RMS), Horn Strobe, Candela Range (15-185 cd)										Sound Output (dBA)	
			16-33 Volts											16-33V DC
			15cd	30cd	75cd	95cd	110cd	115cd	135cd	150cd	177cd	185cd		
			WALL	CEILING	WALL	CEILING	CEILING	WALL						
1	Temporal 3	High	35	38	87	92	94	120	189	189	190	190	87	
2	Temporal 3	Low	35	38	87	92	94	120	135	135	145	145	79	
3	Non-Temporal	High	50	52	87	92	94	120	127	127	135	135	87	
4	Non-Temporal	Low	35	38	87	92	94	120	125	125	130	130	79	
5	3.1KHz Temporal 3	High	35	38	87	89	91	115	155	155	165	165	86	
6	3.1KHz Temporal 3	Low	35	38	87	89	91	115	128	130	135	135	80	
7	3.1KHz Non-Temporal	High	40	42	87	89	91	115	125	125	135	135	86	
8	3.1KHz Non-Temporal	Low	35	38	87	89	91	115	120	120	130	130	80	

## L-Series with LED Dimensions: Wall-Mounted Equipment



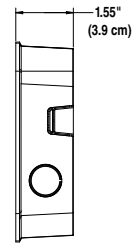
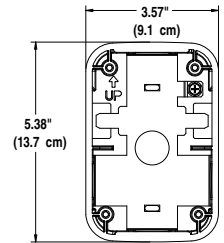
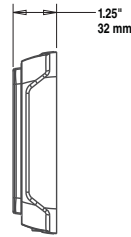
A0617-00

**Compact Strobe, Horn Strobe for Wall**



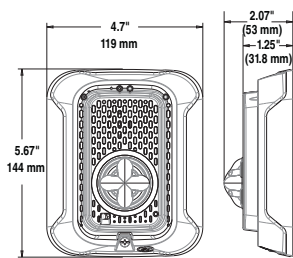
A0547-00

**Compact Horn**



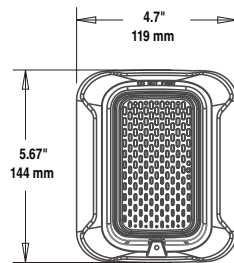
A0557-00

**Compact Surface Mount Back Box for Walls (SBBGRL, SBBGWL)**



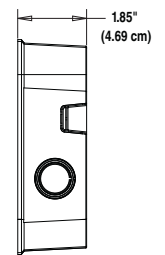
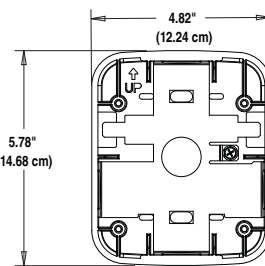
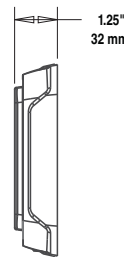
A0613-00

**Strobes, Horn Strobes for Walls**



A0549-00

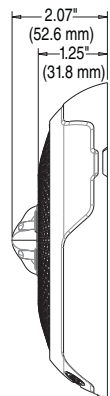
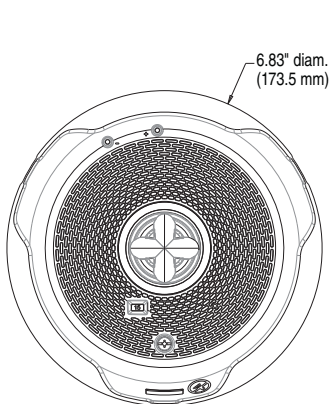
**Horn**



A0554-01

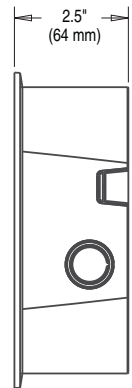
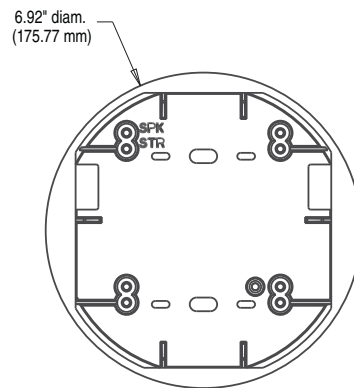
**Surface Mount Back Box for Walls (SBBRL/SBBWL)**

## L-Series with LED Dimensions: Ceiling-Mounted Equipment



A0608-00

**Strobes and Horn Strobes for Ceilings**



A0546-00

**Surface Mount Back Box for Ceilings (SBBCL, SBCWL)**

## L-Series with LED: Ordering Information

Model	Description
<b>L-Series with LED Horn Strobes</b>	
P2RLED	2-Wire, Horn Strobe, Wall, Red
P2RLED-B	2-Wire, Horn Strobe, Wall, Red, Bilingual
<b>P2WLED</b>	2-Wire, Horn Strobe, Wall, White
P2WLED-B	2-Wire, Horn Strobe, Wall, White, Bilingual
P2GRLED	2-Wire, Compact Horn Strobe, Wall, Red
P2GRLED-B	2-Wire, Compact Horn Strobe, Wall, Red, Bilingual
P2GWLED	2-Wire, Compact Horn Strobe, Wall, White
P2GWLED-B	2-Wire, Compact Horn Strobe, Wall, White, Bilingual
P2RLED-P	2-Wire, Horn Strobe, Wall, Red, Plain
P2WLED-P	2-Wire, Horn Strobe, Wall, White, Plain
P2RLED-SP	2-Wire, Horn Strobe, Wall, Red, FUEGO
P2WLED-SP	2-Wire, Horn Strobe, Wall, White, FUEGO
PC2RLED	2-Wire, Horn Strobe, Ceiling, Red
PC2RLED-B	2-Wire, Horn Strobe, Ceiling, Red, Bilingual
PC2WLED	2-Wire, Horn Strobe, Ceiling, White
PC2WLED-B	2-Wire, Horn Strobe, Ceiling, White, Bilingual
<b>L-Series with LED Strobes</b>	
SRLED	Strobe, Wall, Red
SRLED-B	Strobe, Wall, Red, Bilingual
<b>SWLED</b>	Strobe, Wall, White
SWLED-B	Strobe, Wall, White, Bilingual
SGRLED	Strobe, Compact, Wall, Red
SGRLED-B	Strobe, Compact, Wall, Red, Bilingual
SGWLED	Strobe, Compact, Wall, White
SGWLED-B	Strobe, Compact, Wall, White, Bilingual
SRLED-P	Strobe, Wall, Red, Plain
SWLED-P	Strobe, Wall, White, Plain
SRLED-SP	Strobe, Wall, Red, FUEGO
SWLED-CLR-ALERT	Strobe, Wall, White, ALERT
SWLED-ALERT	Strobe, Wall, White, ALERT, Amber Lens
SCRLED	Strobe, Ceiling, Red
SCRLED-B	Strobe, Ceiling, Red, Bilingual
SCRLED-P	Strobe, Ceiling, White, Plain
SCWLED	Strobe, Ceiling, White
SCWLED-B	Strobe, Ceiling, White, Bilingual
SCWLED-P	Strobe, Ceiling, White, Plain
SCWLED-CLR-ALERT	Strobe, Ceiling, White, ALERT
<b>L-Series Horns</b>	
HRL*	Horn, Red
HRLA*	Horn, Red, Plain, ULC
HWL*	Horn, White
HWLA*	Horn, White, Plain, ULC
HGRL*	Compact Horn, Red
HGRLA*	Compact Horn, Red, Plain, ULC
HGWL*	Compact Horn, White
HGWLA*	Compact Horn, White, Plain, ULC

Model	Description
<b>LED Lenses</b>	
LENS-A3	Lens LED Amber Wall/Ceiling
LENS-B3	Lens LED Blue Wall/Ceiling
LENS-G3	Lens LED Green Wall/Ceiling
LENS-R3	Lens LED Red Wall/Ceiling
<b>Accessories</b>	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White
TRC-2	Universal Ceiling Trim Ring, Red
TRC-2W	Universal Ceiling Trim Ring, White
SBBCRL	Ceiling Surface Mount Back Box, Red
SBBCWL	Ceiling Surface Mount Back Box, White
<b>Bezels†</b>	
BZR	Wall Red Bezel Kit
BZW	Wall White Bezel Kit
BZGR	Compact Wall Red Bezel Kit
BZGW	Compact Wall White Bezel Kit
BZRC	Horn Strobe Ceiling Red Bezel Kit
BZWC	Horn Strobe Ceiling White Bezel Kit

### Notes for L-Series With LED Horn Strobes and Strobes:

All -P models have a plain housing (no "FIRE" marking on cover).  
 All -SP models have "FUEGO" marking on cover.  
 All -ALERT models have "ALERT" marking on cover.  
 All -B models have "FIRE/FEU" marking on cover for use in Canadian applications.  
 Amber lenses are not for use in Canadian applications

### Notes for L-Series Horns:

\*Horn-only models are listed for wall or ceiling use.

### Notes for Bezels:

†Each bezel pack ships in a package of 5.  
 Add one of the following extensions for print/language options: -F (FIRE), -AL (ALERT), -EV (EVAC), -AG (AGENT), -P (Plain), -FR (FEU), -PG (FOGO), -SP (FUEGO), -SPE (FUEGO/FIRE).

3825 Ohio Avenue • St. Charles, IL 60174 USA  
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 AVDS916-01 • 10/03/2023



**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7135-1653:0526
<b>CATEGORY:</b>	7135 - AUDIBLE DEVICES
<b>LISTEE:</b>	System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL, 60174 Contact: Brant, Lisa (203) 484-6105 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	<p>Models P2RLED, <b>P2WLED</b>, P2RLED-B, P2WLED-B, P2RLED-P, P2WLED-P, P2RLED-SP, P2WLED-SP, PC2RLED, PC2WLED, PC2RLED-B, PC2WLED-B, P2GRLED, P2GWLED, P2GRLED-B, P2GWLED-B Ceiling or Wall Horn Strobes. The horn strobes come with 8 field selectable tone combinations and 7 field selectable candela settings. Models maybe mounted on the wall or ceiling as indicated and are intended for indoor dry/damp use only.</p> <p>Language designators: "-B" are bilingual (English/French). "-P" are plain versions (no wording). "-SP" are marked "FUEGO".</p> <p>Refer to listee's data sheet for additional detailed products description and operational considerations.</p>
<b>RATING:</b>	<p>16-33 VDC</p> <p>Candela Ratings (cd):</p> <p>Wall Horn Strobes: 15, 30, 75, 95, 110, 135, 185</p> <p>Ceiling Horn Strobes: 15, 30, 75, 95, 115, 150, 177</p>
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, NFPA 72, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's Name, Model Number, Rating, and UL Label.



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**LISTING SERVICE**

**APPROVAL:**

Listed as horn strobes for use with separately listed compatible fire alarm control units. Refer to listee's Installation Instruction Manual for details. Model complies with the applicable requirements in UL 464, 11th Edition, UL 1638, 6th Edition, and UL 1971, 3rd Edition.

**NOTES:**

9-18-23 DAL



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**Date Issued: 09/20/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Jeff Schwartz**, Program Coordinator  
Fire Engineering & Investigations Division





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FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7300-1653:0525
<b>CATEGORY:</b>	7300 - FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES
<b>LISTEE:</b>	System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL, 60174 Contact: Brant, Lisa (203) 484-6105 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	<p>Models SRLED, <b>SWLED</b>, SRLED-B, SWLED-B, SRLED-P, SWLED-P, SRLED-SP, SWLED-SP, SWLED-CLR-ALERT, SCRLED, SCWLED, SCRLED-B, SCWLED-B, SCRLED-P, SCWLED-P, SCWLED-CLR-ALERT, SGRLED, SGWLED, SGRLED-B, SGWLED-B Ceiling or Wall Strobes. The 2-wire strobes come with 8 field selectable tone combinations and 7 field selectable candela settings. Models maybe mounted on the wall or ceiling as indicated and are intended for indoor dry/damp use only.</p> <p>Language designators: "-B" are bilingual (English/French). "-P" are plain versions (no wording). "-SP" are marked "FUEGO".</p> <p>Refer to listee's data sheet for additional detailed products description and operational considerations.</p>
<b>RATING:</b>	<p>16-33 VDC</p> <p>Candela Ratings (cd):</p> <p>Wall Strobes: 15, 30, 75, 95, 110, 135, 185</p> <p>Ceiling Strobes: 15, 30, 75, 95, 115, 150, 177</p>
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, NFPA 72, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's Name, Model Number, Rating, and UL Label.



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**LISTING SERVICE**

**APPROVAL:**

Listed as strobes for use with separately listed compatible fire alarm control units. Refer to listee's Installation Instruction Manual for details. Model complies with the applicable requirements in UL 1638, 6th Edition and UL 1971, 3rd Edition.

**NOTES:**

9-18-23 DAL



This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

**Date Issued: 09/20/2023**

**Listing Expires: 06/30/2024**

Authorized By: **Jeff Schwartz**, Program Coordinator  
Fire Engineering & Investigations Division



## Selectable-Output Horns, Strobes, and Horn Strobes

*SpectrAlert® Advance selectable-output horns, strobes, and horn strobes are rich with features guaranteed to cut installation times and maximize profits.*



**SPECTRAlert**  
**ADVANCE**  
from System Sensor

### Features

- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and three volume selections
- Universal mounting plate for wall and ceiling units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with existing SpectrAlert products
- Compatible with MDL sync module

**The SpectrAlert Advance series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

Like the entire SpectrAlert Advance product line, horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, which make installations fast and foolproof while virtually eliminating costly and time-consuming ground faults. Furthermore, a universal mounting plate with an onboard shorting spring tests wiring continuity before the device is installed, protecting devices from damage.

In addition, field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections enables installers to easily adapt devices to suit a wide range of application requirements.

### Agency Listings



S4011 (chimes, horn strobes, horns)  
S5512 (strobes)



3023572



MEA452-05-E



7125-1653:186 (indoor strobes)  
7125-1653:188 (horn strobes,  
chime strobes)  
7135-1653:189 (horns, chimes)

## SpectrAlert Advance Specifications

### Architect/Engineer Specifications

#### General

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1⅞-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

#### Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

#### Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn strobe models shall operate on a coded or non-coded power supply.

#### Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4⅞ × 4⅞ × 2⅞-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

### Physical/Electrical Specifications

<b>Standard Operating Temperature</b>	32°F to 120°F (0°C to 49°C)
<b>Humidity Range</b>	10 to 93% non-condensing
<b>Strobe Flash Rate</b>	1 flash per second
<b>Nominal Voltage</b>	Regulated 12 DC/FWR or regulated 24 DC/FWR <sup>1</sup>
<b>Operating Voltage Range<sup>2</sup></b>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
<b>Input Terminal Wire Gauge</b>	12 to 18 AWG
<b>Ceiling-Mount Dimensions (including lens)</b>	6.8" diameter × 2.5" high (173 mm diameter × 64 mm high)
<b>Wall-Mount Dimensions (including lens)</b>	5.6" L × 4.7" W × 2.5" D (142 mm L × 119 mm W × 64 mm D)
<b>Horn Dimensions</b>	5.6" L × 4.7" W × 1.3" D (142 mm L × 119 mm W × 33 mm D)
<b>Wall-Mount Back Box Skirt Dimensions (BBS-2, BBSW-2)</b>	5.9" L × 5.0" W × 2.2" D (151 mm L × 128 mm W × 56 mm D)
<b>Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)</b>	7.1" diameter × 2.2" high (180 mm diameter × 57 mm high)
<b>Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)</b>	5.7" L × 4.8" W × 0.35" D (145 mm L × 122 mm W × 9 mm D)
<b>Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)</b>	6.9" diameter × 0.35" high (175 mm diameter × 9 mm high)

#### Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

## UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)						UL Max. Horn Current Draw (mA RMS)					
	Candela	8–17.5 Volts		16–33 Volts		Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR			DC	FWR	DC	FWR
<b>Standard Candela Range</b>	15	123	128	66	71	Temporal	High	57	55	69	75
	15/75	142	148	77	81	Temporal	Medium	44	49	58	69
	30	NA	NA	94	96	Temporal	Low	38	44	44	48
	75	NA	NA	158	153	Non-temporal	High	57	56	69	75
	95	NA	NA	181	176	Non-temporal	Medium	42	50	60	69
	110	NA	NA	202	195	Non-temporal	Low	41	44	50	50
	115	NA	NA	210	205	Coded	High	57	55	69	75
<b>High Candela Range</b>	135	NA	NA	228	207	Coded	Medium	44	51	56	69
	150	NA	NA	246	220	Coded	Low	40	46	52	50
	177	NA	NA	281	251						
	185	NA	NA	286	258						

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)										
	8–17.5 Volts		16–33 Volts							
	15	15/75	15	15/75	30	75	95	110	115	
DC Input										
Temporal High	137	147	79	90	107	176	194	212	218	
Temporal Medium	132	144	69	80	97	157	182	201	210	
Temporal Low	132	143	66	77	93	154	179	198	207	
Non-Temporal High	141	152	91	100	116	176	201	221	229	
Non-Temporal Medium	133	145	75	85	102	163	187	207	216	
Non-Temporal Low	131	144	68	79	96	156	182	201	210	
FWR Input										
Temporal High	136	155	88	97	112	168	190	210	218	
Temporal Medium	129	152	78	88	103	160	184	202	206	
Temporal Low	129	151	76	86	101	160	184	194	201	
Non-Temporal High	142	161	103	112	126	181	203	221	229	
Non-Temporal Medium	134	155	85	95	110	166	189	208	216	
Non-Temporal Low	132	154	80	90	105	161	184	202	211	

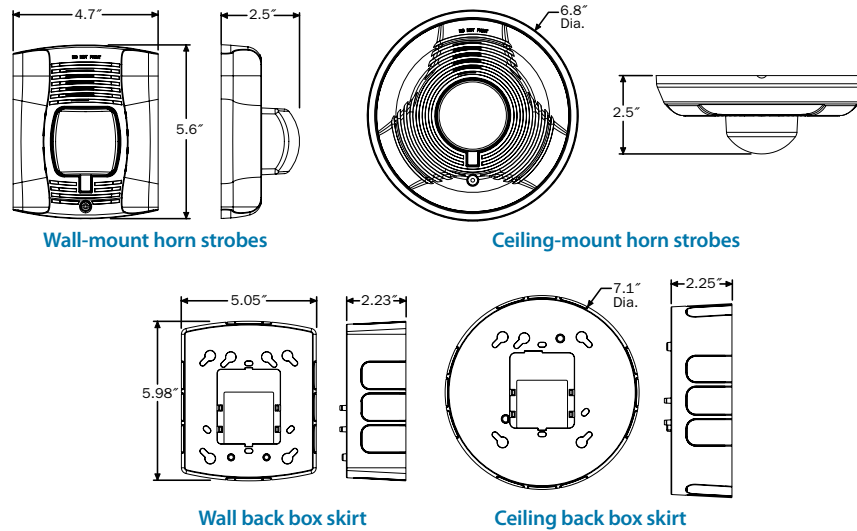
UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)										
	16–33 Volts				FWR Input	16–33 Volts				
	135	150	177	185		135	150	177	185	
DC Input										
Temporal High	245	259	290	297	Temporal High	215	231	258	265	
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258	
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256	
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281	
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267	
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262	

## Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)										
Switch Position	Sound Pattern	dB	8–17.5 Volts		16–33 Volts		24-Volt Nominal			
			DC	FWR	DC	FWR	Reverberant		Anechoic	
			DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
7 <sup>†</sup>	Coded	High	82	82	88	88	93	92	101	101
8 <sup>†</sup>	Coded	Medium	78	78	85	85	90	90	97	98
9 <sup>†</sup>	Coded	Low	75	75	81	81	88	85	96	92

<sup>†</sup>Settings 7, 8, and 9 are not available on 2-wire horn strobe.

## SpectrAlert Advance Dimensions



## SpectrAlert Advance Ordering Information

Model	Description
<b>Wall Horn Strobes</b>	
P2R*†	2-Wire Horn Strobe, Standard cd‡, Red
P2RH*	2-Wire Horn Strobe, High cd, Red
P2W*	2-Wire Horn Strobe, Standard cd, White
P2WH*	2-Wire Horn Strobe, High cd, White
P4R*	4-Wire Horn Strobe, Standard cd, Red
P4RH	4-Wire Horn Strobe, High cd, Red
P4W	4-Wire Horn Strobe, Standard cd, White
<b>Wall Strobes</b>	
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
<b>Ceiling Horn Strobes</b>	
PC2R*	2-Wire Horn Strobe, Standard cd, Red
PC2RH	2-Wire Horn Strobe, High cd, Red
PC2W*†	2-Wire Horn Strobe, Standard cd, White
PC2WH*	2-Wire Horn Strobe, High cd, White
PC4R	4-Wire Horn Strobe, Standard cd, Red
PC4RH	4-Wire Horn Strobe, High cd, Red
PC4W	4-Wire Horn Strobe, Standard cd, White

Model	Description
<b>Ceiling Strobes</b>	
SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCW*	Strobe, Standard cd, White
SCWH	Strobe, High cd, White
<b>Horns</b>	
HR	Horn, Red
<b>HW</b>	Horn, White
<b>Accessories</b>	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

### Notes:

\* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P.

† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.

‡ "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.



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**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING & INVESTIGATIONS DIVISION  
BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	7135-1653:0189
<b>CATEGORY:</b>	7135 - AUDIBLE DEVICES
<b>LISTEE:</b>	System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL, 60174 Contact: Brant,Lisa (203) 484-6105 (203) 484-7309 Email: lisa.brant@honeywell.com
<b>DESIGN:</b>	Models HR, <b>HW</b> Horns and CHR, CHW chimes. Intended for indoor use only unless otherwise indicated. Models may be followed by the suffix "K" indicating indoor or outdoor use. "K" suffix models are suitable for outdoor applications at temperatures from -40°F to +151°F (-40°C to +66°C) and are rated NEMA *4X when used with the System Sensor weather proof back boxes models SA-WBB (Wall), *SA-WBBW (Wall), SA-WBBC (Ceiling) and *SA-WBBCW (Ceiling). Models CHR and CHW are intended for private mode use only. Suitable for wall or ceiling mount.  Refer to listee's data sheet for additional detailed product description and operational considerations.
<b>RATING:</b>	8 - 17.5 or 16-33 Vdc/VFWR
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, model number, electrical rating, and UL label.
<b>APPROVAL:</b>	Listed as audible devices when used with separately listed compatible fire alarm control units.  Units can generate the distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 2002 Edition. Refer to listee's Installation Instruction Manual for details.
<b>NOTES:</b>	

\*Rev 12-01-08 bh



This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

**Date Issued: 04/21/2023**

**Listing Expires: 06/30/2024**



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**LISTING SERVICE**

Authorized By: **Victor Wong**, Program Coordinator  
Fire Engineering & Investigations Division