

ADDENDUM NO. 1

**PROJECT: 5524
January 19, 2024**

**BAKERSFIELD CITY SCHOOL DISTRICT
MUNSEY ELEMENTARY SCHOOL
HVAC REPLACEMENT
3801 BRAVE AVENUE
BAKERSFIELD, CA 93309**

DSA APP# 03-122489



This Addendum and Addendum drawings form a part of the Contract Documents. It modifies the original Project Manual and Drawings. Bidders are required to acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to acknowledge receipt of each addendum may subject bidder to disqualification.

DIVISION 0 Bidding Manual

1. 00 01 20 List of Schedule:
 - a. Schedule dated 1.15.24 has been added replacing schedule dated 1.3.24.

2. 00 21 13 Instructions to Bidders:
 - a. Section 1: BP 11 Site Concrete has been deleted.
 - b. Section 10: Federal Debarment Certification (00 45 46.11) added to list of bid document submittals.
 - c. The following bid packages have been updated with all changes shown in red. Replace the following Bid Packages in their entirety with those attached:
 - i. 00 21 13.00 BP00 Standard Project Requirements – Addendum No. 1
 - ii. 00 21 13.03 BP03 Roofing – Addendum No. 1
 - iii. 00 21 13.05 BP05 Cement Plaster & Drywall – Addendum No. 1
 - iv. 00 21 13.06 BP06 Acoustical Ceilings – Addendum No. 1
 - v. 00 21 13.07 BP07 Floor Covering – Addendum No. 1
 - vi. 00 21 13.09 BP09 Mechanical – Addendum No. 1
 - vii. 00 21 13.10 BP10 Electrical – Addendum No. 1
 - viii. 00 21 13.12 BP12 Asphalt Concrete Paving – Addendum No. 1

3. 00 41 13 Bid Form and Proposal:
 - a. Section 6: Federal Debarment Certification (00 45 46.11) and Federal Byrd Anti-Lobbying Certification (00 45 46.12) added to list of bid document submittals.

4. 00 52 13 Agreement (Stipulated Sum):
 - a. Section 4: contract duration added.
 - b. Section 6: liquidated damages added.

PROJECT MANUAL

- 1-01 **PROJECT MANUAL, SPECIFICATION SECTION 017419 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL:** Add specification section 017419 in its entirety.

- 1-02 **PROJECT MANUAL, SPECIFICATION SECTION 075713 – SPRAYED FOAM ROOFING SYSTEM:** Add specification section 075713 in its entirety.

- 1-03 **PROJECT MANUAL, SPECIFICATION SECTION 092400 - CEMENT PLASTERING:** Add specification section 092400 in its entirety.

- 1-04 **PROJECT MANUAL, SPECIFICATION SECTION 096513 – RESILIENT BASE AND ACCESSORIES:** Add specification section 096513 in its entirety.
- 1-05 **PROJECT MANUAL, SPECIFICATION SECTION 096813 – TILE CARPETING:** Add specification section 096813 in its entirety.
- 1-06 **PROJECT MANUAL, SPECIFICATION SECTION 312000 – EARTH MOVING:** Add specification section 312000 in its entirety.
- 1-07 **PROJECT MANUAL, SPECIFICATION SECTION 321216 – ASPHALT PAVING:** Add specification section 321216 in its entirety.

DRAWINGS

- 1-08 **DRAWINGS, T0.00 – TITLE SHEET:** Replace sheet T0.00 in its entirety with Addendum 1 sheet T0.00 Exhibit 1-08.

ARCHITECTURAL

- 1-09 **DRAWINGS, A1.00 – SITE PLAN:** Replace sheet A1.00 in its entirety with Addendum 1 sheet A1.00 Exhibit 1-09.
- 1-10 **DRAWINGS, A2.10 – DEMOLITION PLANS – BUILDINGS A&C:** Replace sheet A2.10 in its entirety with Addendum 1 sheet A2.10 Exhibit 1-10.
- 1-11 **DRAWINGS, A2.11 – DEMOLITION PLANS – BUILDINGS D, E & MECH. ENCLOSURE:** Replace sheet A2.11 in its entirety with Addendum 1 sheet A2.11 Exhibit 1-11.
- 1-12 **DRAWINGS, A2.20 – FLOOR PLANS IMPROVEMENTS - BUILDINGS A & C:** Replace sheet A2.20 in its entirety with Addendum 1 sheet A2.20 Exhibit 1-12.
- 1-13 **DRAWINGS, A2.21 – FLOOR PLANS IMPROVEMENTS – BUILDINGS D & E:** Replace sheet A2.21 in its entirety with Addendum 1 sheet A2.21 Exhibit 1-13.
- 1-14 **DRAWINGS, A3.11 – SECTIONS - BUILDINGS A, C, D & E:** Replace sheet A3.11 in its entirety with Addendum 1 sheet A3.11 Exhibit 1-14.
- 1-15 **DRAWINGS, A4.10 – ROOF PLANS - BUILDINGS A & C:** Replace sheet A4.10 in its entirety with Addendum 1 sheet A4.10 Exhibit 1-15.
- 1-16 **DRAWINGS, A4.20 – ROOF PLANS – BUILDINGS D & E:** Replace sheet A4.20 in its entirety with Addendum 1 sheet A4.20 Exhibit 1-16.
- 1-17 **DRAWINGS, A6.20 – REFLECTED CEILING PLAN BUILDINGS A & C:** Replace sheet A6.20 in its entirety with Addendum 1 sheet A6.20 Exhibit 1-17.
- 1-18 **DRAWINGS, A6.21 – REFLECTED CEILING PLAN BUILDINGS D & E:** Replace sheet A6.21 in its entirety with Addendum 1 sheet A6.21 Exhibit 1-18.

- 1-19 **DRAWINGS, A8.01 – INTERIOR DETAILS:** Replace sheet A8.01 in its entirety with Addendum 1 sheet A8.01 Exhibit 1-19.

MECHANICAL

- 1-20 **DRAWINGS, M0.11 – DETAILS:** Replace sheet M0.11 in its entirety with Addendum 1 sheet M0.11 Exhibit 1-20.
- 1-21 **DRAWINGS, M2.12 – MECHANICAL PLAN – BUILDING A:** Replace sheet M2.12 in its entirety with Addendum 1 sheet M2.12 Exhibit 1-21.
- 1-22 **DRAWINGS, M2.31 – MECHANICAL PLAN – BUILDING C:** Replace sheet M2.31 in its entirety with Addendum 1 sheet M2.31 Exhibit 1-22.
- 1-23 **DRAWINGS, M2.41 – MECHANICAL PLAN – BUILDING D:** Replace sheet M2.41 in its entirety with Addendum 1 sheet M2.41 Exhibit 1-23.
- 1-24 **DRAWINGS, M2.51 – MECHANICAL PLAN – BUILDING E:** Replace sheet M2.51 in its entirety with Addendum 1 sheet M2.51 Exhibit 1-24.

ELECTRICAL

- 1-25 **DRAWINGS, E1.01 – SITE ELECTRICAL PLAN:** Replace sheet E1.01 in its entirety with Addendum 1 sheet E1.01 Exhibit 1-25.
- 1-26 **DRAWINGS, E1.02 – ENLARGED SITE ELECTRICAL PLAN:** Replace sheet E1.02 in its entirety with Addendum 1 sheet E1.02 Exhibit 1-26.
- 1-27 **DRAWINGS, E5.00 – DETAILS:** Replace sheet E5.00 in its entirety with Addendum 1 sheet E5.00 Exhibit 1-27

HVAC EQUIPMENT

- a. The Owner is providing all HVAC equipment shown on the Purchase Order / Sigler Proposal document attached. All equipment is to be installed under BP 09 Mechanical.
 - b. The owner is providing all thermostats. Thermostats are to be installed under BP 09 Mechanical.
- 1-28 **PURCHASE ORDER No. P24003190:** HVAC equipment shown on the Purchase Order from Sigler Wholesale Distributors Exhibit 1-28.

ELECTRICAL EQUIPMENT

The Owner is providing all electrical equipment that has been clouded on the 'Equipment Bid Package 12/5/22' document attached. All equipment is to be installed under BP 10 Electrical & Fire Alarm.

- 1-29 **DRAWINGS, E1.00 – SITE ELECTRICAL PLAN - DEMOLITION:** Equipment Bid Package, Exhibit 1-29.
- 1-30 **DRAWINGS, E1.01 – SITE ELECTRICAL PLAN:** Equipment Bid Package, Exhibit 1-30.
- 1-31 **DRAWINGS, E1.02 –ENLARGED SITE ELECTRICAL PLAN:** Equipment Bid Package, Exhibit 1-31.
- 1-32 **DRAWINGS, E4.00 – ONE LINE DIAGRAM - DEMOLITION:** Equipment Bid Package, Exhibit 1-32.
- 1-33 **DRAWINGS, E4.01 – NEW ONE LINE DIAGRAM:** Equipment Bid Package, Exhibit 1-33.
- 1-34 **DRAWINGS, E4.02 – PANEL SCHEDULES:** Equipment Bid Package, Exhibit 1-34.

RFI FORM

- 1-35 **S.C. ANDERSON – REQUEST FOR INFORMATION FORM:** Form to be used for requesting information during the Bidding Process, Exhibit 1-35.

END ADDENDUM NO. 1

DOCUMENT 00 01 20

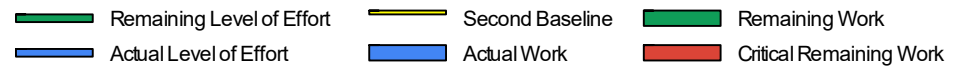
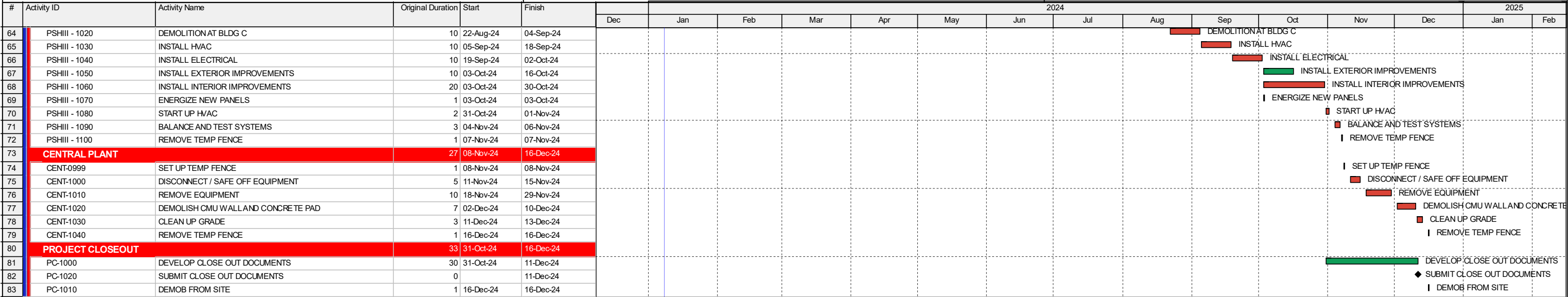
LIST OF SCHEDULES

SCHEDULES

1. ~~Refer to attached Munsey Elementary School HVAC Replacement – Preliminary Baseline Schedule dated 1/3/24.~~
2. Refer to attached Munsey Elementary School HVAC Replacement – Preliminary Baseline Schedule dated 1/15/24.

END OF DOCUMENT

MUNSEY ELEMENTARY SCHOOL HVAC REPLACEMENT
 PRELIMINARY BASELINE 1/15/2024



INSTRUCTIONS TO BIDDERS

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

Bakersfield City School 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, for the following project ("Project" or "Contract"):

Munsey Elementary School HVAC Replacement

To bid on this Project, the Bidder is required to possess one or more of the following State of California contractors' license(s):

BP 01 Demolition & Abatement (C-21)	BP 07 Floor Covering (C-15)
BP 02 Rough Carpentry (B or C-5)	BP 08 Painting (C-33)
BP 03 Roofing (C-39)	BP 09 Mechanical (C-20)
BP 04 Thermal Insulation (C02)	BP 10 Electrical & Fire Alarm (C-10)
BP 05 Plaster & Drywall (C-9 & C-35)	BP 11 Site Concrete (C-8)
BP 06 Acoustical Ceilings (C-2)	BP 12 Asphalt Paving (A or C-12)

Refer to the following specification sections 00 21 13.00 through 00 21 13.12 to review bid package scopes of work.

2. A Bidder and its subcontractors must possess the appropriate State of California contractors' license and must maintain the license throughout the duration of the project. Bidders must also be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code. Bids submitted by a contractor who is not properly licensed or registered shall be deemed nonresponsive and will not be considered.
3. This Project **requires** prequalification pursuant to AB 1565 of all general contractors and all mechanical, electrical and plumbing subcontractors. If required, Prequalification can be completed using the online prequalification system at www.qualitybidders.com. A bid package will not be accepted from any bidder that is required to submit a completed questionnaire and supporting documents pursuant to AB 1565, but has not done so at least ten (10) business days prior to the date fixed for the public opening of sealed bids or that has not been prequalified for at least five (5) business days prior to that date.
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 board room at the District Office, 1300 Baker Street, Bakersfield, CA 93305 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 nonresponsive 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 (mandatory for BP-01, BP-10, BP-11)
 - d. Non-Collusion Declaration.
 - e. Iran Contracting Act Certification, if contract value is \$1,000,000 or more.
 - f. Federal Debarment Certification, if contract value is \$100,000 or more.
 - g. Federal Byrd Anti-Lobbying Certification, if contract value is \$100,000 or more.
11. Bidders must submit with their bids cash, 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 nonresponsive and will not be considered.

12. If Bidder to whom the Contract is awarded fails or neglects to enter into the Contract and submit required bonds, insurance certificates, and all other required documents, within **FOURTEEN (14)** 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 Work, 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 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 nonresponsive and will not be considered.

17. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to the 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>. Federal prevailing wage rates are available at <https://sam.gov/content/wage-determinations>.

Since the Project is funded in whole or in part with federal funds, the Contractor and all Subcontractors under the Contractor shall comply with the Davis-Bacon Act, applicable reporting requirements, and any other applicable requirements for federal funding. If a conflict exists with a state requirement, the more stringent provision shall prevail.

18. Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding or demonstrate its good faith effort to solicit DVBE participation in this Contract. In order to meet this requirement by demonstrating a good faith effort, Bidder must advertise for DVBE-certified subcontractors and suppliers before submitting its Bid. For any project that is at least partially state-funded, the lowest responsive responsible Bidder awarded the Contract must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification form is attached. Do not submit this form with your Bid. Submit forms within four (4) days after Notice of Award.
19. Submission of bid signifies careful examination of Contract Documents 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, Site, 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 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 Agreement 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 Bidder 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 Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder 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, Bidder 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 Bidder 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, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.

- 20. 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.
21. 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.
 22. All questions about the meaning or intent of the Contract Documents are to be directed via email to the Architect: clynn@somam.com, fceballos@somam.com, and Construction Manager: joejannino@scanderson.com, estimating@scanderson.com. 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 or posted on the District's website at <http://mot.bcsd.com/Construction%20Consultants/22216.00-35-%20Munsey%20HVAC%20Chiller%20Replacement/> Questions received less than **SEVEN (7)** 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.
 23. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by the District.
 24. 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 secured from the District.
 25. This 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.
 26. 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.
 27. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.
 28. Bidders in contention for contract awards shall be required to attend a Post-Bid interview, which will be set within three (3) calendar days following bid opening. A duly authorized representative of the apparent low bidder is required to attend the Post Bid Interview, in person. The apparent low bidder's authorized representative(s) must have (1) knowledge of how the bid submitted was prepared, (2) the person responsible for supervising performance of the Work, and (3) the authority to bind the apparent low bidder. Failure to attend the Post Bid Interview as

scheduled will be considered just cause for the District to reject the Bid as nonresponsive.

29. 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.

30. The Bidder to whom Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **FOURTEENTH (14th)** 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 nonresponsive.
- a. Agreement: To be executed by successful Bidder. Submit two (2) copies, each bearing an original signature.
 - b. Escrow of Bid Documentation: This must include all required documentation. See the document titled Escrow Bid Documentation for more information.
 - c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - d. Payment Bond (Contractor's Labor and Material Bond) (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - e. Insurance Certificates and Endorsements as required.
 - f. Workers' Compensation Certification.
 - g. Prevailing Wage and Related Labor Requirements Certification.
 - h. Disabled Veteran Business Enterprise Participation Certification.
 - i. Drug-Free Workplace Certification.
 - j. Tobacco-Free Environment Certification.
 - k. Hazardous Materials Certification.
 - l. Lead-Based Materials Certification.
 - m. Imported Materials Certification.
 - n. Criminal Background Investigation/Fingerprinting Certification.
 - o. Roofing Project Certification: from Contractor, Material Manufacturer and/or Vendor.
 - p. Registered Subcontractors List: Must include Department of Industrial Relations (DIR) registration number of each subcontractor for all tiers. Submittal of a Registered Sub list is required within 10 days after not to proceed.
31. 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.
32. District reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, nonresponsive, 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.
33. 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.
34. 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 Package 00 - Standard Project Requirements – Addendum No. 1

PROJECT: **Munsey Elementary School HVAC Replacement**
3801 Brave Avenue
Bakersfield, CA 93309

DSA NUMBER: 03-122489

OWNER: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

This Standard Project Requirement Bid Package shall be applicable to **ALL** Construction Bid Packages provided by S.C. Anderson, Inc. for this project. Contractors shall review all sections below and include any costs to comply in their base Bid.

This Bid Package is for the HVAC Replacement at Munsey Elementary School as part of the Construction Manager delivery method. All Bids will be addressed and delivered to Bakersfield City School District as noted in the Instructions to Bidders in the Construction Manual. Once presented, the bids will be opened and evaluated by the District and the Construction Manager. Any contract awarded by the District, and the work thereafter, will be managed, directed, and overseen by the Construction Manager. All work shall be performed in accordance with All Contract Documents, Pre-Bid Information, Bid Documents, Addenda, Construction Agreement, General Conditions, Special Conditions, Environmental Reports, Contract, Project Schedule, Project Manual, Construction Manual, the requirements of the General Requirements/Specifications (Division 00 thru 33), and Contract Drawings (Here after referred to as "contract documents") which are hereby incorporated into this and all other Bid packages by their reference. The work under any Bid Package shall include the furnishing and installing of all material, equipment, procedures, means, methods, items and labor required to complete the work described in this Bid Package. The work shall be completed as shown on the drawings and specified in any applicable technical specification sections.

This bid scope of work consists of replacing existing unit ventilators, air handlers, and make-up air units in Buildings A, C, D, and E with modern, more efficient rooftop package units including removal of all existing outdated, central plant equipment from the chiller yard after the new equipment is approved and fully operational. Scope also includes fire alarm system upgrade at buildings previously mentioned along with new flooring, ceilings, and replacement of patches due to the modernization. Scope of work includes abatement as specified in the Environmental Reports provided. All contractors must adhere to the following:

In order for the contractor to enter sections of the building included in this scope of work in which has asbestos-containing materials in them, they shall have, at a minimum the 2-Hour Asbestos Awareness Training. (this training is for those who may encounter asbestos but will not be intentionally disturbing it.

Work is scheduled to commence March 25, 2024. The work of this or any other bid package must be completed according to the construction schedule included with contract documents. The construction schedule prepared by the Construction Manager, or other target dates pertaining to any work must be adhered to by the Contractor. Procurement of materials and/or equipment shall be done in a timely manner to comply with the project schedule. No extension of time will be granted unless the circumstances are within the stipulations of the General Conditions. All bid packages are contained in the Construction Manual. These standard Project Standards are to be made part of every Contractor's scope of work in addition to their applicable bid package.

In addition to the above, work for each specific Bid package shall include the furnishing of all labor, materials, processes, equipment, means and methods and related items required to complete the work as shown on the drawings and set forth in the specifications referred to herein or elsewhere in the Contract Documents.

The Scope of the Work for each Contractor awarded a contract shall include, but not necessarily be limited to, the items listed below and those listed in the specific Bid Package(s) awarded to that Contractor in accordance with the applicable drawings and specification section(s). NOTE: The term "Provide" is defined as "to furnish and install, complete and ready for the intended use."

In addition to the work noted in the successful Contractor's Bid Package, each Contractor must also adhere to the following:

1. Project General Provisions noted in this manual, and all items in Division 01 (General Requirements) in the project manual shall apply to all Contractors performing any work on this project.
2. Each Contractor shall review and abide by the General Rules of Conduct located in the Construction Manual. The plan outlines requirements for fingerprinting and background checks.
3. Mandatory weekly coordination meetings will be held for all Contractors performing work on site. It is each Contractor's responsibility to attend such meetings beginning two weeks prior to start work.
4. At times conflicts within the contract documents may be discovered as the work progresses. Should such a conflict occur, it is each Contractor's responsibility to seek resolution by submitting a request for information (RFI) requesting clarification. RFIs shall be submitted in the S. C. Anderson Inc. project Procore system.
5. Working hours shall be 6:00am - 4:00pm Monday thru Friday. To perform work outside of these hours must be approved prior to commencing that work. Contractors shall manage the project appropriately to meet the CPM schedule.
6. Each Contractor shall provide for the appropriate number of move ins to perform the work noted in their specific Bid package and CPM schedule.
7. Each Contractor shall provide a full time, onsite superintendent/foreman. Said superintendent must possess the ability to communicate plainly with on-site staff.
8. As it pertains to each specific Bid package, each Contractor shall provide off site removal and proper disposal of all spoils.
9. The Base Bid pricing for any Bid over \$25,000 shall include the cost of 100% payment and performance bonds.
10. Each Contractor shall provide all any and all scaffolding (except as noted), shoring, trench plates, ladders, lifts, cranes or any other equipment required to perform the work required under each Bid package.
11. Provide access as required to allow inspectors, Owner, Architect, and Construction Manager to perform inspections.
12. Provide pot holing and locating of existing underground utilities if needed under each Bid package.
13. Each Contractor shall be responsible for temporary power within the buildings. Temporary power will be provided to a temporary power pole within the limits of construction. Each Contractor must supply their own method to get the power from that pole to their working condition or provide their own generator. Spider boxes or cords will not be supplied during construction. Additionally, neither

the District nor Construction Manager will be responsible for any delays due to outages, overuse, or non-availability of power.

14. Each Contractor shall provide for temporary construction work lighting as needed to perform their work.
15. Each Contractor shall be responsible to take and verify field dimensions.
16. Each Contractor must provide any layout (from benchmarks and staking) necessary to complete the scope of work listed in each Bid package. Initial surveying and staking will be provided by the Construction Manager. However, should any re-staking be required as a result of a Contractor destroying, removing or otherwise disrupting the credibility of the staking, the cost for such re-staking will be the responsibility of the Contractor.
17. Each Contractor shall provide a dimensioned layout for all backing, penetrations, and openings required to install any of the work noted in an awarded Bid package. Should a Contractor fail to provide this layout, the responsibility to install any missed backing shall be the responsibility of that Contractor with no additional compensation. This includes any and all cutting/patching, moving of piping, conduits or any other installed item that may be required to install any missed backing due to the failure to supply the layout.
18. As applicable to each Bid Package, each Contractor shall provide all excavation, shading, bedding, backfill and compaction as noted in the contract documents, for any work provided under this their package.
19. Provide dewatering and mucking out as associated with the performance of the work (as applicable) to each Bid Package.
20. As applicable to each Bid Package, each Contractor shall, with the involvement of the Construction Manager overlay their scope of rough in with the others for coordination to avoid conflicts in the field.
21. Each Contractor shall route all conduits, piping, ducting etc. to avoid interference with other piping, footings or other portions of the building. Drawings are diagrammatic and alternate routing, transitions and fittings may be required due to building and site constraints and adjacent utilities. Cost of utility route adjustments to be included in each Contractor's Bid.
22. Each Contractor shall provide a contained clean out area for cleaning of trucks, tools, spray guns, hoses, brushes, buckets, pumps, wheelbarrows, or any other tool, container or device use to perform work on this site. At no time will any such vehicle/device/tool be cleaned out and dumped, sprayed, splashed or shaken directly onto or into the ground. All cleaned debris and rinse water shall be removed and properly disposed of offsite.
23. Each Contractor must provide any special testing or inspections and certification as required by the work of the specific Bid package, including inspections required by any other agency or municipality.
24. Each Contractor shall provide, at a minimum, weekly clean up and off-site removal of trash, debris, unused construction materials and lunch debris generated by their crew. The costs for hauling off each Contractor's dumpsters are to be included in the price for their Bid Package. It is recommended that each contractor provide a lockable trash container for their own use. In the absence of a clean construction site, each contractor will be required to provide at least one person per week to perform clean up as Directed by the Construction Manager. Should a Contractor fail to provide the manpower noted above, the Construction Manager may seek other means to complete this clean up and that Contractor will be back-charged accordingly. To Clarify: Any clean up performed on behalf of a Contractor by Construction Manager, Owner or District, will be back charged to and deducted from their contract.
25. Each Contractor must provide final clean up and offsite disposal of any debris or unused construction material in one area before moving to another area to perform work. Such clean up and disposal shall comply with all federal, state, and local ordinances and codes. Note: Any clean up performed on behalf of this Contractor, will be back charged to and deducted from each Contractor's contract.
26. Each Contractor must provide dust control and street clean up, meeting or exceeding the local governing agency's requirements or any other applicable code or regulation (as required for this

project), for all generated airborne particles and/or mud/debris that may be deemed unhealthy and/or a nuisance to the public. Any fines received as a result of any Contractor's failure to meet these codes or regulations will be the responsibility that Contractor.

27. Dust control shall be provided by the Contractor whenever earthmoving; excavation, backfilling or compacting activities are taking place. SCA will provide a water meter at a point to be determined. **Each Contractor will be charged the current local municipality's water rate plus 10% for SCA markup for their water usage.**
28. All work must conform to all Federal, State, County, City or Local Codes, Regulations, Ordinances and Standards.
29. Each Contractor is responsible for compliance with all applicable public utility and municipal codes and standards.
30. All non-compliant materials shall be immediately removed from the Project Site.
31. Each Contractor shall provide certified payroll reports, for their work force and any sub tier contractor to Construction Manager on a weekly basis. Pay applications/payments will be held for failure to provide these certified reports. Please note the DIR is now requiring that Certified payroll be entered into their system. Hard copies will still need to be provided to the jobsite.
32. Each Contractor shall provide a notice of non-performance when workers are not on site. Non-performance notifications shall be provided until a notice of completion is filed with the local jurisdiction by the District.
33. Each Contractor must provide proper submittals, shop drawings, mockups, product data, samples, SDS's, as noted in the contract documents, included color samples as/if required.
34. Each Contractor must update the As-Built drawings weekly in the Project Office. Pay applications/payments may be held for failure to update drawings.
35. Each Contractor shall provide a detailed and accurate schedule of values for the work included in any awarded Bid Package. Schedule of values to include labor, material, and equipment costs and be broken down for each area. The schedule of values must be submitted for approval prior to commencement of work and/or payment.
36. Each Contractor shall comply with any and all requirements to use state approved apprentices and paying into approved apprenticeship programs.
37. Each Contractor shall have their Foreman/Superintendent attend a weekly Contractors meeting at the Construction Manager's job trailer.
38. Each Contractors shall provide daily reports at the end of each workday to Construction Manager. Failure to submit daily reports may delay progress payments.
39. Each Contractors must coordinate the work of each Bid package with the architect's approved submittals and/or shop drawings as it pertains to the work outlined in each Bid Package.
40. Each Contractor shall coordinate all work with governmental agency engineers, testing laboratory technicians, Construction Manager, Inspector of Record, private property owners and other Contractors.
41. Each Contractor is responsible for coordination of work with governmental agency engineers, testing laboratory technicians, Construction Manager, Inspector of Record, any appropriate utility companies, private property owners and all other Contractors as applicable. Coordination drawings will be required for all installations near or adjacent to new utilities and structures.
42. Each Contractor is responsible for coordination of any of their work that involves interruptions of utility services. Interruptions shall not impact the site during hours of operation. Contractor shall schedule work afterhours and/or on weekends as required to accommodate the Project Schedule. Note: service interruptions may or may not be included into the CPM schedule.
43. Each Contractor shall provide any and all bonds, insurance, traffic plans, and permits (including any encroachment permits) as required by the District, County, City, State or federal agency.
44. Each Contractor must obtain and pay for a Business Tax Certificate from the City of Bakersfield or any other city having jurisdiction as/if required.
45. Each Contractor shall schedule survey requests with the Construction Manager 48 hours' notice shall be provided for all such requests. Survey requests shall include very specific descriptions of areas to be surveyed or a marked-up plan showing the location(s).

46. Each Contractor is responsible to conduct an inspection of existing conditions prior to commencing work.
47. Each Contractor is responsible for coordinating all required inspections with the Construction Manager and Inspector of record. Written inspection requests must be submitted 48 hours in advance.
48. Each Contractors shall review and comply with any testing requirements listed in the contract documents.
49. Each Contractor shall review and comply with any commissioning requirements.
50. Coordination drawings and a task specific work plan may be required for any construction related activity, which will directly affect safety, campus systems, activities, staff or students. Construction Manager will advise the Contractor when a plan is required. Each plan must be submitted with sufficient time for review/approval by Construction Manager.
51. Coordinate soil compaction testing with Construction Manager. Note: Initial compaction test will be provided at no cost to the Contractor. Any costs or lost critical path time, associated with retesting of soil compaction in areas that failed previously are the responsibility of that Contractor.
52. Provide Inspection and repair of all defective work for a period of one year from the date of Notice of Completion, or if subsequent repairs are required, one year from the date the repairs are complete. This requirement is not in lieu of any extended warranties.
53. Provide owner with specified contract closeout documents, including but not limited to, complete "As Built drawings", Operations and Maintenance Manuals, Guarantees and Warranties (including manufacturer's extended warranties) at conclusion of contract.
54. Each Contractor must supply waiver and releases upon progress payment and final payment. This includes waivers and release from tiered subcontractor or supplier. Failure to provide required releases may delay processing of payment.
55. Each Contractor shall provide Personal Protective Equipment (PPE) for each employee on site. PPE shall consist of Safety vests, hardhats, safety glasses, work boots, long pants and sleeved shirts. Failure to wear the minimum required safety equipment for the task being performed will result at minimum in stoppage of the work task. Safety equipment must be worn at all times while on site. This requirement applies to delivery drivers entering the site.
56. Deliveries may be rejected if proper PPE is not worn.
57. Each Contractor shall provide appropriate drinking water and shade (when necessary) for all of their own staff and workers as required by current OSHA/CAL-OSHA regulations related to heat illness.
58. Each Contractor must provide all traffic control and protection as may be required to meet Federal, State, City or local codes regulations in the performance of their own work. At no time are obstructions of roadways and/or sidewalks allowed without the appropriate permits. It is the responsibility of each Contractor to obtain (and pay for) any such required permits. When traffic control is being provided, certified flagmen should be utilized.
59. **Each Contractor shall comply with the requirements of AB 219 as it pertains to the related scope of work.**
60. Provide protection for public and worker safety (barricades, harness, shoring, etc.) as required to meet applicable Federal, State, City or Local Codes. Engineering shoring plan must be submitted for approval for excavations greater than 5' or at excavations impacting existing structures prior to commencing work.
61. Each Contractor shall provide weekly safety meeting reports to the Construction Manager. Meeting reports with attendee signatures shall be turned in no later than each Friday for that week.
62. Provide protection of contiguous work to prevent damage when performing work under each respective contract. Repair of any work damaged under each contract will be performed by the responsible Contractor with no additional cost to the owner, District or Construction Manager.
63. Each Contractor must contact Underground Service Alert before digging.
64. Provide protection, security, theft and proper storage for all construction materials related to each Contractor's Bid package to eliminate damage during shipping, delivery, handling, storage and installation.

65. Each Contractor is responsible for locating and protecting existing public and private utility, facilities and other property improvements and to locate and protect all work in place.
66. Each Contractor will be responsible for all billings, submittals, schedule updates, drawing updates and required documents, as may be applicable to the project, through our cloud-based project management program, Procore.
67. Off-site parking will be available to all contractors. On-site vehicle parking is extremely limited due to the nature of the project site and will only be available via prior authorization from Construction Manager on site staff.
68. **Lean Last Planner – The scheduling of the project shall be provided using a combination of the (P6) critical path method to track the project at the milestone level and the Last Planner® System. Milestone schedules shall represent hard dates for major project milestones that will guide the Contractor Last Planner® phase planning, 6-week make work ready planning, and weekly work planning sessions. Construction Manager shall require each of its Contractors & Subcontractor and Material Suppliers to participate in the pull planning scheduling sessions for the project as necessary according to their work. The following items will be discussed in the weekly Pull planning meetings.**
69. **Specification Section 017419 – Construction Waste Management added via Addendum No. 1: this specification section shall apply to all Bid Packages 01 through 12.**

Pull Planning Implementation

- Milestone Schedule
- Milestones (Schedule) – Set milestones
- Construction Strategy
- Identify construction activities & durations for each milestone
- Identify manpower required to meet commitment dates
- Specify predecessor and successor activities
- Identify operational control
- Identify pre-requisites and constraints
- Weekly Work Planning
- One tag per day, per activity
- Daily commitments from Last Planners
- Identifying and eliminating constraints
- Document progress daily/weekly
- Measuring & Evaluating
- Identify long lead items & stakeholder milestones
- Update Milestone schedule with Phase and Weekly Work Plan activities & durations
- Document commitments made/missed
- Measure Percent Plan Complete (PPC)
- Identify reasons for missed commitments
- Develop plan of action to correct missed commitments

Lean cores tools to be utilized are 5S, Teams, Standard Work, A3 Problem Solving, Error Proofing and BIM. The Pull Planning session commitments shall represent updates to the baseline schedule. contractors will be required to start attending Pull Planning a minimum of 4 weeks ahead of mobilization, or as the project requires for their scope.

On-Site Foreman of each Contractor on site, including subcontractors, will be required to attend daily 15-Minute Foreman’s Huddles as part of the implementation of the pull plans.

Bid Submission:

It is the responsibility of each bidder to inspect the project site, review the complete set of plans, specifications, schedules, addenda, and city/county/state standards and the Construction Manual, prior to submitting a Bid.

Bidder is solely responsible for costs and expenses incurred in developing his Bid. Nothing within Bidding Documents shall be construed as establishing a relationship between the Owner or Construction Manager and Bidder wherein the owner or Construction Manager shall compensate Bidder for developing such Bid. The submission of a bid shall be taken as prima facie evidence that submitting party is aware of the site conditions and has read and acknowledges the foregoing.

Each Bid submitted must include the following items at the time of Bid:

1. 00 41 13 Bid Form and Proposal
2. 00 43 13 Bid Bond on District's form or other security
3. 00 43 36 Designated Subcontractor's List
4. 00 45 01 Site Visit Verification (mandatory for BP-01, BP-10, and BP-11)
5. 00 45 19 Non-Collusion Declaration
6. 00 45 19.01 Iran Contracting Act
7. 00 45 46.11 Federal Debarment Certification
8. 00 45 46.12 Federal Byrd Ant-Lobbying Certification



Bid Package 03 Roofing – Addendum No. 1

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Ave
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 073113 – Asphalt Shingle Patching**
 - b. **Section: 075713 – Sprayed Foam Roofing System**
 - c. **Section: 076200 – Sheet Metal Flashings and Trim**
 - d. **Section: 079200 – Joint Sealants (as pertains to this Bid Package)**
2. Refer to the CPM schedule and Area Phasing plans and provide multiple mobilizations as necessary to complete this work.
3. Provide cutting, removal and patching of existing roofing at all locations where rooftop units are to be removed or installed. Allow up to a 2’ radius around rooftop units. Match existing roofing material.
4. Provide crickets at new rooftop unit locations.
5. Provide all sheet metal associated with the roofing system including drip flashings, counter flashings, valley flashings, springlock flashing, expansion flashings, reglets, and trim.
6. Provide all specialty flashing, or accessory required by the roofing manufacturer to maintain any warranties (standard or extended), whether or not this flashing is referenced in the contract documents.
7. Coordinate the placement and configuration of all flashing with all other trades as appropriate.

8. Provide sprayed foam roofing system patching at all roofing locations, to match existing, as shown in the contract documents.



Bid Package 05 Cement Plaster & Drywall – Addendum No. 1

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Avenue
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings apart from items listed as “Work by Others”:
 - a. **Section: 079200 – Joint Sealants (as applies to this Bid Package)**
 - b. **Section: 092400 – Cement Plastering**
 - c. **Section: 092900 – Gypsum Board Assemblies**
2. Refer to the CPM schedule and Area Phasing plans and provide multiple mobilizations as necessary to complete this work.
3. Provide all gypsum board, taping and accessories, trim, screws, staples, joint tape and compounds and texture finish for walls, ceilings, and soffits.
4. Provide gypsum board patch back at new power and data locations at existing walls. Gypsum board finish to match existing.
5. Provide gypsum board patch back at all mechanical louver and ducting infill locations; figure a minimum dimension of 3'x3'. Gypsum board finish to match existing.
6. Provide plaster patch back at all mechanical louver and ducting infill locations; figure a minimum dimension of 3'x3'. Plaster color coat to match existing.
7. Provide all lath, paper, weather resistive barrier, self-adhered flashing, fasteners, edge metal, screed, expansion screed/metal, vent screeds, control joint metal, parting joint, expansion joint, casing bead, door drips base screen, weep screed, and reveals for any plaster surface noted in the contract documents.

8. Patch all existing wall damaged during construction aligned with adjacent finish.
9. Provide a contained clean out area to be used for cleaning all trucks, mixers, tools, wheelbarrows, etc., used to apply any cementitious or gypsum-based material under this bid package. No such material will be cleaned out/rinsed onto bare soil on this site. All such material will be removed and properly disposed of offsite as part of this contract work. SCA requires the use of the below or similar product. **The cleanout shall be erected a minimum of 24 hours prior to anticipated use.** Proper removal and off-site disposal of the cleanout shall be performed as soon as liquids have evaporated.
10. Provide vertical and horizontal firestopping at all required locations per specifications and plans.



Bid Package 06 Acoustical Ceilings

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Avenue
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 079200 – Joint Sealants (as it pertains to this Bid Package)**
 - b. **Section: 095113 – Acoustical Panel Ceilings**
2. Refer to the CPM schedule and Area Phasing plans and provide multiple mobilizations as necessary to complete this work.
3. Provide all acoustical ceiling system complete with mains, runners, lay-in fiberboard panels, including wires, hangers, braces, edge metal, sway bracing, struts, compression struts, seismic restraints mounting hardware, accessories etc. required to produce a completed ceiling.
4. Provide additional wires at any suspended ceiling as required for attachment to all light fixtures, HVAC grilles/registers, or any other device required to be mounted to or through an acoustical ceiling as required to meet any applicable codes.
5. Provide any and all fasteners, supports, bracing, hangers, clips, channels, panel termination, and trim required to produce a complete ready for use system.
6. **Provide patch back of glue-on acoustic tile at classroom light wells per the contract documents.**



Bid Package 07 Floor Covering – Addendum No. 1

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Ave
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 079200 – Joint Sealants (as it pertains to this work)**
 - b. **Section: 096513 – Resilient Base and Accessories**
 - c. **Section: 096813 – Tile Carpeting**
2. Refer to the CPM schedule and Area Phasing plans and calculate multiple mobilizations as necessary to complete this work.
3. Provide all flooring including ~~VCT~~, carpet tile, entry mat, and topset base as/where noted in the contract documents.
4. Provide caulking/sealers, adhesives, tack strip, edge metal trim, cove base, cove base cap trim, carpet edge guard, reducing metal (Schluter, etc.), cover caps, transitional moldings, as/where noted in the contract documents required to produce a complete and ready for use installation.
5. Contractor must participate/attend pre-installation meeting to be set by the Construction Manager.
6. Provide submittals, shop drawings, seam diagrams, manuals, product data sheets and samples as noted in specifications including color samples as appropriate.
7. Provide proper preparation of flooring substrate including application of primers, fillers (including joints or cracks), or any other floor prep material used in the flooring installation.

8. Provide moisture and PH testing of the substrate as noted in the contract documents, evaluate all readings and confirm the test results are conducive to the floor covering.
9. Furnish owner with additional (extra) material as noted in the contract documents.
10. Provide and maintain protection of all finished products during the construction.
11. This contractor should anticipate grinding and filling (due to curling or other defects) of slab on grade work will be necessary to bring some slabs on grade or portions of slabs on grade to bring them into tolerance. This work shall be included the pricing of this proposal package. Contractor shall figure a minimum of 4 man-hours per room for this work. Any time used shall be coordinated with Construction Manager prior to performing work.



Bid Package 09 Mechanical

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Avenue
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 024119 – Selective Building Demolition (as it pertains to this work)**
 - b. **Section: 079200 – Joint Sealants (as it pertains to this work)**
 - c. **Section: 224000 – Plumbing**
 - d. **Section: 230010 – General Mechanical Provisions**
 - e. **Section: 230593 – Testing, Adjusting and Balancing for HVAC**
 - f. **Section: 230700 – HVAC Insulation**
 - g. **Section: 232300 – Refrigerant Piping**
 - h. **Section: 233113 – Air Distribution**
 - i. **Section: 237000 – HVAC Equipment**
2. Refer to the CPM schedule and Area Phasing plans and calculate multiple mobilizations as necessary to complete this work.
3. Provide layout, and coordination of ductwork, supports, controls, equipment, curbs, piping, and all other plumbing and HVAC related items to be demolished by others (BP01 Selective Demolition & Abatement).
4. Provide draining of all existing HVAC Units to be removed / demolished.
5. Provide installation of Owner furnished HVAC units including picking up the units from the Owner’s designated location at the Hadco Warehouse located at 1201 Citation Way, Bakersfield, CA 93308 and delivering to the project site ready for installation. Additional information clarifying Owner Furnished equipment to be provided via Addendum.

6. Provide installation of Owner furnished thermostats. Cut sheets to be provided via Addendum.
7. Provide HVAC system as shown in the contract documents, complete and ready for use. This includes all piping, roof curbs, flashing, fittings, flanges, anchors, final connections, etc. required to make the system completely functional.
8. Provide hangers, bracket, support, splay, rod, brace, angle, strap, fastener, clip etc. for work provide under this proposal package.
9. Provide insulation, jackets, vapor barrier, coatings, wrappings, fire caulking or firesafing/stopping for any duct, piping, fitting, valve or device provided as part of this work.
10. Provide condensate piping, drains (primary or secondary), and main drains complete for all HVAC units, including final connection of any such drain.
11. Provide all refrigerant piping and accessories complete as part of the indoor / outdoor units
12. Provide drip pans (primary or secondary) prepared to accept/receive condensate piping as/where required for all HVAC units requiring same.
13. Provide t-stats or any other device required to complete the controls system as/where noted including all required programming and training.
14. Provide connection of suspension wires to any grilles, registers etc. provided as part of this work. Installation of the wire to the structure are by others.
15. Provide caulking and/or joint sealers for all work provided under this proposal package.
16. Provide access doors as required by the work of this contract.
17. Provide air balancing accompanied by the appropriate supporting documentation/certification.
18. Provide all grilles, louvers, diffusers, and any finish trim etc. necessary to produce a finished complete working system. Note: It is this Contractor's responsibility to connect the ceiling wires to these items as required.
19. Provide location and/or layout for any backing or framing opening that is required to install any work performed under this proposal package.
20. Provide all required, marking, labeling and signage for all piping, valves, devices, units, etc.
21. Provide flashing and counter flashing wherever any part of a system installed under this bid package penetrates a roof or outside wall. These penetrations shall be flashed and counter-flashed absolutely watertight with a minimum 24 gauge galvanized sheet metal. Flashing apron shall extend not less that eight inches (8") from the conduit, pipe, device or support member in all directions unless detailed otherwise and approved prior to installation. All penetrations shall be flashed following the procedures of the National Roofing Contractor's Association.
22. Provide commissioning and documentation thereof for any item or system as required per the specifications.
23. Provide temporary filters in all equipment, for use in any equipment of this system for start-up and thru the construction phase.

- 24.** Provide removal and off-site disposal of all temporary filters and replace with permanent filters for all equipment prior to testing and balancing with new filters
- 25.** All firesafing and stopping to be coordinated with DSA inspector and other trades prior to installation.
- 26.** Disconnect, remove, clean, and re-install ceiling mounted ionizers in new ceilings per the contract documents.



Bid Package 10 Electrical & Fire Alarm – Addendum No. 1

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Avenue
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid.

NOTE: The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 024119 – Selective Demolition (as it pertains to this work)**
 - b. **Section: 079200 – Joint Sealants**
 - c. **Section: 260573 – Short Circuit Protective Devices Coordination Study**
 - d. **Section: 260574 – Arc Flash Hazard Study**
 - e. **Section: 260943 – Network Lighting Control**
 - f. **Section: 266000 – General Conditions**
 - g. **Section: 267000 – Basic Electrical Materials and Methods**
 - h. **Section: 293100 – Fire Detection and Alarm Systems**
2. Refer to the CPM schedule and Area Phasing plans and calculate multiple mobilizations as necessary to complete this work.
3. Electrical contractor shall make all buildings and site safe for demolition to be performed by others. Provide coordination and layout for the demolition Contractor.
4. Ensure existing systems outside of the construction area are left in working order during construction. Coordinate any system outages (if required) with SCA.
5. Perform shutdowns or tie-ins during off hours. This Contractor shall include any second shift, or overtime work, and temporary facilities for such work. Notify all parties initially two (2) weeks in advance and again forty-eight (48) hours in advance before any shutdowns or tie-ins are made.

6. Contractor shall acquire an Underground Service Alert Permit for the scope of this package and maintain it during underground activities. Provide the permit number and expiration date to SCA prior to starting underground work.
7. All fire-safing and stopping to be coordinated with DSA inspector and other trades prior to installation.
8. Provide all building electrical, including but not limited to conduit, connectors, boxes, plates, receptacles, switches, fireproofing requirements, pull rope/strings, fixtures, exit signs, emergency lighting, inverters, bulbs, transformers, **panels**, breakers, grounds, racks, penetrations and testing as noted in contract documents. Note: to Clarify: all wiring, conduits, fittings, pull boxes, junction boxes etc. necessary for the connection of any electrical, low voltage systems, fire alarm, or controls, etc. are part of this contract work. **Panels are Owner Furnished, Contractor Installed.**
9. Provide installation of Owner furnished Electrical equipment including picking up the units from the Owner's designated location at the Hadco Warehouse located at 1201 Citation Way, Bakersfield, CA 93308 and delivering to the project site ready for installation. Additional information clarifying Owner Furnished equipment to be provided via Addendum.
10. Provide all site underground or above ground electrical, power, fire alarm, including but not limited to trenching/excavation, conduit, fitting, pull boxes, vaults, bedding, shading, backfill, compaction, **switchgear**, panels, pull rope/string, wire, connectors, anchor bolts, layout and placement of required anchor bolts, light poles, and relocation of pull boxes as noted on plans. **Switchgear is Owner Furnished, Contractor Installed.**
11. Provide PG&E infrastructure including all conduit, vaults, transformer pad, and bollards per the PG&E drawings. Contractor to coordinate PG&E inspections.
12. Provide removal and patch back of concrete, asphalt and landscaping disturbed by work in this proposal package.
13. Maintain power connection to the chiller section of the existing main switchboard in order to keep the HVAC system operational during construction. Shutoffs to be coordinated with the Construction Manager and scheduled appropriately.
14. Provide a complete and operational Fire Alarm system including but not limited to: Fire Alarm system, terminal blocks, horizontal wiring, backbone wiring, jacks, faceplates, terminations, cross connects, programming, etc.
15. Locate using appropriate means all existing underground utilities, electrical and communication conduit etc. within the new construction site. Update General Contractors As-Built drawings showing the locations of all existing utilities prior to commencement of any work.
16. Provide any excavation, shading, bedding, backfill and compaction for any work under this contract.
17. Restore grades in all areas excavated to the pre-existing condition and provide written certification these grades have been restored. Any costs associated with surveying or re-working areas previously graded shall be the responsibility of this contractor.
18. Provide off-site removal of all spoils generated by this work.
19. Include battery calculations for emergency lighting with submittals.

20. Provide all specified labeling, stenciling, tagging identification of equipment and all systems installed in this Contract. All panels must be labeled with "typewritten" labels prior to initial "punch-walk".
21. Provide all access doors/panels required for this proposal package. Contractor shall coordinate with the Rough Framing Contractor for the location and installation of required backing material.
22. Provide disconnect switches and motor starters for equipment supplied by this and other Contractors as required. Locations of disconnect switches to be coordinated with other contractors to ensure clear view from equipment to disconnect switch. Include all supports, stands, etc. to support such items.
23. Provide connection of supporting ceiling wires to light fixture or any other device provide as part of this work.
24. Provide flashing and counter flashing wherever any part of a system installed under this proposal package (including Fire and Telecom) penetrates a roof or outside wall. These penetrations shall be flashed and counter-flashed absolutely watertight with a minimum 24-gauge galvanized sheet metal. Flashing apron shall extend not less than eight inches (8") from the conduit, pipe or support member in all directions unless detailed otherwise and approved prior to installation. All penetrations shall be flashed following the procedures of the National Roofing Contractors Association.
25. Provide Arc Flash Hazard Studies as required by current code.
26. Provide all breaker testing as required by current code and/or per the specifications.
27. At the commencement of construction, coordinate a meeting through SCA with all trades that require electrical power. All items and equipment shall be verified for voltage, amperage, phase, location, orientation, space requirements, type of connection, starter and disconnect locations and provisions, control system operation, etc. Any discrepancies shall be listed in a formal RFI to SCA.
28. Contractor is responsible to verify/coordinate the correctness of all locations, dimensions, size of equipment/fixtures/conduit etc., with all other trades and building components. Contractor shall verify that all electrical items will fit within the designed wall cavities, ceiling spaces, furred areas, etc. before floors, decks or underground work is installed.
29. Provide full coordination and scope coverage between the HVAC Contractors for the duct smoke detection systems. This Contractor will review all the Contract Documents to confirm that all of the necessary components, conduits, equipment and low/line voltage wiring is defined properly between trades so that a complete operation system will be obtained. HVAC Contractor to install the duct smoke detectors.
30. Provide temporary power boxes (1 each per building) and power cords until permanent power supply is established to the building.
31. Provide all connections, supports, support wires, rods, braces, angles, straps, anchors, etc. for work installed under this proposal package.
32. Provide conduit, wire and connections for other trades as noted in plans and specifications.
33. Provide commissioning and documentation thereof for any item or system as required per the specifications.

34. Provide any joint sealant/caulking required to finish and seal the work of this proposal package.
35. Provide disconnects of economizer separate from AC units.
36. Contractor shall comply with the requirements of AB 219 as it pertains to the related scope of work.
37. Provide sufficient manpower and equipment to meet the dates shown on the CPM schedule. Refer to Bid package 00 (Project Requirements) for more detailed requirements.
38. Provide submittals in accordance with the Project Manual and CPM Schedule.
39. Provide final cleaning of all equipment, etc.
40. Furnish and install all fire stop material as required at all penetrations through rated walls, ceilings and slabs required by the work to meet code and construction document requirements.
41. All single line and electrical drawings and diagrams are schematic in nature and actual locations of devices and routing of conduit and wiring will vary due to actual project conditions. Include all necessary relocations and re-routing as required for a complete and functional system.
42. Contractor shall provide formal training to school district staff on any installed system.
43. Provide housekeeping pads for transformers, panels, and switchgear per the contract documents.



Bid Package 12 Asphalt Concrete Paving – Addendum No. 1

Project: **Munsey Elementary School HVAC Replacement**
3801 Brave Ave.
Bakersfield, CA 93309

DSA Number: 03-122489

Owner: Bakersfield City School District
1300 Baker St.
Bakersfield, CA 93305

In addition to the items noted in Bid Package 00 – Standard Project Requirements, which are applicable to ALL Contractors, the Specific Scope of the Work shall include, but not necessarily be limited to the items listed below in accordance with the applicable drawings and specification section(s). Contractors shall review all sections below and include any costs to comply in their base Bid. **NOTE:** The term “Provide” is defined as “to furnish and install, complete and ready for the intended use.”

BASE PROPOSAL

1. Provide all work specified within the following specification sections and drawings with the exception of items listed as “Work by Others”:
 - a. **Section: 312000 – Earth Moving**
 - b. **Section: 321216 – Asphalt Paving**
2. Refer to the CPM schedule and Area Phasing plans and calculate multiple mobilizations as necessary to complete this work.
3. Provide all site asphalt concrete paving including but not limited to: subgrade preparation, vegetation control, soil sterilization, tack coat, asphalt emulsion seal coat, redwood headers, patching and repair of existing pavement.
4. Provide flood testing of all paved surfaces after paving is complete, to ensure proper drainage, and prove no puddling will occur. Max tolerance is to be 1/8”.
5. Provide all aggregate base, including grading and compaction, under any area to receive paving.
6. Provide clean sawcut line at locations where new paving abuts existing paving prior to new paving placement.
7. Provide proper number of move-ins required to complete work.
8. Provide scarification, moisture conditioning, compaction (including any proof rolling), fine grading of asphalt subgrade.

9. Obtain an approved haul route permit complete with driving route, traffic control plan, and hours of approved work from the City Public Works and/or any other required agency prior to commencing import/export activities.
10. Obtain and coordinate a designated queuing/Staging area/plan for trucks from the appropriate municipality and present to General Contractor prior to commencing any import/export or hauling of material.
11. Provide all pavement paint marking & striping as/where noted in the contract documents, including outdoor courts, play areas, fire lanes and curbs as shown on contract documents including but not limited to layout and surface preparation etc.
12. Provide all site signage as/where noted in the contract documents, including but not limited to all Accessible parking, accessible loading, fire lane, tow away, parking, bus loading student load and fire access line, exit route. Note; this work shall also include any posts (including excavation, concrete and rebar) and core drilling of any concrete necessary to install any sign or sign post. Provide
13. Provide all parking bumpers and/or barriers as/where shown including but not limited to, layout, auguring, concrete fill (of bollards) and anchors.
14. **Recompact the top 12" of native soil to 92% compaction.**

BID FORM AND PROPOSAL

To: Governing Board of the Bakersfield City School District ("District" or "Owner")

From: _____
(Proper Name of Bidder)

Bid Package #: _____

The undersigned declares that Bidder has read and understands the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, 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. 22216.00-35 for the following project known as:

Munsey Elementary School HVAC Replacement

("Project" or "Contract") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

	dollars	\$ _____
<i>BASE BID</i>		

Additive/Deductive Alternates: NONE

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Additional Detail Regarding Calculation of Base Bid

1. 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) is 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.
2. 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 before bid date to verify the issuance of any clarifying Addenda.
3. 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.
4. The liquidated damages clause of the General Conditions and Agreement is hereby acknowledged.
5. 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.
6. The following documents are attached hereto:
 - Bid Bond on the District's form or other security
 - Designated Subcontractors List
 - Site Visit Certification (mandatory for BP-01, BP-10, BP-11)
 - Non-Collusion Declaration
 - Iran Contracting Act Certification
 - Federal Debarment Certification
 - Federal Byrd Anti-Lobbying Certification
7. Receipt and acceptance of the following Addenda is hereby acknowledged:

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

8. Bidder acknowledges that the license required for performance of the Work is a _____ license.
9. 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.

10. 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.
11. 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
12. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with the Davis Bacon Act, applicable reporting requirements, and any and all other applicable requirements for federal funding. If a conflict exists, the more stringent requirement shall control.
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 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

AGREEMENT

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____
_____, 20____, by and between the Bakersfield City School District ("District") and _____
_____ ("Contractor") ("Agreement").

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

- 1. The Work:** Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner, the work of the following project:

Munsey Elementary School HVAC Replacement / 22216.00-35_/ BP:

("Project" or "Contract" or "Work")

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

- 2. The Contract Documents:** The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. Any and all obligations of the District and Contractor are fully set forth and described in the Contract Documents. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all Contract Documents.
- 3. Interpretation of Contract Documents:** Should any question arise concerning the intent or meaning of Contract Documents, including the Drawings or Specifications, the question shall be submitted to the District for interpretation. If a conflict exists in the Contract Documents, valid, written modifications, beginning with the most recent, shall control over this Agreement (if any), which shall control over the Special Conditions, which shall control over any Supplemental Conditions, which shall control over the General Conditions, which shall control over the remaining Division 0 documents, which shall control over Division 1 Documents which shall control over Division 2 through Division 49 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. In the case of a discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide District with the functionally complete and operable Project described in the Drawings and Specifications. In no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the District in the matter shall be final.

4. **Time for Completion:** It is hereby understood and agreed that the Work under this Contract shall be completed within **two hundred and seventy-four (274)** consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed.
5. **Completion - Extension of Time:** Should the Contractor fail to complete this Contract, and the Work provided herein, within the time fixed for completion, due allowance being made for the contingencies provided for herein, the Contractor shall become liable to the District for all loss and damage that the District may suffer on account thereof. The Contractor shall coordinate its Work with the Work of all other contractors. The District shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that will allow timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the Work of other contractors.
6. **Liquidated Damages:** Time is of the essence for all work under this Agreement. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that the District will sustain in the event of and by reason of Contractor's delay; therefore, Contractor agrees that it shall pay to the District the sum of **one thousand dollars (\$1,000.00)** per day as liquidated damages for each and every day's delay beyond the time herein prescribed as substantial completion of the Work.

It is hereby understood and agreed that this amount is not a penalty.

In the event that any portion of the liquidated damages is not paid to the District, the District may deduct that amount from any money due or that may become due the Contractor under this Agreement, and such deduction does not constitute a withholding or penalty. The District's right to assess liquidated damages is as indicated herein and in the General Conditions.

The time during which the Contract is delayed for cause, as hereinafter specified, may extend the time of completion for a reasonable time as the District may grant, provided that Contractor has complied with the claims procedure of the Contract Documents. This provision does not exclude the recovery of damages by either party under other provisions in the Contract Documents.

7. **Loss Or Damage:** The District and its agents and authorized representatives shall not in any way or manner be answerable or suffer loss, damage, expense, or liability for any loss or damage that may happen to the Work, or any part thereof, or in or about the same during its construction and before acceptance, and the Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatsoever; and shall hold the District and its agents and authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatsoever.
8. **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, lost bonding capacity, arising out of or in connection with this Contract for the services performed in connection with this Contract.

9. **Insurance and Bonds:** Prior to issuance of the Notice to Proceed by the District, Contractor shall provide all required certificates of insurance, insurance endorsements, and payment and performance bonds as evidence thereof.
10. **Prosecution of Work:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, may, pursuant to the General Conditions and without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.
11. **Authority of Architect, Project Inspector, and DSA:** Contractor hereby acknowledges that the Architect(s), the Project Inspector(s), and the Division of the State Architect ("DSA") 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 and regulations. The Contractor shall be liable for any delay caused by its non-compliant Work.
12. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by the Contractor without the prior written approval of the District, nor without the written consent of the Surety on the Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
13. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type _____ Contractor's license(s) issued by the State of California, Contractors' State License Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
14. **Registration as Public Works Contractor:** The Contractor and all Subcontractors currently are registered as public works contractors with the Department of Industrial Relations, State of California, in accordance with Labor Code section 1771.1.
15. **Payment of Prevailing Wages:** The Contractor and all Subcontractors 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. The Contractor and all Subcontractors shall comply with the Davis Bacon Act, applicable reporting requirements, and any other applicable requirements for federal funding. If a conflict exists, the more stringent provision shall control over this Agreement.
16. **Labor Compliance Monitoring and Enforcement:** This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations pursuant to Labor Code section 1771.4 and Title 8 of the California Code of Regulations. Contractor specifically acknowledges and understands that it shall

perform the Work of this Agreement while complying with all the applicable provisions of Division 2, Part 7, Chapter 1, of the Labor Code, including, without limitation, the requirement that the Contractor and all of its Subcontractors shall timely submit complete and accurate electronic certified payroll records as required by the Contract Documents, or the District may not issue payment.

- 17. Contract Price:** In consideration of the foregoing covenants, promises, and agreements on the part of the Contractor, and the strict and literal fulfillment of each and every covenant, promise, and agreement, and as compensation agreed upon for the Work and construction, erection, and completion as aforesaid, the District covenants, promises, and agrees that it will well and truly pay and cause to be paid to the Contractor in full, and as the full Contract Price and compensation for construction, erection, and completion of the Work hereinabove agreed to be performed by the Contractor, the following price:

_____ Dollars
(\$ _____),

in lawful money of the United States, which sum is to be paid according to the schedule provided by the Contractor and accepted by the District and subject to additions and deductions as provided in the Contract. This amount supersedes any previously stated and/or agreed to amount(s).

- 18. No Representations:** No representations have been made other than as set forth in writing in the Contract Documents, including this Agreement. Each of the Parties to this Agreement warrants that it has carefully read and understood the terms and conditions of this Agreement and all Contract Documents, and that it has not relied upon the representations or advice of any other Party or any attorney not its own.
- 19. Entire Agreement:** The Contract Documents, including this Agreement, set forth the entire agreement between the parties hereto and fully supersede any and all prior agreements, understandings, written or oral, between the parties hereto pertaining to the subject matter thereof.
- 20. Severability:** If any term, covenant, condition, or provision in any of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.
- 21. Authority of Signatories:** 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 authorized and empowered to enter into this Contract. This Contract may be executed in one or more counterparts, each of which shall be deemed an original. For this Agreement, and for all Contract Documents requiring a signature, a facsimile or electronic signature shall be deemed to be the equivalent of the actual original signature. All counterparts so executed shall constitute one Contract binding all the Parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, accepted and agreed on the date indicated above:

[CONTRACTOR NAME]

BAKERSFIELD CITY SCHOOL DISTRICT

By: _____

By: _____

Title: _____

Title: _____

NOTE: If the party executing this Contract is a corporation, a certified copy of the by-laws, or of the resolution of the Board of Directors, authorizing the officers of said corporation to execute the Contract and the bonds required thereby must be attached hereto.

END OF DOCUMENT

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SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous demolition waste.
 - 2. Recycling nonhazardous demolition waste.
 - 3. Disposing of nonhazardous demolition and construction waste.
- B. Related Requirements:
 - 1. Section 024119 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.
 - 2. Section 095113 "Acoustical Panel Ceilings" for demolition of existing "acoustical Panel Ceiling" and recycling of demolished materials.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of 50 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including the following:

1. Demolition Waste:
 - a. Asphalt paving.
 - b. Concrete.
 - c. Concrete reinforcing steel.
 - d. Roofing.
 - e. Gypsum board.
 - f. Acoustical tile and panels.
 - g. Carpet.
 - h. Carpet pad.
 - i. Mechanical equipment.
 - j. Refrigerants.
 - k. Electrical conduit.
 - l. Lighting fixtures.
 - m. Lamps.
 - n. Ballasts.

2. Construction Waste:
 - a. Roofing.
 - b. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
 - 1) Paper.
 - 2) Cardboard.
 - 3) Boxes.
 - 4) Plastic sheet and film.
 - 5) Wood crates.
 - 6) Plastic pails.

1.5 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 7 days of date established for the Notice to Proceed.

1.6 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Use Form CWM-7 for construction waste and Form CWM-8 for demolition waste. Include the following information:
 1. Material category.
 2. Generation point of waste.
 3. Total quantity of waste in tons (tonnes).
 4. Quantity of waste salvaged, both estimated and actual in tons (tonnes).
 5. Quantity of waste recycled, both estimated and actual in tons (tonnes).
 6. Total quantity of waste recovered (salvaged plus recycled) in tons (tonnes).
 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

- B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

- C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Qualification Data: For waste management coordinator and refrigerant recovery technician.
- H. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.7 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of projects with similar requirements.
- B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- C. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Waste Management Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
 1. Review and discuss waste management plan including responsibilities of waste management coordinator.
 2. Review requirements for documenting quantities of each type of waste and its disposition.
 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 5. Review waste management requirements for each trade.

1.8 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Distinguish between demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

- B. Waste Identification: Indicate anticipated types and quantities of demolition site-clearing and construction waste generated by the Work. Use Form CWM-1 for construction waste and Form CWM-2 for demolition waste. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Use Form CWM-3 for construction waste and Form CWM-4 for demolition waste. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.
- D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Use Form CWM-5 for construction waste and Form CWM-6 for demolition waste. Include the following:
1. Total quantity of waste.
 2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
 3. Total cost of disposal (with no waste management).
 4. Revenue from salvaged materials.
 5. Revenue from recycled materials.
 6. Savings in hauling and tipping fees by donating materials.
 7. Savings in hauling and tipping fees that are avoided.
 8. Handling and transportation costs. Include cost of collection containers for each type of waste.
 9. Net additional cost or net savings from waste management plan.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 - 1. Comply with operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
 - 1. Distribute waste management plan to everyone concerned within three days of submittal return.
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 - 2. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 - 3. Store items in a secure area until installation.
 - 4. Protect items from damage during transport and storage.
 - 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale Not permitted on Project site.
- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area designated by Owner.

- 5. Protect items from damage during transport and storage.
 - D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
 - E. Lighting Fixtures: Separate lamps by type and protect from breakage.
- 3.3 RECYCLING DEMOLITION WASTE, GENERAL
- A. General: Recycle paper and beverage containers used by on-site workers.
 - B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.
 - C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
 - D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.
- 3.4 RECYCLING DEMOLITION WASTE
- A. Asphalt Paving: Grind asphalt to maximum 1-1/2-inch size.
 - 1. Crush asphaltic concrete paving and screen to comply with requirements in Section 312000 "Earth Moving" for use as general fill.
 - B. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.
 - C. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
 - 1. Pulverize concrete to maximum 4-inch size.
 - 2. Crush concrete and screen to comply with requirements in Section 312000 "Earth Moving" for use as satisfactory soil for fill or subbase.
 - D. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

- E. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- F. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- G. Carpet Tile: Remove debris, trash, and adhesive.
 - 1. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.

3.5 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
 - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - 2. Polystyrene Packaging: Separate and bag materials.
 - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- B. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.
 - 1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.
 - a. Comply with requirements in Section 329300 "Plants" for use of clean ground gypsum board as inorganic soil amendment.

3.6 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

3.7 ATTACHMENTS

- A. Form CWM-1 for construction waste identification.
- B. Form CWM-2 for demolition waste identification.

- C. Form CWM-3 for construction waste reduction work plan.
- D. Form CWM-4 for demolition waste reduction work plan.
- E. Form CWM-5 cost/revenue analysis of construction waste reduction work plan.
- F. Form CWM-6 cost/revenue analysis of demolition waste reduction work plan.
- G. Form CWM-7 for construction waste
- H. Form CWM-8 for demolition waste.

END OF SECTION 017419

SECTION 075713 - SPRAYED FOAM ROOFING SYSTEM

1.0 GENERAL REQUIREMENTS

1.1 Terms and Conditions

1.1.2 Bidders shall be pre-qualified as follows:

- a. All bidders shall be contractors who have specifically performed the application of sprayed-in-place polyurethane foam roofing systems. Such bidders shall have installed these systems for not less than ten years under the same contractor's name and license. Each bidder shall have performed at least fifteen applications of similar type and size. Bidders shall submit, with the bid, a list of projects including date of completion and contact information for verification.
- b. The Contractor shall be a current member in good standing with the Spray Polyurethane Foam Alliance and Accreditation Program. A copy of the SPFA membership certification shall be submitted with the bid. Completion of the Roofing Master Installer and Fundamentals of Spray Polyurethane Foam and Coating Systems is the minimum acceptable status in the accreditation program by the supervisor(s) and spray mechanic(s) assigned to the project.
- c. Each bidder shall submit a copy of the proposed Ten (10) Year Recoat Warranty along with the bid.
- d. The contractor shall carry a minimum of \$2,000,000 in general liability insurance on a continuing basis. Verification of insurance shall be submitted at the time of bid.
- e. The contractor shall submit, with the bid, a current license status printout from the Contractor's State License Board at <http://www.cslb.ca.gov> to demonstrate that the license is in good standing.
- f. Certification of the Manufacturer/Supplier: Submit, on corporate letterhead, a letter from the manufacturer supplier of the foam and from the supplier of the coating stating that the applicator of these products is qualified by the manufacturer supplier and meets sections 1.1.2 a and b.
- g. The contractor shall cooperate as required in performance of the specified inspecting and testing.
- h. Failure of the bidder to submit items A through F in its entirety with the bid will be deemed non-responsive.

1.1.3 Suppliers shall be pre-qualified as follows:

- a. The manufacturer of the foam and coating shall have been in business for a minimum of ten years and shall maintain a minimum of \$5,000,000 of product liability insurance on a continuing basis.
- b. The manufacturer of the foam and coating shall have a minimum of 3,000,000 square feet of roofing system installed.
- c. The foam and coating shall be listed as Class A over existing non-combustible roofing systems by Underwriters Laboratories per UL 790 at the thicknesses intended for use.
- d. The foam and coating shall be listed as Class B over existing combustible decks by Underwriters Laboratories per UL 790 at the thicknesses intended for use.
- e. Failure of the bidder to submit items A through D in their entirety will be deemed non-responsive.

1.2 Submittals

- 1.2.1 Manufacturer's Literature: Submit two copies of the manufacturer's data sheets regarding specifications, application information and safety information, and safety instructions on each product proposed for use.
- 1.2.2 Samples: Submit two samples of the proposed coating system applied on urethane foam. Samples shall be two inches by four inches in size.
- 1.2.3 UL follow up service: The foam and coating shall be registered under the UL follow up service and bear UL labels.
- 1.2.4 Contractors shall submit a computer-generated milestones schedule showing each specific phase of work along projected completion dates.

2.0 MATERIALS AND EQUIPMENT

2.2 Caulking or Sealants

Caulking materials shall be single-component polyurethane elastomer such as Quik-Shield 15s-2.5 "Vulkem-921", "Sikaflex-1a", or approved equal. Roof field caulking shall be compatible with the respective elastomeric roof coating.

2.3 Polyurethane Foam: Polyurethane foam shall be a two-component polyurethane foam system formulated for use through airless equipment and manufactured by BASF.

Density (sprayed-in-place)	2.8-3.0 pcf min.
Compressive Strength	50-60 psi min.
Tensile Strength	70-75 psi min.
Shear Strength	50-60 psi min.
Closed Cell Content	95% min.
K Factor, Initial	0.11
Flame Spread (ASTM E84)	75 max.*
Roof Deck Classification:	ASTM E108 (UL 790)
Combustible Deck	Class B
Noncombustible Deck	Class A

*This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

2.4 Acrylic rubber roof coating: The elastomeric coating shall be an acrylic elastomer coating and shall be Energy Star rated with the U.S. Environmental Protection Agency and California Title-24 Cool Roof Compliant.

Solids by Volume	56%
Solids by Weight	70%
Flash Point	>212°F
Initial Elongation (%)	310
Initial Tensile Strength	350 psi
Dry Adhesion	8.0 pli
Wet Adhesion	3 pli
Tear Resistance	130 lbf/in
1000 hr Accelerated Weathering	No Cracking or Checking
Elongation after Accelerated Weathering (%)	220

Low Temperature Flexibility after Accelerated Weathering	Pass
Permeance	19 perms
Water Swelling	6%
Fungi Resistance (zero = No Growth)	Zero Rating
Impact Resistance	>160
Tension Set @ 100%	0%
Durometer Hardness: Shore A	72

The minimum dry film thickness of the coating shall be 24 dry mils. Plasticized acrylics, vinyls, EVA's, terpolymers and PVA coatings shall not be considered.

- 2.6 Equipment: Equipment for spraying foam shall be manufactured specifically for the application of polyurethane foam. The equipment shall be airless, capable of maintaining a 1:1 volume ratio and have primary and hose heaters. Coating equipment shall be an airless type as recommended by the coating manufacturer.

3.0 SURFACE PREPARATION

Surface Condition: Identify and repair all leaks. The following areas are the most critical:

- a. Internal roof drains, scuppers and downspouts
- b. Edge detail, parapet walls and corner flashings
- c. Expansion joints, skylights, ductwork and air handling units
- d. Other roof penetrations such as soil pipes, ventilators and curbs

3.1 Surface Condition

Owner shall insure that roof top equipment does not discharge liquids onto roof. All blowers shall exhaust into a container or the atmosphere and not onto the roof. The surface shall be free from solvent, grease, dust, sediment, dirt and sticky mastic.

- 3.2 All prepared surfaces to receive SPF roofing materials are to be primed with 1/3-1/2 gallon per 100 square feet using the appropriate primer as necessary.
- 3.3 All surfaces not to receive SPF roofing materials such as walls, shrubbery, pipe/conduit runs, windows, air conditioners and other roof mounted equipment shall be carefully masked with tape and paper to avoid overspray. Overspray shall be immediately removed at the contractor's expense. *All coating shall be terminated in clean straight lines.*
- 3.4 Inspect the roof surface and establish the presence of any blisters or cracks in the existing insulation, or saturated or delaminated foam or coating areas. Remove the materials from all areas where temporary repairs have been made. Prime all areas to receive insulation. Flash all new penetrations with insulation. Spot repairs must be ground to match surrounding grade and sealed with acrylic elastomer.
- 3.5 If any of the existing SPF roofing system is to be scarified, remove the existing coating and approximately ¼ -inch of existing polyurethane foam by scarifying. Insure that the remaining foam is clean, sound and dry. All scarified foam must be re-foamed at a minimum ½ -inch thickness and base coated the same day per manufacturer's recommendation. *There will be no exceptions.*
- 3.6 Remove all blisters to the deck and re-spray. Cracked, delaminated and saturated insulation shall be removed and the area re-sprayed. Grind all repairs to match the surrounding grade.

- 3.7 Repair all bird pecks and other mechanical damage by cutting away the damaged material or temporary repair materials and filling the void with a single component urethane caulking material per paragraph 2.2 above. Smooth the repaired area to conform to the surrounding roof grade.

Where the roofing system has failed or is damaged at existing perimeter edge metal, the edges may be repaired by trimming the damaged foam to sound foam and caulking and coating the repaired area.

Smooth the repaired area to conform to the surrounding roof grade.

4.0 APPLICATION OF POLYURETHANE INSULATION

4.1 Environmental Conditions

4.1.1 Wind velocity shall not exceed 12 miles per hour.

4.1.2 Application of spray insulation shall not proceed if ambient temperature is less than 50 degrees Fahrenheit or if the substrate temperature is less than 60 degrees Fahrenheit.

4.1.3 Spray insulation shall not be applied over moist substrates or where rain or inclement weather is imminent.

4.2 Spray Application

4.2.1 The polyurethane insulation shall be applied in minimum ½ inch lifts to a minimum thickness of one (1) inch over the existing scarified foam. *Additional foam thickness shall be applied to provide positive slope-to-drain as necessary.*

4.2.2 The insulation surface shall be free from bumps, pinholes and ridges. The surface shall exhibit a smooth or “orange peel” surface texture. Surfaces resembling “popcorn” or “tree bark” shall be deemed unacceptable.

5.0 APPLICATION OF FLUID APPLIED PROTECTIVE COATING

5.1 General

Sprayed polyurethane insulation must be protected from ultraviolet light in order to avoid degradation of the polymer. Coating also protects the insulation from water and adverse weather conditions. Coatings must be specifically formulated for use over sprayed polyurethane insulation.

Elastomeric Coating

The roof perimeter shall be coated in a picture frame fashion and backrolled. The coating is then to be applied to the properly prepared surface of the roof in two (2) uniform passes. The base coat shall be off-white in color and shall be applied at the rate of 2 gallon per 100 square feet, backrolled, and allowed to cure. The topcoat shall be white in color and shall be applied at the rate of 2 gallons per 100 square feet.

Broadcast 3M C-93 ceramic roofing granules into the wet topcoat at the rate of 40 lbs per 100 square feet, or to the point of refusal. Remove all loose granules after coating has cured.

6.0 WARRANTY AND CERTIFICATION

The contractor shall issue a Ten (10) year non-depreciating full system recoat warranty.

7.0 INSPECTION

A representative from the materials manufacturer and contractor shall inspect the roof after completion to assure that the work has been completed in conformance with the specification and accepted industry practice. All material thickness shall be verified.

8.0 CLEAN UP

Upon completion of all work covered in this specification, the contractor shall remove all equipment, material and debris, leaving the area in an undamaged and acceptable condition.

END OF SECTION

SECTION 092400 - CEMENT PLASTERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Exterior plasterwork (stucco) for patching areas of existing plaster integral with remodel work.

- B. Related Requirements:

- 1. Section 099000 "Painting" where cement plaster walls are patched.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site

1.4 ACTION SUBMITTALS

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

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, moisture, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 FIELD CONDITIONS

- A. Comply with ASTM C 926 requirements.

- B. Exterior Plasterwork:

- 1. Apply and cure plaster to prevent plaster drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
 - 2. Apply plaster when ambient temperature is greater than 40 deg F.
 - 3. Protect plaster coats from freezing for not less than 48 hours after set of plaster coat has occurred.

PART 2 - PRODUCTS

2.1 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847, cold-rolled carbon-steel sheet with ASTM A 653, G60 hot-dip galvanized-zinc coating.
 - 1. Diamond-Mesh Lath: Self-furring, 2.5 lb/sq. yd.
 - 2. Flat-Rib Lath: Rib depth of not more than 1/8 inch
 - 3. 3/8-Inch Rib Lath: 3.4 lb/sq. yd.
- B. Wire-Fabric Lath:
 - 1. Woven-Wire Lath: ASTM C 1032; self-furring, with stiffener wire backing, 1.4 lb/sq. yd.
- C. Paper Backing: FS UU-B-790a, Type I, Grade D, Style 2 vapor-permeable paper.
 - 1. Provide paper-backed lath unless otherwise indicated.
- D. General: Comply with ASTM C 1063, and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.
- E. Metal Accessories:
 - 1. Foundation Weep Screed: Fabricated from hot-dip galvanized-steel sheet, ASTM A 653, G60 coating.
 - 2. Cornerite: Fabricated from metal lath with ASTM A 653, G60, hot-dip galvanized-zinc coating.
 - 3. External- (Outside-) Corner Reinforcement: Fabricated from metal lath with ASTM A 653, G60 hot-dip galvanized-zinc coating.
 - 4. Cornerbeads: Fabricated from zinc-coated (galvanized) steel.
 - a. Smallnose cornerbead with expanded flanges; use unless otherwise indicated.
 - b. Smallnose cornerbead with perforated flanges; use on curved corners.
 - c. Smallnose cornerbead with expanded flanges reinforced by perforated stiffening rib; use on columns and for finishing unit masonry corners.
 - d. Bullnose cornerbead, radius 3/4 inch (19 mm) minimum, with expanded flanges; use at locations indicated on Drawings.
 - 5. Casing Beads: Fabricated from zinc or zinc-coated (galvanized) steel square-edged style; with expanded flanges.
 - 6. Control Joints: Fabricated from zinc-coated (galvanized) steel; one-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.
 - 7. Expansion Joints: Fabricated from zinc-coated (galvanized) steel; folded pair of unperforated screeds in M-shaped configuration; with expanded flanges.

8. Two-Piece Expansion Joints: Fabricated from -coated (galvanized) steel]; formed to produce slip-joint and square-edged reveal that is adjustable from 1/4 to 5/8 inch wide; with perforated flanges.

2.2 MISCELLANEOUS MATERIALS

- A. Water for Mixing and Finishing Plaster: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in cement plaster.
- C. Fasteners for Attaching Metal Lath to Substrates: ASTM C 1063.
- D. Wire: ASTM A 641, Class 1 zinc coating, soft temper, not less than 0.0475-inch diameter unless otherwise indicated.

2.3 PLASTER MATERIALS

- A. Portland Cement: ASTM C 150, [Type I
 1. Color for Finish Coats: Gray.
- B. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.
- C. Sand Aggregate: ASTM C 897.

2.4 PLASTER MIXES

- A. General: Comply with ASTM C 926 for applications indicated.
 1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. yd. (of cementitious materials).
- B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:
 1. Portland Cement Mixes:
 - a. Scratch Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
 - b. Brown Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.
- B. Prepare smooth, solid substrates for plaster according to ASTM C 926.

3.3 INSTALLING METAL LATH

- A. Metal Lath: Install according to ASTM C 1063.
 - 1. Partition Framing and Vertical Furring: Install flat-riblath.
 - 2. Flat-Ceiling and Horizontal Framing: Install 3/8-inch lath.

3.4 INSTALLING ACCESSORIES

- A. Install according to ASTM C 1063 and at locations indicated on Drawings.
- B. Reinforcement for External (Outside) Corners:
 - 1. Install cornerbead at exterior locations.
 - 2. Install cornerbead at interior locations.
- C. Control Joints: Locate as indicated and approved by Architect for visual effect and as follows:
 - 1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:
 - a. Vertical Surfaces: 144 sq. f.
 - b. Horizontal and Other Nonvertical Surfaces: 100 sq. ft.
 - 2. At distances between control joints of not greater than 18 feet o.c.
 - 3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
 - 4. Where control joints occur in surface of construction directly behind plaster.
 - 5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

3.5 PLASTER APPLICATION

- A. General: Comply with ASTM C 926.
 - 1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces when measured by a 10-foot straightedge placed on surface.
 - 2. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
 - 3. Provide plaster surfaces that are ready to receive field-applied finishes indicated.
- B. Walls; Base-Coat Mixes for Use over Metal Lath: For scratch and brown coats, for three-coat plasterwork with 3/4-inch total thickness, as follows:
 - 1. Portland cement mixes.
- C. Plaster Finish Coats: Apply to provide dash finish to match Architect's sample.

3.6 PLASTER REPAIRS

- A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

3.7 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work after plastering is complete. Promptly remove plaster from door frames, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 092400

SECTION - 096513 RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Resilient base.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, not less than 12 inches long.
- C. Samples for Initial Selection: For each type of product indicated.
- D. Samples for Verification: For each type of product indicated and for each color, texture, and pattern required in manufacturer's standard-size Samples, but not less than 12 inches long.
- E. Product Schedule: For resilient base and accessory products.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within the range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 90 deg F, in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.

- B. After installation and until Substantial Completion, maintain ambient temperatures within the range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

2.2 THERMOSET-RUBBER BASE

- A. Product Standard: ASTM F 1861, Type TS (rubber, vulcanized thermoset), Group I (solid, homogeneous).
 - 1. Style and Location:
 - a. Style A, straight.
 - B. Thickness: 0.125 inch.
 - C. Height: 4 inches.
 - D. Lengths: Coils in manufacturer's standard length.
 - E. Outside Corners: Preformed.
 - F. Inside Corners: Preformed.
 - G. Colors: As selected by Architect from full range of industry color.

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Installation of resilient products indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until they are the same temperature as the space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.
- D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.
- B. Perform the following operations immediately after completing resilient-product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum horizontal surfaces thoroughly.
 - 3. Damp-mop horizontal surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

END OF SECTION 096513

SECTION 096813 - TILE CARPETING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes modular carpet tile.
- B. Related Requirements:
 - 1. Section 017419 "Construction Waste Management and Disposal" for recycling of existing carpet materials to be removed.
 - 2. Section 024119 "Selective Demolition" for removing existing floor coverings.
 - 3. **Section 096513 "Resilient Base and Accessories"** for resilient wall base and accessories installed with carpet tile.
 - 4. Section 096613 "Resilient Base and Materials" for resilient base to be incorporated into modular carpeting system.

1.3 REFERENCES

- A. American Association of Textile Chemists and Colorists (AATCC):
 - 1. AATCC 16-E: Test Method for Colorfastness to Light
 - 2. AATCC 134: Test Method for Electrostatic Propensity of Carpets.
 - 3. AATCC 165: Test Method for Colorfastness to Crocking, Textile Floor Coverings.
 - 4. AATCC 174: Test Method for Antimicrobial Activity Assessment of Carpets.
 - 5. AATCC 175: Test Method for Stain Resistance for Pile Floor Coverings.
- B. ASTM International:
 - 1. ASTM E 648: Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
 - 2. ASTM E 662: Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
 - 3. ASTM E 2471: Standard Test Method for Using Seeded-Agar for the Screening Assessment of Antimicrobial Activity in Carpets.
 - 4. ASTM F 710: Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
 - 5. ASTM F 2170: Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- C. California Department of Public Health (CDPH):
 - 1. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers – Version 1.1, February 2010.
- D. CALGreen: California Green Building Standards Code - California Code of Regulations, Title 24, Part 11.

- E. Carpet and Rug Institute (CRI):
 - 1. CRI Carpet Installation Standard.
 - 2. CRI Green Label Plus testing program.
- F. Chemical Abstract Service (CAS):
 - 1. Chemical Abstract Registration Number (CASRN).
- G. Collaborative for High Performance Schools (CHPS).
 - 1. Criteria Interpretation Library.
 - a. EQ 7.0 – Low Emitting Materials.
 - b. EQ 7.1 – Additional Low Emitting Materials.
- H. Cradle to Cradle Products Innovation Institute:
 - 1. Cradle to Cradle Certified Product Standard.
- I. European Standards (EN):
 - 1. EN 15804: Sustainability of Construction Works – Environmental Product Declarations – Core Rules for the Product Category of Construction Products.
- J. GreenScreen for Safer Chemicals:
 - 1. GreenScreen Chemical Hazard Assessment Procedure V1.2.
- K. Health Product Declaration Collaborative:
 - 1. Health Product Declaration Open Standard.
- L. International Certified Floorcovering Installers Association.
 - 1. Commercial II certification level.
- M. International Organization for Standardization (ISO):
 - 1. ISO 14021: Environmental Labels and Declarations – Self-Declared Environmental Claims (Type II Environmental Labeling).
 - 2. ISO 14025: Environmental Labels and Declarations – Type III Environmental Declarations – Principals and Procedures.
 - 3. ISO 14040: Environmental Management – Life Cycle Assessment – Principals and Framework.
 - 4. ISO 14044: Environmental Management – Life Cycle Assessment – Requirements and Guidelines.
 - 5. ISO 21930: Sustainability in Building Construction – Environmental Declaration of Building Products.
- N. NSF International/American National Standards Institute (ANSI):
 - 1. NSF/ANSI 140: Sustainability Assessment for Carpet.
- O. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

- P. SCS Global Services:
 - 1. Sustainable Carpet Certification.
- Q. South Coast Air Quality Management District (SCAQMD):
 - 1. Rule 1168 – Adhesive and Sealant Applications.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include manufacturer's written data on physical characteristics, durability, and fade resistance.
 - 2. Include manufacturer's written installation recommendations for each type of substrate.
- B. Shop Drawings: For carpet tile installation, plans showing the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Carpet tile type, color, and dye lot.
 - 3. Type of subfloor.
 - 4. Type of installation.
 - 5. Pattern of installation.
 - 6. Pattern type, location, and direction.
 - 7. Pile direction.
 - 8. Type, color, and location of insets and borders.
 - 9. Type, color, and location of edge, transition, and other accessory strips.
 - 10. Transition details to other flooring materials.
- C. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and Other Accessory Stripping: **12-inch-** (300-mm-) long Samples.
- D. Samples for Initial Selection: For each type of carpet tile.
 - 1. Include Samples of exposed edge, transition, and other accessory stripping involving color or finish selection.
- E. Samples for Verification: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and Other Accessory Stripping: **12-inch-** (300-mm-) long Samples.
- F. Product Schedule: For carpet tile. Use same designations indicated on Drawings.
- G. Sustainable Product Certification: Provide ANSI/NSF 140 certification for carpet products.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For carpet tile, for tests performed by a qualified testing agency.
- C. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:
 - 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
 - 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Carpet Tile: Full-size units equal to **5** percent of amount installed for each type indicated, but not less than 10 sq. yd.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the International Certified Floorcovering Installers Association at the Commercial II certification level.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
 - 1. Build mockups at locations and in sizes shown on Drawings.
 - 2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI's "CRI Carpet Installation Standard."

1.10 FIELD CONDITIONS

- A. Comply with CRI's "CRI Carpet Installation Standard" for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not deliver or install carpet tiles until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels planned for building occupants during the remainder of the construction period.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.

1.11 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 2. Failures include, but are not limited to, the following:
 - a. More than 10 percent edge raveling, snags, and runs.
 - b. Dimensional instability.
 - c. Excess static discharge.
 - d. Loss of tuft-bind strength.
 - e. Loss of face fiber.
 - f. Delamination.
 3. Warranty Period: **10** years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CALGREEN REQUIREMENTS

- A. General: Conform with all applicable requirements of the California Green Building Standards Code (CALGreen).
- B. Provide adhesives and adhesive primers which comply with current VOC content limits of the South Coast Air Quality Management District (SCAQMD) Rule 1168, except as noted otherwise below. Such products shall also comply with Rule 1168 prohibition of the use of certain toxic compounds (chloroform, ethylene, dichloride, methylene chloride, perchloroethylene, and trichloroethylen).
1. Aerosol adhesives and similar unit sizes of adhesives, and sealants (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions of use of certain toxic compounds, of the California Code of Regulations, Title 17, commencing with Section 94507.
- C. Carpet Tile: Provide carpet tile products which meet at least one of the following:
1. Certified as complying with the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program.
 2. Compliant with the VOC-emission limits specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010.
 3. Meets requirements of NSF/ANSI 140 for certification at the Gold level or higher.
 4. Meets requirements of SCS Global Services Sustainable Carpet Certification program at the Gold level or higher.
 5. Compliant with 2014 California Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7.0 and EQ 7.1 (formerly

- D. Metal Edge/Transition Strips: Extruded aluminum with [mill] <Insert finish> finish of profile and width shown, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints.

2.2 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics for Tile Carpeting:

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq cm, as determined by testing identical products according to ASTM E 648.
2. Smoke Density: 450 or less, determined by testing identical products according to ASTM E 662.

2.3 CARPET TILE

A. Modular Carpet Tile **C-1; Walk-Off Mat**: Modular carpet tile system designed for specific installation per manufacturer's recommendations. Maintain a visually continuous and finished overall appearance without any tile appearing improperly positioned.

1. Product: *Interface, Inc.; SR799*.
 - a. Color: Onyx
2. Construction: Tufted Textured Loop
3. Fiber Content: 100 percent nylon.
4. Fiber Type: Aquafil.
5. Dye Method: 100 percent solution dyed.
6. Pile Characteristic: Tip-sheared.
7. Pile Height: .19 inch.
8. Stitches: 10 per inch.
9. Gage: 1/12 inch.
10. Face Yarn Weight: 26 oz per sq yd.
11. Density: 6,686 oz per cu yd.
12. Primary Backing/Backcoating: Non-woven fiberglass-reinforced PVC.
13. Secondary Backing: Fiberglass-reinforced thermoplastic composite; 100 percent recyclable.
 - a. Provide minimum 39 percent recycled content, post-consumer or postindustrial in secondary backing material.
14. Size: 19.6 inches square.
15. Applied Soil-Resistance Treatment: Manufacturer's standard material; 8.0 on the Red 40 Stain Scale, per AATCC 175.
16. Antimicrobial Treatment: Manufacturer's standard material; passes AATCC 174 (minimum 90 percent reduction of microorganisms according to Part 2; no macroscopic growth according to Part 3); passes ASTM E 2471.
17. Performance Characteristics: As follows:
 - a. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.
 - b. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
 - c. Electrostatic Propensity: Less than 3.0 kV per AATCC 134.
18. Minimum Recycled Content:

- a. Preconsumer: 33 percent.
 - b. Postconsumer: 33 percent.
19. VOC Emissions:
- a. Complies with requirements specified in “CALGreen Requirements” Article.
 - b. Certification: CRI Green Label Plus.
- B. Modular Carpet Tile **C-2; Field:** Modular carpet tile system designed for specific installation per manufacturer’s recommendations. Maintain a visually continuous and finished overall appearance without any tile appearing improperly positioned.
1. Product: ***Interface, Inc.; Cubic.***
 - a. Color: T.B.D.
 2. Construction: Tufted.
 3. Fiber Content: 100 percent nylon Type 6, 6.
 4. Fiber Type: Aquafil.
 5. Dye Method: 100 percent solution dyed.
 6. Pile Characteristic: Textured loop.
 7. Pile Height: .145 inch.
 8. Stitches: 8.16 per inch.
 9. Gage: 1/12 inch.
 10. Face Yarn Weight: 18 oz per sq yd.
 11. Density: 6,968 oz per cu yd.
 12. Primary Backing/Backcoating: Non-woven fiberglass-reinforced PVC.
 13. Secondary Backing: Fiberglass-reinforced thermoplastic composite; 100 percent recyclable.
 - a. Provide minimum 39 percent recycled content, post-consumer or postindustrial in secondary backing material.
 14. Size: 50 cm by 50 cm (19.69 inches square).
 15. Applied Soil-Resistance Treatment: Manufacturer’s standard material; 8.0 on the Red 40 Stain Scale, per AATCC 175.
 16. Antimicrobial Treatment: Manufacturer’s standard material; passes AATCC 174 (minimum 90 percent reduction of microorganisms according to Part 2; no macroscopic growth according to Part 3).
 17. Performance Characteristics: As follows:
 - a. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.
 - b. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
 - c. Electrostatic Propensity: Less than 3.0 kV per AATCC 134.
 18. Minimum Recycled Content:
 - a. Preconsumer: 45 percent.
 19. VOC Emissions:
 - a. Complies with requirements specified in “CALGreen Requirements” Article.
 - b. Certification: CRI Green Label Plus.

2.4 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cementbased formulation provided or recommended by carpet tile manufacturer.
- B. Primer/Sealer: Carpet manufacturer's standard sealer material designed to seal gypsum-based underlayment surfaces.
- C. Corner Connectors: Manufacturer's standard adhesively-surfaced 3-inch by 3-inch square tabs for connecting underside of corners of four adjacent carpet tile units to maintain a tight joint on all sides of tile, thereby maintaining an overall stable surface. Tabs are surfaced with pressure-sensitive acrylic adhesive on one side, only, of polyester backing, so as not to adhere tiles to substrate.
 - 1. Product: Interface, Inc.; TacTiles.
- D. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.
 - 1. VOC Content: Complies with requirements specified in "CALGreen Requirements" Article.
- E. Resilient Transition Moldings: As specified in Section 09 65 13 "Resilient Base and Accessories."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance.
- B. Examine carpet tile for type, color, pattern, and potential defects.
- C. Verify that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might show through surface or interfere with adhesion of carpet tile and accessories
- D. For painted subfloors, perform bond test recommended in writing by adhesivemanufacturer.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with CRI's "CRI Carpet Installation Standard," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile.
- B. Concrete substrates: Prepare according to ASTM F 710.
 - 1. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using

- solvents. Use mechanical methods recommended in writing by adhesive and carpet tile manufacturer.
2. Refer to Section 090565 "Concrete Moisture-Control System" for moisture and alkalinity testing and treatment. Proceed with installation only after substrates pass testing.
 3. Adhesion Testing: Perform tests recommended by carpet tile manufacturer. Proceed with installation only after substrates pass testing.
- C. Metal Substrates: Clean grease, oil, soil, and rust, and prime if recommended in writing by adhesive manufacturer. Rough sand painted metal surfaces and remove loose paint. Sand aluminum surfaces, to remove metal oxides, immediately before applying adhesive.
- D. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes, and depressions 1/8 inch wide or wider, and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions.
- E. Apply primer/sealer over gypsum-based cementitious underlayment in accordance with carpet manufacturer's written instructions and as required to ensure proper adhesion of carpet to underlayment surface.
- F. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 CARPET TILE INSTALLATION

- A. General: Comply with with CRI's "Carpet Installation Standard," Section 18, "Modular Carpet," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: As recommended in writing by carpet tile manufacturer, and as follows:
1. TacTiles
- C. Maintain dye lot integrity. Do not mix dye lots in same area.
- D. Maintain carpet tile patterns indicated on Drawings.
- E. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and builtin furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- F. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- G. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
- H. Install pattern parallel to walls and borders.
- I. Do not bridge building expansion joints with carpet tiles.
- J. At access flooring, stagger joints of carpet tiles so carpet tile grid is offset from access flooring panel grid. Do not fill seams of access flooring panels with carpet adhesive; keep seams free of adhesive.

- K. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet tiles that would otherwise be exposed.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile.
 - 1. Remove excess adhesive and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with CRI's "CRI Carpet Installation Standard," Section 20, "Protecting Indoor Installations."
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION 096813

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Preparing subgrades for pavements.
2. Excavating and backfilling pavements.
3. Drainage course for asphalt pavements on-grade.
4. Subbase course and base course for asphalt paving.
5. Excavating and backfilling trenches for utilities.

B. Backfill: Soil material or controlled low-strength material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

C. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

D. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

E. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement.

- J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
 - 1. Warning tapes.
- B. Samples for Verification: For the following products, in sizes indicated below:
 - 1. Warning Tape: 12 inches long; of each color.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified testing agency.
- B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D 2487.
 - 2. Laboratory compaction curve according to ASTM D 1557.

1.5 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
- H. Drainage Course: Narrowly graded mixture of **washed** crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 8 sieve.
- I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.
- J. Sand: ASTM C 33; fine aggregate.
- K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.
- L. Produce conventional-weight, controlled low-strength material with 140-psi compressive strength when tested according to ASTM C 495.

2.2 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
 - 1. Red: Electric.
 - 2. Yellow: Gas, oil, steam, and dangerous materials.
 - 3. Orange: Telephone and other communications.
 - 4. Blue: Water systems.
 - 5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.3 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
 - 2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches outside of concrete forms other than at footings.
 - b. 12 inches outside of concrete forms at footings.
 - c. 6 inches outside of minimum required dimensions of concrete cast against grade.
 - d. 6 inches beneath bottom of concrete slabs-on-grade.
 - e. 6 inches beneath pipe in trenches, and the greater of 24 inches wider than pipe or 42 inches wide.

3.4 EXCAVATION FOR PAVEMENTS

- A. Excavate surfaces under pavements to indicated lines, cross sections, elevations, and subgrades.

3.5 SUBGRADE INSPECTION

- A. Notify Architect when excavations have reached required subgrade.
- B. If Architect determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

- C. Proof-roll subgrade below the pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 - 2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.6 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.7 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.8 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, and waterproofing.
 - 2. Surveying locations of underground utilities for Record Documents.
 - 3. Testing and inspecting underground utilities.
 - 4. Removing concrete formwork.
 - 5. Removing trash and debris.
 - 6. Removing temporary shoring and bracing, and sheeting.
 - 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.9 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use engineered fill and class 2 aggregate base.

3. Under building slabs, use engineered fill and class 2 aggregate base.
4. Under footings and foundations, use engineered fill and class 2 aggregate base.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.10 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.11 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:

1. Under avements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.

3.12 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

1. Provide a smooth transition between adjacent existing grades and new grades.
2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:

1. Pavements: Plus or minus 1/2 inch.

3.13 SUBBASE AND BASE COURSES UNDER PAVEMENTS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:

1. Place base course material over subbase course under hot-mix asphalt pavement.

2. Shape subbase course and base course to required crown elevations and cross-slope grades.
3. Place subbase course and base course 6 inches or less in compacted thickness in a single layer.
4. Place subbase course and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
5. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.14 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform the following special inspections:
 1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
 2. Determine that fill material and maximum lift thickness comply with requirements.
 3. Determine, at the required frequency, that in-place density of compacted fill complies with requirements.
- B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 1. Paved Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. or less of paved area, but in no case fewer than three tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.15 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.

- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Hot-mix asphalt paving.
- 2. Asphalt surface treatments.

B. Related Requirements:

- 1. Section 312000 "Earth Moving" for subgrade preparation, fill material, unbound-aggregate subbase and base courses.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

- 1. Include technical data and tested physical and performance properties.
- 2. Job-Mix Designs: For each job mix proposed for the Work.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer.

B. Material Certificates: For each paving material.

C. Material Test Reports: For each paving material, by a qualified testing agency.

D. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located.

B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

- 1. Prime Coat: Minimum surface temperature of 60 deg F.
- 2. Tack Coat: Minimum surface temperature of 60 deg F.

3. Slurry Coat: Comply with weather limitations in ASTM D 3910.
4. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
5. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, and crushed gravel.
- C. Fine Aggregate: ASTM D 1073 or AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, or combinations thereof.
 1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO M 320, PG 64-10.
- B. Asphalt Cement: ASTM D 946 for penetration-graded material.
- C. Cutback Prime Coat: ASTM D 2027, medium-curing cutback asphalt, MC-250.
- D. Emulsified Asphalt Prime Coat: ASTM D 977 or AASHTO M 140 emulsified asphalt, or ASTM D 2397 or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- E. Tack Coat: ASTM D 977 or AASHTO M 140 emulsified asphalt, or ASTM D 2397 or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- F. Water: Potable.

2.3 AUXILIARY MATERIALS

- A. Herbicide: Commercial chemical for weed control, registered by the EPA, and not classified as "restricted use" for locations and conditions of application. Provide in granular, liquid, or wettable powder form.
- B. Sand: ASTM D 1073 or AASHTO M 29, Grade No. 2 or No. 3.

2.4 PAVEMENT MARKINGS

- A. Pavement-Marking Paint: Alkyd-resin type, lead and chromate free, ready mixed, complying with AASHTO M 248, Type N; colors complying with FS TT-P-1952.
 1. Color: White, Yellow, and Blue.

2.5 MIXES

- A. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction ; designed according to procedures in AI MS-2, "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types"; and complying with the following requirements:
 - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
 - 2. Base Course: Caltrans standard Specification Type B asphalt $\frac{3}{4}$ " aggregate.
 - 3. Surface Course: Caltrans standard Specification Type B asphalt $\frac{1}{2}$ " aggregate.
- B. Emulsified-Asphalt Slurry: ASTM D 3910, Type 2.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to begin paving.
- B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 - 2. Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
 - 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.
- C. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
 - 1. Mix herbicide with prime coat if formulated by manufacturer for that purpose.
- C. Emulsified Asphalt Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.10 to 0.30 gal./sq. yd. per inch depth. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure.
 - 1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
 - 2. Protect primed substrate from damage until ready to receive paving.

3.3 PLACING HOT-MIX ASPHALT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
1. Place hot-mix asphalt base course in one lift of 2 inches.
 2. Place hot-mix asphalt surface course in single lift of 1 inch.
 3. Spread mix at a minimum temperature of 250 deg F.
 4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
 5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches from strip to strip to ensure proper compaction of mix along longitudinal joints.
 2. Complete a section of asphalt base course before placing asphalt surface course.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.4 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
1. Clean contact surfaces and apply tack coat to joints.
 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
 3. Offset transverse joints, in successive courses, a minimum of 24 inches.
 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
 5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.5 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
1. Complete compaction before mix temperature cools to 185 deg F.

- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density: 93 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 91 percent or greater than 97 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.6 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Base Course: Plus or minus 1/2 inch.
 - 2. Surface Course: Plus 1/4 inch, no minus.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
 - 1. Base Course: 1/4 inch.
 - 2. Surface Course: 1/8 inch.

3.7 PAVEMENT MARKING

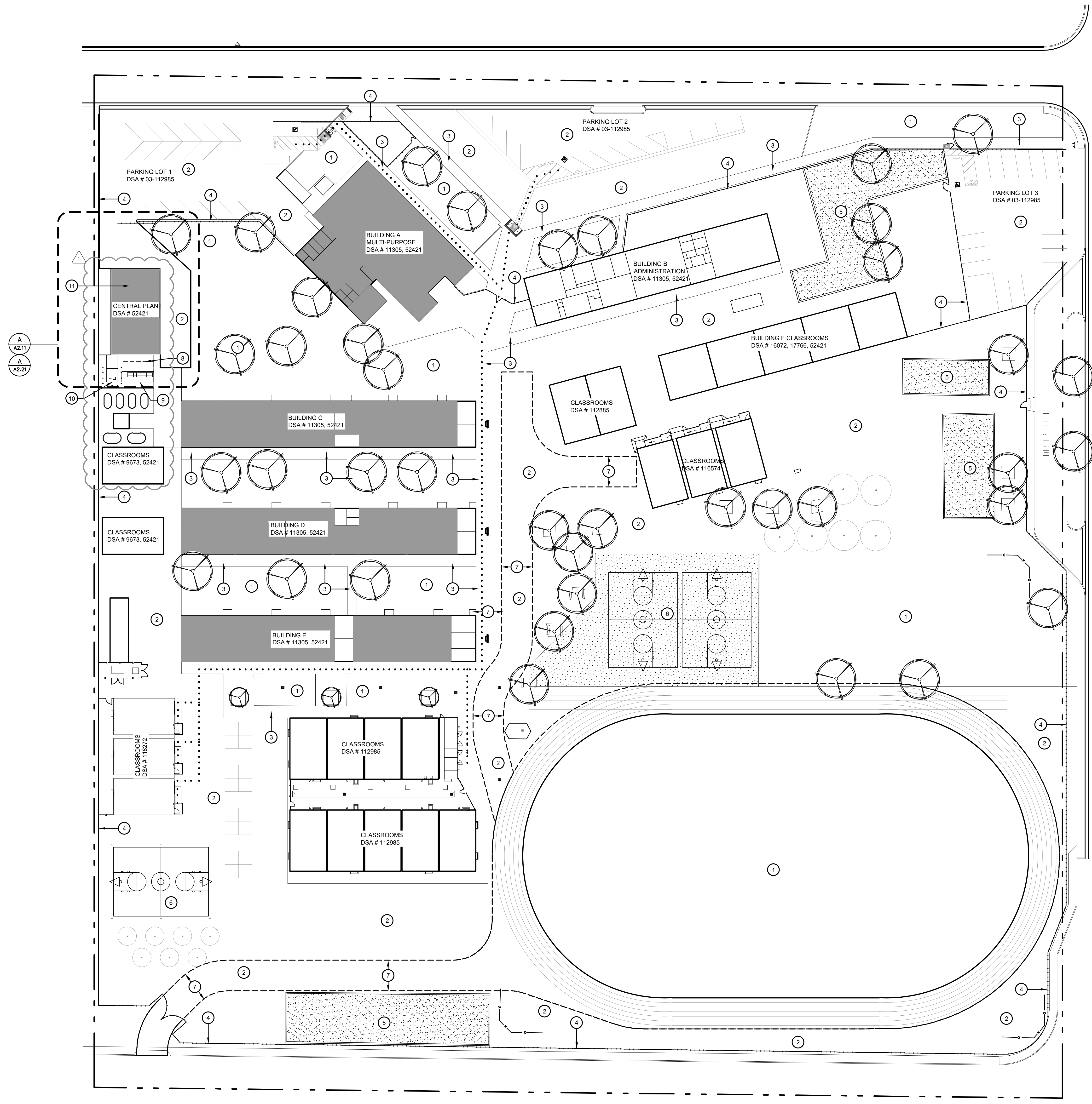
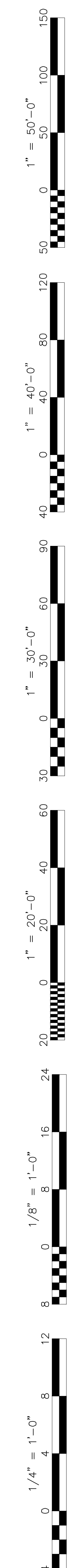
- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow concrete paving to cure for a minimum of 28 days and be dry before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.

- D. Apply paint with mechanical equipment to produce markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
 - 1. Apply graphic symbols and lettering with paint-resistant, die-cut stencils, firmly secured to concrete surface. Mask an extended area beyond edges of each stencil to prevent paint application beyond stencil. Apply paint so that it cannot run beneath stencil.

3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
- C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D. In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement according to ASTM D 979 or AASHTO T 168.
 - 1. Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.
 - 2. In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
 - a. One core sample will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than three cores taken.
 - b. Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.
- E. Replace and compact hot-mix asphalt where core tests were taken.
- F. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

END OF SECTION



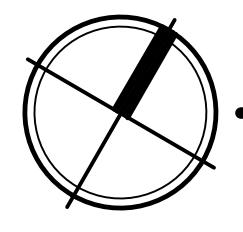
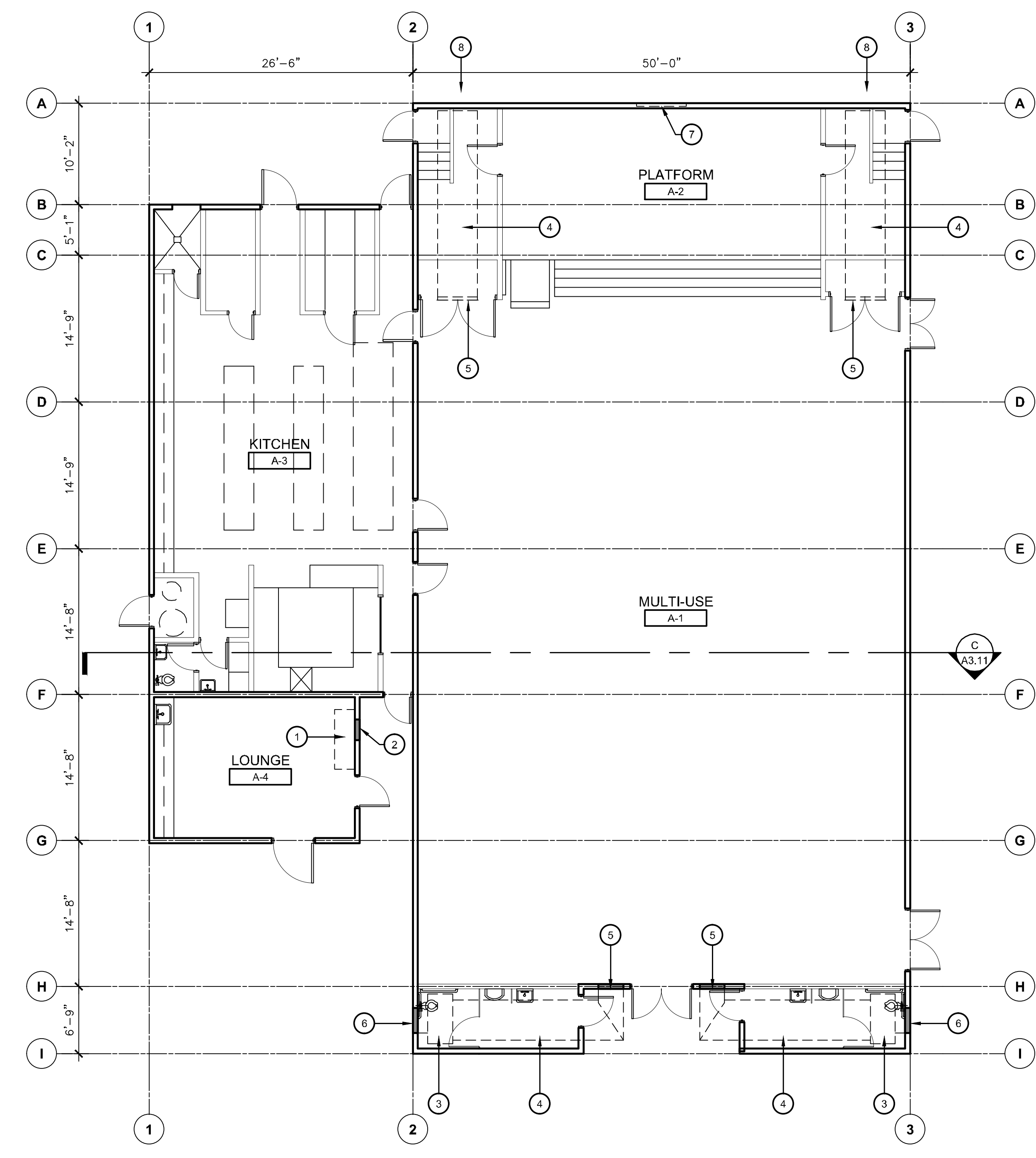
SITE PLAN
HVAC REPLACEMENT

SCALE: 1" = 30'

CODE ANALYSIS		KEY NOTES #
BUILDING A BUILDING USE: MULTI-PURPOSE OCCUPANCY GROUP: A-2 NUMBER OF STORIES: ONE BUILDING HEIGHT: +22'-11" ALLOWABLE FLOOR AREA: A-2 13,500 S.F. ACTUAL FLOOR AREA: 6,313 S.F. TYPE OF CONSTRUCTION: V-A		<ol style="list-style-type: none"> EXISTING TURF EXISTING AC PAVING TO REMAIN - APP #03-116574 EXISTING CONCRETE SIDEWALK TO REMAIN - APP #03-116574 EXISTING CHAIN-LINK FENCE EXISTING PLAY BOX TO REMAIN - APP #03-116574 EXISTING PLAY COURT EXISTING 20' WIDE FIRE TRUCK ACCESS LANE TO REMAIN - APP #03-116574. EXISTING SEA TRAIN TO BE RELOCATED BY OWNER. NEW MAIN SWITCHBOARD - SEE ELECTRICAL SHEET E1.01 FOR ADDITIONAL INFORMATION. NEW TRANSFORMER - SEE ELECTRICAL SHEET E1.01 FOR ADDITIONAL INFORMATION. EXISTING MECHANICAL ENCLOSURE TO BE REMOVED AS PER DEMOLITION PLAN ON SHEET A2.11. PREPARE THE SUBGRADE AS PER SPEC'S SECTIONS 31000 AND 31200. ASPHALT PAVE AREA FLASH WITH SURROUNDING ADJACENT PAVING.
BUILDING C BUILDING USE: CLASSROOMS OCCUPANCY GROUP: E NUMBER OF STORIES: ONE BUILDING HEIGHT: +16'-6" ALLOWABLE FLOOR AREA: 9,500 S.F. ACTUAL FLOOR AREA: 5,652 S.F. TYPE OF CONSTRUCTION: V-B		
BUILDING D BUILDING USE: CLASSROOMS OCCUPANCY GROUP: E NUMBER OF STORIES: ONE BUILDING HEIGHT: +16'-6" ALLOWABLE FLOOR AREA: 9,500 S.F. ACTUAL FLOOR AREA: 5,652 S.F. TYPE OF CONSTRUCTION: V-B		
BUILDING E BUILDING USE: CLASSROOMS OCCUPANCY GROUP: E NUMBER OF STORIES: ONE BUILDING HEIGHT: +16'-6" ALLOWABLE FLOOR AREA: 9,500 S.F. ACTUAL FLOOR AREA: 5,652 S.F. TYPE OF CONSTRUCTION: V-B		
BUILDING F BUILDING USE: CLASSROOMS OCCUPANCY GROUP: E NUMBER OF STORIES: ONE BUILDING HEIGHT: +16'-6" ALLOWABLE FLOOR AREA: 9,500 S.F. ACTUAL FLOOR AREA: 5,652 S.F. TYPE OF CONSTRUCTION: V-B		
GENERAL NOTES ALL WORK SHALL CONFORM TO 2019 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR). CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR. SUBSTITUTIONS OF PRODUCTS AND PROCESSES WHICH AFFECT THE STRUCTURAL SAFETY, FIRE AND LIFE-SAFETY, AND ACCESSIBILITY OF THIS PROJECT SHALL BE SUBMITTED TO DSA FOR REVIEW AND APPROVAL AS AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR). GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD, AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.		
CAL. ENERGY CODE THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TESTS TECHNICIAN (ATT). MECHANICAL CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER / ARCHITECT OF RECORD OR THE OWNER'S AGENT. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-programs/acceptance . THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION / INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.		
LEGEND BUILDINGS THAT ARE PART OF THE SCOPE OF WORK FOR THIS HVAC MODERNIZATION DEDUCTIVE BID ALTERNATE BUILDING AREA - SEE EXHIBIT 1-09		
BAKERSFIELD CITY SCHOOL DISTRICT 1300 BAKER STREET BAKERSFIELD, CA 93305 HVAC REPLACEMENT MUNSEY ELEMENTARY SCHOOL 3801 BRAVE AVENUE BAKERSFIELD, CA 93309		
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EXHIBIT 1-09 ADDENDUM 1 11/28/22		

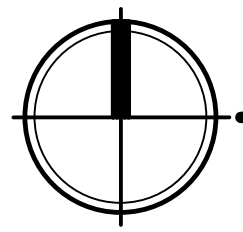
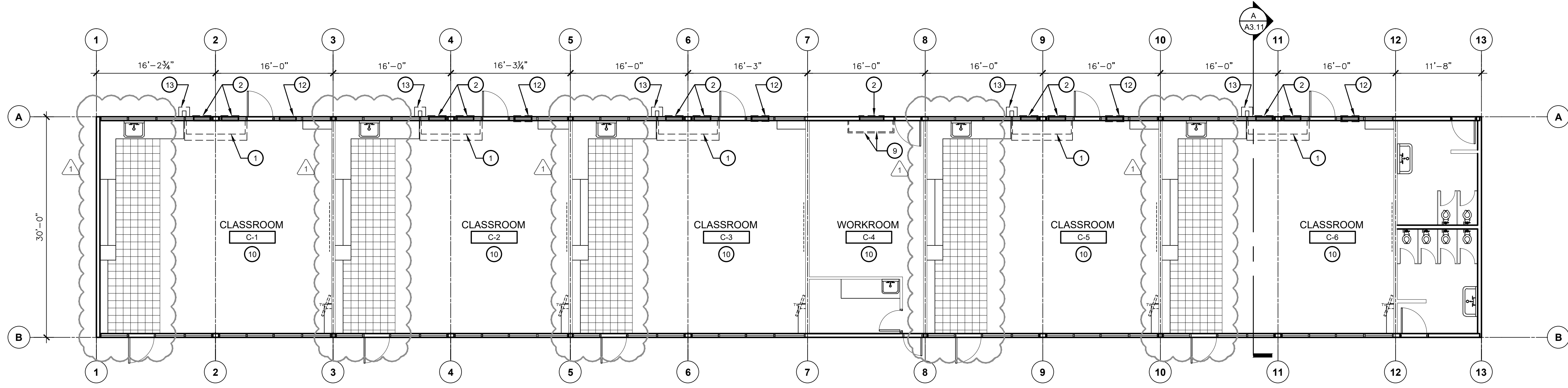
KEY NOTES

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. TYP.
2. REMOVE EXISTING OUTSIDE AIR LOUVER AND DUCT THRU WALL.
3. REMOVE (E) UNIT HEATER AND ALL RELATED COMPONENTS, PIPES AND RELATED APPURTENANCES
4. REMOVE (E) AIR DUCT
5. REMOVE (E) SUPPLY GRILL
6. REMOVE (E) OUTSIDE AIR LOUVER
7. REMOVE (E) AIR LOUVER AND AIR RELIEF DAMPER
8. REMOVE (E) EVAPORATIVE COOLER
9. REMOVE (E) FAN COIL
10. REMOVE (E) CARPET, VAT TILE FLOORING AND MASTIC
11. NOT USED
12. REMOVE EXISTING RELIEF DAMPER LOUVER
13. REMOVE EXISTING SHEET METAL PIPE COVER, CONCRETE PAD, AND UTILITY PIPES, CAP AND ABANDON REMAINING PIPES UNDERGROUND - SEE DETAIL 3/A3.11



DEMOLITION PLANS - BUILDING A HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



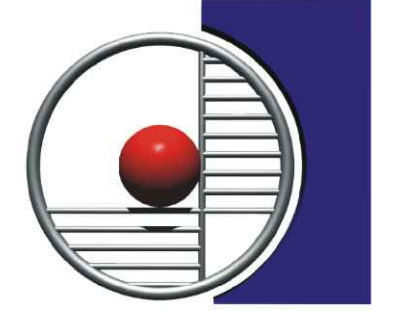
DEMOLITION PLANS - BUILDING C HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93305

HVAC REPLACEMENT

MUNSEY ELEMENTARY SCHOOL
3801 BRAVE AVENUE
BAKERSFIELD, CA 93309

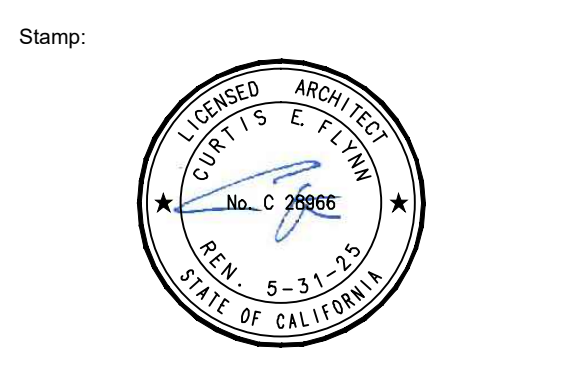


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DEMOLITION PLANS
BUILDINGS A & C

Job No: **5524**

Sheet No.: **A2.10**

Release: ADDENDUM 1 11/28/22

EXHIBIT 1-10

KEY NOTES #

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. COORDINATE WITH MECHANICAL DRAWINGS, TYP.
2. REMOVE EXISTING OUTSIDE AIR LOUVER AND DUCT THRU WALL.
3. REMOVE (E) CARPET, VAT FLOORING AND MASTIC
4. REMOVE (E) FAN COIL UNIT
5. REMOVE EXISTING AIR COOLED CHILLER, PIPING AND CONTROLS
6. REMOVE EXISTING ICE STORAGE TANK
7. REMOVE EXISTING HYDRONIC BOILER, PIPING AND CONTROLS
8. REMOVE EXISTING PUMP, PIPING AND CONTROLS
9. REMOVE EXISTING EXPANSION TANK AND PIPING
10. REMOVE EXISTING AIR SEPARATOR AND PIPING
11. REMOVE EXISTING PIPING AND SUPPORT
12. REMOVE AND DISPOSE OF (E) CMU WALLS, INCLUDING CONCRETE FOUNDATION AND CHAIN-LINK FENCE ON TOP OF WALL. COORDINATE DEMOLITION WITH REMOVAL OF CHILLER EQUIPMENT TIME FRAME
13. REMOVE AND DISPOSE OF (E) EQUIPMENT CONCRETE HOUSEKEEPING PADS, COORDINATE DEMOLITION WITH REMOVAL OF CHILLER EQUIPMENT TIME FRAME
14. REMOVE AND DISPOSE OF (E) CONCRETE PAVING. COORDINATE DEMOLITION WITH REMOVAL OF CHILLER EQUIPMENT TIME FRAME
15. REMOVE AND DISPOSE OF (E) WOODEN FENCE AND GATE
16. REMOVE EXISTING RELIEF DAMPER LOUVER
17. REMOVE EXISTING SHEET METAL PIPE COVER, CONCRETE PAD AND UTILITY PIPES CAP AND ABANDON REMAINING PIPES UNDERGROUND - SEE DETAIL 3/A3.11



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HVAC REPLACEMENT

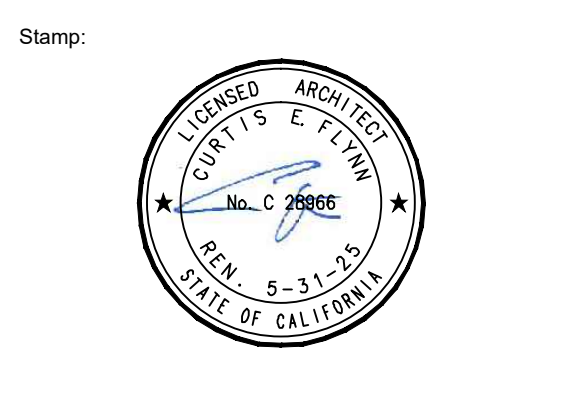
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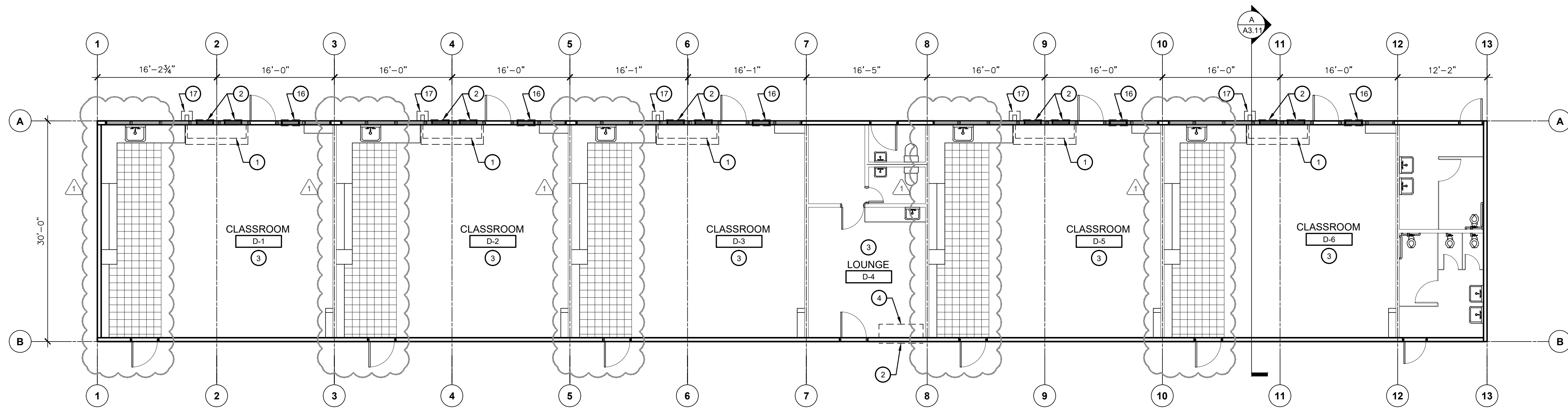
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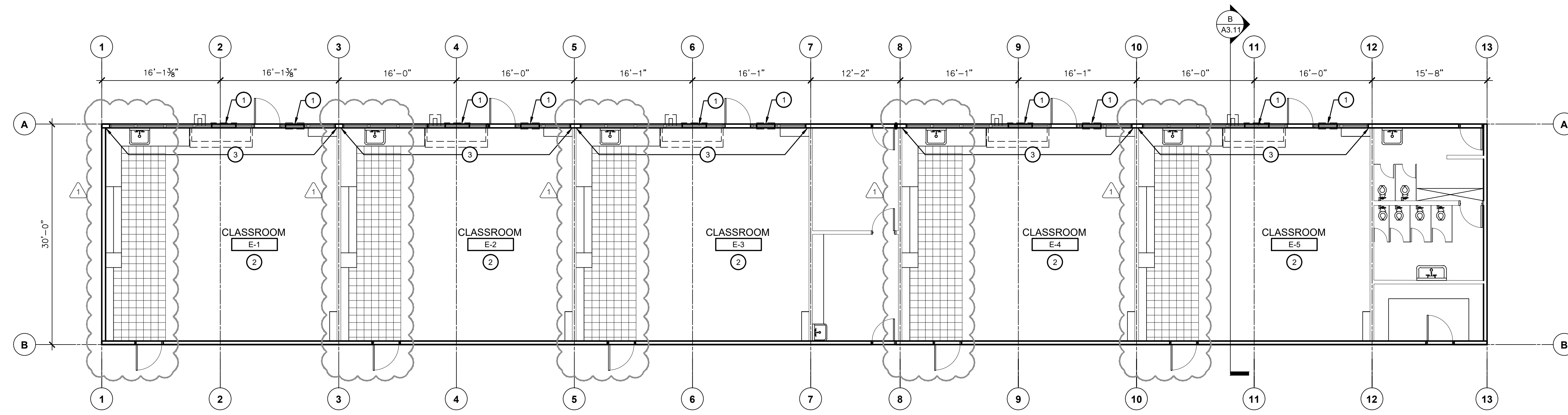
DEMOLITION PLANS
 BUILDINGS D, E &
 MECH. ENCLOSURE

Job No: **5524**

Sheet No.: **A2.11**
 Release: ADDENDUM 1

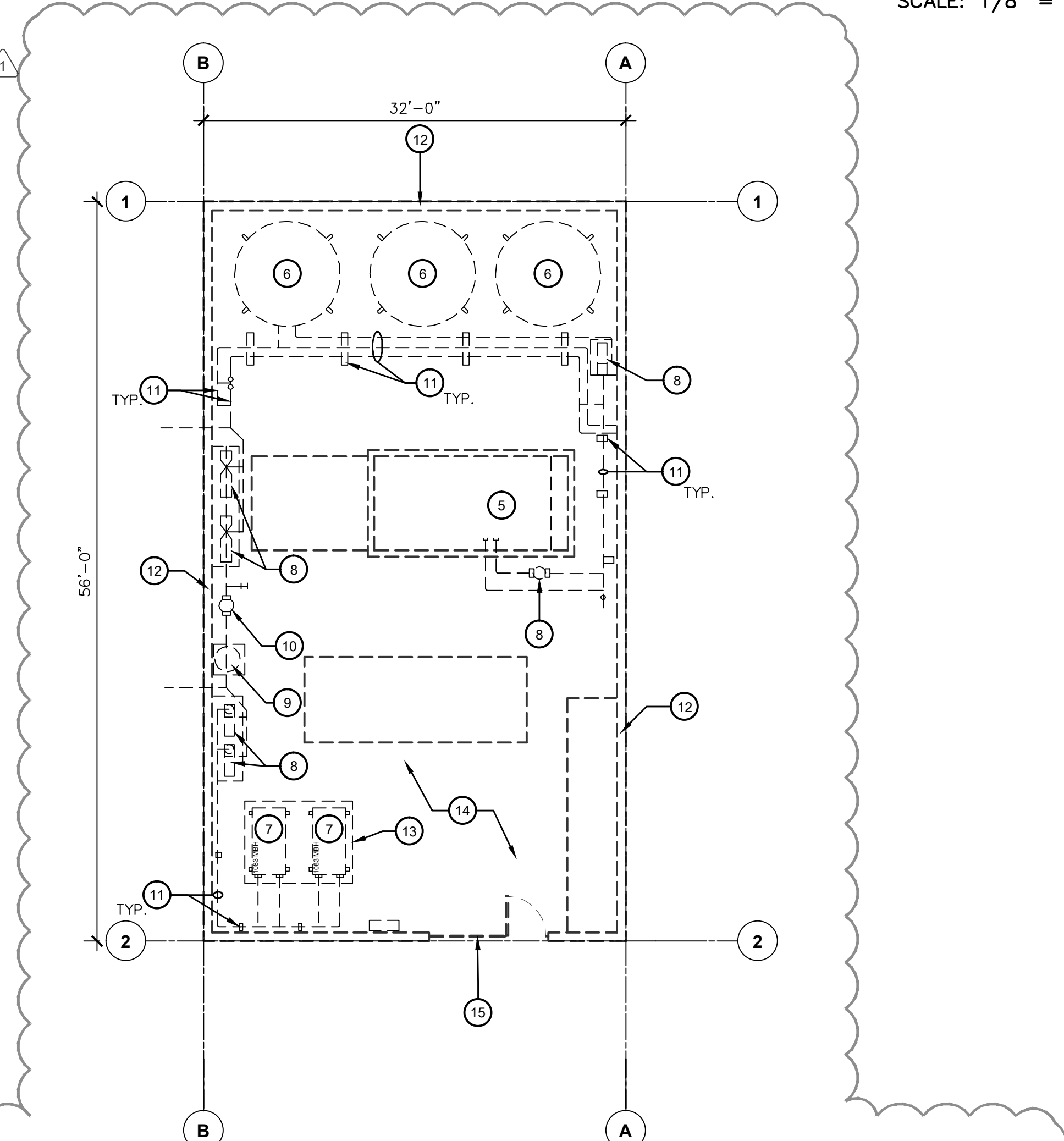


DEMOLITION PLANS - BUILDING D
 HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"



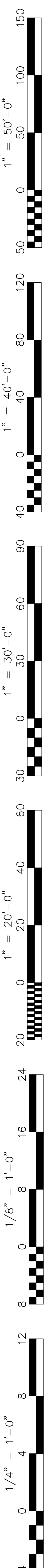
DEMOLITION PLANS - BUILDING E
 HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"

NOTE:
 ALL CHILLER EQUIPMENT SHALL REMAIN OPERATIONAL UNTIL ALL NEW AIR CONDITIONING EQUIPMENT HAS BEEN INSTALLED, APPROVED AND FULLY OPERABLE



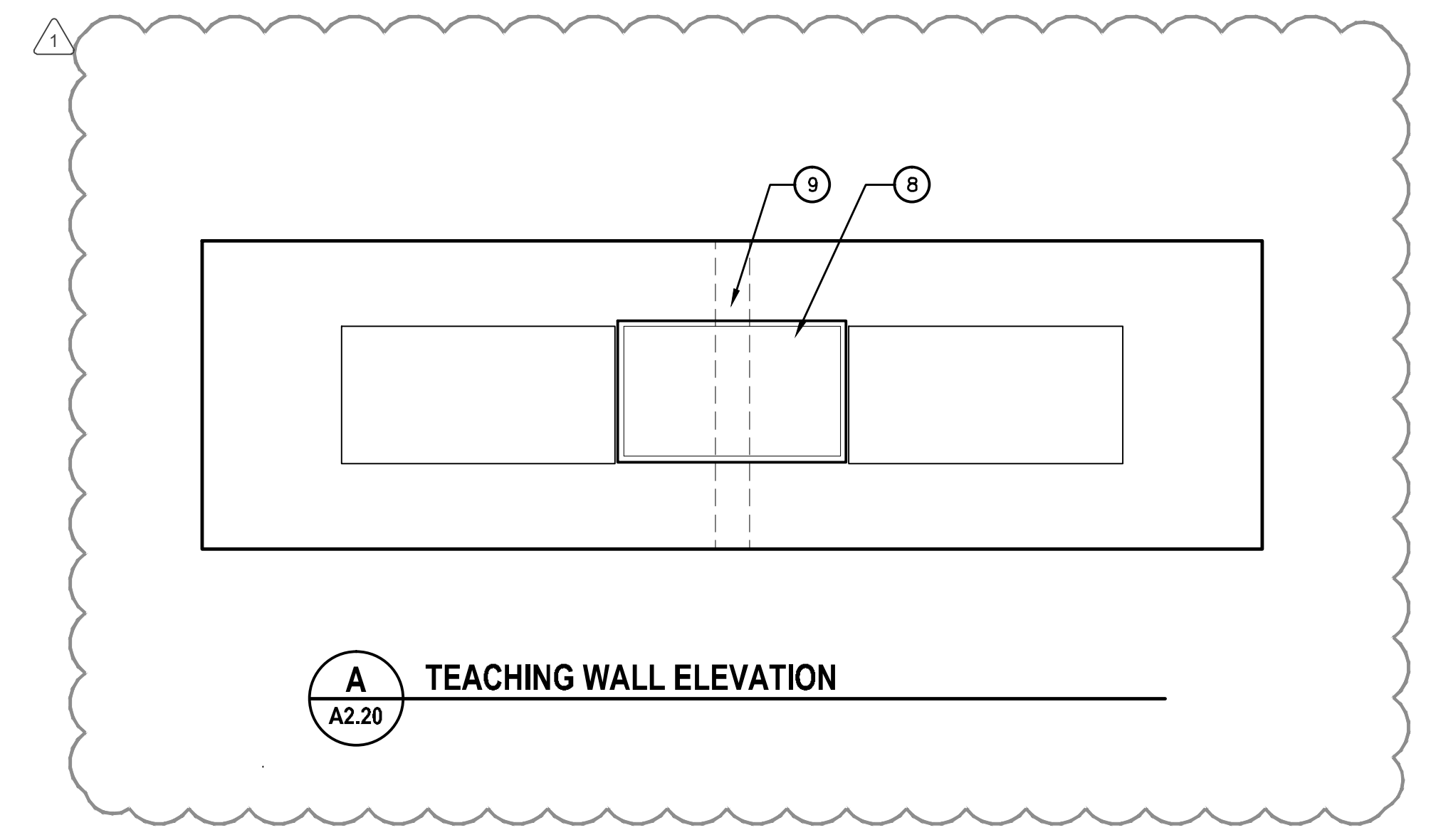
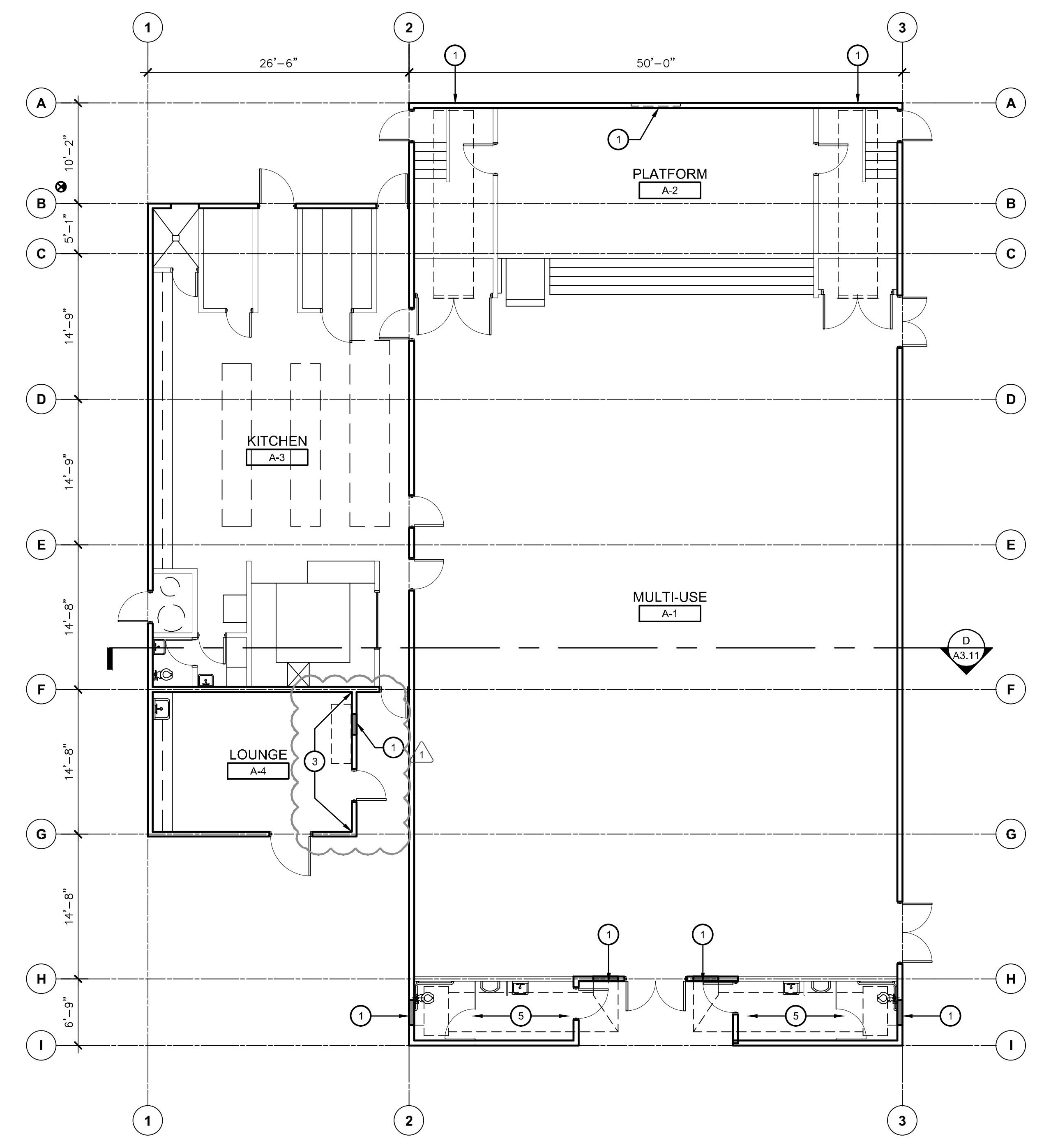
DEMOLITION PLANS - MECHANICAL ENCLOSURE
 HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"

EXHIBIT 1-11



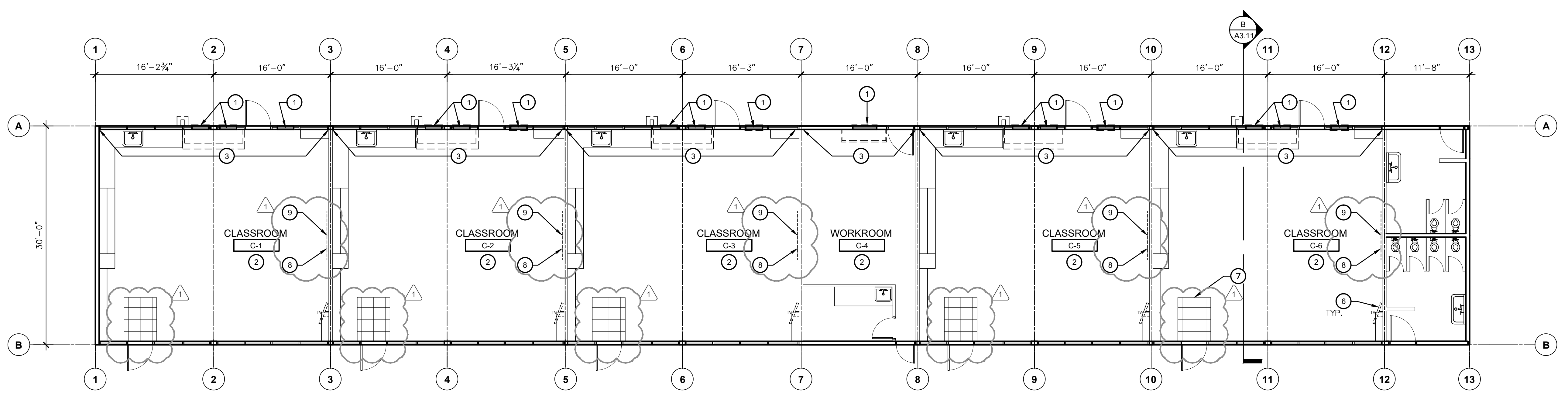
KEY NOTES #

1. INFILL OPENING WITH WOOD STUDS, CEMENT PLASTER TO MATCH EXISTING ADJACENT COLOR AND TEXTURE ON THE OUTSIDE AND GYPSUM BOARD TO MATCH EXISTING ADJACENT THICKNESS, COLOR, AND TEXTURE ON THE INSIDE. PROVIDE R-19 BATT INSULATION. SEE 2/A3.11.
2. PROVIDE NEW CARPET AS PER SPECIFICATIONS - COLOR TO BE SELECTED BY OWNER.
3. PAINT WALL, WINDOW FRAME, COLUMN, DOOR FRAME AND DOOR - COLOR TO BE SELECTED BY OWNER.
4. NOT USED.
5. REMOVED EXISTING CEILING AND REPLACE WITH NEW T-BAR CEILING, PER 1/A8.01.
6. (N) T.V. BRACKET, SEE DETAIL 14/A8.01. OWNER PROVIDED, OWNER INSTALLED.
7. PROVIDE NEW WALK-OFF MAT (C-1) PER SPECIFICATIONS SECTION 098813.
8. REMOVE (E) LCD TV MONITOR & SALVAGE FOR RELOCATION.
9. REMOVE PORTION OF (E) TACKBOARD, DRYWALL AND SHEATHING AS REQUIRED TO INSTALL NEW ELECTRICAL WORK. SEE ELEVATION 2/E3.01. REPLACE DRYWALL AND SHEATHING TO MATCH (E) AND PUT BACK TACKLE BOARD.



FLOOR PLANS - BUILDING A - IMPROVEMENTS
HVAC REPLACEMENT


SCALE: 1/8" = 1'-0"



FLOOR PLANS - BUILDING C - IMPROVEMENTS
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

Owner:



BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93305

Project Name:

HVAC REPLACEMENT

Project Address:

MUNSEY ELEMENTARY SCHOOL
3801 BRAVE AVENUE
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Sheet Title:

FLOOR PLANS IMPROVEMENTS BUILDINGS A & C

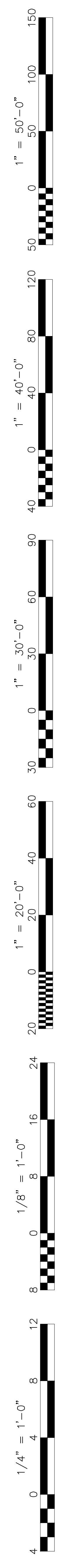
Job No.:

5524

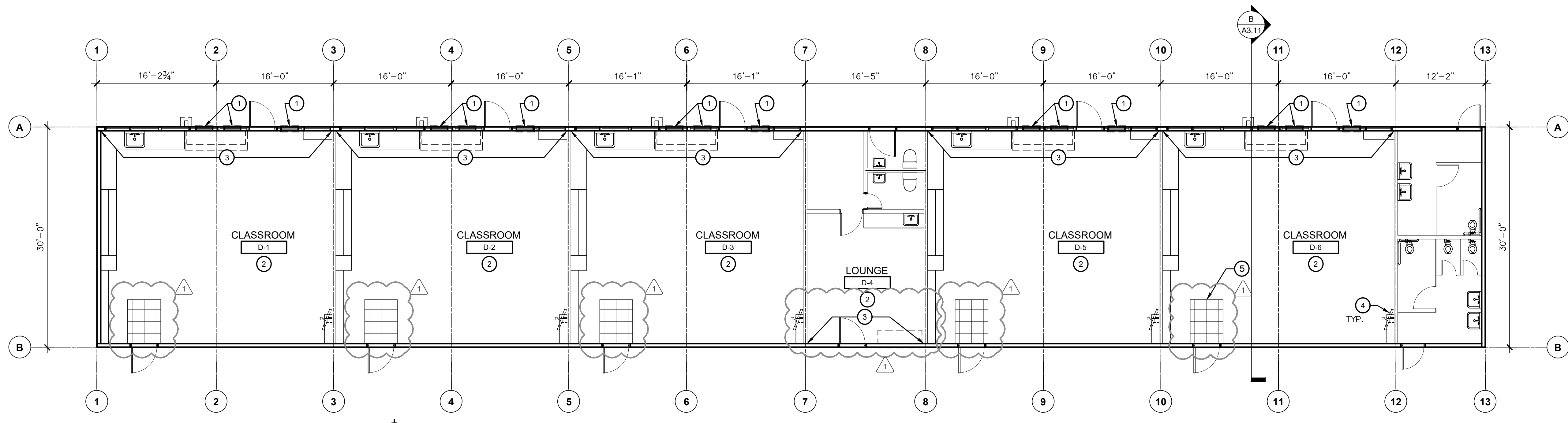
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A2.20

Release: ADDENDUM 1

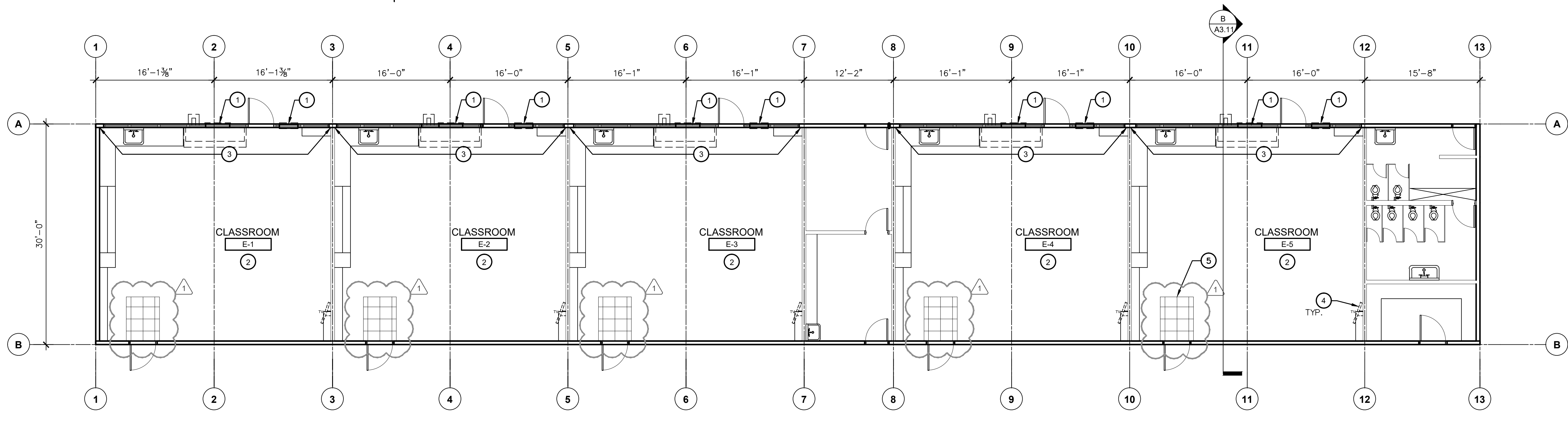


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FLOOR PLANS - BUILDING D - IMPROVEMENTS
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"




FLOOR PLANS - BUILDING E - IMPROVEMENTS
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

- KEY NOTES** #
- INFILL OPENING WITH WOOD STUDS, CEMENT PLASTER TO MATCH EXISTING ADJACENT COLOR AND TEXTURE ON THE OUTSIDE AND GYPSUM BOARD TO MATCH EXISTING ADJACENT THICKNESS, COLOR, AND TEXTURE ON THE INSIDE, PROVIDE R-19 BATT INSULATION. SEE DETAIL 2/A3.11
 - PROVIDE NEW CARPET AS PER SPECIFICATIONS - COLOR TO BE SELECTED BY OWNER
 - PAINT: WALL, WINDOW FRAME, COLUMN, DOOR FRAME AND DOOR - COLOR TO BE SELECTED BY OWNER
 - (N) T.V. BRACKET. SEE DETAIL 14/A8.01. OWNER PROVIDED, OWNER INSTALLED.
 - PROVIDE NEW WALK-OFF MAT (C-1) PER SPECIFICATIONS SECTION 096813.

Owner:



BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93305

Project Name:
HVAC REPLACEMENT

Project Address:
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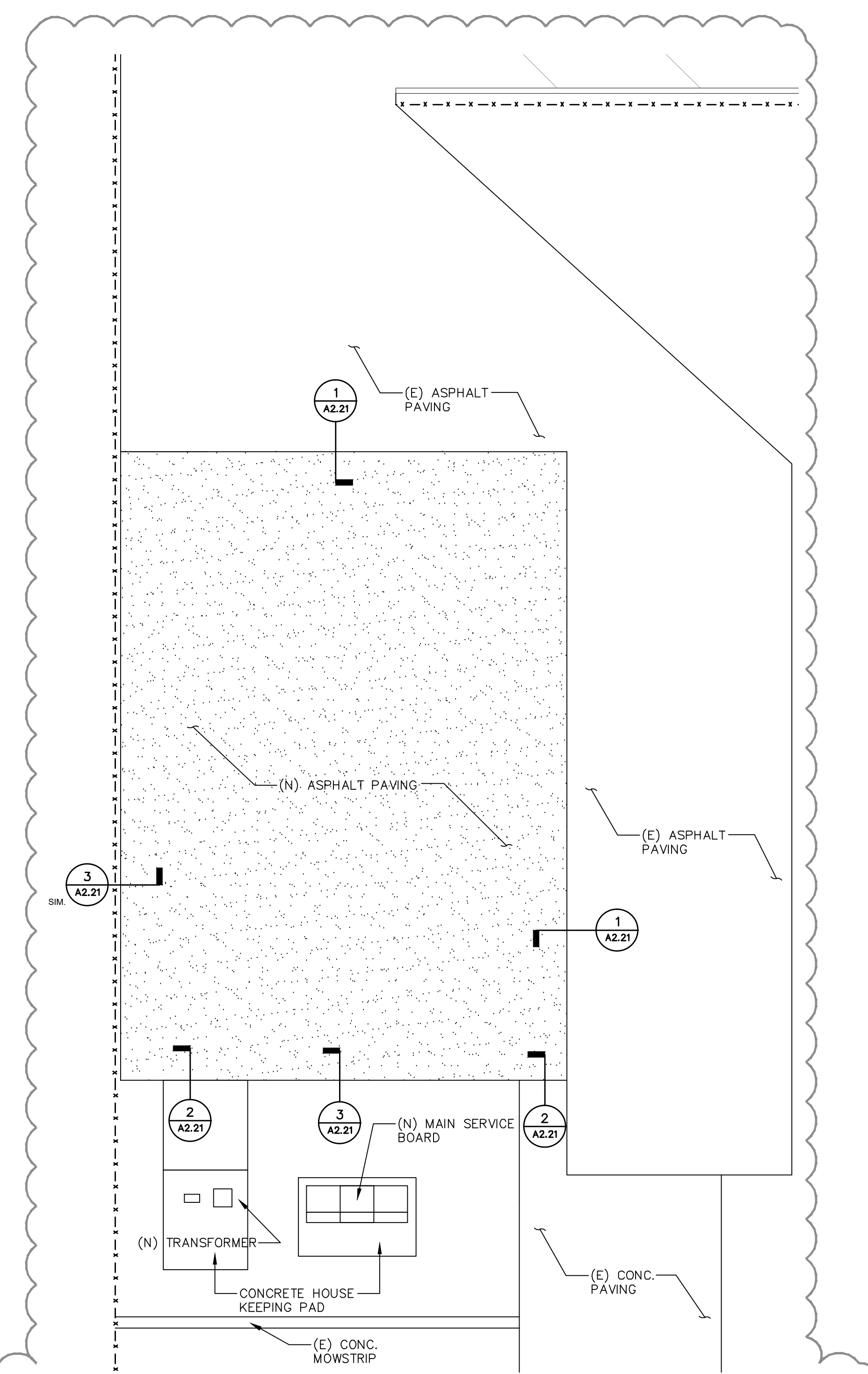
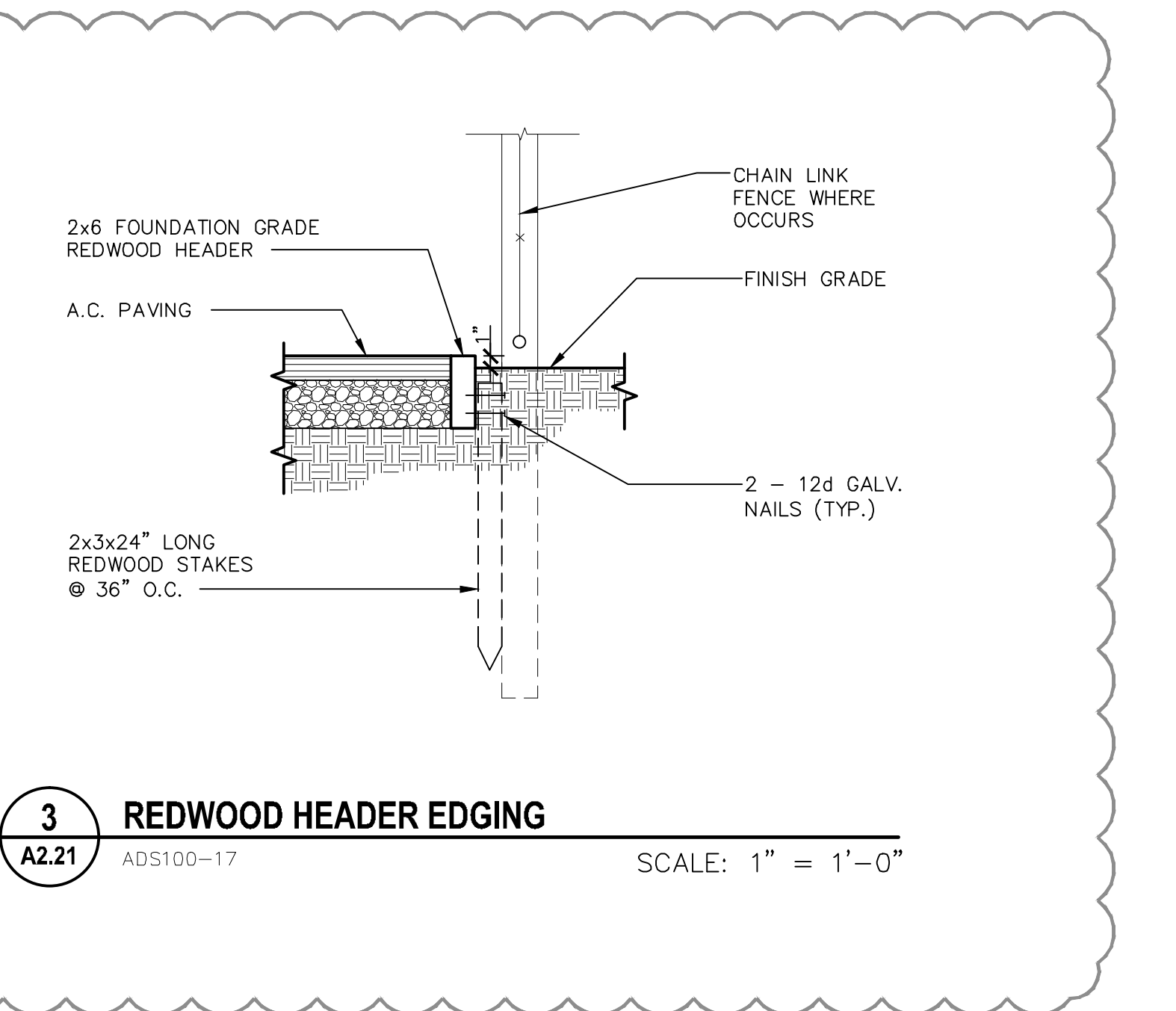
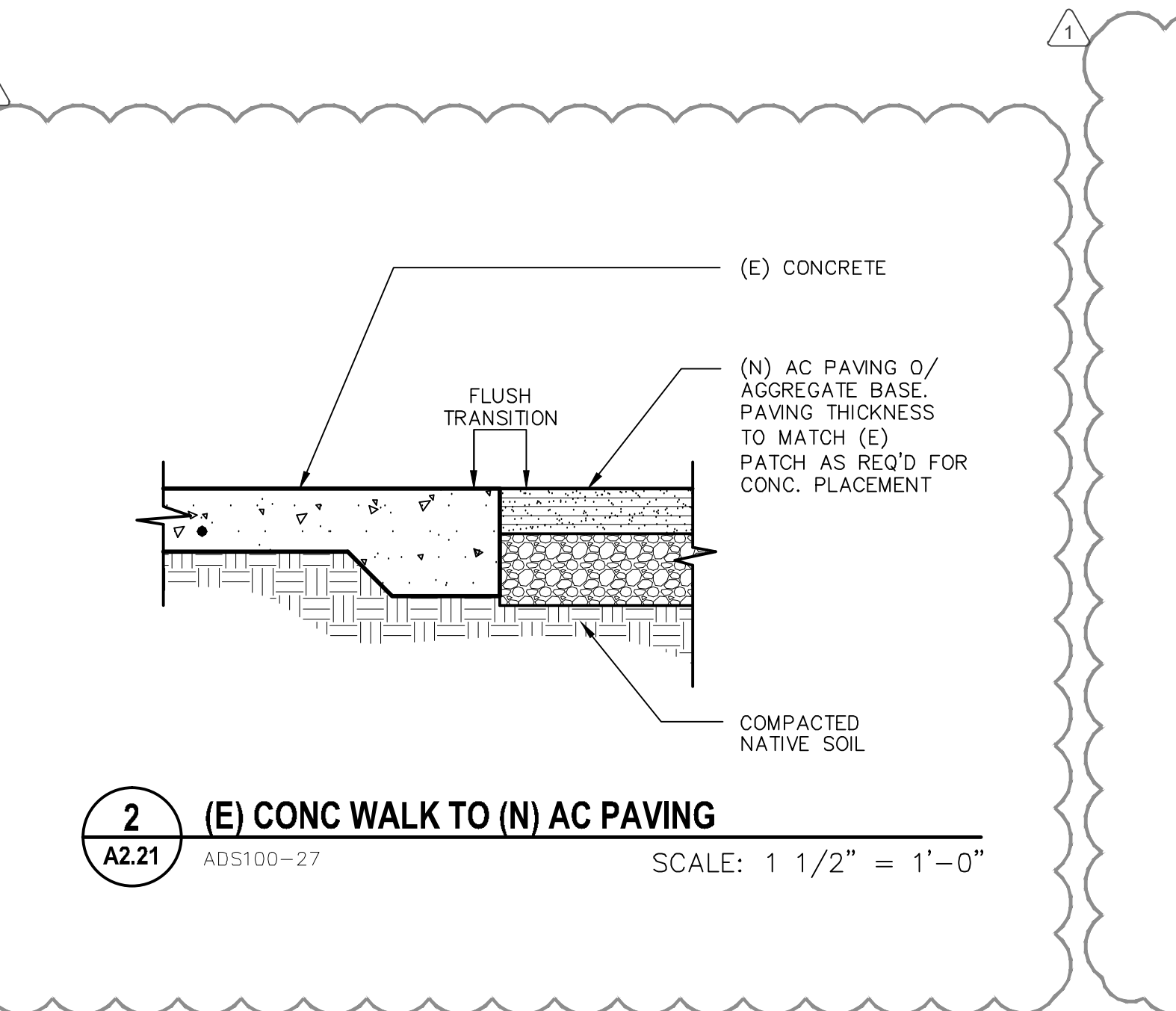
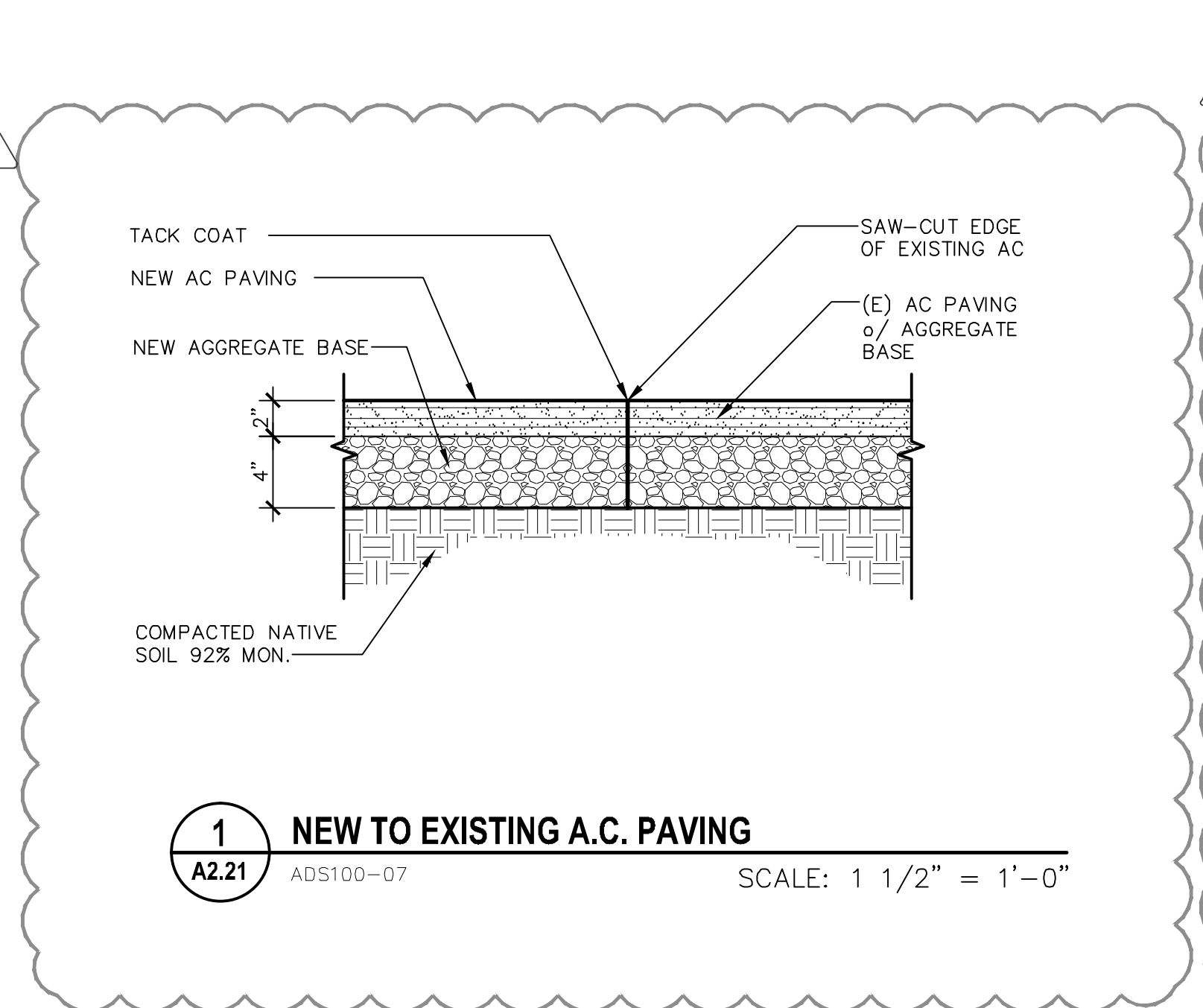
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FLOOR PLANS IMPROVEMENTS
BUILDINGS D & E

Job No.:
5524

Sheet No.:
A2.21

Release: ADDENDUM 1

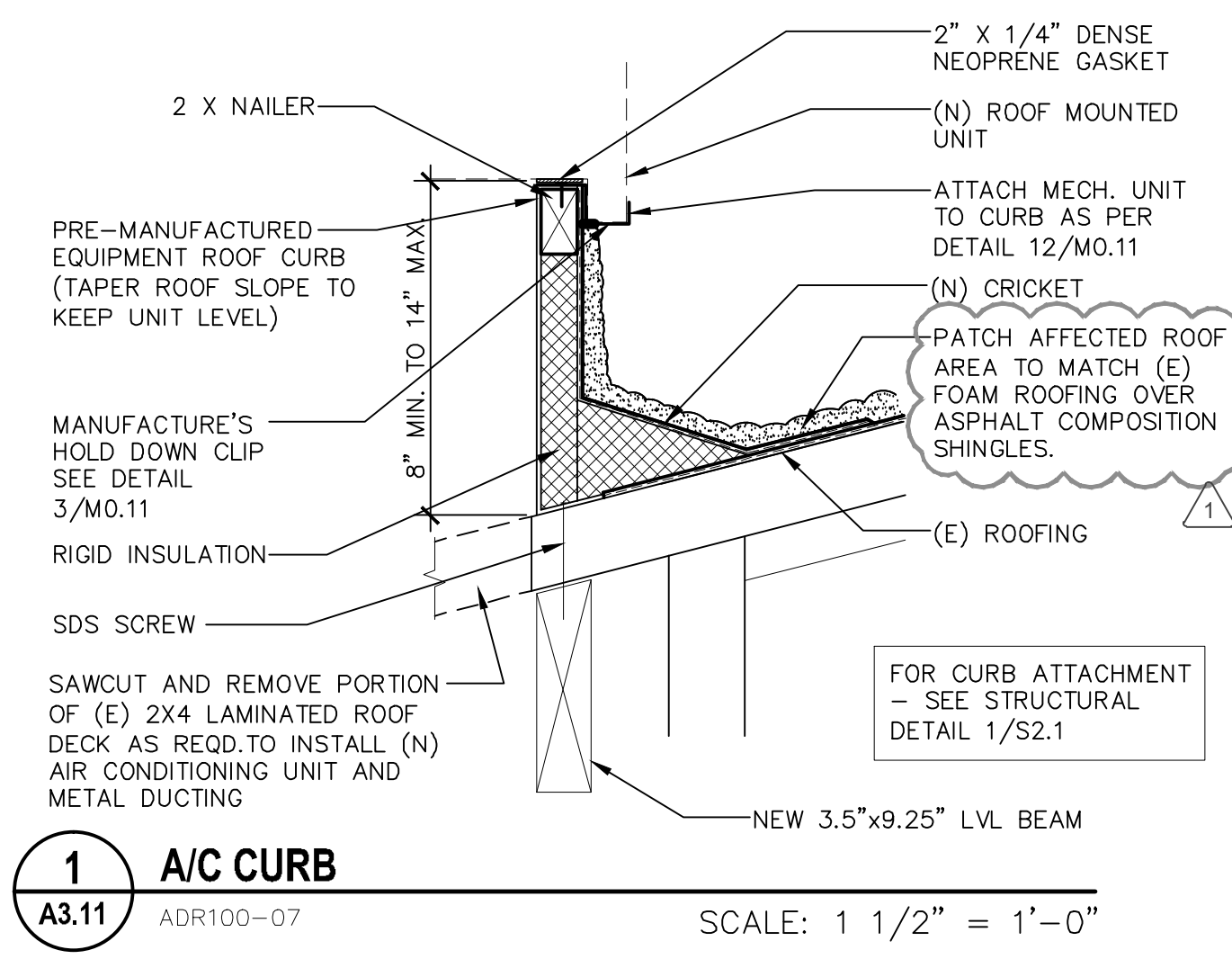
11/28/22



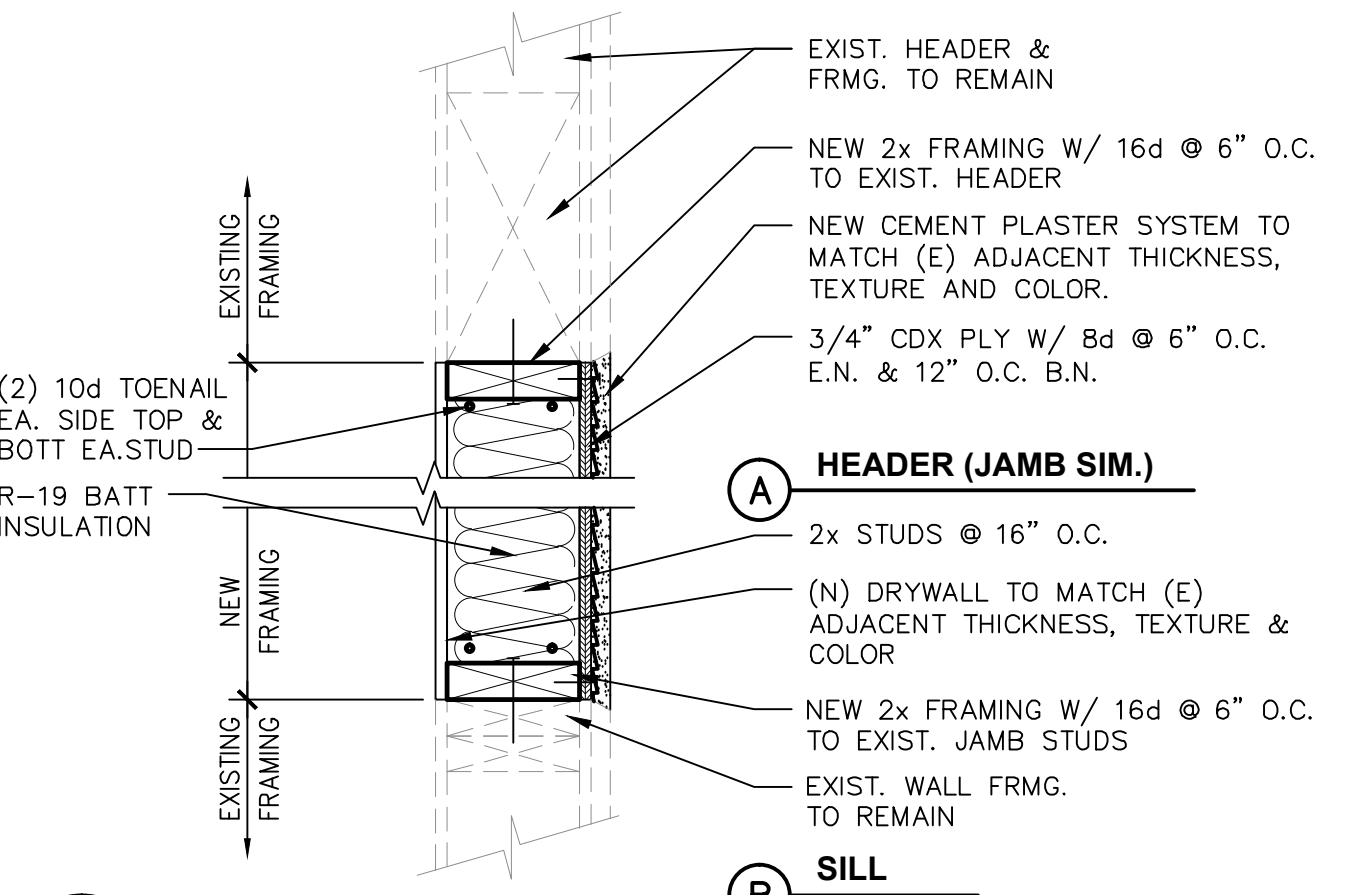
PARTIAL SITE PLAN
HVAC REPLACEMENT

EXHIBIT 1-13
SCALE: 1/8" = 1'-0"

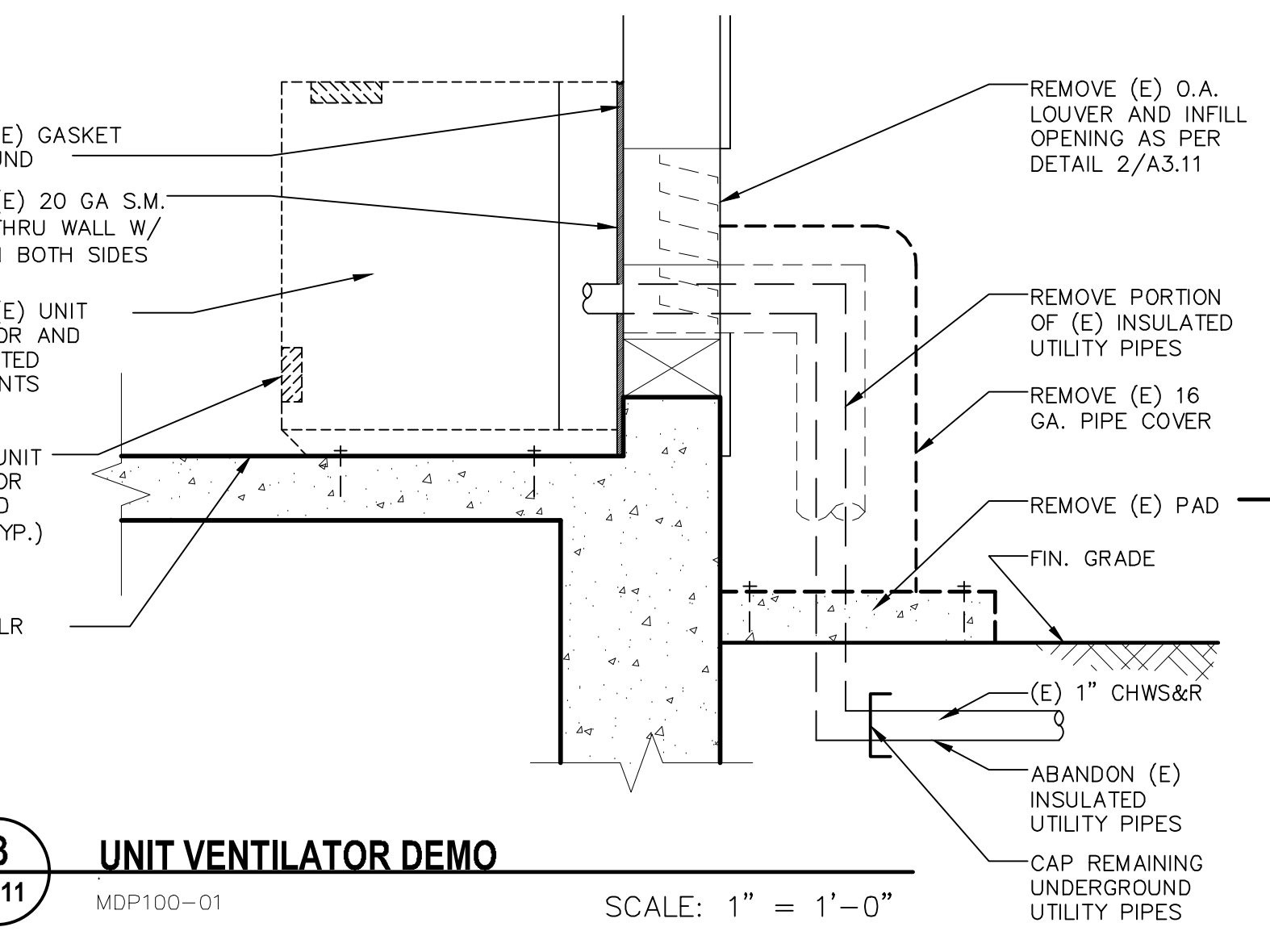
1" = 50'-0"
 1" = 40'-0"
 1" = 30'-0"
 1" = 20'-0"
 1" = 1'-0"
 1/8" = 1'-0"
 1/4" = 1'-0"



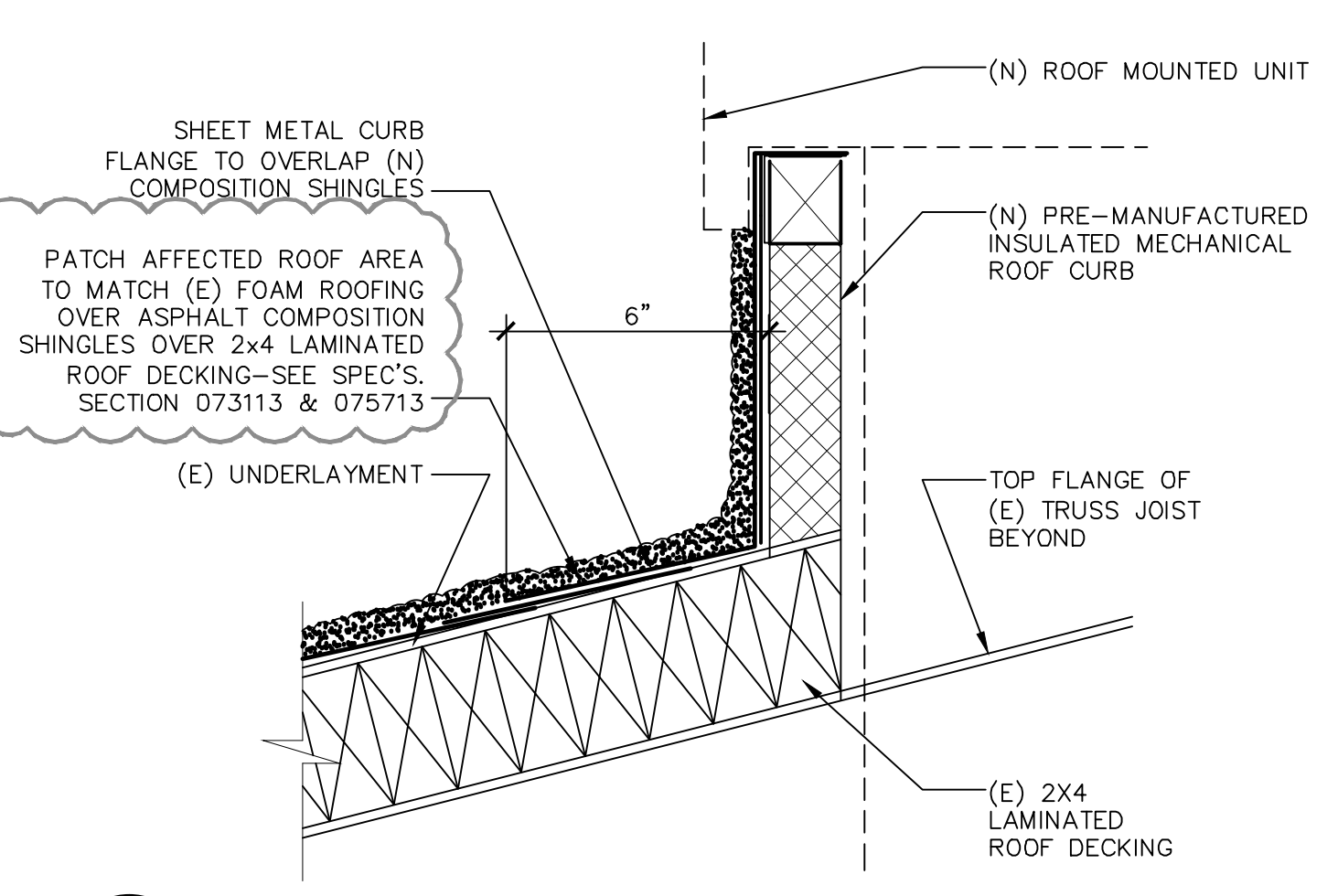
1 A/C CURB
 A3.11 ADR100-07 SCALE: 1 1/2" = 1'-0"



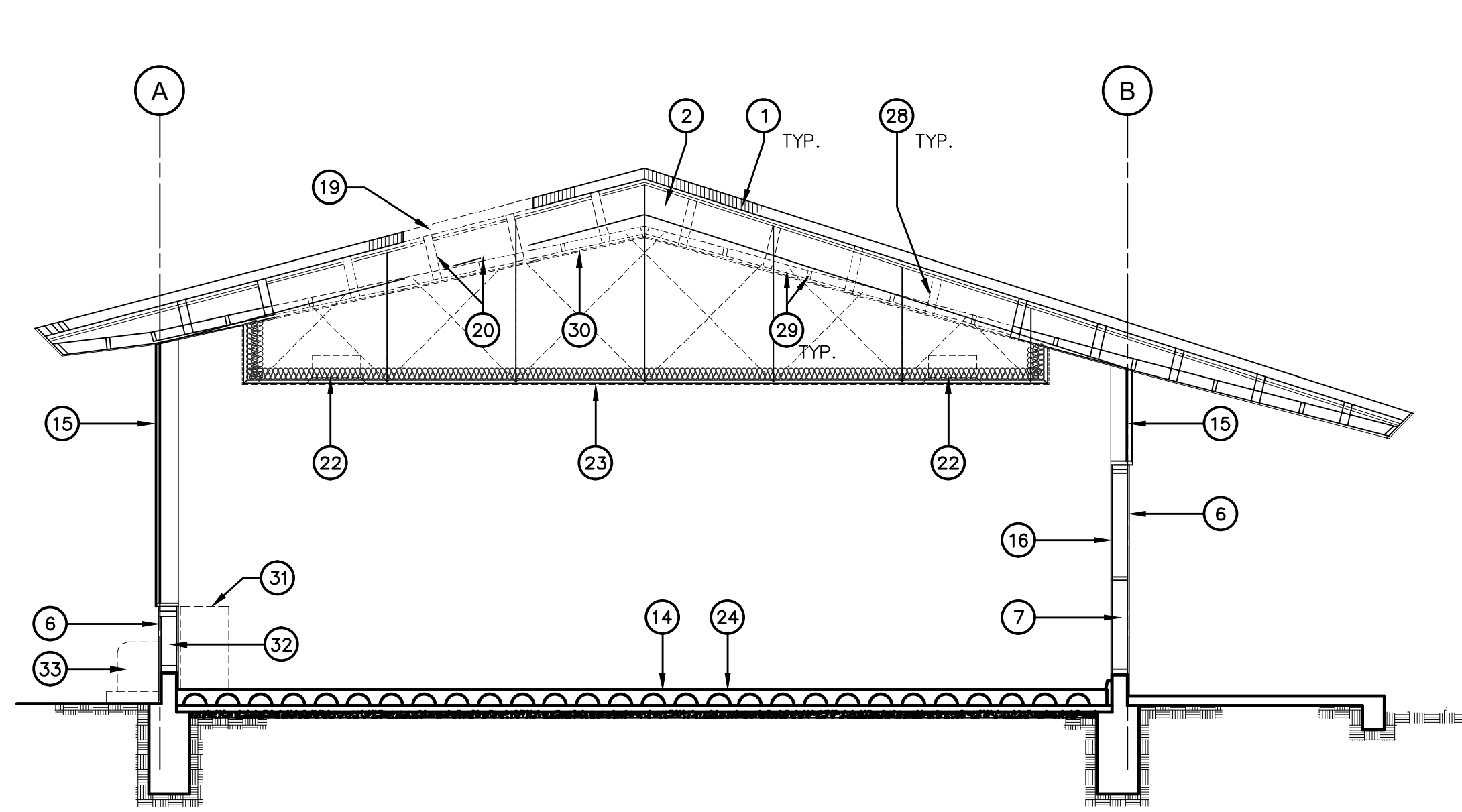
2 TYPICAL WALL INFILL
 A3.11 ADW141-22 SCALE: 1 1/2" = 1'-0"



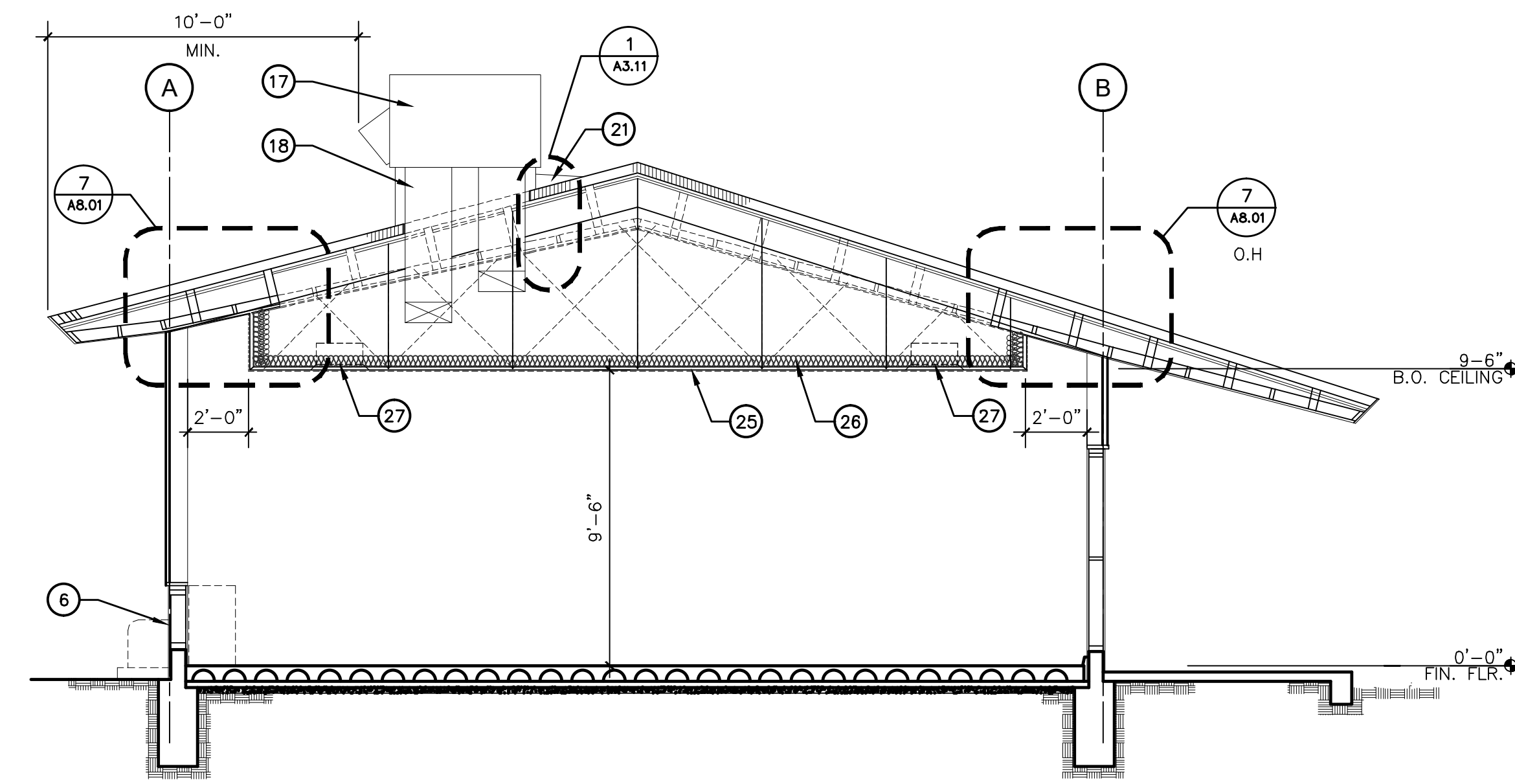
3 UNIT VENTILATOR DEMO
 A3.11 MDP100-01 SCALE: 1" = 1'-0"



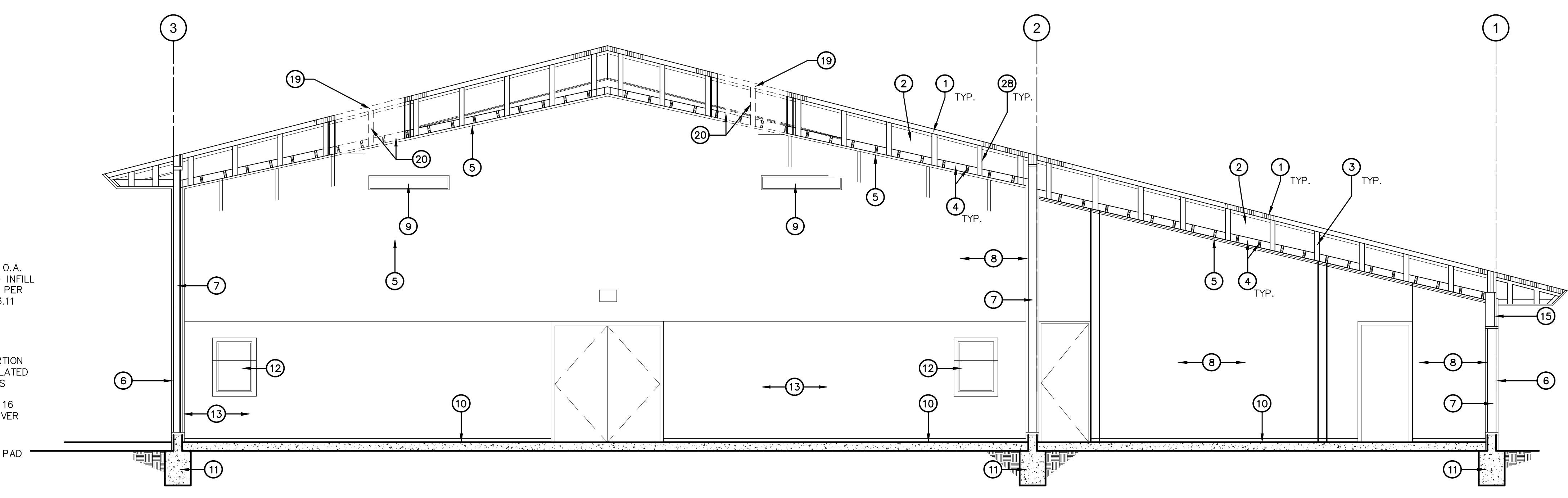
4 COMPOSITION SHINGLES ROOF PATCH
 A3.11 ADR100-02 SCALE: 3" = 1'-0"



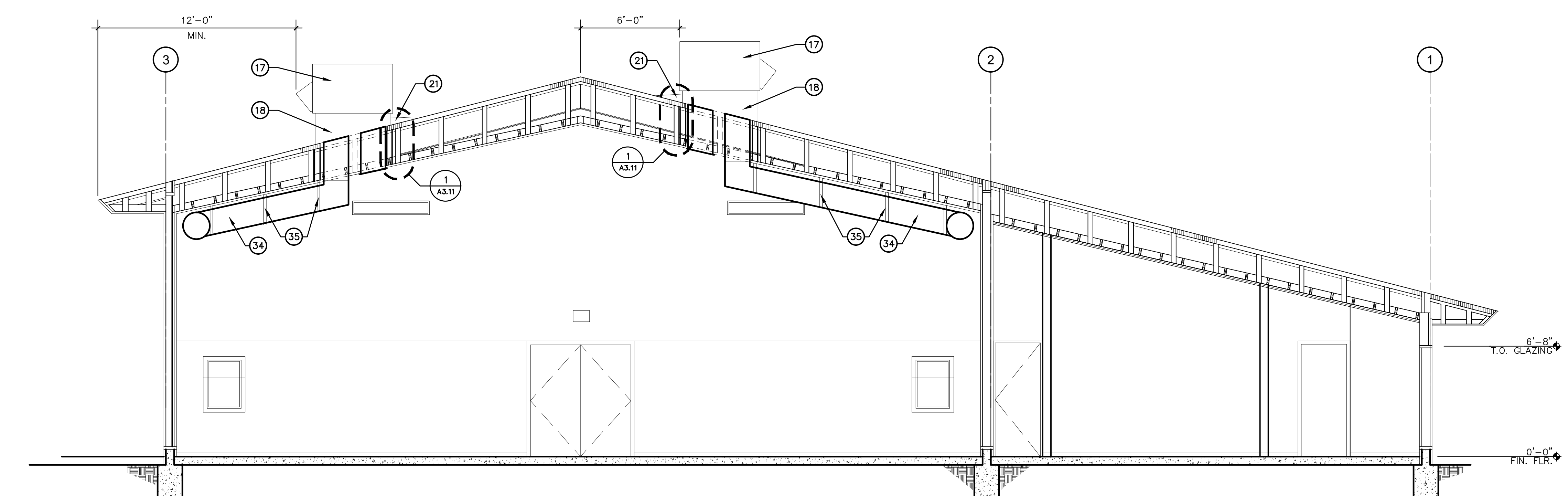
A TYPICAL CLASSROOM SECTION DEMOLITION
 1/4" = 1'-0"



B TYPICAL CLASSROOM SECTION - IMPROVEMENTS
 1/4" = 1'-0"



C MULTI-USE BUILDING SECTION DEMOLITION
 1/4" = 1'-0"



D MULTI-USE BUILDING SECTION - IMPROVEMENTS
 1/4" = 1'-0"

KEY NOTES

1. (E) FOAM ROOFING OVER ASPHALT COMPOSITION SHINGLES. 2x4 LAMINATED ROOF DECKING.
2. (E) WIDE FLANGE BEAM
3. (E) 1x4 CEILING HANGERS AT 32" o.c.
4. (E) 2x6 CEILING JOISTS AT 18" o.c.
5. (E) 1/2" ACOUSTICAL TILE OVER 5/8" GYPSUM BOARD OVER 1x3 STRIPPING AT 12" o.c.
6. (E) STUCCO OVER 1" DIAGONAL SHEATHING
7. (E) 2X WOOD STUDS WALL FRAMING
8. (E) 3/4" PLASTER
9. (E) METAL AIR GRILL
10. (E) 4" CONCRETE SLAB FLOOR REINFORCED WITH 6" X 6" #10 - #10 WIRE MESH
11. (E) CONCRETE FOOTING
12. (E) FIRE HOSE CABINET
13. (E) PLASTIC TILE WAINSCOT
14. (E) AIR-FLOOR SYSTEM
15. (E) METAL WINDOW
16. (E) 1/2" PLYWOOD PANELING
17. NEW SINGLE PACKAGE ROOF TOP UNIT - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
18. NEW PRE-FAB METAL EQUIPMENT CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
19. SAW CUT AND REMOVE PORTION OF (E) 2x4 LAMINATED ROOF DECKING AS REQUIRED TO INSTALL NEW AIR SUPPLY AND RETURN DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL. SEE STRUCTURAL DRAWINGS FOR ROOF DECK OPENINGS REINFORCING
20. SAW CUT AND REMOVE PORTION OF SUSPENDED CEILING SUPPORTS AS REQUIRED TO INSTALL NEW AIR SUPPLY AND RETURN DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL.
21. REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB. PROVIDE A CRICKET TO DIVERT RAIN WATER
22. REMOVE AND SALVAGE FOR RELOCATION (E) IONIZERS, SPEAKERS, DETECTORS, SENSORS AND FUNCTIONING APPURTENANCES.
23. REMOVE SUSPENDED ACOUSTICAL TILE CEILING AND INSULATION
24. REMOVE (E) CARPET, VAT TILE FLOORING AND MASTIC
25. NEW SUSPENDED ACOUSTIC CEILING SYSTEM - SEE DETAIL 1/A8.01
26. NEW R-30 LAY-ON BATT INSULATION
27. RE-INSTALL SALVAGED IONIZER - SEE CLASSROOMS REFLECTED CEILING ON SHEETS A8.20 AND A8.21 FOR LOCATION AND DETAIL 1/A8.01 FOR INSTALLATION.
28. REMOVE (E) 1x4 CEILING HANGERS AT 32" o.c. WITHIN THE NEW SUSPENDED ACOUSTICAL TILE CEILING AREA
29. REMOVE (E) 2x6 CEILING JOISTS AT 18" o.c. WITHIN THE NEW SUSPENDED ACOUSTICAL TILE CEILING AREA
30. REMOVE (E) 1/2" ACOUSTICAL TILE, OVER 5/8" GYPSUM BOARD, OVER 1x3 STRIPPING AT 12" o.c. WITHIN THE NEW SUSPENDED ACOUSTICAL TILE CEILING AREA
31. REMOVE (E) UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. - SEE DETAIL 3/A3.11
32. REMOVE OUTSIDE AIR LOUVER - SEE DETAIL 3/A3.11
33. REMOVE (E) SHEET METAL PIPE COVER, CONCRETE PAD, AND UTILITIES PIPES - SEE DETAIL 3/A3.11
34. NEW AIR SUPPLY SHEET METAL DUCT.
35. SHEET METAL STRAP SUPPORT - SEE DETAIL 5/M0.11

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
 1300 BAKER STREET
 BAKERSFIELD, CA 93305

Project Name:
HVAC REPLACEMENT

Project Address:
MUNSEY ELEMENTARY SCHOOL
 3801 BRAVE AVENUE
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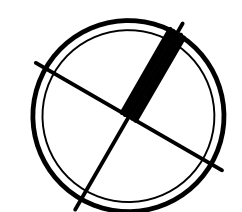
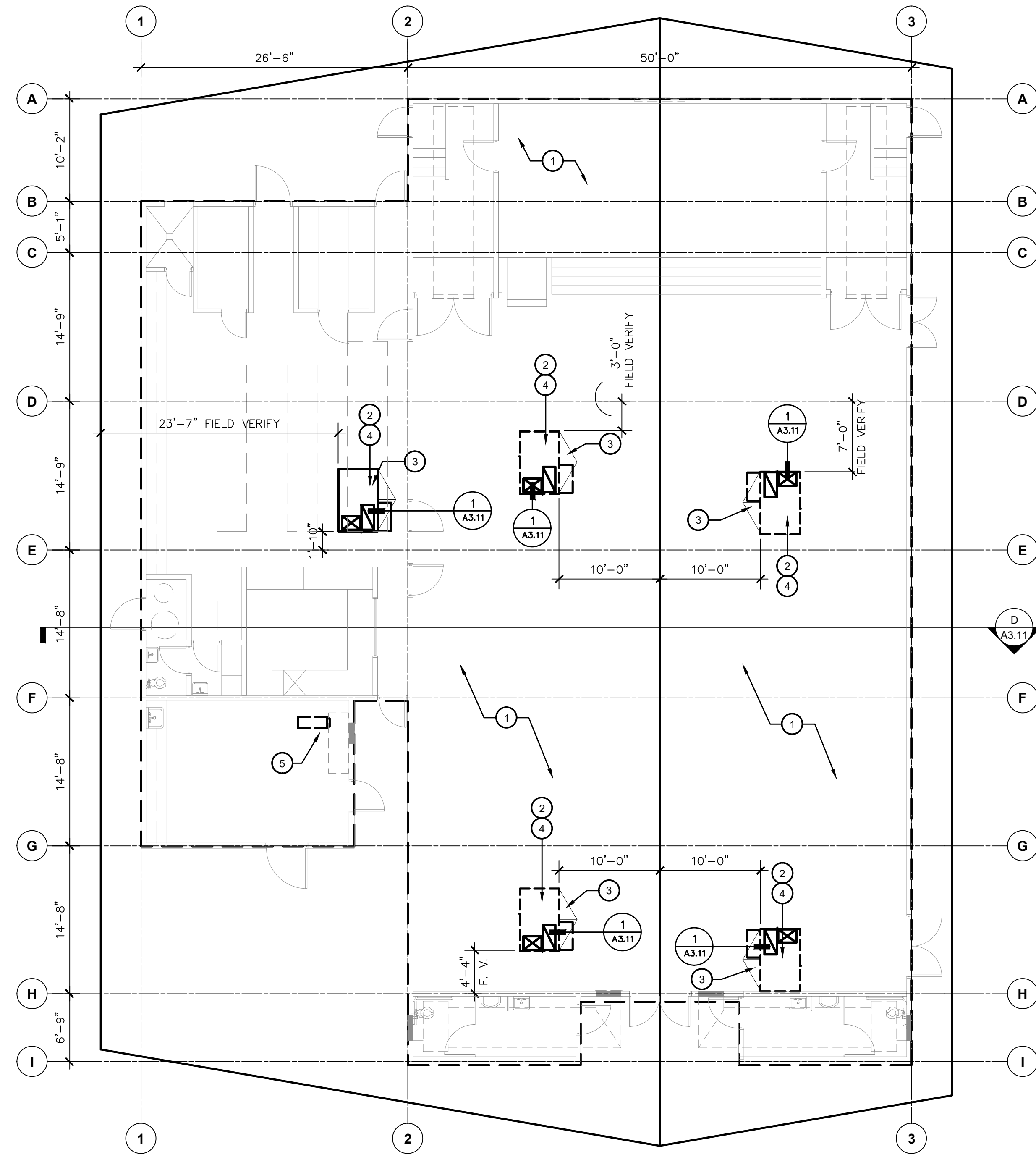
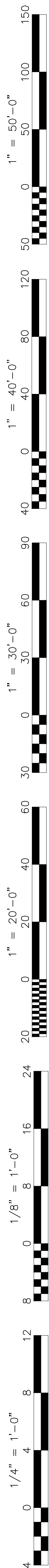
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SECTIONS
 BLDGS. A, C, D & E

Job No.:
5524

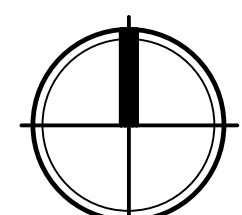
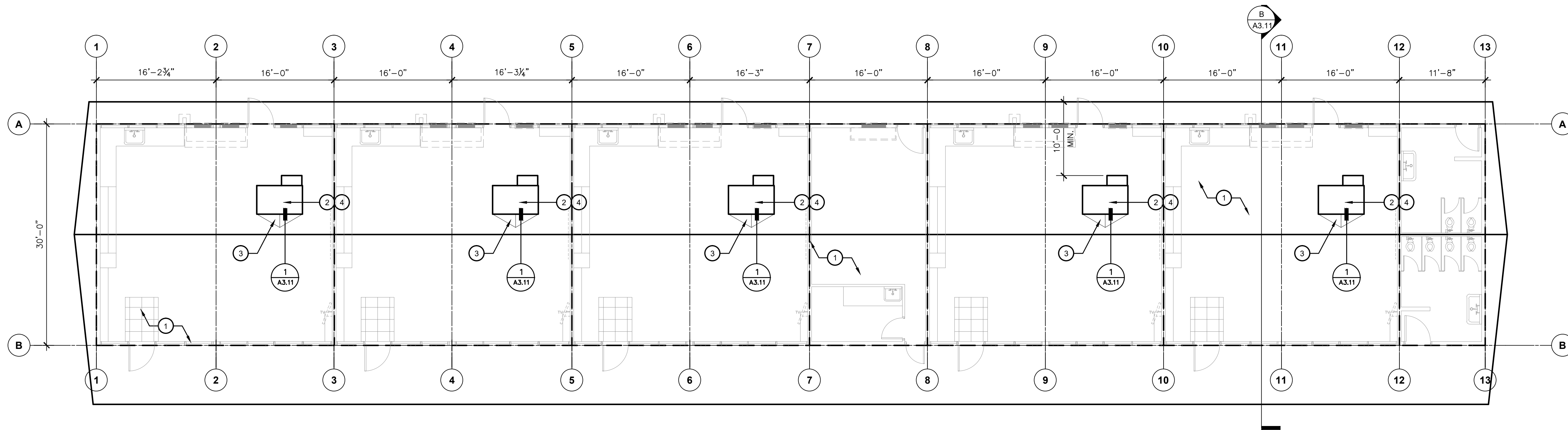
Sheet No.:
A3.11
 Release: ADDENDUM 1

11/28/22



ROOF PLANS - BUILDING A
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



ROOF PLANS - BUILDING C
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"


KEY NOTES #

1. (E) FOAM ROOFING OVER ASPHALT COMPOSITION SHINGLES OVER 2x4 LAMINATED ROOF DECKING.
2. NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. REMOVE PORTION OF (E) FOAM & COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRICKET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO CLOSELY MATCH (E) ROOFING - SEE DETAIL 4A3.11
4. SAW CUT AND REMOVE PORTION OF (E) 2x4 LAMINATED ROOF DECK AS REQUIRED TO INSTALL AIR DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS - SEE STRUCTURAL DRAWINGS FOR REINFORCING OF ROOF OPENINGS.
5. OUTDOOR UNIT ODUJ1 - SEE MECHANICAL SHEET M1.12 MECHANICAL PLAN BUILDING A IMPROVEMENTS AND DETAIL 12M0-11

GENERAL NOTES

1. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO THE (E) ROOFING
2. CONTRACTOR SHALL PATCH AND REPAIR ROOFING AT ALL NEW ROOF PENETRATIONS TO PROVIDE A WATER TIGHT INSTALLATION

Owner:



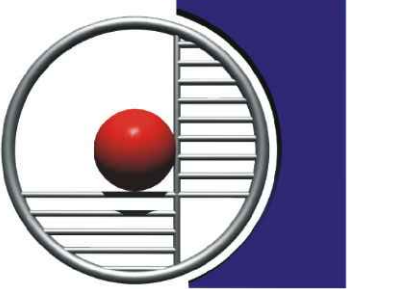
BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93305

Project Name:

HVAC REPLACEMENT

Project Address:

MUNSEY ELEMENTARY SCHOOL
3801 BRAVE AVENUE
BAKERSFIELD, CA 93309



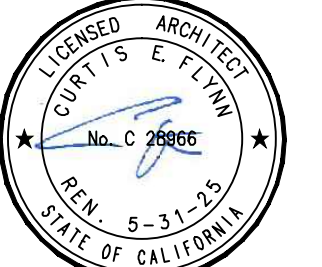
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ROOF PLANS
BUILDINGS A & C

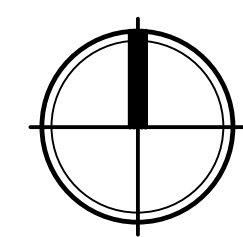
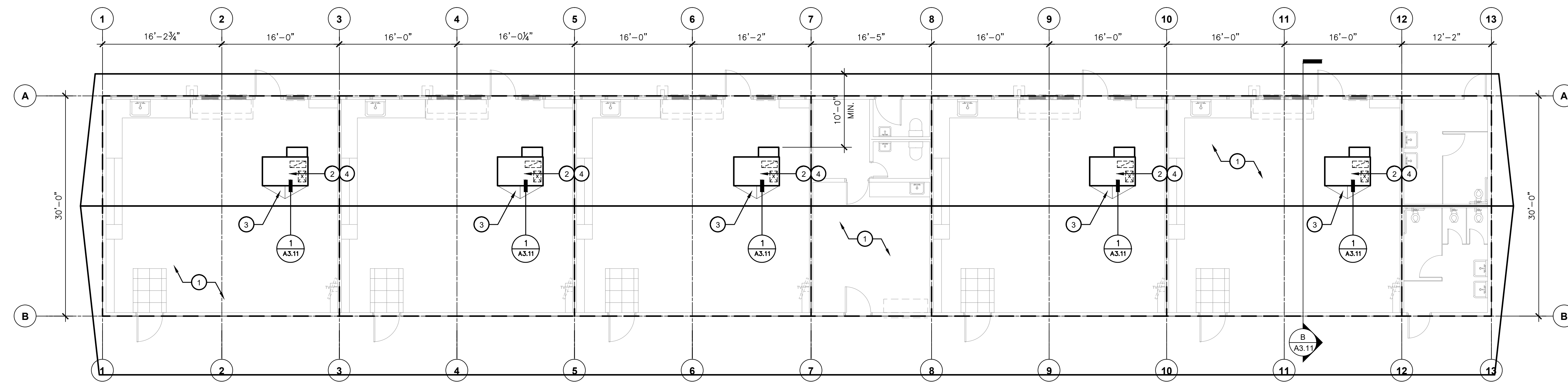
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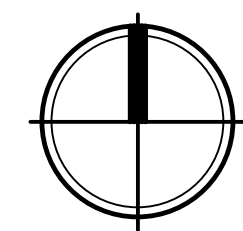
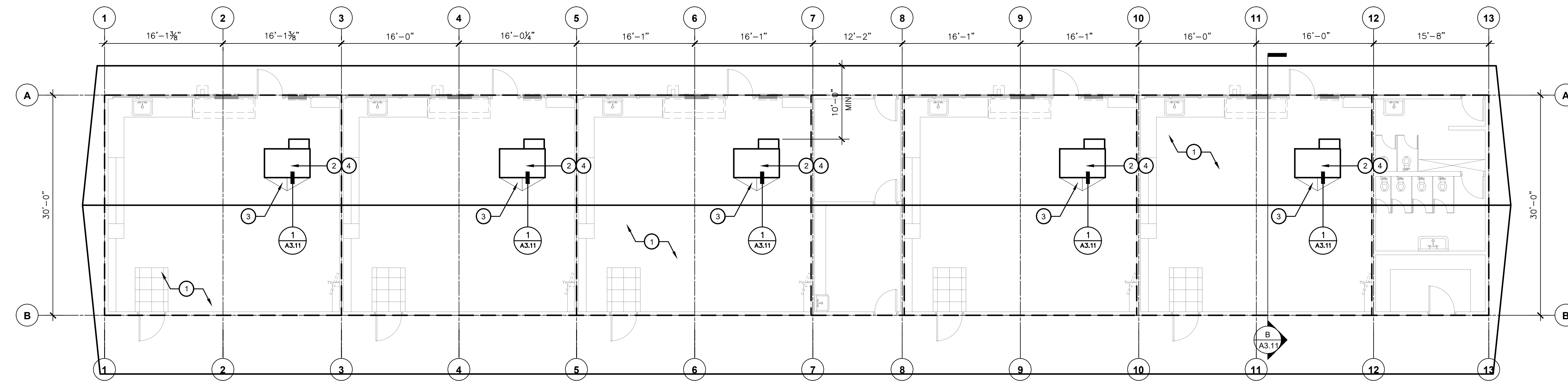
A4.10
Release: ADDENDUM 1

EXHIBIT 1-15



ROOF PLANS - BUILDING D
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



ROOF PLANS - BUILDING E
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

KEY NOTES #


1. (E) SINGLE PLY ROOFING OVER 2X4 LAMINATED ROOF DECKING
2. NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
3. REMOVE PORTION OF (E) FOAM & COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRICKET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO CLOSELY MATCH (E) ROOFING - SEE DETAIL 4/A3.11
4. SAW CUT AND REMOVE PORTION OF (E) 2X4 LAMINATED ROOF DECK AS REQUIRED TO INSTALL AIR DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS - SEE STRUCTURAL DRAWINGS FOR REINFORCING OF ROOF OPENINGS.

GENERAL NOTES

1. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO THE (E) ROOFING
2. CONTRACTOR SHALL PATCH AND REPAIR ROOFING AT ALL NEW ROOF PENETRATIONS TO PROVIDE A WATER TIGHT INSTALLATION

LEGEND

Owner:



BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93305

Project Name:

HVAC REPLACEMENT

Project Address:

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ROOF PLANS BUILDINGS D & E

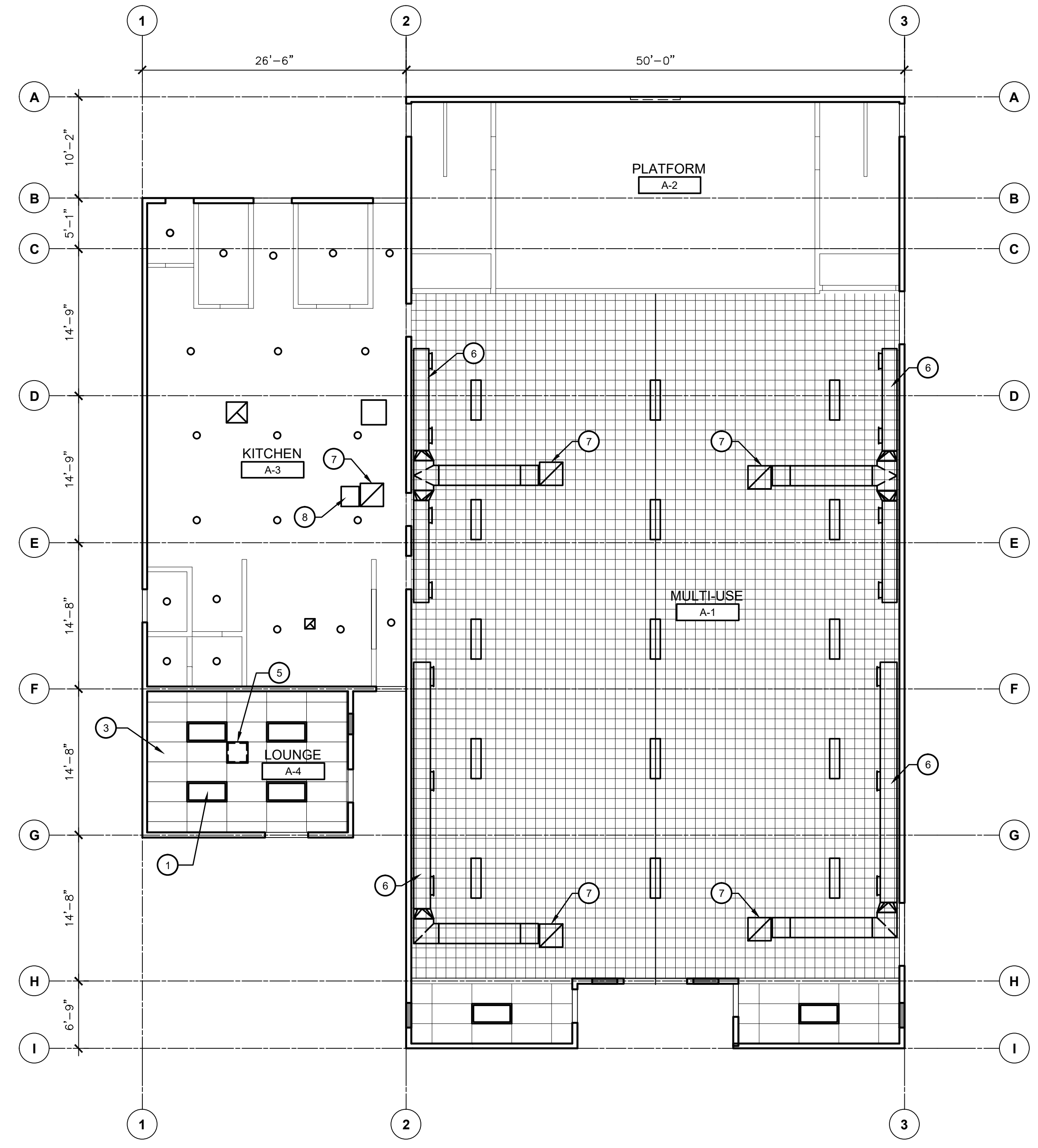
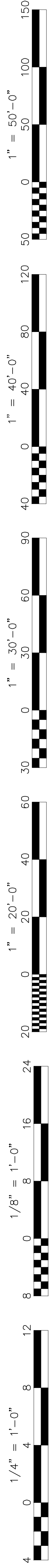
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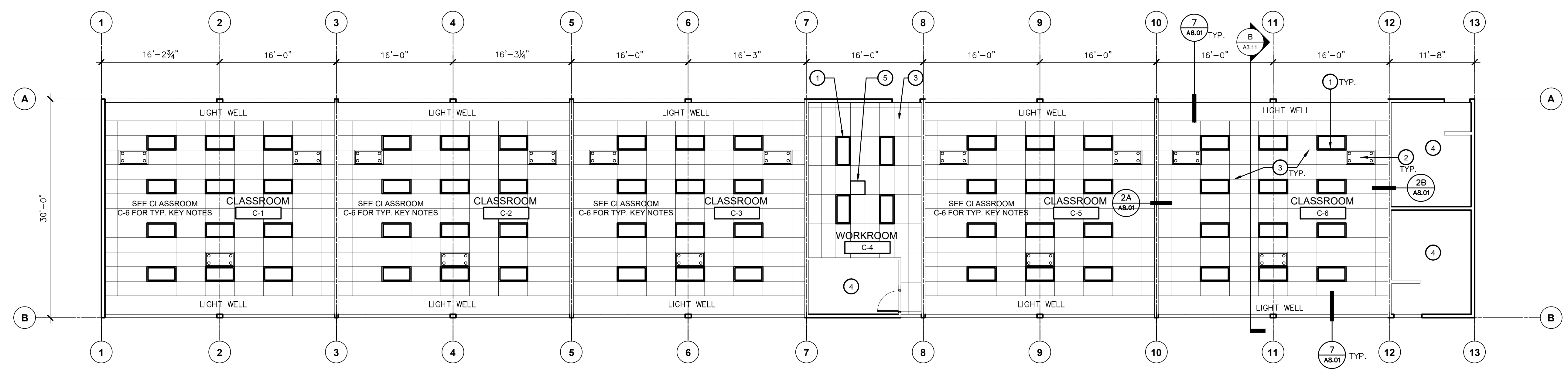
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Release: ADDENDUM 1

EXHIBIT 1-16



REFLECTED CEILING PLAN - BUILDING A
HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"



REFLECTED CEILING PLAN - BUILDING C
HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"

KEY NOTES #

1. INSTALL NEW LIGHT FIXTURES - SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAIL 9A8.01
2. REINSTALL SALVAGED IONIZERS PER DETAIL 11A8.01 - SEE ELECTRICAL & MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. INSTALL A NEW SUSPENDED ACOUSTICAL TILE CEILING - SEE DETAIL 11A8.01
4. NO WORK IN THIS ROOM
5. NEW INDOOR UNIT - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAIL 11M6.11
6. AIR SUPPLY DUCTWORK - SEE MECHANICAL SHEET M2.12 FOR ADDITIONAL INFORMATION.
7. RETURN AIR GRILL - SEE MECHANICAL DRAWINGS FOR SIZE, TYPE, ETC.
8. SUPPLY AIR GRILL - SEE MECHANICAL DRAWINGS FOR SIZE, TYPE, ETC.

GENERAL NOTES

BAKERSFIELD CITY SCHOOL DISTRICT
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LEGEND

REFLECTED CEILING PLAN BUILDINGS A & C

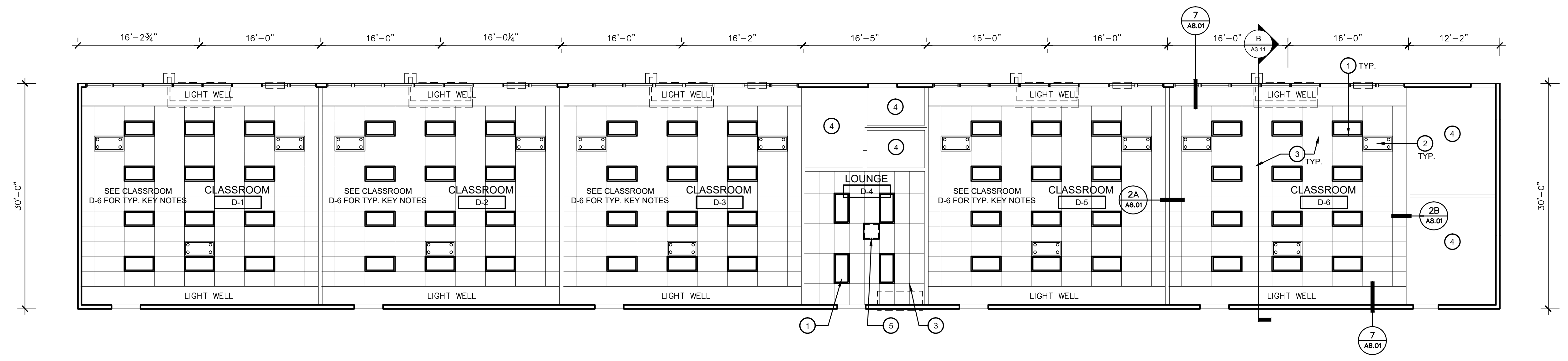
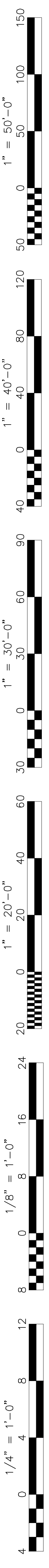
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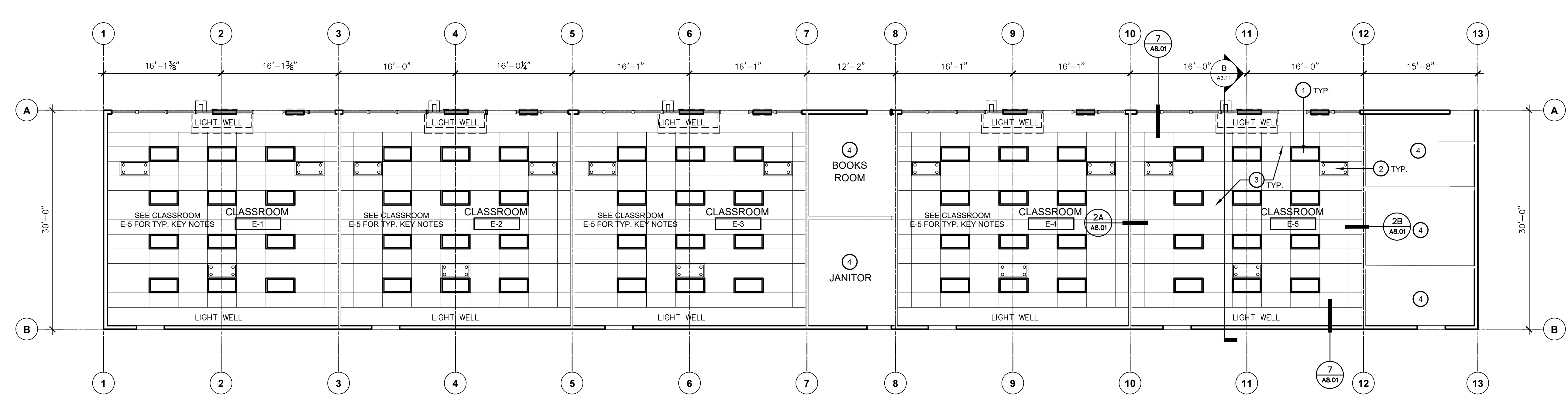
ADDENDUM 1

11/28/22

FRANK AYALA
 PLAN 046



REFLECTED CEILING PLAN - BUILDING D
HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"



REFLECTED CEILING PLAN - BUILDING E
HVAC REPLACEMENT
 SCALE: 1/8" = 1'-0"

KEY NOTES #	<ol style="list-style-type: none"> 1. INSTALL NEW LIGHT FIXTURES. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAIL 9/A8.01 2. REINSTALL SALVAGES IONIZERS PER DETAIL 11/A8.01 - SEE ELECTRICAL & MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION 3. INSTALL A NEW ACOUSTICAL TILE CEILING - SEE DETAIL 1/A8.01 4. NO WORK IN THIS ROOM 5. NEW INDOOR UNIT - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
GENERAL NOTES	
 BAKERSFIELD CITY SCHOOL DISTRICT 1300 BAKER STREET BAKERSFIELD, CA 93305	
Project Name: HVAC REPLACEMENT	
Project Address: MUNSEY ELEMENTARY SCHOOL 3801 BRAVE AVENUE BAKERSFIELD, CA 93309	
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Job No.: 5524	
Sheet No.: A6.21 Release: ADDENDUM 1	
EXHIBIT 1-18	

CEILING SYSTEM GENERAL NOTES

DSA IR 25-2 Revised 03/18/22 Under CBC 2019
SUSPENDED LAY-IN PANEL CEILING: 2019 CBC

1. CEILING SYSTEM GENERAL NOTES

- Ceiling system components shall comply with ASTM C635 and Section 5.1 of ASTM E850.
- The ceiling grid system must be rated heavy duty as defined by ASTM C635.
- Ceiling systems. The following ceiling system(s) is/are part of the scope of this project:
Manufacturer: ARMSTRONG WORLD INDUSTRIES
Product Name: Acoustical Panel Ceiling
Evaluation Report Type and Number: ESK 1308
Main Runner Part, Model, or Catalog Number: 7301
Cross Runner Part, Model, Catalog Number: ML 73 43
- Seismic Wall Clip: Manufacturer's Model: BERC 2 - SEE DETAILS 12 & 13/A8.01
- Ceiling panels shall not support any luminaires, air terminals or devices.

2. MATERIALS

- Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641. Wire shall be #12 gauge (0.106" diameter) with soft temper and minimum ultimate tensile strength = 70 ksi.
- Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653, or other equivalent sheet steel listed in Section A3.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members, (AISI S100). Material 43 mil (18 gauge) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gauge) and heavier shall have a minimum yield strength of 50ksi.
- Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (Fy) of 30 ksi and minimum ultimate strength (Fu) of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES

- Separate all ceiling hanger and bracing wires at least 6 inches from all unbraced ducts, pipes, conduit, etc.
- Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to piping, ductwork, conduit, and equipment.
- Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.
- Slack safety wires shall be considered hanger wires for installation and testing requirements.
- Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire (e.g., bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.).

4. FASTENERS AND WELDING

- Sheet metal screws shall comply with ASTM C1513 and ASME B18.6.3. Penetration of screws through joined material shall not be less than three exposed threads.
- Expansion anchors shall be: HILTI KWIK BOLT 3 / ICC-ES ESR-2302.
- Power-Actuated Fasteners shall be: HILTI X-U 42 P8 / ICC-ES ESR-2269.
- If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.
- Power-actuated fasteners in concrete or masonry are not permitted for bracing wires.
- Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post-installed anchors.
- Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING

- All field testing must be performed in the presence of the project inspector.
- Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power-actuated fasteners in concrete shall be field tested for 200 pounds in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1910A.5.
- Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1910A.5.

6. LUMINAIRES

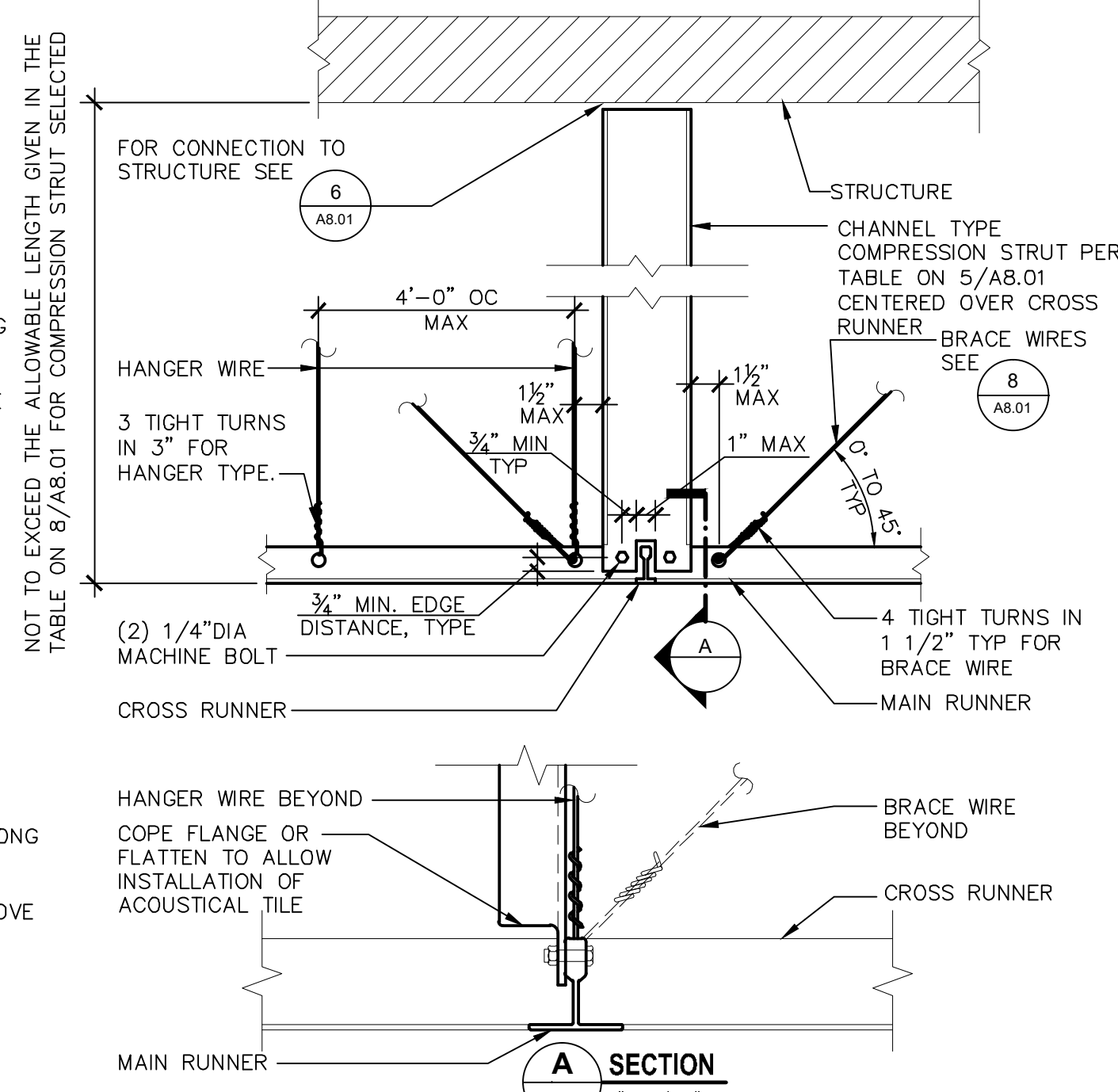
- All luminaires shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the luminaire. A minimum of two screws or approved fasteners are required at each luminaire, per ASTM E580 Section 5.3.1.
- Surface-mounted luminaires shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14-gauge. Rotational spring catches do not comply. A #12-gauge slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when a luminaire is 8 feet or longer or exceeds 56 pounds. Maximum spacing between supports shall not exceed 8 feet.
- Luminaires weighing less than or equal to 10 pounds may be supported directly on the ceiling runners, shall have a minimum of one #12-gauge slack safety wire connected from the fixture housing to the structure above.
- Luminaires weighing greater than 10 pounds but less than or equal to 56 pounds may be supported directly on the ceiling runners, but they shall have a minimum of two #12-gauge slack safety wires connected from the fixture housing at diagonal corners to the structure above.
Exception: All luminaires greater than two by four feet weighing less than 56 pounds shall have a #12-gauge slack safety wire at each corner.
- All luminaires weighing greater than 56 pounds shall be independently supported by not less than four taut #12-gauge hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four taut #12-gauge wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four times the weight of the fixture.

7. SERVICES WITHIN THE CEILING

- All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.
- Ceiling-mounted air terminals or other services weighing less than or equal to 20 pounds shall have one #12-gauge slack safety wire attached from the terminal or service to the structure above.
- Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 pounds but less than or equal to 56 pounds shall have two #12-gauge slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.
- Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 pounds shall be supported directly from the structure above by not less than four taut #12-gauge hanger wires attached from the terminal or service to the structure above or other approved hangers.

8. OTHER DEVICES WITHIN THE CEILING

- All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 pounds shall have a #12-gauge slack safety wire anchored to the structure above. Devices weighing more than 20 pounds shall be supported independently from the structure above.



4 SUSPENDED ACOUSTICAL CEILING - CHANNEL TYPE STRUT
REFERENCE: DSA IR 25-2 Rev. 3/18/22 SCALE: 1 1/2" = 1'-0"

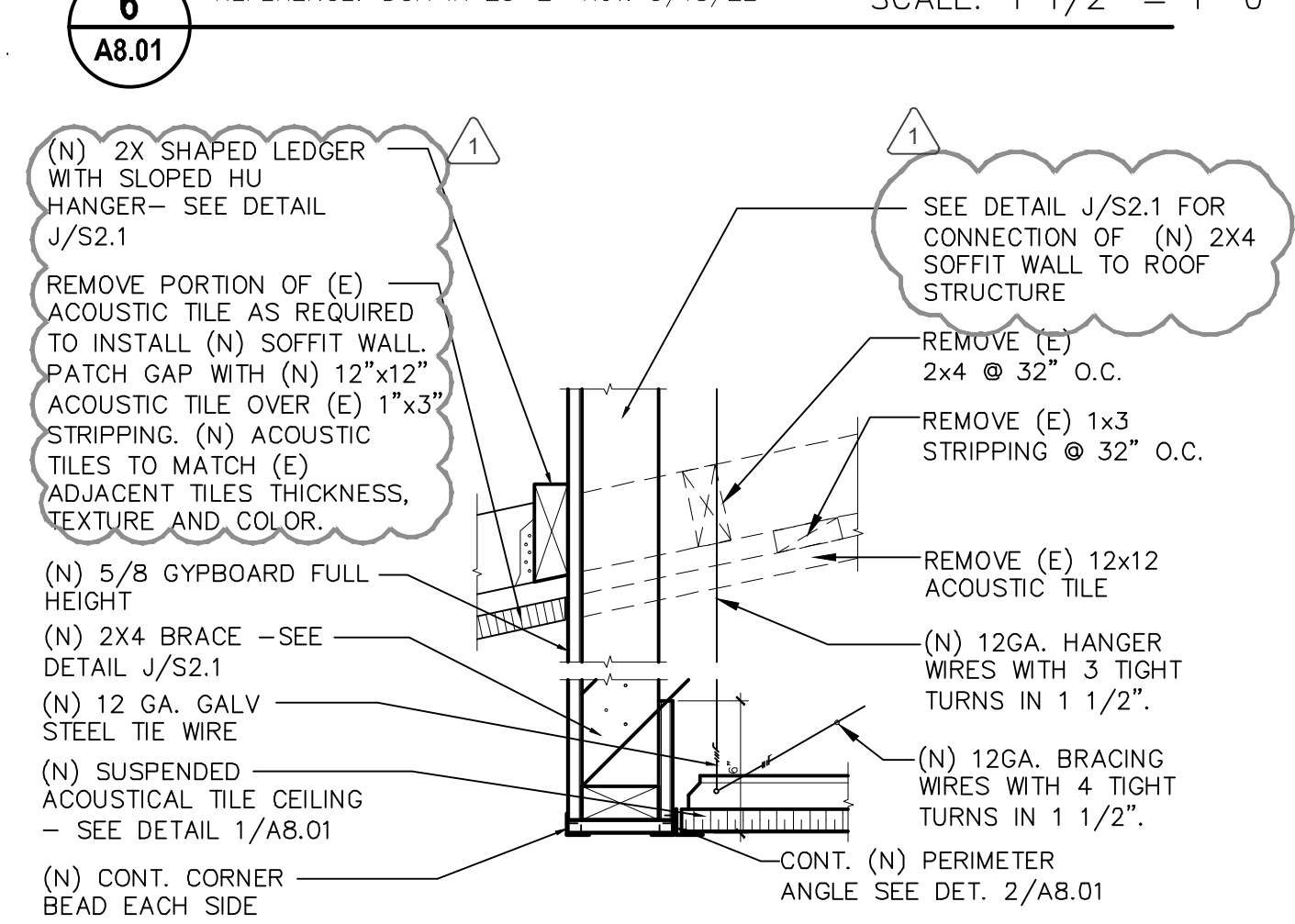
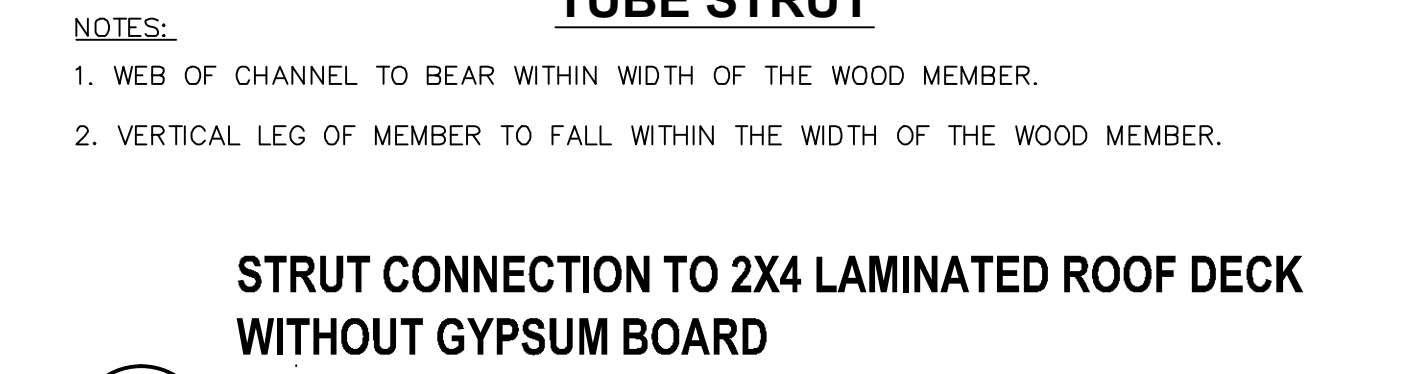
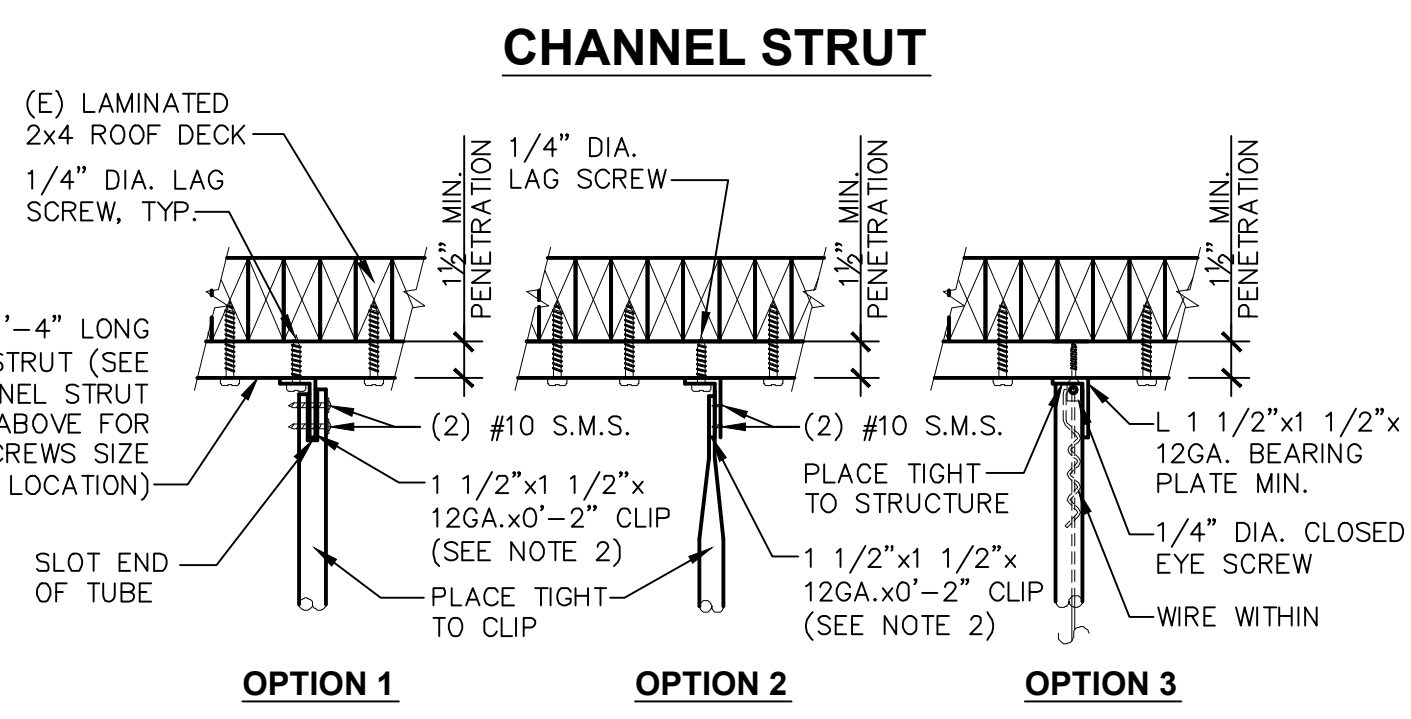
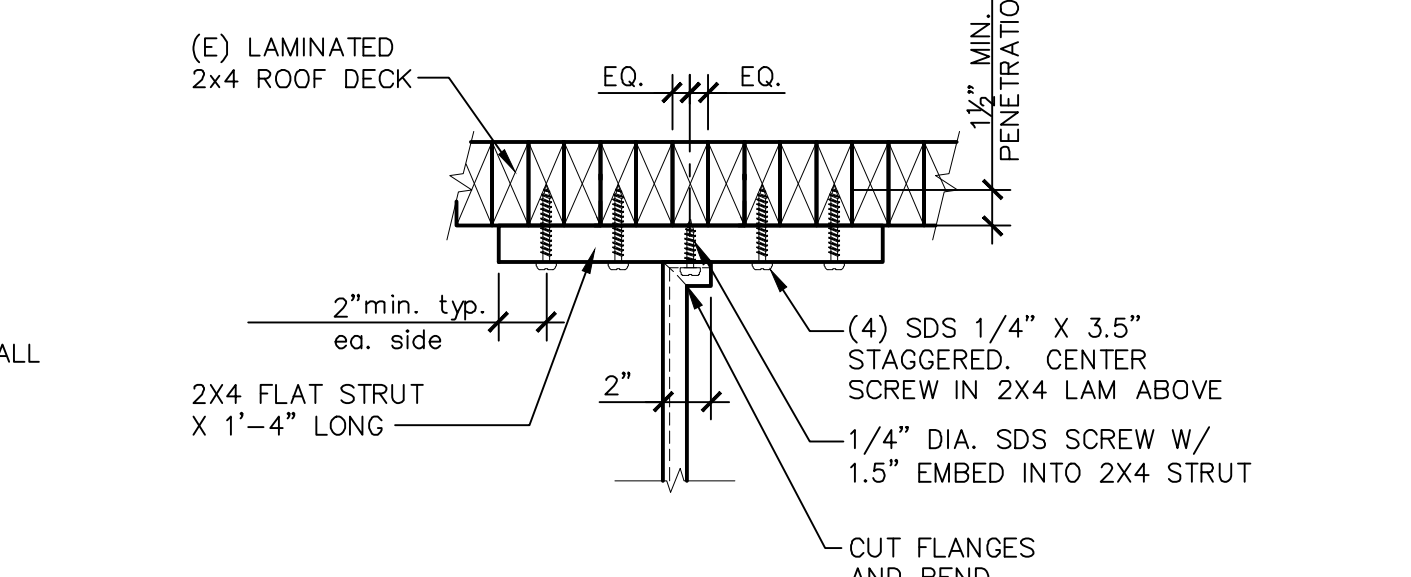
COMPRESSION STRUT TABLE

EMT COMPRESSION STRUT	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3'-10"
3/4" DIAMETER EMT (0.048" WALL THICKNESS)	7'-8"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9'-9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12'-9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14'-9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18'-10"

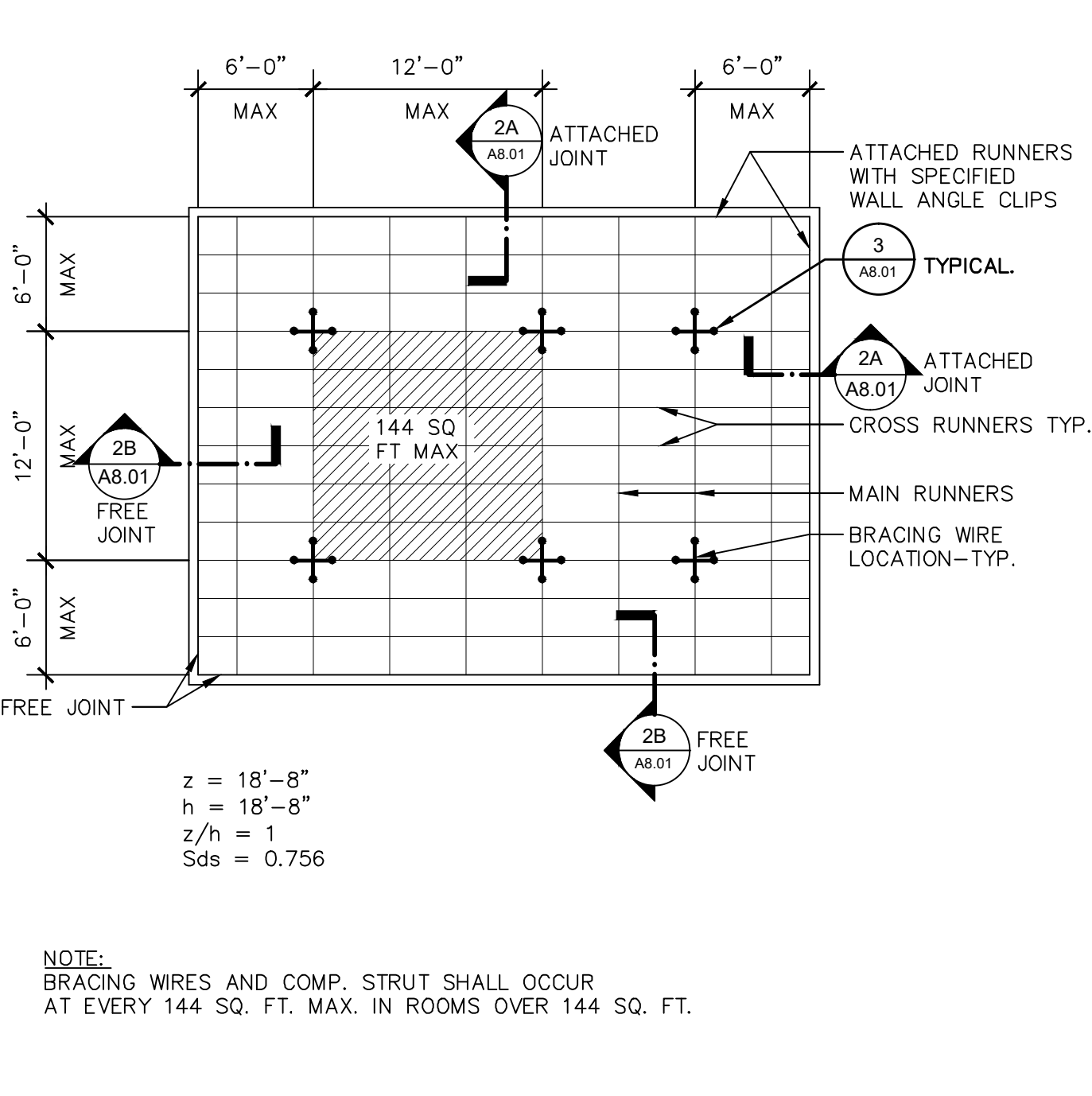
CHANNEL COMPRESSION STRUT	MAXIMUM LENGTH
250S125-33	5'-0"
250S137-33	6'-10"
362S137-33	8'-0"
250S137-43	8'-10"
400S137-43	10'-10"

5 COMPRESSION STRUT TABLE
REFERENCE: DSA IR 25-2 Rev. 3/18/22 SCALE: 6" = 1'-0"
DETAIL 3.21

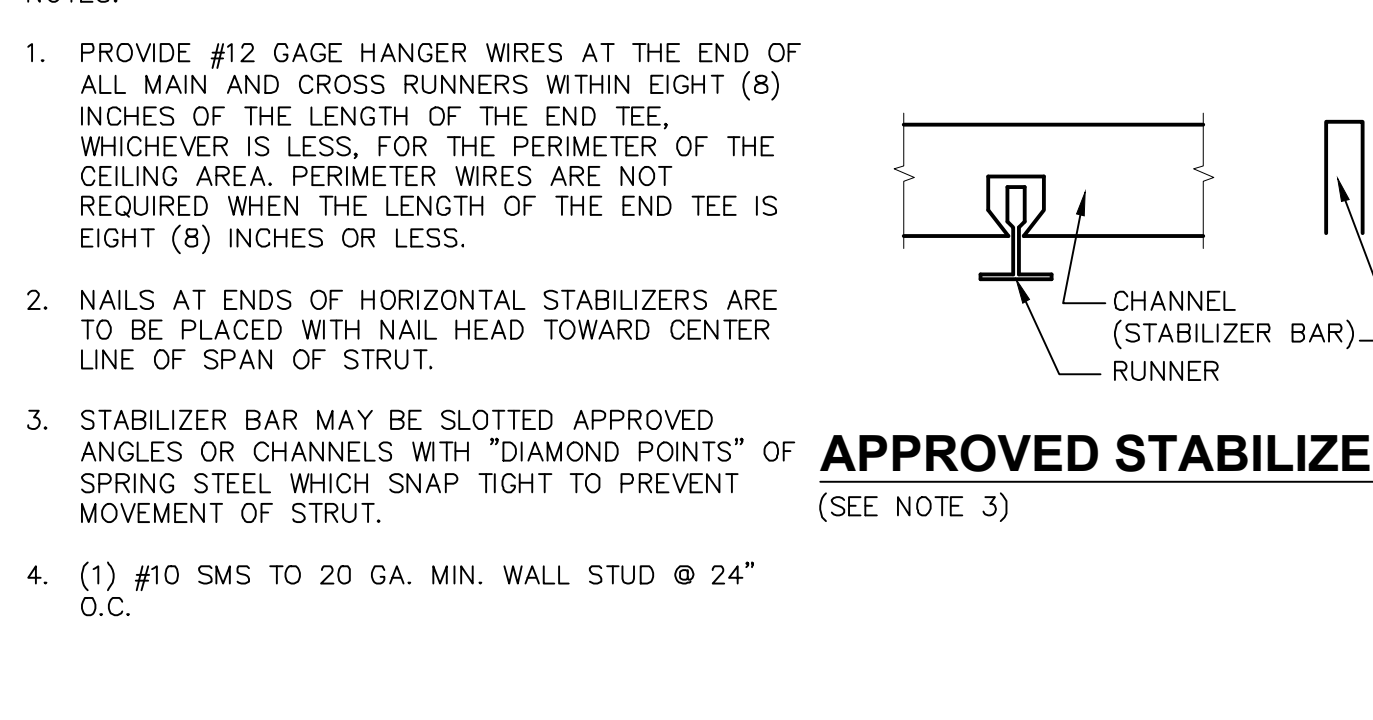
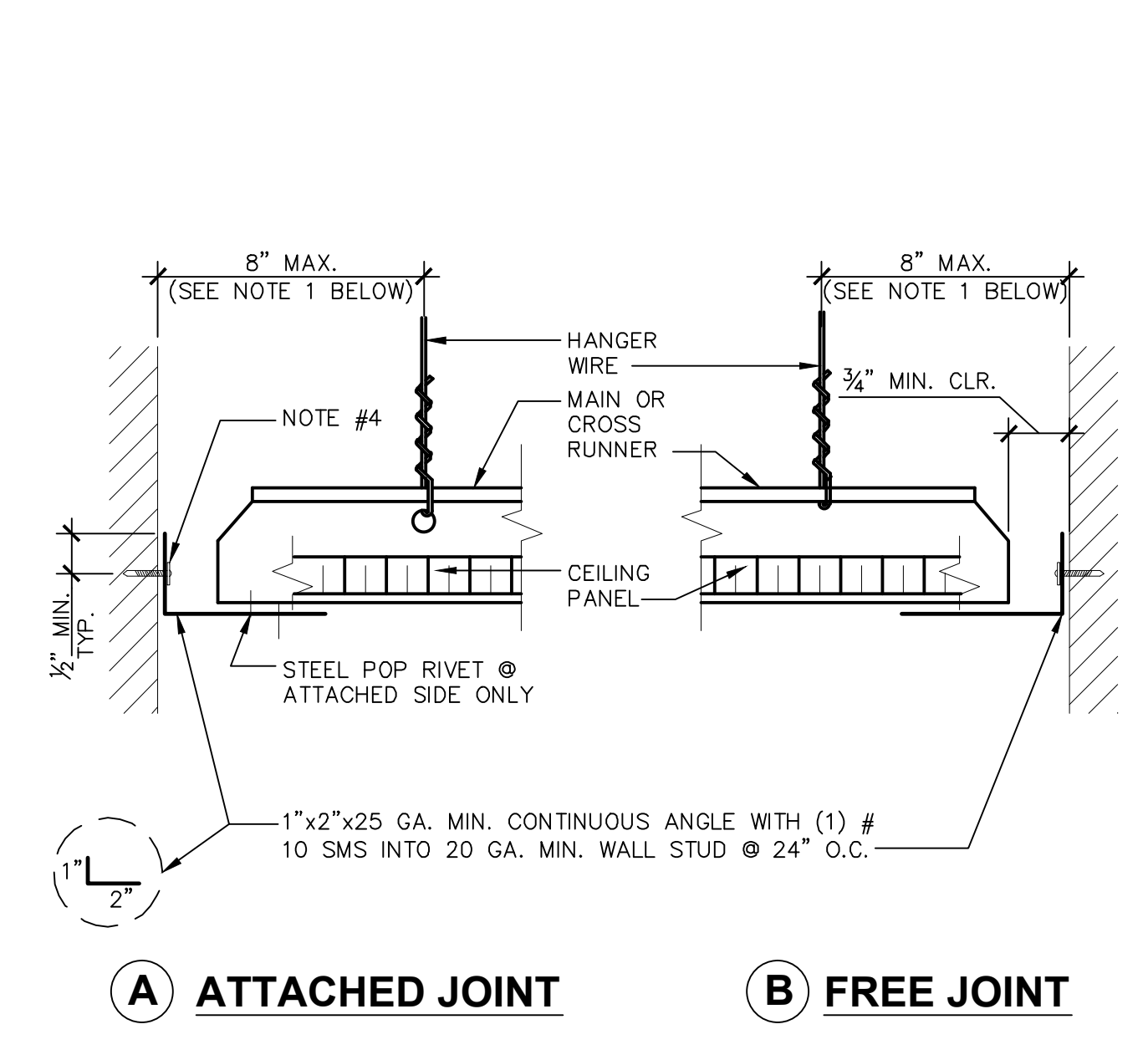
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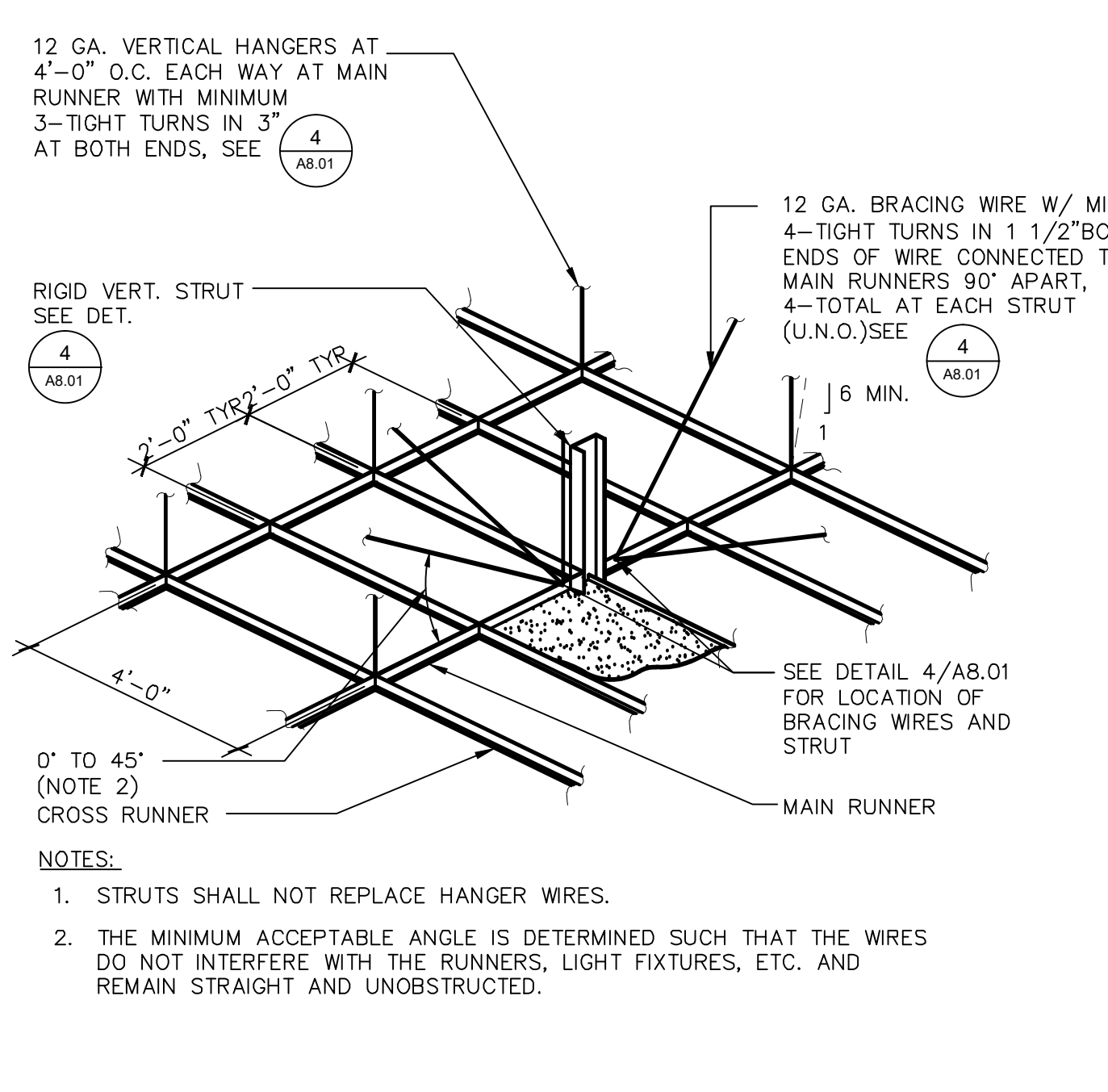
7 T-BAR CEILING AT LIGHT WELL
SCALE: 1 1/2" = 1'-0"



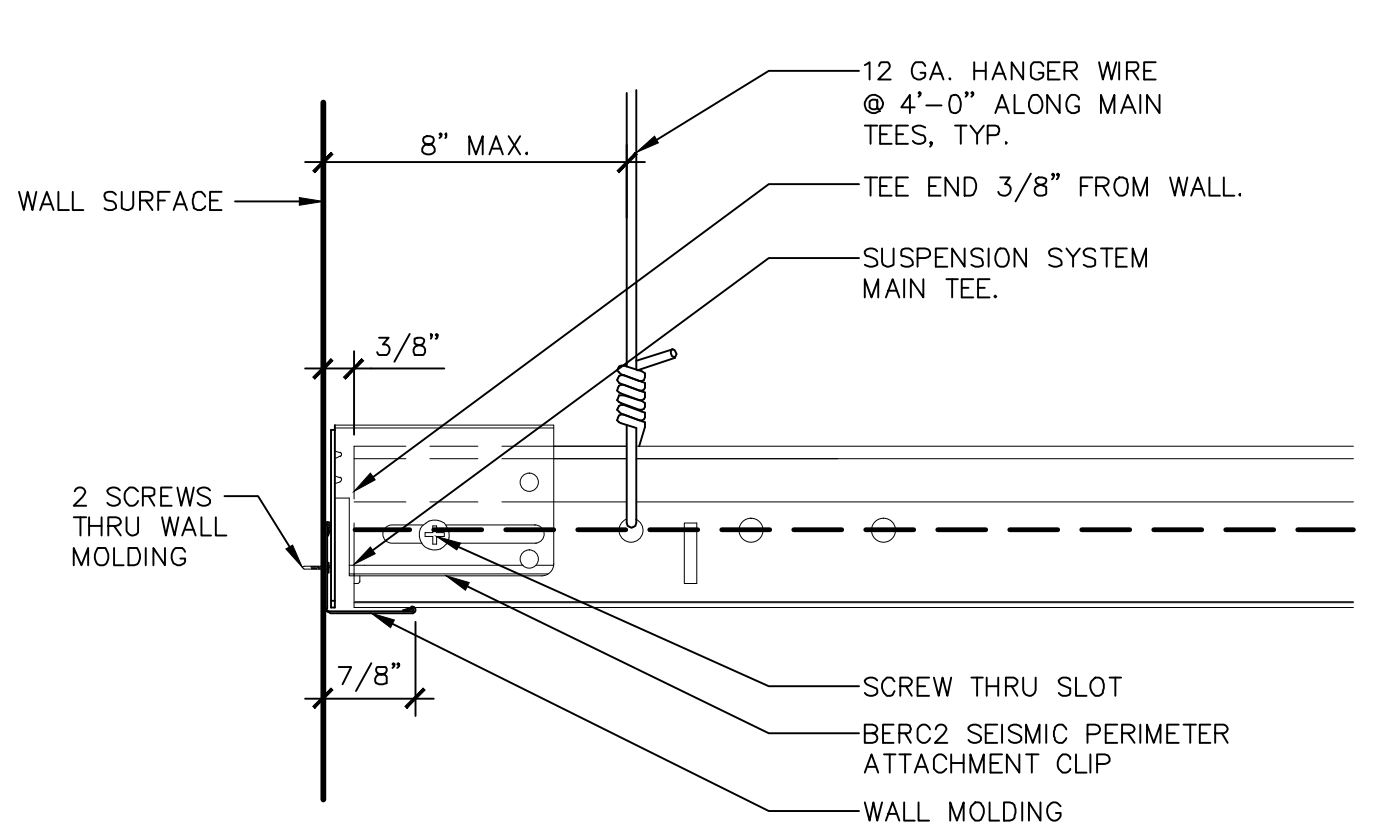
1 TYPICAL CEILING PLAN FOR 12'-0" x 12'-0" Brace Assembly Spacing
REFERENCE: DSA IR 25-2 Rev. 3/18/22 SCALE: 1/8" = 1'-0"



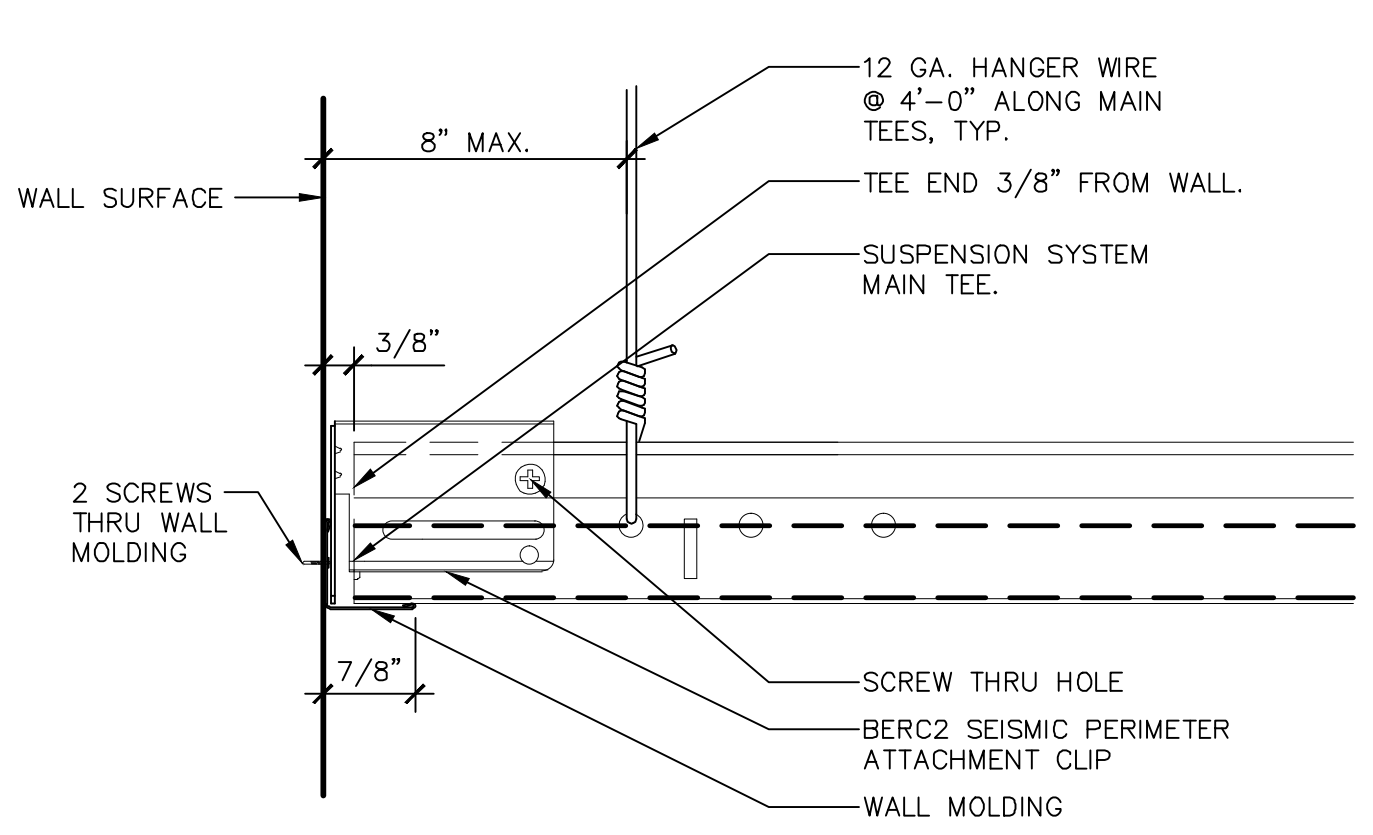
2 CEILING PERIMETER (OPTION 1 - SEE DETAILS 12 & 13/A8.01 FOR OPTION 2)
SCALE: 6" = 1'-0"



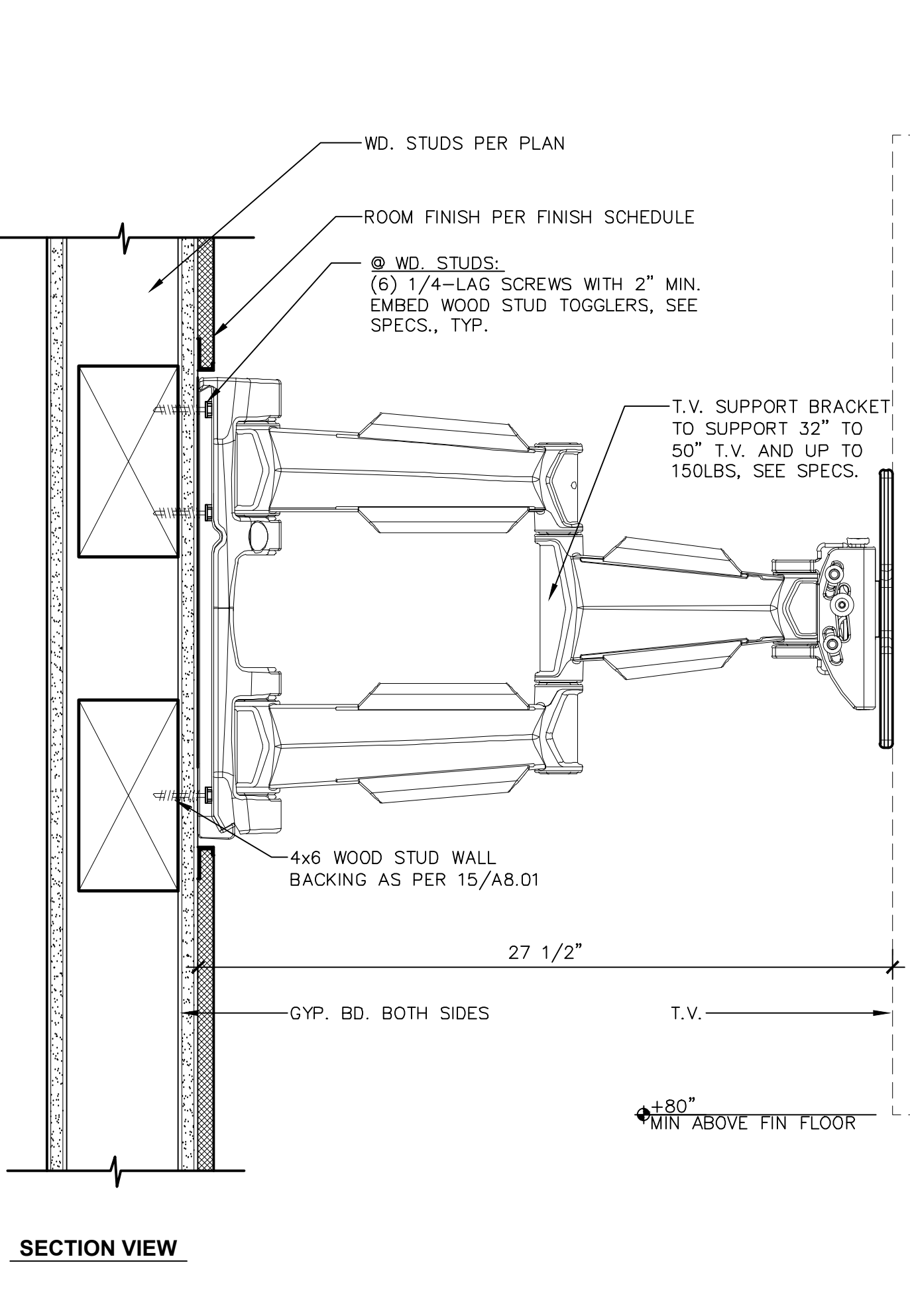
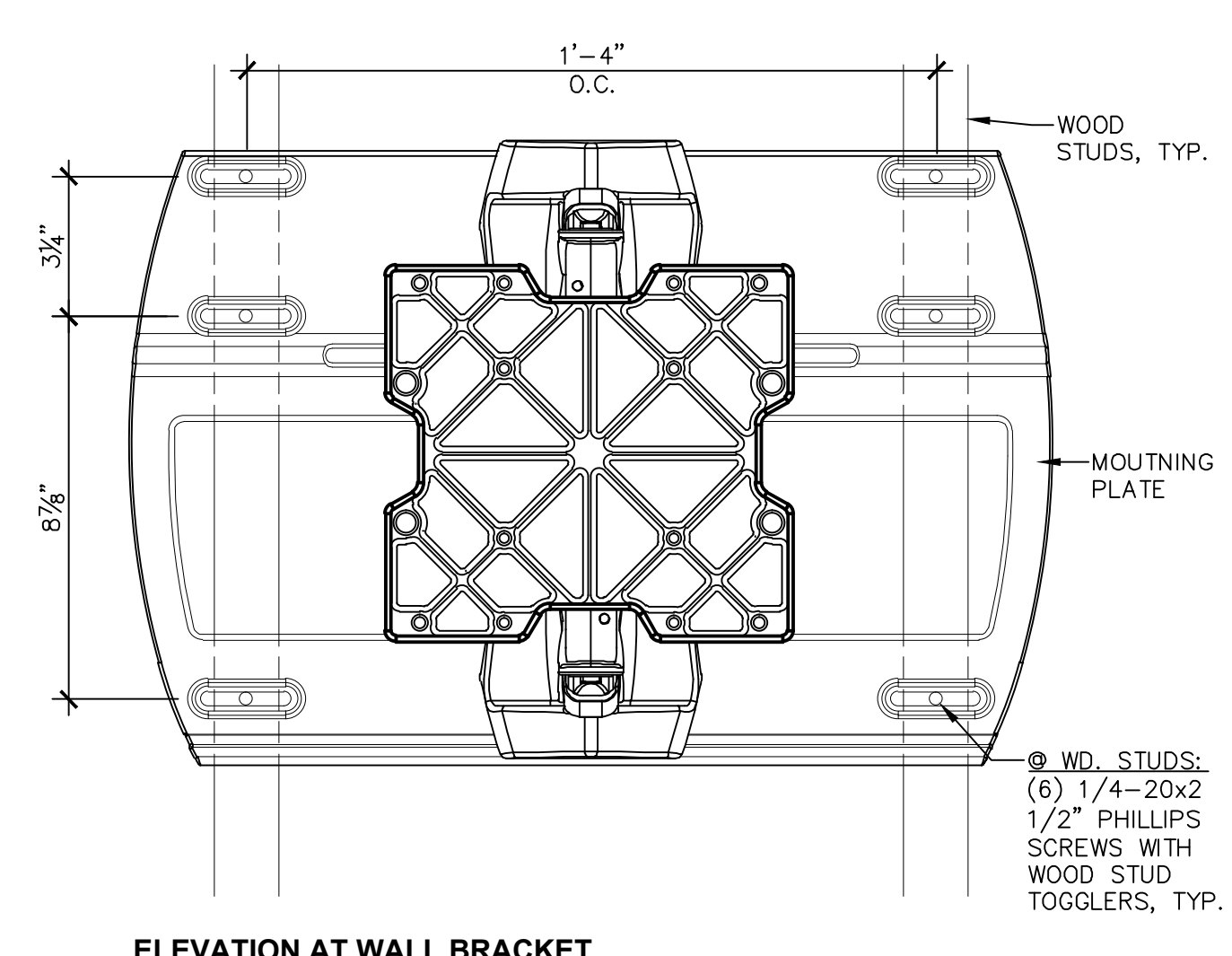
3 SUSPENDED CEILING - SUSPENSION AND BRACING ASSEMBLY
REFERENCE: DSA IR 25-2 Rev. 3/18/22 SCALE: 3/8" = 1'-0"
DETAIL 2.35



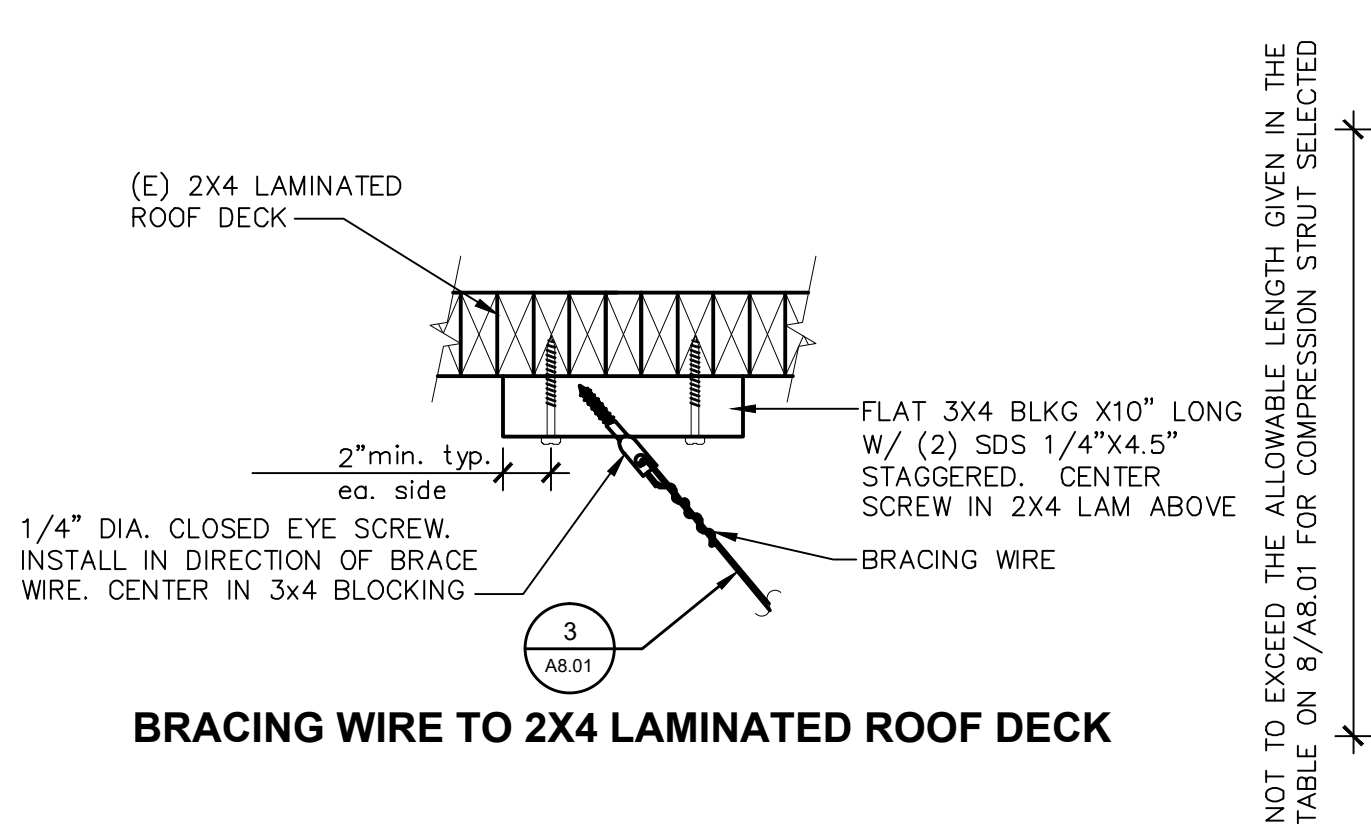
12 BERC 2 SEISMIC CLIP - FLOATING SIDE (OPTION 2)
ADC200-02 SCALE: 6" = 1'-0"



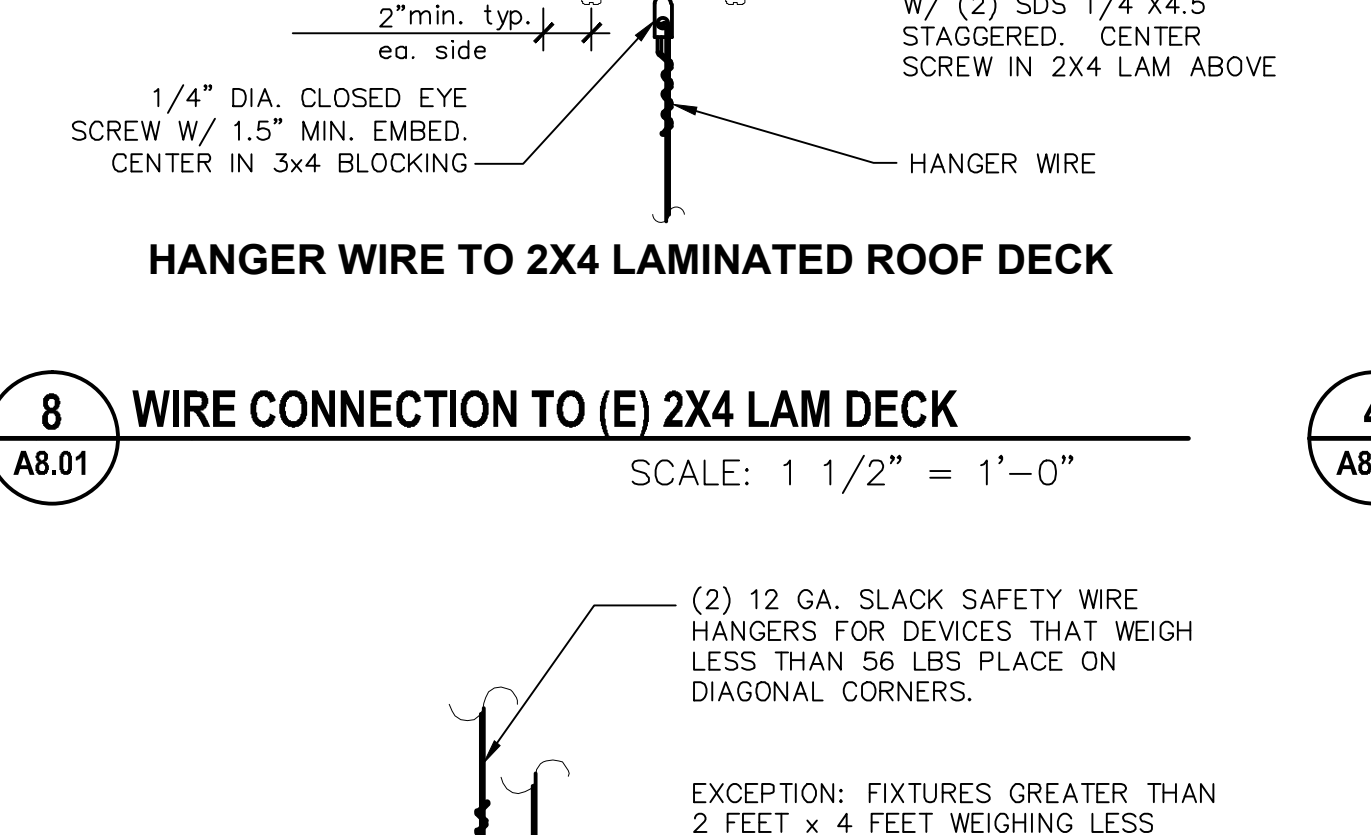
13 BERC 2 SEISMIC CLIP - FIXED SIDE (OPTION 2)
ADC200-03 SCALE: 6" = 1'-0"



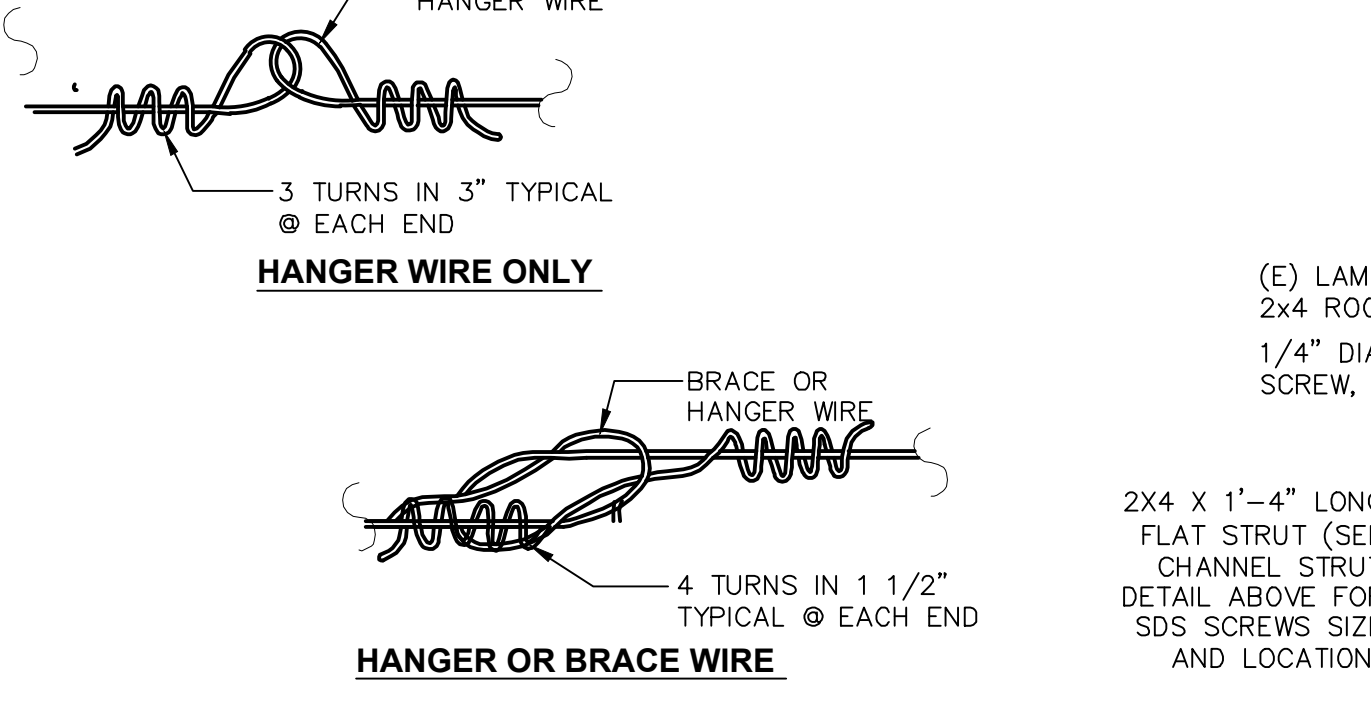
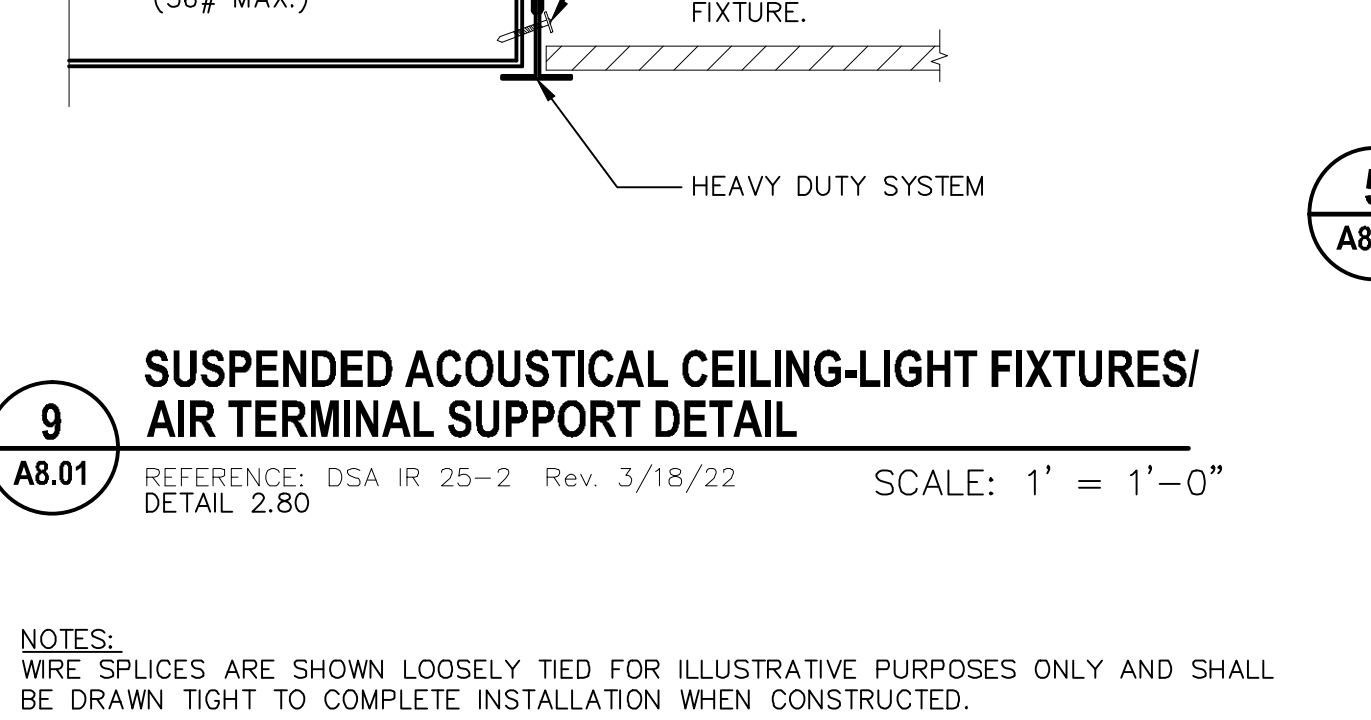
14 FLAT PANEL T.V. SUPPORT
ADM234-01 SCALE: 3" = 1'-0"



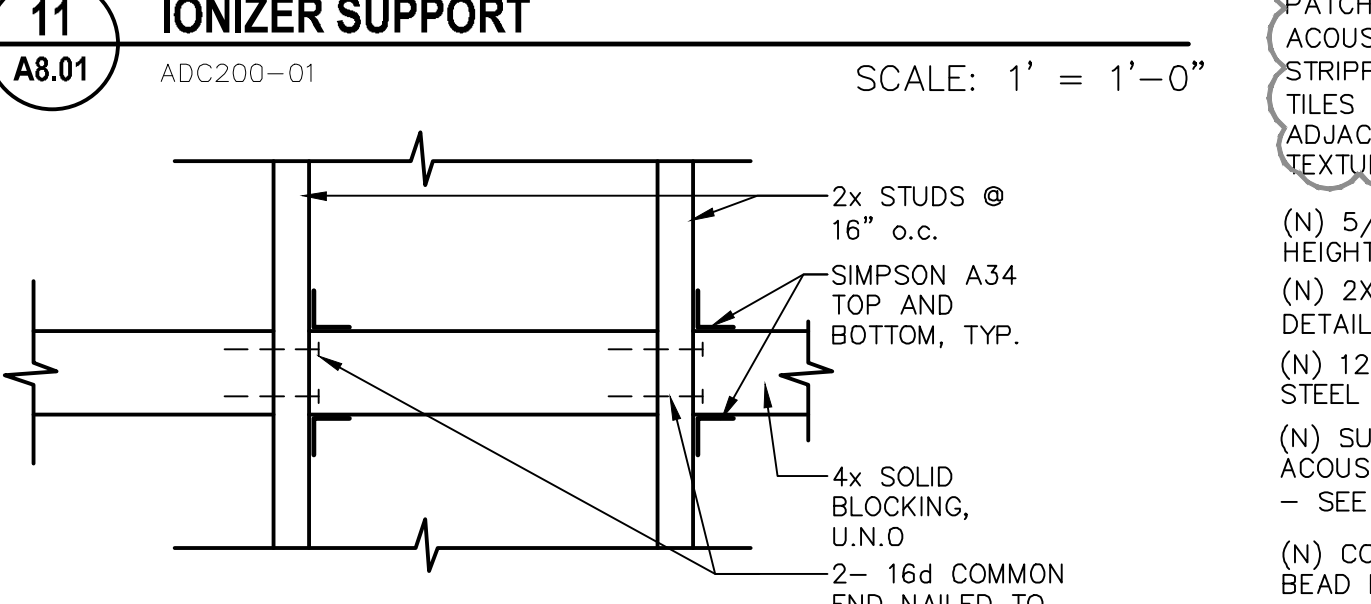
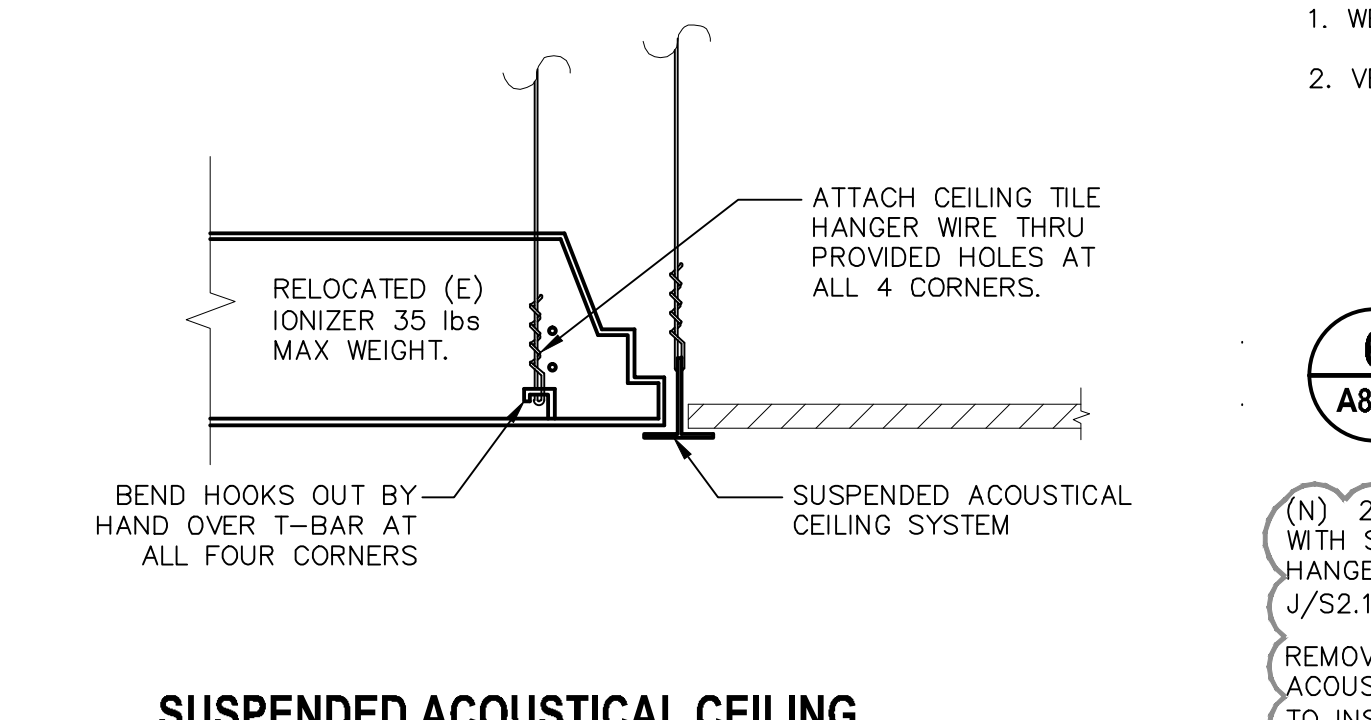
8 WIRE CONNECTION TO (E) 2X4 LAM DECK
SCALE: 1 1/2" = 1'-0"



9 SUSPENDED ACOUSTICAL CEILING-LIGHT FIXTURES/ AIR TERMINAL SUPPORT DETAIL
REFERENCE: DSA IR 25-2 Rev. 3/18/22 SCALE: 1" = 1'-0"
DETAIL 2.80



10 TYP. WIRE TIE DETAIL
SCALE: 6" = 1'-0"



15 TYPICAL BACKING @ WOOD STUDS
ADB240-01 SCALE: 1 1/2" = 1'-0"

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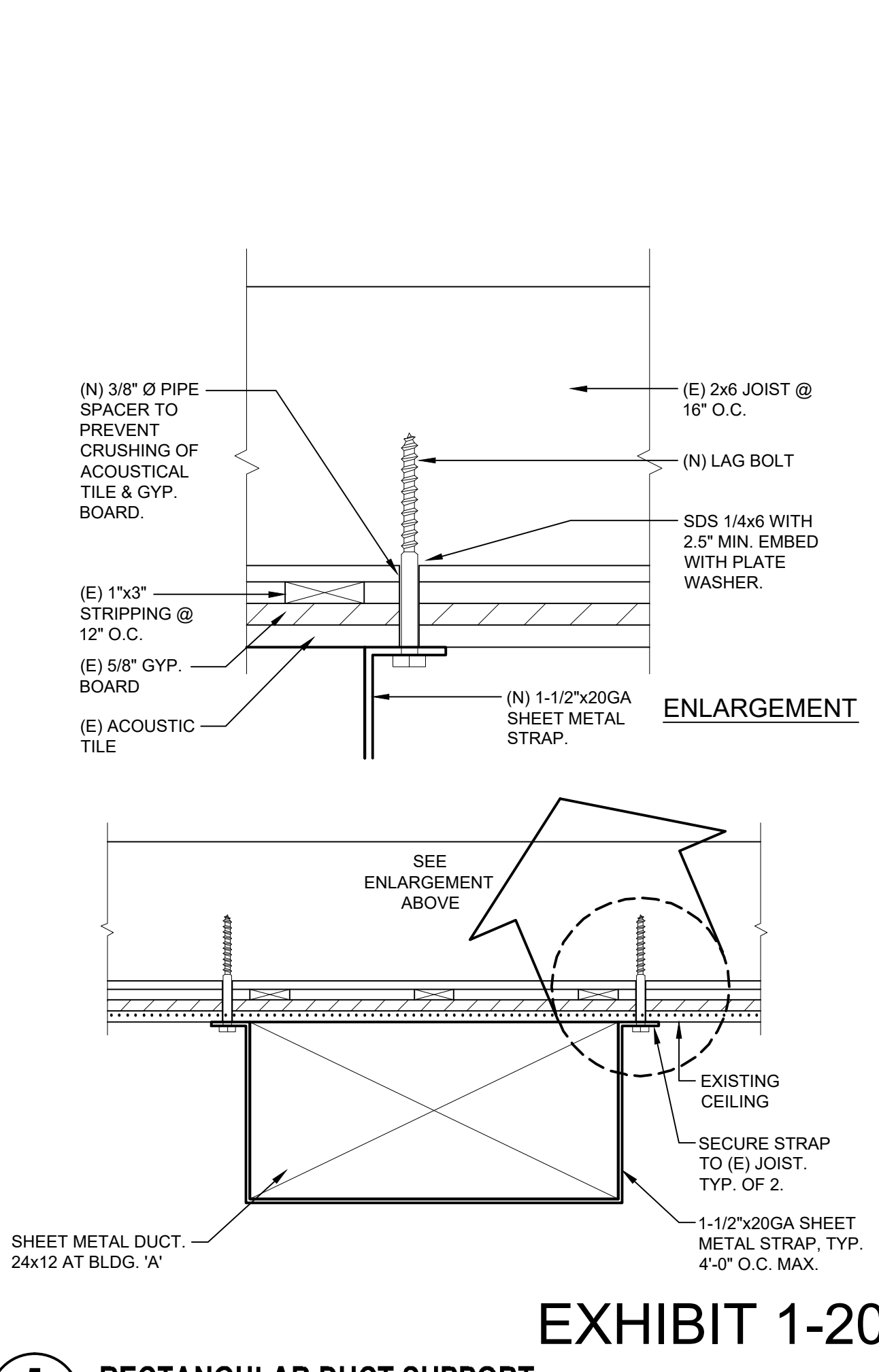
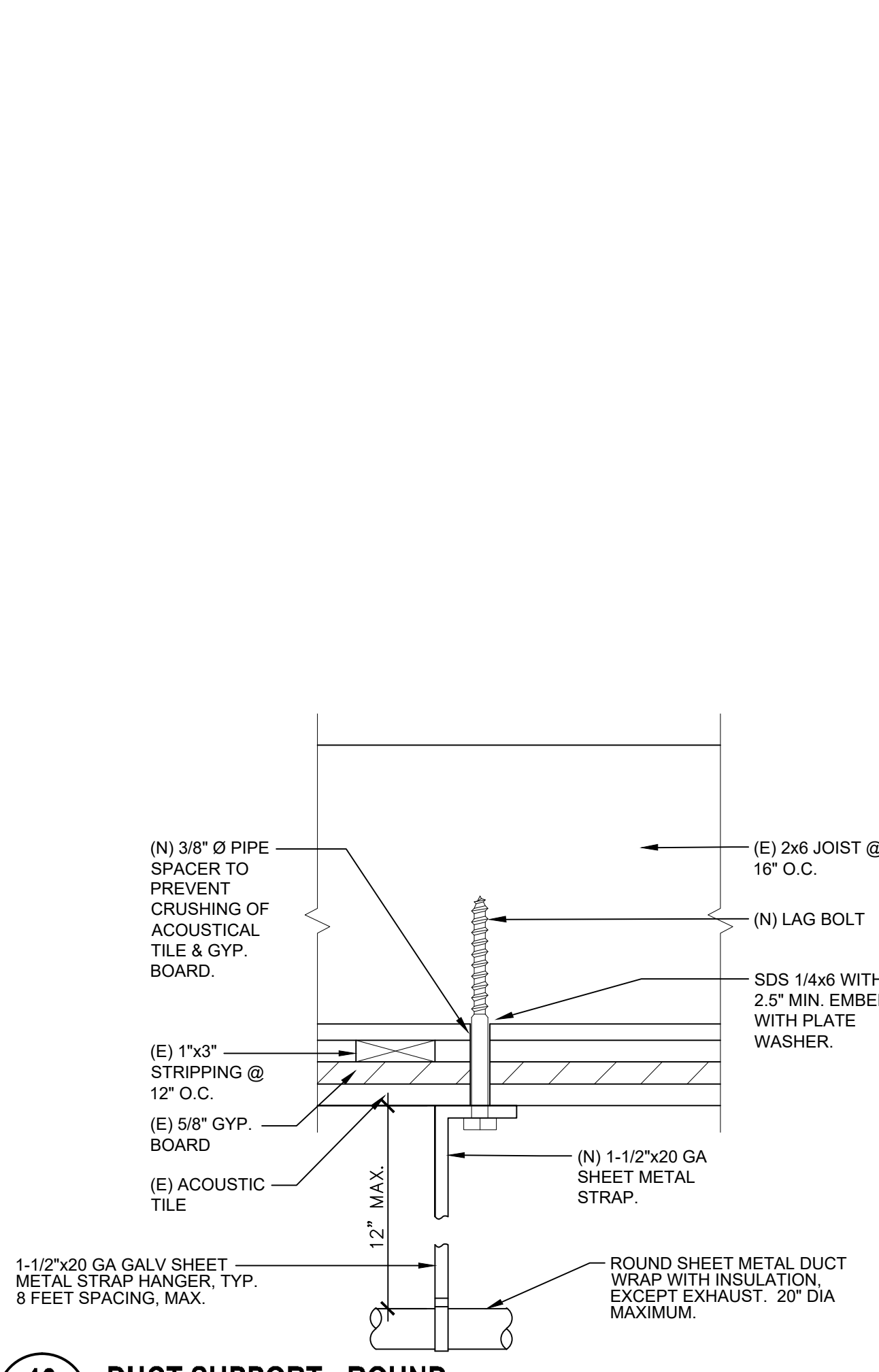
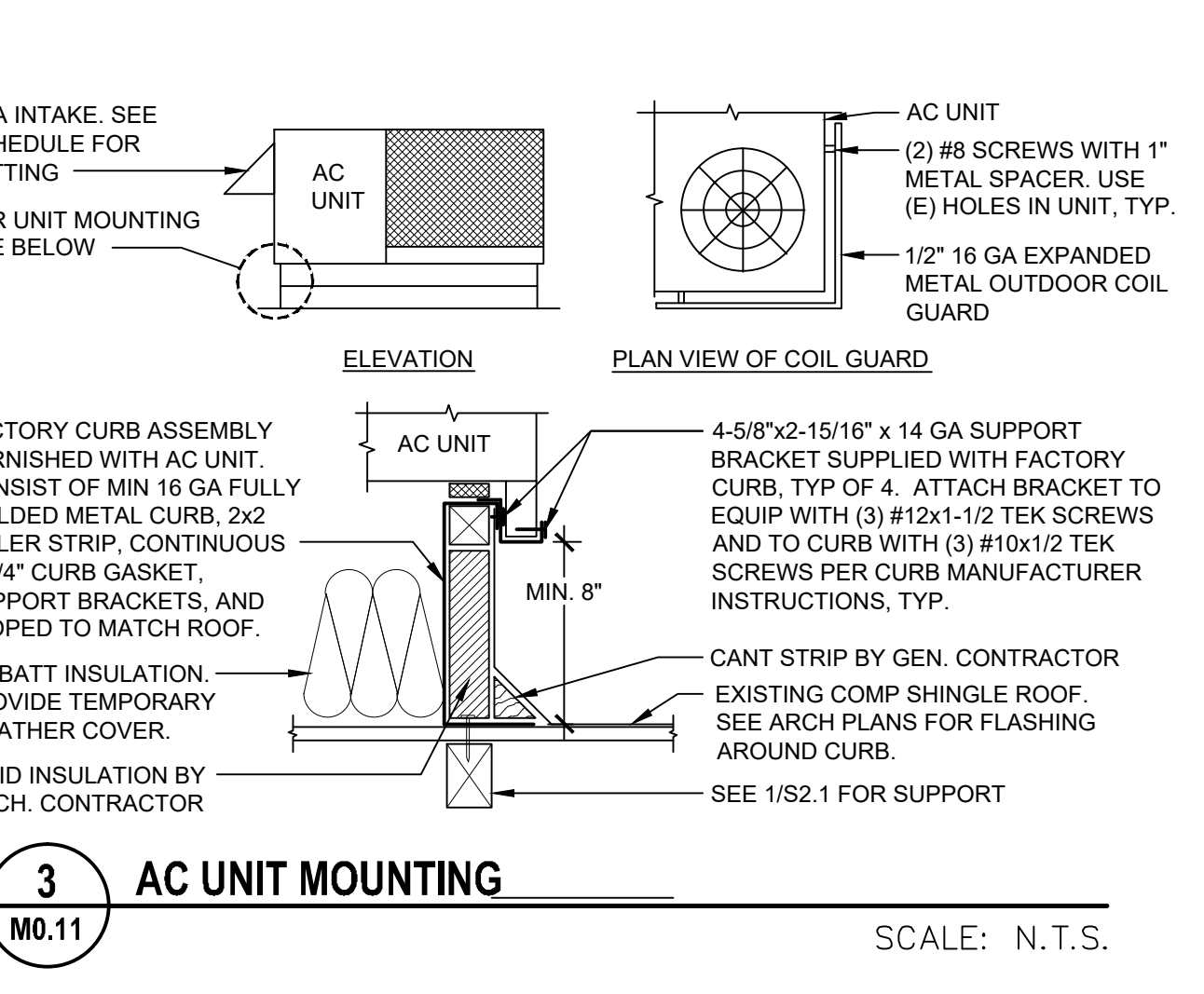
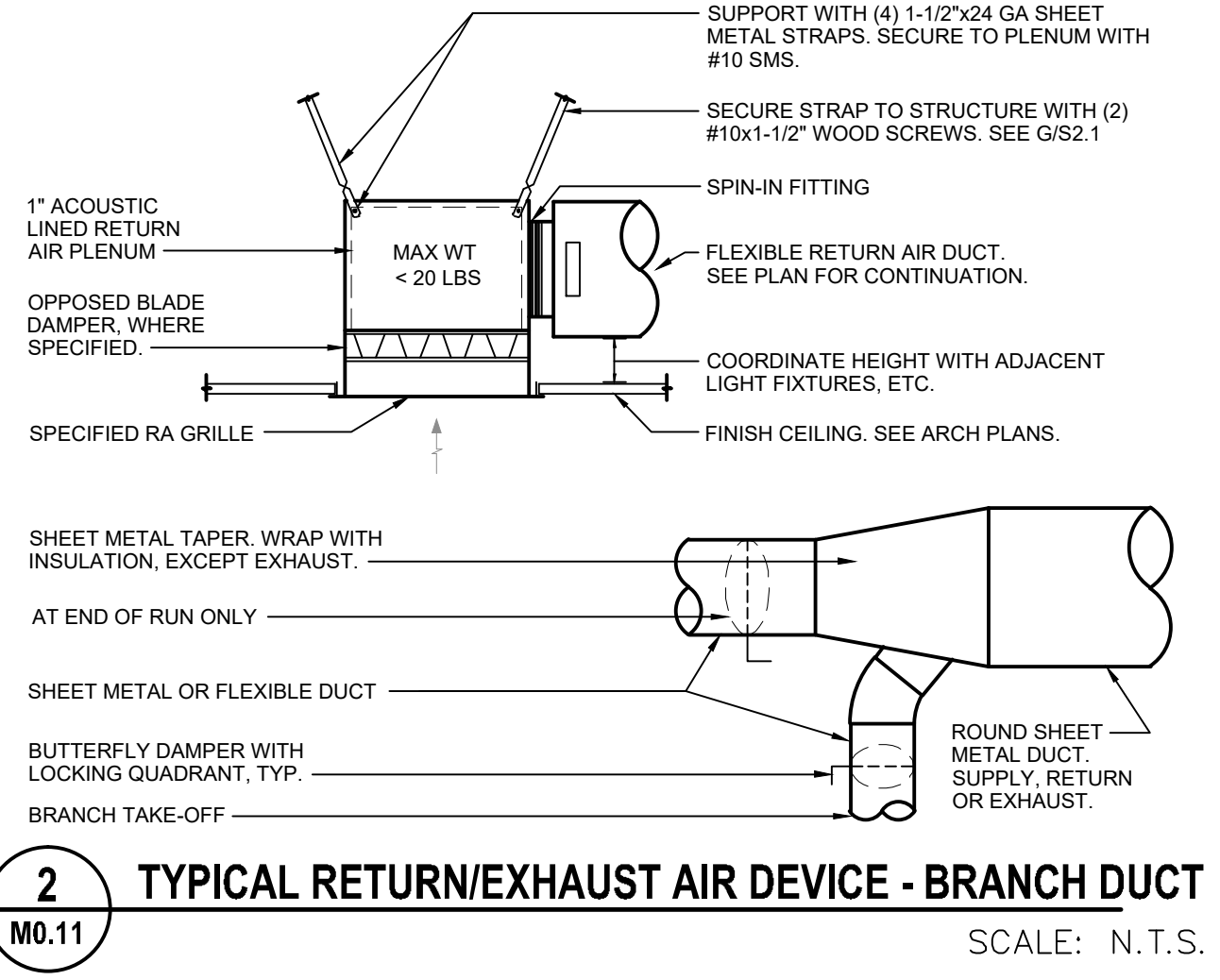
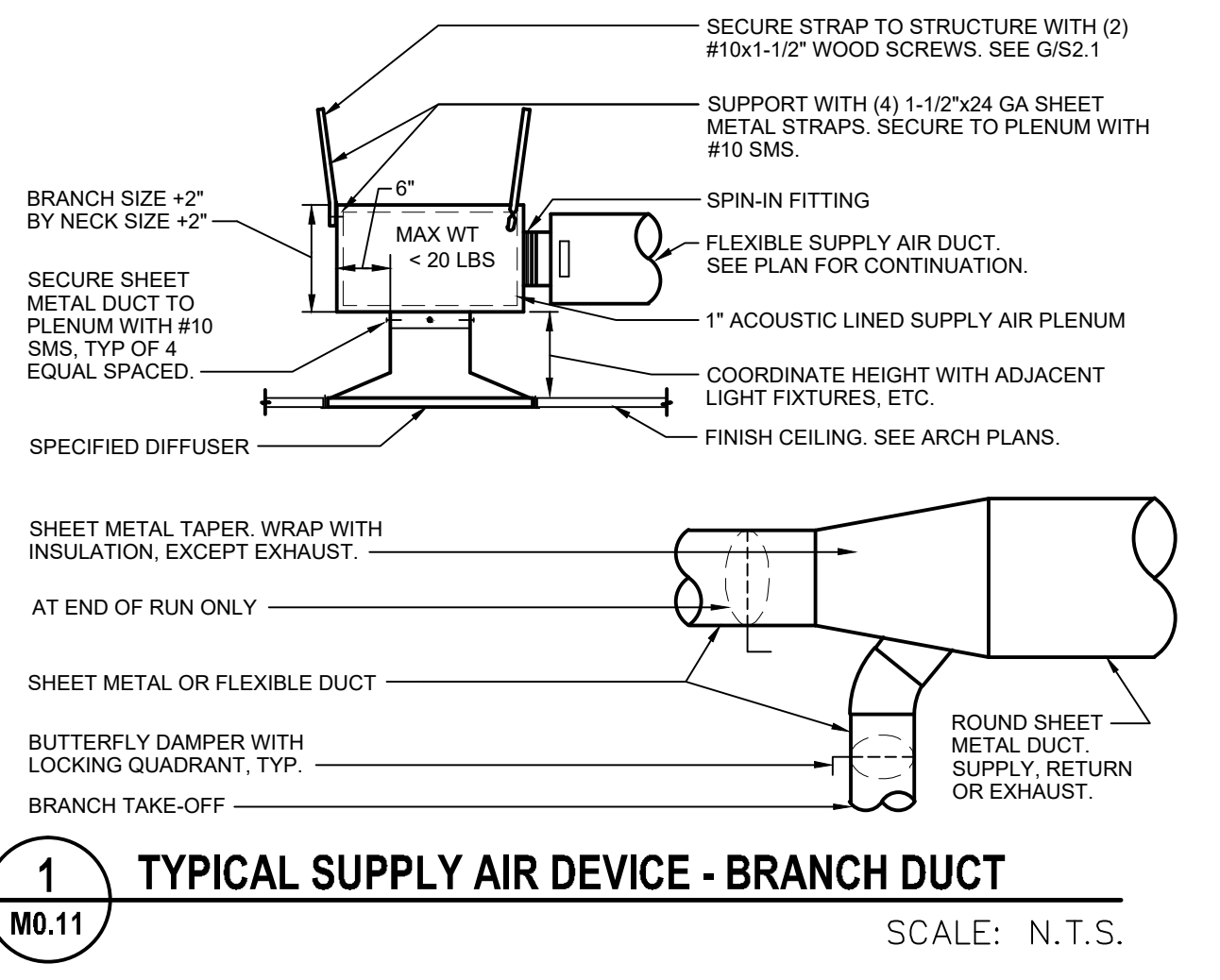
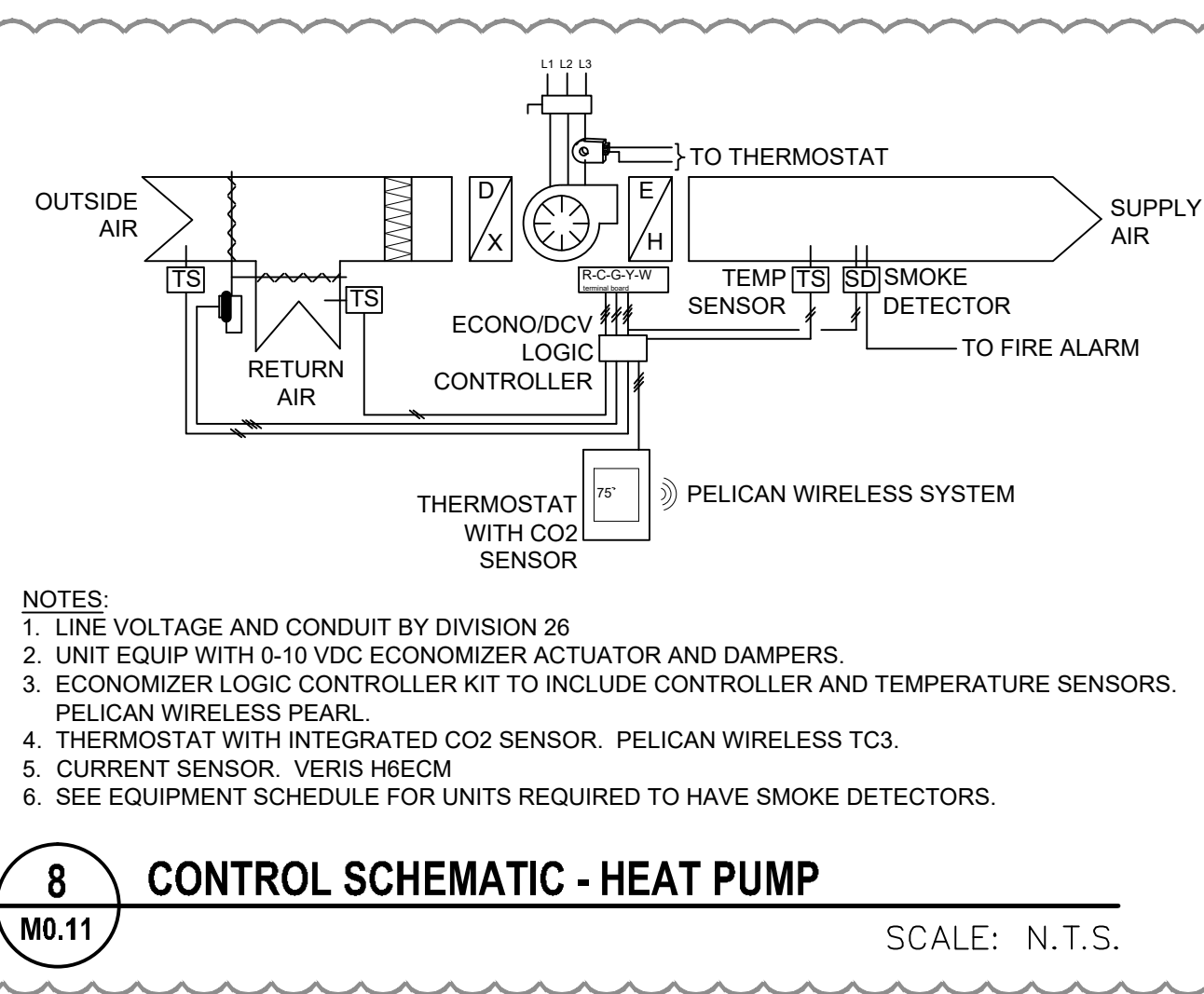
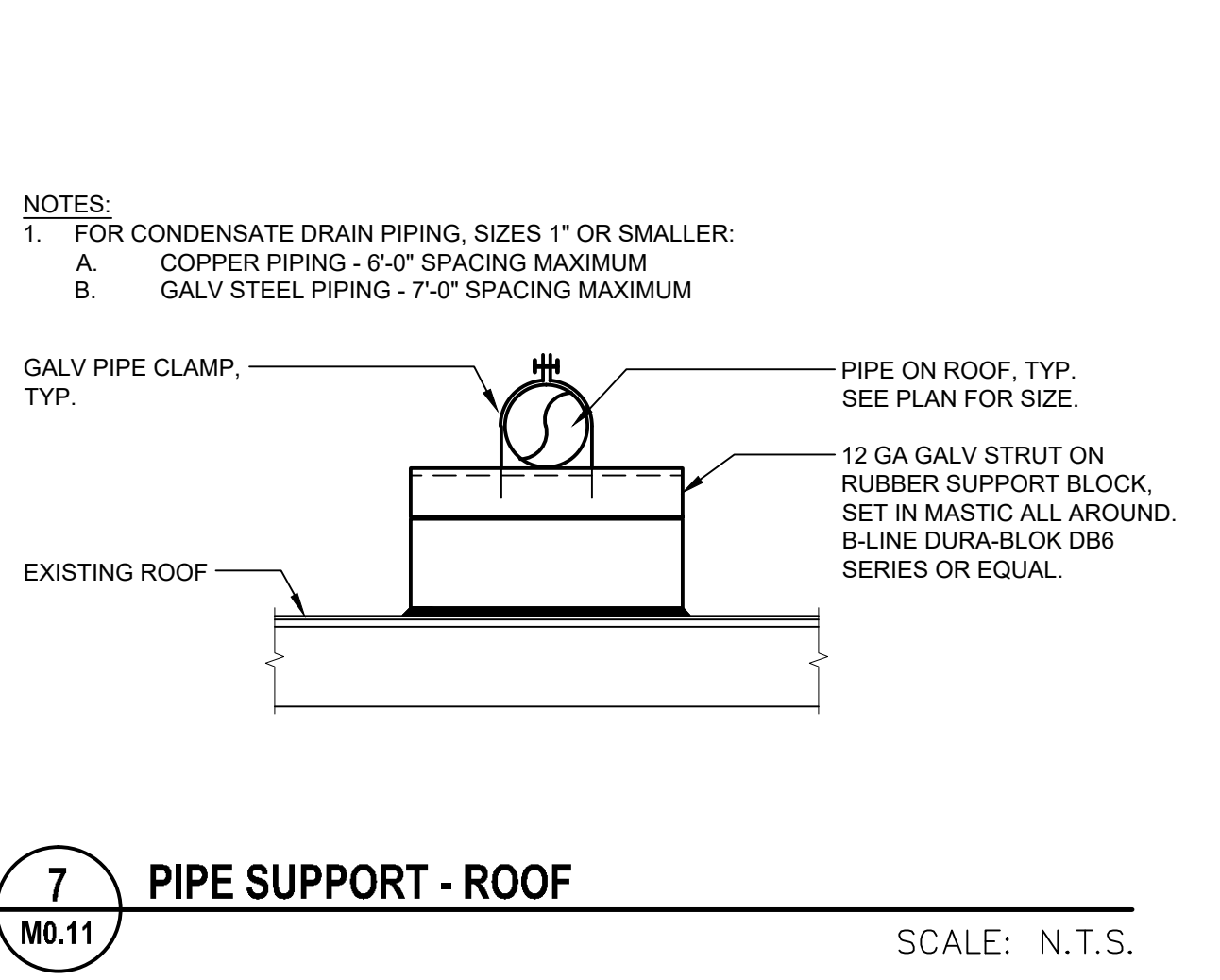
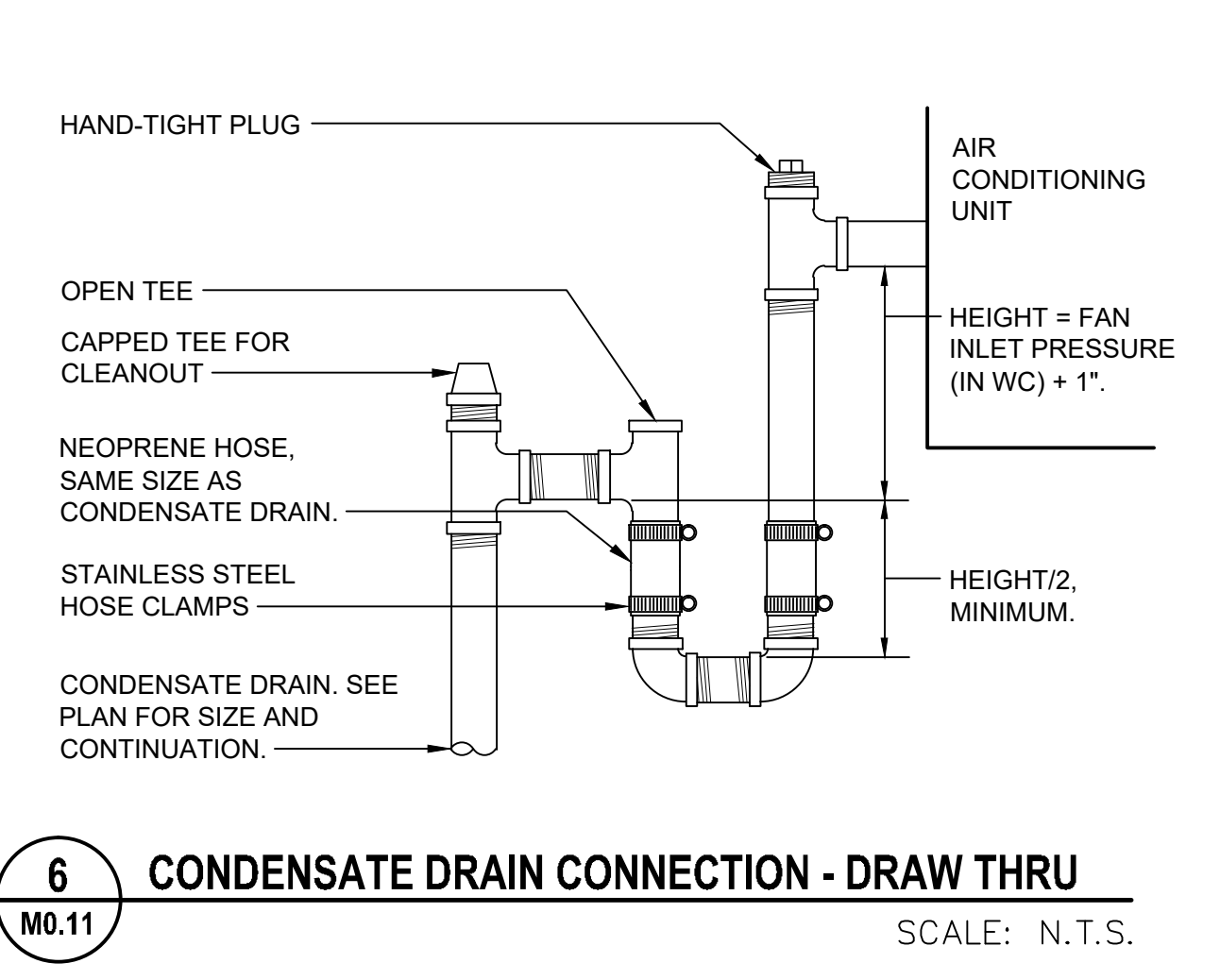
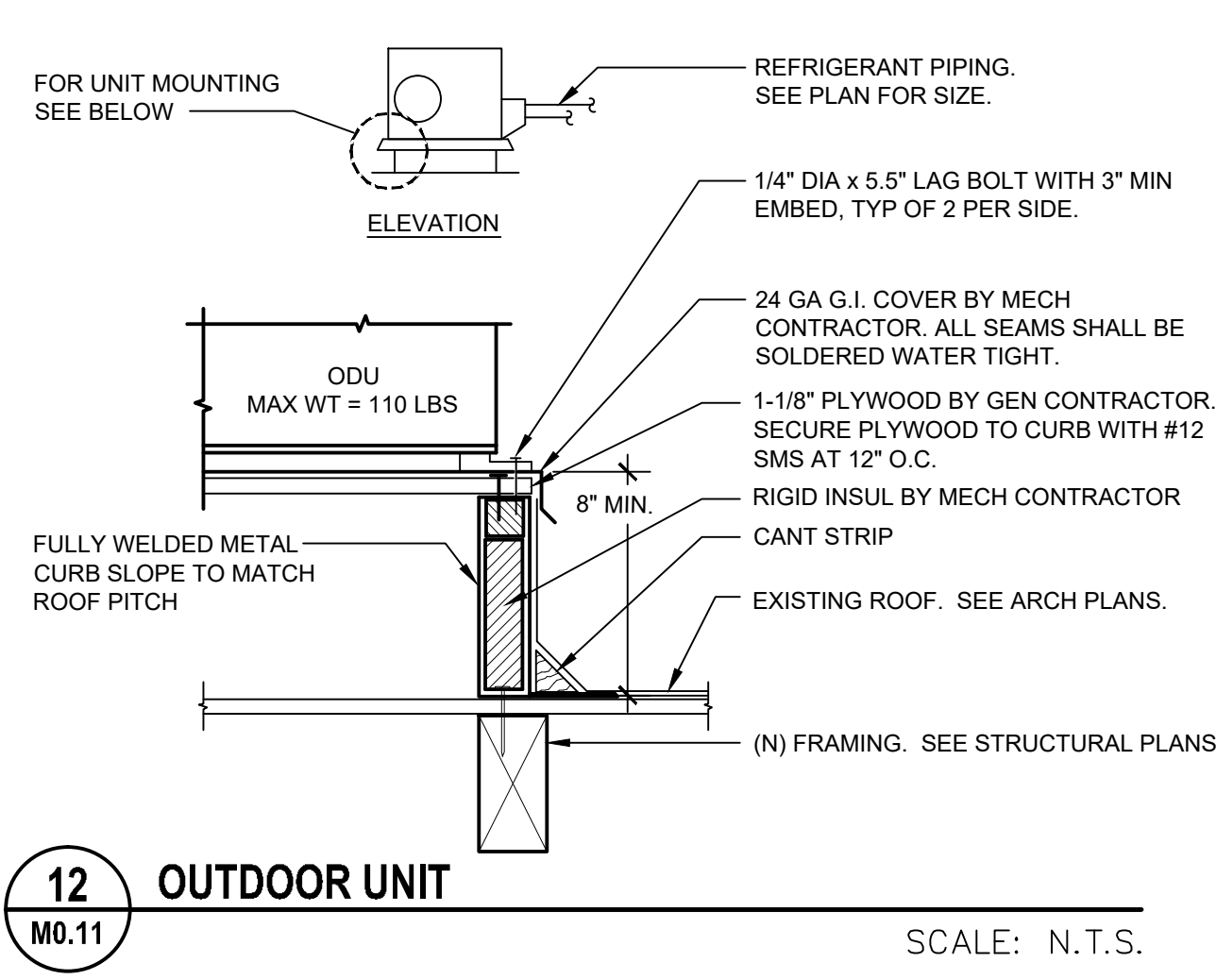
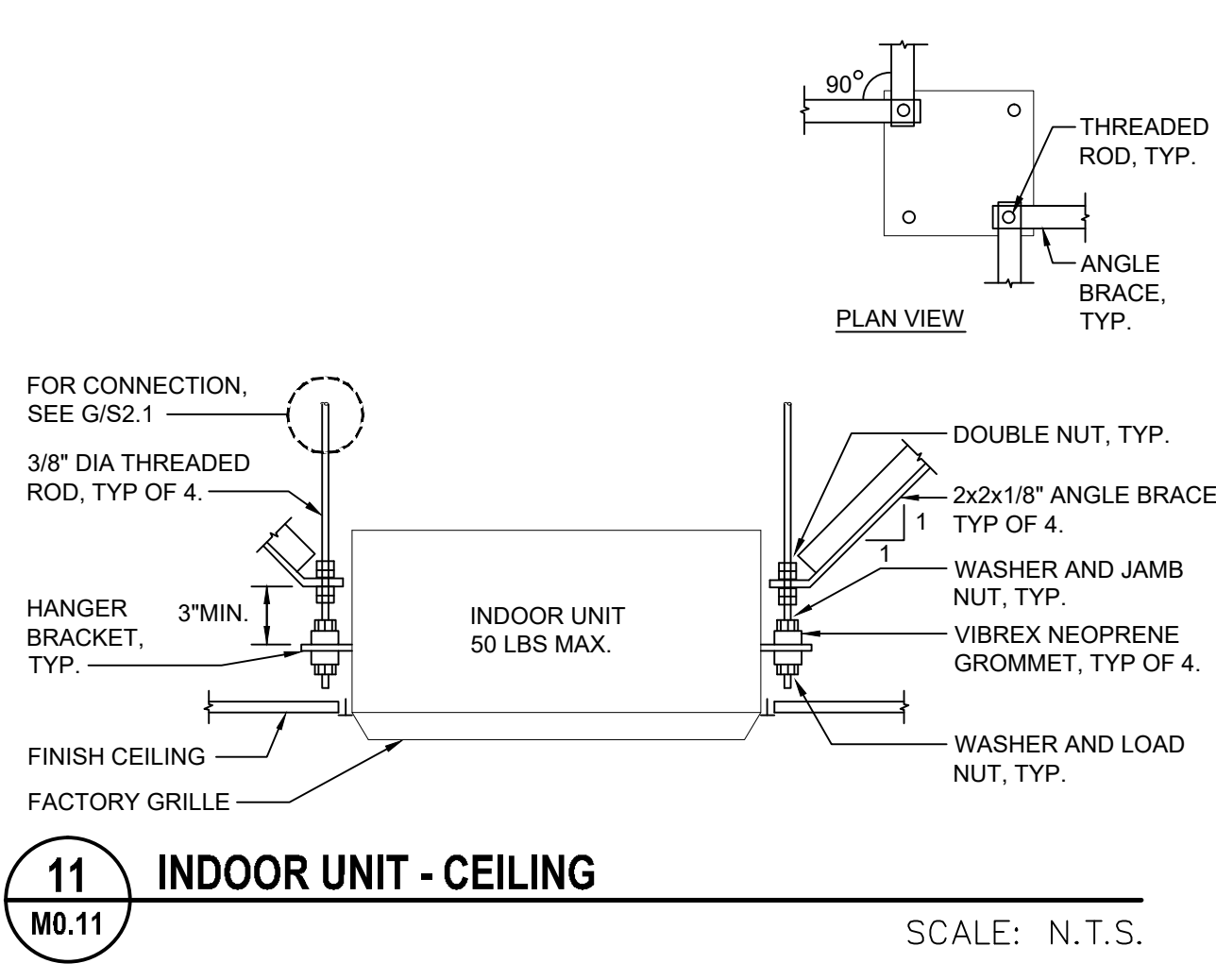
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Sheet Title: INTERIOR DETAILS

Job No: 5524
Sheet No: A8.01
Release: ADDENDUM 1
11/28/22

1" = 50'-0"
 1" = 40'-0"
 1" = 30'-0"
 1" = 20'-0"
 1" = 1'-0"
 1/8" = 1'-0"
 1/4" = 1'-0"



Owner:

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 1300 BAKER STREET
 FOWLER, CA 93625

Project Name:
HVAC REPLACEMENT

Project Address:
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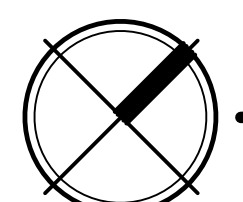
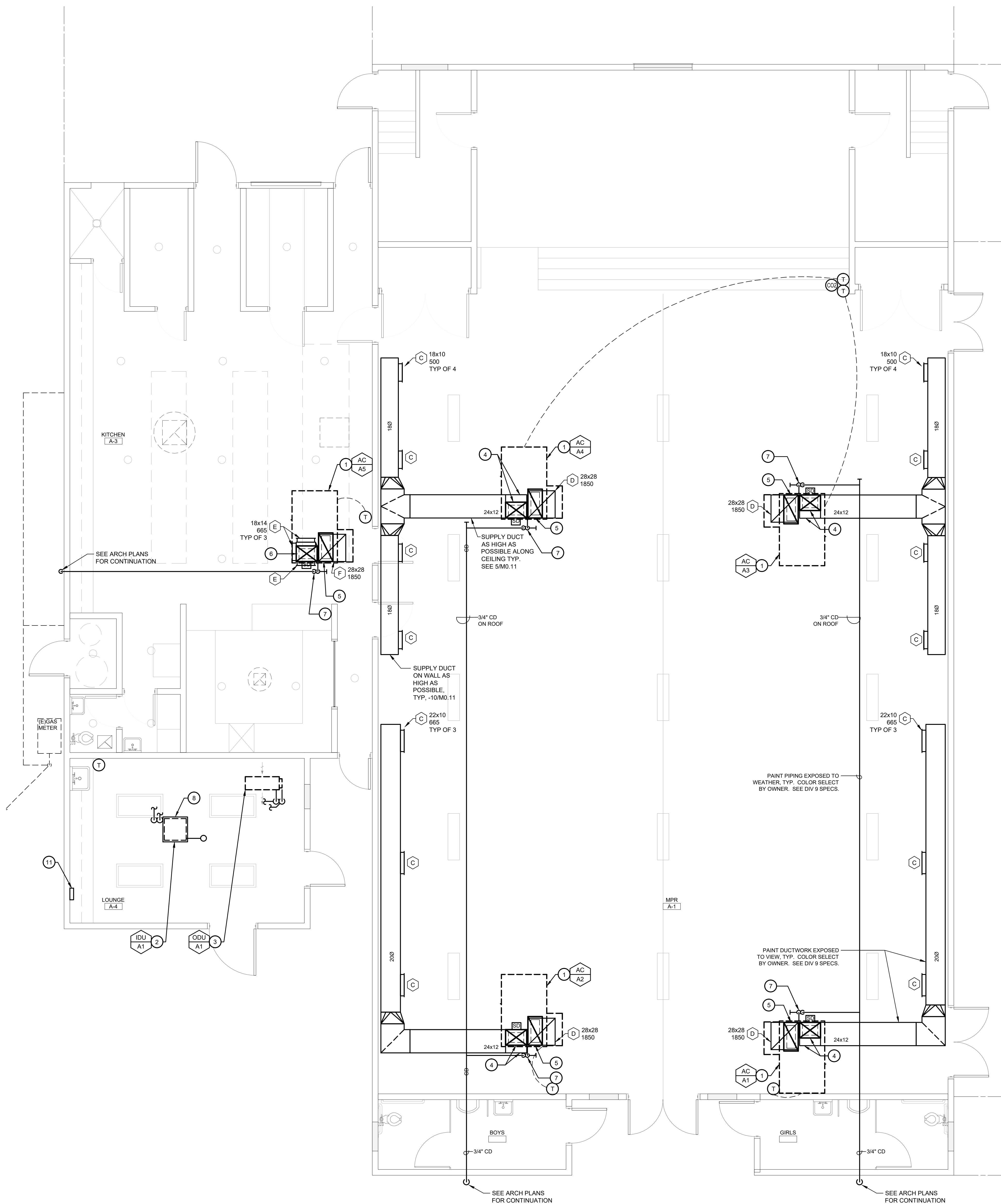
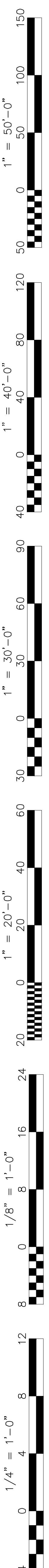
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Sheet Title:
DETAILS

Job No.: **5524**

Sheet No.: **M0.11**

Release: **ADDENDUM 1** 1/18/22




MECHANICAL PLAN - BLDG A - IMPROVEMENTS
HVAC REPLACEMENT

SCALE: 1/4" = 1'-0"

KEY NOTES

1. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 28x12(L) RA PLENUM DROP. PROVIDE TRANSITIONS AS NEEDED. SEE 3/M0.11
2. INDOOR UNIT RECESSED IN CEILING SUSPENDED FROM STRUCTURE. PROVIDE 6" ROUND CGA DUCT THRU ROOF, TURNED DOWN WITH 1/4" ALUMINUM MESH. EXTEND REFRIGERANT PIPING TO OUTDOOR UNIT. SEE 11/M0.11
3. OUTDOOR UNIT ON ROOF. EXTEND REFRIGERANT PIPING TO INDOOR UNIT. SEE 12/M0.11
4. TRANSITION TO 24x12 SUPPLY DUCT BELOW CEILING
5. TRANSITION TO 28x28 RETURN DUCT AND CONNECT TO CEILING RETURN GRILLE.
6. TRANSITION TO 20x20 SUPPLY DUCT BELOW CEILING. BOTTOM OF DUCT AT 18" BELOW CEILING.
7. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11
8. INDOOR UNIT WITH INTEGRAL CONDENSATE PUMP. CONNECT 1" DRAIN TO INDOOR UNIT AND DISCHARGE TO TAILPIECE OF SINK. PATCH OPENINGS TO MATCH EXISTING.
9. NOT USED
10. NOT USED
11. HVAC WIRELESS GATEWAY. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120/1 WALL OUTLET AND ETHERNET CONNECTION.

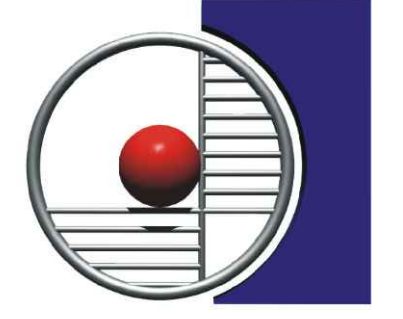
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Project Name:
HVAC REPLACEMENT

Project Address:
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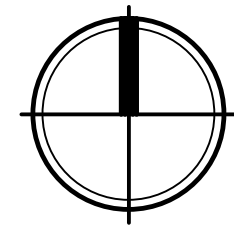
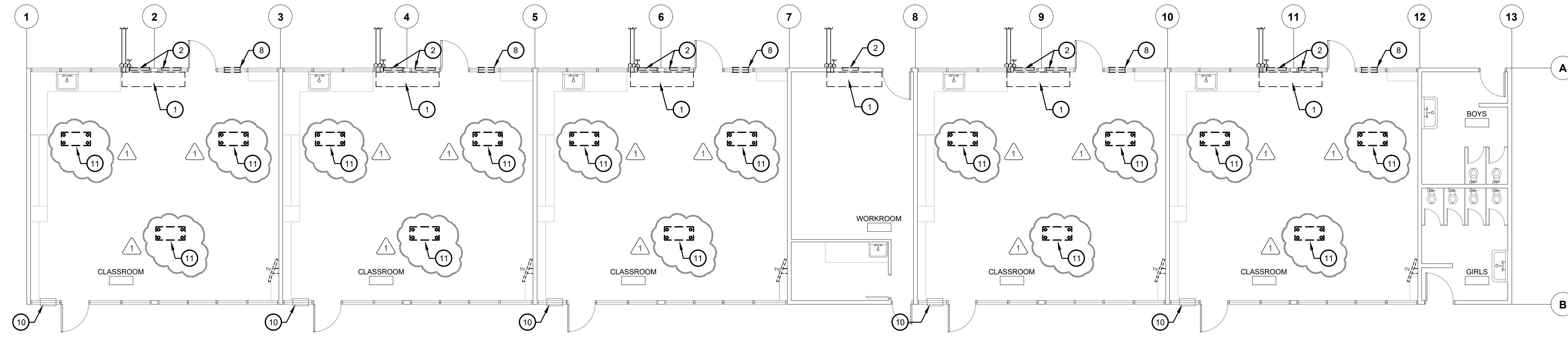


Sheet Title:
MECHANICAL PLAN - BLDG A

Job No.:
5524

Sheet No.:
M2.12

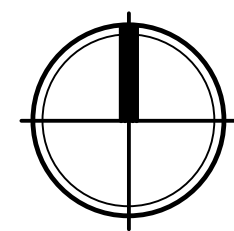
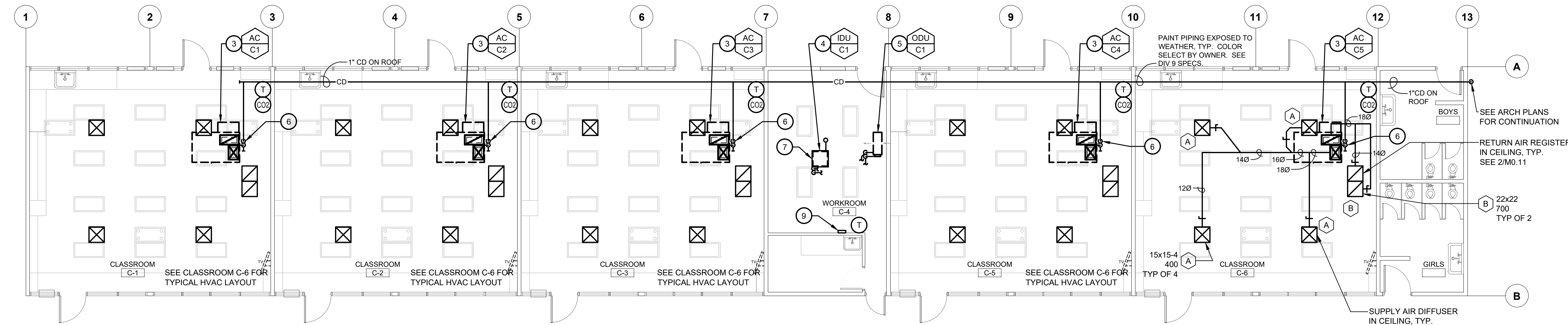
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MECHANICAL PLAN - BLDG C - DEMO

HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



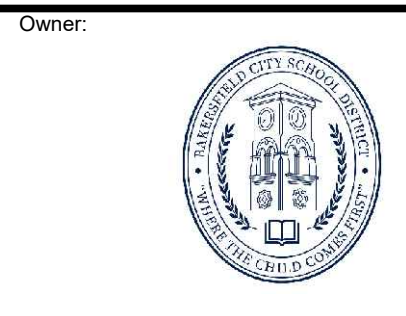
MECHANICAL PLAN - BLDG C - IMPROVEMENTS

HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

KEY NOTES

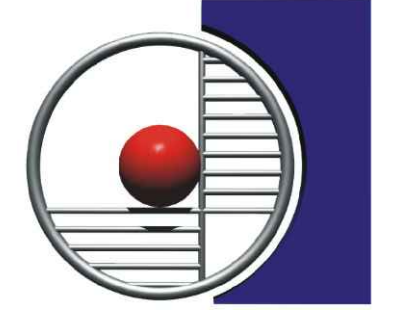
1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. PATCH OPENINGS TO MATCH EXISTING, TYP.
3. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF. BETWEEN EXISTING STRUCTURAL MEMBERS. TYP. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/M0.11
4. INDOOR UNIT RECESSED IN CEILING SUSPENDED FROM STRUCTURE. PROVIDE 6" ROUND OSA DUCT THRU ROOF. TURNED DOWN WITH 1/4" ALUMINUM MESH. EXTEND REFRIGERANT PIPING TO OUTDOOR UNIT. SEE 11/M0.11
5. OUTDOOR UNIT ON ROOF. EXTEND REFRIGERANT PIPING TO INDOOR UNIT. SEE 12/M0.11
6. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11
7. INDOOR UNIT WITH INTEGRAL CONDENSATE PUMP. CONNECT 1" DRAIN TO INDOOR UNIT AND DISCHARGE TO TAILPIECE OF SINK. PATCH OPENINGS TO MATCH EXISTING.
8. REMOVE EXISTING RELIEF DAMPER LOUVER AT EXTERIOR WALL. PATCH OPENING TO MATCH EXISTING, TYP.
9. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120/1 WALL OUTLET.
10. EXISTING BAROMETRIC RELIEF ASSEMBLY TO REMAIN, TYP. PROTECT FROM DAMAGE.
11. EXISTING T-BAR CEILING TO BE REMOVED AND REPLACED. SEE ARCH. PLANS. DISCONNECT AND REMOVE ALL EXISTING CEILING IONIZERS. CLEAN IONIZERS AND RE-INSTALL IN NEW CEILING AS CLOSE AS POSSIBLE TO EXISTING LOCATION, TYP.



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HVAC REPLACEMENT

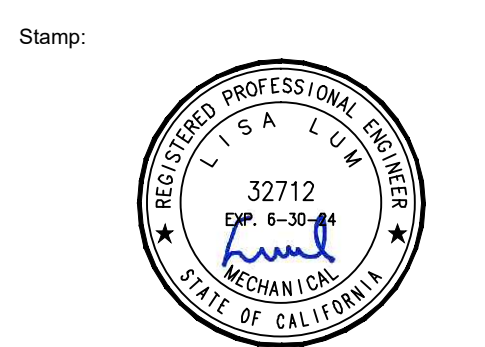
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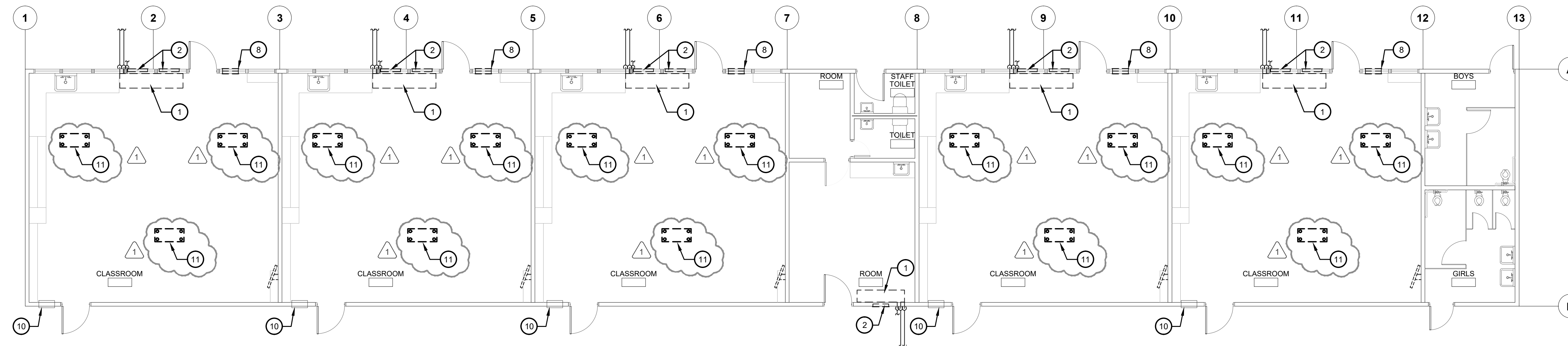
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MECHANICAL PLAN - BLDG C

Job No.:
5524

Sheet No.:
M2.31

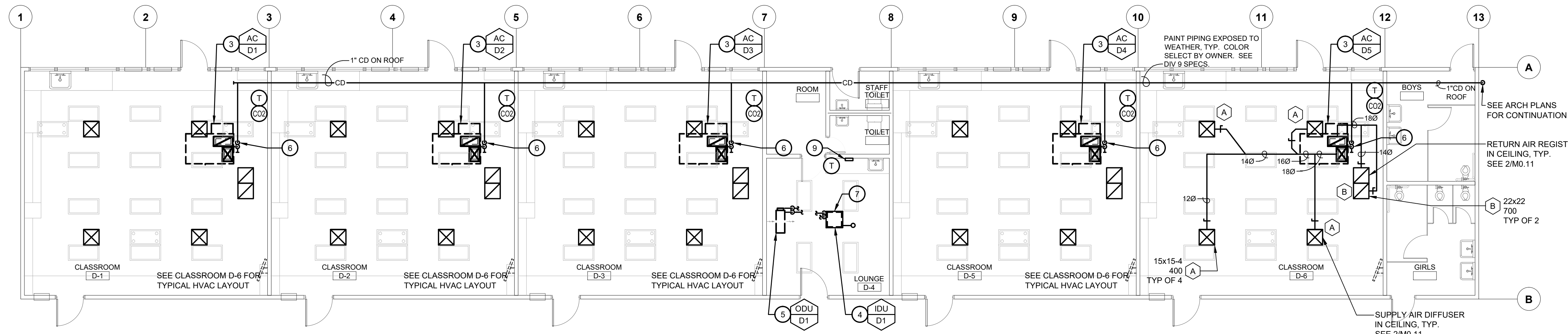
EXHIBIT 1-22

Release: **ADDENDUM 1** 11/28/22



MECHANICAL PLAN - BLDG D - DEMO
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



MECHANICAL PLAN - BLDG D - IMPROVEMENTS
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

KEY NOTES

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. PATCH OPENINGS TO MATCH EXISTING, TYP.
3. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x11(L) RA PLENUM DROP THRU ROOF. BETWEEN EXISTING STRUCTURAL MEMBERS. TYP. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/M0.11
4. INDOOR UNIT RECESSED IN CEILING SUSPENDED FROM STRUCTURE. PROVIDE 6" ROUND OSA DUCT THRU ROOF. TURNED DOWN WITH 1/4" ALUMINUM MESH. EXTEND REFRIGERANT PIPING TO OUTDOOR UNIT. SEE 11/M0.11
5. OUTDOOR UNIT ON ROOF. EXTEND REFRIGERANT PIPING TO INDOOR UNIT. SEE 12/M0.11
6. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11
7. INDOOR UNIT WITH INTEGRAL CONDENSATE PUMP. CONNECT 1" DRAIN TO INDOOR UNIT AND DISCHARGE TO TAILPIECE OF SINK. PATCH OPENINGS TO MATCH EXISTING.
8. REMOVE EXISTING RELIEF DAMPER LOUVER AT EXTERIOR WALL. PATCH OPENING TO MATCH EXISTING, TYP.
9. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120/1 WALL OUTLET.
10. EXISTING BAROMETRIC RELIEF ASSEMBLY TO REMAIN. TYP. PROTECT FROM DAMAGE.
11. EXISTING T-BAR CEILING TO BE REMOVED AND REPLACED. SEE ARCH PLANS. DISCONNECT AND REMOVE ALL EXISTING CEILING IONIZERS. CLEAN IONIZERS AND RE-INSTALL IN NEW CEILING AS CLOSE AS POSSIBLE TO EXISTING LOCATION, TYP.

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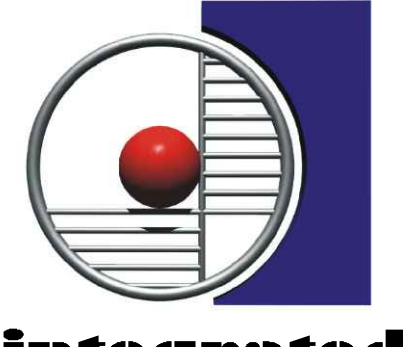
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HVAC REPLACEMENT

Project Address:

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MECHANICAL PLAN - BLDG D

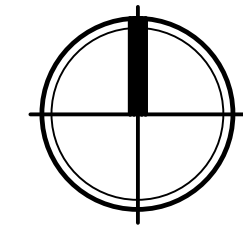
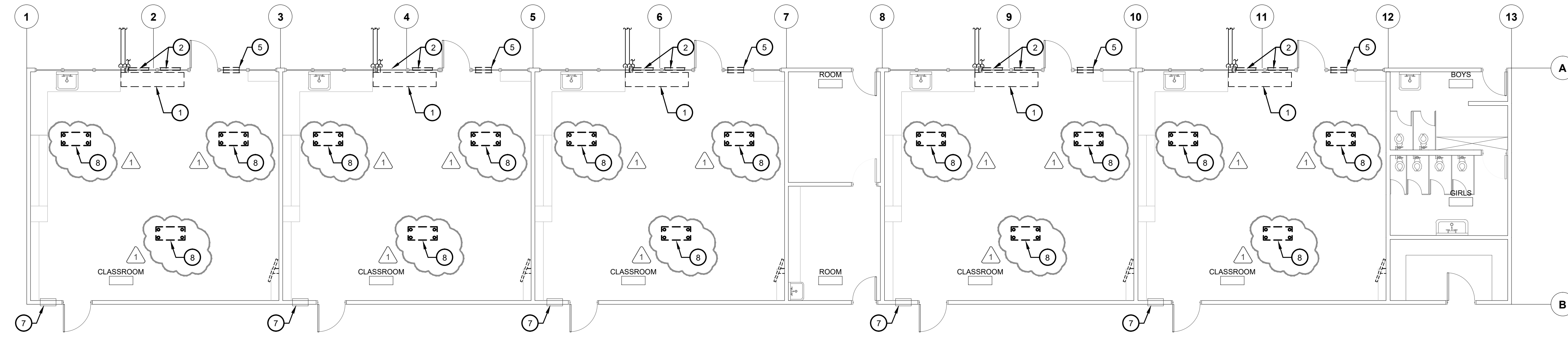
Job No.:

5524

Sheet No.:

M2.41
 Release: ADDENDUM 1 11/28/22

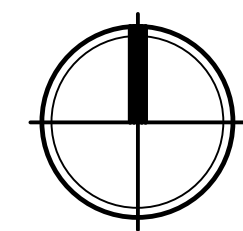
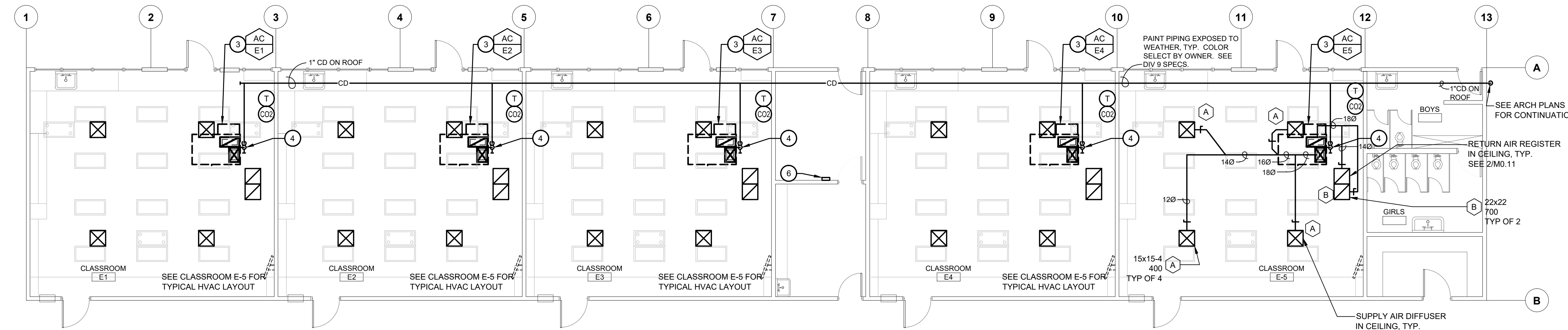
EXHIBIT 1-23



MECHANICAL PLAN - BLDG E - DEMO

HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"




MECHANICAL PLAN - BLDG E - IMPROVEMENTS

HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

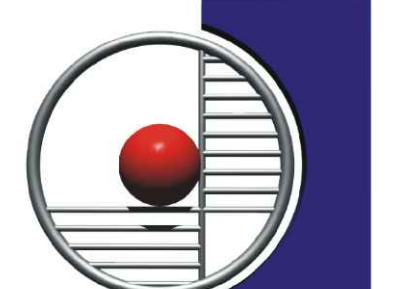
KEY NOTES

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. PATCH OPENINGS TO MATCH EXISTING. TYP.
3. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF. BETWEEN EXISTING STRUCTURAL MEMBERS. TYP. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/MO.11
4. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11
5. REMOVE EXISTING RELIEF DAMPER LOUVER AT EXTERIOR WALL. PATCH OPENING TO MATCH EXISTING. TYP.
6. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120V WALL OUTLET.
7. EXISTING BAROMETRIC RELIEF ASSEMBLY TO REMAIN. TYP. PROTECT FROM DAMAGE.
8. EXISTING T-BAR CEILING TO BE REMOVED AND REPLACED. SEE ARCH. PLANS. DISCONNECT AND REMOVE ALL EXISTING CEILING IONIZERS. CLEAN IONIZERS AND RE-INSTALL IN NEW CEILING AS CLOSE AS POSSIBLE TO EXISTING LOCATION. TYP.

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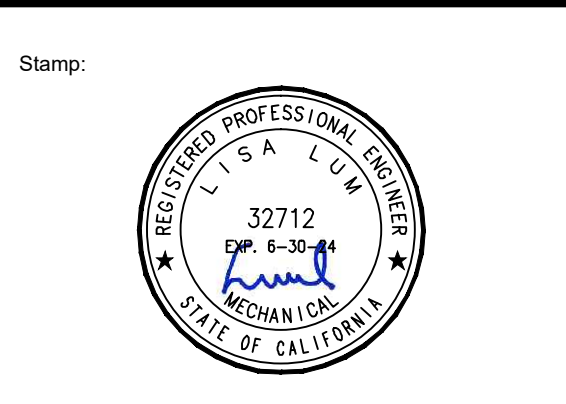
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MECHANICAL PLAN - BLDG E

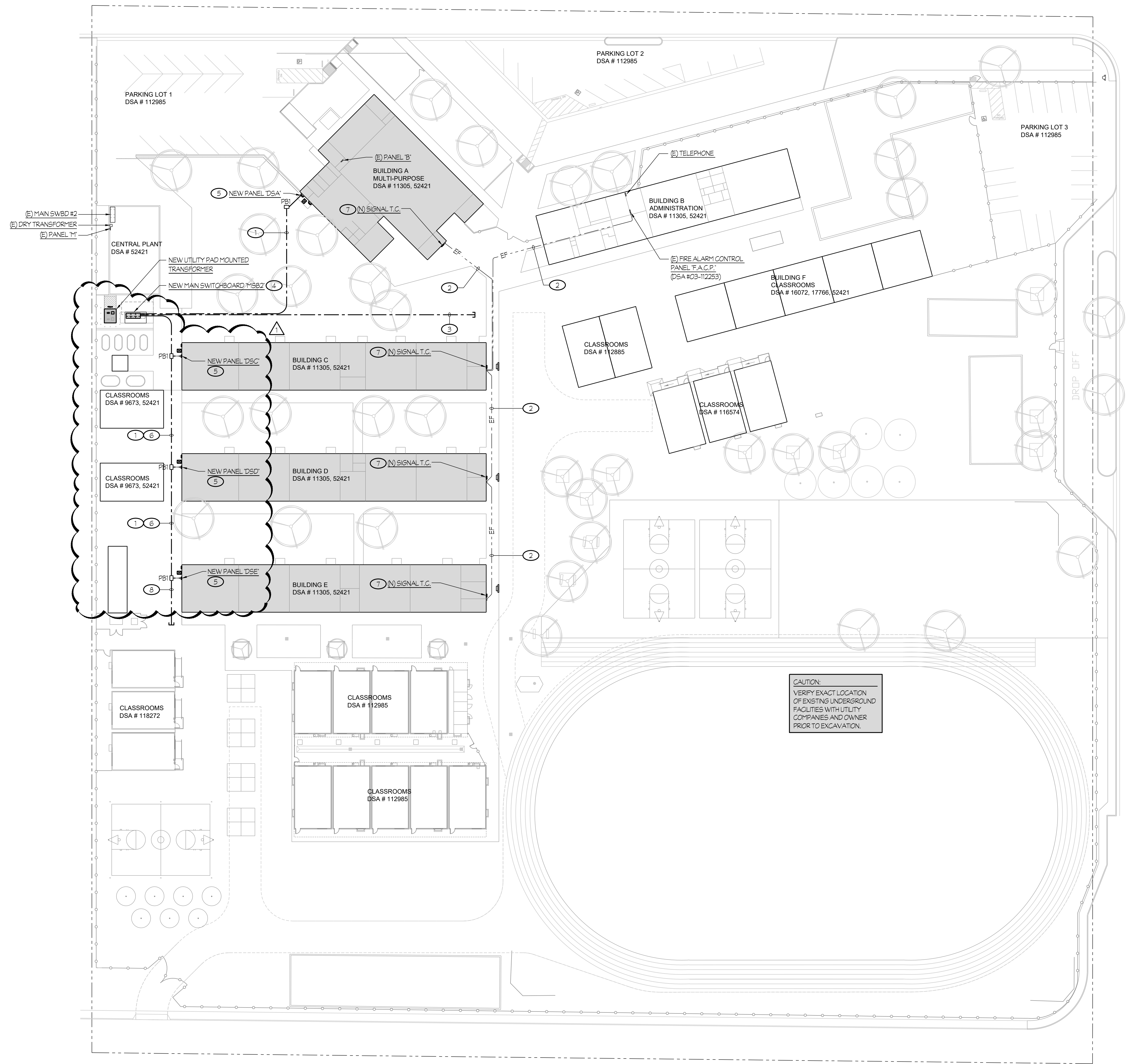
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EXHIBIT 1-24

NOTES (THIS SHEET ONLY):

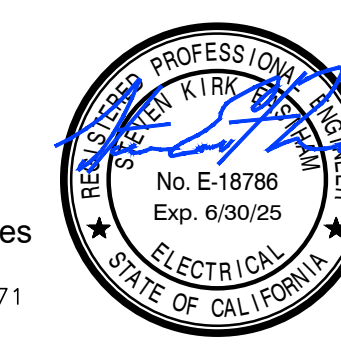
- 1 PROVIDE NEW CONDUIT AND CONNECTORS PER ONE LINE DIAGRAM, SHEET #E4.01.
- 2 PROVIDE NEW FIRE ALARM CABLES PER RISER DIAGRAM, SHEET #E3.21.
- 3 STUBOUT TO PICK-UP EXISTING OLD SERVICE IN FUTURE PER ONE LINE DIAGRAM, SHEET #E4.01.
- 4 REFER TO DETAIL #7/E5.00 FOR MOUNTING REQUIREMENTS.
- 5 REFER TO DETAIL #9/E5.00 FOR MOUNTING REQUIREMENTS.
- 6 REFER TO TRENCH DETAIL #4/E5.00 FOR REQUIREMENTS.
- 7 REFER TO DETAIL #6/E5.22 FOR MOUNTING REQUIREMENTS.
- 8 STUBOUT FOR FUTURE PORTABLES, REFER TO ONE LINE DIAGRAM, SHEET #E4.01.



**SITE ELECTRICAL PLAN
CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 30'-0"

EXHIBIT 1-25
Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunwoorth - (559) 733-2671
Visalia, California 93292-6705



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BAKERSFIELD CITY
SCHOOL DISTRICT

**BAKERSFIELD
CITY SCHOOL
DISTRICT**
1300 BAKER STREET
BAKERSFIELD, CA 93309

Project Name:
**CENTRAL PLANT
REPLACEMENT**

Project Address:
**MUNSEY
ELEMENTARY
SCHOOL**
3801 BRAVE AVENUE
BAKERSFIELD, CA 93309

**integrated
designs**
by SOMAM, Inc.

**ARCHITECTURE
ENGINEERING
INTERIOR DESIGN**

6011 N. FRESNO STREET, SUITE 130
FRESNO CALIFORNIA 93710
P: (559) 436-0881 F: (559) 436-0887
E: design@somam.com
integrateddesigns.com

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Stamp:

Sheet Title:
**SITE ELECTRICAL
PLAN**

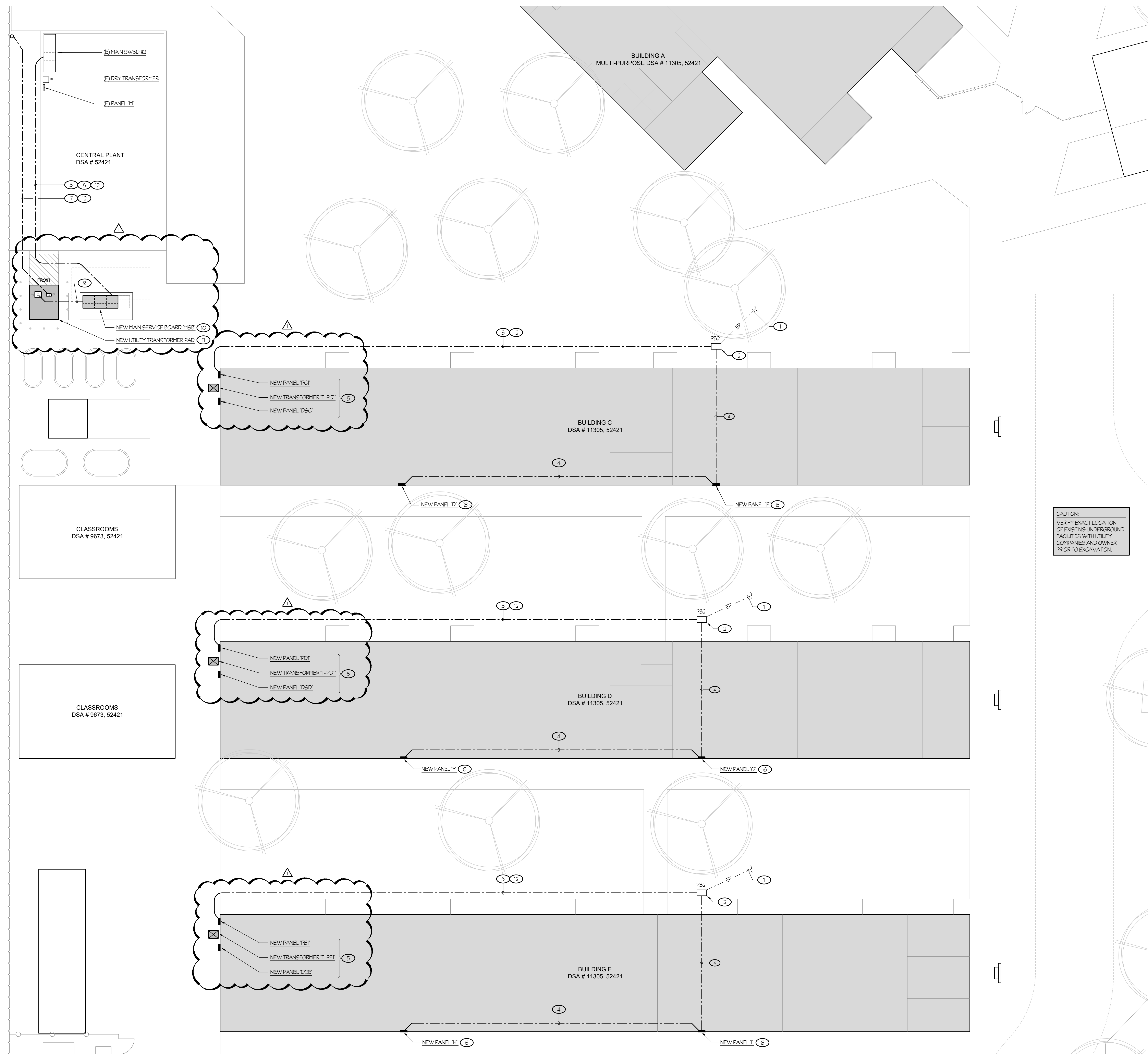
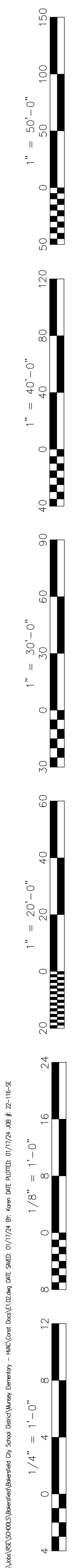
Job No.:
5524

Sheet No.:
E1.01

Release: ADDENDUM #1 Issue Date: 01-17-2024

1" = 50'-0"
1" = 40'-0"
1" = 30'-0"
1" = 20'-0"
1" = 1'-0"
1/8" = 1'-0"
1/4" = 1'-0"

Z:\Drawing\Jobs\5524\5524-003\Bakersfield\Bakersfield City School District\Munsey Elementary - HVAC\Coord Docs\Electrical\DWG # 22-16-SE




NOTES (THIS SHEET ONLY):

- 1 EXISTING CONDUIT SHALL BE ABANDONED IN PLACE.
- 2 INTERCEPT EXISTING CONDUIT WITH NEW PULL BOX, PER DETAIL #5/ES.00.
- 3 NEW CONDUIT AND CONDUCTORS PER ONE LINE DIAGRAM, SHEET #E4.01.
- 4 EXISTING CONDUIT, NEW CONDUCTORS PER ONE LINE DIAGRAM, SHEET #E4.01.
- 5 REFER TO DETAIL #9/ES.00 FOR MOUNTING REQUIREMENTS.
- 6 REFER TO DETAIL #6/ES.00 FOR MOUNTING REQUIREMENTS.
- 7 PROVIDE NEW CONDUIT PER APPROVED UTILITY DRAWINGS EXPECTED TO BE (1) 4\"/>

CAUTION:
VERIFY EXACT LOCATION
OF EXISTING UNDERGROUND
FACILITIES WITH UTILITY
COMPANIES AND OWNER
PRIOR TO EXCAVATION.

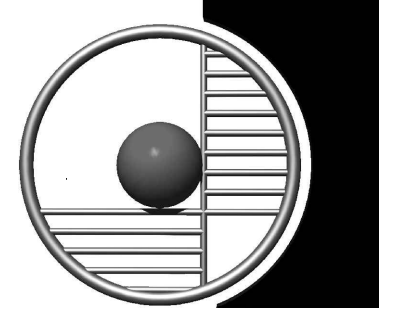
**ENLARGED SITE ELECTRICAL PLAN
CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 10'-0"

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
 1300 BAKER STREET
 BAKERSFIELD, CA 93309

Project Name:
CENTRAL PLANT REPLACEMENT

Project Address:
MUNSEY ELEMENTARY SCHOOL
 3801 BRAVE AVENUE
 BAKERSFIELD, CA 93309


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ENLARGED SITE ELECTRICAL PLAN

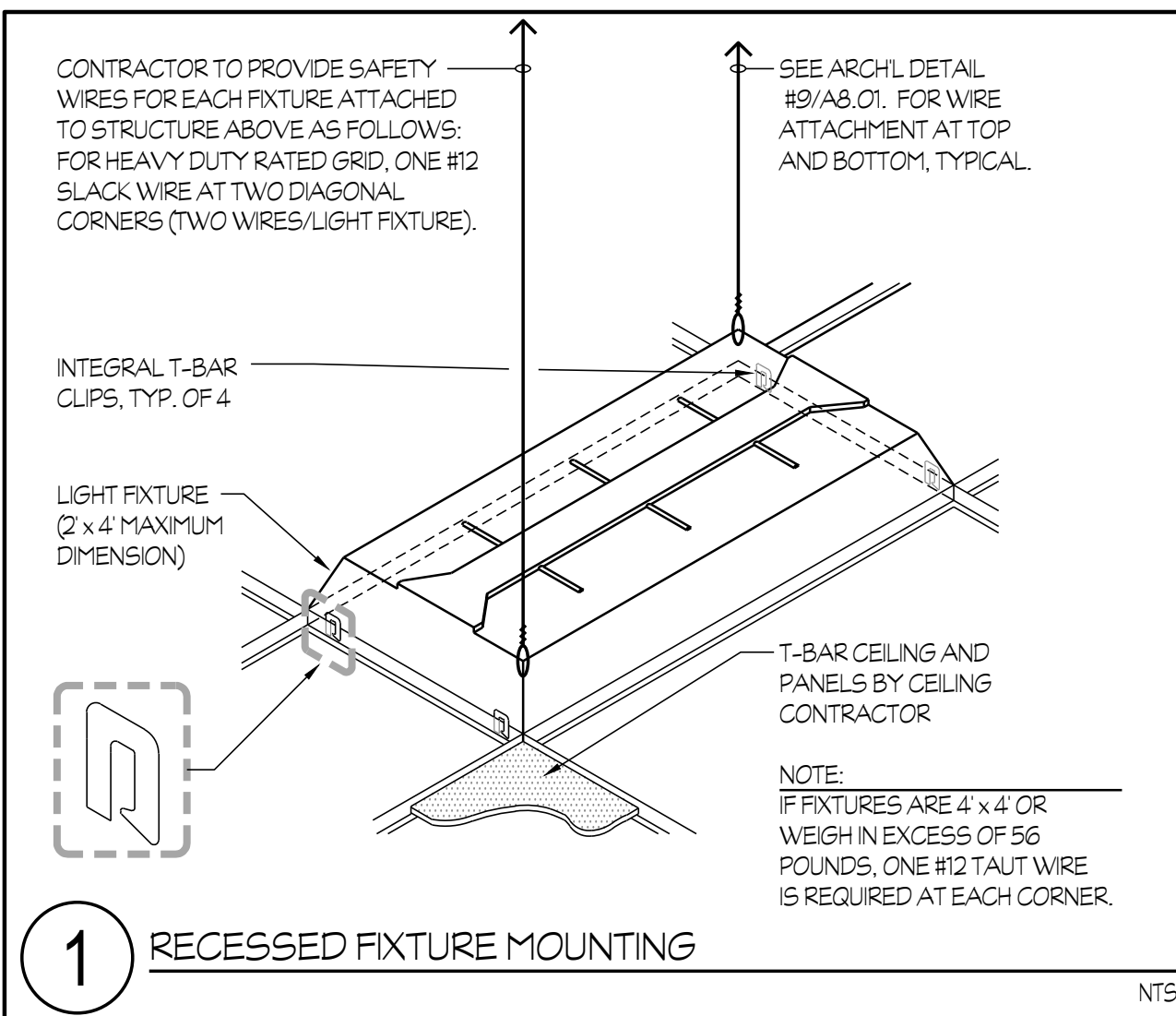
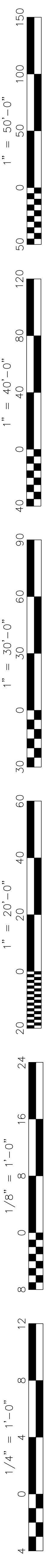
Job No.:
5524

Sheet No.:
E1.02

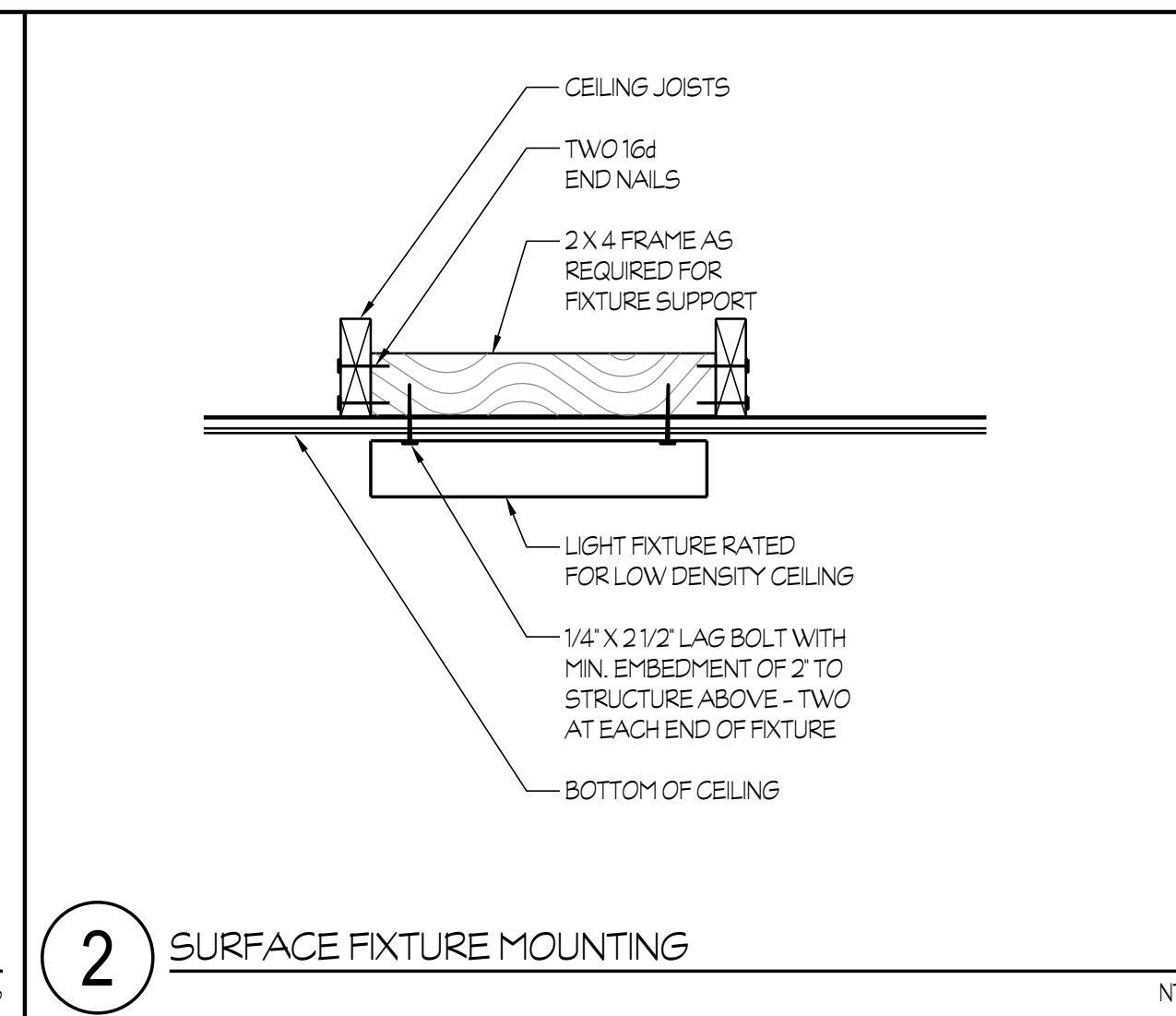
Release: ADDENDUM #1 Issue Date: 01-17-2024

EXHIBIT 1-26

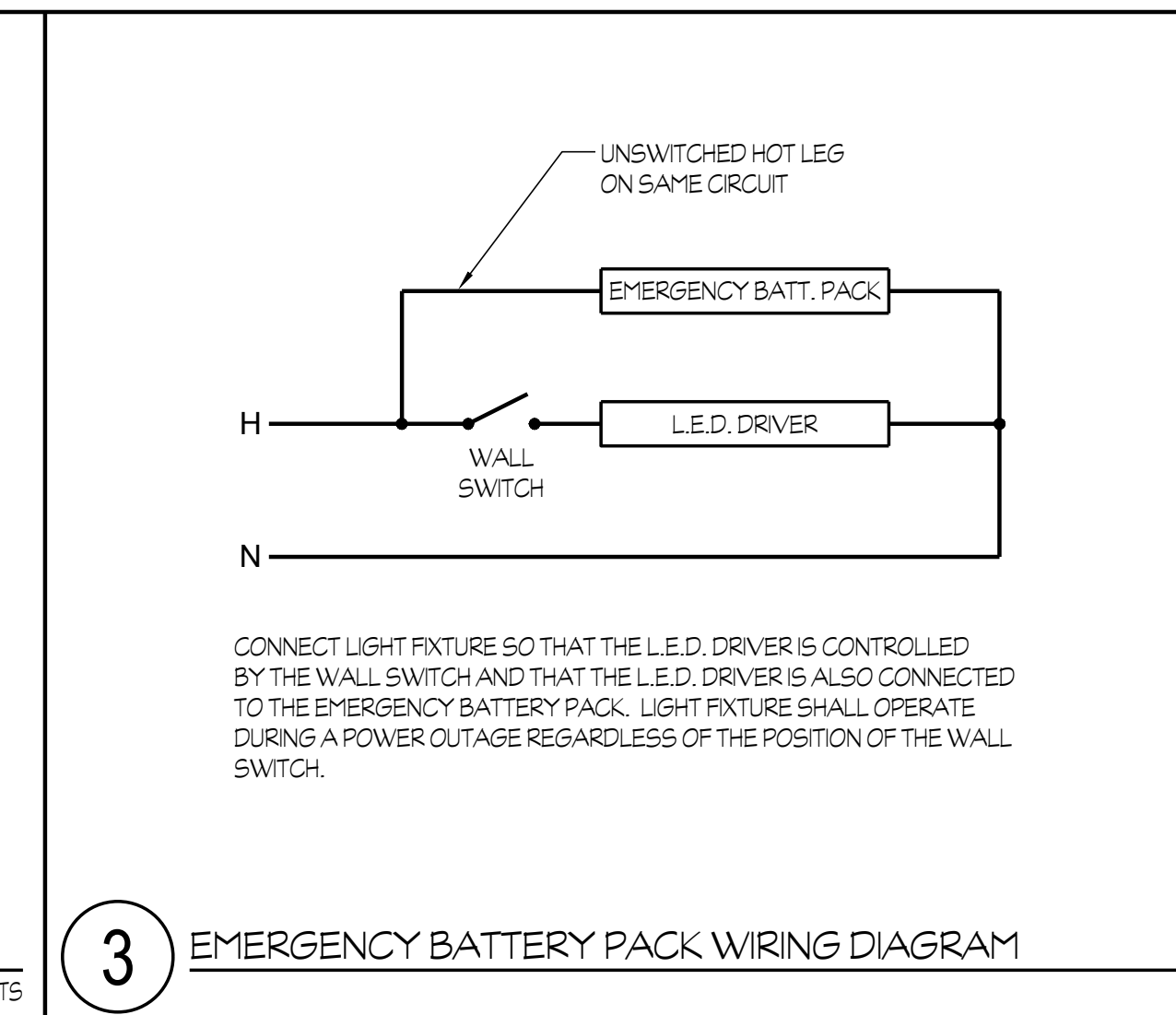
Rose Sing Eastham & Associates
 Electrical Consultants
 131 S. Dunwoorth - (559) 733-2671
 Visalia, California 93292-6705



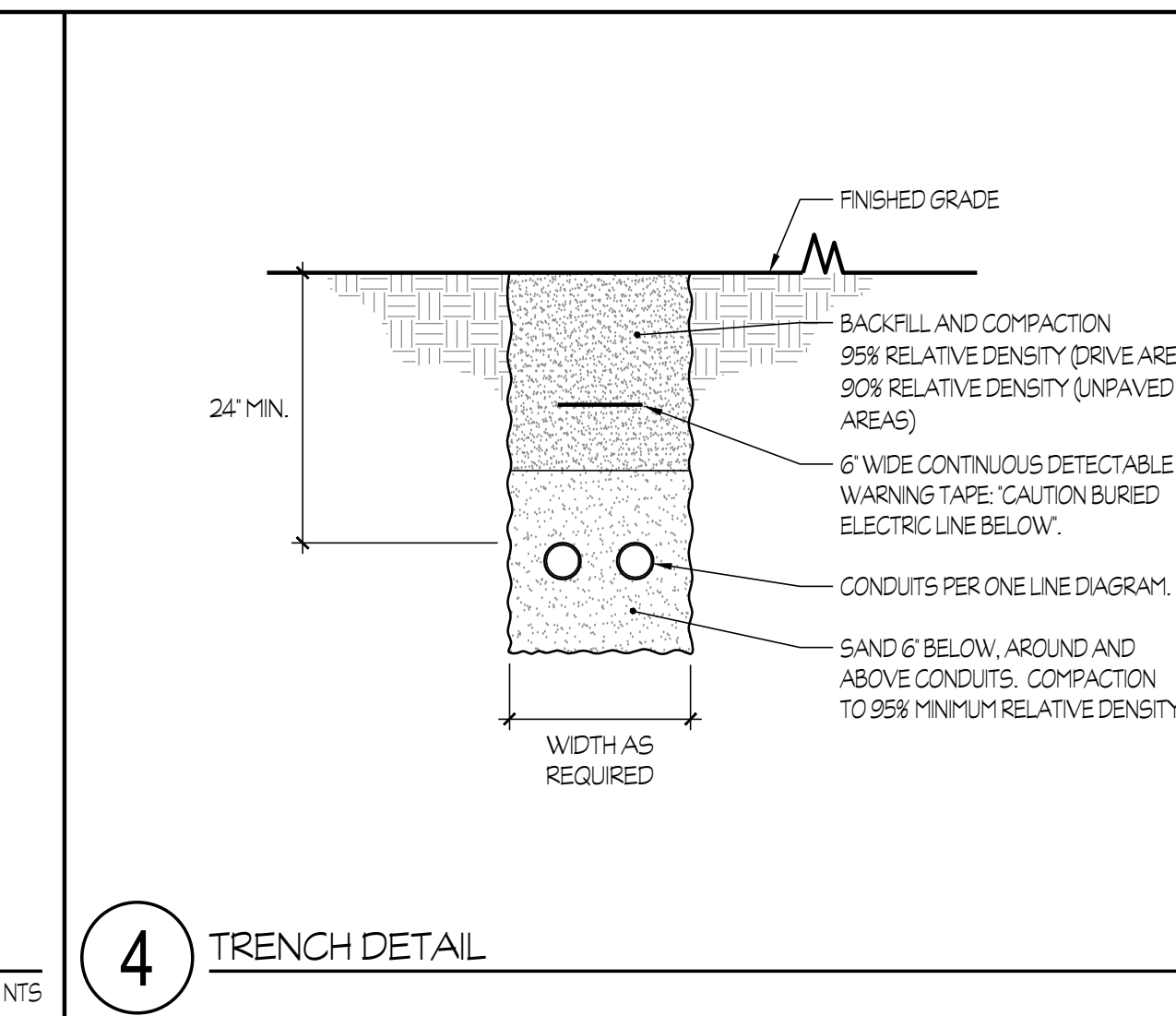
1 RECESSED FIXTURE MOUNTING NTS



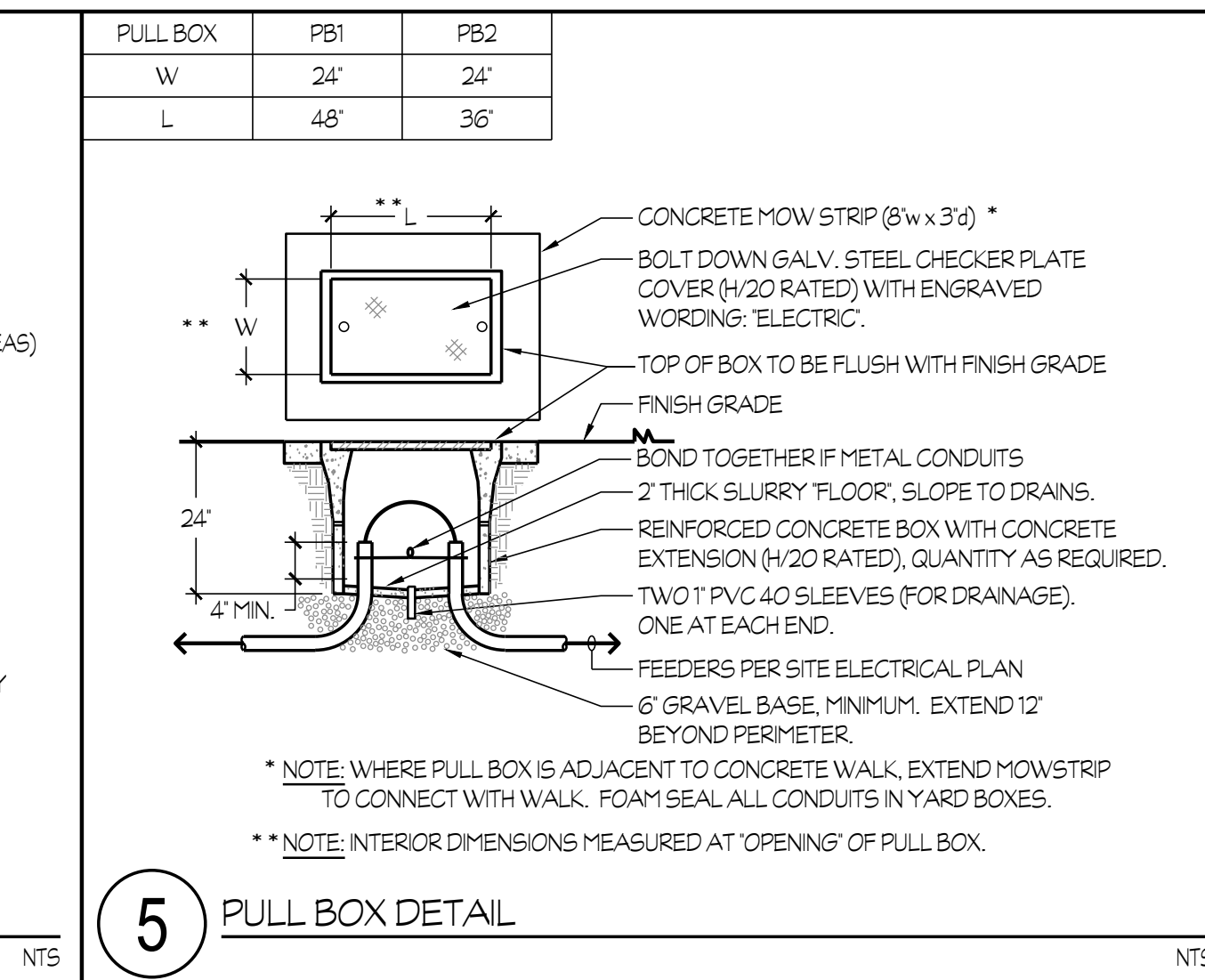
2 SURFACE FIXTURE MOUNTING NTS



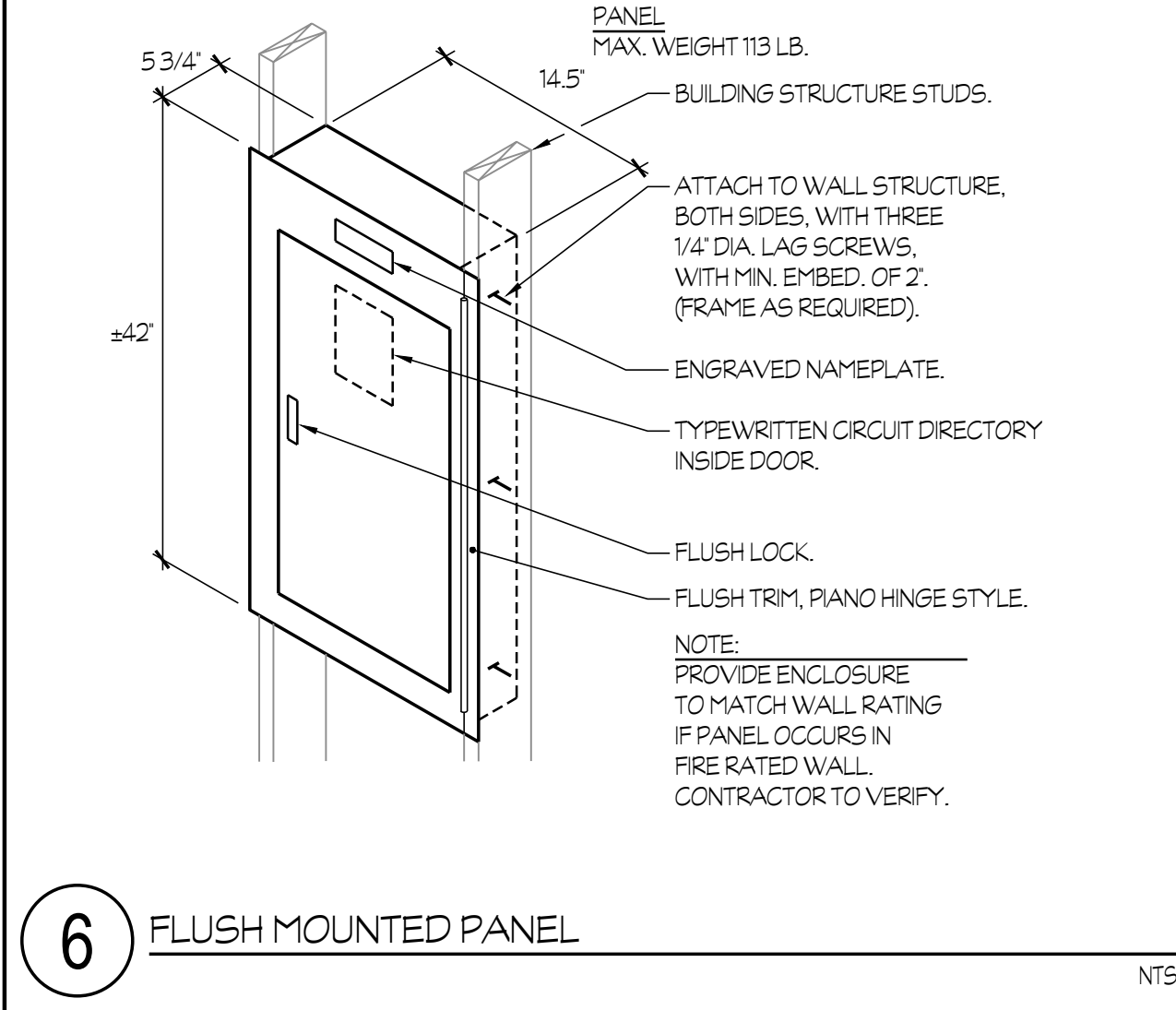
3 EMERGENCY BATTERY PACK WIRING DIAGRAM NTS



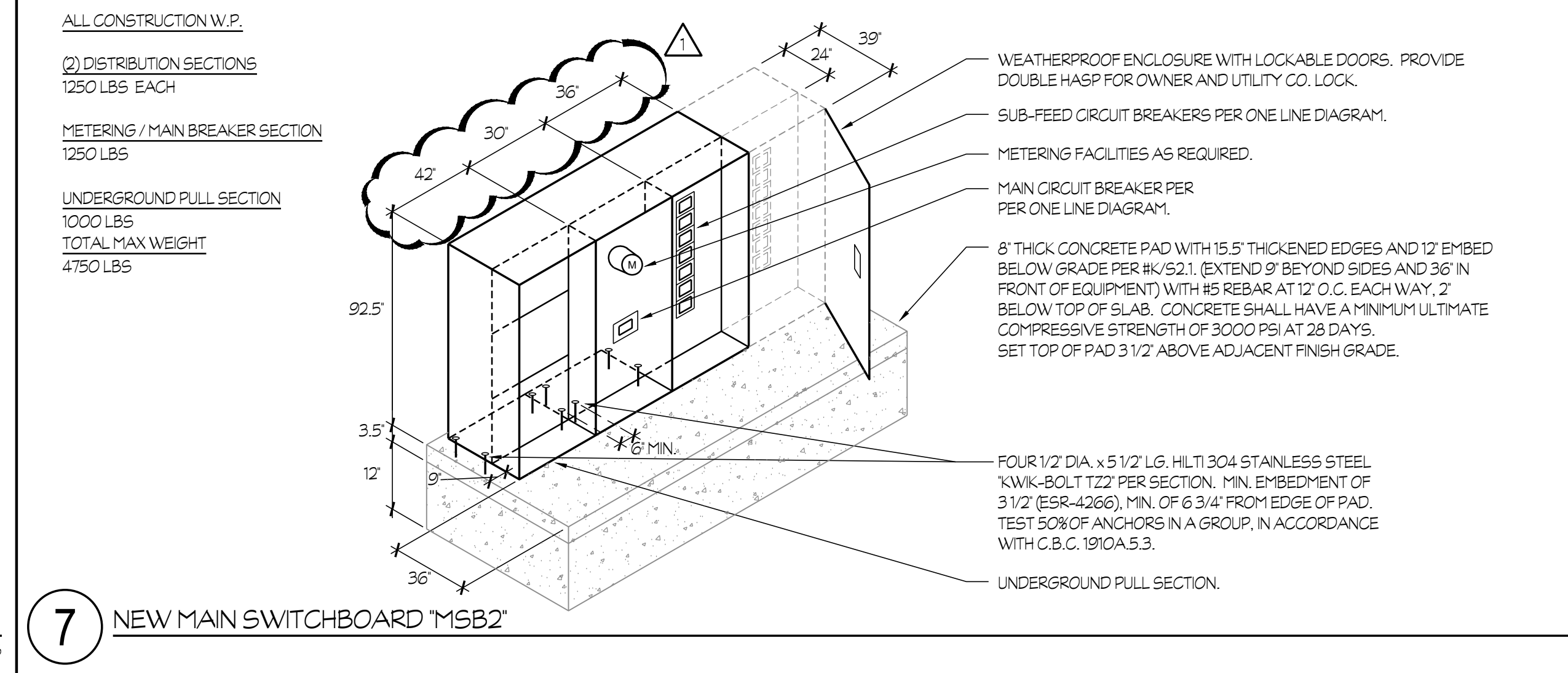
4 TRENCH DETAIL NTS



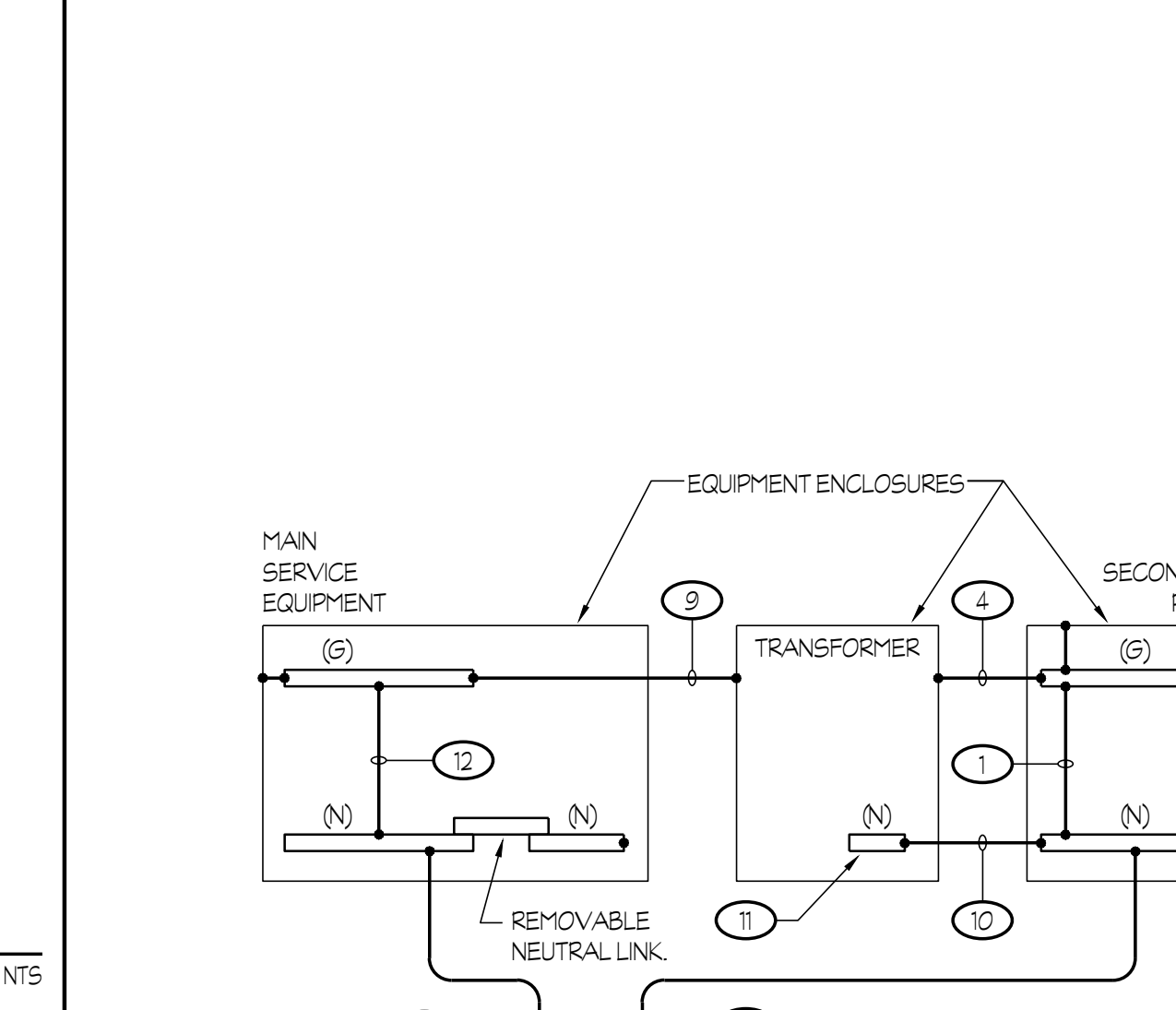
5 PULL BOX DETAIL NTS



6 FLUSH MOUNTED PANEL NTS



7 NEW MAIN SWITCHBOARD 'MSB2' NTS



12 MAIN SERVICE EQUIPMENT, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS

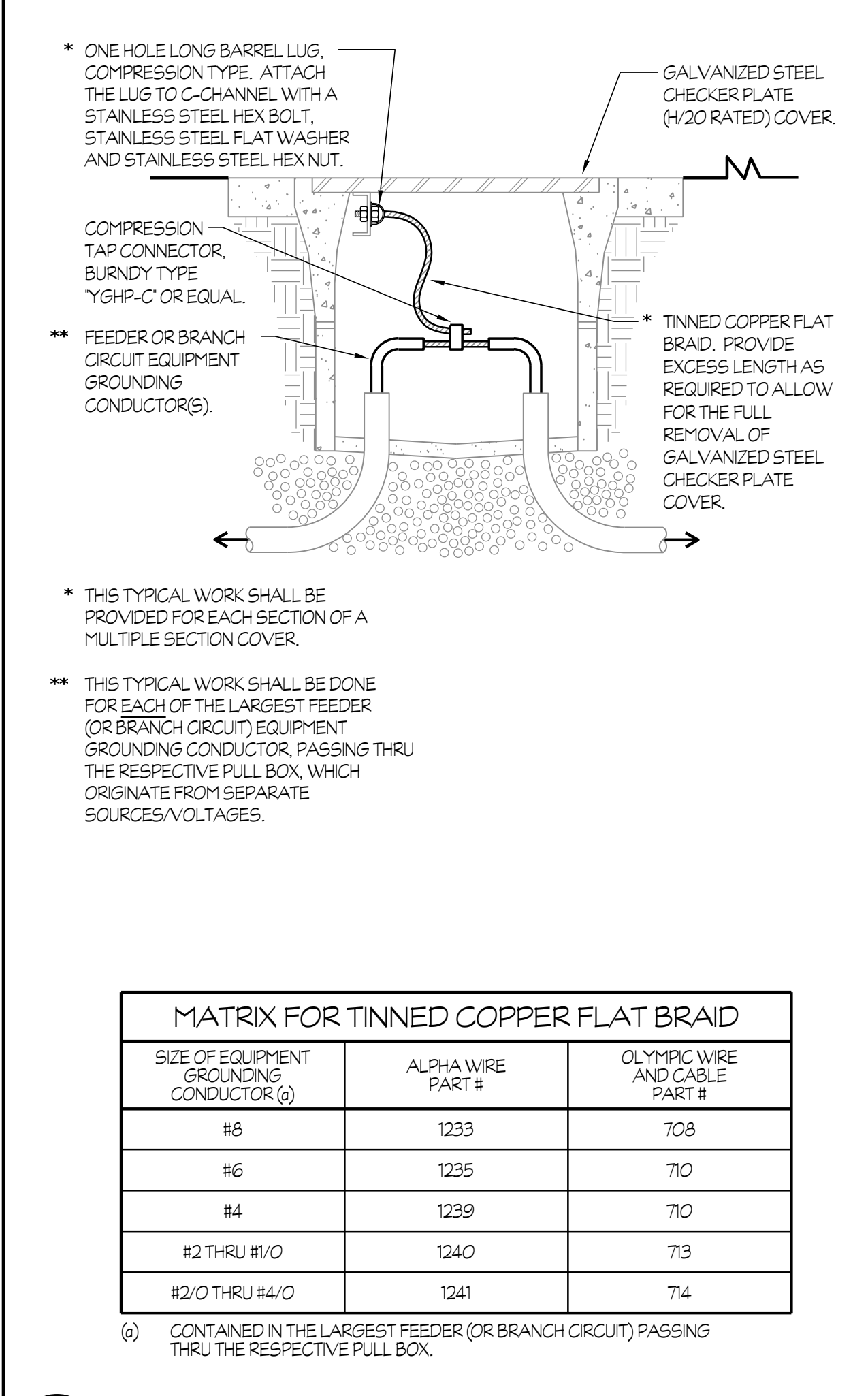
NOTES (THIS DETAIL ONLY):

- SYSTEM BONDING JUMPER PER C.E.C. 250.30 (1).
- FULL SIZE GROUNDING ELECTRODE CONDUCTOR PER C.E.C. TABLE 250.66.
- METAL WATER PIPING PER C.E.C. 250.104.
- SUPPLY-SIDE BONDING JUMPER PER C.E.C. 250.30 (A), (2).
- OTHER ABOVEGROUND METALLIC PIPING SYSTEMS PER C.E.C. 250.104.
- 5/8\"/>

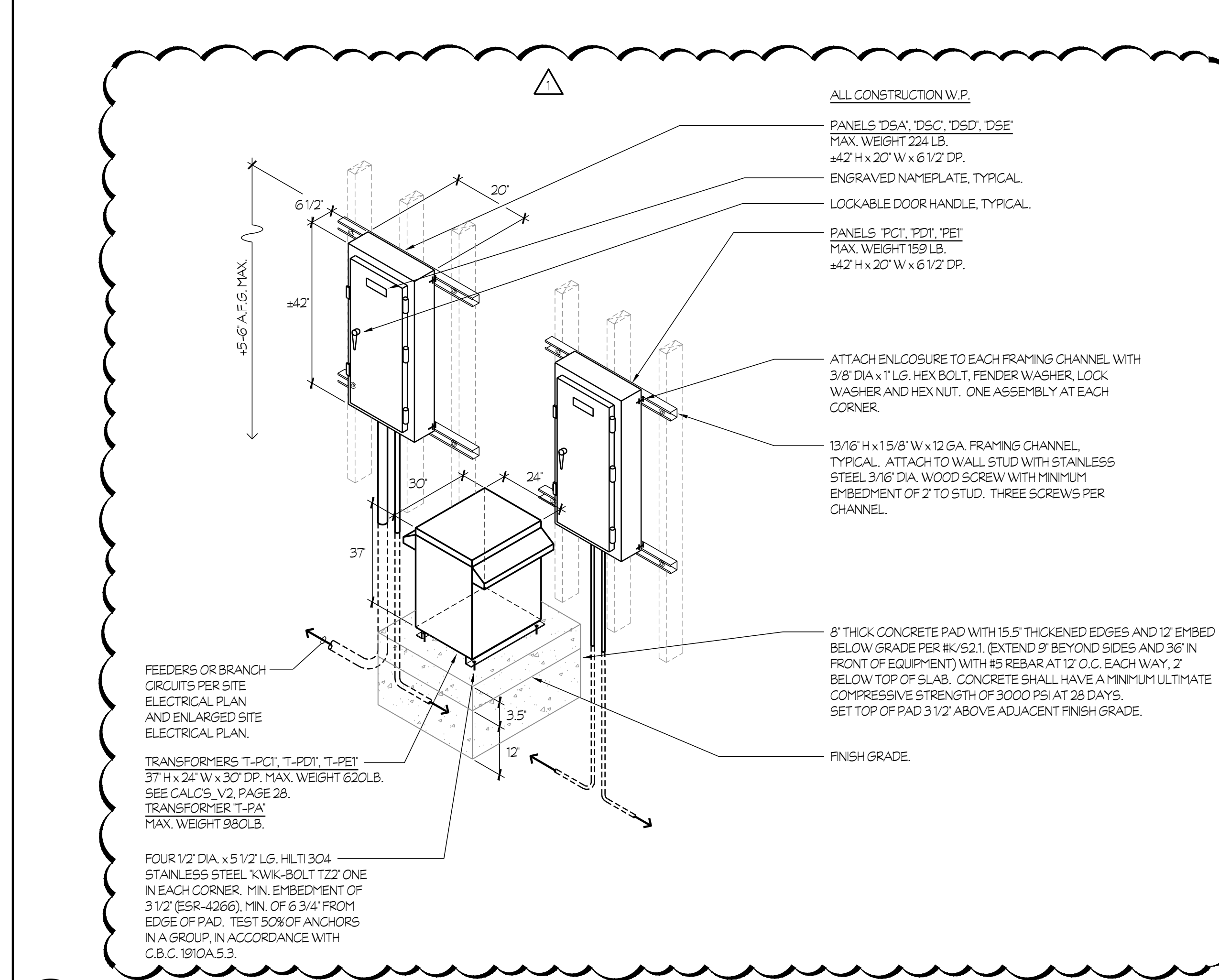
LEGEND:

(G) DENOTES THE GROUND BUS OR BAR.
(N) DENOTES THE NEUTRAL BUS OR BAR.

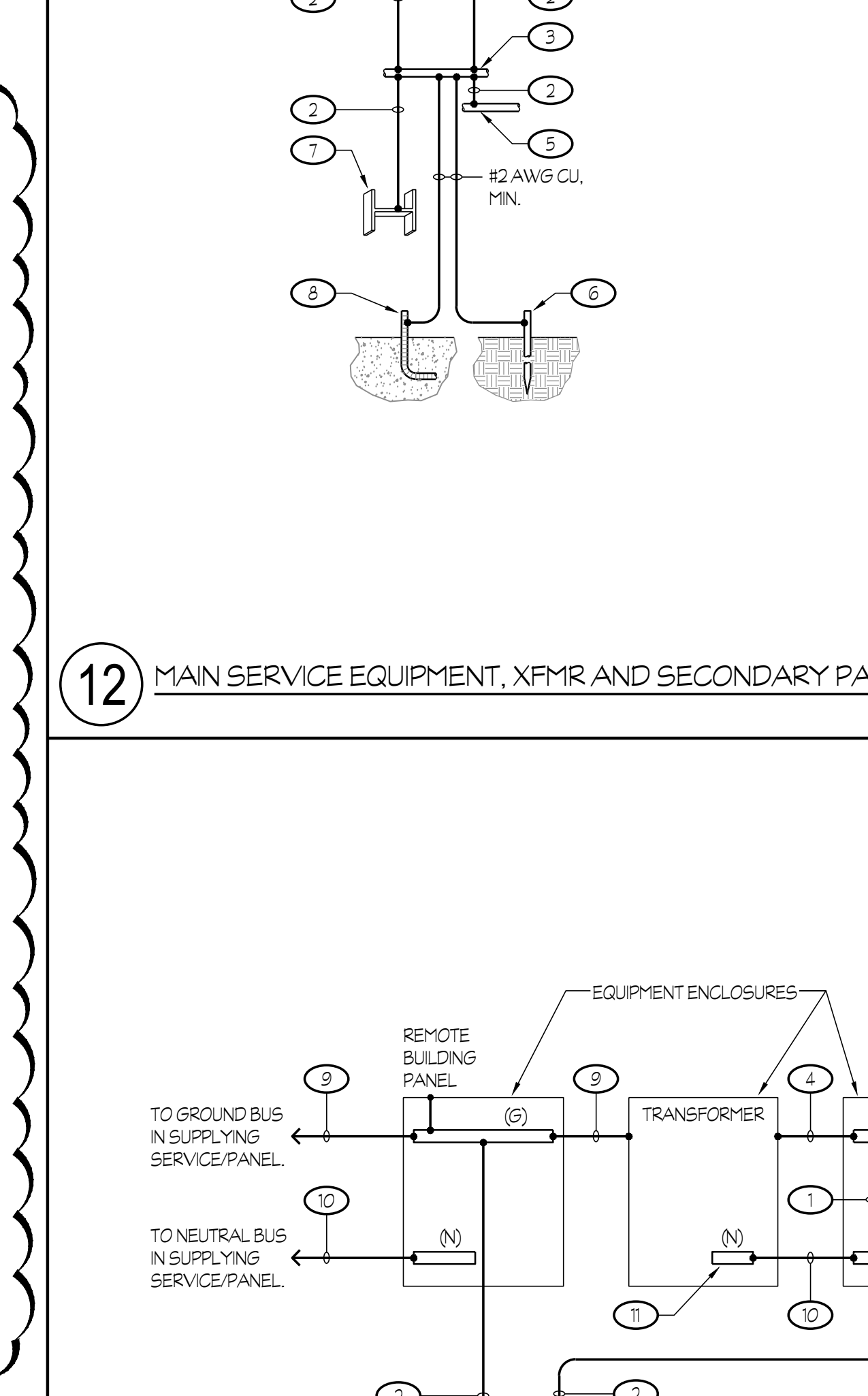
GENERAL NOTE:
ALL MATERIALS AND METHODS USED IN GROUNDING AND BONDING SHALL COMPLY WITH C.E.C. ARTICLE 250.



8 FLUSH MOUNTED PANEL NTS



9 NEW PANEL AND TRANSFORMER MOUNTING NTS



13 REMOTE BUILDING, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS

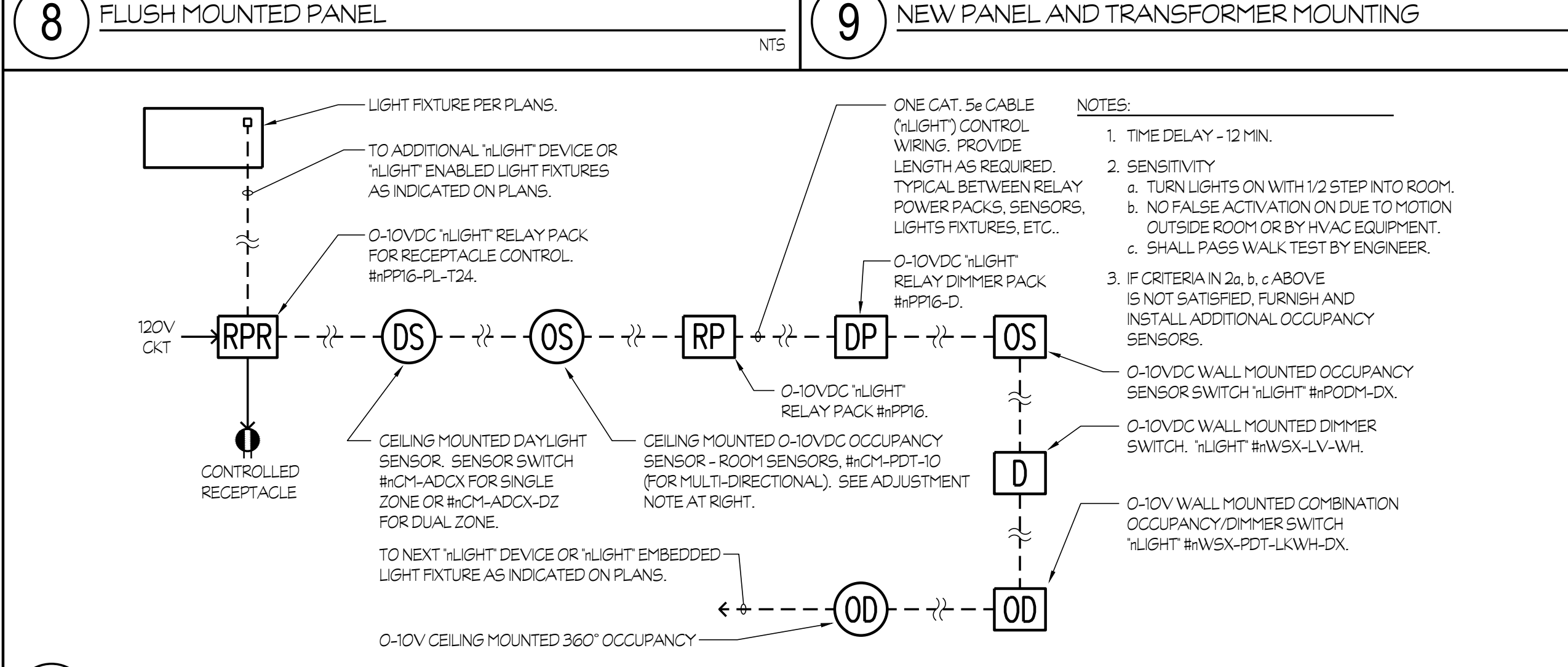
NOTES (THIS DETAIL ONLY):

- SYSTEM BONDING JUMPER PER C.E.C. 250.30 (A), (1). SIZED PER C.E.C. TABLE 250.102 (2), (1).
- FULL SIZE GROUNDING ELECTRODE CONDUCTOR PER C.E.C. TABLE 250.66.
- METAL WATER PIPING PER C.E.C. 250.104 (A).
- SUPPLY-SIDE BONDING JUMPER PER C.E.C. 250.30 (A), (2). SIZED PER C.E.C. TABLE 250.102 (2), (1).
- OTHER METAL PIPING SYSTEMS PER C.E.C. 250.104 (B).
- 5/8\"/>

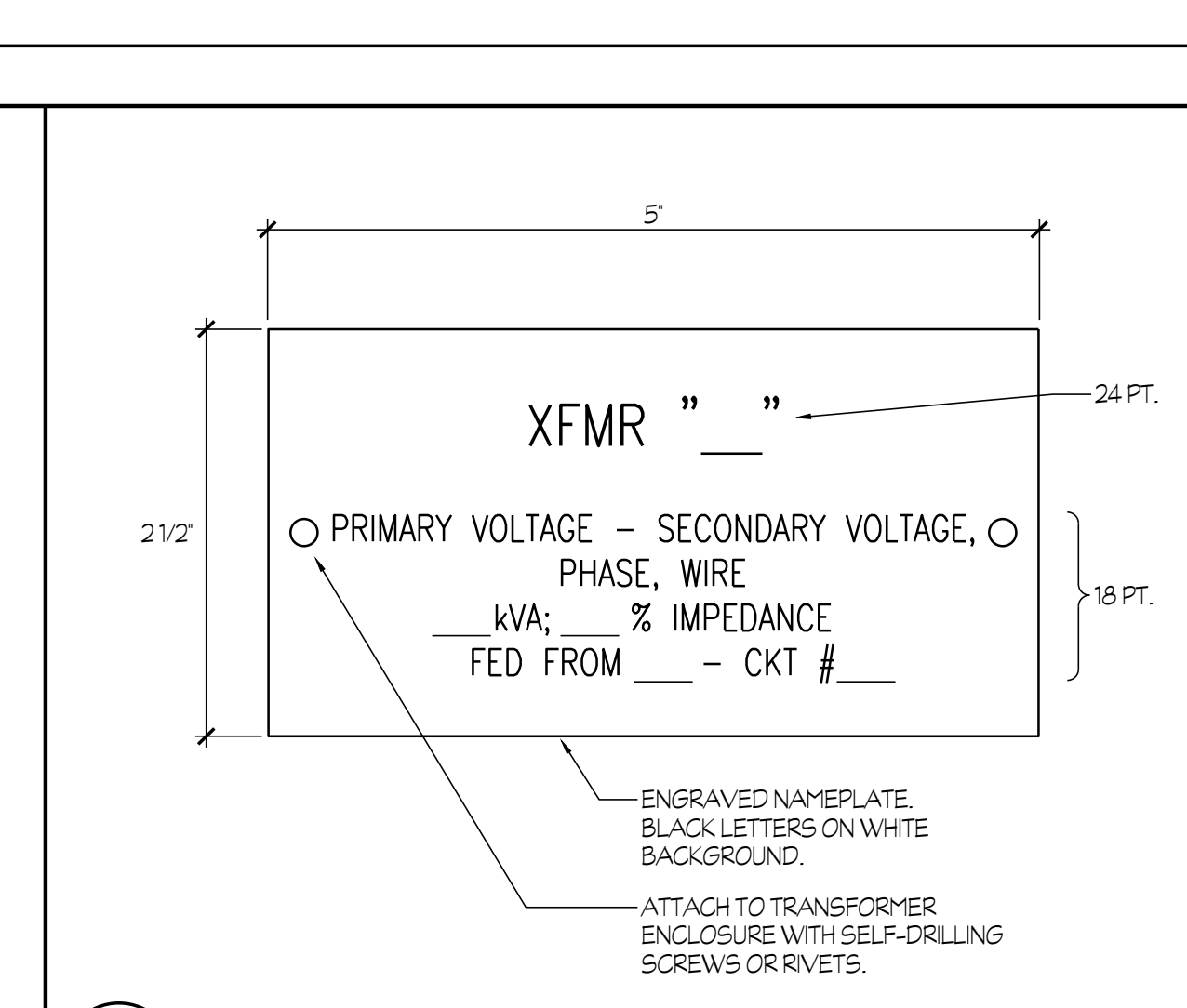
LEGEND:

(G) - DENOTES THE GROUND BUS OR BAR.
(N) - DENOTES THE NEUTRAL BUS OR BAR.
(E) - DENOTES EXISTING.

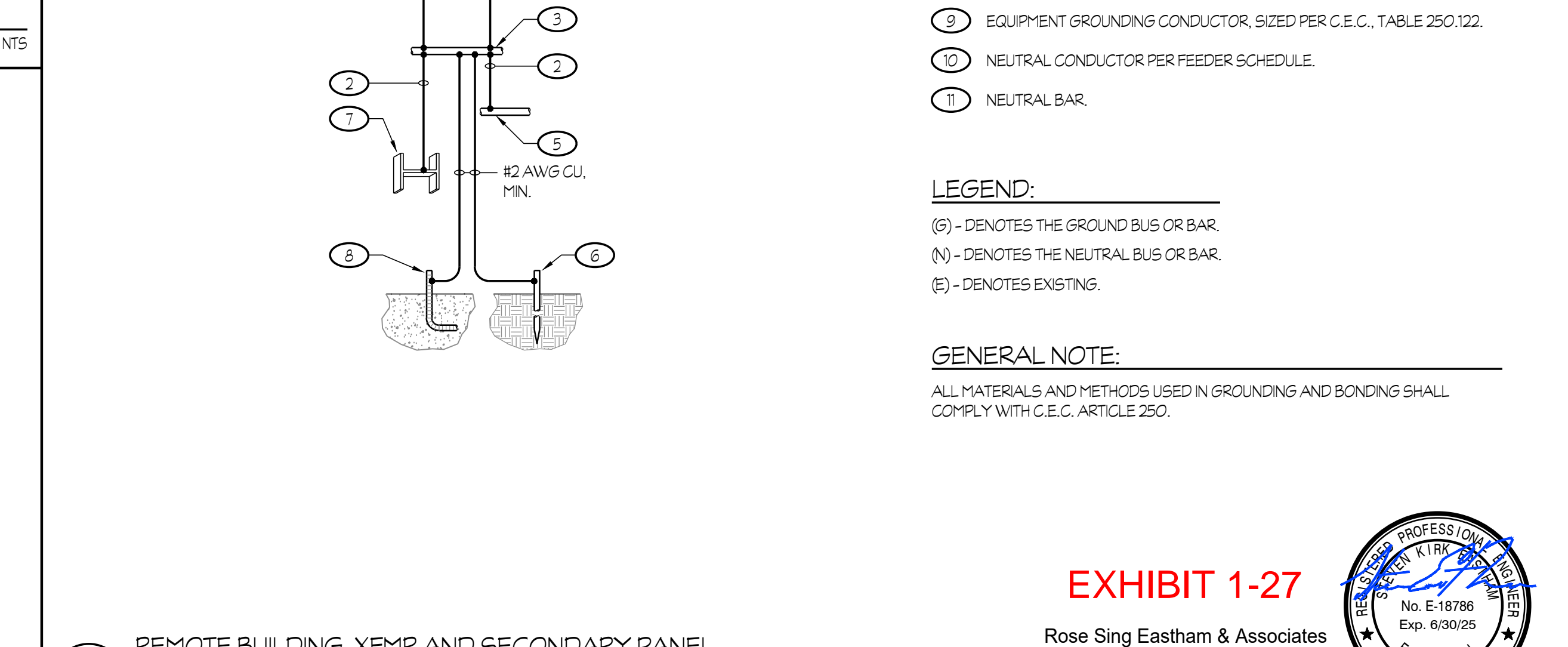
GENERAL NOTE:
ALL MATERIALS AND METHODS USED IN GROUNDING AND BONDING SHALL COMPLY WITH C.E.C. ARTICLE 250.



10 SENSOR SWITCH, 'LIGHT' DEVICES WIRING DIAGRAM NTS



11 TRANSFORMER IDENTIFICATION NAMEPLATE NTS



13 REMOTE BUILDING, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS

Owner: **BAKERSFIELD CITY SCHOOL DISTRICT**

BAKERSFIELD CITY SCHOOL DISTRICT

1300 BAKER STREET BAKERSFIELD, CA 93309

Project Name: **CENTRAL PLANT REPLACEMENT**

Project Address: **MUNSEY ELEMENTARY SCHOOL**
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Sheet Title: **DETAILS**

Job No.: **5524**

Sheet No.: **E5.00**

Release: ADDENDUM #1 Issue Date: 01-17-2024



Bakersfield City School District

1300 Baker Street

Bakersfield, CA 93305-4326

Phone: (661) 631-4600 Fax: (661) 861-9907

PURCHASE ORDER

No: **P24003190**

Date: 08/29/2023

**V
E
N
D
O
R**

SIGLER WHOLESALE DISTRIBUTORS
7021 SCHIRRA CT.
BAKERSFIELD, CA 93313

Phone: (661) 636-0792 Fax: (860) 622-6719

**S
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Bakersfield City School District
Munsey Elementary
3801 Brave Avenue
Bakersfield, CA 93309

For: Maintenance, Operations and Facilities
MUNSEY 22216.00-35-HVAC

Vendor # 295960

Terms: NET 30 DAYS

Due Date: 09/20/2023

Buyer: Melissa Hernandez

Req # R24003692

FOB: N/A

Ship Via: OUR PICK-UP

ITEM	QUANTITY	UNIT	ISSUE	DESCRIPTION	UNIT COST	EXTENSION
1	5	EA		MUNSEY 22216.00-35-HVAC Carrier HP-1.A (5) Ton Unit, Model: 50GCQM06 Electric		
2	15	EA		Carrier HP-7 (4) Ton Unit, Model: 50GCQM05 Electric		
3	3	EA		Carrier HP-10 {1.5} Ton Unit, Model: 40MBCQ18 Electric IDU-(per plan) Indoor Unit		
4	3	EA		Carrier HP-10 {1.5} Ton Unit, Model: 38MARBQ18 Electric ODU-(per plan)Outdoor Unit PRICING PER BID #23-06-01 BOARD APPROVAL DATE: AUGUST 8, 2023		

Special Instructions to Vendor:

- Purchase order number must appear on all invoices, shipping papers and correspondence.
- Submit itemized invoice to the Accounts Payable Office,
1300 Baker Street, Bakersfield, CA 93305
- Packing slip must accompany each delivery, showing PO number, serial number, and description.
- No changes without authorization from the Purchasing Department.
- If freight charges apply, prepay and add to invoice. No C.O.D. charges permitted.
- Receiving hours: 8:00 a.m. - 4:00 p.m., Monday - Friday.
- This PO is a covered transaction for purposes of 49 CFR Part 29. As such, the vendor/contractor certifies that to the best of its knowledge and belief that it and its principals are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.
- MATERIAL SAFETY DATA SHEETS MUST BE SUPPLIED WHERE APPLICABLE**

AUTHORIZED SIGNATURE

David J. West

VENDOR

Page 1 of 1

EXHIBIT 1-28



Proposal

Project Name:	BCSD BID #23-06-01 HVAC EQUIPMENT	Bid Date: 07/17/2023
Location:	Bakersfield, CA	Expiration Date: 08/16/2023
Attention:	ALL BIDDERS	Proposal Number: 0723TVU2087

We are pleased to quote the following equipment for the above referenced project in accordance with attached terms and conditions.

HP-1A	5	50GCQJ06J2M6-0A3A0	5 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> Two-Stage Cooling single circuit 460-3-60 5 Tons Condensate overflow switch Direct drive, EcoBlue, medium static fan Al/Cu cond. coil - Al/Cu evap coil w/Hail Guards Electro-Mechanical Ctl Hinged access panels Ion Generator Factory Start-Up with 1st Year Labor Warranty
HP-1A			Time Guard II <i>(Field Installed)</i>
HP-1A			Fan/Filter Status Switch <i>(Field Installed)</i>
HP-1A			Phase Monitor Control <i>(Field Installed)</i>
HP-1A			5.5 kW Electric Heat Strip <i>(Field Installed)</i>
HP-1A			Hinged Access Door <i>(Field Installed)</i>
HP-1A			Down Discharge Dry Bulb Economizer <i>(Field Installed)</i>
HP-1A			14" Tall Pitched Welded Roof Curb <i>(Field Installed)</i> <i>(Contractor to Verify Prior to Order)</i>

Contractor not required to field verify roof pitch; roof pitch verification provided by the Owner / District.

HP-7	15	50GCQJ05J2M6-0A3A0	4 Ton Heat Pump Rooftop Packaged Unit 460-3-60
			<ul style="list-style-type: none"> • Two-Stage Cooling single circuit (SEER) • 460-3-60 • 4 Tons • Condensate overflow switch • Direct drive, EcoBlue, medium static fan • Al/Cu cond. coil - Al/Cu evap coil w/Hail Guards • Electro-Mechanical Ctl • Hinged access panels • Ion Generator • Factory Start-Up with 1st Year Labor Warranty
HP-7			Time Guard II <i>(Field Installed)</i>
HP-7			Fan/Filter Status Switch <i>(Field Installed)</i>
HP-7			Phase Monitor Control <i>(Field Installed)</i>
HP-7			5.5 kW Electric Heat Strip <i>(Field Installed)</i>
HP-7			Hinged Access Door <i>(Field Installed)</i>
HP-7			Down Discharge Dry Bulb Economizer <i>(Field Installed)</i>
HP-7	14" Tall Pitched Welded Roof Curb <i>(Field Installed)</i> <i>(Contractor to Verify Prior to Order)</i>		

Contractor not required to field verify roof pitch; roof pitch verification provided by the Owner / District.

HP-10	3	38MARBQ18AA3	1.5 Ton Heat Pump Condenser 208/230-1-60
		<ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	
HP-10	3	40MBCQ18---3	1.5 Ton 4-Way Cassette Indoor Unit 208/230-1-60
		<ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	
HP-10		Cassette Grille <i>(Field Installed)</i>	
HP-10			24V Interface Kit <i>(Field Installed)</i>

Please note the following clarifications in this proposal:

- Cancellation requests for factory ordered items greater than 10 calendar days from receipt of Purchase Order will incur 100% cancellation charges.

Bid Excludes:

- Smoke Detectors
- Convenience Outlets
- Disconnects
- ~~Thermostats, Thermostat Wire & Conduit~~ Thermostats will be provided by the Owner / District
- DDC Controls, Control Sensors, Controls Switches, Unitary Interface Controllers
- Parts & Labor For Test & Balance
- Parts & Accessories for Existing Equipment
- Extended Warranties
- Maintenance & Service Contracts, Occupancy Adjustments, and Periodic Cleaning
- Owner Training
- Functional Testing or Equipment Demonstration
- IECC 3rd Party Commissioning Support
- Equipment not mentioned above

Package Units

Excludes:

- **Pleated Filters and Spare Sets of Filters**
- Spare Belts, Drives/ Pulleys
- Roof Curb Adapters or Duct Transitions (If existing is Carrier, an adapter may not be required)
- Roof Curb Cant Strip and Insulation
- External Vibration Isolation Roof Curbs/ Mounts/ Rails/ Seismic Restraints

Warranty:

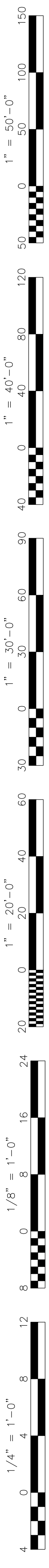
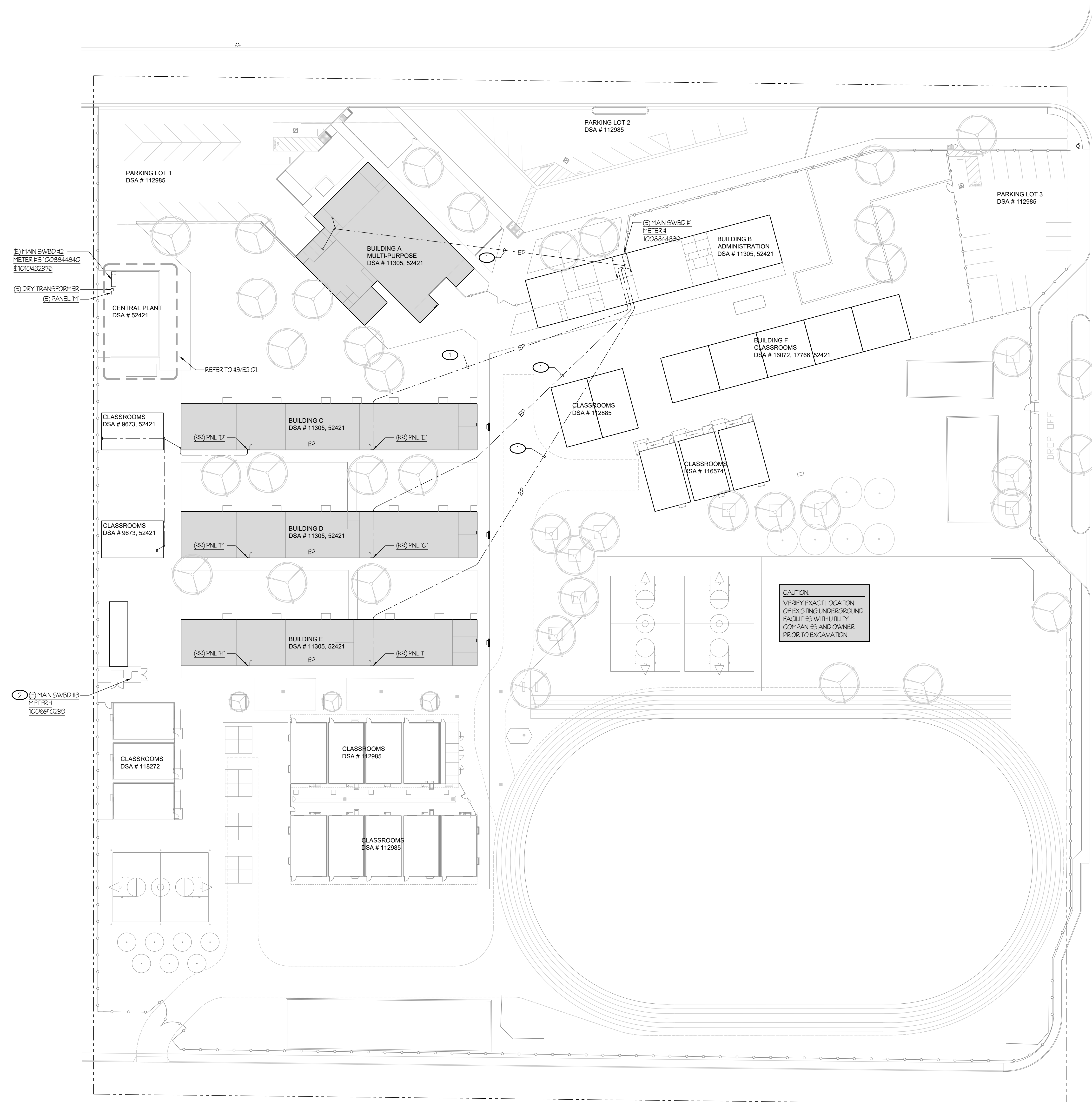
- 1st Year Complete Unit Parts Only
- 5 Year Compressor Parts Only
- 10 Year Heat Exchanger Parts Only

NOTES (THIS SHEET ONLY):

- ① REMOVE CONDUCTORS TO SOURCE OF SUPPLY. CONDUIT SHALL BE MADE SAFE AND ABANDONED.
- ② EXISTING MAIN SWITCHBOARD #3 SHOWN FOR REFERENCE ONLY. NO WORK REQUIRED.

GENERAL NOTE:

CONTRACTOR SHALL SURVEY ALL UNDERGROUND ROUTES FOR EXISTING UTILITIES.

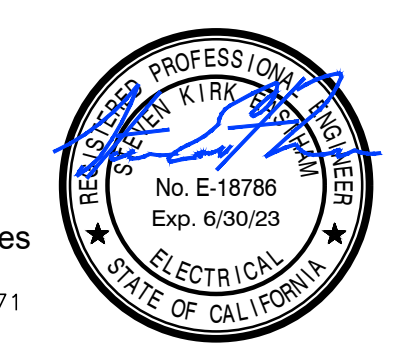


SITE ELECTRICAL PLAN - DEMOLITION
CENTRAL PLANT REPLACEMENT

SCALE: 1" = 30'-0"

EXHIBIT 1-29
EQUIPMENT BID PACKAGE
12/5/22

Rose Sing Eastham & Associates
 Electrical Consultants
 131 S. Dunworth - (559)733-2671
 Visalia, California 93292-6705



BAKERSFIELD CITY SCHOOL DISTRICT
 1300 BAKER STREET
 BAKERSFIELD, CA 93309

CENTRAL PLANT REPLACEMENT

MUNSEY ELEMENTARY SCHOOL
 3801 BRAVE AVENUE
 BAKERSFIELD, CA 93309



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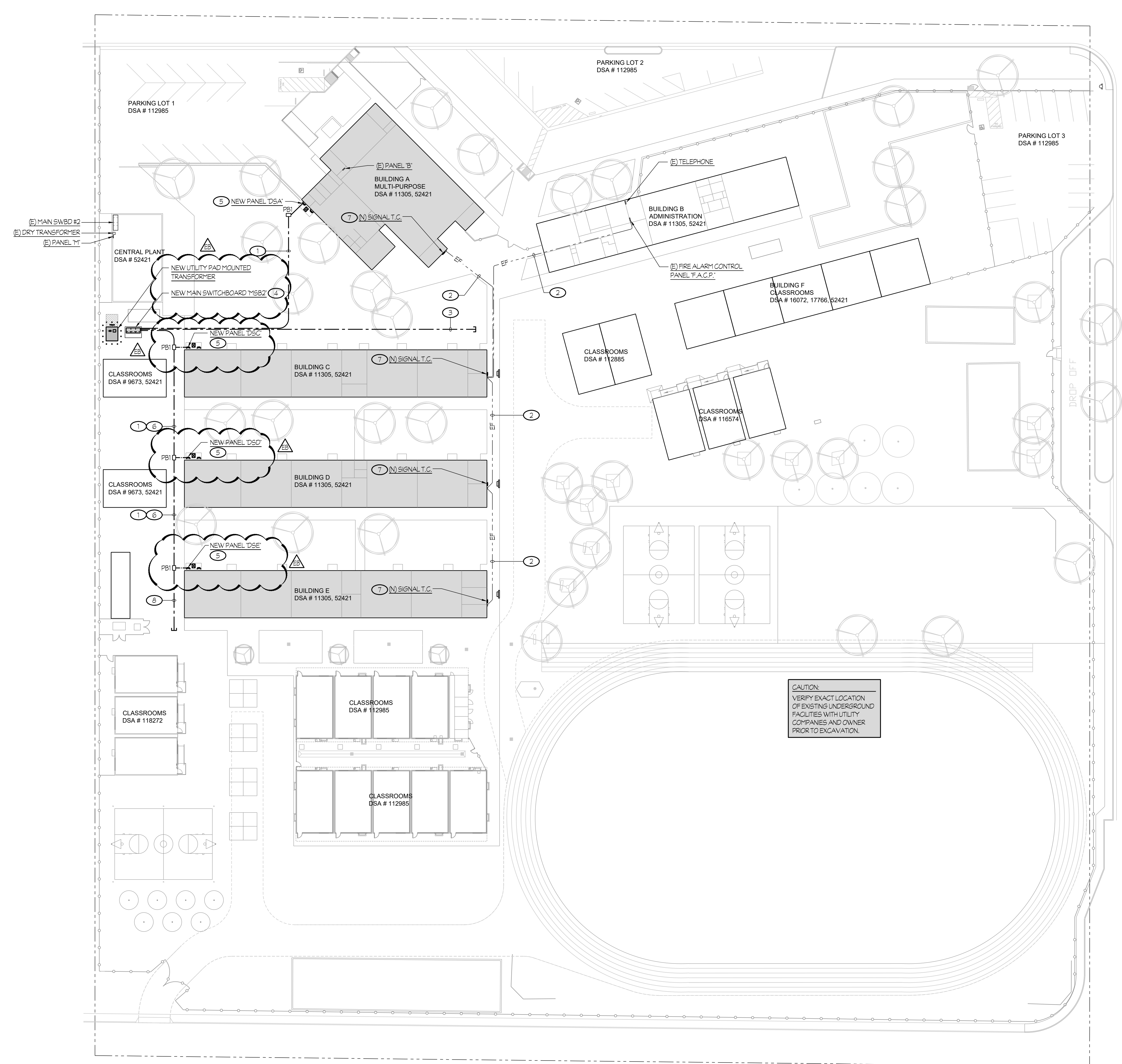
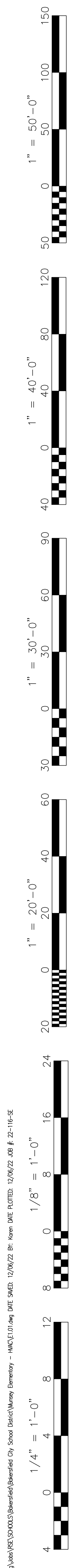
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SITE ELECTRICAL PLAN - DEMOLITION

Job No.: **5524**

Sheet No.: **E1.00**

Release: DSA BACKCHECK Issue Date: 11-18-2022



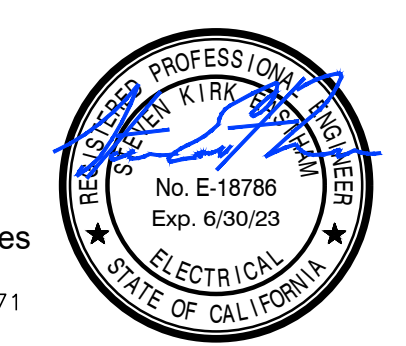
- NOTES (THIS SHEET ONLY):**
- 1 PROVIDE NEW CONDUIT AND CONNECTORS PER ONE LINE DIAGRAM, SHEET #E4.01.
 - 2 PROVIDE NEW FIRE ALARM CABLES PER RISER DIAGRAM, SHEET #E3.21.
 - 3 STUBOUT TO PICK-UP EXISTING OLD SERVICE IN FUTURE PER ONE LINE DIAGRAM, SHEET #E4.01.
 - 4 REFER TO DETAIL #17/E5.00 FOR MOUNTING REQUIREMENTS.
 - 5 REFER TO DETAIL #9/E5.00 FOR MOUNTING REQUIREMENTS.
 - 6 REFER TO TRENCH DETAIL #4/E5.00 FOR REQUIREMENTS.
 - 7 REFER TO DETAIL #6/E3.22 FOR MOUNTING REQUIREMENTS.
 - 8 STUBOUT FOR FUTURE PORTABLES, REFER TO ONE LINE DIAGRAM, SHEET #E4.01.


SITE ELECTRICAL PLAN
CENTRAL PLANT REPLACEMENT

SCALE: 1" = 30'-0"

EXHIBIT 1-30
EQUIPMENT BID PACKAGE
12/5/22

Rose Sing Eastham & Associates
 Electrical Consultants
 131 S. Dunworth - (559)733-2671
 Visalia, California 93292-6705



Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
 1300 BAKER STREET
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Project Name:
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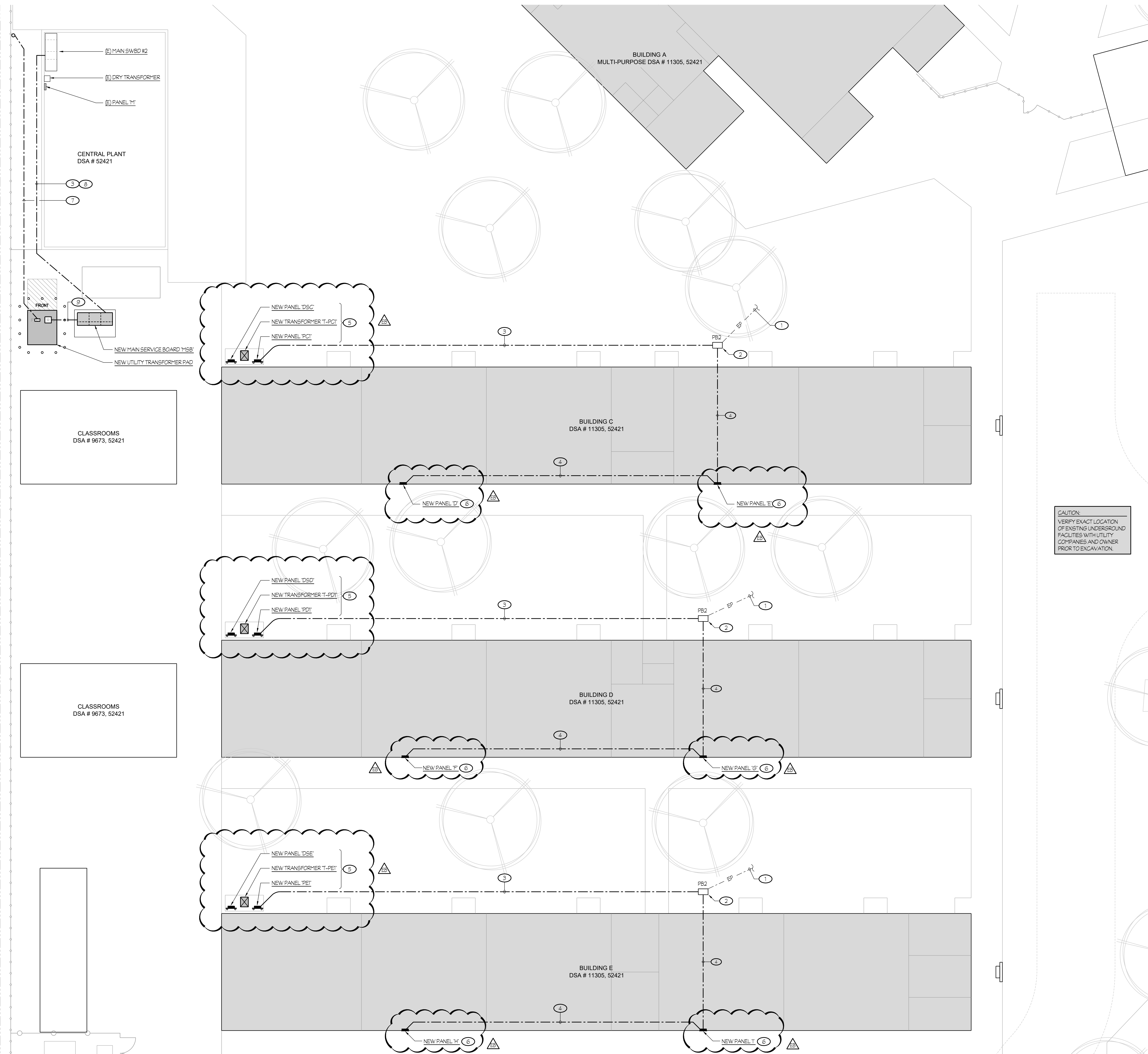
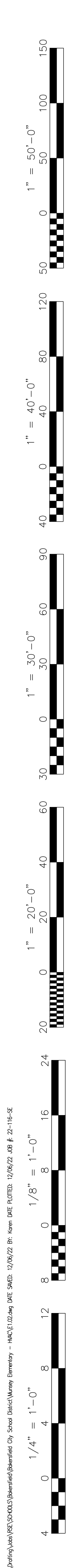
Stamp:

Sheet Title:
SITE ELECTRICAL PLAN

Job No.:
5524

Sheet No.:
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Release: DSA BACKCHECK Issue Date: 11-18-2022



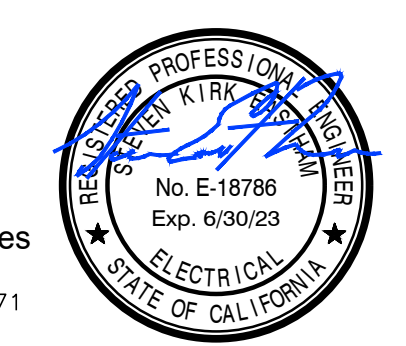
- NOTES (THIS SHEET ONLY):**
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 - 2 INTERCEPT EXISTING CONDUIT WITH NEW PULL BOX, PER DETAIL H5/E5.00.
 - 3 NEW CONDUIT AND CONDUCTORS PER ONE LINE DIAGRAM, SHEET H4.01.
 - 4 EXISTING CONDUIT, NEW CONDUCTORS PER ONE LINE DIAGRAM, SHEET H4.01.
 - 5 REFER TO DETAIL H9/E5.00 FOR MOUNTING REQUIREMENTS.
 - 6 REFER TO DETAIL H6/E5.00 FOR MOUNTING REQUIREMENTS.
 - 7 PROVIDE NEW CONDUIT PER APPROVED UTILITY DRAWINGS EXPECTED TO BE (1) 5' CONDUIT.
 - 8 PROVIDE TEMPORARY CONNECTION TO CHILLER SECTION FOR OPERATION OF EQUIPMENT DURING CONSTRUCTION PHASES. CONNECTION SHALL BE REMOVED AT END OF PROJECT.
 - 9 PROVIDE NEW CONDUIT PER APPROVED UTILITY DRAWINGS EXPECTED TO BE (6) 4' CONDUITS.

**ENLARGED SITE ELECTRICAL PLAN
CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 10'-0"

EXHIBIT 1-31
EQUIPMENT BID PACKAGE
12/5/22

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705



Owner:
BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93309

Project Name:
CENTRAL PLANT REPLACEMENT

Project Address:
MUNSEY ELEMENTARY SCHOOL
3801 BRAVE AVENUE
BAKERSFIELD, CA 93309

integrated designs
by SOMAM, Inc.
ARCHITECTURE
ENGINEERING
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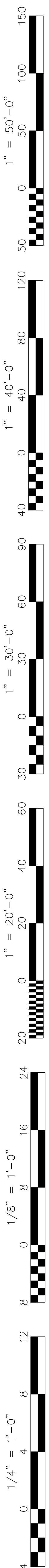
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Sheet Title:
ENLARGED SITE ELECTRICAL PLAN

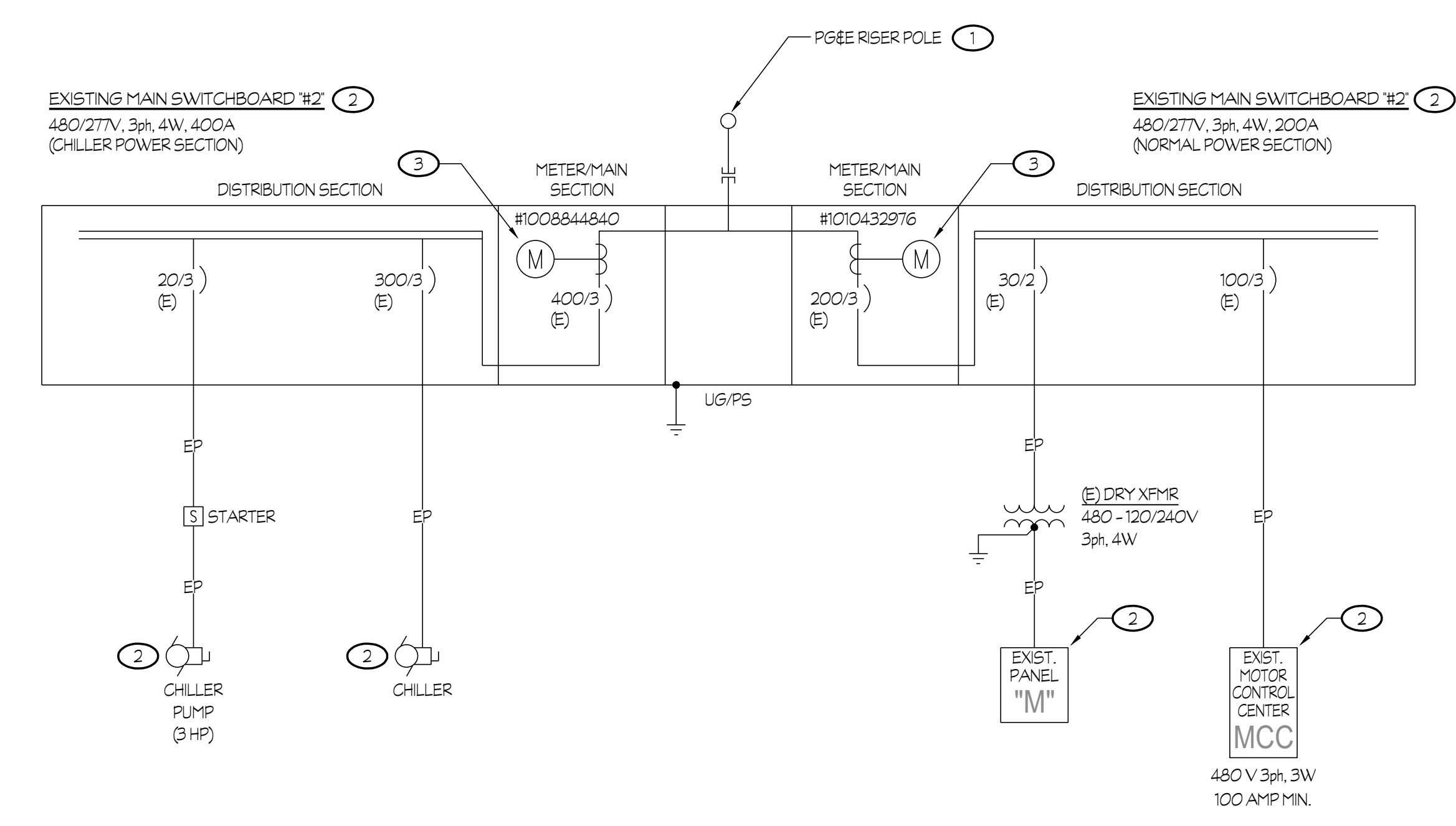
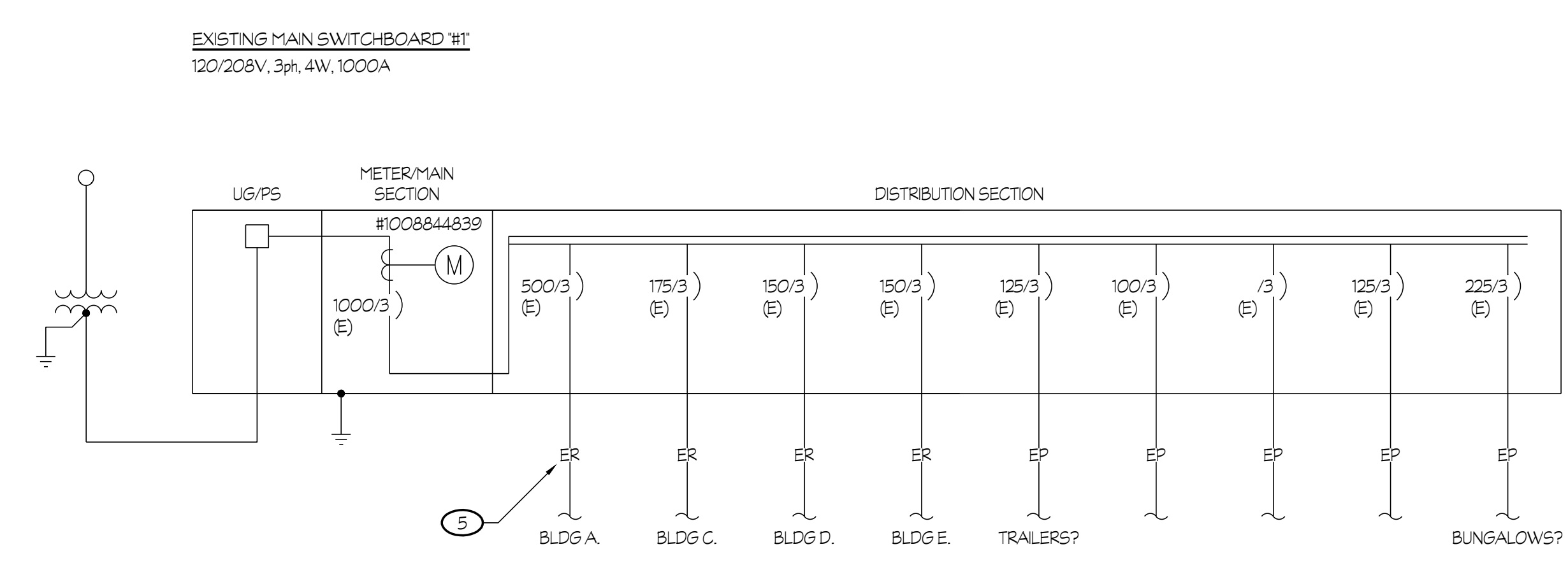
Job No.:
5524

Sheet No.:
E1.02

Release: DSA BACKCHECK Issue Date: 11-18-2022



- NOTES (THIS SHEET ONLY):**
- 1 EXISTING UTILITY FEED SHALL BE DISCONNECTED. PROVIDE NEW CONNECTION FROM NEW BOARD #MSB2 TO FEED EXISTING BOARD DURING CONSTRUCTION, AS SHOWN ON SHEET E4.01.
 - 2 EXISTING CHILLER EQUIPMENT SHALL REMAIN IN SERVICE DURING CONSTRUCTION ACTIVITIES. EQUIPMENT SHALL BE DISCONNECTED AND REMOVED AT THE END OF NEW CONSTRUCTION.
 - 3 RETURN UTILITY METER EQUIPMENT TO UTILITY COMPANY AND PROVIDE CONNECTION TO POWER DISTRIBUTION BOARDS.
 - 4 EP _____ DENOTES EXISTING FEEDER AND/OR SPARE CONDUIT(S) SHALL REMAIN, UNLESS OTHERWISE NOTED.
 - 5 ER _____ DENOTES EXISTING BRANCH CIRCUITING/HOMERUN TO BE REMOVED.

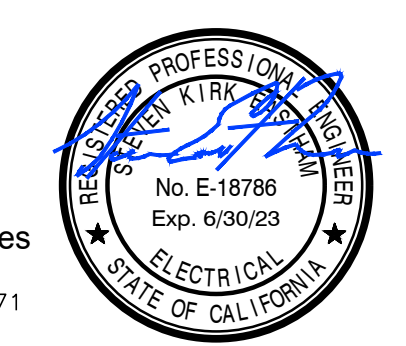



1 EXISTING ONE LINE DIAGRAM

SCALE: NTS

EXHIBIT 1-32
EQUIPMENT BID PACKAGE
12/5/22

Rose Sing Eastham & Associates
 Electrical Consultants
 131 S. Dunworth - (559)733-2671
 Visalia, California 93292-6705



Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
 1300 BAKER STREET
 BAKERSFIELD, CA 93309

Project Name:
CENTRAL PLANT REPLACEMENT

Project Address:
MUNSEY ELEMENTARY SCHOOL
 3801 BRAVE AVENUE
 BAKERSFIELD, CA 93309


integrated designs
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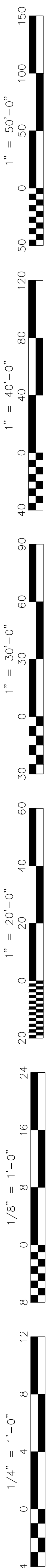
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Sheet Title:
ONE LINE DIAGRAM - DEMO

Job No.:
5524

Sheet No.:
E4.00

Release: DSA BACKCHECK Issue Date: 11-18-2022



NEW MAIN SWBD 'MSB2' LOAD CALCULATION:

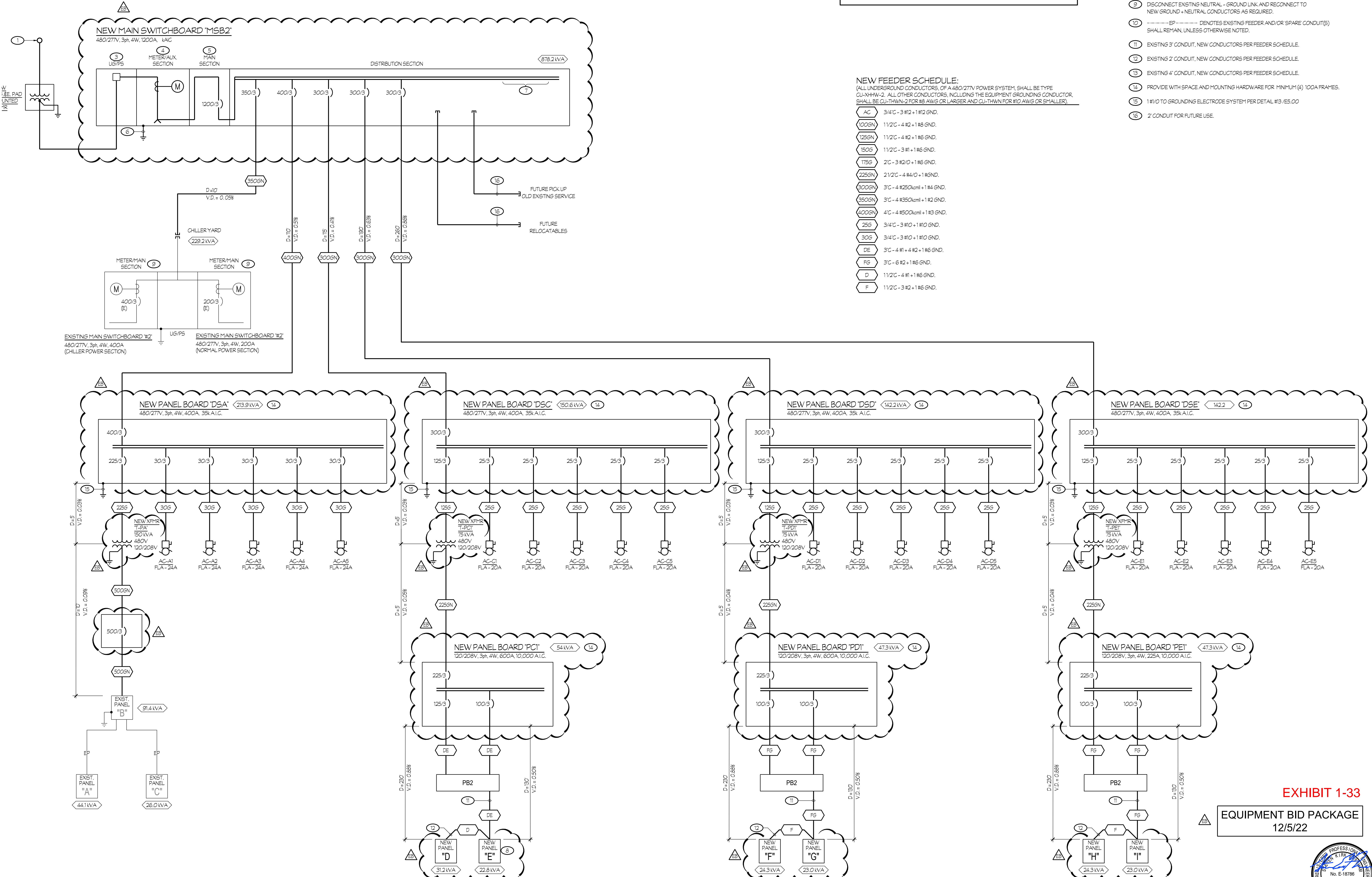
MAXIMUM DEMAND PER P.G. & E. RECORDS	114.6 kVA
PLUS DEMAND FACTOR PER C.E.C. 220.35	28.7 kVA
SUB-TOTAL	143.3 kVA
NEW 'CONNECTED' LOAD BEING ADDED	649.0 kVA
BUILDINGS A.C.D.E	300 kVA
H.V.A.C. x125%	349 kVA
SUB-TOTAL	792.3 kVA
AT 480/277V 3PH 4W	853 AMP

THEREFORE, THE NEW 1200 AMP MAIN SWITCHBOARD IS SUFFICIENT.

- NOTES (THIS SHEET ONLY):**
- EXISTING P.G. & E. POWER POLE. VERIFY EXACT LOCATION AND RISER QUADRANT WITH P.G. & E. PRIOR TO ROUGH-IN.
 - PROVIDE A 106" x 90" CONCRETE PAD (STYLE 11 E) AND GROUNDING FOR P.G. & E. PAD MOUNTED TRANSFORMER PER P.G. & E. REQUIREMENTS.
 - PROVIDE LANDING LUGS PER P.G. & E. REQUIREMENTS.
 - PROVIDE METERING FACILITIES PER P.G. & E. REQUIREMENTS.
 - MAIN CIRCUIT BREAKER SHALL BE 100% RATED ELECTRONIC TYPE, EQUIPPED WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS-OFF TYPE AND GROUND FAULT TYPE CONFIGURATIONS. MAIN CIRCUIT BREAKER SHALL ALSO BE EQUIPPED WITH A TRIP INDICATOR AND LOCAL CURRENT METER. SQUARE D HRK SERIES OR EQUAL.
 - 1#3/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #12/ES.00
 - PROVIDE WITH SPACE AND MOUNTING HARDWARE FOR MINIMUM (6) 400A FRAMES.
 - REFER TO PANEL SCHEDULE ON SHEET E4.02 FOR ADDITIONAL INFORMATION. TYPICAL FOR NEW PANELS SHOWN.
 - DISCONNECT EXISTING NEUTRAL - GROUND LINK AND RECONNECT TO NEW GROUND + NEUTRAL CONDUCTORS AS REQUIRED.
 - EP ----- DENOTES EXISTING FEEDER AND/OR SPARE CONDUIT(S) SHALL REMAIN, UNLESS OTHERWISE NOTED.
 - EXISTING 3" CONDUIT, NEW CONDUCTORS PER FEEDER SCHEDULE.
 - EXISTING 2" CONDUIT, NEW CONDUCTORS PER FEEDER SCHEDULE.
 - EXISTING 4" CONDUIT, NEW CONDUCTORS PER FEEDER SCHEDULE.
 - PROVIDE WITH SPACE AND MOUNTING HARDWARE FOR MINIMUM (4) 100A FRAMES.
 - 1#1/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #13/ES.00
 - 2" CONDUIT FOR FUTURE USE.

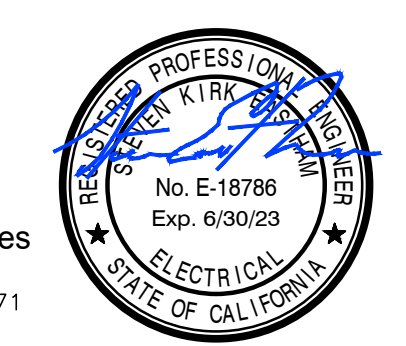
NEW FEEDER SCHEDULE:
(ALL UNDERGROUND CONDUCTORS OF A 480/277V POWER SYSTEM SHALL BE TYPE CU-XHHW-2. ALL OTHER CONDUCTORS, INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER.)

AC	3/4" C - 3 #12 + 1 #12 GND.
1000N	1 1/2" C - 4 #2 + 1 #8 GND.
1250N	1 1/2" C - 4 #2 + 1 #8 GND.
1500	1 1/2" C - 3 #1 + 1 #6 GND.
1750	2" C - 3 #2/0 + 1 #6 GND.
2250	2 1/2" C - 4 #4/0 + 1 #6 GND.
3000N	3" C - 4 #250kcmil + 1 #4 GND.
3500N	3" C - 4 #350kcmil + 1 #2 GND.
4000N	4" C - 4 #500kcmil + 1 #3 GND.
250	3/4" C - 3 #10 + 1 #10 GND.
300	3/4" C - 3 #10 + 1 #10 GND.
DE	3" C - 4 #1 + 4 #2 + 1 #6 GND.
FG	3" C - 6 #2 + 1 #6 GND.
D	1 1/2" C - 4 #1 + 1 #6 GND.
F	1 1/2" C - 3 #2 + 1 #6 GND.



1 NEW ONE LINE DIAGRAM

EXHIBIT 1-33
EQUIPMENT BID PACKAGE
12/5/22



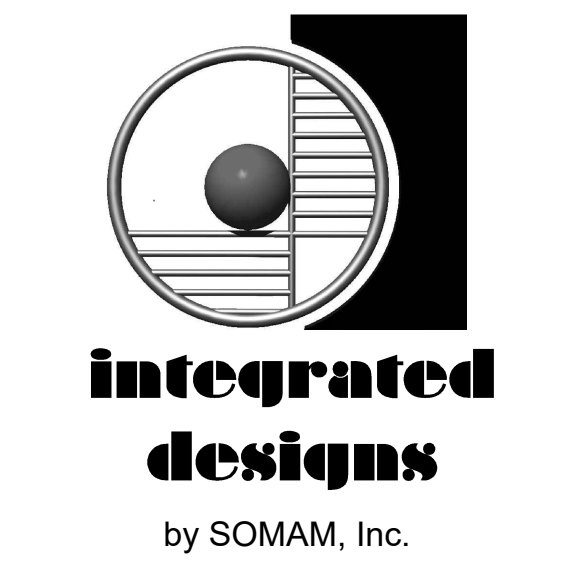
Rose Sing Eastham & Associates
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CENTRAL PLANT REPLACEMENT

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Sheet Title:
NEW ONE LINE DIAGRAM

Job No.:
5524

Sheet No.:
E4.01

Release: DSA BACKCHECK Issue Date: 11-18-2022

SCALE: NTS

120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	15/1	500				(E) LOAD						(E) LOAD	
3	15/1		500			(E) LOAD		500				(E) LOAD	
5	15/1			500		(E) LOAD			500			(E) LOAD	
7	15/1	500				(E) LOAD				500		(E) LOAD	
9	15/1		500			(E) LOAD			500			(E) LOAD	
11	15/1			500		(E) LOAD				500		(E) LOAD	
13	15/1	500				(E) LOAD				500		(E) LOAD	
15	15/1		500			(E) LOAD			500			(E) LOAD	
17	15/1			500		(E) LOAD				500		(E) LOAD	
19	15/1	500				(E) LOAD					500	(E) LOAD	
21	15/1		500			(E) LOAD			500			(E) LOAD	
23	15/1			500		(E) LOAD				500		(E) LOAD	
25	15/1	500				(E) LOAD				500		(E) LOAD	
27	15/1		500			(E) LOAD			500			(E) LOAD	
29	15/1			500		(E) LOAD				500		(E) LOAD	
31	15/1	500				(E) LOAD				500		(E) LOAD	
33	20/1		1000			(E) LOAD			1000			(E) LOAD	
35	25/2			1664		ODU A-1						FIRE ALARM "P.E.P."	
37		1664				SPACE						SPACE	
39						SPACE						SPACE	
41						SPACE						SPACE	
42						SPACE						SPACE	

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 21828 VA
CONNECTED LOAD (VA):			7664	7000	7164	
25% LCL/LML (VA):			0	0	0	
TOTAL LOAD (VA):			7664	7000	7164	
TOTAL LOAD (AMPS):			63.9	58.3	59.7	

120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	20/1	720				RECEPT - TEACHER WALL				516		20/1	2
3	20/1		720			RECEPT - TEACHER WALL				516		20/1	4
5	20/1			720		RECEPT - TEACHER WALL				516		20/1	6
7	20/1	600				AIR PURIFIER						20/1	8
9	20/1		600			AIR PURIFIER						20/1	10
11	20/1			600		AIR PURIFIER						20/1	12
13	15/1	1000				RECEPT -				1000		15/1	14
15	15/1		1000			RECEPT -				1000		15/1	16
17	15/1			1000		RECEPT -				1000		15/1	18
19	15/1	1000				RECEPT -					1500	20/3	20
21	15/1		1000			RECEPT -				1500			22
23	15/1			1000		RECEPT -				1500			24
25	15/1	1000				RECEPT -							26
27	15/2		800			EXISTING - EQUIP.						40/2	28
29				800		EXISTING - EQUIP.							30

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 21995 VA
CONNECTED LOAD (VA):			7336	7136	7136	
25% LCL/LML (VA):			129	129	129	
TOTAL LOAD (VA):			7465	7265	7265	
TOTAL LOAD (AMPS):			62.2	60.5	60.5	

120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	20/1	720				RECEPT - TEACHER WALL				516		20/1	2
3	20/1		720			RECEPT - TEACHER WALL				516		20/1	4
5	20/1			720		RECEPT - TEACHER WALL				516		20/1	6
7	20/1	600				AIR PURIFIER				406		20/1	8
9	20/1		600			AIR PURIFIER						20/1	10
11	20/1			600		AIR PURIFIER						20/1	12
13	15/1	1000				RECEPT -				1000		15/1	14
15	15/1		1000			RECEPT -				1000		15/1	16
17	15/1			1000		RECEPT -				1000		15/1	18
19	15/1	1000				RECEPT -					1500	20/3	20
21	20/1					FIRE ALARM "P.E.P.-2"				1500			22
23	20/1					SPARE				1500			24
25	20/1					SPARE							26
27	15/2					EXISTING - EQUIP.							28
29						EXISTING - EQUIP.							30

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 18118 VA
CONNECTED LOAD (VA):			6336	5336	6086	
25% LCL/LML (VA):			129	129	102	
TOTAL LOAD (VA):			6465	5465	6188	
TOTAL LOAD (AMPS):			53.9	45.5	51.6	

120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	20/1	720				RECEPT - TEACHER WALL				516		20/1	2
3	20/1		720			RECEPT - TEACHER WALL				516		20/1	4
5	20/1			720		RECEPT - TEACHER WALL				516		20/1	6
7	20/1	600				AIR PURIFIER						20/1	8
9	20/1		600			AIR PURIFIER						20/1	10
11	20/1			600		AIR PURIFIER						20/1	12
13	15/1	1000				RECEPT -				1000		15/1	14
15	15/1		1000			RECEPT -				1000		15/1	16
17	15/1			1000		RECEPT -				1000		15/1	18
19	15/1	1000				RECEPT -					1500	20/3	20
21	15/1		1000			RECEPT -				1500			22
23	15/1			1000		RECEPT -				1500			24
25	15/1	1000				RECEPT -							26
27	15/2		800			EXISTING - EQUIP.							28
29				800		EXISTING - EQUIP.							30

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 21995 VA
CONNECTED LOAD (VA):			7336	7136	7136	
25% LCL/LML (VA):			129	129	129	
TOTAL LOAD (VA):			7465	7265	7265	
TOTAL LOAD (AMPS):			62.2	60.5	60.5	

120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	20/1	720				RECEPT - TEACHER WALL				516		20/1	2
3	20/1		720			RECEPT - TEACHER WALL				516		20/1	4
5	20/1			600		AIR PURIFIER				406		20/1	6
7	20/1					SPARE						20/1	8
9	20/1		600			AIR PURIFIER						20/1	10
11	20/1			500		MECHANICAL CONTROLS				1080		20/1	12
13	15/1	1000				RECEPT -				1000		15/1	14
15	15/1		1000			RECEPT -				1000		15/1	16
17	15/1			1000		RECEPT -				1000		15/1	18
19	15/1	1000				RECEPT -					1500	20/3	20
21	20/1					SPARE				1500			22
23	20/1					SPARE				1500			24
25	20/1					SPARE							26
27	15/2					EXISTING - EQUIP.							28
29						EXISTING - EQUIP.							30

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 17518 VA
CONNECTED LOAD (VA):			5736	5336	6086	
25% LCL/LML (VA):			129	129	102	
TOTAL LOAD (VA):			5865	5465	6188	
TOTAL LOAD (AMPS):			48.9	45.5	51.6	

120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00										
Ckt	Ckt	LOAD: V.A.			C	DESCRIPTION	LOAD: V.A.			C	DESCRIPTION	C	DESCRIPTION
		A	B	C			A	B	C				
1	20/1	720				RECEPT - TEACHER WALL				516		20/1	2
3	20/1		720			RECEPT - TEACHER WALL				516		20/1	4
5	20/1			720		RECEPT - TEACHER WALL				516		20/1	6
7	20/1	600				AIR PURIFIER						20/1	8
9	20/1		600			AIR PURIFIER						20/1	10
11	20/1			600		AIR PURIFIER						20/1	12
13	15/1	1000				RECEPT -				1000		15/1	14
15	15/1		1000			RECEPT -				1000		15/1	16
17	15/1			1000		RECEPT -				1000		15/1	18
19	15/1	1000				RECEPT -					1500	20/3	20
21	15/1		1000			RECEPT -				1500			22
23	15/1			1000		RECEPT -				1500			24
25	15/1	1000				RECEPT -							26
27	15/2		800			EXISTING - EQUIP.							28
29				800		EXISTING - EQUIP.							30

LOAD SUMMARY			A	B	C	TOTAL CALCULATED LOAD FOR PANEL: 21995 VA
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120/208V, 3 PH, 4 W 100 A. BUSSING MAIN LUG ONLY 30 CIRCUIT			10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH FLUSH MOUNTING PER #6/E5.00</		
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S. C. ANDERSON, INC.
Request for Information

Project Title: Munsey Elementary School HVAC Replacement

Date: _____ **Contractor:** _____

Question By: _____ **Fax No.:** _____

Phone No.: _____

Drawing Reference: _____

Detail Reference: _____

Specification Reference: _____

Addendum Reference: _____

Question:

Contractor's Recommendation:
