



**VENTURA UNIFIED SCHOOL DISTRICT
ELMHURST ELEMENTARY SCHOOL HVAC REPLACEMENT**

BID # E1-24

JANUARY 17TH 2025

ADDENDUM #01

NOTICE TO BIDDERS:

The following revisions and/or clarifications shall be made to the bidding requirements and contract documents. Revise and amend the documents for the above-named project in accordance with this addendum. The bid shall reflect these addendum changes and each bidder shall refer in their bid to this addendum.

All bidding requirements and contract documents shall apply to this addendum as originally indicated in the applicable portions of the contract documents, unless otherwise modified by this addendum.

Contractors shall acknowledge this addendum at the space provided on the Bid Proposal.

REVISIONS, CLARIFICATIONS, & RESPONSES TO PRE-BID RFI'S:

1. Review Addendum Number One by KBZ dated January 17th 2025.

REVISIONS TO THE PLANS: A-600, A-601, E102, E103

REVISIONS TO THE SPECIFICATIONS: Section 07 5630 Added

END OF ADDENDUM #01

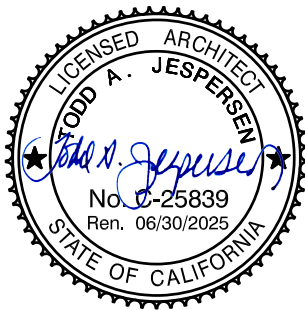
Addendum: 1 Page

ENCLOSURES: 21 Pages

Total Number of Pages: 22

ADDENDUM NUMBER ONE

January 17, 2025

**E1-24 ELMHURST HVAC**

5080 Elmhurst St
Ventura, CA 93003

Issued By:

KRUGER BENSEN ZIEMER ARCHITECTS, INC.

199 Figueroa St, Ste 100A
Ventura, CA 93001

To all bidders submitting proposal(s) for the captioned project: this Addendum is hereby made part of the Contract Documents to the same extent as though it was originally included therein and takes precedence over the original documents and any previous addenda.

Acknowledge receipt of the Addendum on Form of Proposal

A. PRE-BID REQUESTS FOR INFORMATION

ITEM NO. 1: ENGINEER'S ESTIMATE

The third-party estimator has put the project cost at approximately \$4.8 million.

ITEM NO. 2: ABATEMENT

- Q1: Please clarify who is responsible for asbestos removal and laboratory clearance.
- A1: If suspected hazardous materials are encountered in the course of construction, the District will provide testing/analysis and any required abatement will be handled via change order or separate contract.

ITEM NO. 3: WORK HOURS / PHASING

- Q2: Please confirm the approved work hours and provide a breakdown of project phases.
- A2: Standard work hours available from 7:00 am – 7:00 pm. See Section B of this addendum for phasing information.

ITEM NO. 4: ROOF PATCH RESPONSIBILITY

- Q3: Please specify who is responsible for roof patching after HVAC installation.
- A3: Bidders are responsible for all roof patching related to the HVAC scope of work. Bidders should contact the prior roofing contractor for work under warranty: Best Roofing, Myris Guballa, mobile: 310-505-4271 email: mguballa@bestcontracting.com

ITEM NO. 5: TEMPORARY FENCING

- Q4: Please indicate which areas must be secured with fencing during the project.
- A4: Bidders must include fencing for all locations of stored materials, open trenches, or where required to maintain safety. Perimeter fencing of school not required.

B. PROJECT MANUAL

ITEM NO. 6: PROJECT PHASING

The District wishes work to commence during VUSD's Spring Break, and thus has added the following phasing deadlines, as discussed at the pre-bid walk:

- Phase 1 construction: March 22, 2025 – March 29, 2025. Scope: new exterior concrete equipment pads and fence posts, underground electrical trenches, conduit, pull boxes, etc.
- Phase 2 construction: June 7, 2025 – August 6, 2025, for remainder of scope through substantial completion.

ITEM NO. 7: OTHER WORK

As discussed at the pre-bid walk, the District will have two concurrent projects under construction during this project – the solar array's project and the playground installation project. HVAC contractor is required to coordinate site access and work activities with other projects' contractors.

ITEM NO. 8: LONG-LEAD SUBMITTALS

Due to the short project duration, contractors are required to submit any long-lead items no later than 14 days after contract award. These items may include, but are not limited to: HVAC equipment and electrical distribution panels/sections.

ITEM NO. 9: SITE FIRE SAFETY PLAN

Per new DSA requirements, a completed Site Fire Safety Plan must be filed concurrently with the DSA 102-IC Construction Start Notice form. The plan must be created by the successfully awarded contractor and submitted to the Architect of Record within 7 days of the Board award of contract. See attached BU 24-05 for details on the required components of the Plan.

C. DRAWINGS

ITEM NO. 10: A-100 CALGREEN CODE COMPLIANCE CLARIFICATION

Please delete the CalGreen note on A-100 stating "THERE IS NO NEW SQUARE FOOTAGE OR REMODEL IN THE SCOPE OF WORK HENCE THIS PROJECT IS EXEMPT FROM CALGREEN CODE REQUIREMENTS."

Some aspects of CalGreen are applicable to alteration projects, and contractors shall follow the requirements shown on sheets CG-1 through CG-4.

ITEM NO. 11: SITE PLAN SHEET A-100: PORTABLE CLASSROOMS 25 & 26 RE-ROOF

A new roof coating system shall be installed as part of this project at Portable Classrooms #25 and #26. See attached specification Section 07 5630 "Fluid Applied Roofing Restoration."

ITEM NO. 12: SHEETS A-600 AND A-601 REFLECTED CEILING PLANS

Insert two new drawing sheets A-600 and A-601 to the bid plans. These new reflected ceiling plans indicate extent of planned ceiling modifications and replacements.

ITEM NO. 13: ELECTRICAL SHEETS E102 AND E103

See attached revised sheets E102 and E103 for revised site power information.

D. ATTACHMENTS

1. DSA BU 24-05 (8.5 x 11, 2 pages) (New)
2. Section 07 5630 "Fluid Applied Roofing Restoration" (8.5 x 11, 12 pages) (New)
3. Sheet A-600 Reflected Ceiling Plan – Bldgs A, B, & C (30x42) (New)
4. Sheet A-601 Reflected Ceiling Plan – Bldgs MP, AD, & K (30x42)..... (New)
5. Sheet E102 Site Power Plan (30x42) (Replacement)
6. Sheet E103 Single Line Diagram (Replacement)

END OF ADDENDUM NUMBER ONE

BULLETIN: FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

Division of the State Architect (DSA) documents referenced within this publication are available on the [DSA Forms](#) or [DSA Publications](#) webpages.

PURPOSE

A DSA Bulletin is a notification to its stakeholders regarding any issue intended to be directed to a broad group of external stakeholders as well as DSA staff. This bulletin provides guidance on the development of, and requirement for, a site fire safety plan for the construction of new buildings, additions or alterations to existing buildings, reconstruction projects, and nonconforming building rehabilitation projects submitted for approval using the 2022 CBC and later.

BACKGROUND

California Education Code (EDC) Sections 17280 and 81130 direct the Department of General Services (DGS) to supervise the design and construction any school building to ensure that plans and specifications comply with the standards published in Title 24, California Code of Regulations (CCR). The DGS delegates this responsibility to the Division of the State Architect (DSA).

1. REQUIREMENT

1.1 Section 3302.3 of the California Building Code (CBC) directs compliance with Chapter 33 of the California Fire Code (CFC). Chapter 33 of the CFC outlines requirements for fire safety during construction and demolition wherein Section 3303.1 directs that the property owner or their authorized agent is responsible for the development and implementation of a written site safety plan establishing a fire prevention program at the project site.

1.2 The school district, in collaboration with the project contractor, and architect or structural engineer in general responsible charge, is responsible for developing a site fire safety plan addressing the requirements of CFC Chapter 33. As first responders, DSA recommends that development of the plan be in consultation and coordination with the local fire authority.

1.3 Beginning February 1, 2025, a completed site fire safety plan is to be submitted to the DSA in conjunction with the filing of form *DSA 102-IC: Construction Start Notice/Inspection Card Request*, inclusive of completing Section 3 of the form.

1.4 DSA will receive and file the fire safety plan in the project file.

2. SITE FIRE SAFETY PLAN COMPONENTS

At a minimum, the site fire safety plan shall include the following information required in CFC Section 3303.1.1.

1. Name and contact information of site safety director.
2. Documentation of training of the site safety director and fire watch personnel.
3. Procedures for reporting emergencies.
4. Fire department vehicle access routes.
5. Locations of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections and fire hydrants.

FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

6. Smoking and cooking policies, designated area to be used where approved, and signage locations in accordance with CFC Section 3305.8.
7. Location and safety considerations for temporary heating equipment.
8. Hot work (welding, roofing, etc.) plan.
9. Plans for control of combustible waste.
10. Locations and methods for storage and use of flammable and combustible liquids and other hazardous materials.
11. Provisions for site security.
12. Changes that affect this plan.
13. Other site specific information requested by the local fire authority (LFA).

3. PROJECT PLAN SET COORDINATION

Because the site fire safety plan is submitted after project approval, project plans shall include the following statement in the Notes block, “All construction and demolition shall be in accordance with Chapter 33 of the CBC and CFC, and the written site fire safety plan.”

REFERENCES:

California Code of Regulations (CCR) Title 24
Part 1: California Administrative Code (CAC), Sections 4-331 and 4-406
Part 2, California Building Code, Chapter 33
Part 9: California Fire Code (CFC), Chapter 33

SECTION 07 5630
FLUID APPLIED ROOFING RESTORATION

VENTURA UNIFIED SCHOOL DISTRICT

MODIFIED BUILT UP ROOFING RESTORATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Smooth Surface Roof Restoration (1.4.E)(2.6)

1.2 SCOPE OF WORK

1. Repair all damaged cap sheet and saturated/damaged insulation where necessary with Stressply IV Plus Mineral torch cap sheet
2. Reinforce all base, curb and wall flashings with KEE-Stone FB 60 set in KEE-Lock foam adhesive and tied into field with a three-course application of KEE-Lock mastic and Garmesh. Remove coping cap to wrap material up and over the wall and reinstall coping. Coping joints to be sealed with Tuff-Stuff Sealant
3. Pressure wash entire roof surface to properly remove all debris
4. Prime entire roof surface with Garla-Block Primer
5. Three course all pipe penetrations and curb corners with KEE Lock mastic and Garmesh reinforcement
6. Apply base coat of Liquitec with embedded polyester at 2 gallons per 100SF over entire roof in a two-coat application at 2 gallons with embedded polyester and 2 gallons over the top of the embedded polyester for a total of 4 gallons
7. Install topcoat of Liquitec at 2 gallons per 100 SF over entire roof for a total coverage of 6 gallons per 100 sqft with all coats combined
8. Replace all wood conduit supports with Durablocks
9. Restore all neoprene expansion joints with grip polyester and Liquitec

1.3 REFERENCES

- A. ASTM C 92 - Standard Test Methods for Sieve Analysis and Water Content of Refractory Materials
- B. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- C. ASTM C 1250 - Standard Test Method for Nonvolatile Content of Cold Liquid-Applied Elastomeric Waterproofing Membranes.
- D. ASTM D 92 - Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester.
- E. ASTM D 93 - Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester.
- F. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
- G. ASTM D 522 – Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings
- H. ASTM D 562 - Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer.

- I. ASTM D 570 – Standard Test Method for Water Absorption of Plastics
- J. ASTM D 624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- K. ASTM D 1002 - Standard Test Method for Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal).
- L. ASTM D 1475 - Standard Test Method For Density of Liquid Coatings, Inks, and Related Products.
- M. ASTM D 1876 - Standard Test Method for Peel Resistance of Adhesives (T-Peel Test).
- N. ASTM D 2196 - Standard Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield type) Viscometer.
- O. ASTM D 2240 - Standard Test Method for Rubber Property-Durometer Hardness.
- P. ASTM D 2369 - Standard Test Method for Volatile Content of Coatings.
- Q. ASTM D 3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- R. ASTM D 4073 – Standard Test Method for Tensile-Tear Strength of Bituminous Roofing Membranes
- S. ASTM D 4212 - Standard Test Method for Viscosity by Dip-Type Viscosity Cups.
- T. ASTM D 4402 - Standard Test Method for Viscosity Determination of Asphalt at Elevated Temperatures Using a Rotational Viscometer.
- U. ASTM D 4479 - Standard Specification for Asphalt Roof Coatings - Asbestos-Free.
- V. ASTM D 5147 – Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material
- W. ASTM D 5420 - Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).
- X. ASTM D 5602 – Standard Test Method for Static Puncture Resistance of Roofing Membrane Specimens
- Y. ASTM D 5635 – Standard Test Method for Dynamic Puncture Resistance of Roofing Membrane Specimens
- Z. ASTM D 7379 – Standard Test Methods for Strength of Modified Bitumen Sheet Material Laps Using Cold Process Adhesive
- AA. ASTM D 7897 – Standard Practice for Laboratory Soiling and Weathering of Roofing Materials to Simulate Effects of Natural Exposure on Solar Reflectance and Thermal Emittance
- BB. ASTM E 1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces
- CC. ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- DD. South Coast AQMD Standards.

- EE. SMACNA Architectural Sheet Metal Manual.
- FF. ANSI/SPRI ES-1 - Testing and Certification Listing of Shop Fabricated Edge Metal
- GG. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.

1.4 SYSTEM DESCRIPTION

- A. Roof Restoration Renovation: work includes:
 - 1. Surface preparation: Remove membrane chalking, dust, dirt, and debris.
 - 2. Fascia Edges: Inspect and make repairs to membrane
 - 3. Parapets and Vertical Surfaces: Inspect and make repairs to any splits or membrane deterioration.
 - 4. Metal Flashings: Repair/Replace metal flashings, pitch pockets, etc.
 - 5. Roof Repairs: Repair blisters, stressed or cracked membrane. Cut back, patch with new membrane
 - 6. Install Base Coat and fabric reinforcement on flashings and entire roof surface. Let cure, and top coat flashings and entire roof surface.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- C. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, and color.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Manufacturer: Company specializing in manufacturing products specified in this section with documented ISO 9001 certification and minimum twelve years and experience.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Garland Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and

physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.

- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

1.7 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-roofing conference approximately two weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installers of deck or substrate construction to receive roofing, installers of rooftop units and other work in and around roofing which must precede or follow roofing work including mechanical work, Architect, Owner, roofing system manufacturer's representative.
- C. Objectives include:
 - 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
 - 2. Tour representative areas of roofing substrates, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
 - 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
 - 4. Review roofing system requirements, Drawings, Specifications and other Contract Documents.
 - 5. Review and finalize schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 - 6. Review required inspection, testing, certifying procedures.
 - 7. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
 - 8. Record conference including decisions and agreements reached. Furnish a copy of records to each party attending.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- E. Storage temperatures should be between 60°F to 80°F (15.6° to 26.7°C) and not exceed 110°F (43.3°C). Indoor ventilated storage is recommended. Ensure jobsite storage is in a shaded and ventilated area. Do not store in direct sunlight. Keep materials away from open flame or welding sparks.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Weather Condition Limitations: Do not apply roofing system during inclement weather or when precipitation is expected.
- C. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- E. When applying materials with spray equipment, take precautions to prevent over spray and/or solvents from damaging or defacing surrounding walls, building surfaces, vehicles or other property. Care should be taken to do the following:
 - 1. Close air intakes into the building.
 - 2. Have a dry chemical fire extinguisher available at the jobsite.
 - 3. Post and enforce "No Smoking" signs.
- F. Avoid inhaling spray mist; take precautions to ensure adequate ventilation.
- G. Protect completed roof sections from foot traffic for a period of at least 48 hours at 75 degrees F (24 degrees C) and 50 percent relative humidity or until fully cured.
- H. Take precautions to ensure that materials do not freeze.
- I. Minimum temperature for application is 50°F (10°C) and rising.

1.10 WARRANTY

- A. Upon completion of the work, provide the Manufacturer's written and signed limited labor and materials Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
 - 1. Warranty Period:
 - a. 15-year warranty
- A. Installer is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.
 - 1. Warranty Period:
 - a. 5 years from date of acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Garland Company, Inc. (The), which is located at: 3800 E. 91st St.; Cleveland, OH 44105; Toll Free Tel: 800-321-9336; Tel: 216-641-7500; Fax: 216-641-0633; Email: [request info \(\)](#); Web: <http://www.garlandco.com>

Local representative:
Jason Moronolte

(661) 889-0449
jmoronnolte@garlandind.com

B. Or Equal

2.2 ROOF RESTORATION SYSTEM FOR SMOOTH ROOFS

A. LiquiTec System:

1. Primer: Garla-Block Primer
2. Base Coating: LiquiTec Base or LiquiTec
3. Coating: LiquiTec Base or LiquiTec
4. Flashing: Reinforce with KEE-Stone FB 60
5. Reinforcement: Grip Polyester Soft
6. Surfacing: None.

2.3 EDGE TREATMENT AND ROOF PENETRATION FLASHINGS

- A. Vents and Breathers: Heavy gauge aluminum and fully insulated vent that allows moisture and air to escape but not enter the roof system as recommended and furnished by the membrane manufacturer.
- B. Pitch pans, Rain Collar 24 gauge stainless or 20oz (567gram) copper. All joints should be welded/soldered watertight. See details for design.
- C. Drain Flashings should be 4lb (1.8kg) sheet lead formed and rolled.
- D. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled.
- E. Liquid Flashing – Coating: LiquiTec or LiquiTec Base: Multi-purpose, 100% solids, two-part, fast-cure, polyurea
- F. Fabricated Flashings: Fabricated flashings and trim are specified in Section 07620.
1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the CDA Copper Development Association "Copper in Architecture - Handbook" as applicable.
- G. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are specified in Section 07710.
1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the NRCA "Roofing and Waterproofing Manual" as applicable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 ROOF PREPARATION AND REPAIR

- A. General: All necessary field and flashing repairs must be done according to good construction practices, including the removal of all wet insulation and defective materials as

identified through a moisture detection survey such as an infrared scan and replacement with like-materials.

1. Reinforce existing roof flashings from curbs and parapet walls down to the surface of the roof.
 2. Remove all wet, deteriorated, blistered or delaminated roofing membrane or insulation and fill in any low spots occurring as a result of removal work to create a smooth, even surface for application of new roof membranes.
 3. Install new wood nailers as necessary to accommodate insulation/recovery board or new nailing patterns.
 4. When mechanically attached, the fastening pattern for the insulation/recovery board shall be as recommended by the specific product manufacturer.
 5. Existing roof surfaces shall be primed as necessary and allowed to dry prior to installing the fluid-applied roofing system.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Repair all defects such as deteriorated roof decks; replace saturated insulation board, replace loose or brittle membrane or membrane flashings. Verify that exiting conditions meet the following requirements:
1. Existing membrane is either fully adhered or that the membranes mechanical fasteners are secured and functional.
 2. Application of roofing materials over a brittle roof membrane is not recommended.
- D. Remove all loose dirt and foreign debris from the roof surface. Do not damage roof membrane in cleaning process.
- E. Repair existing roof membrane as necessary to provide a sound substrate for the fluid-applied membrane. All surface defects (cracks, blisters, tears) must be repaired with similar materials.
- F. All seams must be checked and any loose seams must be resealed, or if necessary, replaced with new roofing material (ensure coating bond to any new material is sufficient).
- G. Significantly wrinkled, damaged or blistered membrane areas must be cut out and replaced to ensure a smooth substrate.
- H. Remove any walkway pads and make necessary repair with new membrane.
- I. Clean and seal all parapet walls, gutters and coping caps, and repair any damaged metal where necessary. Seal watertight all fasteners, pipes, drains, vents, joints and penetrations where water could enter the building envelope.
- J. Confirm local water run-off ordinances and restrictions prior to cleaning roof. Clean the entire roof surface by removing all dirt, algae, paint, oil, talc, rust or foreign substance. Use a 10 percent solution of TSP (tri-sodium phosphate), Simple Green and warm water. Scrub heavily soiled areas with a brush. Rinse with fresh water to remove all TSP solution. Allow roof to dry thoroughly before continuing.
- K. Pre-Treatment of Known Growth - General Surfaces: Once areas of moss, mold, algae and other fungal growths or vegetation have been removed and surfaces have also been thoroughly cleaned, apply a biocide wash at a maximum spread rate of 0.2 gallons/square (0.08 liters/m), to guard against subsequent infection. Allow to dry onto absorbent surfaces before continuing with the application. On non-absorbent surfaces, allow to react before thoroughly rinsing to remove all traces of the solution.

3.3 INSTALLATION

- A. General Installation Requirements:
1. Install in accordance with manufacturer's instructions. Apply to minimum coating thickness required by the manufacturer.
 2. Adequate coating thickness is essential to performance. If the applicator is unfamiliar in gauging application rates, we suggest that a controllable area be measured and the specified material be applied. In all cases, all minimum specified material must be applied and proper minimum dry film thicknesses must be achieved. Care must be taken to ensure that all areas completed including all flashings, roof penetrations, etc. are coated sufficiently to ensure a watertight seal.
 3. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.
 4. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.
 5. Protect work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore work damaged by installation of the roofing system.
 6. All primers must be top coated within 24 hours of application. Re-prime if more time passes after priming.
 7. Coordinate counter flashing, cap flashings, expansion joints and similar work with work specified in other Sections under Related Work.
 8. Coordinate roof accessories and miscellaneous sheet metal accessory items, including piping vents and other devices with work specified in other Sections under Related Work.
- B. Single Ply Roof Restoration Renovation: work includes:
1. Surface preparation: Remove membrane chalking, dust, dirt, and debris.
 2. Fascia Edges: Inspect and make repairs to membrane.
 3. Parapets and Vertical Surfaces: Inspect and make repairs to any splits or membrane deterioration.
 4. Metal Flashings: Repair/Replace metal flashings, pitch pockets, etc.
 5. Roof Repairs: Repair blisters, stressed or cracked membrane, wrinkles and tenting. Cut back, patch with new membrane
 6. Coating Mixing Procedure:
 - a. Mix Part A liquid for one minute using an electric heavy duty power drill and Jiffy mixer blade.
 - b. Slowly pour contents of Part B jug, located inside the Part A pail, into the Part A container and mix the two components together for two minutes moving the Jiffy blade from top to bottom and along the sides to ensure the product is thoroughly mixed.
 - c. Always mix entire kit contents together as packaged. Do not break down into smaller quantities.
 7. Application of LiquiTec Base or LiquiTec and Reinforcement:
 - a. On field surfaces run fabric reinforcement parallel to the low edge using a shingling method up the slope with minimum 3 inch fabric laps.
 - b. After positioning reinforcement to roll out, apply coating about 40 inches wide to surface where reinforcement ply is to be applied at a rate of 3.0 gallons per 100 SF.
 - c. Do not apply coating too far ahead of fabric so coating does not dry before fabric can be embedded.
 - d. Immediately roll a 36 inch width of reinforcement into wet coating.
 - e. Ensure roller is fully saturated with coating and backroll over the reinforcement surface to fully saturate.
 - f. Use care to lay the fabric tight to the roof surface without air pockets, wrinkles, fishmouths, etc.
 - g. Lap adjacent rolls of reinforcement 3 inches and end laps 6 inches.

- h. Allow to dry, but no more than 72 hours before applying top coat.
- 8. Application of Finish Coat
 - a. Apply top coat at 2.0 gallon per 100 SF to clean and dry reinforced base coat application.
- 9. Liquid Flashings:
 - a. All flashings are coated in the same manner as the field.
 - b. Vertical liquid flashings shall run a minimum of 4" onto the horizontal surface

3.4 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.5 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

3.6 FIELD QUALITY CONTROL

- A. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system.
- B. Perform field inspection and [and testing] as required
- C. Correct defects or irregularities discovered during field inspection.

3.7 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with installer, installer of associated work, roofing system manufacturer's representative and others directly concerned with performance of roofing system.
- B. Walk roof surface areas, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. Identify all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. If core cuts verify the presence of damp or wet materials, the installer shall be required to replace the damaged areas at his own expense.
- D. Repair or replace deteriorated or defective work found at time above inspection as required to a produce an installation that is free of damage and deterioration at time of Substantial

Completion and according to warranty requirements.

- E. Advise architect upon completion of corrections.
- F. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

3.8 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.9 SCHEDULES

- A. Primer: Garla-Block primer
- B. Base Coating:
 - 1. LiquiTec Base: Multi-purpose, 100% solids, two-part, fast-cure, polyurea liquid waterproofing membrane having the following characteristics:
 - a. Elongation, ASTM D 412: 433%
 - b. Tensile Strength, ASTM D 412: 2300 psi
 - c. Tear Resistance, ASTM D 624: 449 lbs./in
 - d. Low Temperature Flexibility, ASTM D522: -60°F (-51.1°C)
 - e. Hardness, ASTM D2240 (Shore A): 80
 - f. Dynamic Impact Resistance (Fully Reinforced System): ASTM D5635, 37 joules
 - g. Static Puncture Resistance (Fully Reinforced System): ASTM D5602, 20 kg
 - h. Tensile-Tear Resistance (Fully Reinforced System): ASTM D4073, 274 lbf
 - i. Tensile Load Strain (Fully Reinforced System): ASTM D4073, 150 lbf/in.
 - j. Toughness: 193 ft.-lbf/ft²
 - k. Dry Film Thickness (Fully Reinforced System), 80-88 mils
 - l. Lap Shear Strength (MB Seam with coating): ASTM D7379, 231 lbf/in.
 - m. Density @ 77° F (25° C, ASTM D 2939) 9.6 lb./gal (1.2 g/m³)
 - n. Flash Point: ASTM D 93, 110°F min. (43°C)
 - o. VOC: 0 g/l
 - p. Microbial Resistance: ASTM G21, No Microbial Growth
 - 2. LiquiTec: Multi-purpose, 100% solids, two-part, fast-cure, polyurea liquid waterproofing membrane having the following characteristics:
 - a. Elongation, ASTM D 412: 433%
 - b. Tensile Strength, ASTM D 412: 2300 psi
 - c. Tear Resistance, ASTM D 624: 449 lbs./in
 - d. Low Temperature Flexibility, ASTM D522: -60°F (-51.1°C)
 - e. Hardness, ASTM D2240 (Shore A): 80
 - f. Dynamic Impact Resistance (Fully Reinforced System): ASTM D5635, 37 joules
 - g. Static Puncture Resistance (Fully Reinforced System): ASTM D5602, 20 kg
 - h. Tensile-Tear Resistance (Fully Reinforced System): ASTM D4073, 274 lbf
 - i. Tensile Load Strain (Fully Reinforced System): ASTM D4073, 150 lbf/in.
 - j. Toughness: 193 ft.-lbf/ft²
 - k. Dry Film Thickness (Fully Reinforced System), 80-88 mils
 - l. Lap Shear Strength (MB Seam with coating): ASTM D7379, 231 lbf/in.
 - m. Density @ 77° F (25° C, ASTM D 2939) 9.6 lb./gal (1.2 g/m³)
 - n. Flash Point: ASTM D 93, 110°F min. (43°C)
 - o. VOC: 0 g/l
 - p. Microbial Resistance: ASTM G21, No Microbial Growth
 - q. Initial Reflectance: 0.84

- r. Initial Emittance: 0.88
- s. Initial SRI: 105

C. Reinforcement

- 1. Grip Polyester Soft: Strong, elastic polyester reinforcing fabric.

D. Coating:

- 1. LiquiTec Base: Multi-purpose, 100% solids, two-part, fast-cure, polyurea liquid waterproofing membrane having the following characteristics:
 - a. Elongation, ASTM D 412: 433%
 - b. Tensile Strength, ASTM D 412: 2300 psi
 - c. Tear Resistance, ASTM D 624: 449 lbs./in
 - d. Low Temperature Flexibility, ASTM D522: -60°F (-51.1°C)
 - e. Hardness, ASTM D2240 (Shore A): 80
 - f. Dynamic Impact Resistance (Fully Reinforced System): ASTM D5635, 37 joules
 - g. Static Puncture Resistance (Fully Reinforced System): ASTM D5602, 20 kg
 - h. Tensile-Tear Resistance (Fully Reinforced System): ASTM D4073, 274 lbf
 - i. Tensile Load Strain (Fully Reinforced System): ASTM D4073, 150 lbf/in.
 - j. Toughness: 193 ft.-lbf/ft²
 - k. Dry Film Thickness (Fully Reinforced System), 80-88 mils
 - l. Lap Shear Strength (MB Seam with coating): ASTM D7379, 231 lbf/in.
 - m. Density @ 77° F (25° C, ASTM D 2939) 9.6 lb./gal (1.2 g/m³)
 - n. Flash Point: ASTM D 93, 110°F min. (43°C)
 - o. VOC: 0 g/l
 - p. Microbial Resistance: ASTM G21, No Microbial Growth
- 2. LiquiTec: Multi-purpose, 100% solids, two-part, fast-cure, polyurea liquid waterproofing membrane having the following characteristics:
 - a. Elongation, ASTM D 412: 433%
 - b. Tensile Strength, ASTM D 412: 2300 psi
 - c. Tear Resistance, ASTM D 624: 449 lbs./in
 - d. Low Temperature Flexibility, ASTM D522: -60°F (-51.1°C)
 - e. Hardness, ASTM D2240 (Shore A): 80
 - f. Dynamic Impact Resistance (Fully Reinforced System): ASTM D5635, 37 joules
 - g. Static Puncture Resistance (Fully Reinforced System): ASTM D5602, 20 kg
 - h. Tensile-Tear Resistance (Fully Reinforced System): ASTM D4073, 274 lbf
 - i. Tensile Load Strain (Fully Reinforced System): ASTM D4073, 150 lbf/in.
 - j. Toughness: 193 ft.-lbf/ft²
 - k. Dry Film Thickness (Fully Reinforced System), 80-88 mils
 - l. Lap Shear Strength (MB Seam with coating): ASTM D7379, 231 lbf/in.
 - m. Density @ 77° F (25° C, ASTM D 2939) 9.6 lb./gal (1.2 g/m³)
 - n. Flash Point: ASTM D 93, 110°F min. (43°C)
 - o. VOC: 0 g/l
 - p. Microbial Resistance: ASTM G21, No Microbial Growth
 - q. Initial Reflectance: 0.84
 - r. Initial Emittance: 0.88
 - s. Initial SRI: 105

E. Thermoplastic Flashing Sheet:

- 1. KEE-Stone FB 60: 60 mil thermoplastic, ketone ethylene ester (KEE) roofing membrane with polyester scrim. ASTM D6754
 - a. Breaking Strength, ASTM D 751, Proc. B, strip
 - 1) 375 lbf. (1,668 N)

- b. Tear Strength ASTM D 751
 - 1) 120 lbf. min. (534 N)
- c. Elongation at Break (%), ASTM D 751, Proc. B, Strip
 - 1) 40.0%
- 2. KEE-Lock Foam: Dual component, spatter spray urethane insulation/membrane adhesive.
 - a. Tensile Strength (ASTM D 412) 250 psi
 - b. Density (ASTM D 1875) 8.5 lbs./gal.
 - c. Viscosity (ASTM D 2556) 22,000 - 60,000 cP
 - d. Peel Strength (ASTM D 903) 17 lb./in.
 - e. Flexibility (ASTM D 816) Pass @ -70 deg. F (-56.7 deg. C)

END OF SECTION

CEILING PLAN KEYNOTES

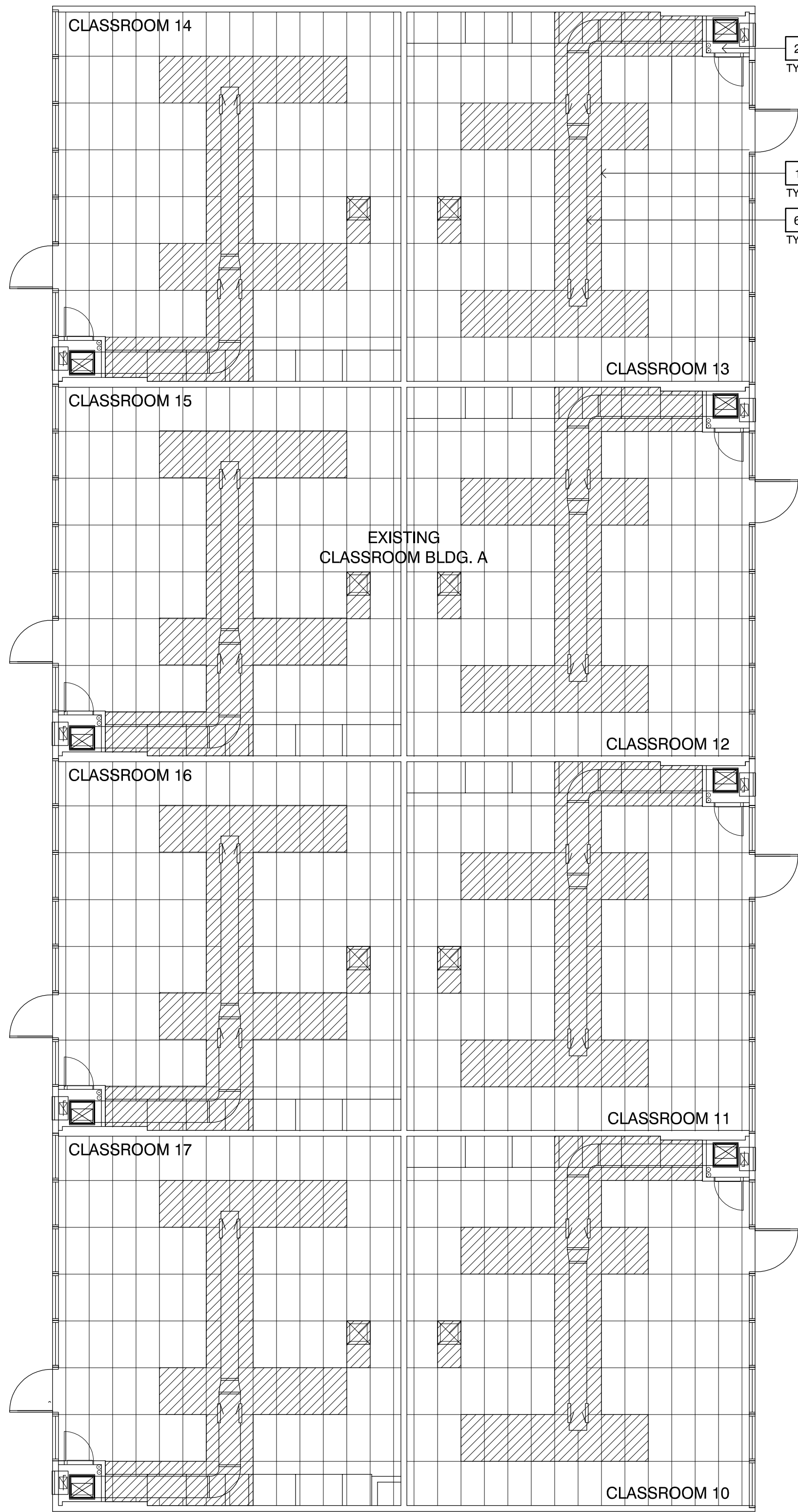
- 1 REMOVE (E) CEILING TILES & REPLACE w/ NEW MATCH (E) ADJACENT
- 2 PATCH & PAINT CEILING AS REQUIRED
- 3 REMOVE & REPLACE (E) CEILING AS REQD. TO ACCESS DUCTS FOR CLEANING & REMOVAL OF DUCT WRAP INSULATION
- 4 (N) SOFFIT PER 17/A-700
- 5 (N) 5/8" TYPE X GYP. BRD. CEILING, PAINTED
- 6 (N) DUCTWORK PER MECH.

CEILING PLAN LEGEND

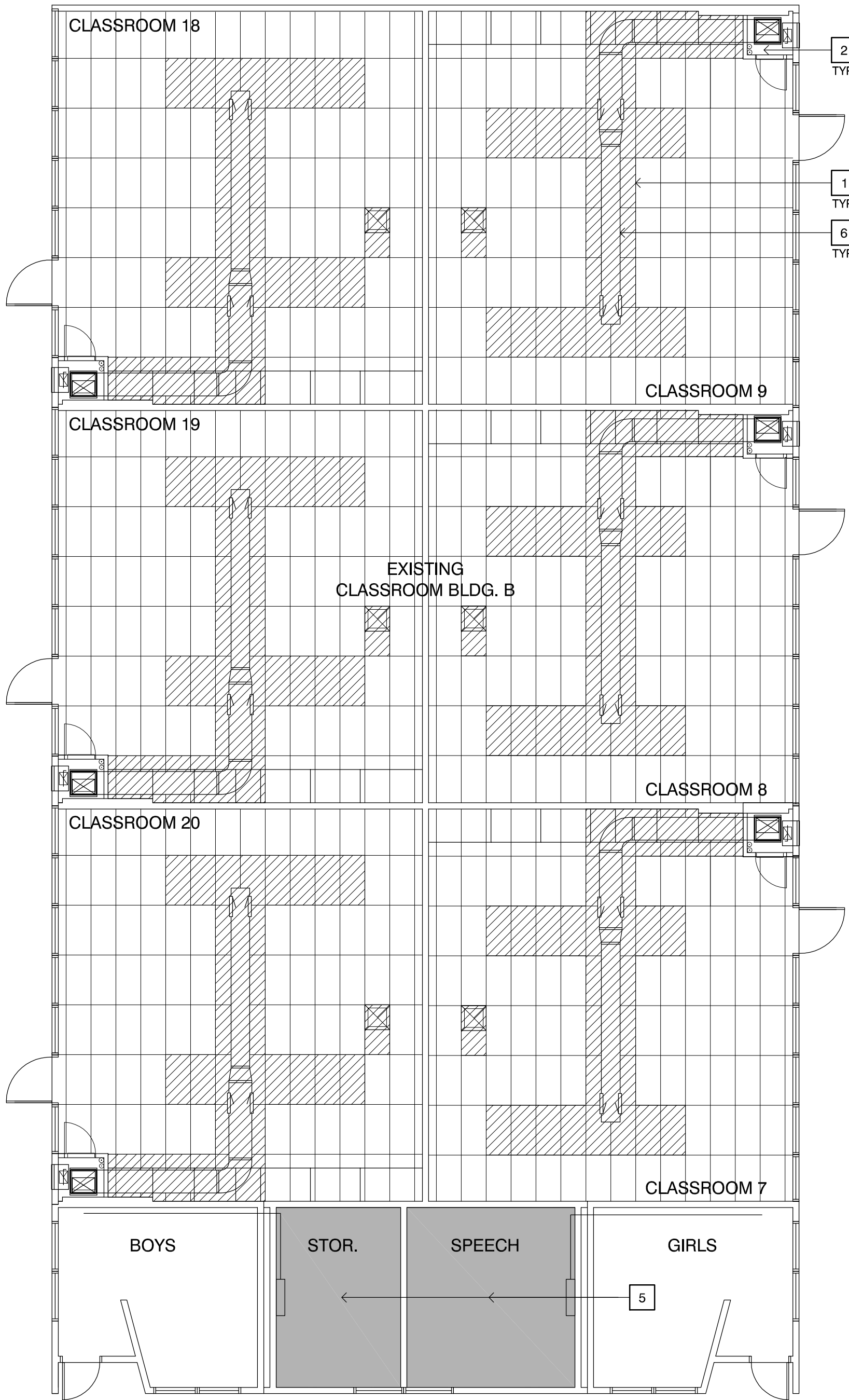
- EXISTING CEILING TILES TO REMAIN
- REMOVE (E) CEILING TILES & REPLACE w/ NEW MATCH (E) ADJACENT
- (N) SOFFIT PER 17/A-700
- (N) 5/8" TYPE X GYP. BRD. CEILING, PAINTED

CEILING NOTES

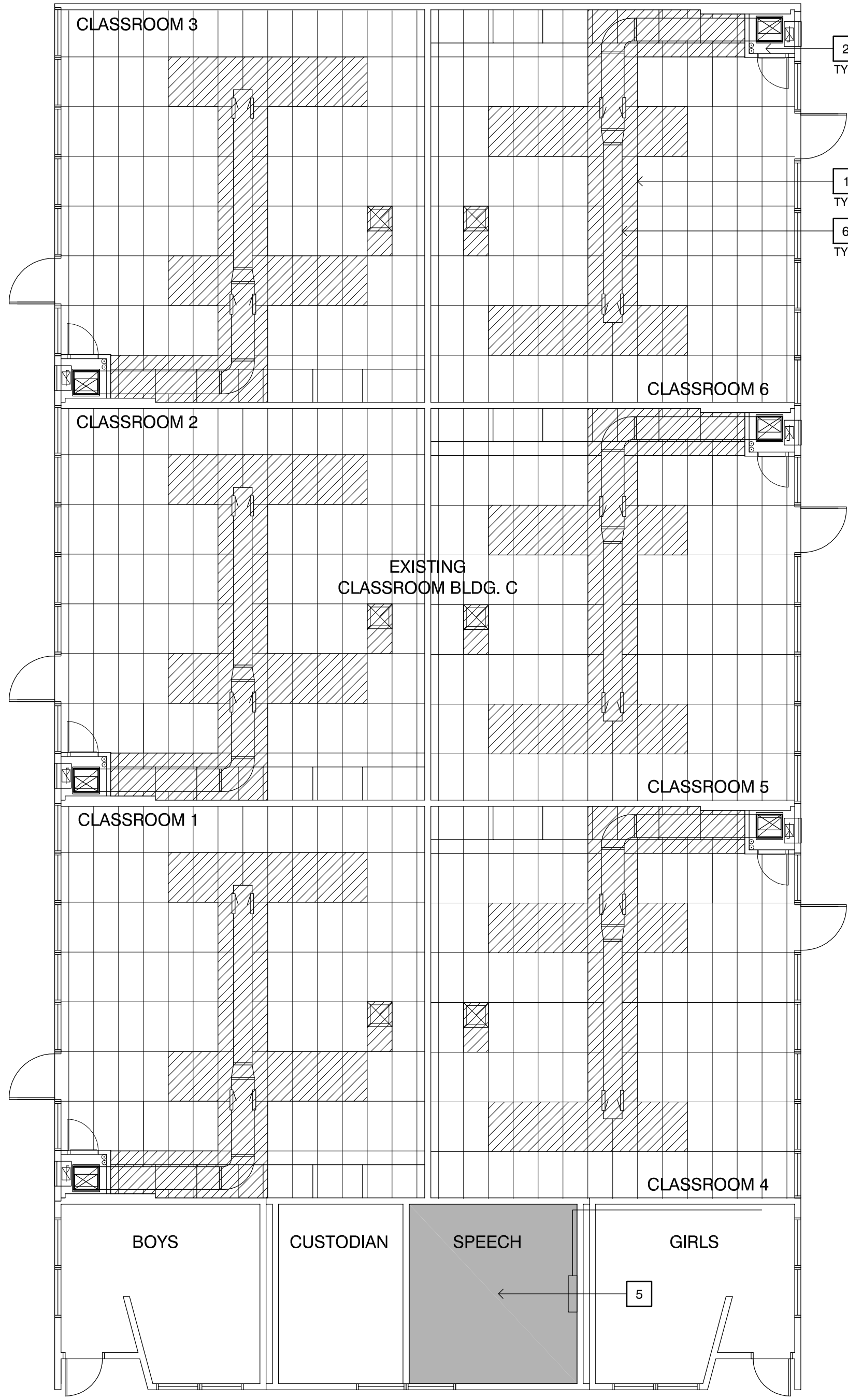
1. REFER TO MECHANICAL PLANS FOR DUCTWORK LOCATIONS.
2. CEILING AND GRID SHOWN ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONFIGURATION AND REPLACE EXISTING CEILING TILES/FINISH(ES) AS REQUIRED TO COMPLETE THE SCOPE OF WORK.
3. ALL NEW REPLACEMENT CEILING TILES SHALL MATCH EXISTING ADJACENT FINISH, COLOR AND TEXTURE.



1 REFLECTED CEILING PLAN - BLDG. A
SCALE : 1/8" = 1'-0"



2 REFLECTED CEILING PLAN - BLDG. B
SCALE : 1/8" = 1'-0"



3 REFLECTED CEILING PLAN - BLDG. C
SCALE : 1/8" = 1'-0"



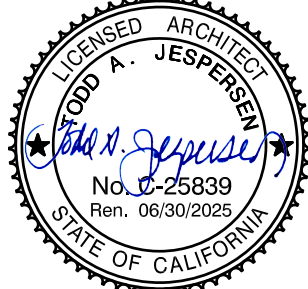
KRUGER BENSEN ZIEMER
ARCHITECTS, INC. AIA
199 FIGUEROA STREET SUITE 100A VENTURA CA 93001
TELEPHONE (805) 963-1726 WWW.KBZARCH.COM

TODD A. JESPERSEN, A.I.A.
PRINCIPAL/ARCHITECT

PATRICK B. PANLAQUI
PROJECT MANAGER

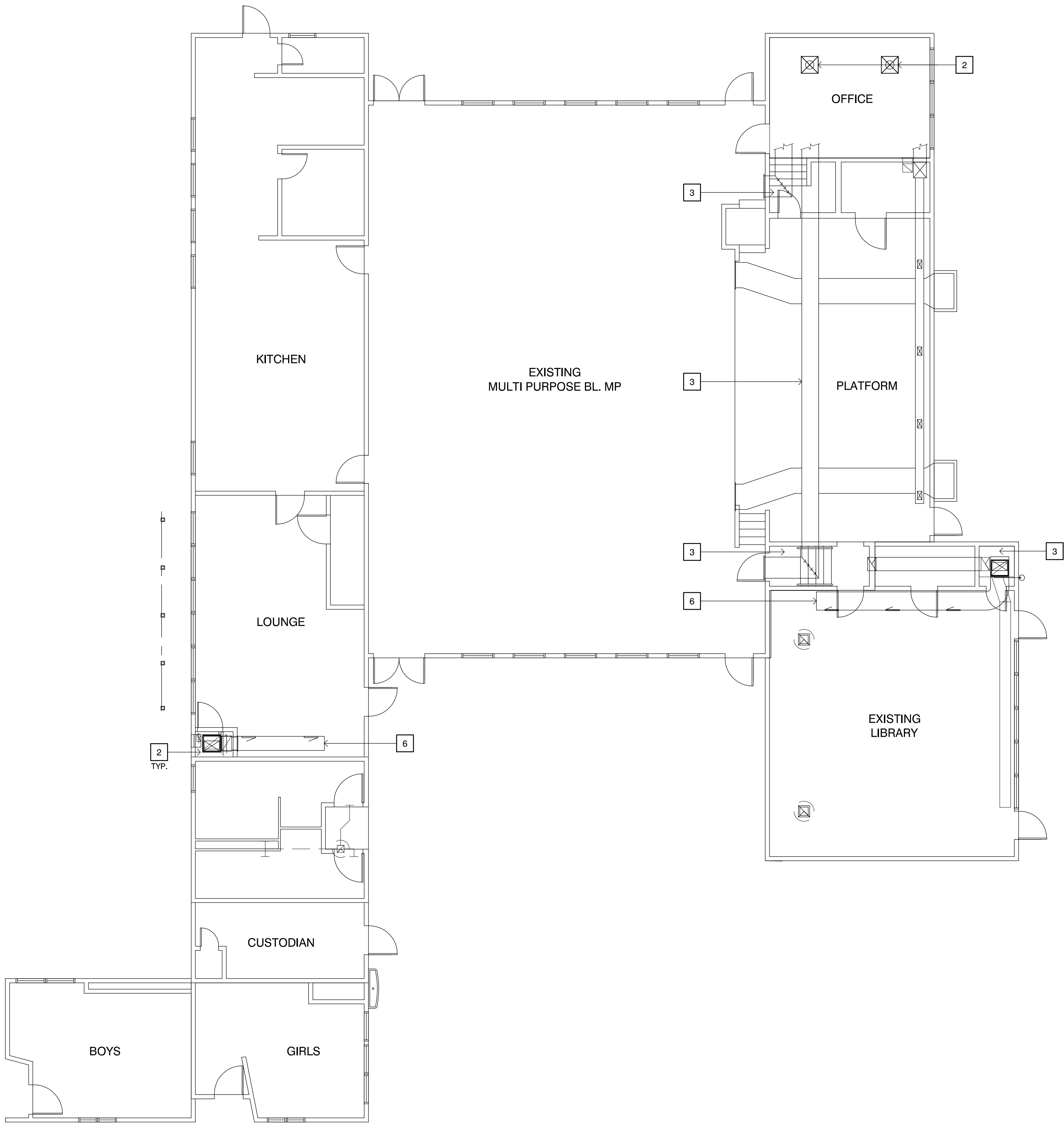
All ideas, design arrangements and plans indicated or represented by this drawing are owned by and are the property of KrugerBensenZiemer, Inc. All architects, and were created, edited and developed for use on, and in connection with, the specified projects. None of such ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of KrugerBensenZiemer.

ARCHITECTS
STAMP & SIGNATURE
EXERCISES
STAMP & SIGNATURE

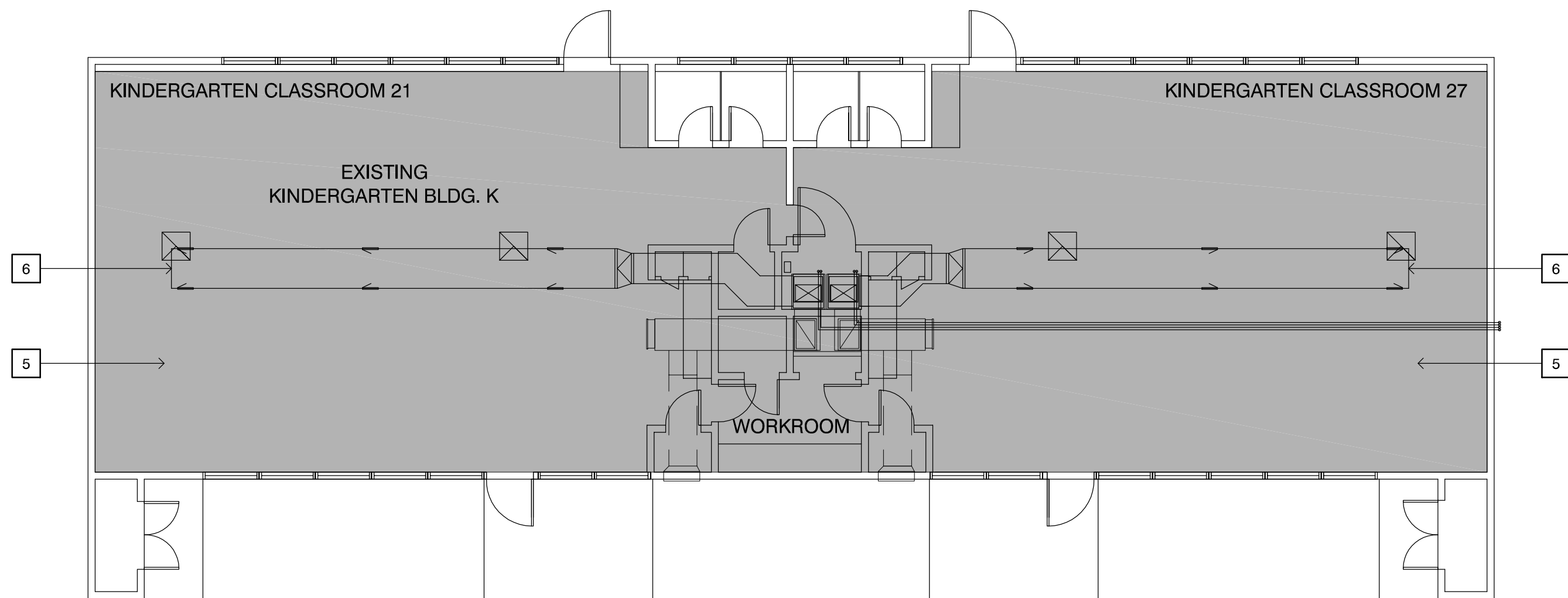


△	-	-/-	XX
△	-	-/-	XX
△	-	-/-	XX
△	-	-/-	XX
△	ADDENDUM 1	1/17/25	PP

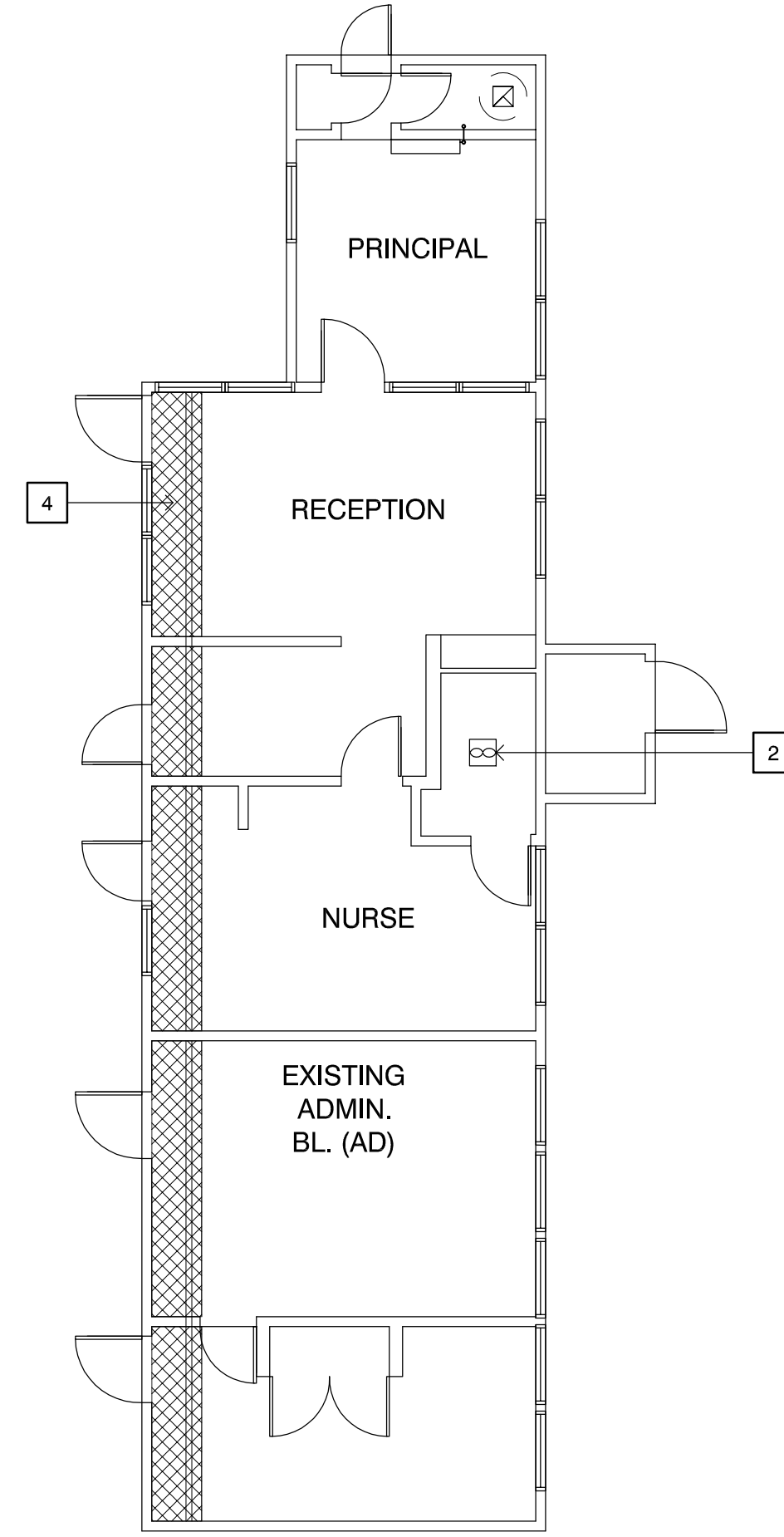
REVISION	DESCRIPTION	DATE	BY
DRAWN	PP		
CHECKED	TJ		
DATE	8/20/2024		
JOB, NO.	23052		
DSA 03-124442	FILE:56-40 PTN:72652-124		
SHEET	REFLECTED CEILING PLAN		
TITLE	BLDG. A, B & C		



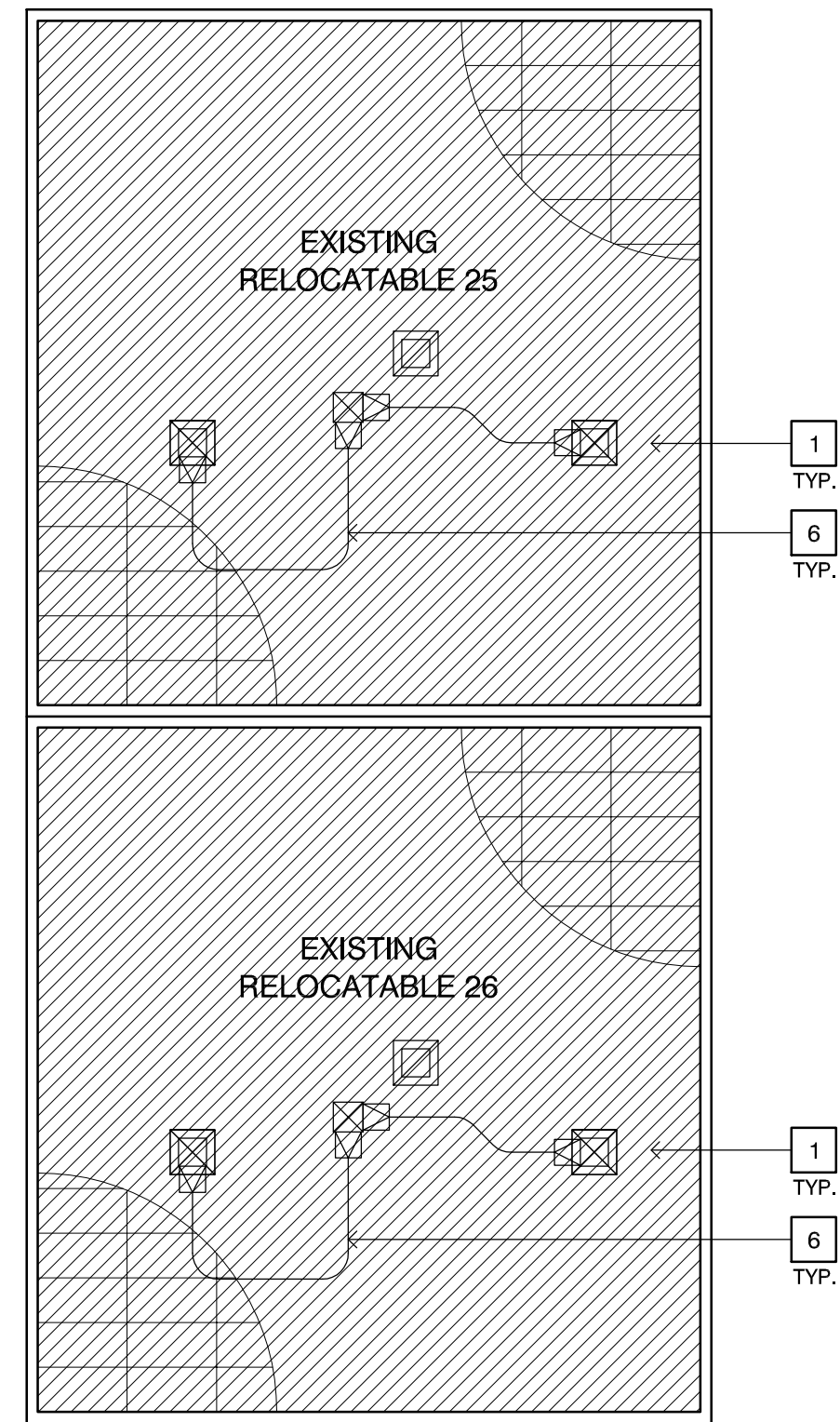
1 REFLECTED CEILING PLAN - BLDG. MP
SCALE : 1/8" = 1'-0"



3 REFLECTED CEILING PLAN - BLDG. K
SCALE : 1/8" = 1'-0"



2 REFLECTED CEILING PLAN - BLDG. AD
SCALE : 1/8" = 1'-0"



4 RCP - PORTABLE CLASSROOMS 25 & 26
SCALE : 1/8" = 1'-0"

CEILING PLAN KEYNOTES

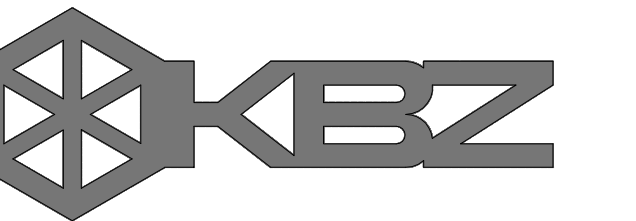
- 1 REMOVE (E) CEILING TILES & REPLACE w/ NEW MATCH (E) ADJACENT
- 2 PATCH & PAINT CEILING AS REQUIRED
- 3 REMOVE & REPLACE (E) CEILING AS REQ'D. TO ACCESS DUCTS FOR CLEANING & REMOVAL OF DUCT WRAP INSULATION
- 4 (N) SOFFIT PER 17/A-700
- 5 (N) 5/8" TYPE X GYP. BRD. CEILING, PAINTED
- 6 (N) DUCTWORK PER MECH.

CEILING PLAN LEGEND

- EXISTING CEILING TILES TO REMAIN
- REMOVE (E) CEILING TILES & REPLACE w/ NEW MATCH (E) ADJACENT
- (N) SOFFIT PER 17/A-700
- (N) 5/8" TYPE X GYP. BRD. CEILING, PAINTED

CEILING NOTES

1. REFER TO MECHANICAL PLANS FOR DUCTWORK LOCATIONS.
2. CEILING AND GRID SHOWN ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONFIGURATION AND REPLACE EXISTING CEILING TILES/FINISH(ES) AS REQUIRED TO COMPLETE THE SCOPE OF WORK.
3. ALL NEW REPLACEMENT CEILING TILES SHALL MATCH EXISTING ADJACENT FINISH, COLOR AND TEXTURE.



KRUGER BENSEN ZIEMER
ARCHITECTS, INC. AIA
199 FIGUEROA STREET SUITE 100A VENTURA CA 93001
TELEPHONE (805) 963-1726 WWW.KBZARCH.COM

TODD A. JESPERSEN, A.I.A.
PRINCIPAL/ARCHITECT
PATRICK B. PANLAQUI
PROJECT MANAGER

All ideas, design arrangements and plans indicated or represented by this drawing are owned by and are the property of KrugerBensenZiemer, AIA, architects, and were created, evolved and developed for use on, and in connection with, the specified projects. None of such ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of KrugerBensenZiemer.

ARCHITECTS
STAMP & SIGNATURE
ENGINEERS
STAMP & SIGNATURE



△	-	-/-/-	XX
△	-	-/-/-	XX
△	-	-/-/-	XX
△	-	-/-/-	XX
△	ADDENDUM 1	1/17/25	PP

REVISION	DESCRIPTION	DATE	BY
DRAWN	PP		
CHECKED	TJ		
DATE	8/20/2024		
JOB. NO.	23052		
DSA 03-124442	FILE:56-40 PTN:72652-124		
SHEET	REFLECTED CEILING PLAN		
TITLE	BLDG. MP, AD, K & PORTABLES 25 & 26		

SH-ET
A-601

VENTURA UNIFIED SCHOOL DISTRICT
5000 ELMHURST STREET, VENTURA, CA 93003
ELMHURST ELEMENTARY SCHOOL
HVAC REPLACEMENT

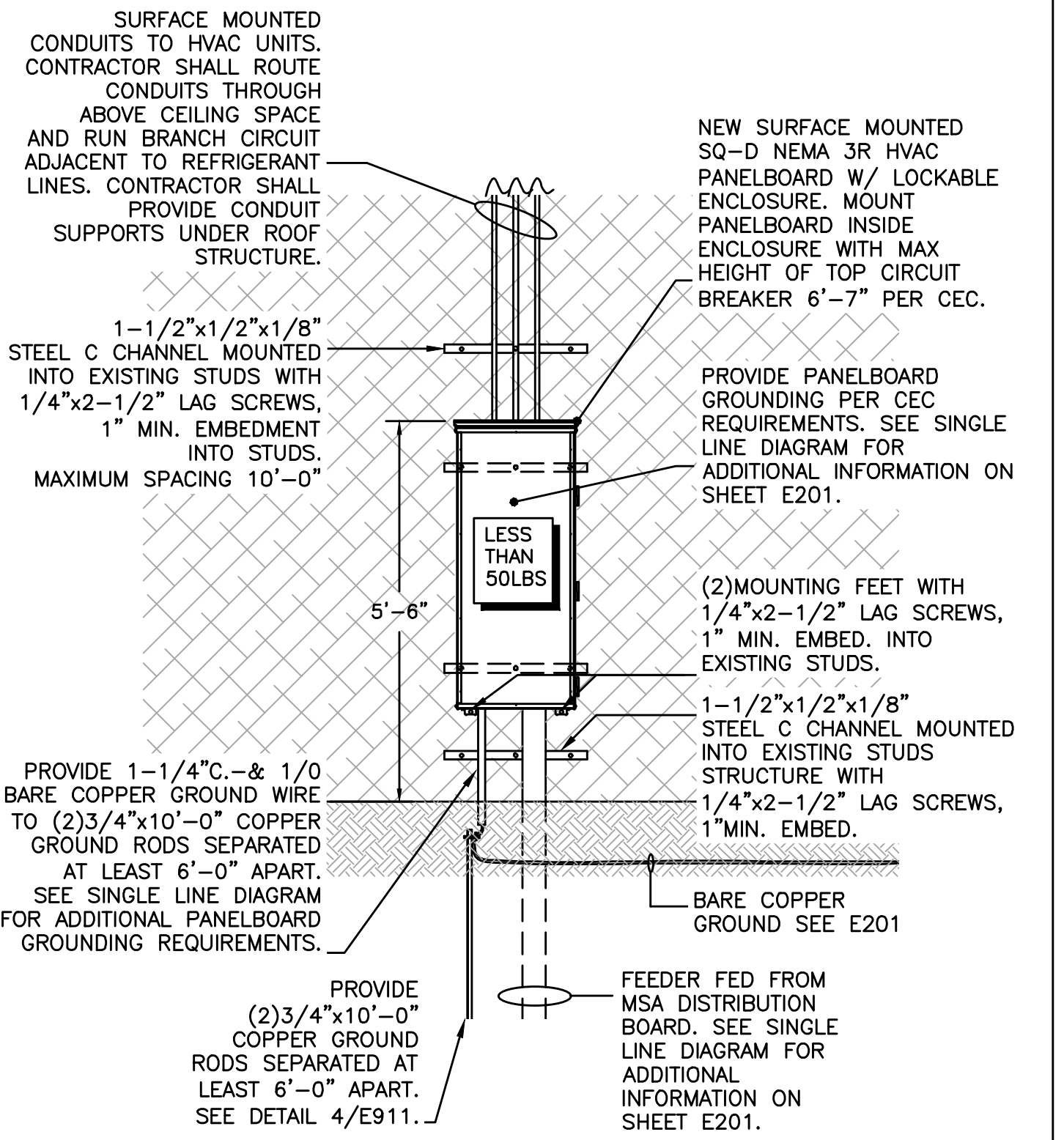
CONTRACTOR SHALL VERIFY AND RELOCATE EXISTING CAMPUS IRRIGATION SYSTEM IN AREA OF NEW DISTRIBUTION SECTION INSTALLATION. CONTRACTOR SHALL VERIFY ALL CAMPUS SPRINKLER SYSTEM ARE NOT SPRAYING ON ELECTRICAL EQUIPMENT.

CONTRACTOR TO INCLUDE IN BID PROPOSAL 120V RECEPTACLE POWER FOR HVAC PELICAN RELAY MODULES, HVAC CONTROL REPEATERS, CONDENSATE PUMPS, ETC. AS REQUIRED ON MECHANICAL PLANS. SEE CONTROL SCHEDULE ON M-002 FOR POWER REQUIREMENTS AND MECHANICAL PLANS FOR DEVICE LOCATIONS.

CONTRACTOR SHALL PROVIDE ELECTRICAL HEAVY DUTY SAFETY DISCONNECTS WITH LOCK-ON DEVICE HARDWARE. CONTRACTOR SHALL PROVIDE LOCKS AND MASTER KEYS TO OWNER'S REPRESENTATIVE.

CONTRACTOR SHALL PROVIDE OUTDOOR GFI RECEPTACLES WITH LOCKABLE RGS WEATHERPROOF COVERS, LOCKS, AND MASTER KEYS FOR SCHOOL CUSTODIAN. TYPICAL FOR ALL HVAC MAINTENANCE RECEPTACLES. CONTRACTOR SHALL PROVIDE HUBBELL CAT #GF5362WA WITH COVER BY TAYMAC CORPORATION EXTRA DUTY METAL IN-USE LOCKABLE #MX3200 OR EQUAL.

NOTE: VERIFY AND PROVIDE SIZE AND SPACING OF PANELBOARD FASTENERS PER MANUFACTURER'S REQUIREMENTS BUT NOT LESS THAN REQUIRED BY SPECIFICATIONS ON THIS DETAIL. PROVIDE NAMEPLATE REQUIREMENTS AS SHOWN ON DETAIL 1/E600.



2 TYPICAL WALL MOUNTED PANELBOARD INSTALLATION
SCALE: 1/2"=1'-0"

SHEET NOTES

1. VERIFY LOCATION OF ALL BUILDINGS AND APPENDITURES ON ARCHITECTURAL AND CIVIL PLANS.
2. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID. ROUGH-IN & INSTALLATION.
3. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP. SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING, ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
4. FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING. SCHEDULE AND COORDINATE ALL SITE WORK WITH OWNER PRIOR TO ANY TRENCHING.
5. ALL CONDUIT 90° CONDUIT BENDS AND RISERS SHALL BE PVC COATED RIGID STEEL.
6. VERIFY LOCATION OF ALL EQUIPMENT AND DEVICES ON ARCHITECTURAL AND CIVIL PLANS.
7. MINIMUM CONDUIT BURIAL DEPTH IS 24". 36" MINIMUM BELOW STREETS & PARKING LOTS FOR 0-600 VOLT SYSTEMS. 48" FOR 600V-250V SYSTEMS.
8. CONTRACTOR TO PROVIDE GROUND CONDUCTORS IN ALL CONDUITS.
9. 1" CONDUIT MINIMUM UNDERGROUND.
10. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
11. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
12. FIELD CONDITIONS GOVERN DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS PRIOR TO START OF WORK. ARCHITECT / ENGINEER SHALL BE NOTIFIED OF POSSIBLE FIELD PROBLEMS PRIOR TO DEMOLITION. CONTRACTOR SHALL NOTIFY DISTRICT REPRESENTATIVE OF WORK BEING PERFORMED. COORDINATE WITH DISTRICT REPRESENTATIVE.
13. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH DIMENSIONED NYLON PULL STRING.
14. SITE INSPECTOR IS TO WITNESS & VERIFY GROUNDING SYSTEM TEST.
15. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OF TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING / REMAINING UTILITIES IN PLACE. CONTRACTOR AT HIS SOLE EXPENSE, SHALL REPAIR ANY UTILITIES SYSTEM DAMAGED DURING CONSTRUCTION.
16. VERIFY & PROVIDE ALL UTILITY SYSTEMS PER SERVING UTILITY STANDARD REQUIREMENTS.

KEY NOTES

1. PROVIDE RECEPTACLE POWER SUPPLY FOR HVAC NETWORK REPEATER. HOMERUN 1/2"C.-2#12 & 1#12 GND TO CLOSEST 120V AREA PANELBOARD. FIELD VERIFY AND PROVIDE REPEATER LOCATIONS & HVAC SYSTEM CONTROL REQUIREMENTS ON MECHANICAL PLANS.
 2. EXISTING MAIN CAMPUS SWITCHBOARD "MSB" TO BE VACUUMED, CLEANED & TORQUED, ETC. PER CEC EXISTING ELECTRICAL EQUIPMENT MAINTENANCE REQUIREMENTS.
 3. NEW PANEL "ACA" TO BE WALL MOUNTED AND LOCATED ADJACENT TO EXISTING PANELBOARD "PAA". PANELBOARD FEEDER TO BE SUPPORTED WITH 2 HOLE STRAP CONDUIT SUPPORTS. ALL ELECTRICAL RACEWAYS AND SUPPORTS TO BE PAINTED TO MATCH SURROUNDING AREAS. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR FEEDER INFORMATION.
 4. NEW PANEL "ACB" TO BE WALL MOUNTED AND LOCATED ADJACENT TO EXISTING PANELBOARD "PBA". PANELBOARD FEEDER TO BE SUPPORTED WITH 2 HOLE STRAP CONDUIT SUPPORTS. ALL ELECTRICAL RACEWAYS AND SUPPORTS TO BE PAINTED TO MATCH SURROUNDING AREAS. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR FEEDER INFORMATION.
 5. NEW PANEL "ACC" TO BE WALL MOUNTED AND LOCATED ADJACENT TO EXISTING PANELBOARD "PCC". CONTRACTOR SHALL VERIFY AND LOCATE NEW PANELBOARD ADJACENT TO PANELBOARD "PCC" TO AVOID EXISTING WALL ARTWORK. PANELBOARD FEEDER TO BE SUPPORTED WITH 2 HOLE STRAP CONDUIT SUPPORTS. ALL ELECTRICAL RACEWAYS AND SUPPORTS TO BE PAINTED TO MATCH SURROUNDING AREAS. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR FEEDER INFORMATION.
 6. CONTRACTOR SHALL VERIFY AND PROVIDE & REPLACE EXISTING 208V 1 PHASE 2 POLE BREAKER WITH NEW PER HVAC UNIT NAMEPLATE EQUIPMENT REQUIREMENTS. SEE ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT ON SHEET E501 FOR WIRE SIZE REQUIREMENTS. CONTRACTOR SHALL PROVIDE CIRCUIT BREAKERS TO MATCH EXISTING PANELBOARD MANUFACTURER AND AIC RATINGS.
 7. APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER SYSTEMS. CONTRACTOR SHALL HIRE DIG ALERT AND FIELD VERIFY EXISTING ELECTRICAL COMMUNICATION, FIRE ALARM, & OTHER UTILITIES SYSTEMS PRIOR STARTING TRENCH WORK.
 8. CONTRACTOR SHALL SAW CUT, TRENCH, & PROVIDE NEW FEEDERS TO NEW PANELBOARDS "ACA", "ACB", & "ACC" FROM NEW DISTRIBUTION SWITCHBOARD "MSA".
 9. CONTRACTOR SHALL DIRECT BORE PANELBOARD FEEDERS ACB & ACC FROM NEW PULLBOX TO NEW PULLBOX.
 10. CONTRACTOR SHALL PROVIDE NEW PANELBOARD FEEDER FROM NEW DISTRIBUTION SWITCHBOARD "MSA" TO PANELBOARD "ACA" LOCATED AT BUILDING A. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY AND INCLUDE FEEDER PATHWAYS AND LENGTHS IN BID PROPOSAL.
 11. CONTRACTOR SHALL PROVIDE NEW PANELBOARD FEEDER FROM NEW DISTRIBUTION SWITCHBOARD "MSA" TO PANELBOARD "ACB" LOCATED AT BUILDING B. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY AND INCLUDE FEEDER PATHWAYS AND LENGTHS IN BID PROPOSAL.
 12. CONTRACTOR SHALL PROVIDE NEW PANELBOARD FEEDER FROM NEW DISTRIBUTION SWITCHBOARD "MSA" TO PANELBOARD "ACC" LOCATED AT BUILDING C. SEE ELECTRICAL SINGLE LINE DIAGRAM ON SHEET E103 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY AND INCLUDE FEEDER PATHWAYS AND LENGTHS IN BID PROPOSAL.
 13. CONTRACTOR SHALL PROVIDE NEW 8" CONCRETE HOUSEKEEPING PAD FOR NEW ELECTRICAL DISTRIBUTION SECTION "MSA".
- CONTRACTOR SHALL BUS TAP EXISTING "MSB" DISTRIBUTION SECTION TO ADD NEW ELECTRICAL DISTRIBUTION SECTION "MSA".
- CONTRACTOR SHALL PROVIDE A Bussing TAPPING KIT, BRACKETS, FITTINGS, CONNECTORS, ETC. AS REQUIRED TO COMPLETE BUS TAP PER CEC REQUIREMENTS.
- CONTRACTOR SHALL RE-VALIDATE UL LISTING AND RE-CERTIFY THE EXISTING "MSB" UL LISTING PER THIRD-PARTY APPROVAL, AHJ, & CEC REQUIREMENTS.



KRUGER BENSEN ZIEMER ARCHITECTS, INC. AIA
199 FIGUEROA ST. SUITE 100A VENTURA CA 93001
TELEPHONE (805) 850-1033

TODD A. JESPERSEN, AIA
PROJECT MANAGER
PATRICK B. PANLAQUI
PROJECT MANAGER



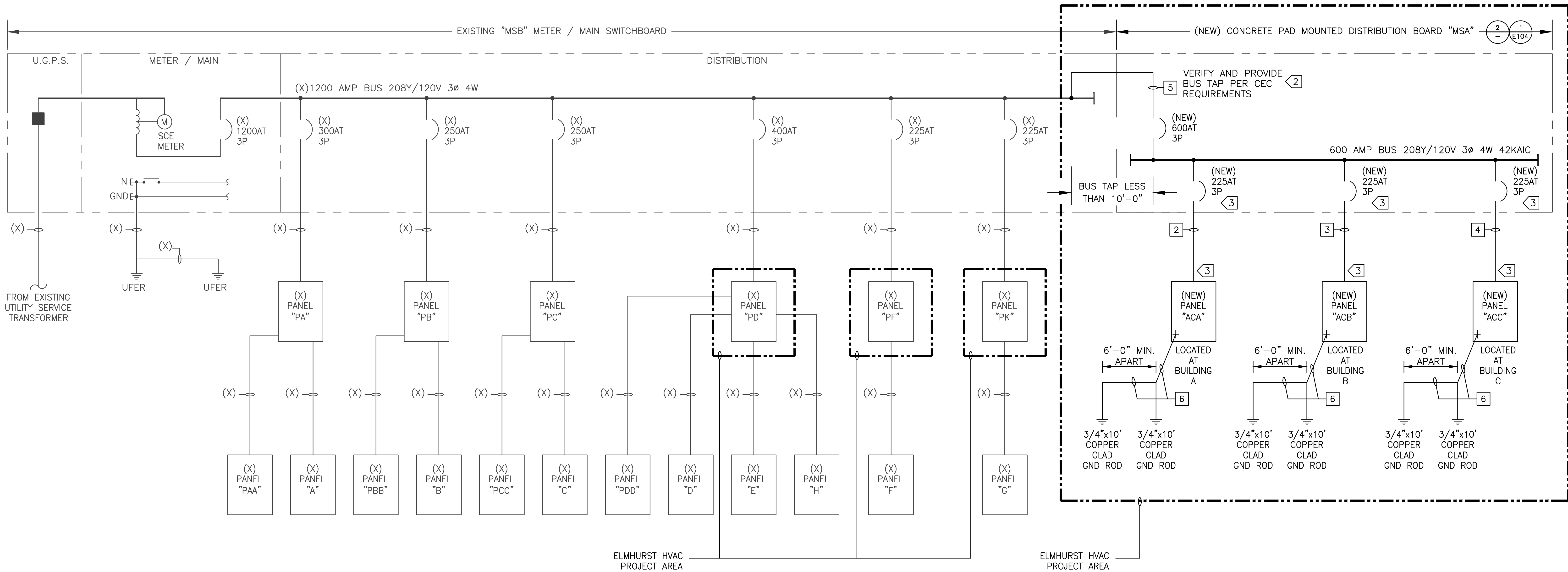
CONSULTANT INFORMATION
C. HOOD & ASSOCIATES, INC.
CONSULTING ELECTRICAL ENGINEERS
858 East Front Street Phone (805) 641-4012
Ventura, California 93001 Fax (805) 641-0450
www.choodassociates.com
Copyright © 2024

△	-	-/-	XX
△	-	-/-	XX
△	-	-/-	XX
△	-	-/-	XX
△	-	-/-	XX
△	ADDENDUM 1	1/17/25	CH
REVISION	DESCRIPTION	DATE	BY
DRAWN	AM		
CHECKED	CH		
DATE	08/20/2024		
JOB NO.			
CHA. NO.			
FILE	56-40 PTFN 72652-124		
SHEET	SITE POWER PLAN		
TITLE			

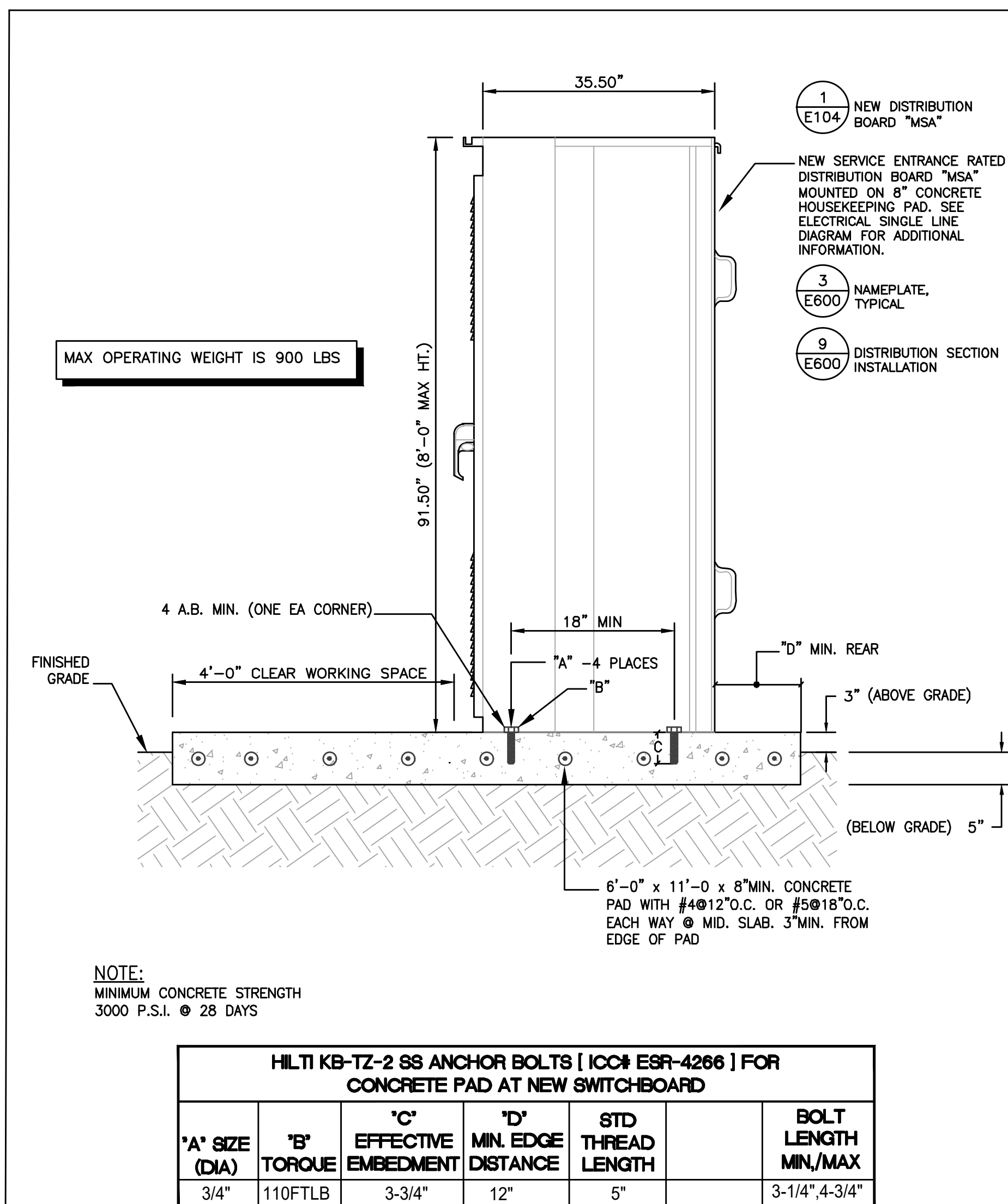
SHEET
E102

1 SITE POWER PLAN
SCALE: 1"=20'-0"

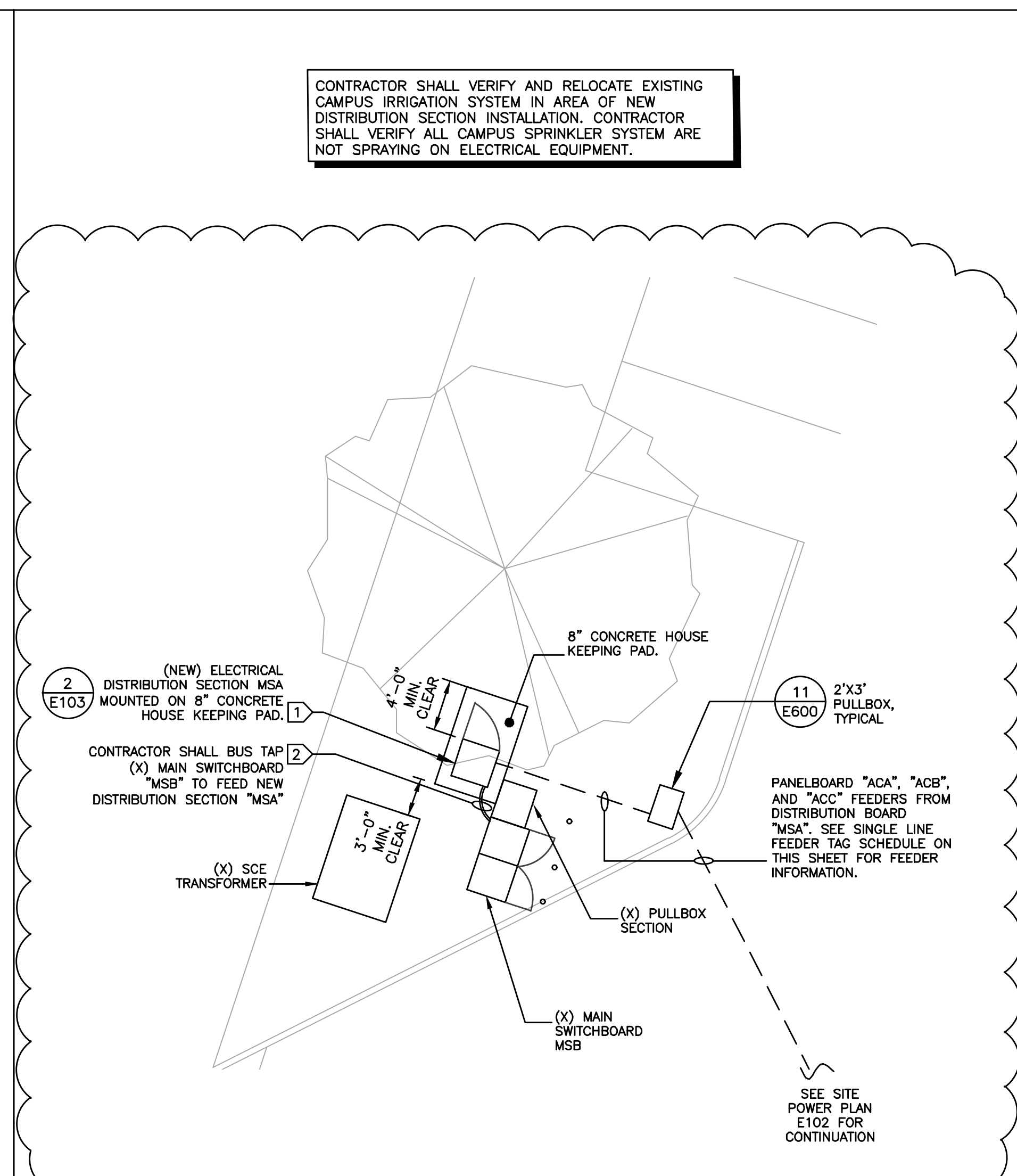




1 EXISTING CAMPUS ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NONE



2 NEW DISTRIBUTION BOARD "MSA" INSTALLATION
SCALE: NONE



3 ENLARGED ELECTRICAL EQUIPMENT AREA
SCALE: 1/8" = 1'-0"

SHEET NOTES

- VERIFY LOCATION OF ALL BUILDINGS AND APPENDICES ON ARCHITECTURAL AND CIVIL PLANS.
- CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID, ROUGH-IN & INSTALLATION.
- CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING, SCHEDULE AND COORDINATE ALL SITE WORK WITH OWNER PRIOR TO ANY TRENCHING.
- ALL CONDUIT 90° CONDUIT BENDS AND RISERS SHALL BE PVC COATED RIGID STEEL.
- CONTRACTOR SHALL COORDINATE AND PROVIDE ALL SITE ELECTRICAL SERVICE REQUIREMENTS WITH SERVING UTILITY.
- VERIFY LOCATION OF ALL EQUIPMENT AND DEVICES ON ARCHITECTURAL AND CIVIL PLANS.
- MINIMUM CONDUIT BURIAL DEPTH IS 24". 36" MINIMUM BELOW STREETS & PARKING LOTS FOR 0-600 VOLT SYSTEMS.
- CONTRACTOR TO PROVIDE GROUND CONDUCTORS IN ALL CONDUITS.
- 1" CONDUIT MINIMUM UNDERGROUND.
- COORDINATE WORK WITH OTHER TRADES, OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.

KEY NOTES

- CONTRACTOR SHALL PROVIDE NEW 8" CONCRETE HOUSEKEEPING PAD FOR NEW ELECTRICAL DISTRIBUTION SECTION "MSA".
- CONTRACTOR SHALL BUS TAP EXISTING "MSB" DISTRIBUTION SECTION TO ADD NEW ELECTRICAL DISTRIBUTION SECTION "MSA".
CONTRACTOR SHALL PROVIDE A Bussing Tapping Kit, BRACKETS, FITTINGS, CONNECTORS, ETC. AS REQUIRED TO COMPLETE BUS TAP PER CEC REQUIREMENTS.
- CONTRACTOR SHALL RE-VALIDATE UL LISTING AND RE-CERTIFY THE EXISTING "MSB" UL LISTING PER THIRD-PARTY APPROVAL, AHJ, & CEC REQUIREMENTS.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRE TERMINATORS, STRESS CONES, COMPRESSION PIN ADAPTERS, LUG REDUCERS, WIRE NUTS, ETC. AS REQUIRED TO TERMINATE PANELBOARD FEEDERS SIZED FOR VOLTAGE DROP AT NEW "MSA" DISTRIBUTION BOARD TERMINATIONS & AT ALL NEW PANELBOARD TERMINATIONS.

FEEDER SCHEDULE

TAG	CONDUIT/CONDUCTOR	FROM	TO	APPROX LENGTH VD	PERCENT VOLT.DROP
1	EXISTING. PROTECT IN PLACE.	-	-	-	-
2	3" C-4#4/0 & 1#4 GND	MSA	PANL "ACA"	192'	1.6%
3	3" C-4#300 KCMIL & 1#2 GND	MSA	PANL "ACB"	375'	1.9%
4	3-1/2" C-4#350 KCMIL & 1#1 GND	MSA	PANL "ACC"	485'	2.0%
5	(2) 3-1/2" C-4#350 KCMIL & 1#1 GND	MSB	MSA	3'	0.0%
6	1" C-1#0 BARE COPPER GROUND	PANL	GND SYSTEM		
7					
8					
9					
10					

PANELBOARD LOAD SUMMARIES

DESCRIPTION	LOAD
PANEL ACA NEW ADDED HVAC LOAD	60 KVA
PANEL ACB NEW ADDED HVAC LOAD	51 KVA
PANEL ACC NEW ADDED HVAC LOAD	48 KVA
EXISTING PANEL PD NEW ADDED HVAC LOAD	31 KVA
EXISTING PANEL F NEW ADDED HVAC LOAD	28 KVA
EXISTING PANEL PK NEW ADDED HVAC LOAD	23 KVA
EXISTING MSB LOAD PER RECORD DRAWINGS	400 KVA
TOTAL ON MSB	641 KVA
(N AMPS AT 208V, 3Ø)	(1775 AMPS)

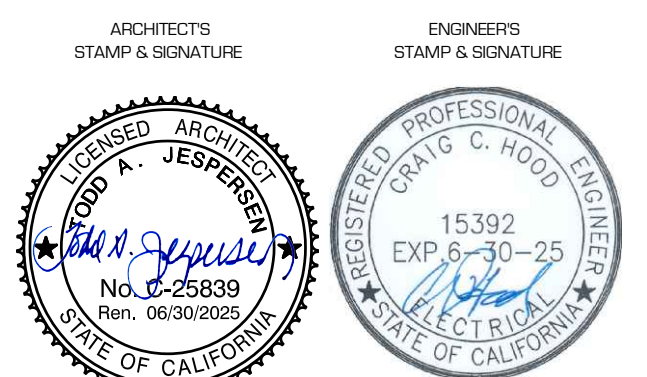


KRUEGER BENSEN ZIEMER
ARCHITECTS, INC. AIA
199 FIGUEROA ST. SUITE 100A VENTURA, CA 93001
TELEPHONE (805) 550-1033

TODD A. JESPERSEN, AIA
PRINCIPAL/OWNER

PATRICK B. PANLAGUI
PROJECT MANAGER

All ideas, design arrangements and plans indicated or represented by this drawing are owned by and are the property of Krueger-Bensen-Ziemer, AIA architects, and were created, revised and developed for use on, and in connection with, the specified project. None of such ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of Krueger-Bensen-Ziemer.



CONSULTANT INFORMATION



858 East Front Street Phone (805) 641-4012
Ventura, California 93001 Fax (805) 641-0450
www.choodassociates.com
Copyright © 2024

REVISION
DATE 08/20/2024
JOB NO. DSA 03-12442
FILE 56-40 PTN 72652-124
SHEET EXISTING CAMPUS ELECTRICAL
TITLE SINGLE LINE DIAGRAM

SHEET

E103

VENTURA UNIFIED SCHOOL DISTRICT
5080 ELMHURST ST., VENTURA, CA 93003
ELMHURST ELEMENTARY SCHOOL
HVAC REPLACEMENT