ADDENDUM NO. 3

PROJECT MANUAL

MLK ELEMENTARY SCHOOL
TRANSITIONAL KINDERGARTEN
BAKERSFIELD CITY SCHOOL DISTRICT

Project No.: 5593
DSA File No. 15-6
DSA App No. 03-123900
January 24 2025

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.

GENERAL

3-00 Add Agreement document 005213 to the project manual. See Exhibit 3-00.

3-01 "Note: Contractor to include all costs to coordinate pickup, loading, trucking of HVAC equipment from District warehouse located at 1201 Citation Way, Bakersfield, CA 93308. Include delivery to jobsite for installation, 1100 Citadel St., Bakerfield CA 93307."

3-02 Unforeseen Conditions: Include the sum of **$150,000.00** in your Base Bid Grand Total Amount, ($50,000 for the Wellness Center, $50,000 for the Parent Center & $50,000 for the Transitional Kindergarten) for the following: Unforeseen items not identified in the Contract Documents. This allowance shall be listed in the Schedule of Values and shall be tracked on a Time and Material basis. Profit and overhead on top of this Time and Material work will not be allowed. This allowance amount is to be used as directed by the District and is not to be used to fulfill obligations under this contract. All costs used against this allowance must be agreed to by the District before work is started. All unused portions of this allowance shall be credited back to the owner in the form of a deductive change order at 100% of the remaining value. This allowance shall be included in the base bid.

3-03 **BID FORM:** Replace Bid Form and Proposal document 004113 in its entirety. See Exhibit 3-03.

ARCHITECTURAL

3-04 Countertops at all three projects to be Corian.

3-05 Ceramic wall tile at all three projects shall be installed per TCA W244. Ceramic tile over thin set mortar over 5/8 " cement backer board.

ELECTRICAL

3-06 Native soil back fill compaction at duct banks shall be 90% minimum at non-paved areas and 95% at paved areas.

3-07 PVC will be allowed underground feeders per sheet E6.0

3-08 MDF is located in the administration building.

3-09 District security contractor is responsible for installation of security devices.

3-10 District's requirements for installation of smart boards. See Exhibit 3-10

3-11 Provide MC cable for lighting circuits above ceilings.

3-12 The basis of design for the fire alarm is a notifier system.

CLARIFICATIONS

3-13 C-43 sheet metal contractor and C-16 fire sprinkler contractor needs to be pre-qualified.

PROJECT MANUAL

3-14 **PROJECT MANUAL, SPECIFICATION SECTION 093000 – TILING:** Add the following to part 2, section 2.2:

B. Ceramic Tile Type CT-2: Glazed floor tile (restrooms) – Match existing Restroom Floor Tile

1. Basis-of-Design Product: Subject to compliance with requirements, provide Dal-Tile International INC Keystone or comparable product by one of the following:
2. Module Size: 2 by 2 inches.
3. Face Side Variation: Rectified
4. Thickness: 5/16 inch
5. Face: Plain with modified square edges or cushion edges.
6. Finish: slip resistant
7. Told color and pattern: as selected by Architect from manufacturer's full range.
8. Grout Color: As selected by Architect from manufacturer's full range.
9. Trim units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:

i. Base for Portland Cement Mortar Installations: Coved, module size 2 by 2 inches.
ii. External Corners for Protalnd Cement Mortar Installations: Bullnose shape with radius of at least ¾ inch unless otherwise indicated.
iii. Internal Corners: Field-butted square corners. For coved base and cap use angel pieces designed to fit with stretcher shapes.

3-15 **PROJECT MANUAL, SPECIFICATION SECTION 093000 – TILING:** Add the following to part 3, section 3.5:

F. Interior floor Installations, Concrete:

1. Tile Installations F111: Cement mortar bed with cleavage membrane.

a. Tile Type: CT-2
b. Thin-Set Mortar: Latex-portland cement mortar.
c. Grout: Polymer-modified sanded grout.

3-16 **PROJECT MANUAL, SPECFICAITION SECTION 328400 – PLANTING IRRIGATION:** Note the following:

1. Section 2.1 A. Revise paragraph to read “Provide piping and components designed for a new irrigation system. All materials shall be new and unused”.

2. Section 2.13. Revise paragraph to read “All valves, manual or automatic shall have a valve box, set flush with grade. All valve boxes shall be of heavy duty plastic construction with heavy duty bolt down lids. Valve boxes are to be manufactured by Applied Engineering, or approved equal. Maximum of one (1) valve per valve box, no exceptions. Placement of the valves within the valve boxes shall allow for proper servicing and maintenance space, or the installation will be rejected”.

3. Section 3.3 N. Revise paragraph to read “Install sleeves made of Class 200 PVC and socket fittings, and solvent-cemented joints”.

4. Section 3.15 A. Revise paragraph to read “Design all piping for a new irrigation system”.

5. Section 3.15 H. Revise paragraph to read “Underground Branches and Offsets at Sprinklers and Devices: Schedule 40, PVC pipe; threaded PVC fittings; and threaded joints”.

3-17 **PROJECT MANUAL, SPECIFICATION SECTION 329200 – TURF AND GRASSES:** Note the following:

1. Section 2.1 B 1. Revise paragraph to read “Seed to be comprised of a mix of 75% bermuda grass & 25% perennial ryegrass”.

3-18 **PROJECT MANUAL, SPECIFICATION SECTION 329300 – PLANTS:** Note the following:

1. Section 3.13 does NOT apply to the planters shown on the drawings. This portion of the Specification was written for an “Above Grade” constructed planter, not an “At Grade” planting area as shown on the plans. This Section is void and does not apply to the project.

DRAWINGS

ARCHITECTUAL

3-19 **DRAWING, SHEET A1.04 – SITE DETAILS:** Detail 1/A1.04, add #4 rebar at 24” OC each way.

3-20 **DRAWING, SHEET A7.02 – EXTERIOR DETAILS:** Remove detail #10.

3-21 **DRAWING, SHEET A8.02 – INTERIOR DETAILS:** Revise the Following:

1. Detail 6/A8.02. Delete reference to “existing ceramic tile wall finish”. Replace with “New tackboard over gypsum board”. Also delete reference to “new mirror to match existing”.

STRUCTURAL

3-22 **DRAWING, SHEET S2.02 – ROOF FRAMING:** The HSS beam along grid line 1 and 5 are to be AESS2. See exhibit S0.02 and S2.02

END ADDENDUM NO. 3

DOCUMENT 00 52 13

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:

Martin Luther King Jr. Elementary School - Wellness Center / 22243.00-09-WEL / DSA # 03-122605, Parent Center / 22243.00-09-WEL / DSA # 03-122604 and T-Kinder / 23189.00-09-TK / DSA # 03-123900

("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 four hundred fifteen (415) 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) per day as liquidated damages for each and every day's delay beyond the time herein prescribed in 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 B 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.

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: Sherry Gladin
Title: _____	Title: Assistant Superintendent, Business Services

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

DOCUMENT 00 41 13

BID FORM AND PROPOSAL

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

From: _____
(Proper Name of Bidder)

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 for the following projects known as:

Martin Luther King Jr. Elementary School - Wellness Center / 22243.00-09-WEL / DSA # 03-122605, Parent Center / 22243.00-09-PRC / DSA # 03-122604, T-Kindergarten / 23189.00-09-TK / DSA # 03-123900

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

_____ dollars $ _____

WELLNESS CENTER TOTAL

_____ dollars $ _____

PARENT CENTER TOTAL

_____ dollars $ _____

TRANSITIONAL KINDERGARTEN TOTAL

_____ dollars $ _____

BASE BID GRAND TOTAL

Bidder acknowledges and agrees that the Base Bid Grand Total accounts for any and all Allowance(s)

Additive/Deductive Alternates: None

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
   - Non-Collusion Declaration
   - Iran Contracting Act Certification

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

Wellness Center – 03-122605

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

Parent Center – 03-122604

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

Transitional Kindergarten – 03-123900

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 B 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

INSTALLING OF A SMART BOARD IQ, LCD, AND WALL CONNECTION DEVICE.

Smart Board IQ / LCD Display

Mounting bracket:

Unless otherwise approved by the district, a Premier Mounts low profile or articulating wall mount with a correct weight tolerance per the display being installed must be used.

Unless otherwise approved by the district, the Premier Mounts universal rectangular washer is required to be installed at each M screw position in relation to the securement of the Smart Board IQ or LCD to the bracket.

The low profile wall mounted bracket is required to be secured to three studs. In absence of a third wall stud Toggle Anchors with a minimum of a 200 pound load tolerance will be required. The wall mount bracket is required to be installed with six of the appropriate lags.

The articulating wall mount bracket is required to be secured to two studs. In the absence of a second wall stud Toggle Anchors with a minimum of a 200 pound load tolerance will be required. The wall mount bracket is required to be installed with four of the appropriate lags.

Wood Studs:

When securing to a wood stud the installation requirements are 3” 5/16” wood lags with the appropriate flat standard washer.

Metal Studs:

When securing to a metal stud the installation requirements are #12 3”metal self-tapping lag with the appropriate flat standard washer.

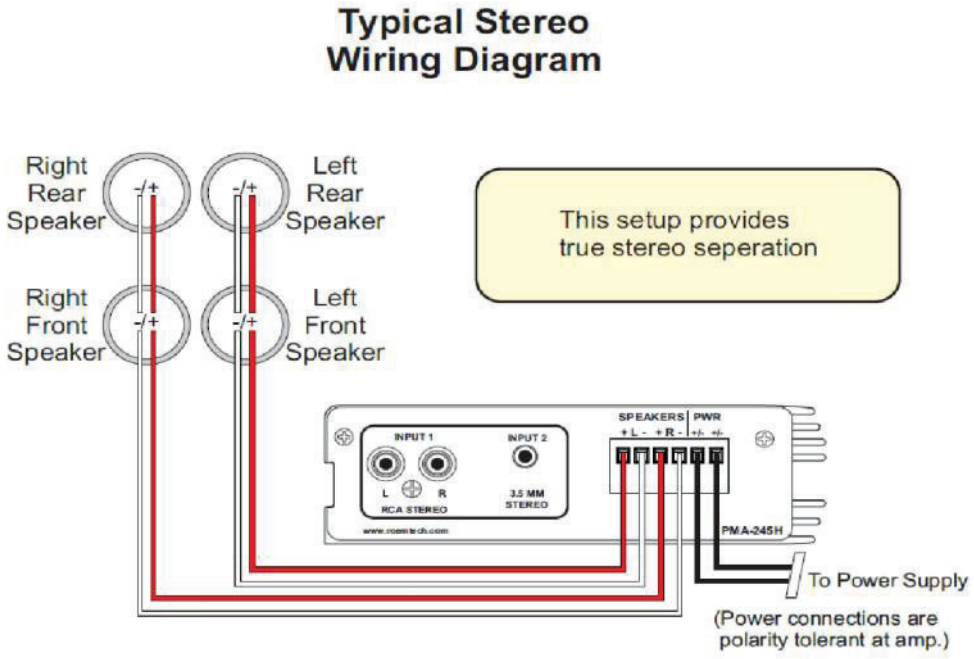
Concrete Wall

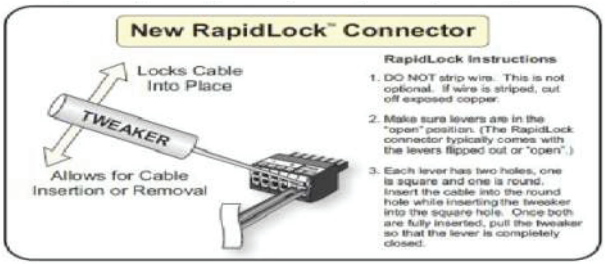
When securing to a concrete wall the installation requirements are 3’ X 3/8” Red Head Wedge Anchor with the appropriate flat standard washer.

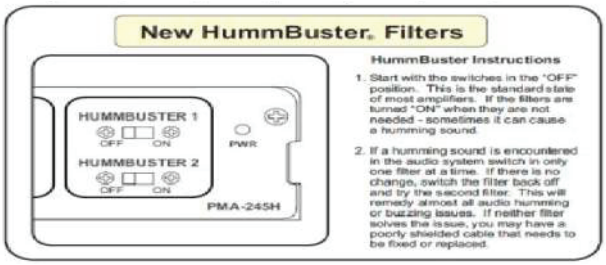
Wall Connection Device

1. Unless otherwise approved by the district, all wall connection devices in relation to the connection for the Smart Board or LCD will be at the standard duplex height in relation to the classroom.
2. Connection devices are required to be installed near or next to existing data ports.
3. Unless otherwise approved by the district, all connection devices will be required to be installed on the same teaching wall as the Smart Board or LCD.
4. Unless otherwise approved by the district, all wall connection devices need to have a protective device cover installed. All covers must be approved by the district.

Installing Classroom Amplifier (typical)



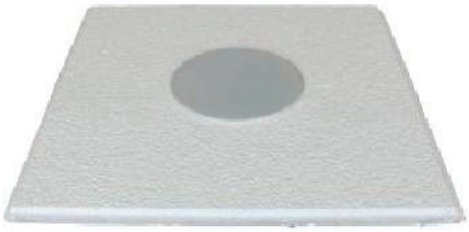




When installing a classroom amplifier, install the AMP below the IQ Smart Board / LCD shroud, above the ceiling tile or behind the LCD. The preferred method of installation for the district is behind the shroud. The AMP is required to be secured with two of the appropriate screws for the wall surface using the two notches located on the sides of the AMP. The power brick will be required to be secured to the wall surface with industrial grade 1 ½" Velcro with a minimum of a ten pound tolerance load. When Velcro is used, the portion that is attached to the wall surface will be required to be secured with the appropriate screws.

Ceiling Speaker Installation Guide

Pictures of finished installation

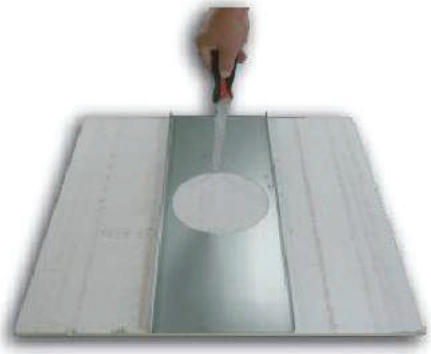


Front/grill side

Rear/speaker can side

STEP 1 - Place the ceiling tile face down on a clean surface.

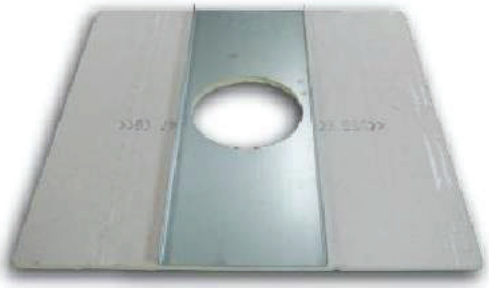
STEP 2 - Measure across the tile to find the exact center. Place the tile brige on the back of the tile and align the tile bridge so that it is centered on the tile.



STEP 3 - Use the tile bridge as a template to trace the outline for the hole to be cut in the tile.

STEP 4 - Remove the tile bridge and use a roto tool, keyhole saw, or saber saw to cut the hole in the tile.

STEP 5 - Place the tile bridge on the tile and align it with the hole.



STEP 6 - While holding the tile bridge to the back of the tile, turn the tile and bridge over and place it so the sides are supported while allowing an opening for the speaker to be placed into the hole. A cardboard box or trash bin can be used to support the tile.

STEP 7 - Lower the speaker into the hole. The photo shows the speaker being lowered from the side for clarity.

Front view of a properly installed speaker with its grill in place.

Rear view of a properly mounted speaker with tile bridge. Note three of the speaker clamps are visible.

STEP 8- Release the 4 speaker clamps so they are firmly holding the speaker to the tile, with a twist and drop motion.

STEP 9 - Drop the speaker wire down from the empty tile hole in the ceiling and connect it to the speaker. Remove the insulation from the end of the wires. While pushing the plastic tab to open the terminal insert the bare wire into the terminal hole and release the tab. Connect the red wire to the red terminal and the black wire to the black terminal.

Add your safety wire to this attachment point, as required by local code. Safety wire will support the entire speaker and tile bridge assembly.

STEP 10 - Gently place the speaker/tile assembly into the ceiling.

Installation Requirements

Ceiling Speaker Installations:

1. Each speaker must be secured with the provided manufacturer tile bridge assembly and a contractor provided seismic safety cable with a minimum of a 3 pound load tolerance at the attachment point on each ceiling speaker.

   Wood Rafter

   When anchoring the safety cable to the closest wood rafter to the ceiling speaker, a ¼" X 3" Acoustical Eye Lag is required.

   Metal Rafter

   When anchoring the safety cable to the closest metal rafter to the ceiling speaker, a ¼" X 2" Self Tapping Acoustical Eye Lag is required.

2. The preferred placement of ceiling speakers is a four position pattern that encompasses the student area of the classroom without creating an excessive overlap or dead zone.
3. The preferred placement of ceiling speakers within the ceiling tile is directly center and must mirror the same placement as the adjoining speaker. If the pathway of the speaker is blocked, the speaker can be installed in a half tile pattern.

Wall Speaker Installations:

1. The installation of the raceway must reflect a "T" pattern, each wall speaker is required to be 3ft from the center of the raceway main pathway leading up from the Smart Board or LCD Display.
2. Each wall speaker is required to be installed at 58 ½" from the bottom of the Smart Board or Display, unless otherwise approved by the district.
3. The provided manufacturer wall speaker bracket is required to be installed horizontally and secured in two separate positions within the bracket.

   Drywall / Tact Board Wall:

   When securing to a drywall or tact board wall, a wall anchor with a minimum of a 20 pound load tolerance is required. Depending on the size of the appropriate screw to the anchor a standard flat washer will be required.

Wood Wall:

When securing to a plywood or plywood backed wall, a #8 X 1-¼" or #8 X 1-5/8" wood screw with the appropriate standard flat washer will be required.

Surface Mounted Raceway:

1. The path of the raceway must be clear of any obstruction, including any existing raceway and cannot be installed over any décor.
2. Surface mounted raceway that is installed on a non-concrete or brick wall will be secured with #8 X 1 5/8" or #8 X 1 ¼" wood screws and will not be secured with any adhesive backing.
3. When raceway is installed on a concrete or brick wall, it will be secured with concrete anchors and screws. Adhesive raceway backing may be used during the installation.

Drop Ceiling Installations:

1. Unless otherwise noted the preferred installation pathway of cabling will be from the Smart Board IQ or LCD up through the drop ceiling tile and back down through a drop ceiling tile that is near a teacher's computer station location.
2. "J Hooks" will be used at each entrance through the ceiling tile and at the appropriate locations to ensure that the cabling is not touching or resting on other ceiling tiles or electrical lines.
3. Cabling for the Smart Board, LCD and Speakers cannot be intertwined with any existing cables, conduits or be laying on fluorescent light panels.
4. Unless otherwise approved by the district, entrance fittings are required to be installed at each breach of the ceiling tile in relation to raceway pathways.
5. Service Loops of the cabling are required above each breach of the ceiling tile or installed equipment.

Hard Cap Ceiling Installations:

1. The preferred installation pathway of cabling will be from under the Smart Board or LCD to the teacher's location.
2. The installation of the raceway must reflect an "L" pattern to the appropriate drop location.
3. In relation to the Smart Board or Display any excess cabling must be secured to the wall behind the unit that does not affect the mounting location or securement of the unit.

Placement / Cabling Installations:

1. The placement of the Smart Board IQ / LCD unless otherwise approved by the District will always be center of the front teaching wall. If an object IE: a White Board or pull down screen is blocking the pathway, the contractor will be required to remove the object and place it in the rear of the room.
2. To allow proper ease of cable management, the shroud will be required to be notched in a manner that is not visible from the front of the Smart Board IQ. Installation of a section of Hubbell PL1ABC7 wil need to be installed below the center of the Smart Board IQ unit that will clear from behind the unit and into the shroud will be required. All cabling from the Smart Board IQ into the shroud will be required to pass through the raceway section.
3. In relation to a Smart Board IQ with a lower shroud, any excess cabling must be secured to the wall below the unit that does not affect the mounting location or securement of the unit and must be concealed from view with the placement of the shroud. The following items can be used as cable management: Nylon mounting zip ties, Velcro strips or B-Line / Eaton BCH21 “J Hook”.
4. Unless otherwise approved by the district, the termination of LAN to the Smart Board IQ will be required to be terminated to a RJ45 CAT6 punch down jack in the shroud area. A provided CAT6 Patch Cable will be required to complete the connection from the modular jack to the Smart Board IQ LAN Port.
5. Unless otherwise approved by the district, two space differentials are required for the securement of the HDBaseT Receiver located under the shroud. The following items can be used as a space differential: 5/16 stainless steel nuts, Nylon mounting holes from a zip tie or a Premier Mount universal spacer.
6. All cable management will be required to be “clean” to aid in identification of cabling.
7. Unless otherwise approved when installing a power strip or power brick behind the shroud, securement of the device is required to be attached to the wall surface with industrial grade 1 ½” Velcro with a minimum of a ten pound tolerance load. When Velcro is used, the portion that is attached to the wall surface will be required to be secured with the appropriate screws.

Hubbell Raceway Systems:

1. Unless otherwise approved by the district, only Hubbell Poly Track Non-metallic Raceway is approved for installation of the Smart Board or LCD cabling. Refer to Installation Scope of each job for approved raceway systems.

General Housekeeping:

1. After each installation is complete the work area will be required to be free of any associated hardware, material packaging and dust or debris.
2. The floors that were in the immediate area of installation are required to be vacuumed to ensure that all hazards have been removed.

Installation Heights:

Unless otherwise approved by the district, see installation heights listed below.

Grade Level	Height in Inches
T-K Kindergarten Special Ed Grade Levels 1st through 2nd 1st through 2nd	32” To the bottom of the Smart Board IQ or LCD to the finish floor.
Special Ed Grade Levels 3rd through 8th 3rd through 8th	36” To the bottom of the Smart Board IQ or LCD to the finish floor.
Parent Resource Centers Library Conference Room	40” To the bottom of the Smart Board IQ or LCD to the finish floor.

Installation of Cabling and Modules Below the Shroud:

Below the Smart Board IQ the wall area is to be sectioned into a quadrant for cable management and quick cable and module identification. IE: Audio, Receiver, Power, LAN.

Unless otherwise approved by the district a 6" clearance space will be required from the outside edge of the Smart Board IQ to the inside module placement. No equipment, cabling or hardware can be installed in the clearance area.

Unless otherwise approved, two CAT6 LAN cables will be required to be installed below the shroud, both lines are to be terminated to a CAT6 punch down jack.

A. Installation of one 7' CAT6 Patch Cable from one of the terminated jacks to the input LAN port on the Smart Board IQ is required.

Unless otherwise approved the Roemtech 45+ amplifier is to be installed directly to the wall surface with the appropriate screws. A service 16/2 speaker cable loop is required to be installed near the receiver.

A. When installing the 3.5mm cable from the receiver to the Smart Board IQ, install one 15' 3.5mm stereo cable from the 3.5mm input port on the amplifier to the output port on the Smart Board IQ.
B. Unless otherwise approved the output volume level is required to be set at a ¾ output volume level.
C. The "Hum Buster " ground loop isolator is required to be activated on the output port that is connected to the 3.5mm stereo cable.

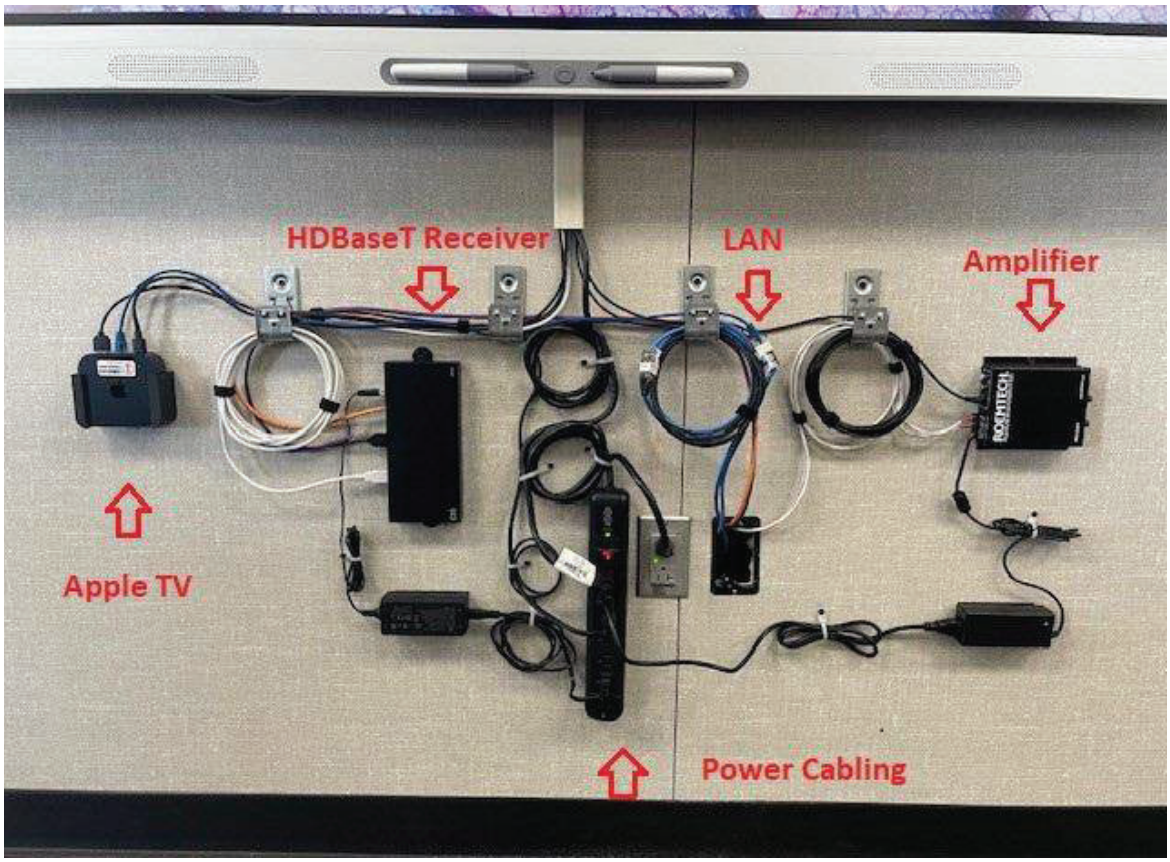
At no time can the exhaust ports located on the sides of the HDBaseT receiver be blocked by any module. IE: Power brick, Amplifier, Apple TV.

A. When installing the HDMI cabling from the receiver to the Smart Board IQ, install one 6' HDMI cable from the output HDMI port on the module to the HDMI input port #2 on the IQ.
B. When installing the USB cabling from the receiver to the Smart Board IQ, unless otherwise specified the district standard USB cables are a 2.0 A/B 5m, 3m or 3.0 A/B. Install one of the specified USB cables from the 1.4 output USB port on the module to the HDMI input port #2 on the IQ.
C. When installing the CAT6 to the HDBaseT receiver a service loop of the primary (orange) and secondary (purple) CAT6 will be required. Both lines are required to be terminated to a RJ45 modular crimp jack.

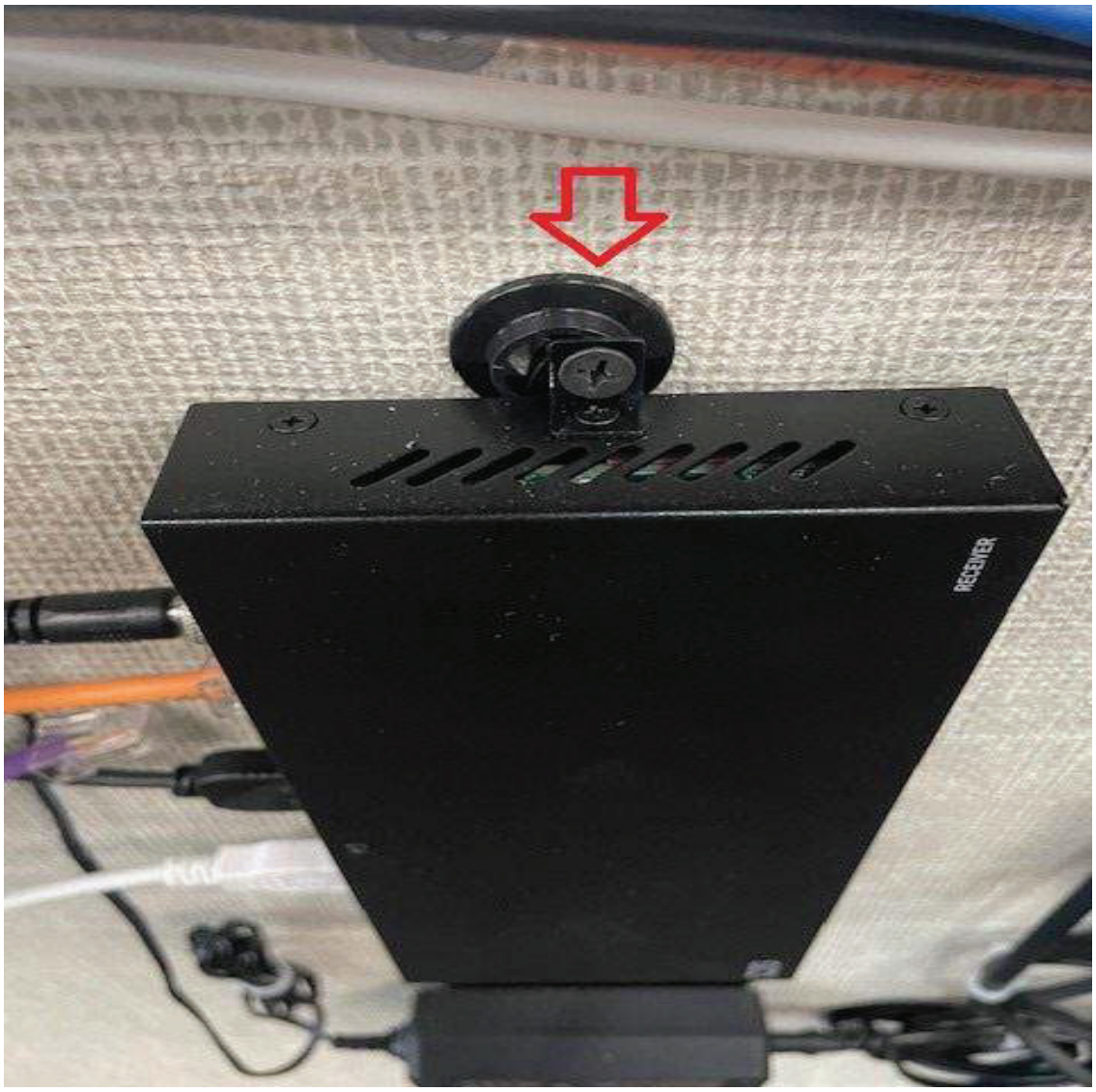
6. When applicable the Apple TV module will be required to be attached to the wall with the appropriate wall mount and screws.

A. When installing the HDMI cabling from the Apple TV to the Smart Board IQ, install one 6’ HDMI cable from the output HDMi port on the module to the HDMI input port #1 on the IQ.
B. When installing the CAT6 patch cable from the Apple TV to the terminated CAT6 punch down jack, install one 3’ CAT6 patch cable from the input port on the Apple TV to the secondary CAT6 punch down jack LAN.

INSTALLATION EXAMPLES (typical)



Typical layout of modules and cabling below the shroud.

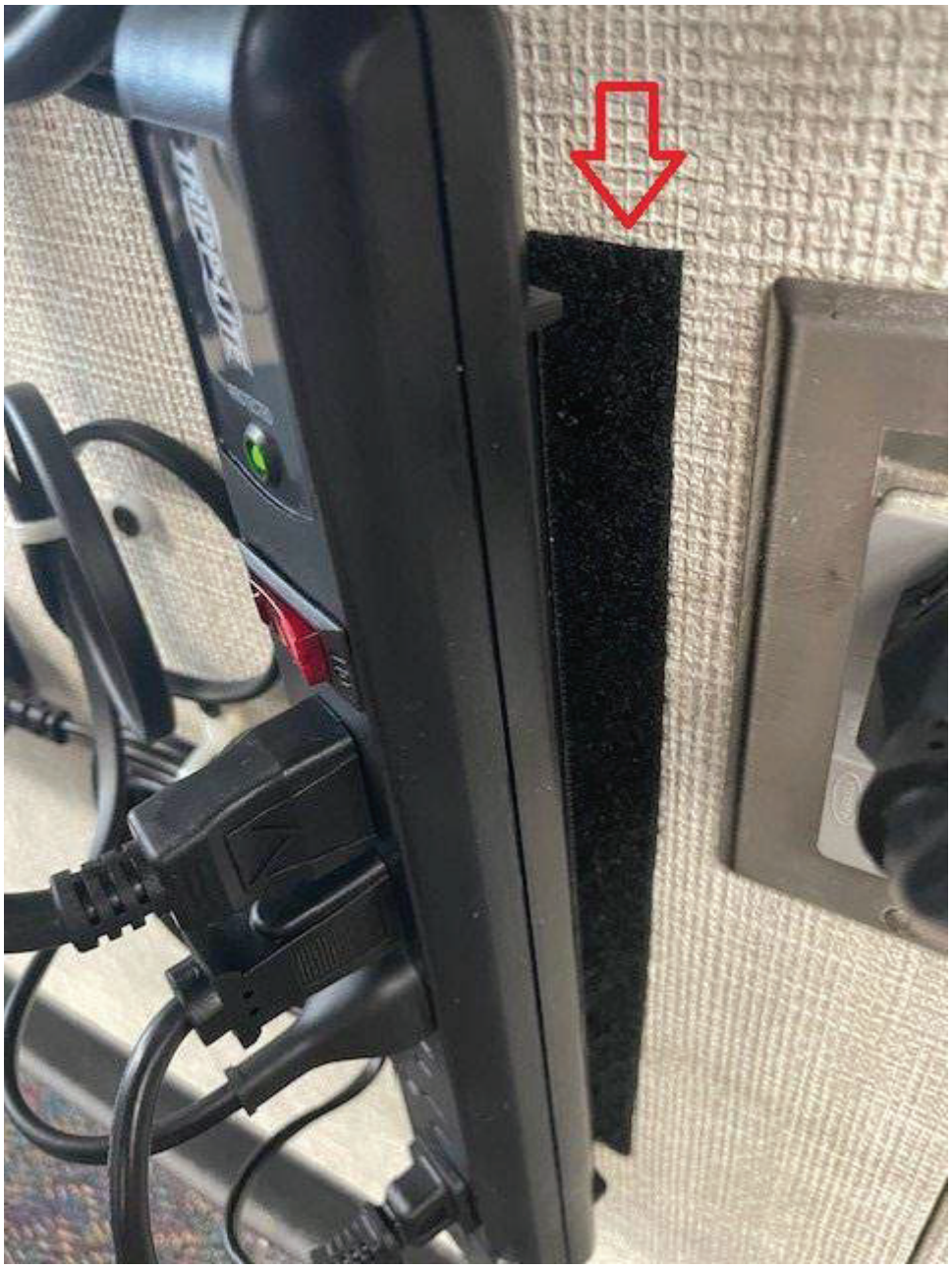


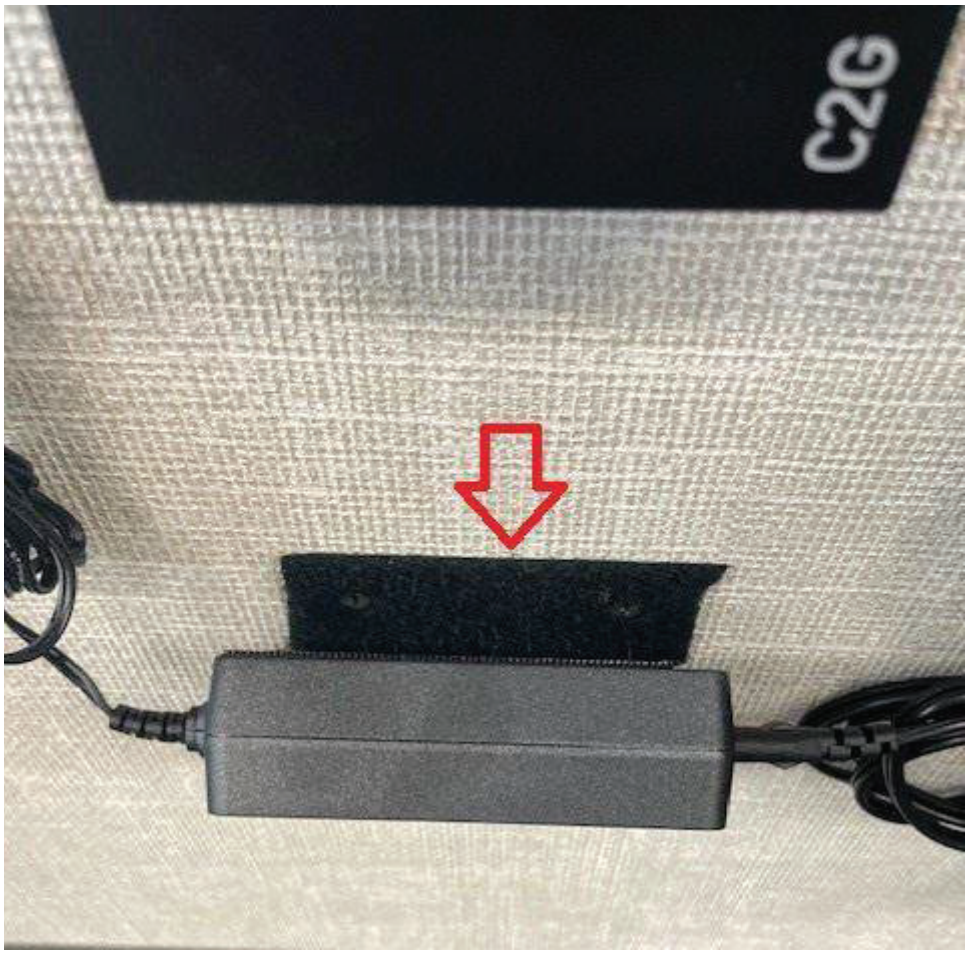
Placement of spacer to allow the receiver to exhaust heat.

The Amplifier is set to ¾ on the output audio level.

The “Hum Buster” ground loop isolator is turned on.

The appropriate screw is securing the unit to the wall surface.





The Velcro section that is attached to the wall is secured with the appropriate screw.

TESTING AND SPECIAL INSPECTION

GENERAL

THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR AND PROJECT INSPECTOR [IOR] DURING CONSTRUCTION ON THE FOLLOWING TYPES OF WORK. THE INSPECTIONS NOTED BELOW SHALL BE PERFORMED BY THE SPECIAL INSPECTOR UNLESS NOTED AS "IOR".

SEE THE APPROVED DSA 103 FORM FOR MORE INFORMATION.

SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE, TO THE SATISFACTION OF THE DIVISION OF THE STATE ARCHITECT, FOR INSPECTION OF A PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- TESTING AND INSPECTIONS WILL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY SELECTED AND EMPLOYED BY THE DISTRICT AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA). QUALIFICATION OF A TESTING AGENCY OR LABORATORY WILL BE UNDER THE JURISDICTION OF THE DSA STRUCTURAL SAFETY SECTION (SSS). PROCEDURAL AND ACCEPTANCE CRITERIA ARE SET FORTH IN THE 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC) SEC. 4-333(c) AND 2022 CALIFORNIA BUILDING CODE (CBC) SEC. 1704.2.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPLICABLE PROJECT DRAWINGS AND SPECIFICATIONS.
- MATERIAL REQUIRED TO BE TESTED WILL BE SELECTED BY THE TESTING LAB OR THE DISTRICT'S PROJECT INSPECTOR AND NOT BY THE CONTRACTOR.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE DIVISION OF THE STATE ARCHITECT, THE DISTRICT OR DISTRICT'S DESIGNATED REPRESENTATIVE, THE ARCHITECT OR PROJECT MANAGER, THE STRUCTURAL ENGINEER OF RECORD, THE CONTRACTOR AND OTHER PERSONS DESIGNATED BY THE DISTRICT OR DISTRICT'S REPRESENTATIVE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL. TEST REPORTS SHALL BE SIGNED BY A REGISTERED CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED VERIFIED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CBC.

PROJECT INSPECTOR (IOR)

- THE DISTRICT MUST PROVIDE FOR AND REQUIRE COMPETENT, ADEQUATE AND CONTINUOUS INSPECTION BY AN INSPECTOR SATISFACTORY TO THE ARCHITECT OR REGISTERED ENGINEER IN GENERAL RESPONSIBLE CHARGE OF OBSERVATION OF THE WORK OF CONSTRUCTION, TO ANY ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR A PORTION OF THE WORK, AND TO DSA. THE COST OF PROJECT INSPECTION SHALL BE PAID FOR BY THE DISTRICT. AN INSPECTOR SHALL NOT HAVE ANY CURRENT EMPLOYMENT RELATIONSHIP WITH ANY ENTITY THAT IS A CONTRACTING PARTY FOR THE CONSTRUCTION. AN APPROVED PROJECT INSPECTOR MAY BE REMOVED AND REPLACED IF THE WORK PERFORMED IS NOT IN CONFORMANCE WITH ACCEPTED INSPECTION STANDARDS AS DETERMINED BY THE DISTRICT AND THE PROJECT ARCHITECT AND ENGINEER WITH CONCURRENCE OF DSA.

SOILS & FOUNDATIONS

SOILS

- PERIODICALLY INSPECT MATERIALS BELOW FOOTING FOR BEARING CAPACITY.
- PERIODICALLY INSPECT EXCAVATIONS FOR PROPER DEPTH.
- PERIODICALLY PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.
- CONTINUOUSLY VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.
- PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY SITE HAS BEEN PREPARED PROPERLY.

FOUNDATIONS

PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT AN IOR FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING DEPARTMENT IOR OF THE FOLLOWING IN WRITING:

- THAT THE BUILDING WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT.
- THAT THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
- THAT THE FOUNDATION COMPLY WITH THE SOILS REPORT AND THE APPROVED PLANS.

CONCRETE & REINFORCING

REINFORCING STEEL

- VERIFY THAT MILL CERTIFICATES SHOW REINFORCING STEEL IS IN COMPLIANCE WITH PROJECT SPECIFICATIONS.
- IOR PERIODICALLY INSPECT THE PLACEMENT OF REINFORCING STEEL FOR SHOTCRETE, FOR CONCRETE WHICH IS REQUIRED TO HAVE CONTINUOUS INSPECTION AND FOR MASONRY.
- CONTINUOUSLY INSPECT THE INSTALLATION OF ALL MECHANICAL COUPLING DEVICES.

BOLTS INSTALLED IN CONCRETE

- IOR PERIODICALLY INSPECT INSTALLATION OF BOLTS AND CONTINUOUSLY INSPECT PLACEMENT OF CONCRETE AROUND SUCH BOLTS.

CONCRETE

- IOR CONTINUOUSLY INSPECT THE PLACEMENT OF ALL CONCRETE EXCEPT PERIODIC INSPECTION MAY BE PROVIDED FOR THE PLACEMENT OF CONCRETE FOR FOUNDATIONS WITH f'c EQUAL TO 2500 PSI OR LESS AND NON-STRUCTURAL SLABS ON GRADE.
- SAMPLE CONCRETE: ASTM C172, EXCEPT SLUMP SHALL COMPLY WITH ASTM C94.
- TEST SLUMP: ASTM C143, ONE TEST AT POINT OF TRUCK DISCHARGE FOR 50 CY OR FRACTION THEREOF FOR EACH TYPE OF CONCRETE; ADDITIONAL TESTS REQUIRED WHEN CONCRETE CONSISTENCY SEEMS TO HAVE CHANGED.
- TEST AIR CONTENT: ASTM C173, VOLUMETRIC METHOD FOR LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE, ONE FOR EACH 50 CY PLACED OR FRACTION THEREOF FOR EACH TYPE OF AIR-ENTRAINED CONCRETE.
- TEST CONCRETE TEMPERATURE: TEST HOURLY WHEN AIR TEMPERATURE IS 50 DEGREES F. (10 DEGREES C.) AND BELOW, AND WHEN 85 DEGREES F. (29 DEGREES C.) AND ABOVE; AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS ARE MADE.
- TAKE COMPRESSION TEST SPECIMENS: ASTM C31, TAKE ONE SET OF 3 STANDARD CYLINDERS FOR EACH 50 CY OF CONCRETE OR 2000 SQ. FT. OF SLABS & WALLS OR FRACTION THEREOF FOR EACH TYPE OF CONCRETE TAKEN EACH DAY. MOLD AND STORE CYLINDERS FOR LABORATORY CURED TEST SPECIMENS EXCEPT WHEN FIELD-CURE TEST SPECIMENS ARE REQUIRED.
- TEST COMPRESSIVE STRENGTH: ASTM C39; ONE SPECIMEN TESTED AT 7 DAYS, TWO SPECIMENS TESTED AT 28 DAYS.
- TEST DRYING SHRINKAGE: ASTM C157, TAKE 1 SET OF 3 DRYING SHRINKAGE SAMPLES FOR EACH DAY'S POUR OF SLABS ON GRADE, SUSPENDED SLABS, AND POST-TENSIONED CONCRETE SLABS.

NON-SHRINK GROUT

- TAKE TEST SPECIMENS AND CONTINUOUSLY INSPECT THE PLACEMENT OF NON-SHRINK GROUT.

POST INSTALLED ANCHORS

- **POST-INSTALLED ANCHORS**
- CONTINUOUSLY INSPECT PLACEMENT OF POST-INSTALLED ANCHORS.
- THE SPECIAL INSPECTOR SHALL VERIFY THE FOLLOWING AND RECORD THE INSTALLATION IN THE INSPECTION REPORT:

1. ANCHOR TYPE, SIZE, AND DIMENSIONS.
2. HOLE DIMENSIONS AND CLEANLINESS.
3. ANCHOR SPACING.
4. EDGE DISTANCE.
5. ANCHOR EMBEDMENT.
6. TORQUE VALUE (AS APPLICABLE).
7. ADHESIVE ANCHOR INSTALLER CERTIFICATION (AS APPLICABLE).

- TEST ANCHORS PER THE REQUIREMENTS OF CBC SECTION 1901.3.4 AND ANCHOR'S ICC REPORT AND WITH THE FOLLOWING FREQUENCY:
- 100% FOR STRUCTURAL APPLICATIONS:

EXCEPTIONS:

1. 10% AT SILL PLATE BOLTING.
2. 25% AT INTERFACE DOWELS AT CAST-IN-PLACE CONCRETE OR SHOTCRETE WALL OVERLAYS.
3. SLAB-ON-GRADE COLD JOINT DOWELS WHERE APPROVED BY THE ENGINEER.

- 50% FOR NON-STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE (ANCHORS NOT SHOWN ON STRUCTURAL DRAWINGS).

- TESTING OF ANCHORS SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO DSA. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS SHALL BE TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY

TESTING VALUES AS NOTED IN POST-INSTALLED ANCHOR TESTING LOADS ON SHEET (S0.02)

STRUCTURAL STEEL

STRUCTURAL STEEL AND MISCELLANEOUS IRON

- VERIFY THAT MILL CERTIFICATES SHOW STRUCTURAL STEEL AND MISCELLANEOUS IRON IS IN COMPLIANCE WITH PROJECT SPECIFICATIONS.

WELDING

- VERIFY WELDER CERTIFICATIONS, COMPLIANCE WITH WELDING PROCEDURE SPECIFICATIONS AND PQR (IF APPLICABLE).
- CONTINUOUSLY INSPECT ALL STRUCTURAL WELDING, INCLUDING WELDING OF REINFORCING STEEL.

EXCEPTIONS:

- SINGLE PASS FILLET WELDS NOT EXCEEDING 5/16" MAY HAVE PERIODIC INSPECTION.
- FLOOR AND ROOF DECK WELDING MAY HAVE PERIODIC INSPECTION.
- WELDED STUDS USED FOR DIAPHRAGM OR COMPOSITE CONSTRUCTION MAY HAVE PERIODIC INSPECTION.
- WELDED SHEET STEEL FOR COLD FORMED STEEL FRAMING MAY HAVE PERIODIC INSPECTION.
- WELDED STAIRS AND RAILING SYSTEMS MAY HAVE PERIODIC INSPECTION.

EXCEPTION:

- THE RATE OF TESTING FOR ULTRASONIC WELDS MAY BE REDUCED TO 25% IF THE FAILURE RATE MEETS THE REQUIREMENTS OF AISC 341 APPENDIX Q.

AUTOMATIC END – WELDED STUDS

- THE SPECIAL INSPECTOR SHALL VERIFY THE FOLLOWING WITH THE MANUFACTURER'S RECOMMENDATIONS AND PROJECT SPECIFICATIONS. RECORD THE INSTALLATION IN THE INSPECTION REPORT:

1. STUD TYPE, SIZE, AND CLEARANCES TO EDGES AND ADJACENT STUDS.
2. TYPE OF WELDING EQUIPMENT.
3. WELDER'S QUALIFICATIONS.
4. WELDING PROCEDURE.
5. WELD JOINT PREPARATION.

- PERIODICALLY INSPECT INSTALLATION OF STUDS.
- TEST STUDS PER THE REQUIREMENTS OF AWS D1.1, AISC 360, AND THE STUD'S ICC REPORT. PERFORM TORQUE TEST FOR TYPE A STUDS AND BEND TESTS FOR TYPE B STUDS.
- TEST STUDS WITH THE FOLLOWING FREQUENCY:

1. AT THE BEGINNING OF EACH DAY'S WORK, A MINIMUM OF TWO TEST STUD WELDS SHALL BE MADE WITH THE EQUIPMENT TO BE USED TO METAL WHICH IS THE SAME AS ACTUAL WORK PIECE.
2. AT ANY CHANGE IN WELDING SETUP OR PERSONNEL, RETEST TWO STUDS PRIOR TO PRODUCTION WORK.

LIGHT GAGE METAL FRAMING

- VERIFY THAT MILL CERTIFICATES SHOW STRUCTURAL STEEL AND MISCELLANEOUS IRON USED IN FABRICATION OF LIGHT GAGE METAL FRAMING IS IN COMPLIANCE WITH PROJECT SPECIFICATIONS.

LIGHT GAGE METAL FRAMING SHEATHING DIAPHRAGMS & SHEARWALLS

- PERIODICALLY INSPECT INSTALLATION OF ANY DIAPHRAGMS & SHEARWALLS, PORTION REQUIRING TWO ROW OR THREE ROW FASTENING/SCREWING, DOUBLE SIDED PLYWOOD SHEATHING, OR FASTENING/SCREWING @ 4" OC OR LESS, INCLUDING FASTENING OF PLYWOOD, BOLTING OF ANCHORS & HOLDOWNS, & FASTENING OF STRAPS.

STRUCTURAL OBSERVATION

REQUIRED OBSERVATION BY THE STRUCTURAL ENGINEER OF RECORD

1. FOUNDATION REINFORCING.
2. STEEL ERECTION.
3. ROUGH FRAMING, TRUSSES AND JOISTS.
4. SHEATHING AND NAILING.

CONTRACTOR SHALL NOTIFY ENGINEER A MINIMUM OF 2 WORKING DAYS PRIOR TO THE TIME WHEN HIS PRESENCE IS REQUIRED. PLEASE NOTE THAT THESE OBSERVATIONS ARE INDEPENDENT OF INSPECTIONS REQUIRED BY THE BUILDING DEPARTMENT.

POST-INSTALLED ANCHOR TESTING

TORQUE INSTALLATION REQUIREMENTS - CONCRETE ANCHORS

ANCHOR DIAMETER	HILTI KB-TZ2 (ICC ESR 4266)		SIMPSON STRONG-BOLT 2 (ICC ESR 3037)		POWERS POWER-STUD+ SD2 (ICC ESR 2502)		SIMPSON TITEN HD (ICC ESR 2713)		HILTI KH-EZ (ICC ESR 3027)		POWERS WEDGE-BOLT+ (ICC ESR 2526)	
	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	MAX INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	MAX INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	MAX INSTALL TORQUE (FT-LBS)
1/4"	1 3/4"	4	1 3/4"	4	-	-	2 1/2"	24	2 1/2"	18	1 3/4"	115
3/8"	3"	30	2 7/8"	30	2 3/8"	20	3 1/4"	50	3 1/4"	40	2 1/8"	245
1/2"	3 3/4"	50	3 7/8"	60	3 3/4"	40	4"	65	4 1/4"	45	3 1/2"	300
5/8"	4 1/2"	40	5 1/8"	90	4 7/8"	60	5 1/2"	100	5"	85	4 3/8"	350
3/4"	5 1/2"	110	5 3/4"	150	5 3/4"	110	6 1/4"	150	6 1/4"	95	4 1/4"	400
1"	6 3/8"	185	9 3/4"	230	-	-	-	-	-	-	-	-

ALLOWABLE LOAD AND TESTING REQUIREMENTS FOR EPOXY SET DOWELS IN CONCRETE

ANCHOR DIAMETER	MINIMUM EMBED	ALLOWABLE TENSION (LBS)	TENSION TEST (LBS)	SHEAR TEST
3/8"	2 3/4"	1200	2400	NONE
1/2"	4 1/2"	1900	3800	NONE
5/8"	5"	2500	5000	NONE
3/4"	6 3/4"	3600	7200	NONE
7/8"	7 3/4"	7000	14000	NONE

NOTES:

1. MINIMUM EMBEDMENTS VARY BETWEEN MANUFACTURERS. EMBEDMENTS NOTED ARE MINIMUMS AND SHOULD BE INCREASED AS REQUIRED TO MEET MANUFACTURER'S PUBLISHED MINIMUM EMBEDMENTS.
2. ANCHORS SHOULD BE INSTALLED INTO MEMBERS WITH A MINIMUM THICKNESS AS NOTED IN THE MANUFACTURER'S ICC REPORT.
3. WHERE DRILLED HOLE DEPTH IS WITHIN 2 1/2" OF THE EDGE OF MEMBER, CONTRACTOR SHALL USE ROTARY DRILL.
4. TENSION TESTED ANCHORS SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS, AND SHALL EXHIBIT NO DISCERNIBLE MOTION DURING THE TEST (SUCH AS LOOSENING OF THE WASHER BELOW THE NUT)
5. TORQUE TESTED ANCHORS SHALL ATTAIN THE SPECIFIED TORQUE WITH ONE-HALF (1/2) TURN OF THE NUT.

ABBREVIATIONS

ABBREVIATIONS

@	AT
ø	DIAMETER
#	NUMBER
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
ALT	ALTERNATE
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAILING
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BVC	BEGIN VERTICAL CURVE
C-C	CENTER TO CENTER
CL	CENTERLINE
CF	CUBIC FOOT
CIDH	CAST IN DRILLED HOLE
CIP	CAST IRON PIPE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CLG	CEILING
CLR	CLEAR, CLEARANCE
CMP	CORRUGATED STEEL PIPE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CSK	COUNTERSINK
CY	CUBIC YARD
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DET	DETAIL
DF	DOUGLAS FIR
DIAG	DIAGONAL
Ø	DIAMETER
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DO	DITTO
DWG	DRAWING
(E)	EXISTING
EA	EACH
EC	END HORIZONTAL CURVE
ECR	END CURB RETURN
EL	ELEVATION
ELEV	ELEVATOR
EMB	EMBANKMENT
EN	EDGE NAILING
EQ	EQUAL
EVC	END VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
EXP	EXPRESSWAY
FBC	FRAMED BEAM CONNECTION
FG	FINISHED GRADE
FIN	FINISH(ED)
FL	FLOW LINE
FND	FOUNDATION
FN	FIELD NAILING
FOC	FACE OF CONCRETE
FOHC	FREE OF HEART CENTER
FOM	FACE OF MASONRY
FOS	FACE OF STUD(S)
FP	FULL PENETRATION
FS	FAR SIDE
FTG	FOOTING
Ga	GAUGE
GALV	GALVANIZED
GLB	GLUE LAMINATED BEAM
H or HT	HEIGHT
HDR	HEADER
HEX	HEXAGONAL
HGR	HANGER
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
INSP	INSPECTION/INSPECTOR
INSUL	INSULATION
JT	JOINT
KIPS	ONE THOUSAND POUNDS
LBS	POUNDS
LF	LINEAR FOOT
LGS	LIGHT GAUGE STEEL
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LOL	LAYOUT LINE
LONGIT	LONGITUDINAL
LS	LAG SCREW(S)
LT	LEFT
LW	LIGHT WEIGHT
MAX	MAXIMUM
MB	MACHINE BOLT(S)
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM, MINUTES
MISC	MISCELLANEOUS
MOD	MODIFIED OR MODIFY
(N)	NEW
NIC	NOT IN CONTRACT
No.	NUMBER
Ø	NOMINAL DIAMETER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
OH	OPPOSITE HAND
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
PL	STEEL PLATE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE
PCP	PERFORATED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PDF	POWDER DRIVEN FASTENER
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
PL	PROPERTY LINE
PL	PLATE
PLY	PLYWOOD
POC	POINT ON HORIZONTAL CURVE
POT	POINT ON TANGENT
POVC	POINT ON VERTICAL CURVE
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OR POST TENSION
PTDF	PRESSURE TREATED DOUGLAS FIR
PVC	POLYVINYL CHLORIDE
RAD or R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCED, REINFORCING
REQ'D	REQUIRED
REV	REVISION
RS	ROUGH SAWN
RT	RIGHT
RW	RETAINING WALL
RWD	REDWOOD
RW	RIGHT OF WAY
SAD	SEE ARCHITECTURAL DRAWINGS
SCHED	SCHEDULE
SEC	SECTION
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTING SYSTEM
SM	SHEET STEEL
SMS	SHEET STEEL SCREW
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STAG	STAGGERED
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
STS	SELF TAPPING SCREW
SYM	SYMMETRICAL
T&G	TONGUE AND GROOVE
TBR	TO BE REMOVED
TEMP	TEMPORARY
TO	TOP OF
TOF	TOP OF FOOTING
TOP	TOP OF PLATE
TOS	TOP OF SLAB OR STEEL
TOW	TOP OF WALL
TRANS	TRANSVERSE
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VC	VERTICAL CURVE
VERT	VERTICAL
W/	WITH
WF	WIDE FLANGE
WP	WATERPROOF or WORKPOINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

ARCH EXPOSED STRUCT STEEL

1. WORK SHALL CONFORM TO THE A.I.S.C. 303-22 SECTION 10,"ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" U.N.O.
2. ALL STEEL MEMBERS, CONNECTIONS ETC., SHALL BE CONSIDERED AS "ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (A.E.S.S.)" IF EXPOSED TO VIEW PER PLANS AND AS NOTED.
3. ERECTION MARKS AND AIDS SHALL NOT BE MADE ON THOSE SURFACES THAT ARE TO BE EXPOSED TO VIEW IN THE COMPLETED STRUCTURE.
4. ERECTION AID BOLTS SHALL BE REMOVED AFTER ALL STRUCTURAL STEEL WORK IS COMPLETE AND ERECTION AID HOLE FILLED WITH PLASTIC STEEL PUTTY TO A.E.S.S. APPEARANCE.
5. SEAMS OF HOLLOW STRUCTURAL SECTIONS SHALL BE ORIENTED AWAY FROM THE PRIMARY POINT OF VIEW, AND IN A CONSISTENT PATTERN, U.N.O.
6. STRUCTURAL BOLT PLACEMENT SHALL BE ORIENTED IN THE SAME DIRECTION AND IN A CONSISTENT PATTERN. RANDOM PLACEMENT IS NOT ACCEPTABLE.
7. FIELD WELDING OF MISPLACED BOLTS WILL NOT BE ACCEPTABLE.
8. UNPLANNED SPLICES ON ANY MEMBERS SHALL BE SUBMITTED TO ARCHITECT OF RECORD FOR REVIEW PRIOR TO PERFORMING ANY WORK ON CONNECTION OF SPLICES.
9. AESS MEMBERS SHALL BE CATEGORY AESS 2, UNO

CORNERSTONE structural engineering group
986 W. Alluvial, Suite 201
Fresno, California 93711
559.320.3200
fax 559.320.3201

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT

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1300 BAKER ST,
BAKERSFIELD, CA 93305

Project Name:

TRANSITIONAL KINDERGARTEN

Project Address:

MLK ELEMENTARY SCHOOL

1100 CITADEL
BAKERSFIELD, CA93307

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

Stamp:

REGISTERED PROFESSIONAL ENGINEER
JUSTIN G. LEE
No. S6623
EXP. 3/31/25
STRUCTURAL
STATE OF CALIFORNIA

Sheet Title:

TESTING & SPECIAL INSPECTION

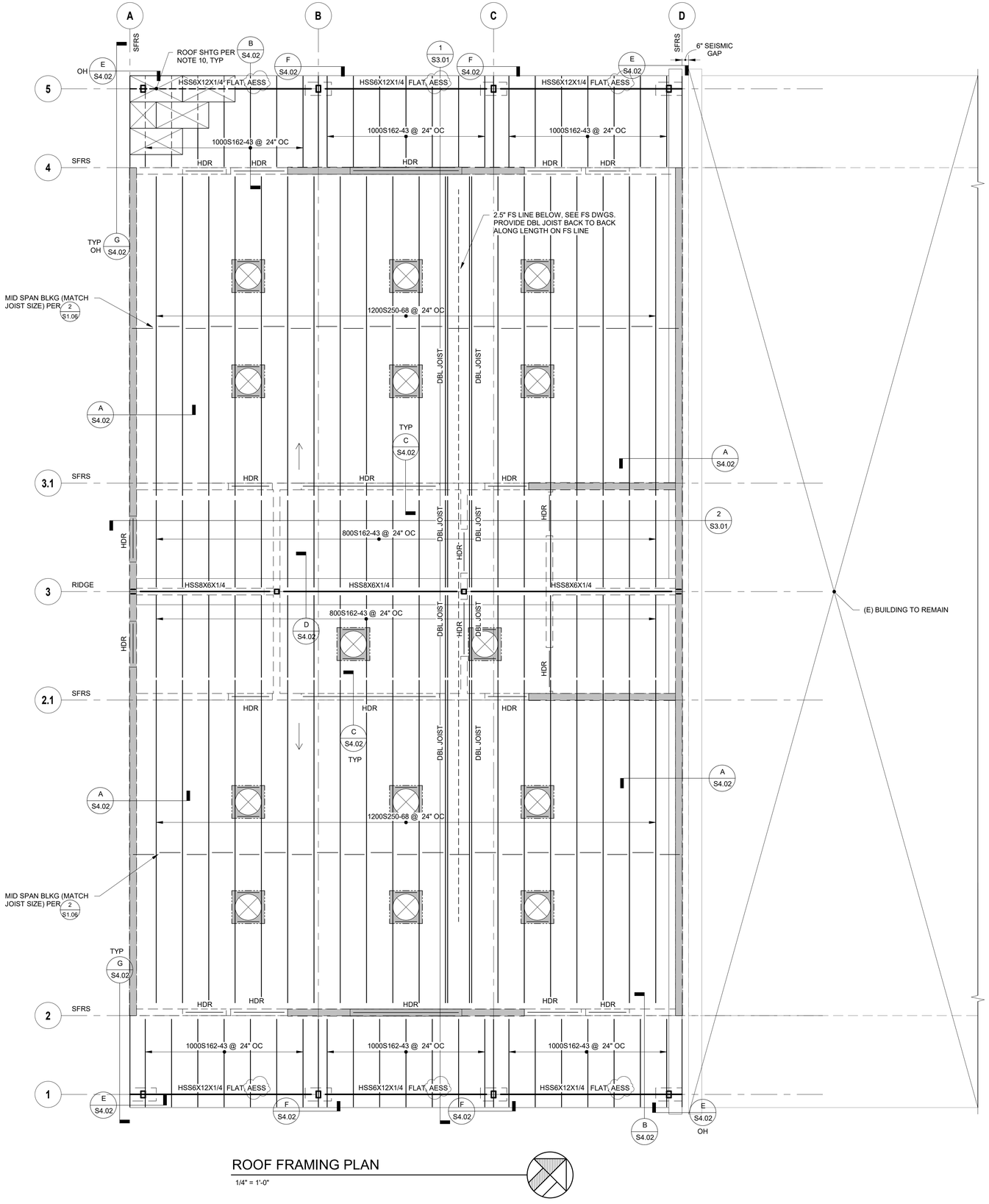
Job No.:

5593

Sheet No.:

S0.02

Release: DSA SUBMITTAL Date: 01-09-24

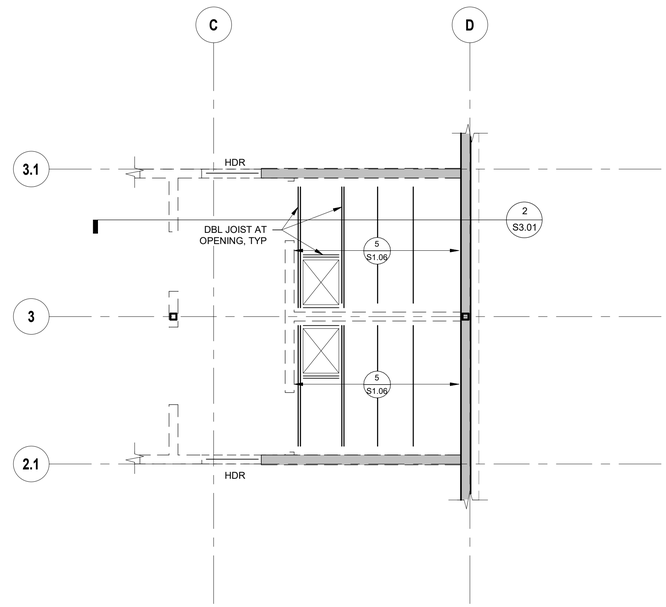


ROOF FRAMING PLAN

1/4" = 1'-0"

ROOF FRAMING NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET S0.01 & S0.02.
2. SEE SHEET S1.01 - S1.08 FOR TYPICAL DETAILS.
3. SEE ARCHITECTURAL DRAWINGS FOR ROOF ELEVATIONS.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS & ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM ARCHITECT & STRUCTURAL ENGINEER OF ANY DISCREPANCY.
5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
6. SEE ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF DECK PENETRATIONS.
7. VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES TYP, U.N.O.
8. THE SIZE, LOCATIONS AND ORIENTATIONS OF ALL MECHANICAL UNITS, CURBS, SLEEPERS AND OPENINGS SHALL BE VERIFIED WITH THE UNIT SUPPLIERS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMMEDIATELY.
9. SEE ARCHITECTURAL DRAWINGS FOR EDGE OF DECK LOCATIONS.
10. ROOF SHEATHING SHALL CONSIST OF 7/16" OSB SHEATHING W/ #8 SMS @ 6" O.C. AT BOUNDARIES AND EDGES AND #8 SMS @ 12" O.C. AT FIELD FASTENING. ALL PLYWOOD SHALL BE FULLY BLOCKED W/ FLAT STRAP, UNO. SEE 4 S1.05 FOR DIAPHRAGM FASTENING & BLOCKING REQUIREMENTS
11. 1 A101 — INDICATES DETAIL/SECTION VIEW WITH VIEW DIRECTION ARROW, DETAIL NUMBER AND SHEET REFERENCE.
12. 1 — INDICATES GRID
13. INDICATES WALL BELOW
14. INDICATES SHEARWALL BELOW
15. INDICATES FRAMED DECK OPENING.
16. INDICATES DIRECTION OF ROOF SLOPE. S.A.D.
17. INDICATES NEW SKYLIGHT UNITS ABOVE ROOF, S.M.D. & 9 S1.08
18. HDR — INDICATES HEADER PER 4 S1.04 UNO.
19. SFRS — INDICATES SEISMIC FORCE RESISTING SYSTEM GRID LINE. ALL TOP TRACK SPLICES SHALL BE PER 8 S1.04



CEILING FRAMING PLAN

1/4" = 1'-0"

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

Stamp:

REGISTERED PROFESSIONAL ENGINEER — DUSTIN G. LEE — No. S9623 EXP. 3/31/25 — STRUCTURAL — STATE OF CALIFORNIA

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ROOF FRAMING PLAN

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CORNERSTONE
structural engineering group
986 W. Alluvial, Suite 201
Fresno, California 93711
559.320.3200
fax 559.320.3201