Stantec Architecture Inc.
910 Louisiana Street, Suite 2600, Houston TX 77002

ADDENDUM

Addendum Number Two (02)
TO PLANS AND SPECIFICATIONS FOR
Alvin ISD Elementary School #23
STANTEC Project Nos.: 214001269

STANTEC ARCHITECTURE INC.
910 Louisiana Street, Suite 2600
HOUSTON, TEXAS 77002



September 11, 2025

NOTE: If you have questions about this Addendum, please contact:
Mark Jackson mark.jackson@stantec.com or
Stewart Williams stewart.williams@stantec.com

This Addendum is generally separated into sections for convenience; however, all contractors, subcontractors, material suppliers and other involved parties shall be responsible for reading the entire Addendum. Failure to list an item(s) in all affected sections of this Addendum does not relieve any party affected from performing per instructions, provided the information is set forth one time anywhere in the Addendum.

This document shall become attached to and part of the Construction Documents for the aforementioned project.

PRIOR APPROVAL

The following products and/or manufacturers have been approved for bidding on this job. All requirements of the specifications and drawings MUST be met by these products at no additional cost to the Owner. Only those products that are specified, or which are listed below, will be accepted on this project.

1. Section 10 11 00, for Visual Display Surfaces;
    a. Add approved manfacturer **Nelson Adams NACO.**

GENERAL ITEMS

1. See attached Bidder's RFI list with responses.
2. Alternate #4 is mandatory because there is no lighting package in the base bid.
3. Attached sign-in sheet from the pre-bid meeting on 9/9/2025.
4. Attached narrative from FDP Food Service Designer

5. Attached narrative from PEA Group (landscape).

SPECIFICATIONS

The following sections are being replaced with modifications:

1. 00 41 10 – Proposal Form Alternates (Updated alternate #3)
2. 01 23 00 – Alternates (Updated alternate #3)
3. 23 09 93 - Sequence of Operations for HVAC Controls
4. 32 18 16 – Synthetic Turf Surfacing for Playground

DRAWINGS

1. **ARCHITECTURAL**:
   a. List of drawings: G101, A111, A112, A113, A114, A131, A201, A202, A301, A302, A311, A312, A321, A402, A413, A501, A502, A602, A614, A621, A711, A821, A822, A823.
2. **CIVIL**
   a. List of drawings: C100, C201, C203, C301, C401, C501, C701.
3. **LANDSCAPE**
   a. List of drawings: L001, L003

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4. **STRUCTURAL**
   a. List of drawings: S021, S110, S111, S112, S113, S114, S120, S121, S122, S123, S124, S130, S131, S132, S133, S134, S401, S501, S502, S511, S512, S522, S552, S701, S702, S703, S704, S705, S706.
5. **FOOD SERVICE**
   a. List of drawings: N/A
6. **MECHANICAL**
   a. List of drawings: M111, M112, M114, M121, M211, M212, M221, M222, M301, M302, M303, M304, M501, M502, M505, M506, M507, M508, M601, M602.
7. **ELECTRICAL**
   a. List of drawings: E213, E401, E801, E802.
8. **PLUMBING**
   a. List of drawings: P102, P301, P302, P303, P403, P501.
9. **TECHNOLOGY**
   a. List of drawings: T213, T214.

NUMBER OF ATTACHMENTS:

1. Substitution Request: 8.5x11 (20) pages
2. Bidders RFI log: 8.5x11 (5) pages

3. Sign in sheets: 8.5x11 (2) pages
4. Narratives: 8.5x11 (6) pages
5. Specifications: 8.5x11 (29) pages
6. Drawings: 30"x42" (95) sheets

END OF ADDENDUM NUMBER TWO (02)

STANTEC
Project Manager
910 Louisiana Street, Suite 2600
Houston, Texas 77002
713.548.5700

PRODUCT AND MATERIAL SUBSTITUTION REQUEST FORM

(This substitution request form must be used for **Pre-Proposal** Substitution Requests or **Post - Proposal** Substitution Requests as specified in Divisions 1 Section -"Product Substitutions".)

Project: Alvin Elementary School #23

From (company): Nelson Adams NACO Date: 9/4/2025

Address: 420 South E St, San Bernardino, CA 92401 Telephone: (909) 383.0819

[ ] Bidding G.C. [ ] CM @ Risk [ ] Bidding subcontractor [X] Bidding vendor or manufacturer

Substitution approval is an acceptance of only the manufacturer and product for general conformance with the design concept reflected in the Contract Documents. The A/E has made no attempt to verify specific performance data, or to check the details of the proposed substitution as to special features, capacities, physical dimensions or code and/or regulatory compliance, all of which remain the responsibility of the person/entity submitting the proposed substitution.

Specified Product: Claridge visual display units, markerboards y tackboards (fixed & sliding)

Specification Title: Visual Display Surfaces Section No. 10 11 00

Page No. 743 Paragraph No. 1.1 or previous Addendum No. _____

Proposed Substitution: Nelson Adams visual display units, markerboards y tackboards (fixed & sliding)

Manufacturer: Nelson Adams NACO Phone: 909.383.0819

Model/Series Number: Series 2000 Trade Name _____

Area Distributor Nelson Adams NACO Contact Albert Cardenas Phone 909.383.0819

History: [ ] New product [ ] 2-5 years old [x] More than 10 years old

Differences between proposed substitution and specified product: Nelson Adams products are equal or superior in quality, performance, and dimensions, with equivalent or superior warranty and availability

Similar Installations: (attach any additional related project listings)

Project	Architect	Phone
Digueno MS	Ruhnau Clarke Architects	(657) 580 -7487
Address		**Year Installed**
2150 Village Park Way Encinitas, CA 92024		12/01/2024
San Dieguito Union High School District		(760)753-6491

Owner Contact		Phone
Southgate ES	Hibser Yamauchi Architects	510.234.0926
Project	Architect	Phone
26601 Calaroga Ave, Hayward, CA 94545		On going
Address		Year Installed
Hayward Unified School District		510.784.2600
Owner Contact		Phone

Proposed substitution affects other parts of work: [x] No [ ] Yes

If Yes, explain_____

Estimated Cost Savings to Owner (if substitution is proposed by G.C.) [ ] negligible [ ] $ 5% lower

Time Savings for Project (if substitution is proposed by G.C.) [ ] none [ ] saved days [ ] extra days

Supporting Data Attached: [x] Drawings [x] Product Data [x] Samples [x] Tests [x] Reports [ ] Other:
Note: Comparative data sufficient for Owner / Architect / General Contractor evaluation is required.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- For items where color/pattern is named in the documents, proposed color/pattern of the substituted item will be the equivalent, with the final determination made by the Architect.
- Equal or better warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule except as may be clearly identified above.
- Claims for additional costs for this substitution (other than costs clearly indicated above), are the responsibility of the entity making this request.
- Substitutions affecting minor dimensions and clearances are identified herein, and it is the responsibility of the entity requesting the substitution to coordinate such with the Contractor. Approval of such changes is the sole responsibility of the Architect.

Signature of Person Submitting: Doreidi Perez Title Plan Review Manager

Printed Name: Doreidi Perez email D.Perez@nelsonadamsnaco.com

A/E's RESPONSE (**Accepted substitutions will be included in written addendum issued prior to bidding):**

[ ] Substitution rejected for non-compliance……Use specified materials.
[ ] Substitution rejected for lack of data……Use specified materials.
[ ] Substitution Request received too late……Use specified materials.

[ ] Substitution conditionally approved – Provide submittals after bidding per Division 1 Section "Submittals".
[ ] Plus noted exceptions: _____

Copied to: [ ] Owner [ ] General Contractor [ ] _____ [ ] _____

For any Product Substitution Request submitted at any time for a Construction Manager at Risk project, or after bidding is complete for a Competitive Sealed Proposal project, this form must be approved for submittal by the CMAR or successful General Contractor as identified herein:

Signed	Printed name and title	Date	Vendor/Subcontractor
Signed	Printed name and title	Date	CMAR / GC



American Made Innovation Since 1953

ALVIN ELEMENTARY SCHOOL #23

2727 WHITE GOLD DRIVE, LOWA COLONY, TX 77583

SECTION: 10-11-00

TACKBOARDS

9/4/2025

TANTEC ARCHITECTURE IN

IANA ST, ST 2600 HOUSTON

Nelson Adams NACO Substitution Package

Project Name: **LVIN ELEMENTARY SCHOOL #**

1. Substitution Request

We hereby submit the following substitution for consideration. The product proposed is believed to **meet or exceed the performance, quality, and functionality of the specified product**.

2. Original Specified Product

Manufacturer:	CLARIDGE
Product Name/Model:	**Not Specified**
Specification Section:	**10-11-00**
Material:	**TACKBOARD**

3. Proposed Substitute Product

Manufacturer:	**NELSON ADAMS NACO**
Product Name/Model:	SERIES 2000
Specification Section:	**10-11-00**
Material:	**TACKBOARD**

4. Supporting Documentation

✓ Technical Specifications

✓ Warranty Information

5. Comparison Between Specified and Proposed Product

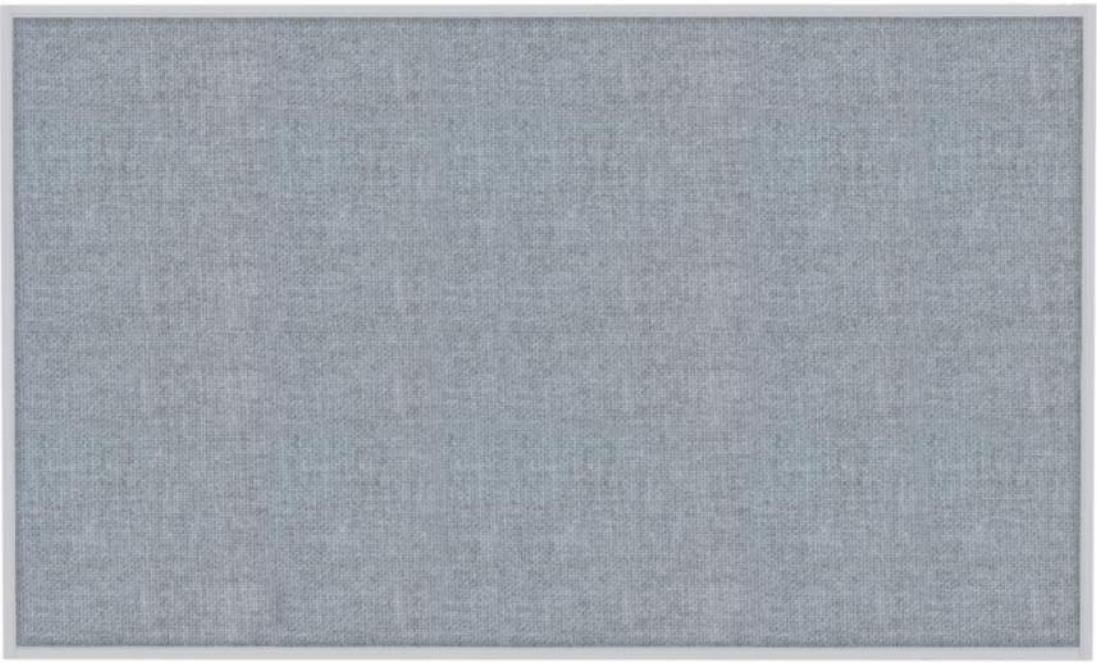
COMPANY	NELSON ADAMS NACO	CLARIDGE
SERIES	SERIES 2000	SERIES 2000
TACKBOARD SURFACE	KOROSEAL / VINYL	KOROSEAL / VINYL
TRIM	C4 - 3/4"	C4 - 3/4"
CORE THICKNESS	1/2 Fiberboard	1/2 Fiberboard
ATTACHMENT	Z - Clips	Z - Clips

Enclosed please find our **submittal** for your **review and approval**.
We kindly request that you forward this to the **architect for consideration**.
The proposed substitution will have no impact on the **contract sum, schedule, or details, and is fully compliant with the project requirements**.

Sincerely,

Doreidi Perez

D.Perez@nelsonadamsnaco.com



Tackboards

Since 1953, Nelson Adams NACO has created products to meet the needs of multipurpose rooms such as classrooms, labs and conference rooms. Independently owned and operated, the company focuses on precision-focused technology to create outstanding products.

- Tackboard is constructed with a durable vinyl wall covering over ½" fiberboard, fully framed with C-4 satin clear anodized perimeter trim. Optional accessories include a marker tray and map rail upon request. Multiple manufacturing options are available to meet diverse design and project requirements.

Proud Partner of:

Forbo Flooring Systems
Polyvision
Koroseal
Guilford of Maine A duvaltex brand
maharam
Carnegie

PRODUCT DATA - TACKBOARD

Tackboard Surface

** Koroseal / Vinyl ☑
** Guildford of Maine / Fabric ☐
** Maharam / Fabric ☐
** Carnegie Xorel / Fabric ☐
** Forbo ☐
** Other per Specs: ☐

Core Thickness

** 1/4 Natural Cork on 1/4 Hardboard ☐
** 1/4 Natural Cork on 1/4 MDF ☐
** 1/2 Fiberboard ☑
** 1/4 Forbo with Hardboard ☐
** 1/4 Forbo with MDF ☐
** Other per Specs: ☐

Trim

** C4 – 3/4'' ☑
** C18 – 1 1/4'' ☐

**Wrapped Edges ☐
** Other per Specs: ☐

KOROSEAL ☑

Call to the office for more options available

Breakwater 2118-79



Atrium 2118-00

Antique White 2118-12



Moonlight 2118-92



GUILDFORD OF MAINE ☐

Silver Neutral 2100-406



Cristal Blue 2100-175



Claret Accent 2100-418



Ultramarine 2100-470



FORBO ☐

black olive 2209



blue berry 2214



potato skin 2182



oyster shell 2206



CARNEGIE XOREL ☐

Xorel Dash



Xorel Strie



Xorel Ion



Xorel Meteor



MAHARAM ☐

Filigree



Curio



Cedar



Illude



Warranty Options

5 Years ☐

10 Years ☑

Other per specs: ☐

Custom face option available

Nelson Adams NACO II 420 S E St, San Bernardino, CA II (909) 383-0819 II www.nelsonadamsnaco.com

ALVIN ELEMENTARY SCHOOL #23

2727 WHITE GOLD DRIVE, LOWA COLONY, TX 77583

SECTION: 10 11 00

SLIDING MARKERBOARD

Nelson Adams Naco 420 S E St San Bernardino, CA 92401 t: 877-810-4080 f: **909.879.7687** / **www.nelsonadamsnaco.com**

Date: 9/4/2025

STANTEC ARCHITECTURE INC

910 Louisiana St, 2600 Houston, TX 77002

Re: Azle ISD Junior High School Package 2 - Azle, TX (Product Comparison / Substitution)
We hereby submit for your consideration the following product in lieu of specified item:

* Section: **[10 11 00 Visual Display Surfaces]**
* Specified Item: **[Surface mount visual display surfaces – Claridge] or equal**
* Proposed Substitution: **[Nelson Adams NACO – Series HSS Series]**
* Reason for Substitution: **[Nelson Adams NACO products are equal or superior to Claridge]**
* (See Comparison Below)

Surface mount sliders– horizontal sliders

SERIES:	Series HSS Surface mount horizontal slider	Series horizontal slider unit
WRITING SURFACE:	Porcelain e^3 surface or Konematsu surface	Porcelain LCS
HOUSING & TRIM:	Tubular and Standard ¾" face 6063T - Alloy	Tubular and Standard ¾" face 6063T-Alloy
CORE THICKNESS:	½" Fiberboard or ½" Particle board	½" honeycomb
BACKER:	.015	.015
TRAY:	Standard blade tray with radius edges	Standard blade tray with straight edges
MAP RAIL	1" or 2" Running full length of board	1" or 2" Running full length of board
TRACK SYSTEM:	Top hung with nylon guides	Top hung with nylon guides

Enclosed is our submittal for your approval.
Please forward our request to the architect.

The Proposed substitution will have no effect on the Contract sum, Contract schedule or Contract details.

Sincerely,
Doreidi Perez

Nelson Adams Naco 420 S E St San Bernardino, CA 92401 f: 909.879.7687 /www.nelsonadamsnaco.com

D.Perez@nelsonadamsnaco.com

FIXED MARKERBOARDS	NELSON ADAMS NACO	CLARIDGE	ABC
TRAY TYPE	BLADE & BOX	BLADE & BOX	BLADE & BOX
STANDARD MAPRAIL TYPES	1" & 2"	1" & 2"	1" & 2"
STANDARD TRAY EDGE CONFIGURATION	SMOOTH RADIUS EDGES	REMOVEABLE PLASTIC END CAPS	SMOOTH RADIUS EDGES
BOX TRAY EDGE CONFIGURATION	CAST ALUMINUM END CAPS	PLASTIC END CAPS	CAST ALUMINUM END ENCLOSURES
MAPRAIL INSERTS	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO
END STOPS	1" & 2"	1" & 2"	1" & 2"
PORCELAIN	e3 WRITING SURFACE & KONEMATSU	e3 WRITING SURFACE & LCS	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
PORCELAIN FUSED GRAPHIC OPTIONS	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR
SUBSTRATE	1/2" AND 7/16" PARTICLE BOARD	7/16" PARTICLE BOARD	1/2" PARTICLE BOARD
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
ACCESSORIES	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.
JOINT OPTIONS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS
COLOR OPTIONS	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED
ANCHORING CONFIGURATIONS	DIRECT ATTACHED & L-CLIPS	DIRECT ATTACHED & L-CLIPS	DIRECT ATTACHED & L-CLIPS
ADHESIVE	HENRY'S 317 OR 237	HENRY'S 317	HENRY'S 317

HORIZONTAL SLIDERS MARKERBOARDS - TW	NELSON ADAMS NACO	CLARIDGE	ABC
TRAY TYPE	BLADE	BLADE	BLADE
STANDARD MAPRAIL TYPES	1" & 2" OR NONE - FASCIA ONLY	STANDARD 2"	STANDARD 2"
STANDARD TRAY EDGE CONFIGURATION	SMOOTH RADIUS EDGES	REMOVEABLE PLASTIC END CAPS	SMOOTH RADIUS EDGES
MAPRAIL INSERTS	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO
END STOPS	1" & 2"	1" & 2"	1" & 2"
PORCELAIN	e3 WRITING SURFACE	e3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
PORCELAIN FUSED GRAPHIC OPTIONS	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR
SUBSTRATE	1/2" FIBERBOARD	1/2" HONEYCOMB	1/2" HONEYCOMB
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
ACCESSORIES	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.
JOINT OPTIONS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS
COLOR OPTIONS	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED
ANCHORING CONFIGURATIONS	DIRECT ATTACHED	DIRECT ATTACHED	DIRECT ATTACHED

HORIZONTAL SLIDERS MARKERBOARDS - HS	NELSON ADAMS NACO	CLARIDGE	ABC
TRAY TYPE	BLADE	BLADE	BLADE
STANDARD MAPRAIL TYPES	1" & 2" OR NONE - FASCIA ONLY	STANDARD 2"	STANDARD 2"
STANDARD TRAY EDGE CONFIGURATION	SMOOTH RADIUS EDGES	REMOVEABLE PLASTIC END CAPS	SMOOTH RADIUS EDGES
MAPRAIL INSERTS	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO	NAT.CORK, VINYL COVERED CORK & FORBO
END STOPS	1" & 2"	1" & 2"	1" & 2"
PORCELAIN	e3 WRITING SURFACE	e3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
PORCELAIN FUSED GRAPHIC OPTIONS	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR
SUBSTRATE	1/2"FIBERBOARD	1/2" HONEYCOMB	1/2" HONEYCOMB
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL
ACCESSORIES	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.	1" & 2" MAPHOOKS, FLAG HOLDERS & ROLLING B.
JOINT OPTIONS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS
COLOR OPTIONS	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED
ANCHORING CONFIGURATIONS	L-CLIPS	L-CLIPS	L-CLIPS
HOUSING	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED

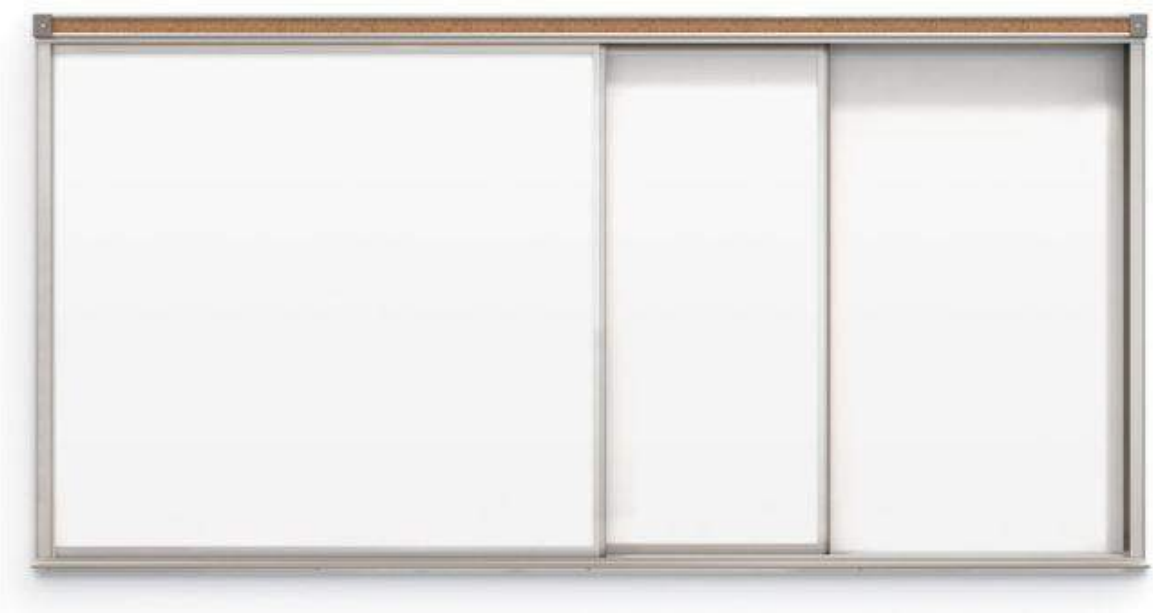
VERTICAL SLIDERS MARKERBOARDS	NELSON ADAMS NACO	CLARIDGE	ABC
TRAY TYPE	BLADE OR BOX	BOX	BOX
STANDARD TRAY EDGE CONFIGURATION	SMOOTH RADIUS EDGES OR OR CAST ALUMINUM END CAPS	REMOVEABLE PLASTIC END CAPS	CAST ALUMINUM END CAPS
PORCELAIN	e3 WRITING SURFACE	e3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
PORCELAIN FUSED GRAPHIC OPTIONS	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR	PENMANSHIP LINES, MUSIC LINES, GRAPH & POLAR
SUBSTRATE	1/2" FIBERBOARD	7/8" HONEYCOMB	7/8" HONEYCOMB
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL	OPTIONAL FIXED BACK PANEL
JOINT OPTIONS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS
COLOR OPTIONS	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED

ANCHORING CONFIGURATIONS	DIRECT ATTACHED	DIRECT ATTACHED	DIRECT ATTACHED
HOUSING	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED
FULL HEIGHT MARKERWALLS	NELSON ADAMS NACO	CLARIDGE	ABC
TRIM	STANDARD 1/2"ALUMINUM J-TRM	STANDARD 1/2"ALUMINUM J-TRM	STANDARD 1/2"ALUMINUM J-TRM
PORCELAIN	e3 WRITING SURFACE	e3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
SUBSTRATE	1/2" PARTICLEBOARD	7/16" PARTICLEBOARD	1/2" PARTICLEBOARD
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
JOINT OPTIONS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS	SPLINE JOINT, DIVIDER BAR & BUTT JOINTS
COLOR OPTIONS	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED	CLEAR SATIN ANODIZED & POWDERCOATED
ANCHORING CONFIGURATIONS	DIRECT ATTACHED	DIRECT ATTACHED	DIRECT ATTACHED
ADHESIVE	HENRY'S 317 OR 237	HENRY'S 317	HENRY'S 317
FULL HEIGHT SLIDERS	NELSON ADAMS NACO	CLARIDGE	ABC
TRIM	STANDARD 1/2"ALUMINUM J-TRM	STANDARD 1/2"ALUMINUM J-TRM	STANDARD 1/2"ALUMINUM J-TRM
PORCELAIN	e3 WRITING SURFACE	e3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
SUBSTRATE	1/2" HONEYCOMB & 1/2 FB ON 1/4" HB W/.005	7/16" HONEYCOMB	7/8" HONEYCOMB
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
TRACK STYSTEM	BOTTOM ROLLERS AND TOP NYLON GUIDE TRACK	BOTTOM ROLLERS AND TOP NYLON GUIDE TRACK	BOTTOM ROLLERS AND TOP NYLON GUIDE TRACK
TACKBOARDS	NELSON ADAMS NACO	CLARIDGE	ABC
1/4" FORBO ON 1/4" HARDBOARD	FORBO WITH STD C-4 "U" ALUMINUM FRAME	FORBO WITH STD "U" ALUMINUM FRAME	FORBO WITH STD "U" ALUMINUM FRAME
VINYL ON 1/2" FIBERBOARD	VINYL WITH STD C-4 "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME
STD FABRIC ON 1/2" FIBERBOARD	FABRIC WITH STD C-4 "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME
VINYL ON 1/4" NAT.CORK ON 1/4" HB	VINYL WITH STD C-4 "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME
STD FABRIC ON 1/4" NAT.CORK ON 1/4" HB	FABRIC WITH STD C-4 "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME
VINYL ON 1/2" FIBERBOARD	VINYL WITH STD C-4 "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME	VINYL WITH STD "U" ALUMINUM FRAME
STD FABRIC ON 1/2" FIBERBOARD	FABRIC WITH STD C-4 "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME	FABRIC WITH STD "U" ALUMINUM FRAME
ANCHORING CONFIGURATIONS	L-CLIPS	L-CLIPS	L-CLIPS
ADHESIVE	HENRY'S 317 OR 237	HENRY'S 317	HENRY'S 317
ADDITIONAL COMBINATIONS AVAILABLE			
TACKWALL PANELS	NELSON ADAMS NACO	CLARIDGE	ABC
STANDARD VINYL 1/2" FIBERBOARD	STANDARD VINYL 1/2" FIBERBOARD	STANDARD VINYL 1/2" FIBERBOARD	STANDARD VINYL 1/2" FIBERBOARD
STANDARD FABRIC* 1/2" FIBERBOARD	STANDARD FABRIC 1/2" FIBERBOARD	STANDARD FABRIC 1/2" FIBERBOARD	STANDARD FABRIC 1/2" FIBERBOARD
1/2" J-TRIM	CLEAR ANODIZED, POWDERCOATED & VINYL COVERED	CLEAR ANODIZED, POWDERCOATED & VINYL COVERED	CLEAR ANODIZED, POWDERCOATED & VINYL COVERED
*FABRIC W/ ACRYLIC BACKER			
ADDITIONAL COMBINATIONS AVAILABLE			
DISPLAY CASES	NELSON ADAMS NACO	CLARIDGE	ABC
CONFIGURATION	SLIDING, HINGED AND FREESTANDING	SLIDING, HINGED AND FREESTANDING	SLIDING, HINGED AND FREESTANDING
FIXED BACK PANEL	VINYL, NAT.CORK, FORBO AND FABRIC	VINYL, NAT.CORK, FORBO AND FABRIC	VINYL, NAT.CORK, FORBO AND FABRIC
GLASS	1/4" TEMPERED GLASS	1/4" TEMPERED GLASS	1/4" TEMPERED GLASS
STANDARD SHELVES	2 EACH	2 EACH	2 EACH
LIGHTING	STANDARD LED 110 V LIGHTING	STANDARD FLUORESCENT 110 V LIGHTING	STANDARD FLUORESCENT 110 V LIGHTING
KEYS	SLIDING LOCKS W/2 KEYS ALIKE	SLIDING LOCKS W/2 KEYS ALIKE	SLIDING LOCKS W/2 KEYS ALIKE
ALUMINUM FINISHED	CLEAR SATIN ANODIZED OR POWDERCOATED	CLAR SATIN ANODIZED	CLEAR SATIN ANODIZED
HANDLES	PLASTIC PULLS	PLASTIC PULLS	PLASTIC PULLS
APPLICATIONS	RECESS, SURFACE AND STAND ALONE	RECESS, SURFACE AND STAND ALONE	RECESS, SURFACE AND STAND ALONE
TACKSTRIPS	NELSON ADAMS NACO	CLARIDGE	ABC
SIZES	1" AND 2"	1" AND 2"	1" AND 2"
INSERTS	NATURAL CORK, FORBO & VINYL COVERED	NATURAL CORK, FORBO & VINYL COVERED	NATURAL CORK, FORBO & VINYL COVERED
COLOR	CLEAR ANODIZED & POWDERCOATED	CLEAR ANODIZED & POWDERCOATED	CLEAR ANODIZED & POWDERCOATED
FDW - FORBO DIRECTLY TO WALL	NELSON ADAMS NACO	CLARIDGE	ABC
FORBO	1/4" FORBO	1/4" FORBO	1/4" FORBO
1/4" J-TRIM	SATIN CLEAR ANODIZED & POWDERCOATED	SATIN CLEAR ANODIZED & POWDERCOATED	SATIN CLEAR ANODIZED & POWDERCOATED
ADHESIVE	HENRY'S 317, HENRY'S 237 OR L910	HENRY'S 317 OR L910	HENRY'S 317 OR L910
FRAMELESS PANELS	NELSON ADAMS NACO - e3 CONCEPT STEEL SURFACES	POLYVISION - a3 CERAMICSTEEL SANS	EGAN VISUAL - DIMENSION STELE LINXX
TRIM	NONE - PAINTED EDGE TO MATCH WRITING SURFACE	NONE-PAINTED EDGE TO MATCH WRITING SURFACE	NONE-PAINTED EDGE TO MATCH WRITING SURFACE

PORCELAIN	e3 WRITING SURFACE	a3 WRITING SURFACE	e3 WRITING SURFACE
PORCELAIN WIDTHS	4'-0" AND 5'-0"	4'-0" AND 5'-0"	4'-0" AND 5'-0"
PORCELAIN STD OPTIONS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS	WHITE LOW & HIGH GLOSS
SUBSTRATE	1/2" PARTICLEBOARD	1/2" PARTICLEBOARD	1/2" PARTICLEBOARD
MOISTURE BARRIER BACKER	.005 & .015 MOISTURE BARRIER BACKER	.005 & .015 BACKER	.005 & .015 MOISTURE RESISTANT BACKER
JOINT OPTIONS	NONE REQUIRED	NONE REQUIRED	NONE REQUIRED
ANCHORING CONFIGURATIONS	DIRECT ATTACHED	DIRECT ATTACHED	DIRECT ATTACHED
ADHESIVE	Z-CLIPS	Z-BAR	Z-BAR

TACKWALL PANELS	NELSON ADAMS NACO	CHATFIELD CLARKE
STANDARD VINYL 1/2" FIBERBOARD	KOROSEAL SCHOOL COLLECTION VINYL 1/2" FIBERBOARD	KOROSEAL SCHOOL COLLECTION VINYL 1/2" FIBERBOARD
1/2" J-TRIM	CLEAR ANODIZED, POWDERCOATED, VINYL COVERED & PVS	PVS TRIMS ONLY & VINYL COVERED

Product Data - Series HSS Horizontal Surface Mount Slider



Sliding Markerboard

Since 1953, Nelson Adams NACO has created products to meet the needs of multipurpose rooms such as classrooms, labs and conference rooms. Independently owned and operated, the company focuses on precision-focused technology to create outstanding products.

- HSS substrate construction consist of e3 porcelain on 1/2" fiberboard with .015 moisture resistant backer. 2 7/8" x 1 9/16" aluminum housing with standard satin clear anodized aluminum that include C4 perimeter trim, standard integrated blade tray with radius edges.

Proud Partner of:

Forbo FLOORING SYSTEMS

Polyvision

KOROSEAL

Product Data - Series HSS Horizontal Surface Mount Slider

Markerboard Panels:

1/2” Fiberboard core

C4 perimeter trims- 3/4” wide

1” natural cork map-rail - 2” available

Sliding System

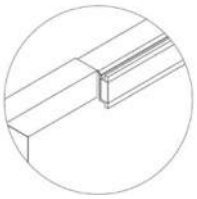
2 7/8" x 1 9/16" aluminum housing

1 to 4 tracks & 1 to 8 panels

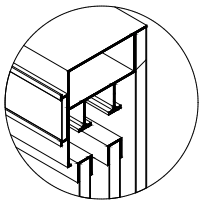
Fixed back panel optional upon request



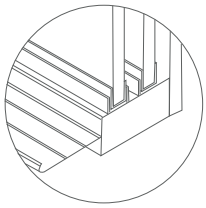
1” Map Rail



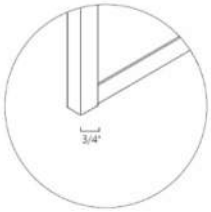
Track System



Blade Tray



C4 - Aluminum Trim



e3 Porcelain:

Markerboard Colors:

White
Low Gloss (Satin)
High Gloss

Light Gray
Low Gloss (Satin)
High Gloss

Beiege
Low Gloss (Satin)
High Gloss

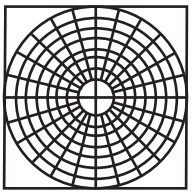
Chalkboard Colors:

Green
Matte

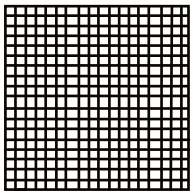
Black
Matte

Gray
Matte

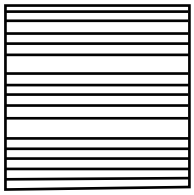
Graphics Options:



Polar Grid



Grid
1” x 1”
2” x 2”

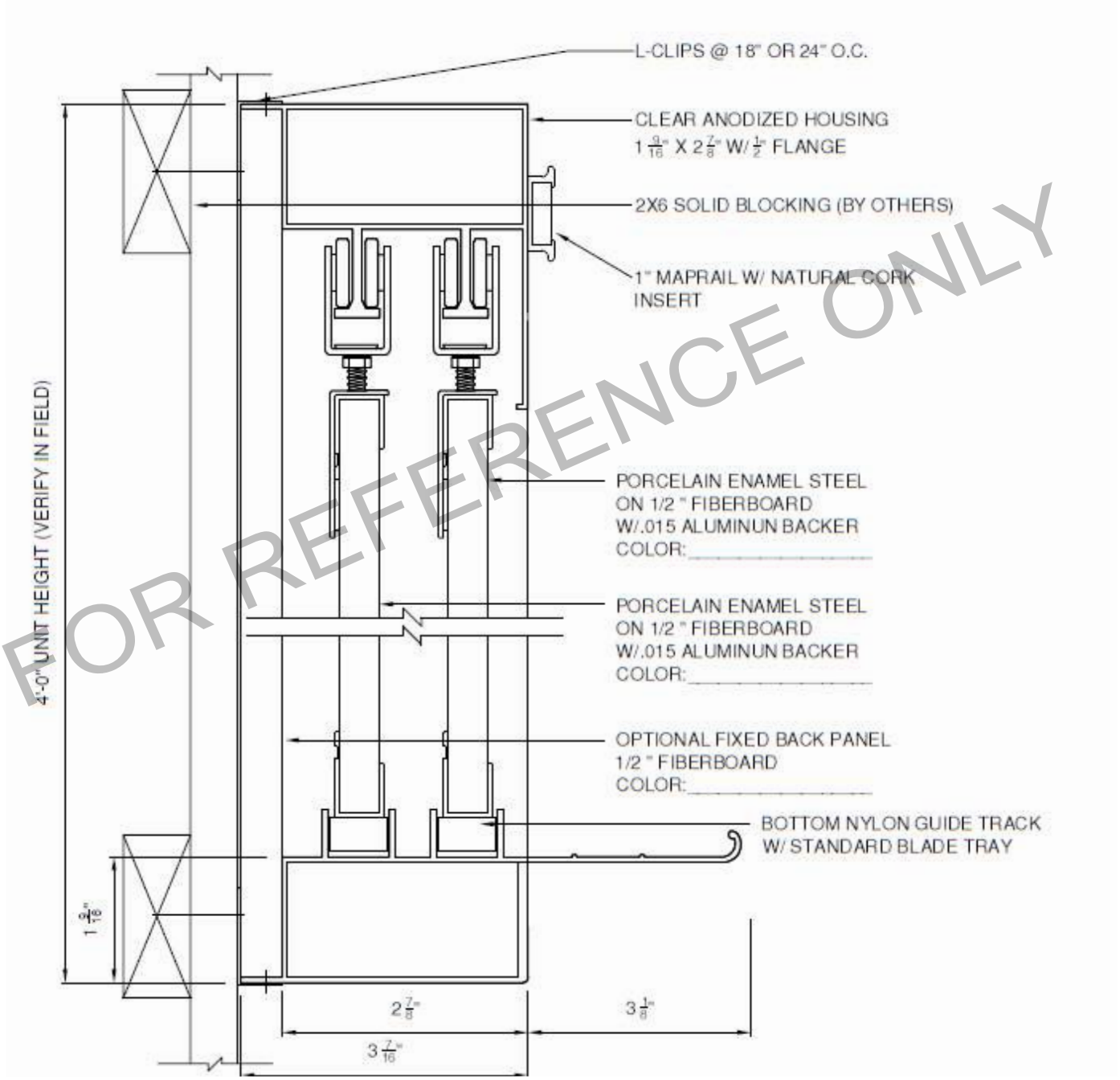


Staff Line
10’ Max Lenght

www.NelsonAdamsNaco.com | (909) 383-0819 | 420 S E St, San Bernardino, CA 92401

Product Data - Series HSS Horizontal Surface Mount Slider

Side Detail



FOR REFERENCE ONLY

OFFICIAL SHOP DRAWINGS WILL BE PROVIDED IN SUBMITTAL PACKET

PROJECT NAME: Azle ISD Junior High School Package 2

NACO JOB#:

Warranty - MARKERBOARDS AND TACKBOA

Subject to the terms set out in this warranty, Nelson Adams Naco guarantees its Visual Display Products, to be free from manufacturing defects in material and workmanship for the specified periods below, all from the date of shipment.

- Life of Building - Porcelain Enamel Marker Board
- 5 YEARS - Tackable Surface

Porcelain Enamel can be replaced for any of the following reasons: The writing surface fails to retain original writing and erasing qualities, becomes slick and shiny, fails to erase completely, or exhibits cracking/flaking.

This warranty is for material supplied by Nelson Adams Naco only, and only applies to the original installation of the Visual Display Products, installed in accordance with Nelson Adams Naco's written installation instructions. Recommendations for proper handling, storage, cleaning, and maintenance must be followed for this warranty to be valid.

This warranty excludes defects in the Visual Display Products caused by: vandalism, improper use, improper installation, neglect, and environmental damage. Note: Nelson Adams Naco Visual Display Products should be stored and installed in environments that are temperature controlled. Mold and mildew can develop in wet, damp, or humid environments. It is essential that boards are not installed on CMU or concrete walls that are not fully cured. Masonry wall condensation (sweating) can lead to mold damage and warped or distorted boards. The Nelson Adams Naco Visual Display Products warranty will void when boards are installed in improperly conditioned environments or on uncured walls.

If the Visual Display Product is found to be defective in workmanship or materials within the warranty period, Nelson Adams Naco will replace all affected components, free of charge. Nelson Adams Naco will not be responsible for any other expenses including, but not limited to: removal costs, installation costs, or any other costs associated with the repair or replacement of the Visual Display Product.

The replacement or repair of defective material as stated in this warranty shall constitute the sole remedy of the buyer and the sole liability of Nelson Adams Naco under this warranty. Nelson Adams Naco shall not be liable for any incidental, consequential, or indirect damages caused by the failure or defect in the material supplied, or any delay in the replacement or repair of warranty items.

Architectural Products

Warranty claims must be made during the warranty period, and communicated to Nelson Adams Naco by contacting the sales office directly at:
420 S E St San Bernardino, CA 92401 - Phone: 909-383-0819

Warranty Start Date: TBD

Warranty must be signed by Nelson Adams Naco officer in order to be valid

_____ _____

Signature **Date**

SAMPLE

VISUAL DISPLAY BOARDS



Sliding Marker Board Combination

NELSON ADAMS' Visual Display Boards create instant teaching and communication centers. We offer a variety of custom configurations and colors that allow you to easily display instructional material, class work, or important reminders. All of our display boards (above) are custom made to your size specifications so you don't have to worry about a board being too big or too small.

Our tack-wall systems (below) allow you to customize your corridors and classrooms from top to bottom or where you want to display information, they offer sound absorption and noise reduction.





Customizable Tack-Wall Panel Systems

Choose NELSON ADAMS to create unique educational spaces while providing sound isolation for work and study. We have provided our visual display boards to schools and businesses throughout the nation.

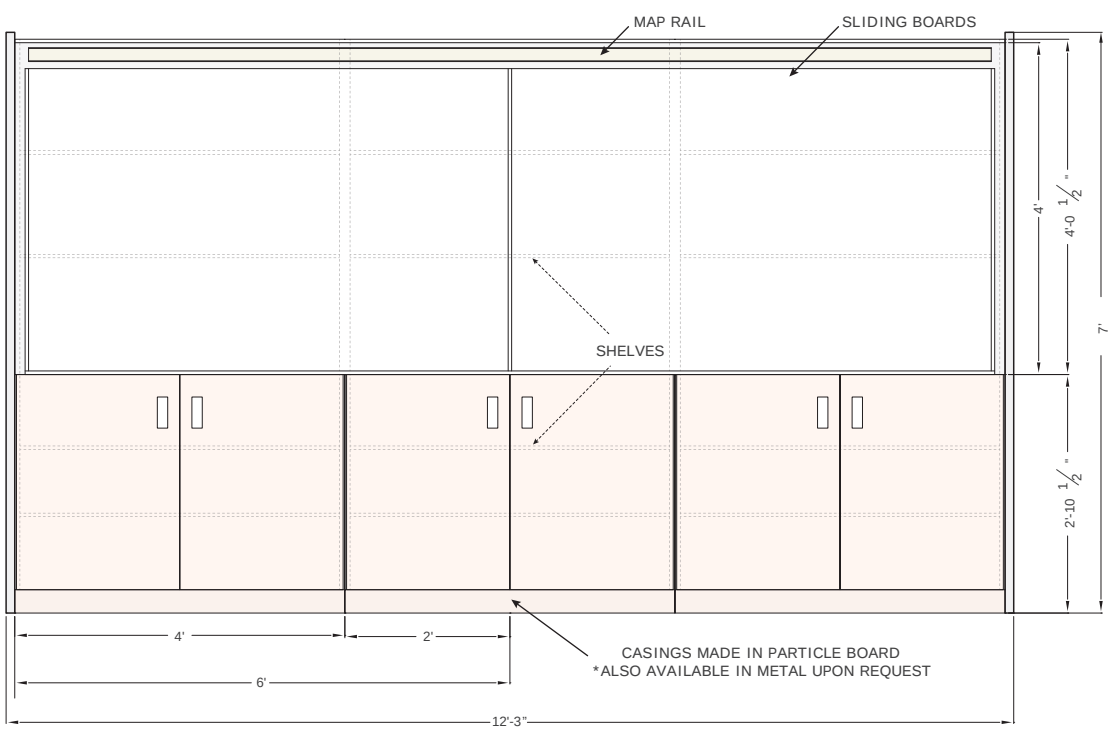
TEACHING WALLS

(AVAILABLE IN CUSTOM SIZES)

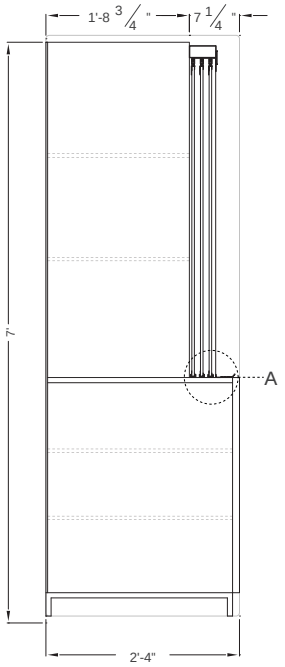
Our teaching wall allows you to combine your cabinet casework with sliding boards; Instead of mounting sliding boards onto casework or walls, you can simplify them to create a more accessible combination.

The Teaching Wall comes in custom sizing and configurations where you can choose how it can accommodate your classroom setting.





FRONT

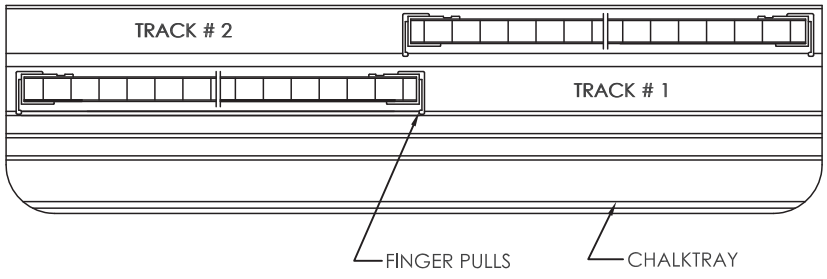


2 TO 4 TRACKS AVAILABLE UPON REQUEST

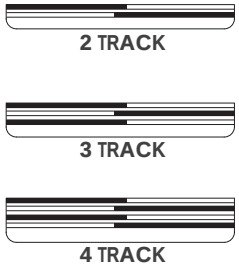
SIDE

PANEL CONFIGURATIONS

A



CHALKTRAY/SLIDER RAIL DETAIL

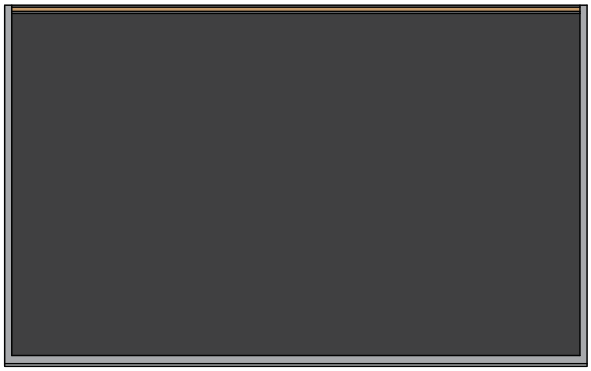


PANEL CONFIGURATIONS

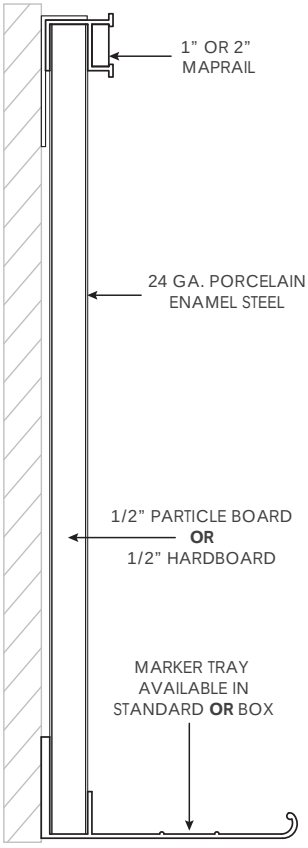
MARKERBOARD



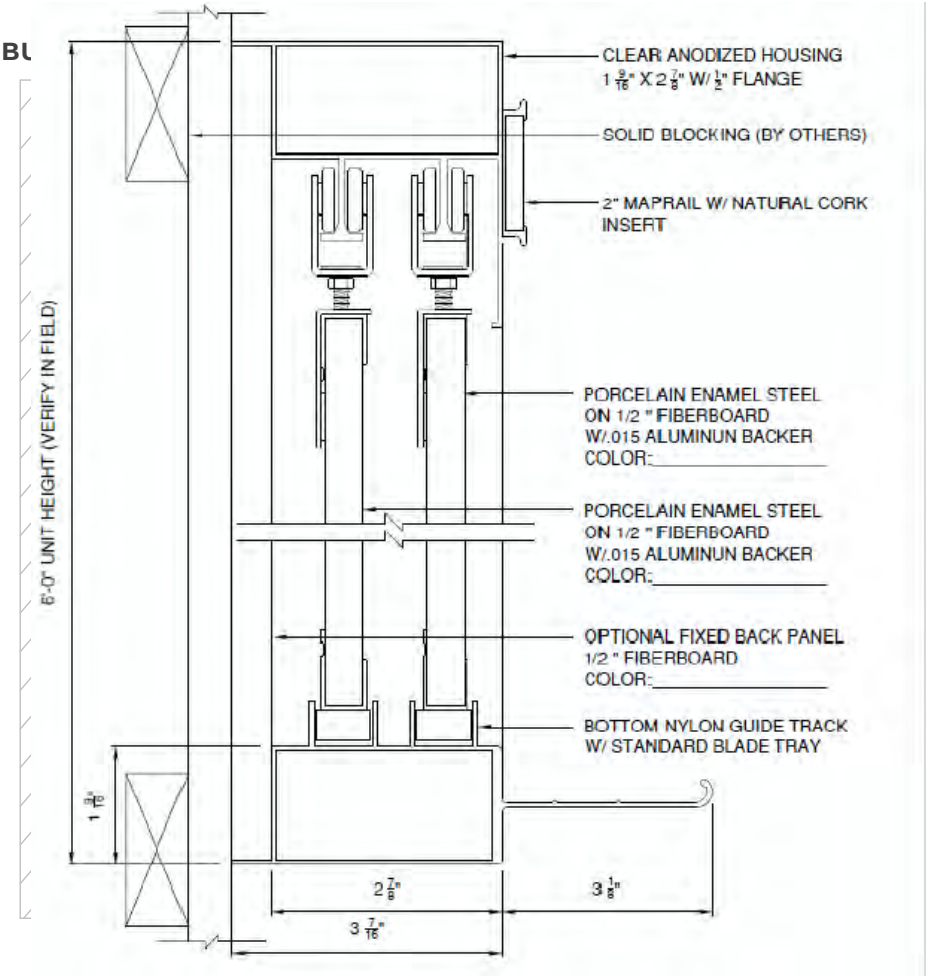
CHALKBOARD



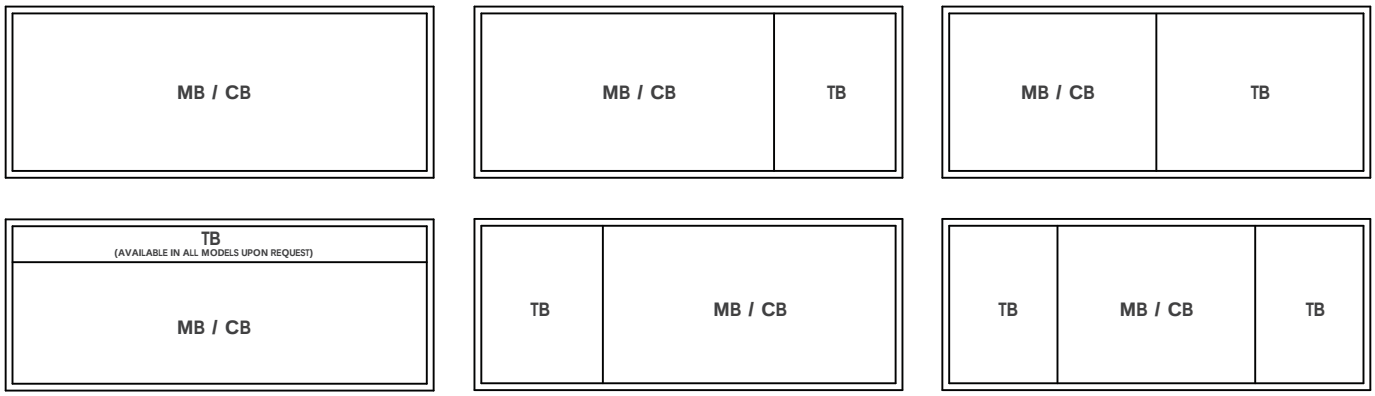
MARKERBOARD / CHALKBOARD



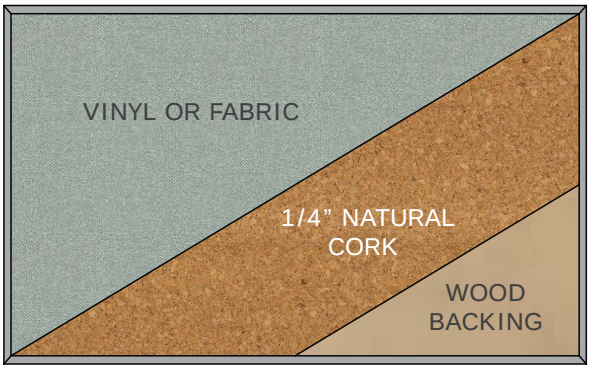
BU



TYPICAL COMBINATION BOARDS
(AVAILABLE WITH SLIDING BOARDS ALSO)



BULLETIN BOARD

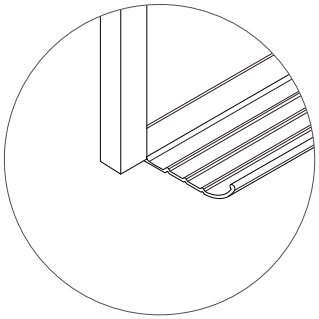


FORBO TACKBOARD

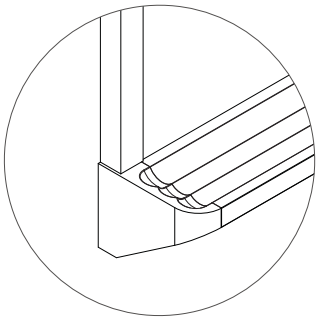


CUSTOMIZE YOUR VISUAL DISPLAY BOARD

TRAY OPTIONS

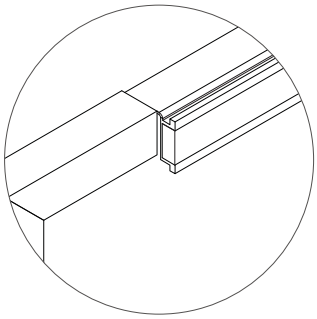


STANDARD

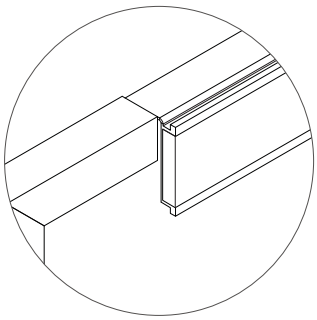


BOX

MAP RAIL

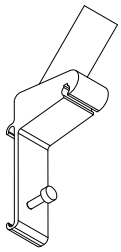


1” MAPRAIL

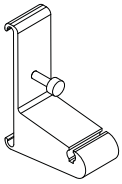


2” MAPRAIL

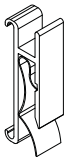
ACCESSORIES



FLAG HOLDER

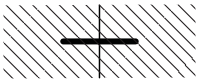


ROLLER BRACKET

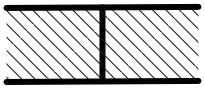


MAP HOOK

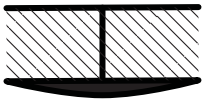
JOINTS FOR BOARDS OVER 16’ IN LENGTH



SPLINE JOINT



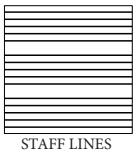
H-BAR



DIVIDER BAR

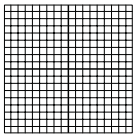
PORCELAIN FINISHES

938-WHITE



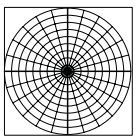
STAFF LINES

826-SILVER



GRID

001-BLACK



POLAR GRID

FORBO FINISHES

MORE AVAILABLE THROUGH FORBO



2186 2182



2166 2185



2201 2205

KOROSEAL FINISHES

MORE AVAILABLE THROUGH KOROSEAL SCHOOL COLLECTION



GRAYSON N521-94 | MOONLIGHT 2121-92 | TIERRA BAYITA C521-19 | LOS ANGELES H721-73

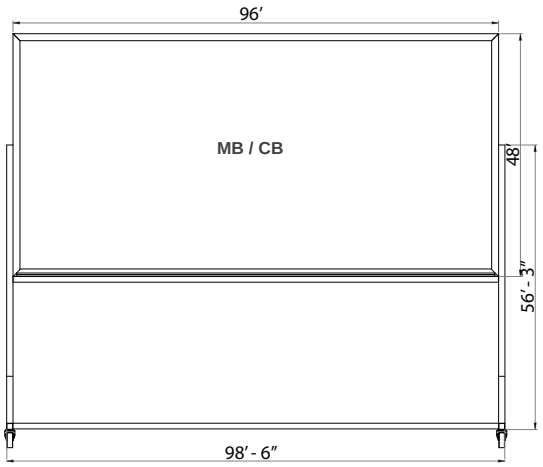


WILLOWBROOK N521-87 | WHISPERS 8821-13 | ANCESTRAL 4621-12 | FOG B321-91

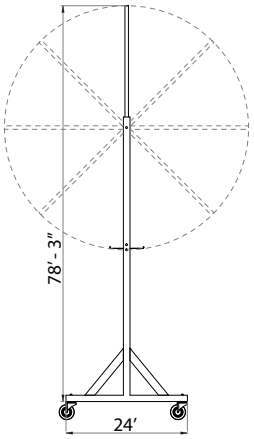


ATRIUM 2121-00 | CHANT 8821-12 | HIGHLIGHTER BLUE Y221-74 | CRYSTAL BAY M621-01

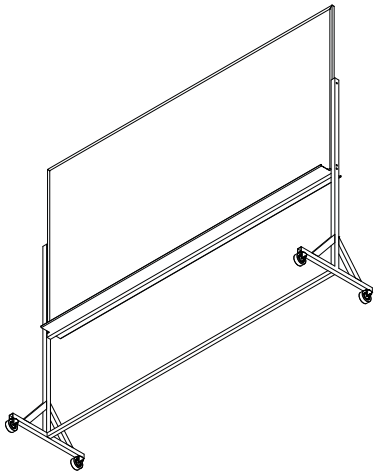
MOBILE MARKER BOARDS



FRONT



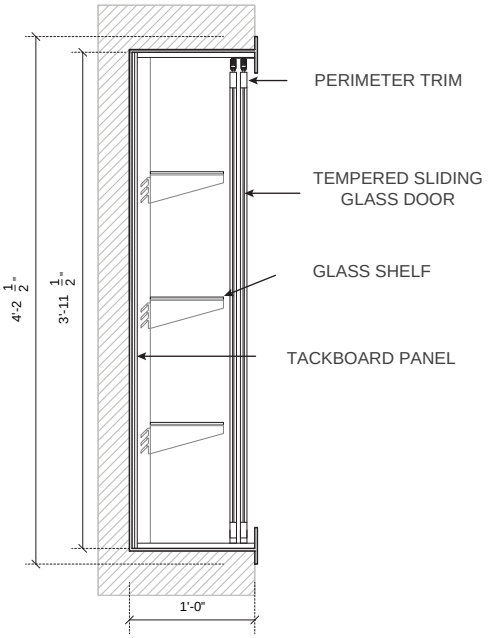
SIDE



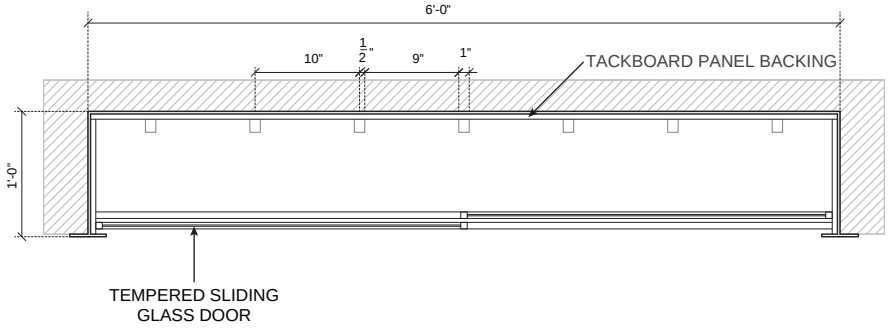
WORMS EYE VIEW

CUSTOM DISPLAY CASES

(AVAILABLE IN CUSTOM SIZES UPON REQUEST/SPECIFICATIONS)



SIDE SECTION



TOP SECTION

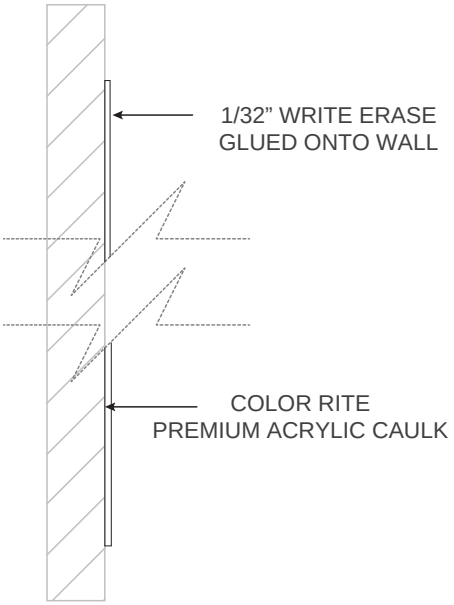


DISPLAY CASE FRONTAL

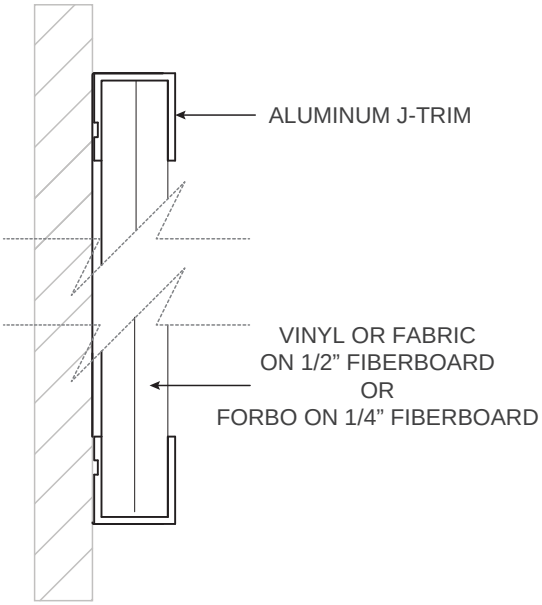


DISPLAY CASE EMBEDED IN TACK WALL SYSTEM

DRY ERASE MARKERBOARD AND TACKWALL PANELS



ROLLS AVAILABLE AT 4’ WIDE



PANELS AVAILABLE DEPENDING ON BACKING SIZE

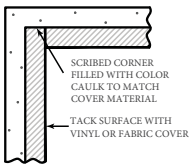


DRY ERASE MARKERBOARD

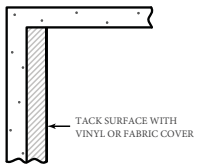


TACK WALL PANEL

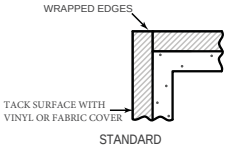
TACKWALL PANEL EDGING CONFIGURATIONS



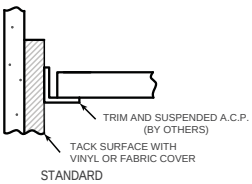
INSIDE CORNER



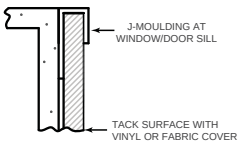
ENDING CORNER



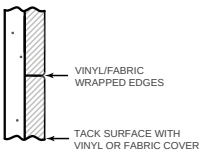
OUTSIDE CORNER



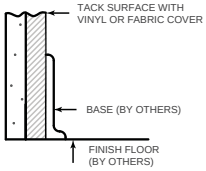
A.C.P. CEILING



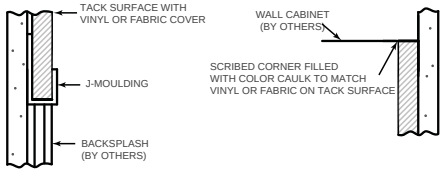
SECTION AT HEAD/JAMB,
SILL WINDOW OR DOOR



JOINT



FLOOR



COUNTER TOP SECTION

Alvin ES #23 - Bidders RFI and other Clarifications

Stantec Architects

RFI #	Topic	Question	Response	Addendum #
1	General	Plan names and numbers are too small to read	The "IFC" set will be reprinted with the text sizes corrected.	2
2	Marquee	No marquee shown	Marquee and foundation is "By Owner". Power/Data to it are by the GC.	2
3	Address	No address shown	see front cover of set	2
4	Signage	Post and panel site signs are spec'd but nothing is shown	These will be "By Owner" at a later time. Spec is there on the chance they change their mind later.	2
5	Signage	Sign schedule on page A501 is incomplete and not filled out	Please refer to DOOR SIGNAGE NOTES on A501. All rooms will receive a sign. As will other types for stairs, ramps, fire maps, elevator sign, exit and capacity, and dedication plaque. All sign types are on A803.	2
6	Signage	No sizes shown on exterior letters	Note indicates size on detail A3/A501, 8" reflective white letters, for exterior of door. Also: DOOR SCHEDULE REMARKS **clarify the note #3 for vinyl letter sizes**	2
7	FDC	No size for FDC sign	look up City of IC requirements.	2
8	BAS	Confirm if BAS is part of GCs scope of work	Yes it is	2
9	116813 - 2A	Confirming if HK Park and Play will be added to the list of approved playground equipment vendors, please see substitution request.	No	2
10	116813 - 2A	Confirming if Playwell will be added to the list of approved playground equipment vendors, please see substitution request.	No	2
11	Subgrade, 32 18 16	Please provide subgrade recomendations including for the unclassified soils associated with the synthetic turf surfacing for the playground.	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions.	2
12	Page 6 Geotech	On Page 6 of the Geotech Report it states the following: Fill soils were observed at the ground surface at borings BH-1 through BH-14 and extended approximately 2 to 10 feet below existing grade. Fill soils may be observed at varying depths at other locations within the site not explored during our field program. Support of the floor slabs on or above existing fill materials is discussed in this report. However, even with the recommended construction procedures, there is an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill. To take advantage of the cost benefit of not removing the entire amount of undocumented fill, the owner must be willing to accept the risk of increased differential performance which can result in increased cracking and abrupt differential settlement. Should this risk be acceptable, floor slabs and pavements can be supported above the fill. Will the Owner be willing to take advantage of the cost benefit along with accepting the risk associated with not removing the undocumented fill beneath the bottom of the 5' select fill pad? Or should the contractors follow the recommendation as noted in the last paragraph of page 8 in the Geotech report "We recommend that the fill soils be over-excavated and completely removed within the proposed building area to expose the underlying native subsurface soils. Select fill soils should be used to raise grade up in the proposed building area." Please Advise.	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions.	2

Alvin ES #23 - Bidders RFI and other Clarifications

Stantec Architects

RFI #	Topic	Question	Response	Addendum #
13	Page 6 Geotech	Please confirm if it is acceptable to recondition the undocumented fill beneath the bottom of the 5' select fill pad in lieu of complete removal of the undocumented fill and replacing with select fill up to the bottom of the 5' pad. Should this be an option can it be listed as an alternate?	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions.	2
14	Page 7 Geotech	First Paragraph on page 9 of the Geotech report states the following: Pavement areas placed upon the deeper fill soils, such as observed at borings BH-09, BH-11, B-13,and BH-14 will also be subject to future settlement of the fill. Complete excavation, removal, and recompaction of the fill soils in the pavement areas would reduce the potential for future settlement; however, complete excavation and removal of the fill soil within the proposed pavement areas would likely not be feasible. As an alternative, the settlement potential can be reduced by reworking the upper two to three feet of fill below the pavement areas if deep fills soils are observed (or up to the underlying native soils, whichever occurs first) to reduce differential settlements, with the understanding that some settlement (which will likely result in increased maintenance of pavements) may occur. Should the reconditioning of the undocumented fill take place at all pavement locations where undocumented fill is present below the 6" of lime stabilized materials?	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions.	2
15	Misc. Pads	Will select fill be required under the chiller and generator pad and will it follow the building slab requirements or pavement requirements.	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions.	2
16	A501	Sheet A501 is missing the sign types to be associated with each door. Please provide updated schedule.	A501 updated	2
17	A201	Please re-issue A201 of Add. #1. Page is corrupted.	Included in ADD#2. Additional finish information provided on sheet.	2
18	A111/A202	There is a callout (D1/A202) for the extruded brick pattern at the intersection of gridlines AD and 4 on page A111. Elevation A1 on page A202 does not show the extruded brick pattern on that section of wall called out on page A111. Please advise if brick pattern is included at that location	Refer to sheet A202, details D1, D2. The pattern is illustrated.	2
19	101100	Confirming if Nelson Adams can be added to the list of approved vendors for Visual Display Boards, see substitution request.	There is no "Display Case" in the job. There is open shelving for display but it is by the casework sub.	2
20	101100	Please provide spec for display case shown on A821/C1. Confirming if Nelson Adams will be a approved vendor, see substitution request.	If approved it will be in Addendum #2	2
21	101100	Confirming if Nelson Adams can be added to the list of approved vendors for Sliding Marker/Tack Boards, see substitution request.	Tackboards are fixed, not sliding like at the previous school. If approved this TB manufacturer will be in Addendum #2	2
22	107326	Confirming if Canopy Solutions can be added to the list of approved vendors for Canopies, see substitution request.	They were alread added in Addendum #1	-
23	P102	Please size storm line at the northeast corner of area B. Appears updated on P002.	See updated P002	2
24	P102	Confirming run out from 6" sanitary to the east to note P8 is 4"	6" is required	2
25	P102	Please size sanitary line north of the 2" sump pump sanitary line.	Added in Addendum	2
26	P302	Confirming the Boiler 1" GW is a gas line.	This is correct	2
27	Plumbing	Will all restrooms receive HB-3, if select or all, please update locations. Graphic depections and callouts are inconsistant, see detail 4 on P303 for example	Yes all to receive HB-3. Corrected in Addendum 3	2
28	P211/P212	Add. 2 removed the second sink locaiton at the PK, K, first grade , flex and dbc classrooms. Confirming only SK-3 is to be included in those classrooms and the removal of the unidentified sinks from CD to Add. 1 is correct.	There should only be (1) SK-3 in each classroom.	2

Alvin ES #23 - Bidders RFI and other Clarifications

Stantec Architects

RFI #	Topic	Question	Response	Addendum #
29	Library	The Library Furniture Schedule shown on Sheet A711 Level 1 – Addendum No. 1 has all the shelves to be 18” deep. The standard depth is 12”. We installed 18” deep shelving units in another elementary school last summer and were asked by the librarian to install a book stop at 12” deep because the books were sliding back too far for the children to reach them easily. We advise keeping the depth of the shelves at 12”. Please ask the architect/owner if they want to keep the depth	Types A and B are to be 12" deep. Types C and D are to be 24" deep because they are double sided units. No casters on library shelving.	2
30	Tack Boards	Are the Tackboards sliding or fixed?	All TBs are fixed. No sliding TBs or MBs on this project.	2
31	Structural	S001 - Drilled pier-straight shaft, keynote 6, requests unit pricing for adds and deducts for each pier size. Are these unit prices to be provided per CY, per LF or per pier. Please clarify and when are these prices to be presented, as part of the base bid or after award. If they are to be part of base bid where does the contractor shows these prices?	Ignore this keynote. Use 00 41 00 for unit prices. This does not include unit pricing for piers.	2
32	Structural	S001 - Drilled pier-straight shaft, keynote 7.A - Note requests unit pricing for each size of casing. Is this unit price to be expressed in price per LF or price per entire casing?	Ignore this keynote. Use 00 41 00 for unit prices. This does not include unit pricing for piers.	2
33	Playgrounds	Please find attached Substitution request for Section 11 68 13 - Playground Equipment and Structures.	If approved it will be in Addendum #2	2
34	Civil	C501 Note 10 calls for concrete sloped paving for storm sewer outfall. Are we to understand there are no BMP's called for or associated with work in storm outfall?	Rock filter dams have been added to each outfall location. Please see revised Sheet C501	2
35	Civil	C203 shows grading work to stop before sloped paving for both storm sewer outfalls. Are we to understand there are no coffer dams needed in order for this work to be put in place?	Per the drainage channel as-builts, the channel was/is designed as a dry drainage/detention system thus no coffer dam should be required. Existing channel side slopes are to be repaired to match existing (or better) conditions. Please see revised C201 and C203	2
36	Structural	S301 Detail D2 - Typ Exist Pier -Shows existing piers and project architect declares this is green field site with "no buried basements or subsurface structures". Please remove detail or advise otherwise.	This is a typical detail in case there was an existing structure. But we do not know for sure what is underground.	2
37	Stage Lighting	Please clarify who is responsible for the stage theatrical lighting and rigging on E605. Prefer that this work is done by Theatrical Contractor.Please advise.	Typically for elementary schools Alvin ISD this was provided by the same electrical contractor that provided all the interior lighting. The scope is small but it is yours to decide.	2
38	AEDs	No AED cabinets are indicated on the plans. How many AED & Cabinets are required?	AED cabinets are Owner furnished/Contractor installed. There are (3) total.	-
39	Stairs	C5/A413 (typ stair riser detail) notes stair tread to be SVT-2 and risers to be P-3. A801, the material schedule, lists T-12 as the stair tread finish for 'A' stairs. Does SVT-2/P-3 only apply to 'B' stairs, and if so, what is the riser finish for 'A' stairs?	all stairs are T-12 treads and P-3 risers.	2
40	Finishes	Some rooms' listed floor finishes differ between the floor finish schedule, A802, and floor finish plans (i.e. B117B & B124). Does the floor finish schedule supercede the finish plans or vice versa?	B110, 112, 114, 117, 124 are CPT-1.	2
41	Finishes	What is the flooring in the elevator? If it is to be SVT, does it change with Alt#1?	SVT, no change to TZ in the alternate.	2
42	Civil	C701 Sawcut Joint detail requires coordination of sawcut joint seal requirements with owner/architect/engineer. Is sealing of pavement sawcuts required?	Sawed joints are not required to be sealed	2
43	Playgrounds	Is playground equipment included in the project? If so, please provide design plans.	Yes per spec. We typically do not provide a layout as it comes from McKenna in the submittal.	-
44	Civil	The geotech report recommends courses of action for the loose fill on the site, but gives alternatives due to the possibility of significant associated costs. Please provide structural and civil details clarifying how loose fill under the building, overbuild, and under paving should be removed, stabilized, or reworked. Will all loose fill be removed in all of these areas, or will some be stabilized in other ways?	Refer to the geotech report and supplementary letter from Terracon that is in the specification. Contact Terracon for specific questions. For civil site work only: please see added pavement subgrade notes on Sheet C501	2

Alvin ES #23 - Bidders RFI and other Clarifications

Stantec Architects

RFI #	Topic	Question	Response	Addendum #
45	Civil	Sheet 301 shows CMP for outfall into the drainage easement on the west side of the property. However, sheet C001, detail 5, note 12 prohibits use of metal pipe in storm applications. Please confirm HDPE is acceptable.	There is a conflict between the Drainage District notes and County outfall details. This question will not be able to be answered in full until the review process is complete. For the purposes of bidding, the two outfall pipes have been changed to RCP pipe. Please see revised Sheet C301.	2
46	Civil	How far beyond back of curb for paving should subgrade be lime treated?	2' behind the back of curb. Please see Concrete Paving Section, Note 2, Sheet C701	2
47	Door Schedule	Discrepancies still exist with door schedule. For example, A101A per schedule is FLD type Wood door in Alum framing, but is shown to be frame type 7 on the ADD1 floor plan - and frame type 7 has HM details referenced. Please confirm basis of design for frame types 1-3 and 7-12.	types 1-3 are HM; 7-15 are AL.	2
48	Signs	Please provide a specification or further details for the school zone flasher.	Follow the Texas MUTCD standards	2
49	Door Schedule	Please add frame types and details to door schedule.	In case the door schedule does not get updated: The door schedule does show if the doors are Alum vs HM frames. The details are on sheets A511, 512, and 513.	2
50	Library	For library furniture, are the tops to be continuous or canopy? Are the double-faced shelving units to be mobile or fixed?	Tops are NOT to be continuous. Each piece has it's own top. No casters but not permanently fixed to the floor.	2
51	Roof Deck	The roof deck at the gym is shown to be 1", but the spans between joists are ~10' apart. Please confirm a thicker deck type or assembly is not required.	Not showing a 1" roof deck. Refer to "Roof Framing Plan Note 2A" and General notes section "Steel Decking". Roof deck at the Gym and over the Library is Toris 5.5A with a depth of 5.5"	2
52	civil	C401 - Please provide pipe size for irrigation line.	Irrigation information is provided for in the Landscape Architect's plans. Civil has updated their C401 Sheet to match information provided by Landscape Architect.	2
53	Landscaping	32 91 14 - Planting Media - Will there imported topsoil as specified in this section under the Sod? Please clarify.	Refer to 32 90 00 - 3.3-B.2 for topsoil requirements under sod. Also 31 22 17 for topsoil requirements.	2
54	Landscaping	AS01 calls for Hydromulch in areas which are labelled as Sod on Landscape Drawing L001. Please specify which is correct.	Follow Landscape drawing L001 for sod location	2
55	Generator	Please clarify location of generator on electrical drawings.	The location of the generator is shown on revised E401	2
56	Skylights	No skylights are shown in drawings but there is a specification section (08 45 00) for skylights, please clarify if there are any sky lights.	No skylights in the project. Originally we had solatubes but they were removed.	2
57	Fire Pump	Will a fire pump will be required to support fire sprinkler system?	Not anticipating one due to the measured pressures on site at the time of design.	-2
58	Civil	Please confirm PVC piping is allowed for drain, waste and vent, ILO cast-iron and copper piping for above slab condition.	PVC Schedule 40 or heavier is allowed for drain, waste, and vent. CPVC for any waste line receiving any corrosives.	2
59	Finishes	Please confirm location for Rigid sheet vinyl wall protection (Section - 09 72 16.16).	This will be applied to the walls at PPCD and FUNDAMENTALS. Note added to plan.	2
60	Door Schedule	Refer sheet A502. Frame types given 1 to 12 but in door schedule frame type column & sign type column is empty, please provide relevant information on schedule or on floor plans.	Frame types are shown. See answer to question 49 above. **ADDITIONAL INFO**: Aluminum frame H-J-S should be C1, B1, A1/A512 respectively.	2
61	Door Schedule	As we have spec of 08 34 73 – Sound control door assemblies. But in door schedule, sound control doors not marked nor STC rating given, please provide list/door numbers for sound control doors.	Door schedule will be upated. Doors D103 and D103B are sound rated, with an STC-50. We will update the hardware set(s) at a later date.	2
62	Partition Types	Refer floor plans, area plan notes 1 & 2. Partition types SD3N & SB3N are mentioned. Please provide partition type details of the same type	SD3N is a 5/8"gyp +3 5/8"stud + 5/8" gyp wall SB3N is a 5/8"gyp. + 3 5/8" wall **To be clarified later on A300.**	2

Alvin ES #23 - Bidders RFI and other Clarifications

Stantec Architects

RFI #	Topic	Question	Response	Addendum #
63	Partition Types	Refer floor plans. Partition type tags are not mentioned on the interior walls. Please provide the same.	AREA PLAN NOTES indicate the typical wall types. Walls that are different are noted in enlarged plans, enlarged RR's and plan details.	2
64	Elevations	Refer A-201, A-202 & A-203. Exterior finish material information is not provided. Please confirm.	All finish materials are now listed on A201.	2
65	Sections	Refer A-301, A-302 & A-303. Building system types are not provided. Please provide the same.	EXTERIOR wall system tags added.	2
66	Roofing	Refer A-300 – R1 & R2. A131 and Spec Section 07 54 23. Roof Plan A131 shows thermoplastic membrane roofing system while C2/A300 gives R1 &R2 with modified bitumen roofing system. Specification section 07 54 23 shows Multiply PVC KEE Fleece back Membrane Roofing. There are different details for materials of roofing. Please confirm type of roofing used in the project.	The spec is the correct roof. Details updated in Addendum #2. It is the Multiply Hybrid Roof	2
67	Finishes	Refer Finish Schedule A802 and RCP A-614. Finish schedule for music room D103 shows APC-4 as a ceiling finish but reflected ceiling plan A-614 shows APC-1 ceiling finish. Please	APC-4 is correct. A614 has been adjusted.	2
68	Finishes	Refer Finish Schedule A802 and RCP A-613. Finish schedule for dining room C101 shows APC-4 as a ceiling finish but reflected ceiling plan A-613 shows APC-1 ceiling finish. Please	APC-1 is correct for DINING ceiling.	2
69	Structural	Please provide sheet no S701 – Structural Wall Section.	provided.	2
70	Structural	Kindly refer to drawing S703 and provide the annotation details for miscellaneous steel as indicated on sheet A4/S703	provided.	2
71	Hand Rails	Kindly refer to sheet A411 and provide detailed information for the R3-type railing and HR2.	HR-2 is shown on A414, detail E4/A414. Railing types are shown on A414.	2
72	Finishes	Interior Material Schedule on Sheet A801, mentioned under comment column for PC-1 = Level 1 / 1500 Grit which contradicts Section 03 35 43 - SPECIAL CONCRETE FLOOR FINISHES that mentions Level 2, Medium Gloss, up to and including an 800-grit polish with a gloss reading of 20-30. Also, 1500 grit is Level 3-4, not 1. Please Clarify.	Per District standards, the finish should be Level 1 / 1500 grit.	2
73	Flooring	Room B110 shows SVT-1 on the floor plans but CPT-1 on the room finish schedule.Please clarify which one is correct?	See item #40 response above.	2
74	Finishes	Reference C5/A331: this detail notes “INTERIOR MASONRY” however, the material is not specified. Interior Elevation B1/A823 depicts a different finish, this elevation does not specify the material either.	PLWS-1, simmilar to the MEDIA CENTER upper wall shown in A4/A823. Refer to detail B2/A853, elevation was previously labelled correctly (CD's, ADD#1).	2
75	Windows	The plans do not have any window labeling on the floor plans or elevations. Please Clarify. A1/202 - The depiction of the material between GL 7-20 has been changed however, there is no indication given as to what it is. It was previously shown as Arriscraft (Typical symbol in Material Legends. Listed as Cast Stone in the Material Schedule), it is now shown as a Random Stone pattern (typical symbol), this is not listed in the Material Schedule. Please clarify the intended material.	Windows are tagged on elevation sheets (for EXTERIOR) and on A111-A124 sheets for interior, shown in ADD#1. The material is clarified in ADD#1 as LS-1 (US Stone thin natural Limestone). This is listed in the specs. also in section 04 73 00_MANUFACTURED STONE MASONRY. Refer to ADD#1.	1
76	Stairs	C1/A822 - The material shown at the stairs and the wall at the north end is not specified. Is this intended to be Brick 2?	BK-1. Elevation had been labelled.	2
77	Roofing	Roofing system, if there are any discrepancies between the drawings or specs which one should be followed.	The specification will overrule the drawings if there are any direct discrepancies.	2
78	Canopies	Per Addendum 1, the columns appear to have been removed from the drawings. Please confirm whether we are to assume the column placement or if additional direction will be provided.	No canopy columns were removed. Graphical printing issue. Refer to new A201 sheet	2
79	Ceiling	What is "MP-1" marked for in Area A ceiling	Mark has been removed and note added. This is the exposed, factory painted underside of Epic deck	2
80	Display Case	Provide detail reference and proper details for the open shelf display case	Refer to A821, details C5 and C6	2

Pre-Bid Conference-Alvin ISD

Elementary #23 at Canterra Creek

Tuesday, September 9, 2025 10:00am

Name	Company	Contact Email	Contact Phone
Dennis Leifrig	Armko	dleifrig@armko.com	8329229232
Peter Saker	Elevate	peter@LSreps.com	713 254 7120
Anjali Rathod	S&P	arathod@satpon.com	713-351-1625
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Pre-Bid Conference-Alvin ISD

Elementary #23 at Canterra Creek

Tuesday, September 9, 2025 10:00am

Name	Company	Contact Email	Contact Phone
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594 Sawdust Road, Suite 139
The Woodlands, TX 77380
281.350.2323
www.fdp.org

Stewart Wiliams
Stantec
910 Louisiana Street, Suite 2600
Houston, TX 77002

Date: September 11, 2025

Reference: **Alvin Independent School District**
Elementary No. 23
Section 11 40 00 – Food Service Equipment
Addendum No. 02

Mr. Williams,

The following items are required to be included in Addendum No. 02

Section 11 40 00 Food Service Equipment Specifications

A. Item No. 201 Serving Counter to be revised as follows:

22. Ten (10) each electric **Dry** hot food wells, fully insulated, 1200 watts, thermostatic controls with lit rocker switches (remote mount in custom CounterCraft control panel. Hot food wells to be located in a 1" recess within the counter top.
28. Omit this line.

PEA GROUP

844.813.2949
PEAGROUP.COM

September 11, 2025

RE: Alvin Independent School District
Elementary No. 23
Landscape Plan and Irrigation Plan
Addendum No. 02

Mr. Williams,

The following items are required to be included in Addendum No. 02

Landscape Plan L001:

- The number of screening shrubs around the Dumpster area has been reduced to three.
- The planting bed for these screening shrubs has been removed.
- One parking island has been updated to sod instead of seed.

Irrigation Plan L003:

- The original drip irrigation system for the screening shrubs around the dumpster area has been replaced with tree bubblers.
- Turf spray heads and one valve have been added to the sod area in the parking island.
- Tree gator bag in the parking island has been replaced with tree bubblers.

Regards,

Jinglin Zhao, LI
Senior Landscape Designer
PEA Group
TBPE Registration No. F-21237
TBAE Registration No. BR-3949

SECTION 00 41 10 - PROPOSAL FORM (ALTERNATES PROPOSALS)

PROJECT: **ELEMENTARY SCHOOL #23**

PLACE: **ALVIN INDEPENDENT SCHOOL DISTRICT SUPPORT SERVICES CENTER**
2200 STAPP MAXWELL – BUILDING A
ALVIN, TEXAS 77511

DATE: **TUESDAY, SEPTEMBER 16, 2025**

TIME: **3:00 PM**

TO: **THE BOARD OF TRUSTEES, ALVIN INDEPENDENT SCHOOL DISTRICT**

FROM: _____
Company

Pursuant to and in compliance with the Invitation to Proposers and the proposed Contract Documents dated **AUGUST 18, 2025**, prepared by Stantec Architecture Inc., relating to the above referenced Project, the undersigned, hereby proposes and agrees to fully perform the work within the time stated and in strict accordance with the proposed Contract Documents, and addenda thereto, for the following sum of money:

SUBCONTRACTOR SELECTIONS

Pursuant to Requirements outlined in Section 00 23 13, Selection Criteria, the following are subcontractors performing major portions of the Work as indicated:

Mechanical_____

Building Automation Controls_____

Electrical_____

Plumbing_____

Fire Alarm Installer_____

Data Installer_____

Food Service Supplier/Installer_____

Glazing Supplier/Installer_____

ALTERNATES

The following are alternates to the Base Proposal: It is understood that if no figure is listed for an Alternate, that the Alternate may be accepted and there shall be **no change** in the Base Proposal amount indicated above. Check (add) or (deduct) as required for each alternate. Refer to Division 1 Section "Alternates" for complete description of the alternates.

Alternate No. 1
Flooring: Corridors to be Epoxy Terrazzo in lieu of VET.

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 2
Not Used

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 3A
Lighting Package by Putterman Scharck

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 3B
Lighting Package by CW Lighting

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 3C
Lighting Package by ~~Lighting Associates~~ LESCO

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 3D
Lighting Package by Bell and McCoy

☐ Deduct

Dollars Written:
Numerically written: $

Alternate No. 4
Base Bid Adjustment (if needed)

Check the box: ☐ Add ☐ Deduct

Dollars Written:
Numerically written: $

By execution and submission of this Proposal, the Proposer attests and affirms that he and his subcontractors are skilled and experienced in the use of plans, specifications, addenda and related Bid Documents, and that he has carefully reviewed the plans, specifications, addenda and related Proposal Documents for this Project and has found them to be sufficient for Proposal and construction purposes. Further, he has carefully examined the geotechnical report(s) and the site of the Work, and through his own personal observations has satisfied himself as to the nature, location and requirements of the Work; the character, quality and quantity of materials required; the difficulties likely to be encountered; and other items and/or conditions which may affect the satisfactory performance of the Work. He has based his Proposal solely on these documents and personal observations and has not relied in any way on any explanation or interpretation - oral or written - from any source other than those written and issued by the Architect/Engineer.

Representations: by execution and submission of this Proposal, the Proposer hereby represents and warrants to the Owner as follows:

The Proposer has read and understands the Proposal Documents and the Contract Documents, and the Proposal is made in accordance with the Proposal Documents.

By submitting this Proposal each Proposer agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees arising out of or in connection with the administration, evaluation, or recommendation of any Proposal; waiver of any requirements under the Proposal Documents, or the Contract Documents; and award of the Contract.

Proposer agrees that the Owner has the right to accept or reject any or all Proposals and to waive all informalities.

Respectfully submitted,

By:_____
Signature

_____
Title

_____
Company

_____
Address

_____
City, State, Zip Code

_____
Telephone Number

_____
Email Address

(Seal - if Proposer is a corporation)

END OF DOCUMENT

SECTION 01 23 00 – ALTERNATES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for Alternates.

1. Definition: An Alternate is an amount proposed by Proposers and stated on the Proposal Form for certain construction activities defined in the Proposal Requirements that may be added to or deducted from Base Proposal amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.

2. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.

3. Notification: Immediately following the award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates.

4. Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.

a. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

b. The Owner reserves the right to accept any, none or all of the Alternates for a period of 30 days after receipt of proposals. Should the Owner-Contractor Agreement be executed prior to Owner acceptance of an Alternate, the Alternate will be accepted by Change Order at the original bid amount within 30 days after receipt of proposals.

PART 2 – PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. **ALTERNATE NO. 1 – FLOORING**

1. Base Bid: Corridor Flooring to be Solid Vinyl Tile as shown on the drawings
2. Alternate: Corridor Flooring to be Epoxy Terrazzo
3. Note: One Alternate price for both floors.

B. **ALTERNATE NO. 2 – Not Used**

C. **ALTERNATE NO. 3 – Lighting Package**

1. Base Bid: No Lighting Package
2. Alternate 3a: Putterman Scharck
3. Alternate 3b: CW Lighting
4. **Alternate 3c: ~~Lighting Associates~~ LESCO**
5. **Alternate 3d: Bell and McCoy**
6. Note: Refer to the electrical lighting schedule

D. **ALTERNATE NO. 4 – Base Bid Adjustment**

1. Base Bid: No change to base bid price
2. Alternate: Any adjustment up or down to the base bid price.
3. Note: The intent is that the other Alternates are true bids up or down for the work detailed within them. This alternate is intended for any adjustments to the base bid up or down.

END OF SECTION

SECTION 23 09 93 - SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes control sequences for HVAC systems, subsystems, and equipment.

B. Related Sections include the following:
1. Division 23 Section "Instrumentation and Control for HVAC" for control equipment and devices and for submittal requirements.

1.2 DEFINITIONS

A. CHWS: Chilled Water Supply

B. CHWR: Chilled Water Return

C. CWS: Condenser Water Supply (Supply to chiller)

D. CWR: Condenser Water Return

E. DDC: Direct digital control.

F. DPT: DewPoint Temperature

G. HWS: Hot Water Supply

H. HWR: Hot Water Return

I. VAV: Variable air volume.

J. BAS: Building Automation System.

K. VFD: Variable Frequency Drive or Controller.

L. VFC: Variable Frequency Drive or Controller.

M. VFV: Variable Refrigerant Volume.

N. TAB: Test and Balance

O. FMS: Facility Monitoring System.

1.3 TRENDING FOR BUILDING COMMISSIONING

A. All diagnostic trends listed in this document shall be provided to the commissioning agent in excel (.EXE) format during the commissioning process. Coordinate additional requirements with commissioning authority prior to programming.

1.4 DISPLAY GRAPHICS

A. Provide display graphics for review with shop drawing submittals.

1.5 MODE OF OPERATION

A. Occupied:

B. Unoccupied:

C. Morning Start-up:

1.6 CHILLED WATER SYSTEM SEQUENCES (VARIABLE PRIMARY W/AIR-COOLED CHILLER)

A. General: The chilled water system will consist of two air-cooled chillers (ACCH-1 & ACCH-12) and variable primary chilled water pumps (CHWP-1, CHWP-2, and CHWP-S).
   1. Occupied Mode:
      a. In School: The chilled water system shall be in operate whenever air handling equipment is operational and calling for cooling.
      b. Summer: The chilled water system shall be in operate whenever air handling equipment is operational and a minimum of 5 zones are above space set point.
      c. Event: Only the lead chiller and its associated pumps shall be allowed to operate. Both chillers shall not be allowed to operate at the same time.
   2. Unoccupied Mode: Off.
   3. Optimum Start:
      a. Morning Cool-down Call: The chilled water system shall operate during morning cool down.
      b. Morning Warm-up Call: The chilled water system shall be off.

B. Chiller Sequencing: The chilled water system shall be started and stopped through the BAS. There shall be three different operating methods.
   1. Off: All chillers and pumps shall be off.
   2. Manual: The chillers and associated primary and secondary pumps shall be started manually.
   3. Automatic:
      a. Chillers shall operate per the building's occupancy schedule.
      b. Staging of chillers are automated.
      c. Chillers shall operate on lead/lag sequence with lead chiller rotating on a weekly basis, (adj).
      d. Discharge water temperature from chiller shall be maintained at **42F (adj)** through the chiller's factory controls.
      e. In the event that chilled water temperature **to the building, [CST P]**, rises to **44F (adj)**, the lag chiller shall operate.
      f. The lag chiller shall be deactivated when chilled water **temperatures from building, [CRT P]**, the chillers fall to 49F (adj).

C. Pump Sequencing:
   1. Whenever a chiller is activated, its respective primary chilled water pump shall be activated. The chiller's primary pump shall be started/stopped thru the chillers control panel and shall be interlocked as indicated below..
      a. **CHWP-1 interlocked with ACCH-1**
      b. **CHWP-2 interlocked with ACCH-2**
      c. **CHWSP-S is a back-up pump and must be manually placed into operation**
   2. Install factory-furnished chilled-water flow switches at the chiller, a chiller shall not be allowed to start unless chilled water flow is proven at the chiller.

3. Provided each pump with a differential pressure sensor. If flow is not proven, the pump shall be deactivated and an audio-visual alarm shall sound at the BAS. In the event chilled water flow fails after the chiller is operating, the chiller and chilled water pump shall be de-activated. Once the cause of the alarm has been investigated and repaired, the chiller/pump shall be placed into normal operating conditions by resetting the system. Provide a thirty-second-time delay to prevent false alarms.

D. Variable Speed Pump Control: Primary pumps are variable flow and will distribute chilled water to the building.
   1. A variable speed drive shall be provided for each pump.
   2. Provide differential water pressure sensor and install where indicated on drawing, if location is not indicated coordinate location with engineer prior to installation.
   3. The BAS shall continuously monitor the differential pressure sensor and shall modulate as required to maintain a pressure differential set-point.
   4. The BAS system shall poll all chilled water control valves in the system on a 5-minute basis and utilize differential pressure optimization. This will be accomplished by polling all chilled water control valves and resetting the DP set-point based on AHU valve position as indicated below. The adjustable reset range will be from 3 psi to 8 psi, field calibrate value with T&B.
      a. The BAS system shall determine the two (adj) units at any give time with the most open valve position and average the position of those units. The DP setting shall be reset as required to maintain an average open position of 95%.
         1) Fan-coil units shall be excluded from the averaging process.
   5. If multiple primary pumps are operating simultaneously, each pump variable speed controller shall be operating at the same speed.
   6. **Stand-By Pump, CHWP-S:**
      a. **This pump is a stand-by redundant pump to be used in the event of a CHWP-1 or CHWP-2 failure. Isolation valves must be manually opened before this pump can be utilized.**
      b. **Manual isolation valves must be manually opened prior to allowing pump to operate. Provide monitored end switch on these isolation valves [VES1 and VES2]. Pump shall not operate unless one of these pumps is monitored as opened.**
      c. **The user shall manually select at the front end the temporary pump indentity [PIS] which corresponds to the pump that this stand-by pump is replacing.**
      d. **When the original pump is turned off, the stand-by pump [PIS] is set to the original pump, and the manual valve end switch [VES1 or VES2] is open, CHWP-S shall be controlled to operate as if it were the original pump.**

E. **Chiller Minimum Flow Requirements.**
   1. **The bypass valve shall be controlled by maintaining a minimum pressure differential through the chiller evaporator, provide DP sensors as indicated on Chiller Evaporator Piping Schematic. The DP sensor shall be designed to measure pressure differentials in the 0-10 PSI range. The minimum pressure required to maintain minimum flow shall be determined by the chiller manufacturer and verified by the T&B Contractor. If at any time a chillers minimum flow rate drops to a point 15% above a chillers minimum flow rate, the bypass valve shall modulate accordingly.**
      a. **The bypass shall be set to open quickly as pressures reaches minimum operation pressure. The valves closure speed shall be greatly slowed, and shall have a maximum closure speed of 5% per minute.**

2. **One chilled water bypass valve shall be provided. The valve shall be sized for 1.5X the minimum flow rate of one chiller. The bypass valve shall be a two-way, modulating, linear-type control valves. Since the control valve must react quickly to changes in system flow, the control valve shall connect directly to the chiller plant control panel.**

F. Sidestream Filter Circulation Pump, CP-1M
1. The BAS shall call on/off this circulation pump. The pump shall be called on when the building chilled water central plant is active; otherwise, it shall be off.
2. The pump shall control its own speed (independent of BAS controls) to a constant flow.

G. Operator Station Display: **Provide graphical display of points listed on M506 Chilled Water Plant schematic**
1. In addition to the graphic display points listed in the scheamtics, display the call status of the sidestream filter circulation pump, CP-1M.

H. Diagnostic Trend Logs: Provide the following diagnostic trends for the chilled water system.
1. Chilled Water System Trend #1: Chilled Water Temperatures. Points shall be trended on a 5-minute basis.
   a. Chilled water supply temperature from each chiller
   b. Primary chilled water supply temperature (to building)
   c. Primary chilled water return temperature (from building)
2. Chilled Water System Trend #2: Pumping trend. Points shall be trended on a 5-minute basis.
   a. Primary pump(s) speed as a percent of full speed
   b. System DP reading in Feet of H20
3. Chilled Water System Trend #3: Chilled water control valve trend. Points shall be trended on a 5-minute basis.
   a. Control valve position as a percentage of full open, (calculated position, not measured) for all chilled water control valves.

1.7 HOT WATER HEATING SYSTEM CONTROL

A. General: The hot water heating system shall consist of new heating hot water boiler(s) and associated **variable** primary heating hot water pump with variable speed drives.
1. The heating hot water system shall be started and stopped through the BAS system.
2. The boiler is being provided with a factory controller that will control discharge water temperature and operation of the primary heating hot water pump(s). Refer to specification section 235216 Condensing Boilers for additional information.
3. Install the following boiler manufacture provided sensors.
   a. Boiler OA temperature sensor(s) provided by boiler manufacture. **OA sensor shall be wired directly to boiler control panel.**
   b. Install CO gas sensor provided by boiler manufacture.

B. Hot Water System Operations: The heating hot water system shall operate under the following conditions:
1. When OA temps are 60F **(adj)** or below, (point must be adjustable from web page).
2. When a user manually places the system into operation via the web interface

C. Heating Hot Water System Sequencing:
1. Activation: When called to operate by the BAS, the following shall occur.
   a. The **primary** hot water heating pumps shall start and operate for a minimum of 180-seconds.
   b. The BAS system shall send boiler start signal to boiler manufacture provided control panel.

2. Deactivation: When called to deactivate by the BAS, the following shall occur.
   a. The **primary** hot water pump shall operate for a minimum of 300 seconds.

D. **Variable Speed Pump Control: The primary pump are variable flow and will distribute heating hot water to the building.**
   1. **A variable speed drive shall be provided for the pump.**
   2. **Provide differential water pressure sensor and install where indicated on drawing, if location is not indicated coordinate location with engineer prior to installation.**
   3. **The BAS shall continuously monitor the differential pressure sensor and shall modulate as required to maintain a pressure differential set-point.**
   4. **The BAS system shall poll all heating hot water control valves in the system on a 5-minute basis and utilize differential pressure optimization. This will be accomplished by polling all heating hot water control valves and resetting the DP set-point based on AHU valve position as indicated below. The adjustable reset range will be from 3 psi to 8 psi, field calibrate value with T&B.**
      a. **The BAS system shall determine the two (adj) units at any give time with the most open valve position and average the position of those units. The DP setting shall be reset as required to maintain an average open position of 95%.**
         1) **Fan-coil units shall be excluded from the averaging process.**

E. Bypass Valve Control:
   1. Install flow meter in the heating hot water pipe. This flow meter shall be used to control system bypass valve and maintain the minimum flow required for boiler operation. Confirm minimum flow requirements with boiler manufacture.
   2. Install bypass where indicated on plans, modulate bypass valve as required to **maintain a minimum of 15%** above the boilers minimum boiler flow.
      a. The bypass valve must be tied directly into the central plant controller, mapping of this point through other controllers is not allowed.

F. Operator Station Display: **Provide graphical display of points listed on M506 Heating Hot Water Plant schematic**

G. Diagnostic Trend Logs: The following trends shall be set-up and accessible from the hot water system web page.
   1. Trend #1: Hot Water Heating General Data
      a. System status
      b. HWS Temp
      c. HWR Temp
      d. HWS Flow (gpm)
      e. Building BTU's (calculated by using flow at flow meter and HWS/R temperature)
   2. Trend #2: Pump Trend
      a. Pump speed
      b. Primary pump(s) stat
      c. Building DP
      d. HWS GPM
   3. Trend #3: Hot Water Control Valve Trend
      a. Trend valve position for all heating hot waver valves as a percentage of full open.

1.8 VAV AIR HANDLING UNITS (_____)

A. General: Unit shall consist of supply fan with VFD and chilled water coil with modulating 2-way control valve.

B. Supply Air Fan:

1. **Provide fan motor CT sensor(s) to prove fan status. Units with multiple fans shall have an individual CT per fan motor.**
2. The supply air fan shall be controlled through a variable frequency drive (VFD).
3. Provide and install duct mounted pressure sensor approximately 2/3 way down the supply duct main, (if not indicated on drawings, confirm location with engineer prior to installing sensor). The pressure sensors shall control the operation of the supply fan VFD and shall utilize differential pressure optimization.
4. Differential pressure optimization shall be accomplished by polling all VAV box damper positions on a 5-minute basis (adj) and resetting the DP setpoint so that at minimum of 10% of terminal boxes are 90% open.
   a. Program shall be able to exclude an individual terminal box from the polling process.
5. The adjustable reset range will be from 0.5” wg to 1.25” wg, (the range shall be adjustable from the AHU web page).
6. SAF Start-up: Before starting the supply air fan, all terminal boxes associated with the air handling unit shall modulate open to their minimum damper position. Provide a minimum 1-minute delay before starting SAF to ensure all terminal box dampers are at their minimum position.
7. If less than 25% (adj) of associated terminal box air valves are completely closed, the air handling unit shall stop. If more than 25% (adj) of FVAV air valves are open, the air handling unit shall start.

C. Supply Air Temperature Control: Supply air temperature control shall be accomplished by modulating the units chilled water control valve. The specific discharge air temperature as measured in supply air duct shall be dependent on a combination of the average temperature of the individual zones and/or return air dewpoint temperature.
   1. Average Space Temperature: Each terminal box space temperature shall be polled at 5-minute intervals to determine the average difference between space temperature and space temperature setpoint.
   2. Return Air Dewpoint (DPT): Provide dewpoint sensor located in RA duct upstream of the units OA connection (if provided with OA). The unit’s initial DPT setpoint shall be 55F (adj).
   3. Discharge Temperature Setpoint:
      a. Discharge temperature setpoint, when return air DPT is at or below setpoint, shall be based on the average space temperature as indicated below.
         1) Average space temperature 1°F above setpoint: Discharge air temperature 55°F (adj).
         2) Average space temperature 1°F below setpoint: Discharge air temperature 62°F (adj).
         3) Space temperature between dead band: Vary linearly.
      b. Discharge temperature setpoint when return air DPT is above set point shall be as follows:
         1) Return Air DPT below or at setpoint: Discharge air temperature programed setpoint based on average space temperature above.
         2) Return Air DPT 1.5°F above setpoint: Discharge air temperature 55°F (adj).
         3) DPT between dead band: Vary linearly.

D. UV Lights: These units are equipped with UV lights. 120V power is being provided by Division 26 contractor, provide relays and contacts as required to control lights so that lights are on only when the supply air fan is operating.

E. Display Points: Provide graphical display of points listed on **M507 VAV AIR HANDLING UNIT**

F. Diagnostic Trends: The following points shall be trended on a common web page accessible by clicking on an icon from the unit’s system web page.
   1. VAV AHU Trend #1: To be trended on change of state

a. AHU Run Command
b. Fan status

2. VAV AHU Trend #2: (To be trended on a 5-minute basis)
   a. Fan speed (Percentage of max not HZ)
   b. Duct static pressure
   c. Average position of connected terminal box air valves
   d. Average space temperature setpoint difference
   e. Discharge air temperature
   f. Discharge air temperature setpoint
   g. Return air DP temperature
3. VAV AHU Trend #3: (To be trended on a 5-minute basis)
   a. Discharge air temperature
   b. Discharge air temperature setpoint
   c. Average space temperature of connected terminal boxes
   d. Return air temperature
   e. Return air DP temperature
   f. Control valve % opened
   g. Chilled water coil return water temperature
4. VAV AHU Trend #3: (To be trended on a 5-minute basis)
   a. Provide trend of damper position for all terminal boxes connected to unit on one common page.

1.9 SINGLE ZONE VARIABLE SPEED AIR HANLDING UNIT (_____)

A. General: Unit shall consist of supply fan with VFD, chilled water coil with modulating 2-way control valve and re-heat coil with modulating 2-way control valve. Space temperature setpoint shall be input through the unit's web page, a minimum of 4°F offset shall be provided between the heating and cooling setpoints.

B. Space Temperature Sensor Types: **Low profile, plastic face**, combination temperature and humidity.

C. Supply Air Fan:
   1. Provide differential air pressure sensor to prove fan status.
   2. The supply air fan shall be controlled through a wall-mounted variable frequency drive (VFD).
   3. A space mounted temperature sensor(s) shall control the speed of the supply air fan. The maximum airflow shall be set by the TAB with minimum airflow being 30% (adj) of the maximum airflow.
      a. When multiple space mounted temperature sensors are indicated on the plans, an average temperature shall be determined from the sensors.

D. Space Temperature Control: A wall mounted temperature sensor(s) shall maintain space temperature by modulating the units SAF and control valves as follows.
   1. Supply Air Fan Control: The supply air fan shall modulate based on space temperature, a 2°F (adjustable) dead band shall be utilized to control the fans speed for both heating and cooling systems as follows
      a. Cooling Mode:
         1) Space temperature 1°F below setpoint: Supply fan shall be at minimum speed.
         2) Space temperature 1°F above setpoint: Supply fan shall be at maximum speed.
         3) Space temperature between 1°F below and 1°F above setpoint: Vary linearly.
      b. Heating Mode:
         1) Space temperature 1°F below setpoint: Supply fan shall be at maximum speed.
         2) Space temperature 1°F above setpoint: Supply fan shall be at minimum speed.
         3) Space temperature between 1°F below and 1°F above setpoint: Vary linearly.

c. When space temperatures are between the cooling and heating dead band range, the supply fans shall be at its minimum setpoint.

2. Chilled Water and Reheat Coil Control: The control valves shall modulate based on space temperature, a 2°F (adjustable) deadband shall be utilized to control to a specific discharge air temperature.
   a. Chilled Water Coil Control Valve:
      1) Space temperature 1°F below setpoint: Discharge air temperature 62°F (adj).
      2) Space temperature 1°F above setpoint: Discharge air temperature 55°F (adj).
      3) Space temperature between limits: Vary linearly.
   b. Hot Water Reheat Coil Control Valve:
      1) Space temperature 1°F below setpoint: Discharge air temperature 85°F (adj).
      2) Space temperature 1°F above setpoint: Discharge air temperature 72°F (adj).
      3) Space temperature between limits: Vary linearly.
   c. When space temperatures are between the cooling and heating dead band range, both cooling and heating control valves shall be closed.
3. Dehumidification Mode:
   a. Air handling units shall only be allowed to enter dehumidification mode when space temperatures are a minimum of 1F above the heating setpoint.
   b. The unit shall enter dehumidification mode if space DPT increase above the setpoint of 55F (adj). There shall be three (3) different stages of dehumidification.
      1) Stage 1 dehumidification (between DPT setpoint and 1F above DPT):
         (a) CWC control valve shall modulate to maintain a maximum discharge air temperature of 57F.
      2) Stage 2 dehumidification (DPT is 1-2F above DPT setpoint):
         (a) CWC control valve shall modulate to maintain a discharge air temperature of 55F.
      3) Stage 3 dehumidification (DPT is 2F above setpoint): Before entering Stage 3 dehumidification, space temperatures must be less than or equal to the space setpoint and the heating hot water system must be proven operational, (i.e. boiler and hot water pump(s) active with HWS temp above 100F). If these conditions are not met, the unit shall remain at Stage 2 dehumidification. If these conditions are met, the following shall occur. The unit shall remain in Stage 3 dehumidification until space humidity levels drop to entering Stage 1 conditions, (DPT is 1F above setpoint).
         (a) Discharge air temperature shall be set to 54F (adj).
         (b) The fan speed shall be set to 75% of maximum speed.
         (c) The reheat coil shall modulate as required to maintain space temperature setpoint.

E. UV Lights: These units are equipped with UV lights. 120V power is being provided by Division 26 contractor, provide relay's and contacts as required to control UV lights so that the equipment is on only when the supply air fan is operating.

F. Display Points: **Provide graphical display of points listed on M508 SINGLE ZONE VAV AIR HANDLING UNIT**

G. Trend Points: The following points shall be trended on a common web page accessible by clicking on an icon from the unit's system web page.
   1. SZU AHU Trend #1: To be trended on change of state
      a. AHU Run Command
      b. Fan status
   2. SZU AHU Trend #2:
      a. Fan status
      b. Fan speed (% of full speed not HZ)
      c. Average space temperature

d. Average space RH
e. Average space DPT
f. Return/Mixed air temperature

3. SZU AHU Trend #3:
   a. Discharge air temperature
   b. Discharge air temperature set-point
   c. Cooling coil control valve % open
   d. Heating coil control valve % open
   e. Chilled water coil return water temperature

1.10 KITCHEN MAKEUP AIR HANDLING UNIT

A. **General: Unit shall consist of supply fan with VFD, chilled water coil with modulating 2-way control valve, and pre-heat coil with modulating 2-way control valve, OA isolation damper, face and bypass dampers around the chilled water coil and two single duct VAV terminal units.**

B. **Space Temperature Sensor Types: Space sensors serving single zone VAV unit, AHU-11, shall be used for control of this unit.**

C. **Supply Air Fan:**
   1. **Provide CT sensor(s) to prove fan status. Provide a CT per fan. Verify quantity and size of fans prior to ordering CTs.**
   2. **The supply air fan(s) shall be controlled through a single wall-mounted variable frequency drive (VFD).**
   3. **Prior to starting unit supply fan, open the OA motorized isolation damper [SOAD]**
   4. **The supply fan shall modulate its speed to maintain duct static pressure.**

D. **Single Duct VAV Terminal Unit Controls**
   1. **The single duct terminal units shall modulate from their minimum airflow (30% of max associated kitchen exhaust fan airflow) to their maximum (100% of max associated kitchen exhaust fan airflow) based on the Kitchen Hood Controller 0-10VDC signal [KHET1 and KHET2]**

E. **Discharge Temperature Controls:**
   1. **If Outdoor Air Temperature [OAT] >= 75F (adj)**
      a. **Chilled water valve control: Control of the chilled water control valve shall be dependent on the position of the F&B damper. Provide a 5% deadband as follows**
         1) **If F&B damper is open more than 10% open to the chilled water coil, the chilled water control valve shall: Modulate as required to maintain a 53F (adj) leaving coil temperature [CCST].**
         2) **If F&B damper is less than 10% open to the chilled water coil, the chilled water valve shall: close and remain closed until F&B damper is more than 15% open to the coil.**
      b. **Face and bypass damper shall modulate as required to maintain 70F (adj) discharge air temperature [SAT].**
      c. **Dehumidification Mode: If the space humidity [RH] rises to above 57% (adj), the discharge air temperature shall be reset as follows:**
         1) **Humidity at setpoint = 70F (adj) Discharge air temp [SAT]**
         2) **Space Humidity 5% above setpoint = 60F (adj) Discharge air temp [SAT]**
         3) **Between above high/low boundary = Vary linearly between 60F & 70F.**
   2. **If 62F < Outdoor Air temperature [OAT] <75F**
      a. **Chilled water valve control: Chilled water valve shall be closed.**
      b. **Face and bypass damper shall modulate to the full bypass position.**

c. **Preheat Hot Water Coil: Hot water valve shall be closed.**
d. **Dehumidification Mode: If the space humidity [RH] rises to above 57% (adj), the discharge air temperature shall be reset as follows:**
1) **Chilled Water Valve Control: Valve shall operate per > 75F sequence above**
2) **Space Humidity at setpoint = 70F (adj) Discharge air temp [SAT]**
3) **Space Humidity 5% above setpoint = 60 F (adj) Discharge air temp [SAT]**
4) **Between above high/low boundary = Vary linearly between 60F & 70F.**

3. **If Outdoor Air Temperature [OAT] <= 62F (adj)**
a. **Chilled water valve control: Chilled water valve shall be closed.**
b. **Face and bypass damper shall modulate to the full bypass position.**
c. **Preheat Hot Water Coil shall modulate to maintain 65F (Adj) discharge temperature [PHCT]**

F. **Kitchen Hood Sweep Off: At a user set time each day, the BAS shall send a hard-wired signal [KHS] to the kitchen exhaust hood controller system to turn off kitchen hoods.**

G. **Ansul Shut-Down: In the event that the kitchen hood Ansul system is activated, the kitchen exhaust hood controller system shall send a hard-wired signal [KHA] to the BAS. When this signal is received, the BAS shall shut-down AHU-11 and MUA-1.**

H. **Kitchen Hood On Light: The BAS contractor shall provide a ceiling mounted indicator light located in the ceiling between the kitchen exhaust hoods. When the 0-10VDC signals [KHET1 or KHET 2] from either of the kitchen exhaust hoods is not 0, this light shall be on to indicate to the building occupants that the hoods are operating.**

I. **UV Lights: These units are equipped with UV lights. 120V power is being provided by Division 26 contractor, provide relay's and contacts as required to control UV lights so that the equipment is on only when the supply air fan is operating.**

J. **Graphical Display Points: Display pointed shown on M508, "KITCHEN MAKEUP AIR HANDLING UNIT"**

K. **Trend Points: The following points shall be trended on a common web page accessible by clicking on an icon from the unit's system web page.**
1. **Single Zone VAV AHU Trend #1: (To be trended on a 5-minute basis)**
a. **Total Kitchen Hood Speed [KHET]**
b. **Supply Fan status [SF CT] and [SF FLT]**
c. **Supply Fan Speed (as a % of max speed) [SF %SP]**
d. **Space relative humidity [RH]**
e. **Bypass Damper Position [FBD]**
f. **Discharge air temperature [SAT]**
g. **Discharge air temperature set-point [SAT SP]**
h. **Discharge dew point temperature [SADP]**
i. **Chilled Water Coil Discharge Air temperature [CCST]**
j. **Cooling coil control valve % open [CHWV]**
k. **Heating coil control valve % open [HWV]**
l. **Chilled water coil return water temperature [CHWR]**

1.11 DEDICATED OUTSIDE AIR UNIT (DOAU) WITH ENERGY RECOVERY WHEEL (_____)

A. General: Units consist of supply fan(s) with VFD, exhaust fan(s) with VFD, enthalpy wheel with bypass damper, face & bypass damper, chilled water coil with 2-way modulating control valve, hot water coil with 2-way modulating control valve, 2-way 2-position damper at connection to OA louver and 2-way 2-position at connection to EA damper.

1. Occupied Mode: The air handling unit shall be placed into operation by the BAS based upon user defined schedule (separate scheduel from building AHU operational schedule)
2. Unoccupied Mode: During the unoccupied mode, the supply air fan shall de-activate, exhaust fan de-activate, energy recovery wheel shall de-activate and outside air/exhaust air dampers close.

B. Supply Fan Speed Control:
1. Before supply fan start, 2-way 2-position OA damper shall open.
2. A differential air pressure sensor shall prove fan status.
3. The supply air fan shall be controlled through a unit-mounted variable frequency drive (VFD).
4. Provide and install duct mounted pressure sensors 3/4 of the distance out in the system, (field verify location with engineer). The pressure sensors shall control the operation of the supply fan VFD and shall utilize differential pressure optimization.
5. Differential pressure optimization shall be accomplished by polling all VAV box damper positions and resetting the DP set-point so that at least one VAV damper is 95% open.
6. The adjustable reset range will be from 0.3” wg to 1.25” wg.

C. Exhaust Fan Speed Control:
1. Before the exhaust fan start, 2-way 2-position EA damper shall open.
2. Modulate exhaust fans VFD at same percentages as supply fan.

D. Toilet Room Exhaust Control:
1. General: Two main exhaust trunks are routed directly back to the OA unit, a constant flow Toilet Room Exhaust trunk and a Variable Flow Exhaust trunk.
   a. Toilet Room Exhaust: Provide **static** pressure sensor located near manual balancing damper as indicated on drawings. Install sensor in straightest runThis sensor shall be used to modulate the control damper in the “Variable Flow Exhaust” trunk.
   b. Variable Flow Exhaust Trunk: Provide modulating control damper at location indicated on drawings. This damper shall modulate as required to maintain a constant static pressure drop over manual balancing damper installed in “Toilet Room Exhaust Trunk”. The pressure loss value shall be field calibrated with T&B contractor.

E. Discharge Air Temperature Controls:
1. A duct mounted discharge air temperature sensor shall control the units face & bypass (F&B) dampers, 2-way chilled water control valve and 2-way hot water valve.
   a. General requirements:
      1) Provide temperature sensor at chilled water coil serpentine across the entire face of the water coil every six inches on center. This temp sensor shall control the operation of the coils control valve.
      2) Provide duct mounted temperature sensor to control the operation of the units F&B damper.
   b. When outdoor air temperature is above 75F (adj):
      1) The energy recovery wheel shall operate, (wheel bypass damper shall be closed).
      2) Chilled water valve control: Control of the chilled water control valve shall be dependent on the position of the F&B damper. Provide a 5% deadband as follows
         (a) F&B damper open more than 10% to the chilled water coil the control valve: Modulate as required to maintain a 55F leaving coil temperature.
         (b) F&B damper less than 10% to the chilled water coil: Chilled water valve shall close and remain close until F&B damper is more than 15% open to the coil.

3) Face and bypass damper shall modulate as required to maintain 65F (adj) discharge air temperature.
4) Dehumidification Mode: If dewpoint (DPT) in the variable flow exhaust duct from the building rises to 55F (adj), the discharge air temperature shall be reset as follows:
   (a) DPT temperature 1.5F above DP setpoint = 57F (adj) Discharge air temp
   (b) DPT temperature at DPT setpoint = 65F (adj) Discharge air temp
   (c) Between 1.5F above & setpoint (55DPT) = Vary linearly between 57F & 65F.

c. When outdoor air temperature is between 75 degrees F (adj.) and 60 degrees F (adj.).
1) The energy recovery wheel shall not operate, and its associated bypass damper shall be open.
2) Chilled water valve control: Control of the chilled water control valve shall be dependent on the position of the F&B damper. Provide a 5% deadband as follows
   (a) F&B damper open more than 10% to the chilled water coil the control valve: Modulate as required to maintain a 55F leaving coil temperature.
   (b) F&B damper less than 10% to the chilled water coil: Chilled water valve shall close and remain close until F&B damper is more than 15% open to the coil.
3) The face and bypass damper shall modulate as required to maintain discharge air temperature.
4) Dehumidification Mode: Dehumidification mode shall match sequence for when OA temps are above 75F

d. When the outdoor air temperature is below 60°F.
1) The energy recovery wheel shall operate, and the wheels bypass damper shall be closed.
2) The face and bypass damper shall be in full face mode, (all airflow through the heating coil).
3) The 2-way hot water control valve shall modulate as required to maintain 65F (adj) discharge air temperature.

F. System Start-up: When a unit has been called to start-up by the BAS, the following shall occur in sequential order:
1. The units control valve shall open to a minimum position of 50% (adj) or as required to achieve discharge air temperature (whichever is greater) for a minimum period of 15 minutes (adj).
2. The supply fan shall activate and operate under its normal sequence.
3. After the start-up period, the valve shall return to its normal operating mode.
   a. The closing speed of the chilled water control valve shall not be allowed to exceed more than 10% per minute (adj) when switching back from Morning Cool-down Mode to normal operations mode.

G. System Shut-down: When a unit has been called to shut-down by the BAS, the following shall occur in sequential order:
1. The units 2-way control valve shall lock in its current position while SA & EA fans are deactivated.
2. The SA and EA fans speed shall be reduced to its minimum setting over a period of 5 minutes (adj).
3. Once SA & EA fans have reached their minimum set-point, the SA and EA fans shall be deactivated.
4. After SA & EA fans have been deactivated, the units chilled water control valve shall close.

a. The closing speed of the chilled water control valve shall not be allowed to exceed more than 10% per minute (adj) during System Shut-down mode.

H. Freeze Protection:
1. Freeze protection wire shall be serpentine across the entire face of the water coil every six inches on center.
a. A low limit temperature sensor shall be located on the downstream side of the hot water coil.
b. If a temperature of 40 degrees F (adj.), or less is detected, then the supply air and exhaust air fans shall stop, outside air and exhaust air dampers shall fully close, the hot water control valve shall go full open, and an audio/visual alarm shall activate through the BAS.
c. Upon correction of the problem, the system shall be reset and shall return to normal operation.

I. Temperature Indication: Provide air temperature indication in the supply and return ducts and entering/leaving air temperature to each water coil.

J. UV Disinfection: The UV Disinfection system shall be on when the unit is active, provide relays and contactors as required to control manufactured supplied UV lights.

K. Operator Station Display: Display graphical points listed on sheet M508 "DEDICATED OUTDOOR AIR UNIT WITH DUAL EXHAUST TRUNK LINES"
1. DOAU Trend #1: (To be trended on a 5-minute basis)
a. SA fan speed
b. Energy wheel status
c. DPT
d. Discharge air temperature setpoint
e. Discharge air temperature
f. Face & Bypass Damper Position
g. CHWR temperature
2. DOAU Trend #2: (To be trended on a 5-minute basis)
a. Supply duct static pressure
b. Toilet exhaust static pressure
c. General exhaust duct damper position
3. DOAU Trend #3
a. Chilled Control valve % opened
b. Hot Control valve % opened
c. Face & Bypass Damper Position
d. Chilled water return water temperature
4. VAV AHU Trend #3: (To be trended on a 5-minute basis)
a. Provide trend of damper position for all terminal boxes connected to unit on one common page.

1.12 FAN-COIL UNIT CONTROL

A. Fan-Coil Unit with Chilled and Hot Water Coil
1. General: Fan-coils consist of ECM supply motor, 2-way chilled water coil control valve, 2-way hot water coil control valve and condensate overflow switch.
a. Provide and install condensate overflow alarm that will stop unit on alarm
2. Space Temperature Sensor Types: Flat Plate type.
3. Occupancy: Terminal boxes shall be placed into operation based on a time of day schedule through the front-end control system.

4. Space Temperature Control, Cooling: When cooling is required, modulate supply fan and chilled water control valve as required to maintain space temperature setpoint. (Heating valve shall be closed at this time).
5. Space Temperature Control, Heating: When heating is required, modulate supply fan and hot water control valve as required to maintain space temperature setpoint. (Heating valve shall be closed at this time).
6. Display: **Provide graphical display as shown on M507 FAN COIL UNIT CONTROLS**
7. Trends: The following points shall be trended on a common web page accessible from the unit's web page.
    a. Fan status
    b. Space temperature
    c. Discharge air temperature
    d. Chilled water control valve position
    e. Hot water control valve position

1.13 TERMINAL UNIT OPERATING SEQUENCES

A. General Requirements: When a Terminal box for space cooling and terminal box for OA control are in the same room and serve the same area, they shall be displayed on the same web page.

B. Space Temperature Sensor Types: **Low Profile Plastic Face** type shall be installed throughout with limited exceptions in the Administration Suite.
1. Refer to detail on drawings for temperature sensors located in:
    a. **Principal's Office A115**, Temperature Sensor and +/- 2 Deg. Temp Setpoint Adjustment
    b. **Admin Flex A105**, Temperature Sensor and +/- 2 Deg. Temp Setpoint Adjustment
    c. **Professional Development A141**, Temperature Sensor and +/- 2 Deg. Temp Setpoint Adjustment

C. Series Fan Powered VAV Box, (FVAV) with Electric Heating
1. Occupancy: Terminal boxes shall be active when associated AHU is operational.
    a. Unit Shutdown: When the terminal units associated AHU has been shut down, the air valve in the terminal box shall 1st modulate to 100% open, then modulate closed then modulate back to 50% open. The damper shall remain 50% open until after the SAF has started, after unit operation has been proved, the unit shall operate per this sequence.
2. Space Temperature Control:
    a. The supply fan shall be balanced to connected grille total listed on the drawings.
    b. When cooling is required, the air valve shall modulate between its minimum and maximum setting as required to maintain space temperature, (the maximum setting shall equal the total airflow connected to the terminal box).
    c. If space temperatures drop 2F (adj) below cooling set point, the air valve shall go 100% closed.
    d. If heating is required, the supply air damper shall fully close, and the electric heating coil shall modulate as required to satisfy set-point temperature.
3. Display:
    a. DDC system graphic.
    b. Room/area served.
    c. Maximum set point, (GRD Total).
    d. Room temperature indication.
    e. Room temperature set point.
    f. Air-damper position as percent open.
    g. Airflow.
    h. Electric heating coil status/percent of load.

4. Diagnostic Trends: The following points shall be trended on a common web page accessible from the terminal box's web page.
    a. Space temperature setpoint
    b. Space temperature
    c. Airflow
    d. Air-damper position as percent open.
    e. Discharge air temperature
    f. Percent of full load heating.

D. Single Inlet Terminal Box, (VAV) for cooling only
1. General: This box provides cooling to the MDF room and other similar spaces.
2. Occupancy:
    a. Occupied Mode: The terminal unit shall be placed into operation by the BAS based upon user defined schedule.
    b. Unoccupied Mode: During the unoccupied mode, the terminal box shall stroke 100% closed then modulate back to a 50% open position.
3. Air Valve Control: The air valve shall modulate from 0 – CFM listed on drawings as required to maintain space temperature set-point.
4. Display: **Provide graphical display per M507 VAV TERMINAL UNIT FOR COOLING ONLY (IDF ROOMS)**
5. Diagnostic Trends: The following points shall be trended on a common web page accessible from the terminal box's web page.
    a. Airflow
    b. Air-damper position as percent open.

E. Single Inlet Terminal Box, (VAV) for Space CO2 Control
1. General: This box is connected to OA Unit and is used to control space CO2 levels. It is a variable volume box.
2. Occupancy:
    a. Occupied Mode: The terminal unit shall be placed into operation by the BAS based upon user defined schedule.
        1) Unit Shutdown: When the terminal units associated AHU has been shut down, the air valve in the terminal box shall 1st modulate to 100% open, then modulate closed then modulate back to its minimum position. The damper shall remain at its minimum position until after the SAF has started, after unit operation has been proved, the unit shall operate per this sequence.
    b. Unoccupied Mode: During the unoccupied mode, the terminal box shall stroke 100% closed then modulate back to a 50% open position.
3. Space CO2 Control:
    a. Obtain space CO2 differential from the Facility Monitoring System.
    b. The variable air inlet damper shall modulate between the minimum and maximum air flow rates as required to maintain a space differential of 500 ppm (adj) between OA and space CO2 levels.
4. Display: **Provide graphical display per M507 SINGLE DUCT TERMINAL UNIT CONTROLS**
5. Diagnostic Trends: The following points shall be trended on a common web page accessible from the terminal box's web page.
    a. Airflow
    b. Air-damper position as percent open.
    c. Space CO2
    d. OAT CO2

F. Single Inlet Terminal Box, (CAV)
1. General: This box is connected to OA unit and provides code required ventilation to the space. It is a constant volume box and is NOT controlled by space CO2 levels.

2. Occupancy:
   a. Occupied Mode: The terminal unit shall be placed into operation by the BAS based upon user defined schedule.
   b. Unoccupied Mode: During the unoccupied mode, the terminal box shall stroke 100% closed then modulate back to a 50% open position.
3. Air Valve Control: The air valve shall modulate as required to maintain a constant air volume as indicated in the drawings.
4. Display: **Provide graphical display per M507 SINGLE DUCT TERMINAL UNIT CONTROLS**
5. Diagnostic Trends: The following points shall be trended on a common web page accessible from the terminal box's web page.
   a. Airflow
   b. Airflow setpoint
   c. Air-damper position as percent open.

1.14 GENERAL EXHAUST FAN CONTROL

A. General: Where exhaust fans are provided for general exhaust purposes, (refer to plans for actual location), interlock exhaust fan with air handling unit servicing general area. Provide and install CT on motor for status check.

B. Display: **Refer to M507 GENERAL FAN CONTROLS for display points**

1.15 DISHWASHER HOOD EXHAUST SYSTEM

A. General: Interlock dishwasher with exhaust fan. Provide and install CT on motor for status check.

B. Display:
   1. DDC system graphic.
   2. Exhaust fan status.
   3. Dishwasher fan status.

1.16 KITCHEN REFRIGERATOR AND FREEZER

A. General: Provide a wall-mounted temperature sensor in the walk-in refrigerator and freezer units to monitor temperature.
   1. If temperatures exceed a pre-designated set-point (adj) an alarm shall be generated at the BAS

B. Display and Trend Points: Provide display for freezer and cooler and trend points on a 5-minute basis.

1.17 HIGH VOLUME LOW SPEED CEILING FAN

A. General: These fans are being provided with local speed control by the manufacturer. Provide start/stop signal via occupancy schedule. Coordinate requirements with fan manufacture.

B. Display:
   1. DDC system graphic.
   2. Fan status.

1.18 VENTILATION FANS

A. General: These fans are being provided cooling of IT closets, refer to drawings and schedules for quantity and locations. Provide space mounted temperature sensor to control fan. Fan shall operate to maintain 80F setpoint in area served.

B. Display: **Display graphics shown on M505 VENTILATION FAN CONTROLS**

1.19 DUCTLESS SPLIT SYSTEMS, **MDF** CLOSET COOLING

A. General: Ductless split systems shall operate under their own control, install, and wire manufacturer provided thermostat. Provide the following additional controls components:
1. Wall mounted temperature sensor to allow monitoring of space temperature.

B. Display: **Display graphics shown on M505 DX MINISPLIT FOR MDF/IT**

1.20 EXTERIOR LIGHTING CONTROL:

A. General: Three **(3) mechanically held contactor type relay panels are being provided for building site-lighting control. The panels and rooms are as follows:**
1. **Main Eech C110 - Panel LCC**
2. **Elec A121 - Panel LCA**
3. **Mech/Elec B125 - Panel LCP**

B. Lighting Control: Provide time of day control via exterior lighting schedule, both lighting controllers shall use a common schedule.

C. Display:
1. Status
2. Lighting schedule

1.21 SHELTER IN PLACE

A. General: A wall mounted push button in **Reception A101A adjacent to the copy machine (field coordinate location with owner prior to installation)** shall activate a "shelter-place" mode. Under this condition, all OA equipment and Exhaust equipment, (with the exception of the kitchen hood system) shall be shut down. **Shelter button shall be white with "HVAC SHUT-DOWN" text legend and integral non-alarm cover. Part number shall be #SS2321HV-EN or equal.**

1.22 DOMESTIC WATER HEATERS

A. General: Provide control of domestic water recirculation pumps, **HWRP-1 and HWRP-2**. Pumps shall be controlled via a time-of-day schedule.

B. Display:
1. **Pump(s) status (On/Off/Alarm)**

1.23 BUILDING HUMIDITY SENSORS

A. General: Provide wall mounted humidity sensors **where indicated below.**

B. Display: Floor plan with location of humidity sensors including.
1. Wall mounted humidity sensors in the following locations:
a. First Grade A133

b. Kindergarten B113
c. Fifth A216
d. Third B219

2. Humidity sensors mounted in the RA or EA duct of AHU and/or OA units

1.24 ENERGY METER:

A. General: Provide connection to main switch gear electrical mete**r, MM, in Main Elec C109** (provided by electrical contractor) and record information via the BAS. The BAS system shall provide in report format the following information:

1. **Instaneous**
   a. **KW**
   b. **KWH**
2. **BAS calculated Monthly:**
   a. **Total KWH**
   b. **Peak KW**
   c. **Peak KW Date and Time**
3. **BAS calculated Yearly:**
   a. **Total KWH**
   b. **Peak KW**
   c. **Peak KW Date and Time**

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 32 18 16 – SYNTHETIC TURF SURFACING FOR PLAYGROUND

PART 1 - GENERAL

1.1 SUMMARY

Section Includes:

1. Synthetic turf surfacing, including artificial turf, subbase preparation and placement of aggregate base course, and turf infill.
2. **Subsurface drainage below the playground surface is to be provided by the playground surface contractor and connected to nearest drainage pipes.**

B. Related Sections

1. Division 32 Section "Aggregate Base Course for Synthetic Turf Surfacing.
2. **Division 33 Section "Subdrainage" for drainage field outboard of playground surfacing.**

1.2 REFERENCES

A. ASTM International (ASTM): www.astm.org:

1. ASTM D1335 - Test Method for Tuft Bind of Pile Yarn Floor Coverings.
2. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
4. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
5. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
6. ASTM F1015 - Standard Test Method for Relative Abrasiveness of Synthetic Turf Playing Surfaces.
7. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.
8. ASTM F1951 - Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

B. International Play Equipment Manufacturers Association (IPEMA): www.ipema.org.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Conference: Conduct conference at Project site following award of contract. Review methods and procedures related to synthetic turf surfacing installation including, but not limited to the following:

1. Review survey of subbase conditions.
2. Review delivery, storage, and handling procedures.

1.4 ACTION SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: For each type of product indicated.

C. Shop Drawings: Provide installation details including roll and seaming layout, methods of attachment and details at penetrations and terminations.

1. Show layout of marking plan (where indicated), indicating details for specified activity areas.

D. Samples: For each type of synthetic turf surfacing indicated.
   1. Minimum 12-by-12-inch- square sample of synthetic turf surface with tufted perimeter line and carpet seam.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Installation Schedule: Showing planned commencement and completion dates for each portion the Work; include critical dates indicated on Project Schedule.

C. Warranty: Sample of manufacturer's warranty as specified herein.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Seaming Materials: Sufficient quantity for 100 sq. ft.
   2. Synthetic Turf Fiber: Sufficient quantity for 100 sq. ft.
   3. Infill Material: Sufficient quantity for 100 sq. ft., in weatherproof bags.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing synthetic turf surfacing materials similar to those specified for this project, with a record of successful service for a minimum of 5 years.

B. Installer Qualifications: An experienced Installer certified by the manufacturer, employing workers trained and approved by manufacturer, who has successfully installed work similar in design and extent to that required for this Project, in not less than 5 projects of similar scope.

C. Source Limitations: Obtain synthetic turf surfacing materials through one source from a single manufacturer.
   1. Provide secondary materials including adhesives, paint, thread, and repair materials of type and from source recommended by manufacturer of synthetic turf surfacing materials.

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit synthetic turf surfacing installation to be performed according to manufacturers' written instructions and warranty requirements.

1.9 COORDINATION

A. Coordinate installation of synthetic turf surfacing with installation of site paving, playground equipment, adjacent lawns, landscaping materials, site lighting, and related work

1.10 WARRANTY

A. Reference Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.

B. Manufacturer's Warranty: Submit manufacturer's standard published limited warranty form in which manufacturer agrees to repair or replace components of synthetic turf surfacing installation installed by relief, within specified warranty period:
   1. Failures include ultraviolet degradation, backing integrity, more than 50-percent loss of face fiber, and loss of tuft bind strength.
   2. Warranty Period: Life of product.

C. Installer Project Warranty: Submit synthetic turf surfacing Installer's warranty, signed by Installer, covering the Work of this Section, including installation of all components of synthetic turf surfacing system, for the following warranty period:
1. Warranty Period: Two years from date of Substantial Completion of the Project.

1.11 PERFORMANCE REQUIREMENTS

A. Certification: Provide synthetic turf surfacing system with safety performance testing certified by IPEM.

B. Shock Attenuation Value: Provide synthetic turf system with G-max value not exceeding 200 and Head Injury Criteria (HIC) not exceeding 1,000 in accordance with ASTM F 1292, based upon application and fall height indicated on Drawings.

C. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

D. Exterior Fire-Test Exposure: Provide synthetic turf surfacing materials identical to those of assemblies tested for Class A fire resistance according to ASTM E108 or UL 790 by Underwriters
Laboratories or another testing and inspecting agency acceptable to authorities having jurisdiction.

E. Accessibility Requirements: Comply with applicable provisions in [the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1 for recreation surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. SYNLawn, www.synlawn.com

B. Substitutions: Refence Section 01 60 00 - Product Requirements.

2.2 SYSTEM

A. *SYNTipede 321* As manufactured by SYNLawn and locally distributed/installed by McKenna Contracting, Inc., www.mckennacontracting.net .

1. Source Limitations: Reference 1.7C above.

B. System Description: Complete synthetic turf surfacing system, consisting of delustered UV-stabilized antimicrobial synthetic yarns bound to water-permeable bio-based primary and secondary backing. IPEMA-certified. Non-abrasive blades with low surface temperature. Anti-Static and Ultra Violet reflective pigment-enhanced.

C. Components

1. Artificial Turf Fiber and Construction Characteristics:
   a. Yarn, Turf Zone: Tufted polyethylene, high-emissivity omega shape.
      1) Color: Field green + apple.
      2) Denier, ASTM D1577: 10,800/6.
      3) Antimicrobial Protection: Sanitized®
      4) Antistatic Protection: StatBlock™
      5) IR Reflective: DualChill™
   b. Yarn, Thatch Zone: Polyethylene.

1) Color: Field green + beige.
2) Denier: 5,000/8.

c. Finished Pile Height, ASTM D5823: 1 inch.

d. Face Weight, ASTM D5848: 60 oz/sq. yd.

e. Tuft Machine Gauge: 3/8 inch.

f. Backing, Primary: 6 oz./sq. yd. 15/18 polypropylene, 2 layers with fiber-reinforcing core.

g. Backing, Secondary: 22 oz. /sq. yd. bio-based urethane.
1) Enviroloc+™ Anti Fungi and Anti Algae blended into secondary backing.

h. Total Weight: 108 oz./sq. yd.

i. Infill: Silica sand ballast.

j. Temperature-Reducing Infill: Silica sand and moisture-retaining coated sand ballast.

D. Performance Characteristics
1. Tuft Bind, ASTM D1335: Not less than 8 lb.
2. Grab tear strength, ASTM D5034: Not less than 200 lbf.
3. Elongation to break, ASTM D2256: Not less than 30 percent.
4. Yarn breaking strength, ASTM D5793: Not less than 20 lb.
5. Foot Traffic Rating: 4.
6. Softness Rating: 2.
7. Flammability, ASTM D2859: Pass.
8. Fire Test Exposure, ASTM E108: Class A.

2.3 SUPPLEMENTARY TURF SURFACING SYSTEM MATERIALS

A. High Use Area Package: High density, crush-resistant component, configured for easy replacement without disturbing surrounding turf surfacing.
1. Product: SYNLawn, *TrampleZone*.

B. Fall Pad: Rubber, lead, and heavy metal-free non-degradeable porous elastic pad, with permeability of not less than that of specified artificial turf surfacing, composed of 100 percent recycled non- contaminated post-industrial closed cell polyethylene foam, geotextile weed barrier faced on one side.
1. Product: SYNLawn, Fall Pad.
2. Pad Thickness: As indicated on Drawings
3. IPEMA Fall Height, ASTM F1292: As indicated on Drawings.
4. Accessibility, ASTM F1951: Passes.
5. Rainfall Capacity, ASTM F1551: Not less than 30 inches per hour.

C. Turf Spikes: Manufacturer's approved fasteners.

D. Nailer Board: Manufacturer's approved nailer/edger board, resistive to deterioration by soil.

E. Infill Material: Silica sand in manufacturer’s recommended formula for application to synthetic turf surfacing.
1. Product: SYNLawn, Envirofill. Color as selected by the Architect.
2. Product: SYNLawn, T-Cool.

F. Game Lines and Markings: Provide game lines and markers in widths and colors according to requirements indicated on Drawings.
1. Application Method: Tufted in, to the maximum extent practicable, with remaining lines inlaid.

G. Paint: For non-tufted lines and markings: Manufacturer’s recommended paint for use on

synthetic turf surfacing.

H. Glue, Seaming Fabric, and Thread: As recommended by manufacturer for application.

2.4 RELATED MATERIALS PROVIDED AND INSTALLED UNDER OTHER SECTIONS

A. Curbing: Custom concrete curb, paving, or sidewalk as indicated. Provided under Div. 32.

B. Aggregate Base Course: Sound crushed graded stone or gravel complying with ASTM D 448 for Size No. 8 or ASTM D 448 for Size No. 57. Provided under Div. 32.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine synthetic turf surfacing base and perimeter conditions, with Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the Work.
   1. Verify that substrate meets profile required.
   2. Confirm that base material, compaction of substrate, permeability, and drainage system installation meets requirements.

B. Proceed with installation only after any unsatisfactory conditions have been corrected. Proceeding with installation of artificial turf system indicates acceptance of sub base.

3.2 SUB BASE PREPARATION AND REQUIREMENTS – Provided Under Division 32

A. Reference Division 32 Section(s) for work related to preparation of sub base required for synthetic turf surfacing system.

B. Reference Division 32 Section(s) for work related to synthetic turf surfacing for requirements for preparing subbase for Work of this Section.

C. Coordinate with Division 32 work contractor to ensure sub base materials and installation are in accordance with synthetic turf surfacing manufacturer's requirements. Verify that substrates are sound and without high spots, ridges, holes, and depressions; that organic debris is removed; and that soil subgrade is graded level and properly compacted.

D. Ensure subgrade is finish graded with slope between 0.5 percent and 1.0 percent toward path of site drainage.
   1. Requirements include that subgrade is compacted in both directions with mechanical compacting equipment to achieve specified compaction at 90 percent standard Proctor.
   2. Ensure that subgrade is within 0.5 inch of design grade and that subgrade is within 0.25 inch-in-10-feet in any direction from design grade over entire playing surface.

3.3 AGGREGATE COURSE INSTALLATION REQUIREMENTS – Provided Under Division 32

A. Reference Division 32 Section(s) for work related to preparation of aggregate base required for synthetic turf surfacing system.

B. Coordinate with Division 32 work contractor to ensure aggregate base materials and installation are in accordance with synthetic turf surfacing manufacturer's requirements. Ensure aggregate base course is compact by tamping with plate vibrator to 90 percent of ASTM D-1557 maximum laboratory density, and screeded to depth indicated. Confirm minimum 4-inch base course is installed unless greater thickness is indicated.

3.4 SYNTHETIC TURF INSTALLATION

A. General: Comply with synthetic turf surfacing manufacturer's written installation

instructions. Install synthetic turf surfacing over area and in thickness indicated.

B. Fall Pad: Place fall pads cut neatly and tightly abutted over entire area to receive synthetic turf surfacing. Tape seams with pad seam tape to secure pads in position prior to installing synthetic turf.

C. Artificial Turf: Loose-lay artificial turf and allow fabric to relax for period recommended by manufacturer. Stretch carpet and attach at perimeter in accordance with manufacturer's recommendations and approved submittals.

D. Seaming: Form seams flat and snug, with no gaps or fraying. Remove yarns that are trapped within seams. Form seams as recommended in synthetic turf manufacturer's written instructions using system manufacturer's provided or recommended materials.

E. Attachment: Attach turf fabric to perimeter restraint system in accordance with manufacturer's recommendations and approved submittals as recommended by the system manufacturer.

3.5 INSTALLATION, INFILL

A. Mix and install infill material components in accordance with manufacturer's requirements for approved system. Groom material and leave surface ready for use.

3.6 DEMONSTRATION

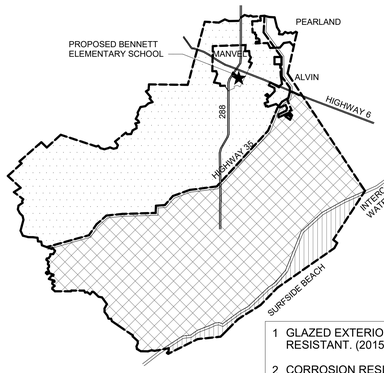
A. Instruct Owner's personnel in proper inspection and maintenance of synthetic turf surfacing. Review manufacturer's recommended maintenance procedures and warranty terms and conditions.

3.7 PROTECTION

A. Protect completed installation from damage. Prevent traffic over system prior to acceptance by Owner.

END OF SECTION

TEXAS WIND INSURANCE ASSOCIATION CHART

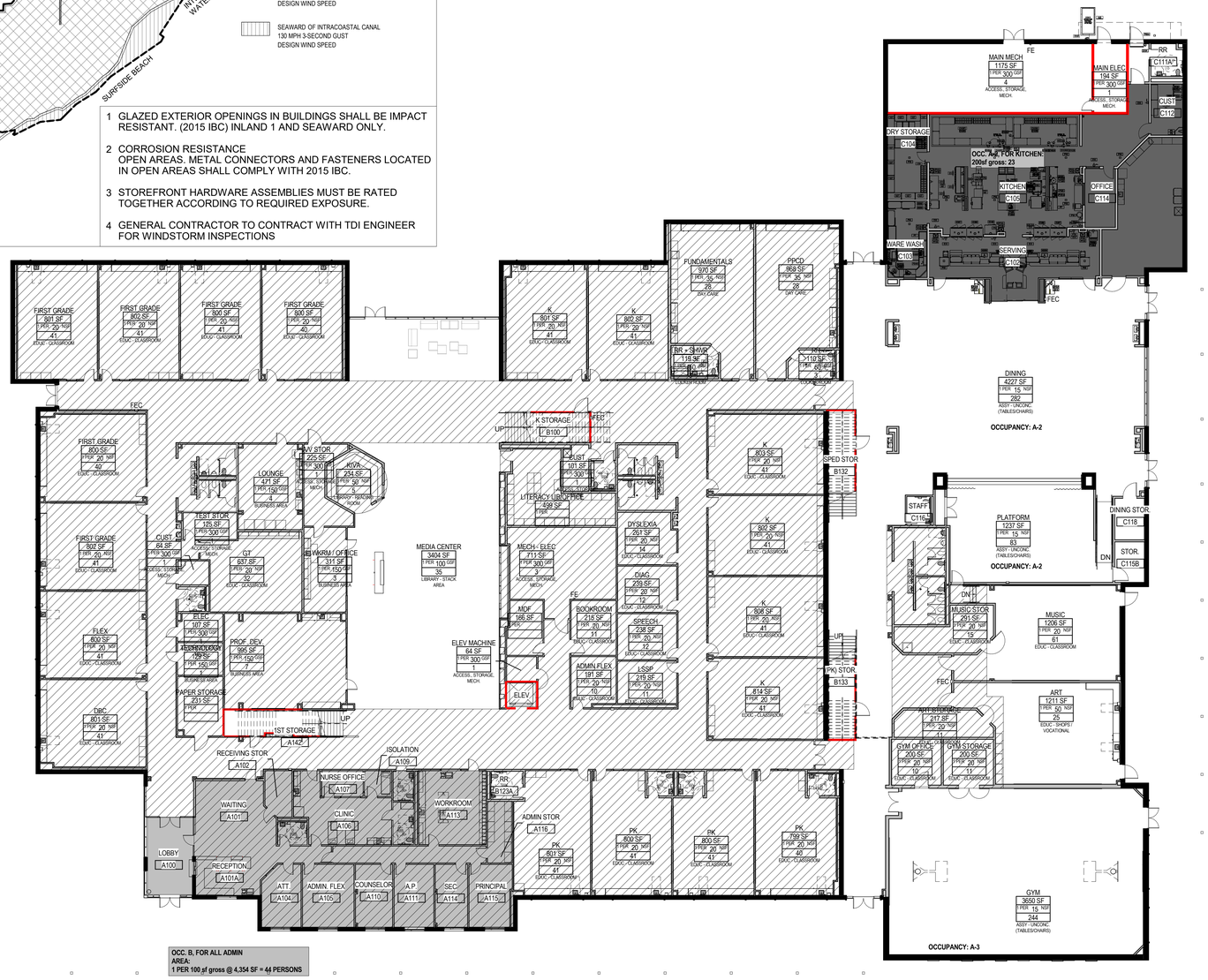


BRAZORIA COUNTY

ADOPTED WINDS

- INLAND II OF INTRACOASTAL CANAL — 110 MPH 3-SECOND GUST DESIGN WIND SPEED
- INLAND I OF INTRACOASTAL CANAL — 120 MPH 3-SECOND GUST DESIGN WIND SPEED
- SEAWARD OF INTRACOASTAL CANAL — 130 MPH 3-SECOND GUST DESIGN WIND SPEED

1. GLAZED EXTERIOR OPENINGS IN BUILDINGS SHALL BE IMPACT RESISTANT. (2015 IBC) INLAND 1 AND SEAWARD ONLY.
2. CORROSION RESISTANCE OPEN AREAS. METAL CONNECTORS AND FASTENERS LOCATED IN OPEN AREAS SHALL COMPLY WITH 2015 IBC.
3. STOREFRONT HARDWARE ASSEMBLIES MUST BE RATED TOGETHER ACCORDING TO REQUIRED EXPOSURE.
4. GENERAL CONTRACTOR TO CONTRACT WITH TDI ENGINEER FOR WINDSTORM INSPECTIONS



1 L1 LIFE SAFETY PLAN

G101 — 1/16" = 1'-0"

WALL TO DECK LEGEND

- INDICATES EXTERIOR WALL
- INDICATES INTERIOR WALL TO DECK
- INDICATES INTERIOR WALL NOT TO DECK, TERMINATE 8" ABOVE ADJACENT CEILING

ADOPTED CONSTRUCTION CODES:

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL FIRE CODE
2023 NATIONAL ELECTRIC CODE

NOTES:

1. ALL WALLS ARE NON-RATED WALLS TO BOTTOM OF DECK (UON).
2. ALL NON-LOAD BEARING CMU WALLS SPAN VERTICALLY (UON).
3. ALL COLUMN ENCLOSURES SHALL BE THE SAME HEIGHT AS THE ADJACENT WALL (UON).
4. BRACE ALL WALLS TO STRUC ABOVE AS NOTED IN WALL BRACING NOTES AND WALL TERMINATION DETAILS ON SHEET A004 - A006.
5. REFER TO PARTITION TYPES, SHEET A008 & WALL CONSTRUCTION AND RATED ASSEMBLY UL NOS., SHEET A008, TYP.
6. FIRE RATING OF ANY "EXTERIOR" LOAD BEARING WALLS SHALL CONTINUE FOR A MIN OF 30" BELOW ROOF LINES AT STEPPED BUILDING LOCATIONS, SUCH SAME WALL BELOW SUCH POINT IS AN "INTERIOR" LOAD BEARING WALL AND FIRE RATED ACCORDING TO "INTERIOR" LOAD BEARING WALLS.
7. MARKING OF FIRE RATED & SMOKE STOP PARTITIONS: PERMANENTLY MARK ALL SMOKE BARRIERS, FIRE PARTITIONS, SHAFT ENCLOSURES, FIRE BARRIERS ABOVE CEILINGS AS FOLLOWS: "FIRE AND SMOKE BARRIER-PROTECT ALL OPENINGS". LETTERS SHALL BE MINIMUM 3" IN HEIGHT, 3/8" IN STROKE, AND PAINTED RED. IF RED IS A CONTRASTING COLOR TO THE GYPSUM BOARD, OTHERWISE USE A CONTRASTING COLOR PAINT. PROVIDE ONE TIME PER STRUCUTRAL BAY, BUT AT INTERVALS NOT MORE THAN 30' ON CENTER, OR FOR WALLS WHICH DO NOT EXTEND FOR A FULL BAY, AT LEAST ONCE. AT ENDS OF WALLS, PROVIDE MARKINGS WITHIN 15' OF THE END OF EACH WALL.

NOTES:

1. PROTECT ALL CONDUIT, PIPES, DUCTS, AND MISC PENETRATIONS THROUGH RATED WALLS, FLOOR OR ROOF WITH FIRE SAFING INSULATION AND FIRE STOP SEALANT. REFER TO UL GUIDELINES FOR APPROPRIATE ASSEMBLIES.
2. PROVIDE DAMPERS AND LIGHT FIXTURE PROTECTION AS REQUIRED BY UL ASSEMBLIES.
3. PROVIDE SPRAY-ON FIRE PROTECTION FOR STRUCTURAL MEMBERS CROSSING FROM AN AREA DESIGNATED TO BE A FIRE RATED FLOOR/CEILING AND OR FIRE RATED ROOF/CEILING ASSEMBLY INTO AREAS WITH ANY OTHER FIRE ASSEMBLY OR NO FIRE ASSEMBLY FOR THEIR FULL LENGTH. TYP.
4. UL ASSEMBLIES INDICATED ESTABLISH A PERFORMANCE BASIS. OTHER ASSEMBLIES MAY BE CONSIDERED AT THE DISCRETION OF THE ARCHITECT IF EQUIVALENT PERFORMANCE IS PROVIDED. SUBSTITUTION PROPOSALS SHALL INCLUDE CHANGES REQUIRED TO ALL COMPONENTS OF THE ASSEMBLY.
5. ALL CONCEALED STEEL COLUMNS AND COLUMNS IN MEP SPACES - SPRAY ON FIREPROOFING, UL ASSEMBLY X750, U.O.N
6. ALL EXPOSED STEEL COLUMNS AND HSS BEAMS NOT IN MEP SPACES, INTUMESCENT COATING, UL ASSEMBLY X650, X661, X662
7. (FEC) - LOCATE PER "NFPA 10" (75' MAX) - FIELD LOCATE/COORDINATE EXACT LOCATIONS W/ ARCHITECT IN FIELD. CONTRACTOR TO VERIFY EXACT AMOUNT AND LOCATION COMPLIANCE AND PROVIDE ADDITIONAL "FECS" PER FIRE MARSHALL REQUIREMENTS. REFER TO G102 FOR DETAIL.

⚠1 NOTED FEC AND FE LOCATIONS ON PLAN

STUDENT CAPACITY:

GRADES SERVED:	KINDERGARTEN - 5th GRADE
DESIGN CAPACITY:	900 STUDENTS
20 REGULAR CLASSROOMS x 25 =	XX
4 REGULAR CLASSROOMS x 24** =	XX
TOTAL CAPACITY =	900 STUDENTS

* TEXAS EDUCATION AGENCY (TEA) MANDATES/REQUIRES A MAXIMUM OF 22 STUDENTS PER CLASSROOM FOR GRADES KINDERGARTEN THROUGH FOURTH GRADE.

** TEXAS EDUCATION AGENCY (TEA) MANDATES/REQUIRES A MAXIMUM OF 24 STUDENTS PER CLASSROOM FOR FIFTH GRADE.

PROJECT GENERAL INFORMATION:

- PROJECT → ELEMENTARY SCHOOL #23
- LOCATION → IOWA COLONY, TEXAS
- BUILDING HEIGHT → TWO STORIES
- FLOOR AREA SUMMARY → LEVEL 1: 68,589 SF* (MEZZ.= 1,874 SF); LEVEL 2: 37,668 SF; TOTAL = **106,257 SF***

* 505.2 MEZZ., SHALL NOT CONTRIBUTE TO BUILDING AREA OR NUMBER OF STORIES.

CODE REVIEW: IBC 2018

- OCCUPANCY (SEC. 508) → MIXED, NON-SEPARATED
- PRIMARY OCCUPANCY (SEC. 305) → EDUCATIONAL GROUP "E"
- SECONDARY OCCUPANCY (SEC. 303, 304) → ASSEMBLY GROUP "A-2" (CAFETERIA) W/ ASSOCIATED KITCHEN; ASSEMBLY GROUP "A-3" (LIBRARY, GYMNASIUM); BUSINESS GROUP "B" (ADMIN. AREAS), LESS THAN 10% OF S.F. OF A GIVEN LEVEL

NOTE: PER EXCEPTION 303.1.3, A ROOM OR SPACE USED FOR ASSEMBLY ASSOCIATED WITH GROUP "E" IS NOT CONSIDERED A SEPARATE OCCUPANCY.

NOTE: PER EXCEPTION 311.1.1, ACCESSORY STORAGE SPACES SHALL BE CLASSIFIED AS PART OF THAT OCCUPANCY.

NOTE: PER EXCEPTION 508.2.1, THE ABOVE SECONDARY OCCUPANCIES ARE DESIGNATED AS ACCESSORY OCCUPANCIES.

- AUTOMATIC SPRINKLER SYSTEM → YES
- TYPE OF CONSTRUCTION (CHAPTER 6) → TYPE II A
- BUILDING AREA AND HEIGHT LIMITATIONS (SEC. 503-506) FOR GROUP "E" OCCUPANCY → 79,500 AREA / 85 FT HEIGHT / 4 STORIES (TAB. 506.2 ALLOWABL AREA): 26,500 NS / 106,000 S1 / 79,500 SM (HEIGHT INCREASE PER TAB. 504.3): 75 FT HEIGHT / 3 STORIES
- ALLOWABLE AREA CALCULATIONS (SEC. 506.2):
  - Aa = [At + (NS x If)] → MIXED-OCCUPANCY, MULTISTORY
- TOTAL MAXIMUM ALLOWABLE AREA EQUATION (SEC. 506.2):
  - Aa = At + (NS x If) → Aa = 79,500 + (26,500 x .75) ; Aa = 79,500 + 19,875
- TOTAL MAXIMUM ALLOWABLE AREA: → **Aa = 99,375 SF** / FLOOR

FIRE-RESISTANCE REQUIREMENTS

FOR GENERAL BUILDING ELEMENTS: (TAB. 601 AND 602)		DOOR RATING (TAB. 716.5)
STRUCTURAL FRAME	1 HR	
BEARING WALLS: EXTERIOR	1 HR	
BEARING WALLS: INTERIOR	1 HR	
NONBEARING WALLS: EXTERIOR — LESS THAN 5'	1 HR	45 MIN
NONBEARING WALLS: EXTERIOR — 5' OR LESS THAN 10'	1 HR	45 MIN
NONBEARING WALLS: EXTERIOR — 10' OR LESS THAN 30'	1 HR	45 MIN
NONBEARING WALLS: EXTERIOR — GREATER THAN 30'	0 HR	
NONBEARING WALLS: INTERIOR	0 HR	
FLOOR CONSTRUCTION (INCL. SUPPORT BEAMS/JOISTS)	1 HR	
ROOF CONSTRUCTION (INCL. SUPPORT BEAMS/JOISTS)	1 HR	

FOR SPECIFIC BUILDING ELEMENTS:		
SHAFT ENCLOSURES (SEC. 713.4)	1 HR	1 HR
STAIRWAYS (SEC 1023.2 / SEC 1019.3	1 HR / 0 HR	1 HR / 0 HR
FIRE WALLS (TAB. 706.4)	2 HR	90 MIN
FIRE PARTITIONS (SEC. 708)	1 HR	20 MIN
CORRIDORS (TAB. 1020.1)	0 HR (>30 OCCUPANTS & SPRINKLERED)	
ELEVATOR MACHINE ROOM (SEC 3005.4)	1 HR	45 MIN

- OCCUPANCY SEPARATIONS: → NOT REQUIRED - NONSEPARATED USE (SEC 302.1 & 508.2.4)
- INCIDENTAL USE SEPARATIONS (TABLE 509):
  - BOILER AND FURNACE ROOMS → 1 HR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
  - LABORATORIES OR VOCATIONAL SHOPS → 1 HR. OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
  - LAUNDRY ROOMS OVER 100 SF → 1 HR. OR PROVIDE AUTOMATIC SPRINKLER SYSTEM

MISCELLANEOUS DETAILED REQUIREMENTS

- CEILING HEIGHT FOR MEANS OF EGRESS (SEC. 1003.2) → MIN. 7'-6"
- CEILING HEIGHT FOR OCCUPIABLE SPACES AND CORRIDORS (SEC. 1207.2) → MIN. 7'-6"
- KITCHEN HOOD - TYPE I (SEC 507.10/506.3.11 OF IMC) → SHAFT ENCL. PER IBC (2 HR.)
- PLATFORM MISCELLANEOUS REQUIREMENTS → NOT APPLICABLE
- SAFETY GLAZING MISCELLANEOUS REQUIREMENT → SEC 2406
- ELEVATOR MISCELLANEOUS REQUIREMENTS → CHAPTER 30

LEGEND

- 1 HOUR RATED FIRE BARRIER — 1-HR WALL TO DECK: UL No U419 AT STUD CONSTR; NCMA-TEK 7-1A -FIRE RESISTANCE (2001) AT CMU CONSTR
- 2 HOUR RATED FIRE BARRIER — 2-HR AREA SEPARATION WALL TO DECK: UL No U411 AT STUD CONSTR; NCMA-TEK 7-1A -FIRE RESISTANCE (2001) AT CMU CONSTR; UL No U905 AT CMU CONSTR
- 45 MINUTE FIRE LABEL DOOR
- 60 MINUTE FIRE LABEL DOOR
- 90 MINUTE FIRE LABEL DOOR
- AREA NAME — OCCUPANCY AREA TAG: AREA NAME
- 150 SF — TOTAL AREA OF SPACE
- 1 OCC/15 SF — OCCUPANCY LOAD FACTOR
- Occupancy (Integer) OCC — NUMBER OF OCCUPANTS IN SPACE
- EGRESS DOOR TAG: W = WIDTH OF LIMITING COMPONENT IN INCHES. DOOR CALCULATION = ACTUAL WIDTH - (DOOR THICKNESS + (2 x STOP DEPTH)) X = "ACTUAL EXIT CAPACITY" - PROPOSED NUMBER OF OCCUPANTS USING EXIT Y = "CALCULATED EXIT CAPACITY" - MAX. NUMBER OF OCCUPANTS EXIT CAN ACCOMMODATE = W / Z Z = EGRESS WIDTH PER OCCUPANT SERVED (INCHES PER OCCUPANT) PER TABLE 1005.1
- TRAVEL DISTANCE - PATH OF TRAVEL
- FIRE EXTINGUISHER CABINET (FEC) - LOCATE PER "NFPA 10" (75' MAX) - FIELD LOCATE/COORDINATE EXACT LOCATIONS W/ ARCHITECT IN FIELD. - CONTRACTOR TO VERIFY EXACT AMOUNT AND LOCATION COMPLIANCE AND PROVIDE ADDITIONAL "FECS" PER FIRE MARSHALL REQUIREMENTS. PROVIDE CLASS 'K' FIRE EXTINGUISHER IN KITCHEN, TYP.
- WALL MOUNTED FIRE EXTINGUISHER. (FE) CONTRACTOR PROVIDED AND INSTALLED.

FIRE ASSEMBLY LEGEND

- FLOOR/CEILING — UL ASSEMBLY No D902: 1-HR; CONCEALED COLUMNS - UL ASSEMBLY X790: 1-HR TO SUPPORT FLOOR/ROOF
- STRUCTURE EXCEEDS 20 FT - FIREPROOFING NOT REQUIRED
- ROOF/CEILING — UL ASSEMBLY No P921: 1-HR; STRUCTURAL FRAME RATED 1-HR
- INTUMESCENT PAINT ON ALL EXPOSED STRUCTURAL MEMBERS NOT IN MEP SPACES — UL ASSEMBLY No X650, X662, X661: 1-HR AT ROOF/FLOOR/CEILING

Stantec

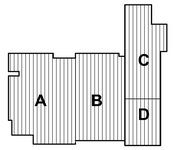
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910 Louisiana Street Suite 2600
Houston, TX 77002-4916
Tel: (713) 548-5700 • www.stantec.com

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Consultant

Notes



N

⚠2 ADDED WINDSTORM MAP

2	ADD#02		09/11/2025
1	BIDDING DOCUMENTS - UPDATED INFO		09/01/2025
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal

REGISTERED ARCHITECT — MARK E. JACKSON — 19468 — STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

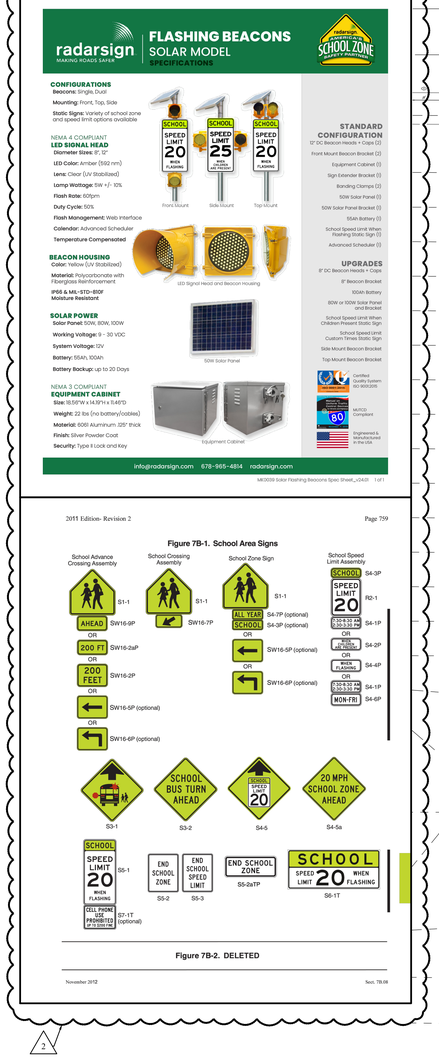
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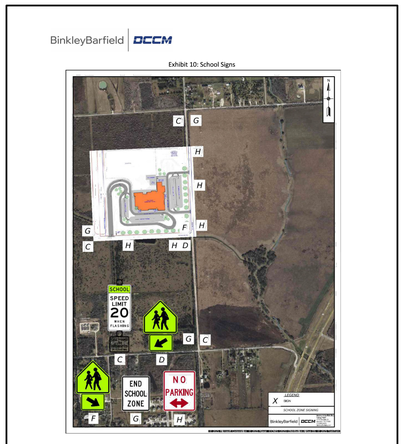
LEVEL 1 - CODE REVIEW PLAN

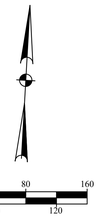
Project No. 214001269
Scale As indicated
Revision 2
Drawing No. **G101**

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1/10/2026 4:29:56 AM

ORIGINAL SHEET - ARCH E1







LEGEND

SYMBOL	DESCRIPTION
	PROPOSED FULL DEPTH SAWCUT
	PROPOSED FIRE ACCESS LANE
	ATTACK HOSE LAY LENGTH
	SUPPLY HOSE LAY LENGTH

NOTES TO SHEET:

1. CONTRACTOR SHALL COORDINATE FIRE LANE STRIPING LAYOUT WITH THE FIRE MARSHAL'S OFFICE PRIOR TO INSTALLATION.
2. ALL DIMENSIONS ARE SET TO FACE OF CURB AND ARE PERPENDICULAR TO THEIR RESPECTIVE POINTS UNLESS OTHERWISE NOTED.
3. FDC TO BE POINTED TOWARD FIRE ACCESS LANE.

KEY NOTES:

1. NOTE: EXISTING SIDEWALK IN THIS AREA WAS INSTALLED AFTER SURVEY WAS COMPLETE. CONTRACTOR SHALL FIELD LOCATE EXISTING SIDEWALK AND CONNECT PROPOSED SIDEWALK TO EXISTING SIDEWALK.
2. PROPOSED 8" FIRE WATER METER ASSEMBLY.
3. PROPOSED 4" DOMESTIC WATER METER.
4. PROPOSED 8" RPZ BACKFLOW PREVENTER ON CONCRETE PAD W/ ALUMINUM ENCLOSURE, PARK MODEL NO. RPBPAE-1, OR APPROVED EQUAL.
5. PROPOSED 4" BACKFLOW PREVENTER ON CONCRETE PAD W/ ALUMINUM ENCLOSURE, PARK MODEL NO. RPBPAE-1, OR APPROVED EQUAL.
6. PROPOSED 25' x 40' WATER METER EASEMENT (BY SEPARATE INSTRUMENT).
7. PROPOSED CROSS-WALK.

PUBLIC SIGNAGE NOTES:

1. PROPOSED SIGN "C" AS DEPICTED IN T.I.A. REPORT.
2. PROPOSED SIGN "D" AS DEPICTED IN T.I.A. REPORT.
3. PROPOSED SIGN "F" AS DEPICTED IN T.I.A. REPORT.
4. PROPOSED SIGN "G" AS DEPICTED IN T.I.A. REPORT.
5. PROPOSED SIGN "H" AS DEPICTED IN T.I.A. REPORT.

CITY OF IOWA COLONY
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
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MICHAEL BYRUM-BRATSEN, MAYOR — DATE
DINH HO, P.E., CITY ENGINEER — DATE
CITY OF IOWA COLONY
NOTE: CITY APPROVAL VALID FOR ONE YEAR AFTER DATE OF SIGNATURES

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Consultant
CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

Notes

PROJECT BENCHMARK:

PROJECT BENCHMARK: NGS MONUMENT HGCSD 75 (AW5683)
BEING A STAINLESS STEEL ROD IN SLEEVE STAMPED "HGCSD 75 1987" TO REACH THE BENCHMARK, FROM THE JUNCTION OF STATE HIGHWAY 6 AND FM ROAD 1128 IN MANVEL, GO EAST-SOUTHEAST ON STATE HIGHWAY 6 FOR 4.2 KM (2.6 MI) TO COUNTY ROAD 99 ON THE RIGHT. TURN RIGHT AND GO SOUTHERLY FOR 0.4 KM (0.25 MI) TO A T-ROAD (JUST AFTER CROSSING TRACKS), TURN LEFT AND GO EASTERLY FOR 0.2 KM (0.15 MI) TO A DRIVEWAY ON THE RIGHT AND THE STATION ON THE EAST SIDE OF DRIVEWAY. THE STATION IS A PUNCH MARK IN THE TOP OF A STAINLESS-STEEL ROD DRIVEN INTO THE GROUND AND INSIDE A 1-INCH PCV PIPE THAT IS 20 FEET LONG FILLED WITH GREASE THAT IS ENCASED IN A 5-INCH PVC PIPE WITH A LOGO CAP STAMPED "HGCSD 75 1987", THE ROD IS RECESSED 8 CM BELOW THE GROUND SURFACE. LOCATED 17.4 METERS (57.1 FT) SOUTH OF THE CENTERLINE OF ROAD, 6.0 METERS (19.8 FT) SOUTHEAST OF CENTER OF DRIVEWAY AND 0.9 METERS (3.1 FT) NORTHWEST OF FENCE AND CARSONITE WITNESS POST.
ELEVATION: 48.10' FEET NAVD88

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK (TBM) "A":
BEING A BRASS DISK STAMPED "CB-2" IN CONCRETE ON THE NORTH SIDE OF COUNTY ROAD 81 OVER WEST FORK CHOCOLATE BAYOU AT THE STREAM CENTERLINE.
ELEVATION: 56.51' FEET NAVD88

TEMPORARY BENCHMARK (TBM) "B":
BEING AN BOXED "X" CUT IN CONCRETE ON OVERFLOW STRUCTURE BEING +/- 300 FEET NORTH OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 57 AND SOUTH BOUND HIGHWAY 288 ALONG THE NORTH R.O.W. OF COUNTY ROAD 57 BEING ON THE WEST-SOUTHWEST HIGH BANK OF WEST FORK CHOCOLATE BAYOU.
ELEVATION = 50.73' NAVD88

TEMPORARY BENCHMARK (TBM) "C":
BEING AN X-CUT ON CURB INLET SOUTH OF THE SUBJECT TRACT. BENCHMARK IS LOCATED +/- 535' WEST OF THE CENTERLINE INTERSECTION OF WHITE GOLD DRIVE AND COUNTY ROAD 383. BENCHMARK IS ALSO LOCATED +/- 500' EAST OF THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT TRACT.
ELEVATION = 54.60' NAVD88

TEMPORARY BENCHMARK (TBM) "D":
BEING AN X-CUT ON CONCRETE SIDEWALK NORTH OF SUBJECT TRACT. BENCHMARK IS LOCATED +/- 13' NORTHWEST OF THE NORTHWEST PROPERTY CORNER OF THE SUBJECT TRACT, BENCHMARK IS ALSO LOCATED +/- 1050' WEST OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 81 AND COUNTY ROAD 383
ELEVATION = 55.33' NAVD88

FLOODPLAIN NOTES:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48039C0110K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ZONE "X" (SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD, AND ZONE "AE", SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT, BASE FLOOD ELEVATION DETERMINED.

2	ADDENDUM 02		09.11.2025
1	ADDENDUM 01		09.08.2025
Revision		By	Appd
			YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd
			YYYY.MM.DD

Permit/Seal
TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
92999
LICENSED
PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo
ALVIN INDEPENDENT SCHOOL DISTRICT

Client/Project
Alvin ISD

Elementary School No 23

2727 White Gold Drive
Rosharon, Texas 77583

Title
OVERALL CIVIL SITE PLAN AND FIRE ACCESS PLAN

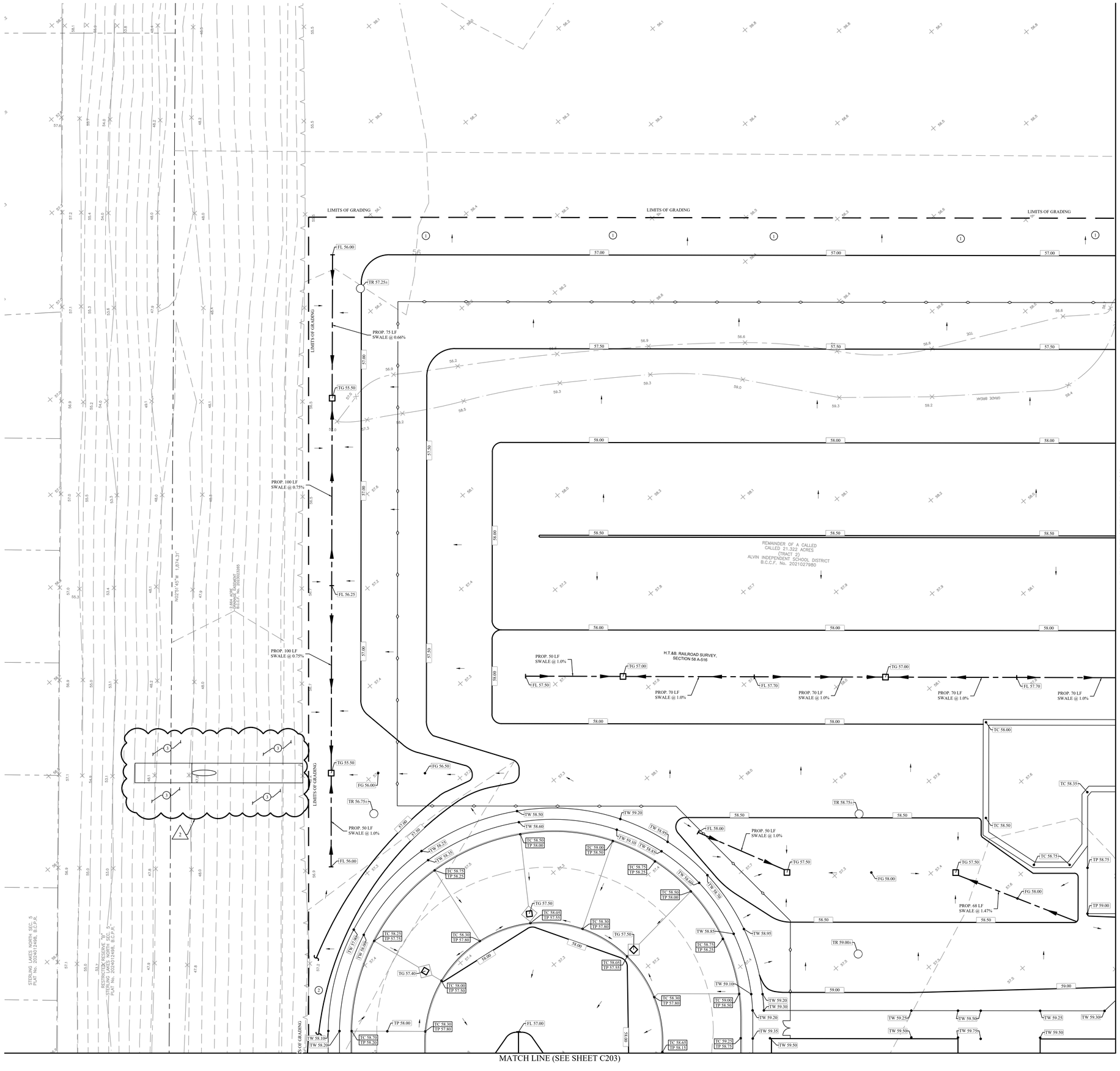
Project No.
214001269

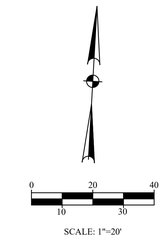
Scale
As indicated

Revision

Drawing No.
C100

Plot Creation: Sep 11, 2025 at 11:54:17 am User: kmacy
Location: X:\Project Files\Stantec\STA-071-00 New Alvin Elementary School #23\CAD\Civil\C100 STA-071 SP.dwg





SCALE: 1"=20'

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED CATCH BASIN IN PAVEMENT / GRASS
	PROPOSED FLOW DIRECTION
57.50	PROPOSED CONTOUR ELEVATION
FL 57.70	PROPOSED FLOW LINE ELEVATION
TC 58.30	PROPOSED TOP OF CURB ELEVATION
TP 57.80	PROPOSED TOP OF PAVEMENT ELEVATION
TW 59.35	PROPOSED TOP OF WALK ELEVATION
TG 57.00	PROPOSED TOP OF GRATE ELEVATION
FG 58.00	PROPOSED FINISHED GRADE ELEVATION

NOTES TO SHEET:

1. CONTRACTOR SHALL MATCH EXISTING ELEVATION ALONG LIMITS OF GRADING.

KEY NOTES:

1. CONTRACTOR SHALL ADD FILL AND GRADE DOWN TO LIMITS OF GRADING.
2. CONTRACTOR SHALL ADD FILL AND GRADE DOWN TO EXISTING TOP OF BANK.
3. CONTRACTOR SHALL REPAIR DRAINAGE CHANNEL SIDE SLOPES TO MATCH EXISTING (OR BETTER) CONDITIONS AFTER THE CONSTRUCTION OF THE CONCRETE SLOPE PAVING. CONTRACTOR SHALL SOLID SOD (PIN IN PLACE) ALL DISTURBED AREAS.

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DINH HO, P.E., CITY ENGINEER — DATE

CITY OF IOWA COLONY

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Consultant

CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

Notes

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Issued		By	Appd	YYYY.MM.DD

Permit/Seal

TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
92999
LICENSED
PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo

ALVIN INDEPENDENT SCHOOL DISTRICT

Client/Project
Alvin ISD

Elementary School No 23

2727 White Gold Drive
Rosharon, Texas 77583

Title
GRADING PLAN
(SHEET 1 OF 4)

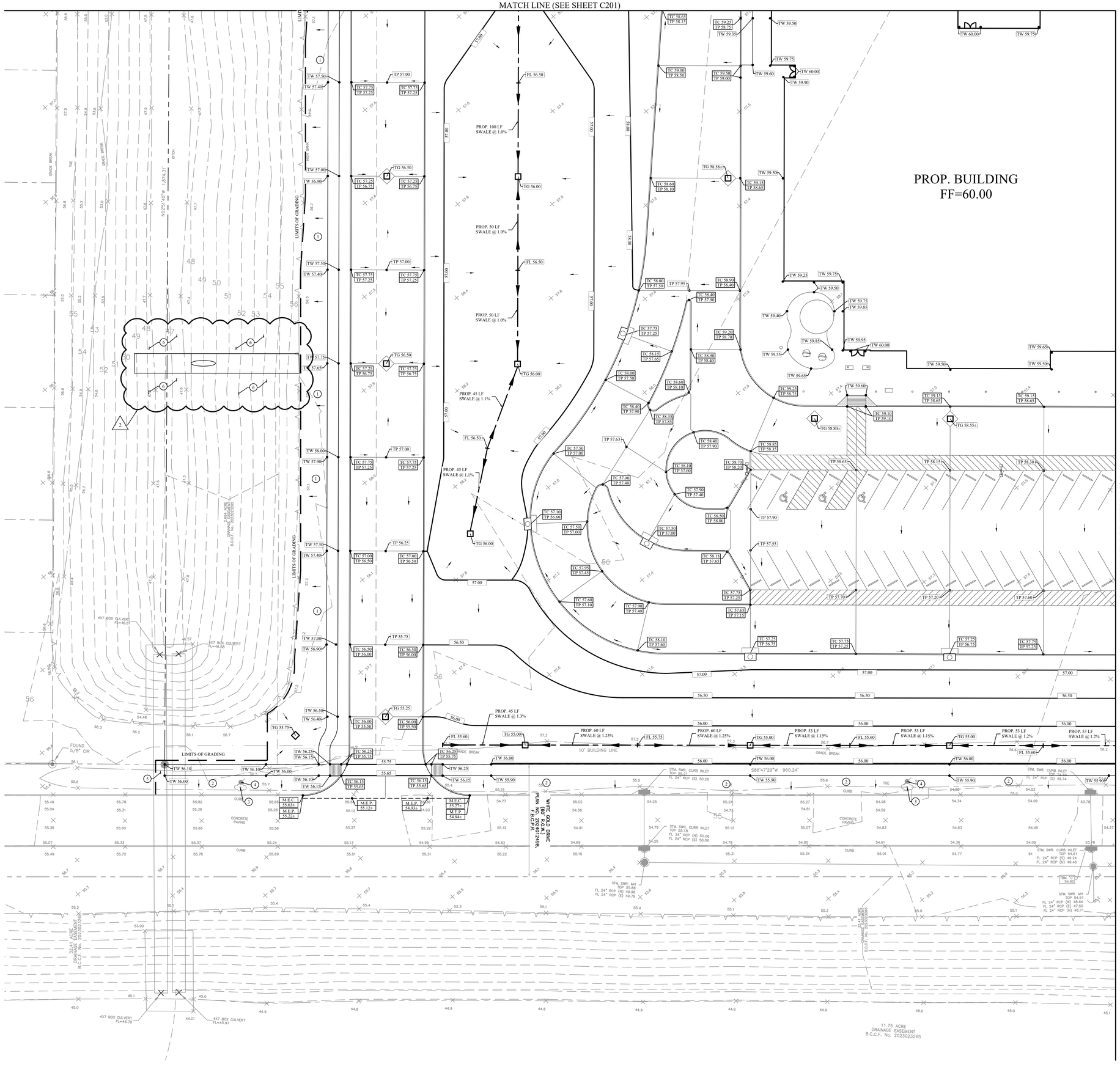
Project No.
214001269

Scale
As indicated

Revision

Drawing No.
C201

Plot Creation: Sep 11, 2025 at 10:50:44 am User: kmacy
Location: X:\Project Files\Stantec\STA-071-00 New Alvin Elementary School #23\CAD\Civil\C201 STA-071 GR1.dwg



LEGEND

SYMBOL	DESCRIPTION
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	PROPOSED CURB INLET
	PROPOSED FLOW DIRECTION
57.00	PROPOSED CONTOUR ELEVATION
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TC 59.15	PROPOSED TOP OF CURB ELEVATION
TP 58.65	PROPOSED TOP OF PAVEMENT ELEVATION
TW 59.65	PROPOSED TOP OF WALK ELEVATION
TG 56.00	PROPOSED TOP OF GRATE ELEVATION
M.E.C.	MATCH EXISTING CURB ELEVATION
M.E.P.	MATCH EXISTING PAVEMENT ELEVATION
M.E.W.	MATCH EXISTING WALK ELEVATION

NOTES TO SHEET:

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KEY NOTES:

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2. CONTRACTOR SHALL ADD TOPSOIL FILL AND GRADE DOWN FROM PROPOSED SIDEWALK TO EXISTING TOP OF CURB.
3. EXISTING FIRE HYDRANT TO REMAIN. CONTRACTOR SHALL FINE GRADE AROUND HYDRANT.
4. EXISTING WATER VALVE TO REMAIN. CONTRACTOR SHALL ADJUST VALVE TOP AS REQUIRED TO MATCH FINISHED GRADE. CONCRETE COLLAR REQUIRED.
5. NOTE: EXISTING SIDEWALK IN THIS AREA WAS INSTALLED AFTER SURVEY WAS COMPLETE. CONTRACTOR SHALL FIELD LOCATE EXISTING SIDEWALK AND CONNECT PROPOSED SIDEWALK TO EXISTING SIDEWALK.
6. CONTRACTOR SHALL REPAIR DRAINAGE CHANNEL SIDE SLOPES TO MATCH EXISTING (OR BETTER) CONDITIONS AFTER THE CONSTRUCTION OF THE CONCRETE SLOPE PAVING. CONTRACTOR SHALL SOLID SOD (PIN IN PLACE) ALL DISTURBED AREAS.

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Consultant

CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

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Issued		By	Appd	YYYY.MM.DD

Permit/Seal

TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
92999
LICENSED
PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo

ALVIN Independent School District

Client/Project
Alvin ISD

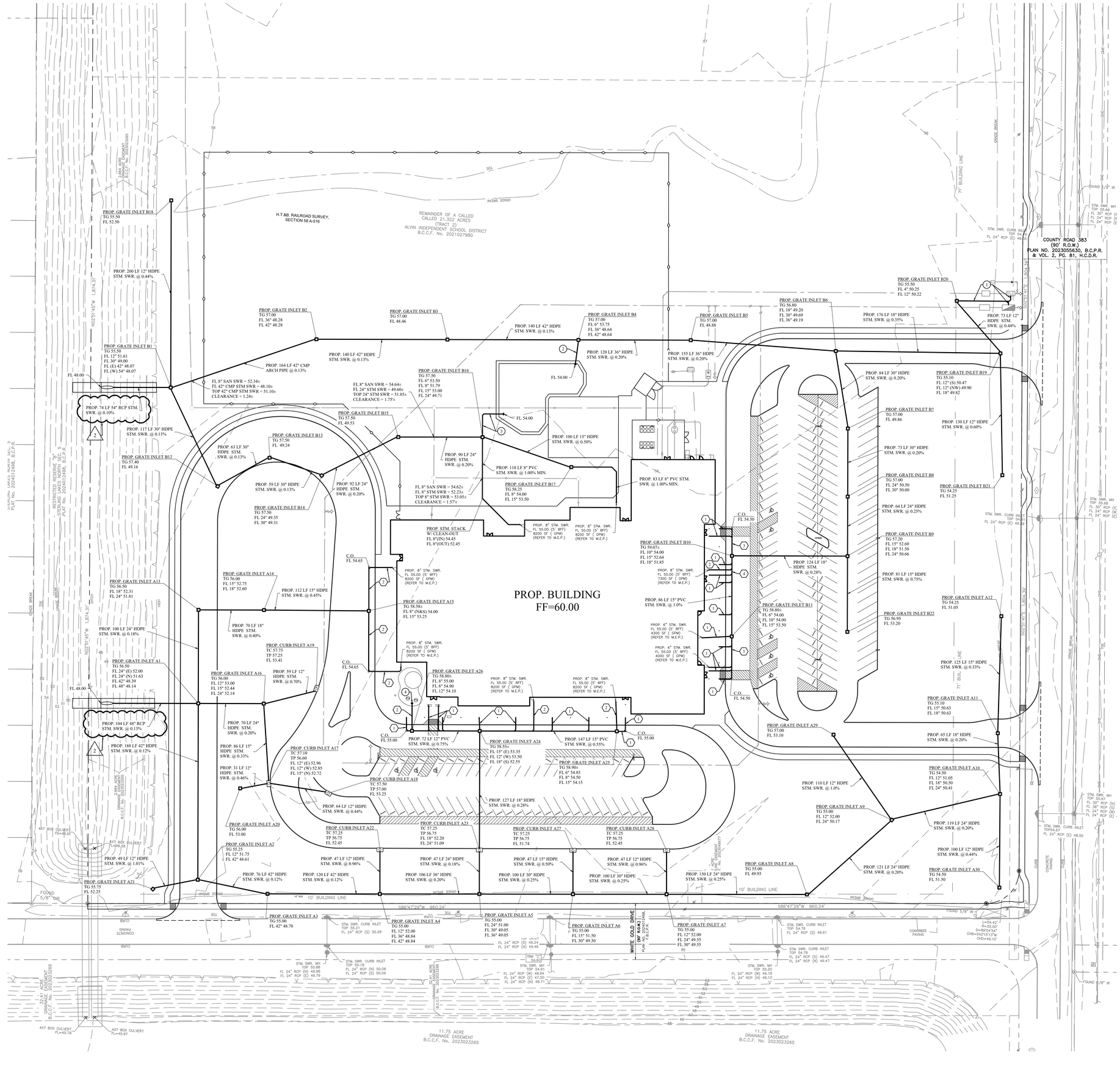
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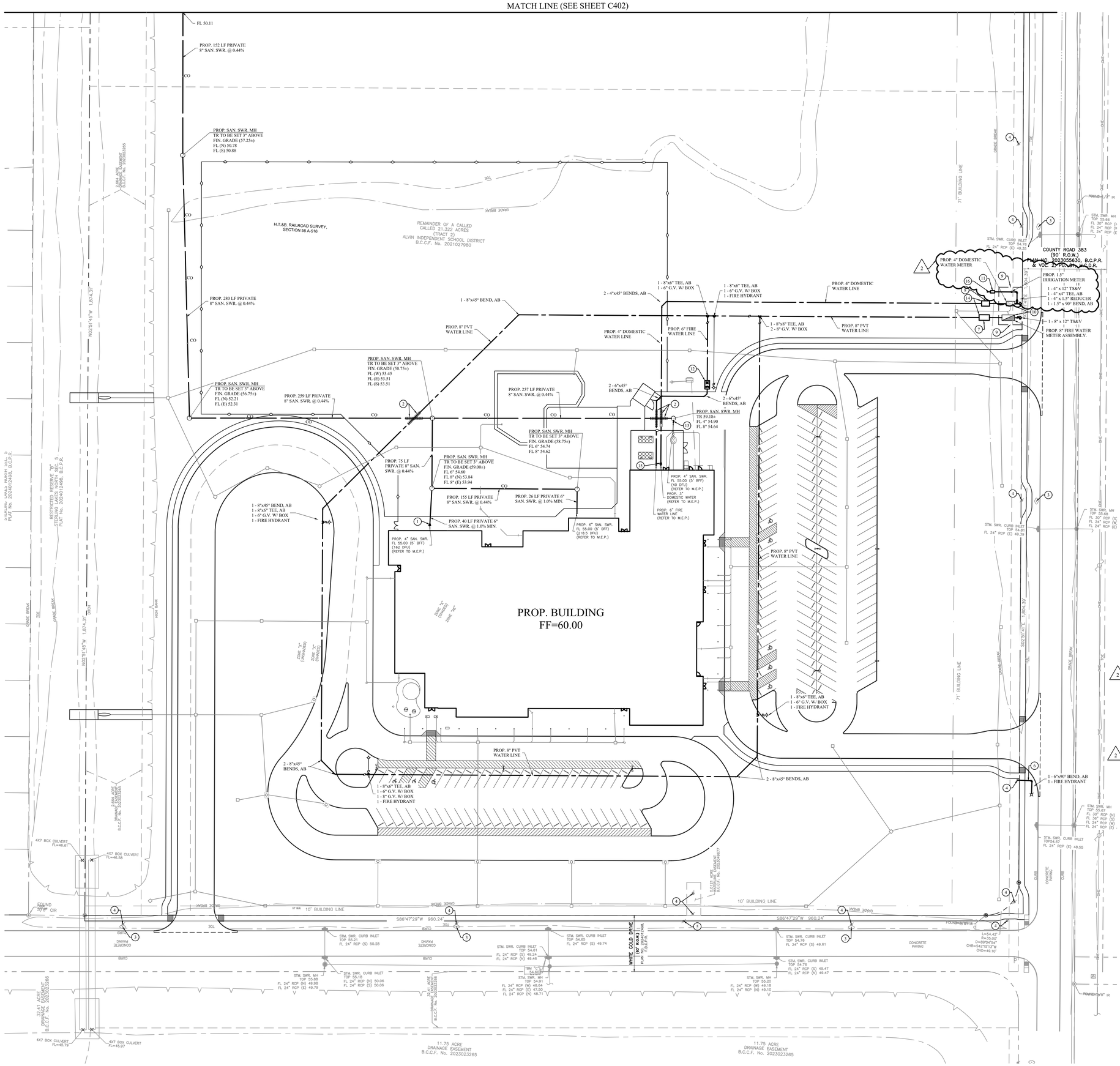
2727 White Gold Drive
Rosharon, Texas 77583

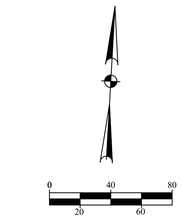
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GRADING PLAN
(SHEET 3 OF 4)

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
	C203

Plot Creation: Sep 11, 2025 at 10:50:30 am User: kmacy
Location: X:\Project Files\Stantec\STA-0171-00 New Alvin Elementary School #23\CAD\Civil\C203 STA-0171 GR3.dwg


PROP. BUILDING
FF=60.00
REMAINDER OF A CALLED
CALLED 21.322 ACRES
(TRACT 2)
ALVIN INDEPENDENT SCHOOL DISTRICT
B.C.C.F. No. 2021027980
H.T.&B. RAILROAD SURVEY,
SECTION 58 A-516
COUNTY ROAD 383
(90' R.O.W.)
PLAN NO. 2023055630, B.C.P.R.
& VOL. 2, PG. 81, H.C.D.R.
71' BUILDING LINE
10' BUILDING LINE
WHITE GOLD DRIVE
(60' R.O.W.)
PLAN NO. 2024012498, B.C.P.R.
PROP. GRATE INLET B18
TG 55.50
FL 52.50
PROP. 200 LF 12" HDPE
STM. SWR. @ 0.44%
PROP. GRATE INLET B1
TG 55.50
FL 12" 51.61
FL 30" 49.00
FL (E) 42" 48.07
FL (W) 54" 48.07
FL 48.00
PROP. 74 LF 54" RCP STM.
SWR. @ 0.10%
PROP. 117 LF 30" HDPE
STM. SWR. @ 0.13%
PROP. GRATE INLET B12
TG 57.40
FL 49.16
PROP. GRATE INLET B2
TG 57.00
FL 36" 48.28
FL 42" 48.28
PROP. GRATE INLET B3
TG 57.00
FL 48.46
PROP. 164 LF 42" CMP
ARCH PIPE @ 0.13%
FL 8" SAN SWR = 52.34±
FL 42" CMP STM SWR = 48.10±
TOP 42" CMP STM SWR = 51.10±
CLEARANCE = 1.24±
PROP. 140 LF 42" HDPE
STM. SWR. @ 0.13%
PROP. GRATE INLET B4
TG 57.00
FL 47 53.75
FL 36" 48.64
FL 42" 48.64
PROP. 120 LF 36" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET B5
TG 57.00
FL 48.88
PROP. 155 LF 36" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET B6
TG 56.80
FL 18" 49.20
FL 30" 49.69
FL 36" 49.19
PROP. 176 LF 18" HDPE
STM. SWR. @ 0.35%
PROP. GRATE INLET B20
TG 55.50
FL 4" 50.25
FL 12" 50.22
PROP. 73 LF 12"
HDPE STM.
SWR. @ 0.44%
PROP. GRATE INLET B16
TG 57.50
FL 6" 53.50
FL 8" 51.79
FL 15" 53.00
FL 24" 49.71
FL 8" SAN SWR = 54.64±
FL 24" STM SWR = 49.60±
TOP 24" STM SWR = 51.85±
CLEARANCE = 1.75%
PROP. GRATE INLET B15
TG 57.50
FL 49.53
PROP. GRATE INLET B13
TG 57.50
FL 49.24
PROP. 63 LF 30"
HDPE STM.
SWR. @ 0.13%
PROP. 59 LF 30" HDPE
STM. SWR. @ 0.13%
PROP. 92 LF 24"
HDPE STM.
SWR. @ 0.20%
PROP. GRATE INLET B14
TG 57.50
FL 24" 49.35
FL 30" 49.31
PROP. 100 LF 15" HDPE
STM. SWR. @ 0.50%
PROP. 90 LF 24"
HDPE STM.
SWR. @ 0.20%
PROP. 118 LF 8" PVC
STM. SWR. @ 1.00% MIN.
PROP. GRATE INLET B17
TG 58.25
FL 8" 54.00
FL 15" 53.50
FL 8" SAN SWR = 54.62±
FL 8" STM SWR = 52.23±
TOP 8" STM SWR = 53.05±
CLEARANCE = 1.57±
PROP. 83 LF 8" PVC STM.
SWR. @ 1.00% MIN.
PROP. GRATE INLET B19
TG 55.10
FL 12" (S) 50.47
FL 12" (NW) 49.90
FL 18" 49.82
PROP. 84 LF 30" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET B7
TG 57.00
FL 49.86
PROP. 130 LF 12" HDPE
STM. SWR. @ 0.60%
PROP. 73 LF 30" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET B8
TG 57.00
FL 24" 50.50
FL 30" 50.00
PROP. GRATE INLET B21
TG 54.25
FL 51.25
PROP. 64 LF 24" HDPE
STM. SWR. @ 0.25%
PROP. GRATE INLET B9
TG 57.20
FL 15" 52.60
FL 18" 51.50
FL 24" 50.66
PROP. 81 LF 15" HDPE
STM. SWR. @ 0.75%
PROP. GRATE INLET B22
TG 56.95
FL 53.20
PROP. GRATE INLET A12
TG 54.25
FL 51.05
PROP. 125 LF 15" HDPE
STM. SWR. @ 0.33%
PROP. GRATE INLET A11
TG 55.10
FL 15" 50.63
FL 18" 50.63
PROP. 65 LF 18" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET A10
TG 54.50
FL 12" 51.05
FL 18" 50.50
FL 24" 50.41
PROP. 119 LF 24" HDPE
STM. SWR. @ 0.20%
PROP. 100 LF 12" HDPE
STM. SWR. @ 0.44%
PROP. GRATE INLET A30
TG 54.50
FL 51.50
PROP. GRATE INLET A9
TG 55.00
FL 12" 52.00
FL 24" 50.17
PROP. 110 LF 12" HDPE
STM. SWR. @ 1.0%
PROP. GRATE INLET A8
TG 55.00
FL 49.93
PROP. 121 LF 24" HDPE
STM. SWR. @ 0.20%
PROP. GRATE INLET A29
TG 57.00
FL 53.10
PROP. 124 LF 18"
HDPE STM.
SWR. @ 0.28%
PROP. 86 LF 15" PVC
STM. SWR. @ 1.0%
PROP. GRATE INLET B11
TG 58.80±
FL 6" 54.00
FL 10" 54.00
FL 15" 53.50
PROP. GRATE INLET B10
TG 59.07±
FL 10" 54.00
FL 15" 52.64
FL 18" 51.85
PROP. STM. STACK
W/ CLEAN-OUT
FL 8"(IN) 54.45
FL 8"(OUT) 52.45
C.O.
FL 54.50
C.O.
FL 54.65
C.O.
FL 55.00
C.O.
FL 54.50
PROP. 8" STM. SWR.
FL 55.00 (S' BFT)
8200 SF (GPM)
(REFER TO M.E.P.)
PROP. 6" STM. SWR.
FL 55.00 (S' BFT)
4300 SF (GPM)
(REFER TO M.E.P.)
PROP. 6" STM. SWR.
FL 55.00 (S' BFT)
4000 SF (GPM)
(REFER TO M.E.P.)
PROP. GRATE INLET A14
TG 56.00
FL 15" 52.75
FL 18" 52.60
PROP. 112 LF 15" HDPE
STM. SWR. @ 0.45%
PROP. GRATE INLET A15
TG 58.58±
FL 8" (N&S) 54.00
FL 15" 53.25
PROP. 70 LF 18"
HDPE STM.
SWR. @ 0.40%
PROP. GRATE INLET A13
TG 56.50
FL 18" 52.31
FL 24" 51.81
PROP. 100 LF 24" HDPE
STM. SWR. @ 0.18%
PROP. CURB INLET A19
TC 57.75
TP 57.25
FL 53.41
PROP. GRATE INLET A1
TG 56.50
FL 24" (E) 52.00
FL 24" (N) 51.63
FL 42" 48.39
FL 48" 48.14
PROP. GRATE INLET A16
TG 56.00
FL 12" 53.00
FL 15" 52.44
FL 24" 52.14
PROP. 59 LF 12"
HDPE STM.
SWR. @ 0.70%
PROP. GRATE INLET A26
TG 58.80±
FL 8" 55.00
FL 6" 54.90
FL 12" 54.10
PROP. 72 LF 12" PVC
STM. SWR. @ 0.75%
PROP. GRATE INLET A24
TG 58.55±
FL 15" (E) 53.35
FL 12" (W) 53.50
FL 18" (S) 52.55
PROP. 147 LF 15" PVC
STM. SWR. @ 0.55%
PROP. GRATE INLET A25
TG 58.90±
FL 6" 54.85
FL 8" 54.50
FL 15" 54.15
PROP. 104 LF 48" RCP
STM. SWR. @ 0.13%
PROP. 188 LF 42" HDPE
STM. SWR. @ 0.12%
PROP. 70 LF 24"
HDPE STM.
SWR. @ 0.20%
PROP. 86 LF 15"
HDPE STM.
SWR. @ 0.33%
PROP. 31 LF 12"
HDPE STM.
SWR. @ 0.46%
PROP. CURB INLET A17
TC 57.10
TP 56.60
FL 12" (E) 52.96
FL 12" (W) 52.85
FL 15" (N) 52.72
PROP. CURB INLET A18
TC 57.50
TP 57.00
FL 53.25
PROP. 64 LF 12" HDPE
STM. SWR. @ 0.44%
PROP. GRATE INLET A20
TG 56.00
FL 53.00
PROP. GRATE INLET A2
TG 55.25
FL 12" 51.75
FL 42" 48.61
PROP. GRATE INLET A21
TG 55.75
FL 52.25
PROP. CURB INLET A22
TC 57.25
TP 56.75
FL 52.45
PROP. CURB INLET A23
TC 57.25
TP 56.75
FL 18" 52.20
FL 24" 51.09
PROP. CURB INLET A27
TC 57.25
TP 56.75
FL 51.74
PROP. CURB INLET A28
TC 57.25
TP 56.75
FL 52.45
PROP. 47 LF 12" HDPE
STM. SWR. @ 0.96%
PROP. 47 LF 24" HDPE
STM. SWR. @ 0.18%
PROP. 47 LF 15" HDPE
STM. SWR. @ 0.50%
PROP. 47 LF 12" HDPE
STM. SWR. @ 0.96%
PROP. 76 LF 42" HDPE
STM. SWR. @ 0.12%
PROP. 120 LF 42" HDPE
STM. SWR. @ 0.12%
PROP. 106 LF 36" HDPE
STM. SWR. @ 0.20%
PROP. 100 LF 30" HDPE
STM. SWR. @ 0.25%
PROP. 100 LF 30" HDPE
STM. SWR. @ 0.25%
PROP. 150 LF 24" HDPE
STM. SWR. @ 0.25%
PROP. GRATE INLET A3
TG 55.00
FL 42" 48.70
PROP. GRATE INLET A4
TG 55.00
FL 12" 52.00
FL 36" 48.84
FL 42" 48.84
PROP. GRATE INLET A5
TG 55.00
FL 24" 51.00
FL 30" 49.05
FL 36" 49.05
PROP. GRATE INLET A6
TG 55.00
FL 15" 51.50
FL 30" 49.30
PROP. GRATE INLET A7
TG 55.00
FL 12" 52.00
FL 24" 49.55
FL 30" 49.55
STM. SWR. MH
TOP 55.68
FL 30" RCP (N)
FL 24" RCP (W)
FL 24" RCP (E)
STM. SWR. CURB INLET
TOP 54.76
FL 24" RCP (E) 49.83
STM. SWR. CURB INLET
TOP 55.21
FL 24" RCP (S) 50.28
STM. SWR. CURB INLET
TOP 54.76
FL 24" RCP (S) 49.61
STM. SWR. MH
TOP 55.68
FL 30" RCP (S)
FL 24" RCP (W)
FL 24" RCP (E)
STM. SWR. CURB INLET
TOP 54.26
FL 24" RCP (S) 49.47
FL 24" RCP (N) 49.47
STM. SWR. MH
TOP 55.18
FL 24" RCP (N) 49.98
FL 24" RCP (E) 49.79
STM. SWR. CURB INLET
TOP 55.18
FL 24" RCP (N) 50.06
FL 24" RCP (S) 50.06
STM. SWR. MH
TOP 55.68
FL 24" RCP (W) 49.18
FL 24" RCP (N) 49.10
STM. SWR. MH
TOP 54.60
FL 24" RCP (W) 48.64
FL 24" RCP (S) 47.50
FL 24" RCP (N) 48.31
STM. SWR. MH
TOP 54.67
FL 24" RCP (E) 48.55
FOUND 1/2" IR
FOUND 5/8" IR
FOUND 5/8" IR
PROP. 8" STM. SWR.
FL 55.00 (S' BFT)
8200 SF (GPM)
(REFER TO M.E.P.)





SCALE: 1"=40'

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED FIRE HYDRANT
	PROPOSED GATE VALVE
	PROPOSED POST INDICATOR VALVE
	PROPOSED FIRE DEPARTMENT CONNECTION
	PROPOSED TAPPING SLEEVE AND VALVE
	PROPOSED REDUCER
	PROPOSED PLUG AND CLAMP
	PROPOSED MANHOLE
CO	PROPOSED CLEAN OUT
	PROPOSED SANITARY SEWER PIPE
	PROPOSED WATER PIPE

NOTES TO SHEET:

1. ALL UTILITIES SHOWN THIS SHEET NOT LOCATED WITHIN THE WATER METER EASEMENTS ARE PRIVATE AND OWNED AND OPERATED BY ALVIN ISD.
2. THE CITY OF IOWA COLONY AND / OR THEIR OPERATOR WILL PERFORM ALL TAPS TO THE PUBLIC LINE. CONTRACTOR SHALL COORDINATE AND PAY FOR SAID WORK.
3. THE CITY OF IOWA COLONY AND / OR THEIR OPERATOR WILL PROVIDE AND SET ALL WATER METERS. CONTRACTOR SHALL COORDINATE AND PAY FOR SAID WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PURCHASE AND INSTALLATION OF ALL PROPOSED BACKFLOW DEVICES. CONTRACTOR SHALL TEST DEVICES ONCE INSTALLED AND PROVIDE OWNER / ARCHITECT AND CITY WITH RESULTS.

KEY NOTES:

1. PROPOSED 4" x 6" REDUCER.
2. CENTER ONE JOINT OF WATER LINE AND SANITARY SEWER @ CROSSING. REFERENCE CROSSING RULES ON GENERAL NOTES SHEET C001 AND DETAILS SHEET C703.
3. EXISTING FIRE HYDRANT TO REMAIN. CONTRACTOR SHALL FINE GRADE AROUND HYDRANT.
4. EXISTING WATER VALVE TO REMAIN. CONTRACTOR SHALL ADJUST VALVE TOP AS REQUIRED TO MATCH FINISHED GRADE. CONCRETE COLLAR REQUIRED.
5. EXISTING WATER VALVE TO REMAIN. ADJUST EXISTING VALVE TO MATCH PROPOSED SIDEWALK ELEVATION.
6. EXISTING FIRE HYDRANT TO BE REMOVED AND REPLACED AS SHOWN FROM EXISTING VALVE.
7. PROPOSED 8" RPZ BACKFLOW PREVENTER ON CONCRETE PAD W/ ALUMINUM ENCLOSURE, PARK MODEL NO. RPBPAE-1, OR APPROVED EQUAL.
8. PROPOSED 4" BACKFLOW PREVENTER ON CONCRETE PAD W/ ALUMINUM ENCLOSURE, PARK MODEL NO. RPBPAE-1, OR APPROVED EQUAL.
9. PROPOSED 25' x 40' WATER METER EASEMENT (BY SEPARATE INSTRUMENT).
10. TOP OF METER VAULTS TO BE SET AT ELEVATION 56.50. CONTRACTOR SHALL ADD TOPSOIL FILL AROUND VAULTS AND GRADE TO DRAIN.
11. PROPOSED 1.5" IRRIGATION BACKFLOW PREVENTOR (REFERENCE LANDSCAPE PLANS).
12. PROPOSED 6" BACKFLOW PREVENTOR WITH P.I.V. AND F.D.C. COMBO VAULT, PARK MODEL NO. DDBPPF-1, OR APPROVED EQUAL.
13. PROPOSED 4 LF PRIVATE 4" SANITARY SEWER @ 0.44%.
14. BACKFLOW DEVICE SLABS TO BE SET AT ELEVATION 56.75. CONTRACTOR SHALL ADD TOPSOIL FILL AROUND SLABS AND GRADE TO DRAIN.
15. PROPOSED 3" x 4" REDUCER.
16. PROPOSED 1.5" IRRIGATION LINE (REFERENCE LANDSCAPE ARCHITECT PLANS).

CITY OF IOWA COLONY
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

THIS IS TO CERTIFY THAT THESE PLANS HAVE BEEN FOUND TO BE IN GENERAL COMPLIANCE WITH THE CURRENT REQUIREMENT ESTABLISHED BY THE CITY OF IOWA COLONY.

MICHAEL BYRUM-BRATSEN, MAYOR — DATE

DINH HO, P.E., CITY ENGINEER — DATE

CITY OF IOWA COLONY

NOTE: CITY APPROVAL VALID FOR ONE YEAR AFTER DATE OF SIGNATURES

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Stantec

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Houston, 77002-4916
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Consultant

CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

Notes

PROJECT BENCHMARK:

PROJECT BENCHMARK: NGS MONUMENT HGCSD 75 (AW5683)
BEING A STAINLESS STEEL ROD IN SLEEVE STAMPED "HGCSD 75 1987" TO REACH THE BENCHMARK, FROM THE JUNCTION OF STATE HIGHWAY 6 AND FM ROAD 1128 IN MANVEL, GO EAST-SOUTHEAST ON STATE HIGHWAY 6 FOR 4.2 KM (2.6 MI) TO COUNTY ROAD 99 ON THE RIGHT. TURN RIGHT AND GO SOUTHERLY FOR 0.4 KM (0.25 MI) TO A T-ROAD (JUST AFTER CROSSING TRACKS), TURN LEFT AND GO EASTERLY FOR 0.2 KM (0.15 MI) TO A DRIVEWAY ON THE RIGHT AND THE STATION ON THE EAST SIDE OF DRIVEWAY. THE STATION IS A PUNCH MARK IN THE TOP OF A STAINLESS-STEEL ROD DRIVEN INTO THE GROUND AND INSIDE A 1-INCH PCV PIPE THAT IS 20 FEET LONG FILLED WITH GREASE THAT IS ENCASED IN A 5-INCH PVC PIPE WITH A LOGO CAP STAMPED "HGCSD 75 1987". THE ROD IS RECESSED 8 CM BELOW THE GROUND SURFACE. LOCATED 17.4 METERS (57.1 FT) SOUTH OF THE CENTERLINE OF ROAD, 6.0 METERS (19.8 FT) SOUTHEAST OF CENTER OF DRIVEWAY AND 0.9 METERS (3.1 FT) NORTHWEST OF FENCE AND CARSONITE WITNESS POST.
ELEVATION: 48.10' FEET NAVD88

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK (TBM) "A":
BEING A BRASS DISK STAMPED "CB-2" IN CONCRETE ON THE NORTH SIDE OF COUNTY ROAD 81 OVER WEST FORK CHOCOLATE BAYOU AT THE STREAM CENTERLINE.
ELEVATION: 56.51' FEET NAVD88

TEMPORARY BENCHMARK (TBM) "B":
BEING AN BOXED "X" CUT IN CONCRETE ON OVERFLOW STRUCTURE BEING +/- 300 FEET NORTH OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 57 AND SOUTH BOUND HIGHWAY 288 ALONG THE NORTH R.O.W. OF COUNTY ROAD 57 BEING ON THE WEST-SOUTHWEST HIGH BANK OF WEST FORK CHOCOLATE BAYOU.
ELEVATION = 50.73' NAVD88

TEMPORARY BENCHMARK (TBM) "C":
BEING AN X-CUT ON CURB INLET SOUTH OF THE SUBJECT TRACT. BENCHMARK IS LOCATED +/- 535' WEST OF THE CENTERLINE INTERSECTION OF WHITE GOLD DRIVE AND COUNTY ROAD 383. BENCHMARK IS ALSO LOCATED +/- 500' EAST OF THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT TRACT.
ELEVATION = 54.60' NAVD88

TEMPORARY BENCHMARK (TBM) "D":
BEING AN X-CUT ON CONCRETE SIDEWALK NORTH OF SUBJECT TRACT. BENCHMARK IS LOCATED +/- 13' NORTHWEST OF THE NORTHWEST PROPERTY CORNER OF THE SUBJECT TRACT, BENCHMARK IS ALSO LOCATED +/- 1050' WEST OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 81 AND COUNTY ROAD 383
ELEVATION = 55.33' NAVD88

FLOODPLAIN NOTES:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48039C0110K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ZONE "X" (SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD, AND ZONE "AE", SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT, BASE FLOOD ELEVATION DETERMINED.

2	ADDENDUM 02		09.11.2025
1	BIDDING DOCUMENTS - UPDATED INFO		09.08.2025
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal

TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
92999
LICENSED
PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo

ALVIN Independent School District

Client/Project
Alvin ISD

Elementary School No 23

2727 White Gold Drive
Rosharon, Texas 77583

Title
WATER AND SANITARY SEWER LAYOUT (SHEET 1 OF 2)

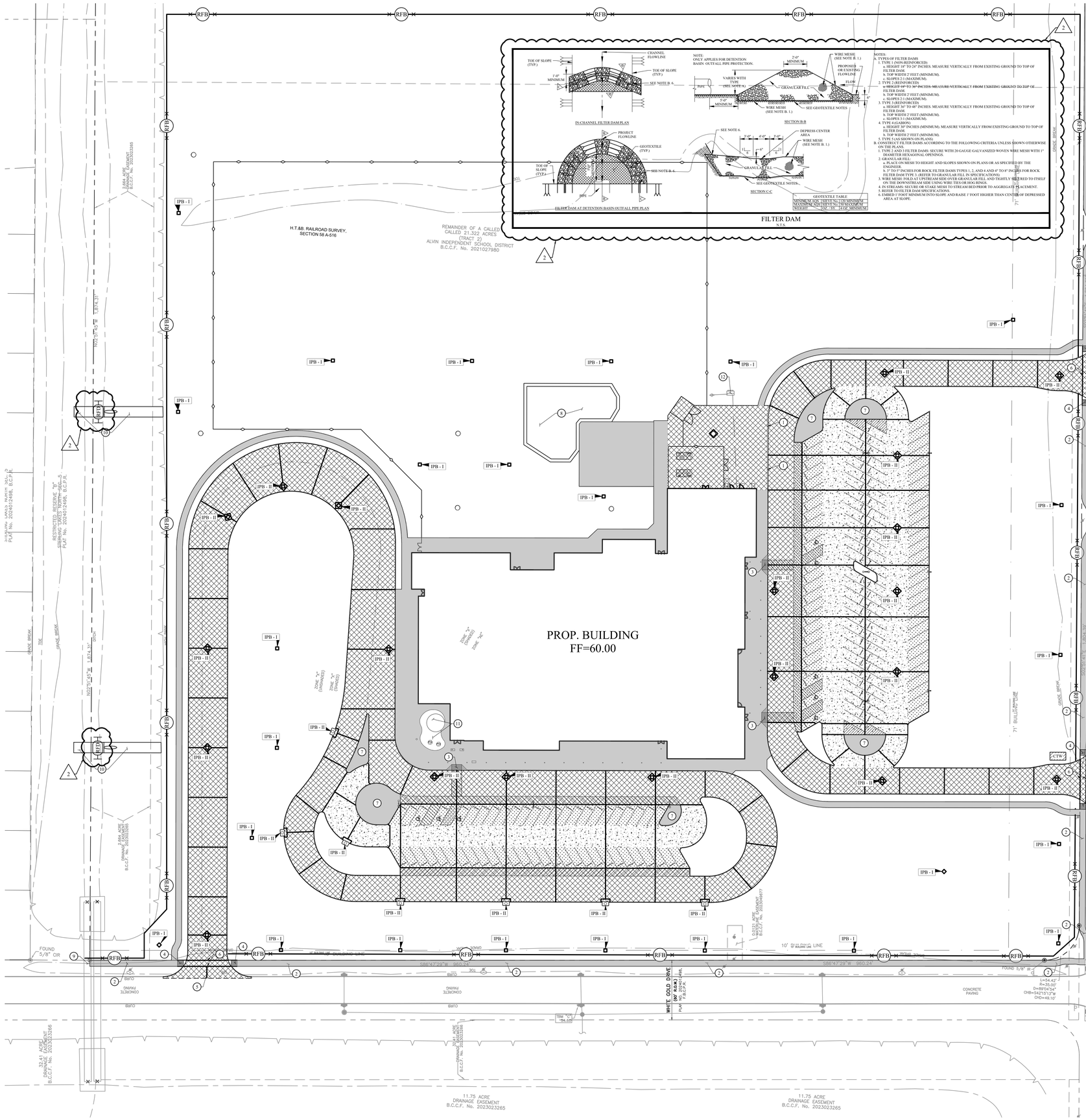
Project No.
214001269

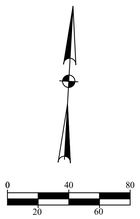
Scale
As indicated

Revision

Drawing No.
C401

Plot Creation: Sep 11, 2025 at 10:49:33 am User: kmacy
Location: X:\Project Files\Stantec\STA-071-00 New Alvin Elementary School #23\CAD\Civil\C401 STA-071 SAN1.dwg





SCALE: 1"=40'

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED CATCH BASIN IN PAVEMENT / GRASS
	PROPOSED CURB INLET
	PROPOSED 7" REINFORCED CONCRETE PAVEMENT ON 6" LIME TREATED STABILIZED SUBGRADE. PROVIDE #4 BARS @ 18" O.C.E.W. (REFERENCE GEOTECHNICAL REPORT)
	PROPOSED 6" REINFORCED CONCRETE PAVEMENT ON 6" LIME TREATED STABILIZED SUBGRADE. PROVIDE #4 BARS @ 18" O.C.E.W. (REFERENCE GEOTECHNICAL REPORT)
	PROPOSED 5" REINFORCED CONCRETE PAVEMENT ON 6" LIME TREATED STABILIZED SUBGRADE. PROVIDE #4 BARS @ 24" O.C.E.W. (REFERENCE GEOTECHNICAL REPORT)
	PROPOSED 4½" CONCRETE SIDEWALK.
	PROPOSED EXPANSION JOINT
	PROPOSED FULL DEPTH SAWCUT
IPB - I	PROPOSED INLET PROTECTION BARRIER FOR STAGE I INLETS
IPB - II	PROPOSED INLET PROTECTION BARRIER FOR STAGE II INLETS
SCA	PROPOSED STABILIZED CONSTRUCTION ACCESS (COORDINATE LOCATION WITH ARCHITECT / OWNER)
CTW	PROPOSED CONCRETE TRUCK WASHOUT AREA (COORDINATE LOCATION WITH ARCHITECT / OWNER)
RFB	PROPOSED REINFORCED FILTER FABRIC FENCE

NOTES TO SHEET:

1. CONTRACTOR SHALL INSTALL SAWED JOINTS BETWEEN EXPANSION JOINTS (SHOWN) AT EVENLY SPACED INTERVALS NOT TO EXCEED 15 FEET. CUT SAWED JOINTS WITHIN 12 HOURS OF POURING CONCRETE. (REFERENCE GEOTECHNICAL REPORT)
2. EXPANSION JOINTS SHALL BE INSTALLED AT MAXIMUM INTERVALS OF 60 FEET.
3. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SUBGRADE TESTING IS IN ACCORDANCE WITH THE GEO-TECHNICAL REPORT, PLANS AND SPECIFICATIONS. CONTRACTOR SHALL ENSURE ALL AREAS TREATED WITH STABILIZATION ARE TESTED AND IF LEFT EXPOSED FOR MORE THAN 14 DAYS SUBGRADE MAY BE SUBJECT TO RE-TILLING, MIXING, AND COMPACTION OF STABILIZATION. FURTHERMORE, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE GEO-TECHNICAL ENGINEER TESTING LAB FOR ADDITIONAL TESTING PRIOR TO PLACING OF ANY PAVEMENTS TO ENSURE PROPER COMPACTIONS ARE MET.

CONCRETE DRIVE AND PAVEMENT SUBGRADE NOTES:

1. CONTRACTOR SHALL OVER-EXCAVATE 6" TO 8" OF EXISTING SUBGRADE MATERIAL UNDER ALL PROPOSED PAVEMENT AREAS (PLUS 2' EACH SIDE AS APPLICABLE) AND STOCKPILE.
2. CONTRACTOR SHALL SCARIFY AND COMPACT EXISTING MATERIAL AT THIS ELEVATION TO A DEPTH OF 8" MINIMUM. EXCESSIVE SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH WORKABLE ON-SITE MATERIAL.
3. STOCKPILED MATERIAL SHALL BE REPLACED, STABILIZED AS NOTED THIS SHEET AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4. MATERIAL TO BE PLACED AND COMPACTED IN MAXIMUM 8" LIFTS.

KEY NOTES:

1. PROPOSED LAYDOWN CURB.
2. PROPOSED PUBLIC SIDEWALK PER CITY OF IOWA COLONY DETAILS & STANDARDS. SEE SHEET C705.
3. PROPOSED PRIVATE ADA RAMP.
4. PROPOSED PUBLIC ADA RAMP. PRIOR TO POURING RAMP, CONTRACTOR SHALL COORDINATE LAYOUT AND TRUNCATED DOMES WITH THE CITY OF IOWA COLONY AND BRAZORIA COUNTY.
5. PROPOSED CONCRETE DRIVEWAY PER CITY OF IOWA COLONY DETAILS.
6. PROVIDE EXPANSION JOINTS TO DELINEATE ADA PATH ACROSS DRIVEWAY. CONTRACTOR SHALL ENSURE CROSS-SLOPE DOES NOT EXCEED 2%.
7. PROPOSED CONCRETE SIDEWALK INSIDE ISLAND.
8. PROPOSED PLAY AREA. REFERENCE ARCHITECTURAL PLANS FOR DETAILS.
9. NOTE: EXISTING SIDEWALK IN THIS AREA WAS INSTALLED AFTER SURVEY WAS COMPLETE. CONTRACTOR SHALL FIELD LOCATE EXISTING SIDEWALK AND CONNECT PROPOSED SIDEWALK TO EXISTING SIDEWALK.
10. PROPOSED CONCRETE SLOPE PAVING FOR STORM SEWER OUTFALL(S). SEE DETAIL SHEET C702. SLOPE PAVING SHALL EXTEND ACROSS CHANNEL AND 1/3 UP OPPOSITE SLOPE.
11. PROPOSED LANDSCAPE AREA. REFERENCE LANDSCAPE PLANS FOR DETAILS.
12. TRANSFORMER PAD DESIGNED AND DETAILED BY OTHERS.

CITY OF IOWA COLONY
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
THIS IS TO CERTIFY THAT THESE PLANS HAVE BEEN FOUND TO BE IN GENERAL COMPLIANCE WITH THE CURRENT REQUIREMENT ESTABLISHED BY THE CITY OF IOWA COLONY.
MICHAEL BYRUM-BRATSEN, MAYOR — DATE
DINH HO, P.E., CITY ENGINEER — DATE
CITY OF IOWA COLONY
NOTE: CITY APPROVAL VALID FOR ONE YEAR AFTER DATE OF SIGNATURES

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Consultant
CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

Notes

PROJECT BENCHMARK:

PROJECT BENCHMARK: NGS MONUMENT HGCSD 75 (AW5683)
BEING A STAINLESS STEEL ROD IN SLEEVE STAMPED "HGCSD 75 1987" TO REACH THE BENCHMARK, FROM THE JUNCTION OF STATE HIGHWAY 6 AND FM ROAD 1128 IN MANVEL, GO EAST-SOUTHEAST ON STATE HIGHWAY 6 FOR 4.2 KM (2.6 MI) TO COUNTY ROAD 99 ON THE RIGHT. TURN RIGHT AND GO SOUTHERLY FOR 0.4 KM (0.25 MI) TO A T-ROAD (JUST AFTER CROSSING TRACKS), TURN LEFT AND GO EASTERLY FOR 0.2 KM (0.15 MI) TO A DRIVEWAY ON THE RIGHT AND THE STATION ON THE EAST SIDE OF DRIVEWAY. THE STATION IS A PUNCH MARK IN THE TOP OF A STAINLESS-STEEL ROD DRIVEN INTO THE GROUND AND INSIDE A 1-INCH PCV PIPE THAT IS 20 FEET LONG FILLED WITH GREASE THAT IS ENCASED IN A 5-INCH PVC PIPE WITH A LOGO CAP STAMPED "HGCSD 75 1987". THE ROD IS RECESSED 5 CM BELOW THE GROUND SURFACE. LOCATED 17.4 METERS (57.1 FT) SOUTH OF THE CENTERLINE OF ROAD, 6.0 METERS (19.8 FT) SOUTHEAST OF CENTER OF DRIVEWAY AND 0.9 METERS (3.1 FT) NORTHWEST OF FENCE AND CARSONITE WITNESS POST.
ELEVATION: 48.10' FEET NAVD88

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK (TBM) "A":
BEING A BRASS DISK STAMPED "CB-2" IN CONCRETE ON THE NORTH SIDE OF COUNTY ROAD 81 OVER WEST FORK CHOCOLATE BAYOU AT THE STREAM CENTERLINE.
ELEVATION: 56.51' FEET NAVD88

TEMPORARY BENCHMARK (TBM) "B":
BEING AN BOXED "X" CUT IN CONCRETE ON OVERFLOW STRUCTURE BEING +/- 300 FEET NORTH OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 57 AND SOUTH BOUND HIGHWAY 288 ALONG THE NORTH R.O.W. OF COUNTY ROAD 57 BEING ON THE WEST-SOUTHWEST HIGH BANK OF WEST FORK CHOCOLATE BAYOU.
ELEVATION = 50.73' NAVD88

TEMPORARY BENCHMARK (TBM) "C":
BEING AN X-CUT ON CURB INLET SOUTH OF THE SUBJECT TRACT. BENCHMARK IS LOCATED +/- 535' WEST OF THE CENTERLINE INTERSECTION OF WHITE GOLD DRIVE AND COUNTY ROAD 383. BENCHMARK IS ALSO LOCATED +/- 500' EAST OF THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT TRACT.
ELEVATION = 54.60' NAVD88

TEMPORARY BENCHMARK (TBM) "D":
BEING AN X-CUT ON CONCRETE SIDEWALK NORTH OF SUBJECT TRACT. BENCHMARK IS LOCATED +/- 13' NORTHWEST OF THE NORTHWEST PROPERTY CORNER OF THE SUBJECT TRACT, BENCHMARK IS ALSO LOCATED +/- 1050' WEST OF THE CENTERLINE INTERSECTION OF COUNTY ROAD 81 AND COUNTY ROAD 383
ELEVATION = 55.33' NAVD88

FLOODPLAIN NOTES:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48039C0110K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ZONE "X" (SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD, AND ZONE "AE", SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT, BASE FLOOD ELEVATION DETERMINED.

2	ADDENDUM 02		09.11.2025
1	ADDENDUM 01		09.08.2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal
TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
92999
LICENSED
PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo
ALVIN INDEPENDENT SCHOOL DISTRICT

Client/Project
Alvin ISD

Elementary School No 23

2727 White Gold Drive
Rosharon, Texas 77583

Title
PAVING, JOINTING AND STORM WATER POLLUTION PREVENTION PLAN

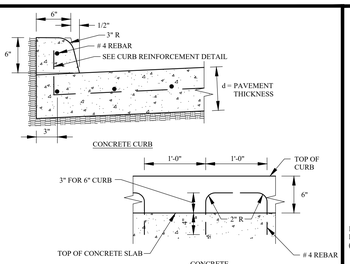
Project No.
214001269

Scale
As indicated

Revision

Drawing No.
C501

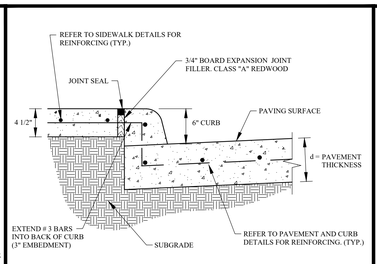
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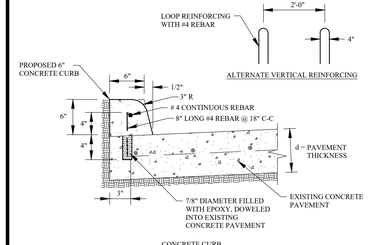
NOTES:

1. PROVIDE 3/4" INCH CLASS "A" REDWOOD BOARD EXPANSION JOINT IN CURB 20'-0" FOOT ON CENTER. ALIGN CURB JOINTS WITH PAVING JOINTS AND SEAL CURB JOINTS.
2. WHERE SHOWN ON PLANS TO BEGIN OR END CONCRETE CURB, BEGINNING OR ENDING POINT SHALL BE A 2" INCH HIGH CURB WITH A UNIFORM TRANSITION TO 6" INCH HIGH CURB IN 10' FEET. BEGIN REINFORCING IN CURB WHEN WHEN CURB HEIGHT REACHES 6" INCHES.

CONCRETE CURB AND REINFORCEMENT
N.T.S.



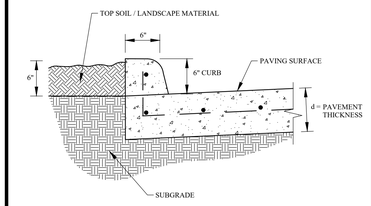
CONCRETE CURB AT SIDEWALK
N.T.S.



NOTES:

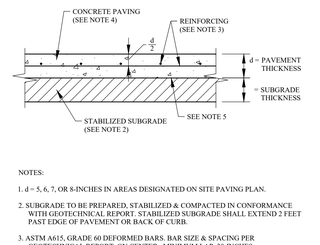
1. AT EACH PAVEMENT CONSTRUCTION JOINT, THERE SHALL BE A 1/4" THICK PRE MOLDED EXPANSION JOINT THE FULL HEIGHT AND WIDTH OF THE CURB.
2. AT EACH PAVEMENT EXPANSION JOINT, THERE SHALL BE A PRE MOLDED EXPANSION JOINT THE FULL WIDTH AND HEIGHT OF THE CURB AND OF THE SAME THICKNESS AS THE PAVEMENT EXPANSION JOINT. CURB EXPANSION JOINTS SHALL BE SEALED.

CONCRETE DOWELED ON CURB
N.T.S.



NOTE:
REFERENCE LANDSCAPE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LANDSCAPE GRADE AT CURB
N.T.S.

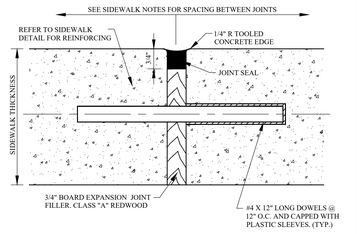


NOTES:

1. d = 5, 6, 7, OR 8-INCHES IN AREAS DESIGNATED ON SITE PAVING PLAN.
2. SUBGRADE TO BE PREPARED, STABILIZED & COMPACTED IN CONFORMANCE WITH GEOTECHNICAL REPORT. STABILIZED SUBGRADE SHALL EXTEND 2 FEET PAST EDGE OF PAVEMENT OR BACK OF CURB.
3. ASTM A615, GRADE 60 DEFORMED BARS. BAR SIZE & SPACING PER GEOTECHNICAL REPORT, ON CENTER. MINIMUM LAP 30-INCHES.
4. PORTLAND CEMENT CONCRETE, 5.5 SACK, 2"-5" INCH SLUMP, 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
5. SHAPE SUBGRADE SURFACE TO FINAL GRADE. DO NOT INSTALL SAND CUSHION. DO NOT INSTALL SAND LEVELING COURSE.

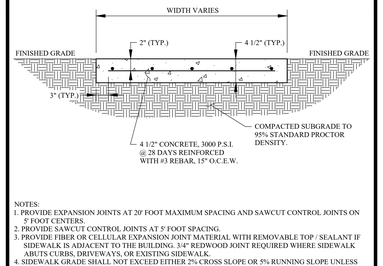
* REFER TO GEOTECHNICAL REPORT

CONCRETE PAVING SECTION
N.T.S.



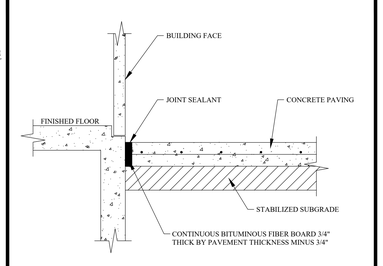
SECTION

CONCRETE SIDEWALK EXPANSION JOINT
N.T.S.

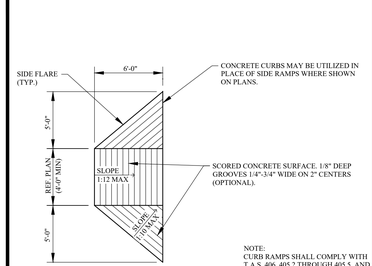


NOTES:
1. PROVIDE EXPANSION JOINTS AT 20' FOOT MAXIMUM SPACING AND SAWCUT CONTROL JOINTS ON 5' FOOT CENTERS.
2. PROVIDE SAWCUT CONTROL JOINTS AT 5' FOOT SPACING.
3. PROVIDE FIBER OR CELLULAR EXPANSION JOINT MATERIAL WITH REMOVABLE TOP / SEALANT IF SIDEWALK IS ADJACENT TO THE BUILDING. 3/4" REDWOOD JOINT REQUIRED WHERE SIDEWALK ABUTS CURBS, DRIVEWAYS, OR EXISTING SIDEWALK.
4. SIDEWALK GRADE SHALL NOT EXCEED EITHER 2% CROSS SLOPE OR 5% RUNNING SLOPE UNLESS SPECIFICALLY SHOWN OTHERWISE.
5. 1" MAXIMUM AGGREGATE.
6. FINISH EDGES WITH A TOOL HAVING 1/4" INCH RADIUS.
7. WHERE NEW SIDEWALK IS PLACED AGAINST EXISTING SIDEWALK, SAWCUT EXISTING SIDEWALK TO AN EVEN, STRAIGHT LINE PRIOR TO INSTALLATION OF THE NEW SIDEWALK AND INSTALL EXPANSION JOINT.
8. LINE UP SIDEWALK JOINT WITH ADJACENT PAVING JOINTS.

CONCRETE SIDEWALK
N.T.S.



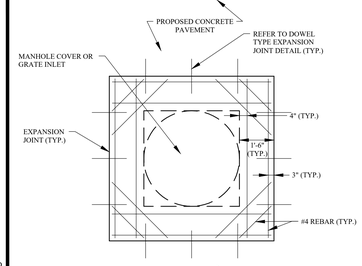
PAVING JOINT AT BUILDING
N.T.S.



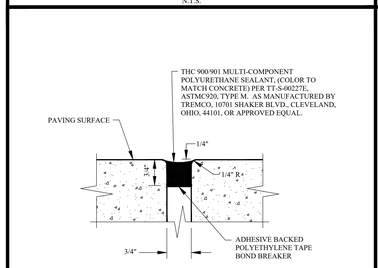
NOTE:
CURB RAMPS SHALL COMPLY WITH T.A.S. 406, 405.2 THROUGH 405.5 AND 405.10. SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES A CURB.

CONTRACTOR TO COORDINATE WITH ARCHITECT/OWNER ON RAMP SURFACE REQUIREMENTS.

FLARED HANDICAP RAMP PLAN
N.T.S.



MANHOLE / INLET BLOCKOUT
N.T.S.



PAVEMENT JOINT SEALANT
N.T.S.

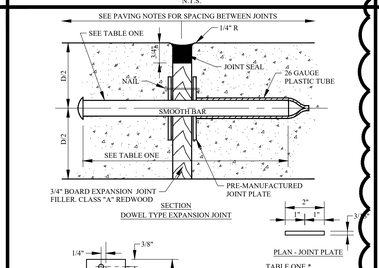
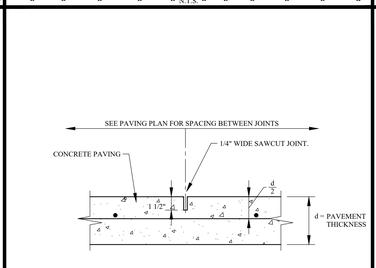


TABLE ONE *

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
5	5/8	12	12
6	3/4	14	12
7	7/8	14	12

* REFER TO GEOTECHNICAL REPORT

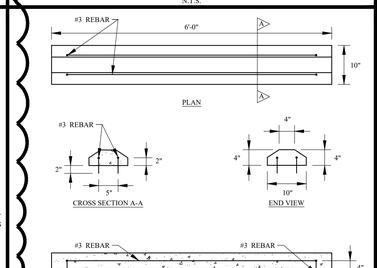
PAVING DOWEL AT EXPANSION JOINT
N.T.S.



NOTE:

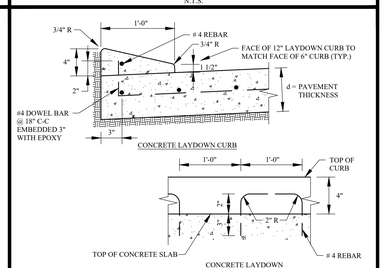
1. SAWCUT JOINTS SHALL BE INSTALLED WITHIN 12 HOURS OF CONCRETE PLACEMENT.

SAWCUT JOINT
N.T.S.



NOTE:
ALL CONCRETE SHALL BE 3,500 PSI PORTLAND CEMENT CONCRETE MIX

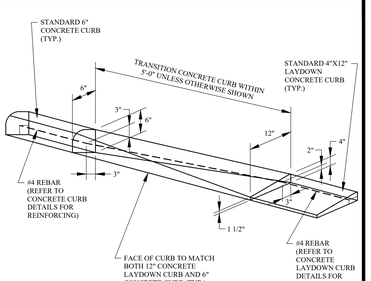
WHEEL STOP
N.T.S.



NOTES:

1. PROVIDE 3/4" INCH CLASS "A" REDWOOD BOARD EXPANSION JOINT IN CURB 20'-0" FOOT ON CENTER. ALIGN CURB JOINTS WITH PAVING JOINTS AND SEAL CURB JOINTS.
2. WHERE SHOWN ON PLANS TO BEGIN OR END CONCRETE CURB, BEGINNING OR ENDING POINT SHALL BE A 2" INCH HIGH CURB WITH A UNIFORM TRANSITION TO 4" INCH HIGH CURB IN 10' FEET. BEGIN REINFORCING IN CURB WHEN WHEN CURB HEIGHT REACHES 4" INCHES.

CONCRETE LAYDOWN CURB AND REINFORCEMENT
N.T.S.



CONCRETE CURB TRANSITION
N.T.S.

CITY OF IOWA COLONY
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
THIS IS TO CERTIFY THAT THESE PLANS HAVE BEEN FOUND TO BE IN GENERAL COMPLIANCE WITH THE CURRENT REQUIREMENT ESTABLISHED BY THE CITY OF IOWA COLONY.

MICHAEL BYRUM-BRATSEN, MAYOR — DATE

DINH HO, P.E., CITY ENGINEER — DATE

CITY OF IOWA COLONY

NOTE: CITY APPROVAL VALID FOR ONE YEAR AFTER DATE OF SIGNATURES

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Stantec

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Consultant
CIVIL: S&G ENGINEERING CONSULTANTS, LLC.
FIRM #15114

Notes

2	ADDENDUM 02			09.11.2025
1	ADDENDUM 01			09.08.2025
Revision		By	Appd	YYYY.MM.DD
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Permit/Seal
TBPE No. F-15114
STATE OF TEXAS
W. JOEL SEYBERT
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PROFESSIONAL ENGINEER
09-11-25

Client/Project Logo
ALVIN Independent School District

Client/Project
Alvin ISD

Elementary School No 23

2727 White Gold Drive
Rosharon, Texas 77583

Title
PAVING DETAILS

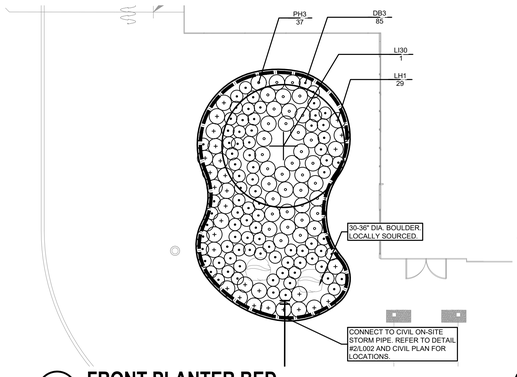
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214001269

Scale
As indicated

Revision

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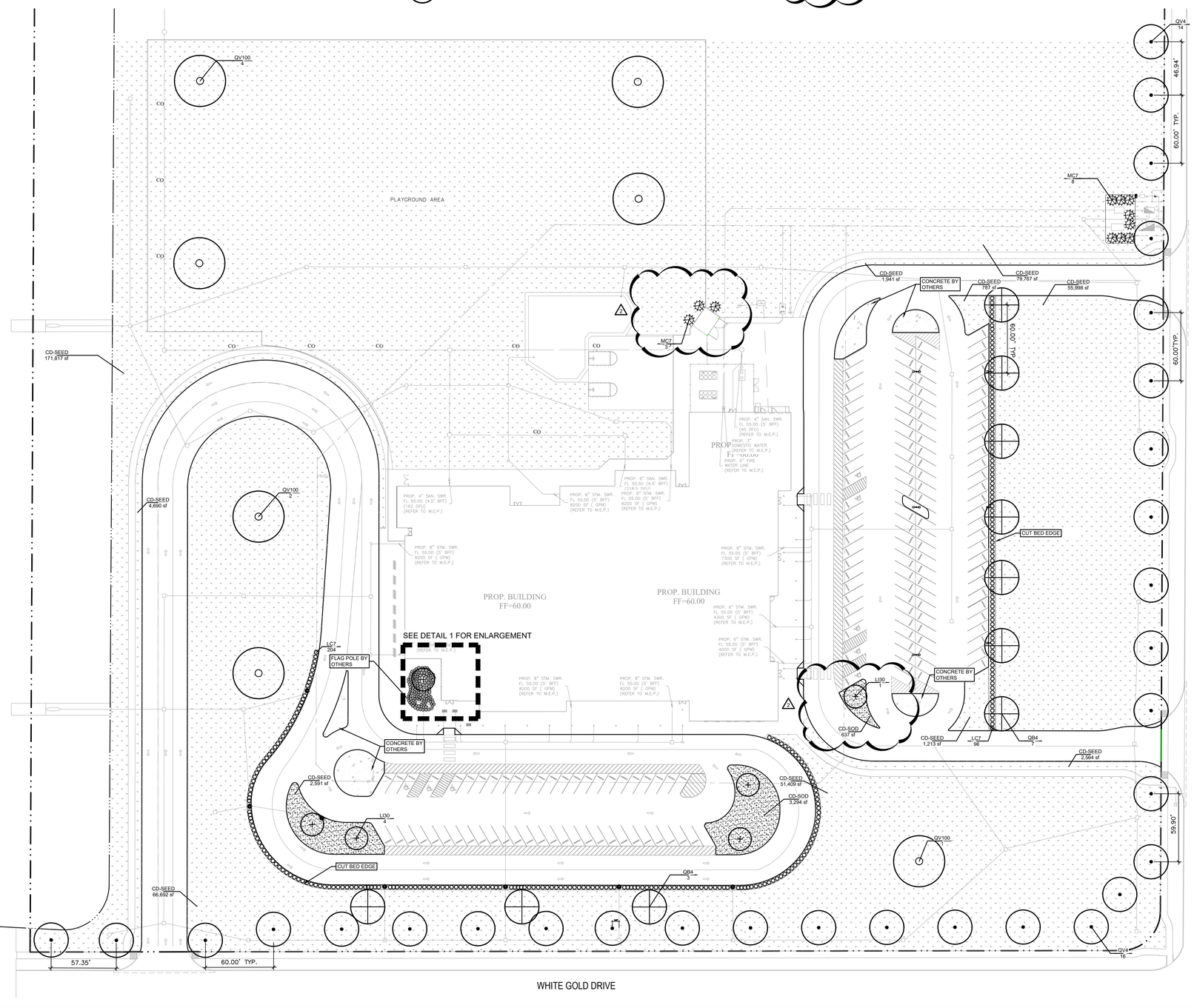
1 L100 **FRONT PLANTER BED**
1" = 10'-0"

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CONTAINER	SPACING	REMARKS
TREES							
	LI30	6	LAGERSTROEMIA INDICA / CRAPE MYRTLE	30 GAL.	POT	PER PLAN	
	QB4	10	QUERCUS BUCKLEYI / RED OAK	4" CAL.	POT	PER PLAN	TREES WITH A CALIPER OF 4 INCHES OR MORE AT PLANTING.
	QV100	7	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	100 GAL.	POT	PER PLAN	
	QV4	30	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	4" CAL.	POT	PER PLAN	TREES WITH A CALIPER OF 4 INCHES OR MORE AT PLANTING.
SHRUBS							
	LC7	300	LEUCOPHYLLUM FRUTESCENS 'COMPACTA' / COMPACT TEXAS SAGE	7 GAL.	POT	48" O.C.	MINIMUM 18" HEIGHT AT TIME OF INSTALL.
	MC7	11	MYRICA CERIFERA / WAX MYRTLE	7 GAL.	POT	60"O.C.	
PERENNIAL & GRASS							
	DB3	85	DIETES BICOLOR / FORTNIGHT LILY	3 GAL.	POT	24" O.C.	
	LH1	29	LANTANA X 'NEW GOLD' / NEW GOLD LANTANA	1 GAL.	POT	30" O.C.	
	PH3	37	PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN FOUNTAIN GRASS	3 GAL.	POT	30" O.C.	

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING
GROUND COVERS					
	CD-SEED	438,481 SF	CYNODON DACTYLON / BERMUDAGRASS	SEED	
	CD-SOD	5,334 SF	CYNODON DACTYLON / BERMUDAGRASS	SOD	

KEY
- = STREET TREES
- = PARKING LOT TREES
- = PARKING LOT SHRUBS



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY
	CUT BED EDGE	1,609 LF

LANDSCAPE CALCULATIONS:
PER CITY OF IOWA COLONY ZONING ORDINANCE

STREET TREES SEC.3.1.2.6.
REQUIRED:
25' PARALLEL AND ADJACENT TO KARSTEN BLVD.;
28 STREET TREES = 842.42 LF / 30'

10' PARALLEL AND ADJACENT TO WHITE GOLD RD.
32 STREET TREES = 960.24 LF / 30'

IF, TREES WITH A CALIPER OF 4 INCHES OR MORE.
COUNT AS TWO TREES TOWARD THE TOTAL TREE REQUIREMENT.
SO,
14 STREET TREES WITH 4 CALIPER INCHES ALONG KARSTEN BLVD.
16 STREET TREES WITH 4 CALIPER INCHES ALONG WHITE GOLD RD.

PROVIDED;
14 LIVE OAK AT 4" CAL. ALONG KIRSTEN BLVD.
16 LIVE OAK AT 4" CAL. ALONG WHITE GOLD RD.

PARKING LOT TREES AND SHRUBS Sec.3.1.2.7;
REQUIRED;
a. 16 PARKING LOT TREES = 159 PARKING SPACES / 10;
   (1) PARKING LOT OR STREET TREE WITH 120' OF EACH PARKING LOT SPACES;
   MIN. 9 PARKING LOT TREES ARE LARGE TREES.
b. 300 SHRUBS = 10 x 30 REQUIRED STREET TREES
   225 PARKING LOT SCREENING SHRUBS = 75% x 300
   SHRUBS SHALL BE MAINTAINED AT A HEIGHT OF NO MORE THAN 36" ht. AND NO LESS THAN 18" ht.

PROVIDED:
a. 16 PARKING LOT TREES. 10 OF 16 ARE LARGE TREES.
b. 300 SHRUBS TOTAL
   100% SHRUBS ARE ALONG PARKING LOT

GENERAL PLANTING NOTES:

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING 811. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
3. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE SOUTHERN GROWN, NO. 1. GRADE.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
5. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
6. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
7. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
8. ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
9. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND; SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
10. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
11. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
12. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
14. ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.
15. ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
16. SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
17. FOR NON-LAWN SEED MIX AREAS, AS NOTED ON PLAN, BRUSH MOW ONCE SEASONALLY FOR INVASIVE SPECIES CONTROL.
18. CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.
19. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND NOT OTHERWISE PLANTED PER THIS PLAN. CONTRACTOR SHALL HYDROSEED. NO BARE DIRT AREAS WILL BE ACCEPTED.
20. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF WORK. IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW MATERIAL AND MANUFACTURERS INSTRUCTIONS. AS WELL AS COMPLY IN FULL WITH ALL GOVERNING CODES.

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910 Louisiana Street Suite 2600
Houston, TX 77002-4916
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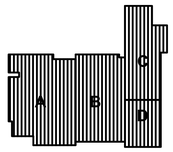
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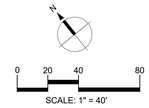
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#F-11257 T.B.A.S. FIRM #BR3579
T.B.A.E. FIRM #BR3949

Notes





2	ADDENDUM #2		09/11/2025
1	BIDING DOCUMENTS - UPDATED INFO		09/01/2025
Revision		By	Appd YYYY.MM.DD

	BIDDING DOCUMENTS		09.01.2025
	FINAL CONSTRUCTION DOCUMENTS		08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal



09/11/2025

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

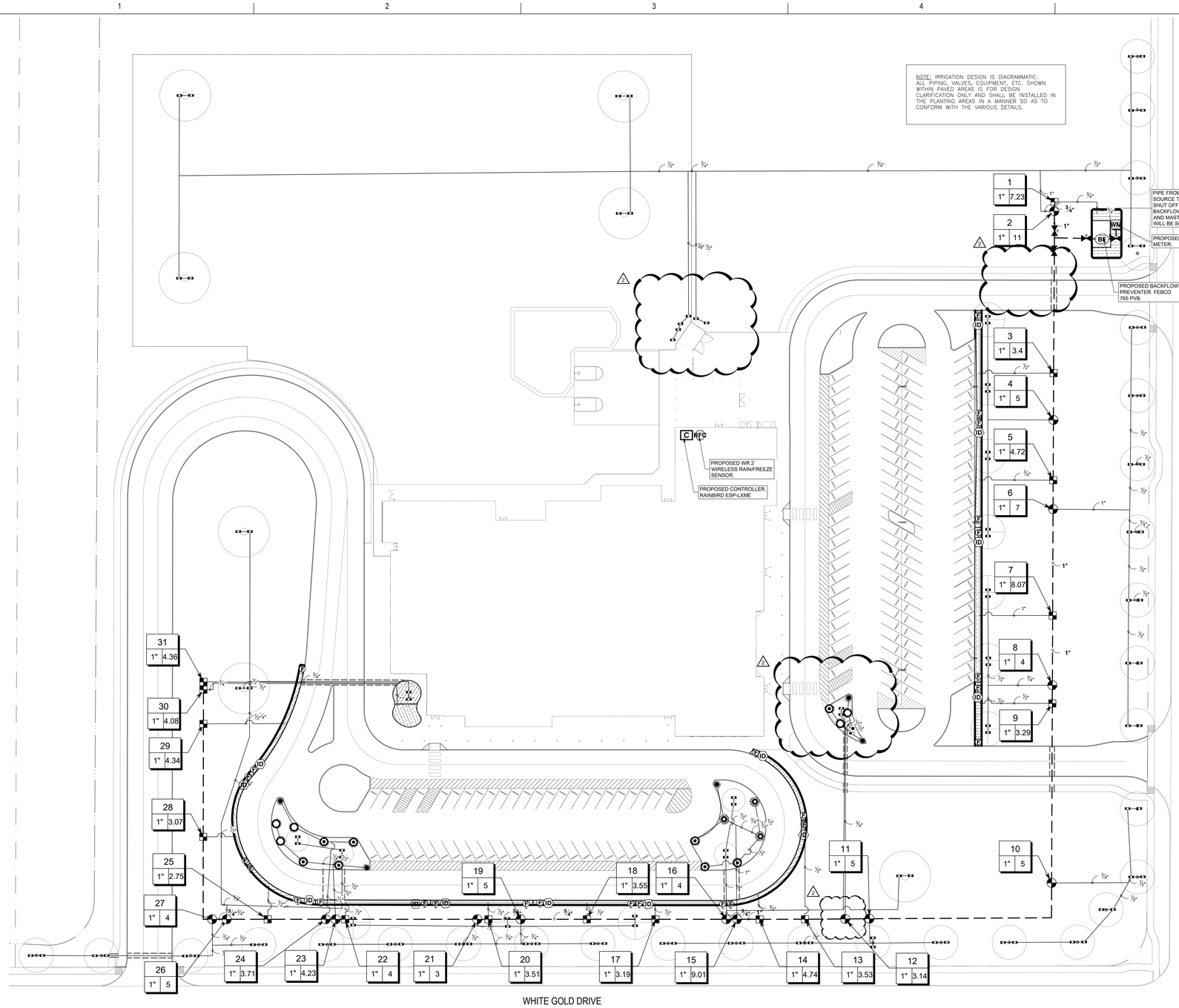
ADDRESS TBD
ROSHARON, TEXAS 77583

Title
LANDSCAPE PLAN

Project No.	Scale
214001269	1" = 40'-0"
Revision	Drawing No.
	L001

*Pick location in Project Information
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ORIGINAL SHEET - ARCH E1



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
CORNER	HUNTER MP CORNER PROS-04-PRS30-CV TURF ROTATOR, 4IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105 ON PRS30 BODY.	5	30
2000	HUNTER MP2000 PROS-04-PRS30-CV TURF ROTATOR, 4IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	5	30
3000	HUNTER MP3000 PROS-04-PRS30-CV TURF ROTATOR, 4IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	8	30
3500	HUNTER MP3500 PROS-04-PRS30-CV TURF ROTATOR, 4IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. LB=LIGHT BROWN ADJUSTABLE ARC, 90-210.	3	30
800A 800F	HUNTER MP800SR PROS-04-PRS30-CV TURF ROTATOR, 4IN. POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. ADJ=ORANGE AND GRAY (ARC 90-210), 360=LIME GREEN AND GRAY (ARC 360)	2	30
1401 1402 1404 1408	RAIN BIRD 1802-1400 FLOOD FLOOD BUBBLER 2IN. POPUP	110	20

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZPGA-100-PRF 1" MEDIUM FLOW, 3-15 GPM, WITH 1IN. PGA VALVE AND 1IN. PRESSURE REGULATING RBY FILTER AND 40PSI PRESSURE REGULATOR. IT IS 2 WIRE COMPATIBLE RESIDENTIAL CONTROL ZONE KIT.	17
P	NETAFIM TL050MFV-1 AUTOMATIC FLUSH VALVE, 1/2IN. MALE PIPE THREAD.	26
ID	HUNTER ECO-ID ECO-ID. 1/2IN. FPT CONNECTION WITH 12 PSI-70 PSI OPERATING PRESSURE. SPECIFY WITH HUNTER SJ SWING JOINT.	13
	AREA TO RECEIVE DRIPLINE WATER SAVING DRIP SYSTEM HDLOC-12-CV: HUNTER DRIPLINE W/ 0.6 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH GRAY STRIPING. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.	6,901 LF

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PESB 1" 1IN., 1-1/2IN., 2IN. PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	15
	GATE VALVE IRON, STAINLESS STEEL, BRONZE SHUT OFF VALVE. LATERAL ISOLATION AVAILABLE IN 2IN. WITH VARIABLE RISER. GASKET X GASKET. EPDM SEAL.	4
BF	FEBCO 765 1-1/2" PRESSURE VACUUM BREAKER, BRASS WITH BALL VALVE SOV. INSTALL 12IN. ABOVE HIGHEST DOWNSTREAM OUTLET AND THE HIGHEST POINT IN THE DOWNSTREAM PIPING.	1
C	RAIN BIRD ESPLXME2-LXMM W/ (2) ESPLXMSM12 36 STATION, TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER. (1) ESPLXME2 12-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE W/ (2) ESPLXMSM12 - 12-STATION EXPANSION MODULES. INSTALL IN LXMM POWDER COATED, METAL WALL-MOUNTED CABINET.	1
RFC	RAIN BIRD WR2-RFC WIRELESS RAIN/FREEZE SENSOR CONSISTING OF 1 RECEIVER AND 1 RAIN/FREEZE SENSOR TRANSMITTER.	1
WM	WATER METER 1-1/2"	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	444.2 LF
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 1/2"	4,639 LF
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 3/4"	1,482 LF
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 1"	263.0 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40 3/4"	686.5 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40 1"	984.0 LF
	PIPE SLEEVE: PVC CLASS 200 SDR 21	297.8 LF

Valve Number
Valve Flow
Valve Size

CRITICAL ANALYSIS

Generated:	2025-09-10 16:18
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1-1/2"
Flow Available	75 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	65 PSI
Elevation Change:	5.00 ft
Service Line Size:	3"
Length of Service Line:	20 ft
Pressure Available:	63 Psi
DESIGN ANALYSIS	
Maximum Station Flow:	11 GPM
Flow Available at POC:	75 GPM
Residual Flow Available:	64 GPM
Critical Station:	29
Design Pressure:	30 PSI
Friction Loss:	5.22 PSI
Fittings Loss:	0.52 PSI
Elevation Loss:	0 PSI
Loss through Valve:	3.7 PSI
Pressure Req. at Critical Station:	39.4 PSI
Loss for Fittings:	1.67 PSI
Loss for Main Line:	16.7 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	2.5 PSI
Loss for Water Meter:	0.1 PSI
Critical Station Pressure at POC:	60.4 PSI
Pressure Available:	63 PSI
Residual Pressure Available:	2.56 PSI

IRRIGATION NOTES:

1. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM PROVIDING FULL COVERAGE AND READY FOR USE BY THE OWNER. THE DRAWINGS ARE BASED ON SURVEY PLANS IN EFFECT AT THE TIME THESE DRAWINGS WERE MADE. ANY DISCREPANCIES, OMISSIONS, ERRORS, ETC. ON THESE DRAWINGS OR ON SITE CHANGES, DOES NOT AND SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE A COMPLETE SYSTEM AS SHOWN. IF NECESSARY, THE CONTRACTOR MAY, WHERE CHANGES OCCUR, ADD OR DELETE SPRINKLERS, REROUTE PIPE, ETC. TO ASSURE ADEQUATE AND FULL COVERAGE PER APPROVAL OF THE LANDSCAPE ARCHITECT.
2. THE CONTRACTOR SHALL VERIFY AND BE FAMILIAR WITH THE LOCATION, SIZE AND DETAIL OF UTILITIES PROVIDED, AS SHOWN ON THE PLANS. PRIOR TO CUTTING INTO THE SOIL THE CONTRACTOR SHALL LOCATE ALL UTILITIES AS ARE COMMONLY ENCOUNTERED UNDERGROUND AND SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. THE CONTRACTOR SHALL CALL DIG ALERT (811) PRIOR TO ANY WORK TAKING PLACE, AND CONTACT THE CITY REPRESENTATIVE FOR LOCATION OF NEWLY INSTALLED UTILITIES.
3. THE IRRIGATION DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, EQUIPMENT, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN THE PLANTING AREAS IN A MANNER SO AS TO CONFORM WITH THE VARIOUS DETAILS.
4. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTION, GRADE DIFFERENCES, OR DIFFERENCES IN THE AREAS DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTION OR DIFFERENCES SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY REVISIONS THAT ARE NECESSARY.
5. MATERIALS, WORKMANSHIP AND INSTALLATION SHALL BE NEW AND OF THE HIGHEST QUALITY AND IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES.
6. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS AND RUBBISH INCIDENTAL TO THIS WORK.
7. ADJUST ALL SPRINKLERS, VALVES OR CHANGE NOZZLE SIZE AND TYPE TO ALLOW FOR COVERAGE WITH MINIMAL OVER-SPRAY. DO NOT ALLOW OVER-SPRAY ON BUILDINGS, WALLS, AND SIDEWALKS.
8. INSTALL APPROPRIATE MAIN LINE PIPING FROM METER TO BACKFLOW PREVENTER PER LOCAL CODE.
9. CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR ELECTRICAL POWER TO CONTROLLER LOCATIONS AND MAKE FINAL HOOK-UP. FINAL HOOK-UP SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR.
10. IRRIGATION DESIGN PRESSURE IS 65 PSI STATIC PRESSURE AT THE METER. CONTRACTOR SHALL VERIFY STATIC PRESSURE ON THE SITE AT POINT OF CONNECTION PRIOR TO START OF WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. EXISTING STATIC PRESSURE IN CITY MAIN IS UNKNOWN.
11. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF "UNIFORM PLUMBING CODE" AS WELL AS LOCAL ORDINANCES.
12. IRRIGATION SYSTEM SHALL NOT BE MODIFIED OR CHANGED IN ANY WAY WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT.
13. INSTALL CONSTANT MAIN LINE 24" BELOW FINISH GRADE AND 32" BELOW SUBGRADE OR STREETS AND/OR DRIVES. DIMENSION IS TO TOP OF PIPE.
14. INSTALL INTERMEDIATE PRESSURE LATERAL LINE MINIMUM 12" BELOW FINISH GRADE FOR SPRAY HEADS AND 14" BELOW FINISH GRADE FOR ROTORS AND 24" BELOW SUBGRADE OF STREETS AND/OR DRIVES.
15. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION. THE GENERAL REQUIREMENTS OF THE SPECIFICATIONS SHALL BECOME PART OF THE IRRIGATION WORK.
16. IRRIGATION CONTROL WIRE SHALL BE 14 GAUGE, SUITABLE FOR DIRECT BURIAL.
17. INSTALL ONE ADDITIONAL WIRE OF EACH COLOR FROM THE CONTROLLER TO THE LAST VALVE ON BOTH SIDES OF THE LINEAR PARK. THE IRRIGATION WIRE IS TO BE LOCATED DIRECTLY TO THE SIDE OF THE MAIN LINE AND TAPED AT INTERVALS OF 8'.
18. INSTALL "CHRISTY" TAG LOCATED ON THE CONTROL WIRE OF EACH ICV INDICATING CLOCK AND VALVE NUMBER.

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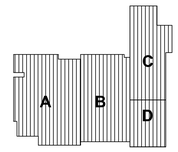
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#F-11237 & #10194579
T.B.A.E. FIRM #BR3949

Notes



N

0 20 40 80

SCALE: 1" = 40'

Revision	By	Appd	YYYY.MM.DD
2 ADDENDUM #2			09/11/2025
1 BIDDING DOCUMENTS - UPDATED INFO			09/01/2025

Issued	By	Appd	YYYY.MM.DD
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025

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STATE OF TEXAS
JINGLIN ZHAO
LI0029076
LICENSED IRRIGATOR

09/11/2025

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

ADDRESS TBD
ROSHARON, TEXAS 77583

Title
IRRIGATION PLAN

Project No.
214001269

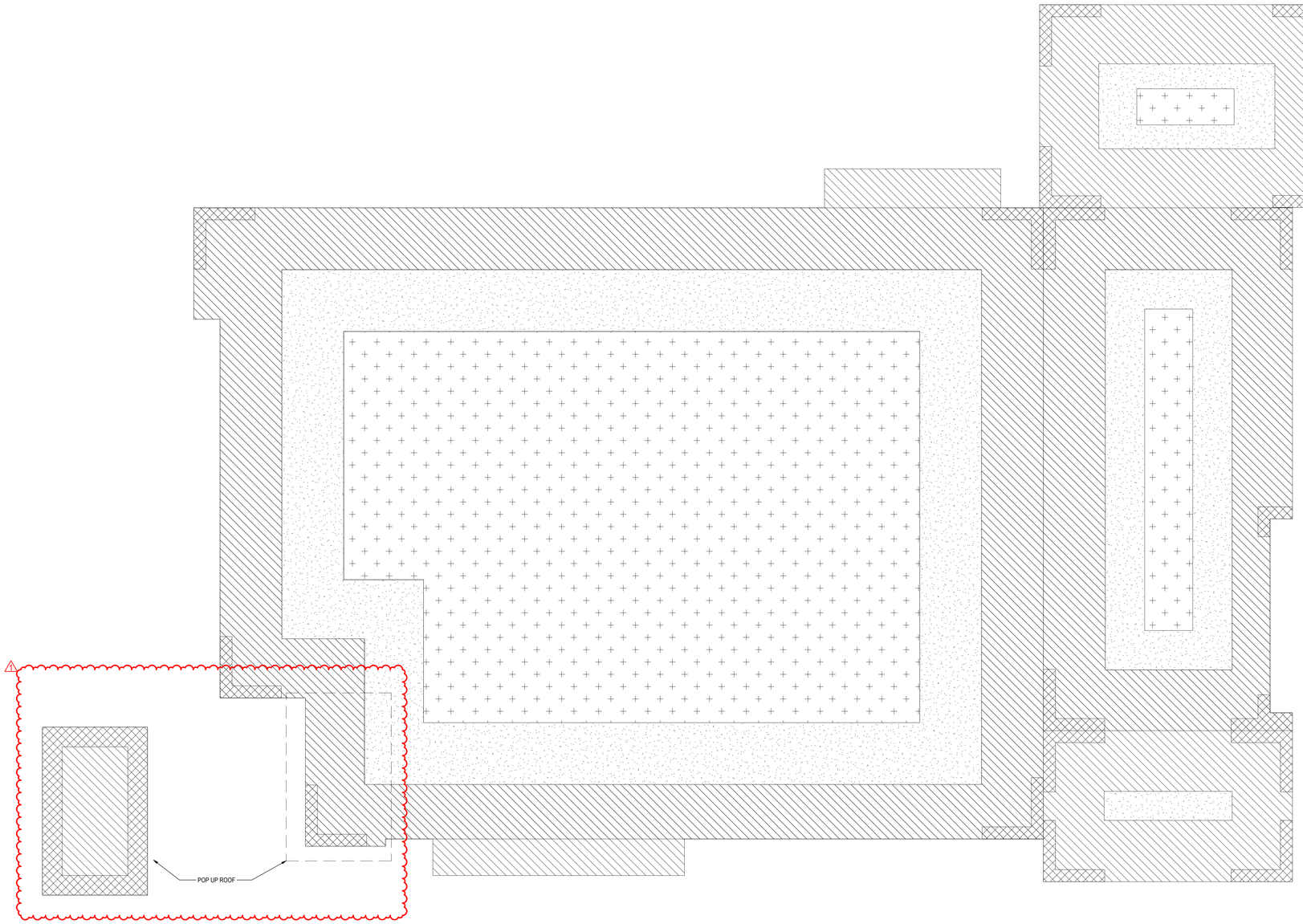
Scale
1" = 40'-0"

Revision

Drawing No.
L003

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ORIGINAL SHEET - ARCH E1



WIND DESIGN LOADS

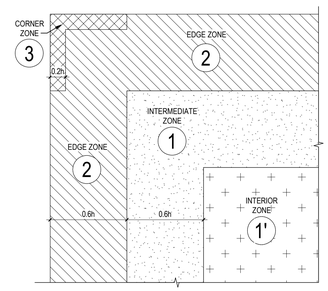
REFERENCE S001 (WIND DESIGN DATA)

BASIC WIND SPEED.....150 MPH (ULTIMATE THREE SECOND GUST)
EXPOSURE CATEGORY.....C
INTERNAL PRESSURE COEFF.....+/- 0.18
RISK CATEGORY.....III
ROOF DEAD LOAD.....20 PSF
h.....30.0'
0.6h.....18.0'
0.2h.....6.0'

WIND LOAD PRESSURE (PSF) [ULTIMATE]

ROOF	SURFACE PRESSURE (PSF)			
	30' MEAN ROOF HEIGHT			
EFFECTIVE AREA	10 SF	20 SF	50 SF	100 SF
ROOF: 1	-90.4	-84.4	-76.6	-70.6
ROOF: 1'	-51.9	-51.9	-51.9	-51.9
ROOF: 2	-116.2	-111.6	-101.5	-93.8
ROOF* 3	-119.3	-111.6	-101.5	-93.8
ROOF POSITIVE: 1 AND 1'	23.1	21.6	19.7	18.3
ROOF POSITIVE: 2 AND 3	51.9	49.6	46.6	44.3
OVERHANGS	110.6	100.4	86.9	76.6

WALL	SURFACE PRESSURE (PSF)			
AREA	10 SF	20 SF	50 SF	100 SF
NEGATIVE ZONE 1, 1' AND 2	-56.3	-54	-50.9	-48.6
NEGATIVE ZONE 3	-69.3	-64.6	-58.6	-54
POSITIVE ALL ZONES	51.9	49.6	46.6	44.3
PARAPETS	157	146.8	133.4	123.2



1 S021 **WIND UPLIFT DIAGRAM**
1 : 180

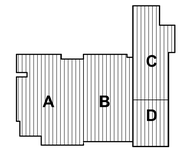
3 S021 **COMPONENTS AND CLADDING LOADS**
1/8" = 1'-0"

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1	ADDENDUM #2		09.11.2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
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2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
WIND UPLIFT DIAGRAM

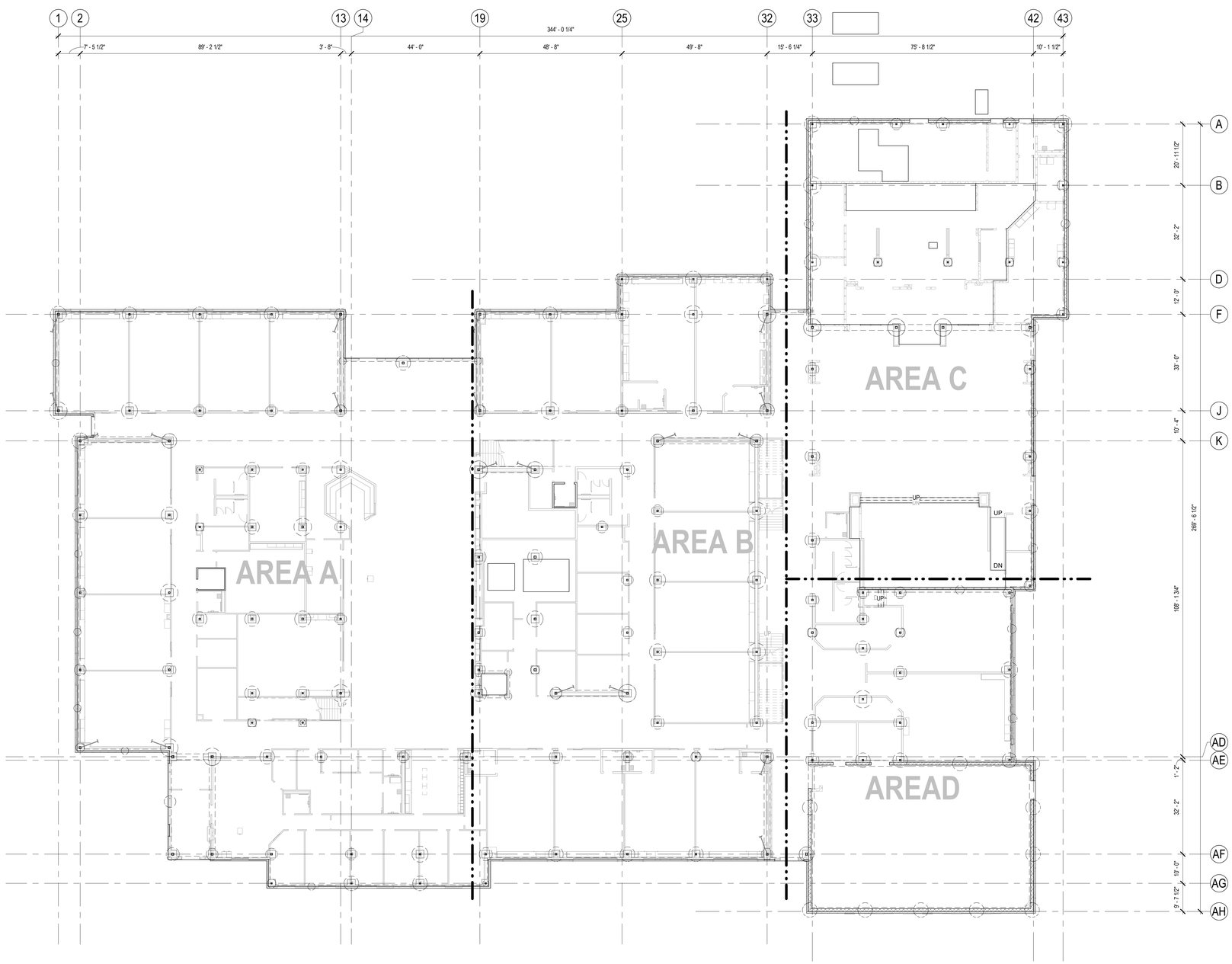
Project No.
214001269

Scale
As indicated

Revision
1

Drawing No.
S021

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ORIGINAL SHEET - ARCH E1



1 S110 **LEVEL 1 COMPOSITE FOUNDATION PLAN**

1/16" = 1'-0"

ORIGINAL SHEET - ARCH E1

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SHEET REVISED

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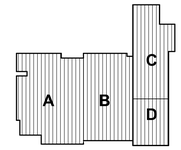
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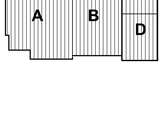
Notes





1 ADDENDUM #2			09.11.2025
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
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2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

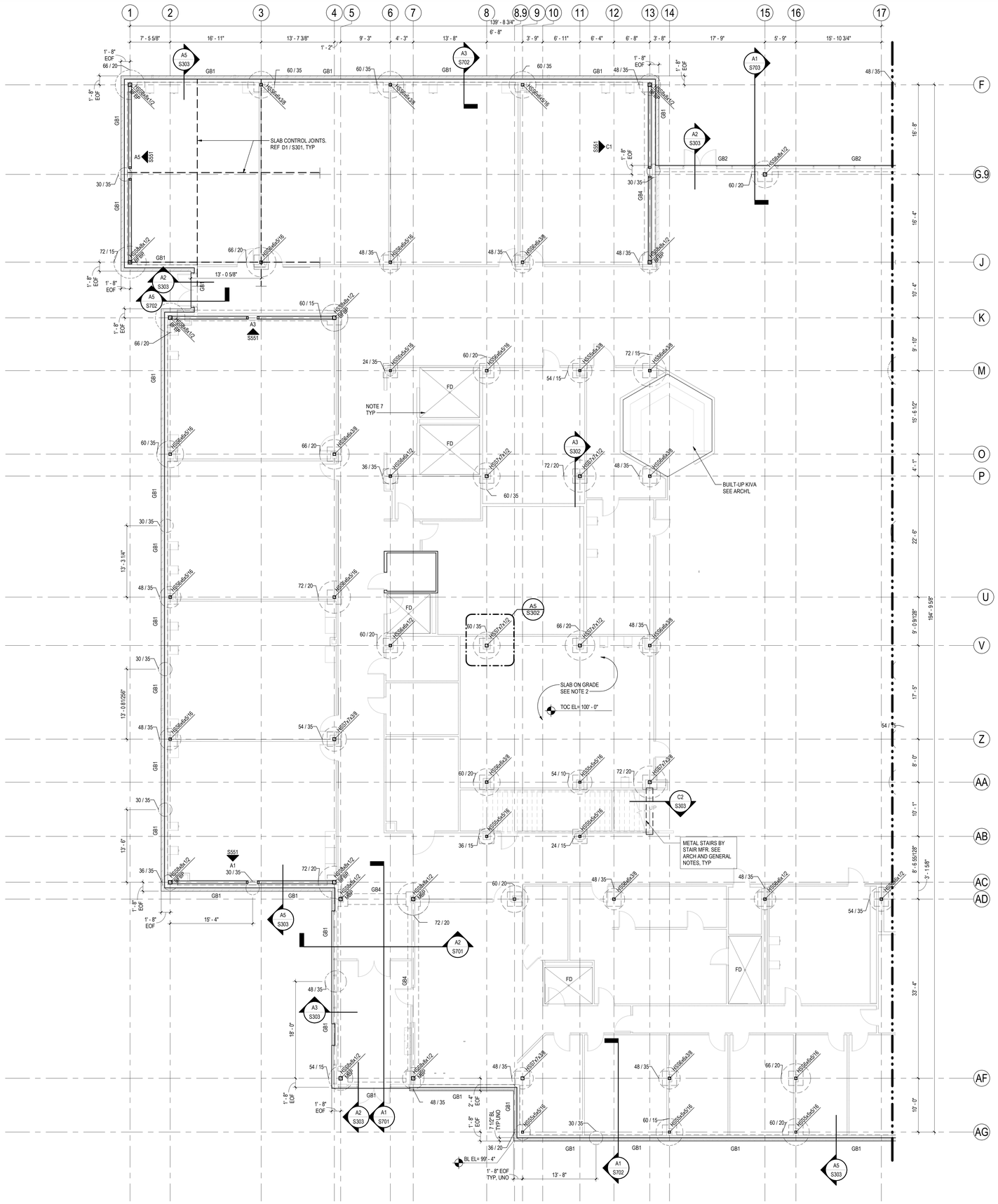
Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
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Title
LEVEL 1 COMPOSITE FOUNDATION PLAN

Project No.	Scale
214001269	1/16" = 1'-0"
Revision	Drawing No.
1	**S110**



LEVEL 1 FOUNDATION PLAN - AREA A

1/8" = 1'-0"

PIER REINFORCING SCHEDULE

SHAFT DIA	DEPTH	VERT REINF	TIES
18	35' - 0"	(6) #7	#3 @ 14"
24	15' - 0"	(8) - #8	#3 @ 14"
24	35' - 0"	(8) - #8	#3 @ 14"
30	35' - 0"	(8) - #8	#3 @ 14"
36	15' - 0"	(15) - #8	#3 @ 14"
36	20' - 0"	(15) - #8	#3 @ 14"
36	35' - 0"	(15) - #8	#3 @ 14"
42	20' - 0"	(20) - #8	#3 @ 14"
42	35' - 0"	(20) - #8	#3 @ 14"
48	15' - 0"	(20) - #9	#3 @ 14"
48	20' - 0"	(20) - #9	#3 @ 14"
48	35' - 0"	(20) - #9	#3 @ 14"
54	10' - 0"	(25) #9	#3 @ 14"
54	15' - 0"	(25) #9	#3 @ 14"
54	20' - 0"	(25) #9	#3 @ 14"
54	35' - 0"	(25) #9	#3 @ 14"
60	15' - 0"	(30) - #9	#3 @ 14"
60	20' - 0"	(30) - #9	#3 @ 14"
60	35' - 0"	(30) - #9	#3 @ 14"
66	20' - 0"	(30) - #10	#3 @ 14"
66	35' - 0"	(30) - #10	#3 @ 14"
72	15' - 0"	(35) - #10	#3 @ 14"
72	20' - 0"	(35) - #10	#3 @ 14"

GRADE BEAM SCHEDULE

TYPE	WIDTH (IN)	DEPTH (IN)	TOP BARS	BOT BARS	STIRRUPS	COMMENTS
GB1	1' - 2"	2' - 6"	(3) #8	(3) #8	#4 AT 12" OC	
GB2	1' - 2"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB3	1' - 6"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB4	2' - 0"	3' - 0"	(6) #8	(6) #8	#4 AT 12" OC	#4 4-LEGGED STIRRUPS @ 8" OC, 5'-0" FROM FACE OF EACH SUPPORT

SLAB-ON-GRADE (SOG) PLAN NOTES

1. REFERENCE ELEVATION 100' - 0" CORRESPONDS TO CIVIL ELEVATION 94.70', UNO. VERIFY WITH CIVIL.
2. SLAB-ON-GRADE SHALL BE FIVE (5) INCHES THICK W/ #4 BARS AT 16" OC EACH WAY, UNO.
3. SEE GENERAL NOTES FOR ADDITIONAL SLAB REQUIREMENTS.
4. PROVIDE CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING AS SHOWN ON S301. PROVIDE SUBMITTAL PER GENERAL NOTES.
5. ALL DEPRESSIONS THAT ARE DIMENSIONED ON PLAN ARE FOR REFERENCE ONLY. VERIFY EXACT LOCATIONS OF ALL DEPRESSIONS WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
6. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF RAMPS, STAIRS, CURBS, AND OTHER EDGE OF SLAB CONDITIONS SHOWN AND NOT SHOWN IN STRUCTURAL DOCUMENTS.
7. SLOPE ALL BATHROOM AND SHOWER FLOOR SLABS TO DRAINS WHERE REQUIRED. SEE ARCHITECTURAL AND PLUMBING DWGS.
8. VERIFY/COORDINATE ALL BRICK LEDGES WITH ARCHITECTURAL DRAWINGS.
9. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.
10. CMU WALLS
    A. SEE ARCHITECTURAL PLANS FOR LOCATION OF INTERIOR PARTITION/NON-STRUCTURAL MASONRY WALLS AND ALL MASONRY OPENINGS. REF A005.
       a. PROVIDE THICKENED/TURNDOWN SLAB AT ALL LOCATIONS UNO PER DETAIL C4 / S303.
    B. MASONRY WALLS THAT ARE HATCHED CMU ARE STRUCTURAL/ENGINEERED MASONRY WALLS.
       a. STRUCTURAL MASONRY DETAILS APPLY TO STRUCTURAL MASONRY WALLS ONLY. REFER TO S401 FOR ADD'L INFO. WALL TYPE 'BWT1' IS TYPICAL UNO.

FOUNDATION PLAN NOTES (DRILLED & UNDER-REAMED PIERS)

11. REF A5 / S301 FOR ALL PIER REQUIREMENTS.
12. CENTER DRILLED PIER BELOW GRADE BEAM, PLINTH OR STEEL COLUMN UNO.
13. CENTER GRADE BEAMS AND THICKENED SLABS BELOW INTERIOR WALLS WHERE SHOWN UNO.
14. TOP OF GRADE BEAM = BRICK LEDGE ELEVATION UNO.
15. TOP OF PIER = BOTTOM OF GRADE BEAM, UNO.
16. REF D3 / S301 FOR TYPICAL DETAIL OF PENETRATIONS THROUGH GRADE BEAMS.
17. REF A4 / S301 FOR COLUMN BASE PLATES.
    BASE PLATE TYPE MARKS ON PLAN:
    BFBP = BRACED FRAME BASE PLATE
    MBP = MOMENT FRAME BASE PLATE
18. ELEVATOR
    A. CONTRACTOR SHALL VERIFY ELEVATOR PITS AND SUMP PIT DIMENSIONS, LOCATIONS, AND REQUIREMENTS WITH CONTRACTED ELEVATOR MANUFACTURER AND ARCHITECTURAL DOCUMENTS BEFORE ANY WORK BEGINS.
    B. VERIFY QUANTITY AND LOCATION OF GUIDE RAILS IF REQUIRED.

SHEET REVISED

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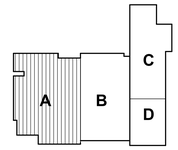
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1 ADDENDUM #2			09.11.2025
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

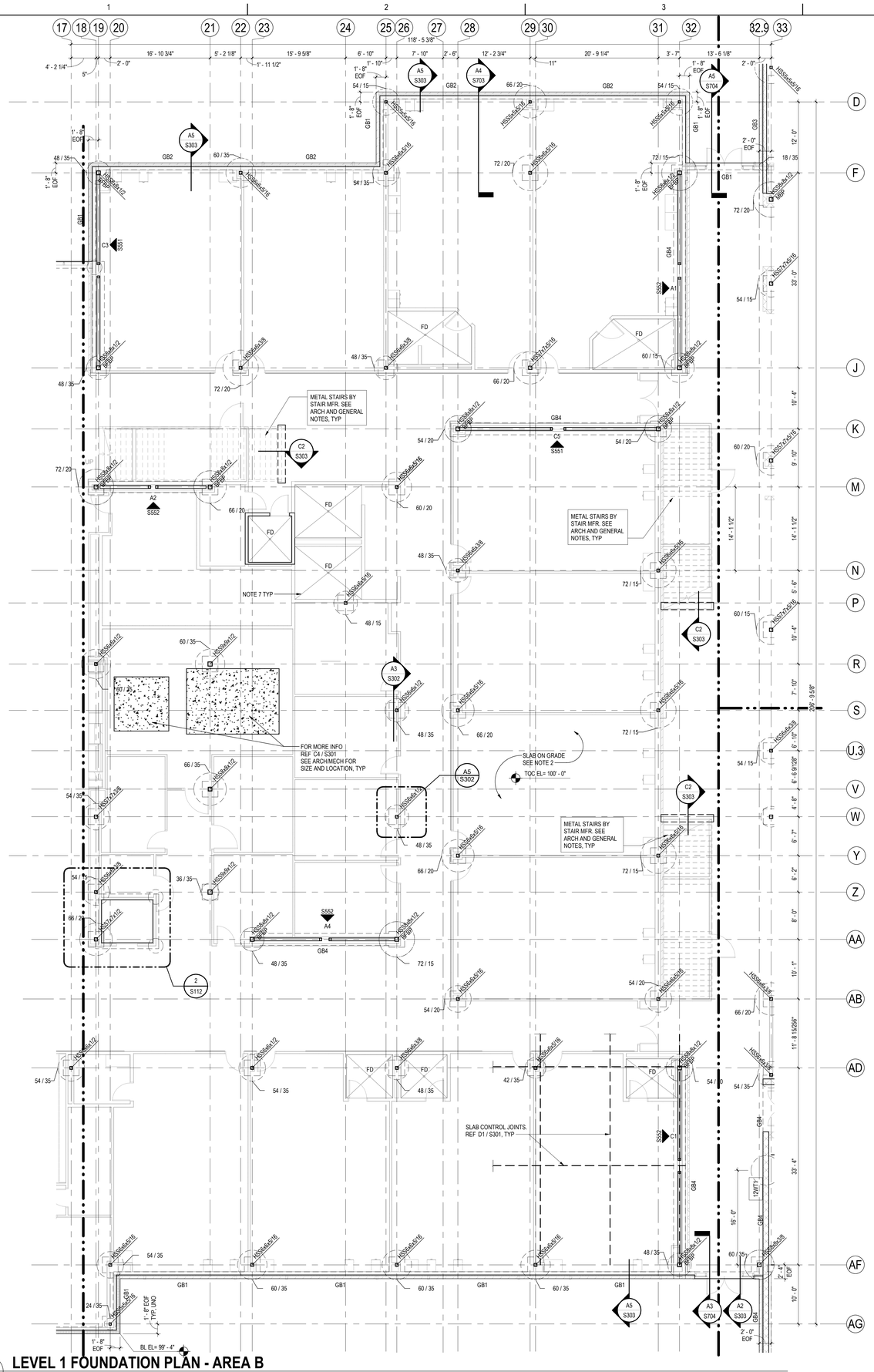
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
LEVEL 1 FOUNDATION PLAN - AREA A

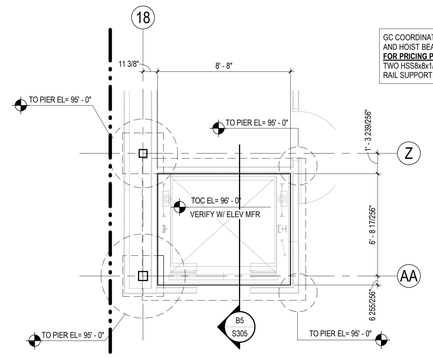
Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	S111

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ORIGINAL SHEET - ARCH E1



1 S112 **LEVEL 1 FOUNDATION PLAN - AREA B**
1/8" = 1'-0"



GC COORDINATE GUIDE RAIL SUPPORTS AND HOIST BEAMS WITH ELEVATOR MFR. **FOR PRICING PURPOSES ONLY**, ASSUME TWO HSS8x8x1/2 COLUMNS FOR GUIDE RAIL SUPPORT AND W18x35 HOIST BEAM

2 S112 **ENLARGED ELEVATOR PLAN**
1/4" = 1'-0"

PIER REINFORCING SCHEDULE

SHAFT DIA	DEPTH	VERT REINF	TIES
18	35' - 0"	(6) #7	#3 @ 14"
24	15' - 0"	(8) - #8	#3 @ 14"
24	35' - 0"	(8) - #8	#3 @ 14"
30	35' - 0"	(8) - #8	#3 @ 14"
36	15' - 0"	(15) - #8	#3 @ 14"
36	20' - 0"	(15) - #8	#3 @ 14"
36	35' - 0"	(15) - #8	#3 @ 14"
42	20' - 0"	(20) - #8	#3 @ 14"
42	35' - 0"	(20) - #8	#3 @ 14"
48	15' - 0"	(20) - #9	#3 @ 14"
48	20' - 0"	(20) - #9	#3 @ 14"
48	35' - 0"	(20) - #9	#3 @ 14"
54	10' - 0"	(25) #9	#3 @ 14"
54	15' - 0"	(25) #9	#3 @ 14"
54	20' - 0"	(25) #9	#3 @ 14"
54	35' - 0"	(25) #9	#3 @ 14"
60	15' - 0"	(30) - #9	#3 @ 14"
60	20' - 0"	(30) - #9	#3 @ 14"
60	35' - 0"	(30) - #9	#3 @ 14"
66	20' - 0"	(30) - #10	#3 @ 14"
66	35' - 0"	(30) - #10	#3 @ 14"
72	15' - 0"	(35) - #10	#3 @ 14"
72	20' - 0"	(35) - #10	#3 @ 14"

GRADE BEAM SCHEDULE

TYPE	WIDTH (IN)	DEPTH (IN)	TOP BARS	BOT BARS	STIRRUPS	COMMENTS
GB1	1' - 2"	2' - 6"	(3) #8	(3) #8	#4 AT 12" OC	
GB2	1' - 2"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB3	1' - 6"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB4	2' - 0"	3' - 0"	(8) #8	(8) #8	#4 AT 12" OC	#4 4 LEGGED STIRRUPS @ 8" OC, 5'-0" FROM FACE OF EACH SUPPORT

SLAB-ON-GRADE (SOG) PLAN NOTES

1. REFERENCE ELEVATION 100' - 0" CORRESPONDS TO CIVIL ELEVATION 94.70', UNO. VERIFY WITH CIVIL.
2. SLAB-ON-GRADE SHALL BE FIVE (5) INCHES THICK W/ #4 BARS AT 16" OC EACH WAY, UNO.
3. SEE GENERAL NOTES FOR ADDITIONAL SLAB REQUIREMENTS.
4. PROVIDE CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING AS SHOWN ON S301. PROVIDE SUBMITTAL PER GENERAL NOTES.
5. ALL DEPRESSIONS THAT ARE DIMENSIONED ON PLAN ARE FOR REFERENCE ONLY. VERIFY EXACT LOCATIONS OF ALL DEPRESSIONS WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
6. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF RAMPS, STAIRS, CURBS, AND OTHER EDGE OF SLAB CONDITIONS SHOWN AND NOT SHOWN IN STRUCTURAL DOCUMENTS.
7. SLOPE ALL BATHROOM AND SHOWER FLOOR SLABS TO DRAINS WHERE REQUIRED. SEE ARCHITECTURAL AND PLUMBING DWGS.
8. VERIFY/COORDINATE ALL BRICK LEDGES WITH ARCHITECTURAL DRAWINGS.
9. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.
10. CMU WALLS
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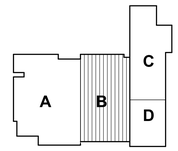
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Permit/Seal



Texas Firm Registration No. F-13678

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Title
LEVEL 1 FOUNDATION PLAN - AREA B

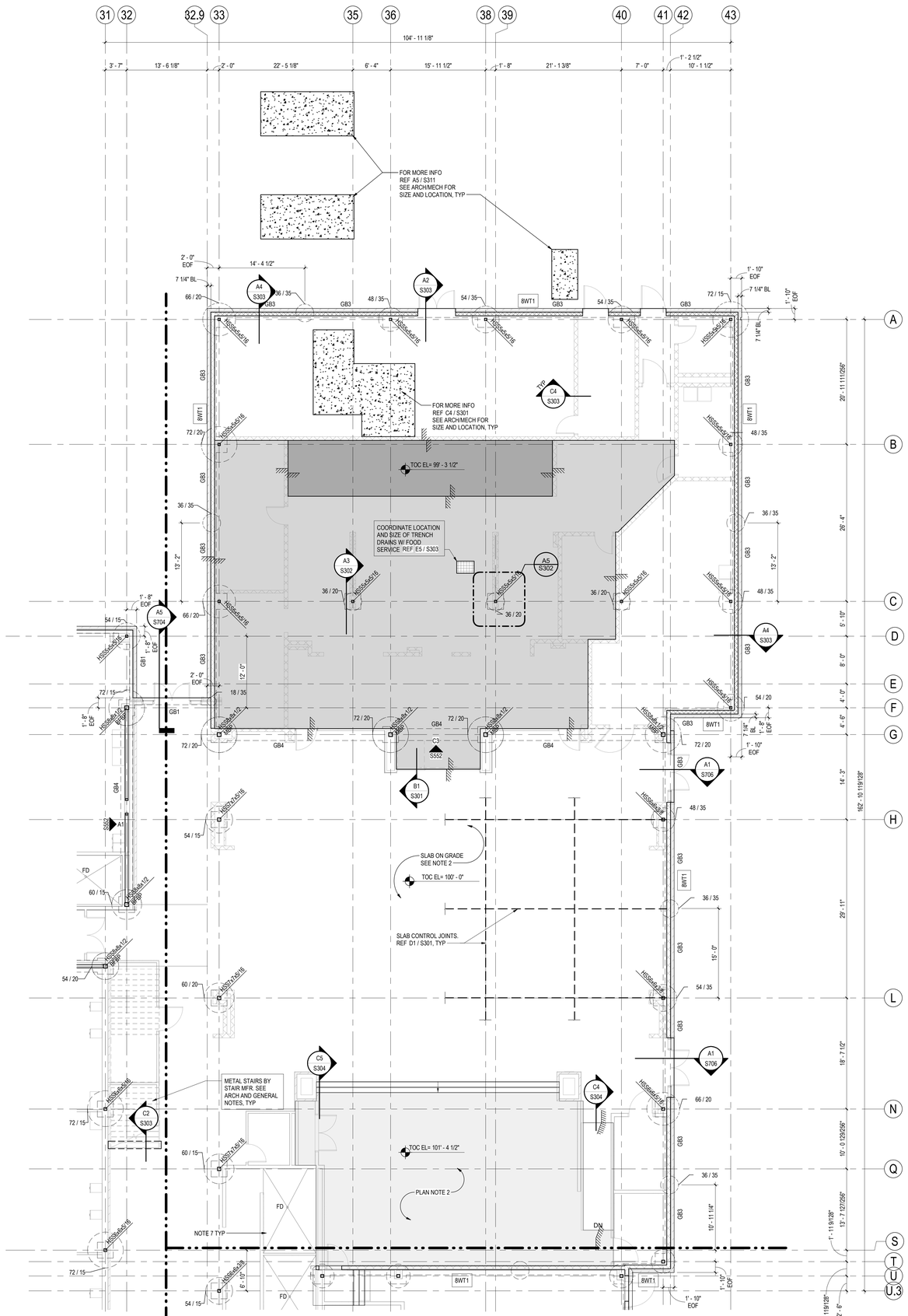
Project No.
214001269

Scale
As indicated

Revision
1

Drawing No.
S112

ORIGINAL SHEET - ARCH E1



1 S113 **LEVEL 1 FOUNDATION PLAN - AREA C**

1/8" = 1'-0"

PIER REINFORCING SCHEDULE

SHAFT DIA	DEPTH	VERT REINF	TIES
18	35' - 0"	(6) #7	#3 @ 14"
24	15' - 0"	(8) - #8	#3 @ 14"
24	35' - 0"	(8) - #8	#3 @ 14"
30	35' - 0"	(8) - #8	#3 @ 14"
36	15' - 0"	(15) - #8	#3 @ 14"
36	20' - 0"	(15) - #8	#3 @ 14"
36	35' - 0"	(15) - #8	#3 @ 14"
42	20' - 0"	(20) - #8	#3 @ 14"
42	35' - 0"	(20) - #8	#3 @ 14"
48	15' - 0"	(20) - #9	#3 @ 14"
48	20' - 0"	(20) - #9	#3 @ 14"
48	35' - 0"	(20) - #9	#3 @ 14"
54	10' - 0"	(25) #9	#3 @ 14"
54	15' - 0"	(25) #9	#3 @ 14"
54	20' - 0"	(25) #9	#3 @ 14"
54	35' - 0"	(25) #9	#3 @ 14"
60	15' - 0"	(30) - #9	#3 @ 14"
60	20' - 0"	(30) - #9	#3 @ 14"
60	35' - 0"	(30) - #9	#3 @ 14"
66	20' - 0"	(30) - #10	#3 @ 14"
66	35' - 0"	(30) - #10	#3 @ 14"
72	15' - 0"	(35) - #10	#3 @ 14"
72	20' - 0"	(35) - #10	#3 @ 14"

GRADE BEAM SCHEDULE

TYPE	WIDTH (IN)	DEPTH (IN)	TOP BARS	BOT BARS	STIRRUPS	COMMENTS
GB1	1' - 2"	2' - 6"	(3) #8	(3) #8	#4 AT 12" OC	
GB2	1' - 2"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB3	1' - 6"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB4	2' - 0"	3' - 0"	(6) #8	(6) #8	#4 AT 12" OC	#4 4-LEGGED STIRRUPS @ 8" OC, 5'-0" FROM FACE OF EACH SUPPORT

SLAB-ON-GRADE (SOG) PLAN NOTES

1. REFERENCE ELEVATION 100' - 0" CORRESPONDS TO CIVIL ELEVATION 94.70', UNO. VERIFY WITH CIVIL.
2. SLAB-ON-GRADE SHALL BE FIVE (5) INCHES THICK W/ #4 BARS AT 16" OC EACH WAY, UNO.
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7. SLOPE ALL BATHROOM AND SHOWER FLOOR SLABS TO DRAINS WHERE REQUIRED. SEE ARCHITECTURAL AND PLUMBING DWGS.
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FOUNDATION PLAN NOTES (DRILLED & UNDER-REAMED PIERS)

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13. CENTER GRADE BEAMS AND THICKENED SLABS BELOW INTERIOR WALLS WHERE SHOWN UNO.
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15. TOP OF PIER = BOTTOM OF GRADE BEAM, UNO.
16. REF D3 / S301 FOR TYPICAL DETAIL OF PENETRATIONS THROUGH GRADE BEAMS.
17. REF A4 / S301 FOR COLUMN BASE PLATES.
    BASE PLATE TYPE MARKS ON PLAN:
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    B. VERIFY QUANTITY AND LOCATION OF GUIDE RAILS IF REQUIRED.

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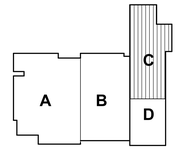
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025

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2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

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Elementary School No 23

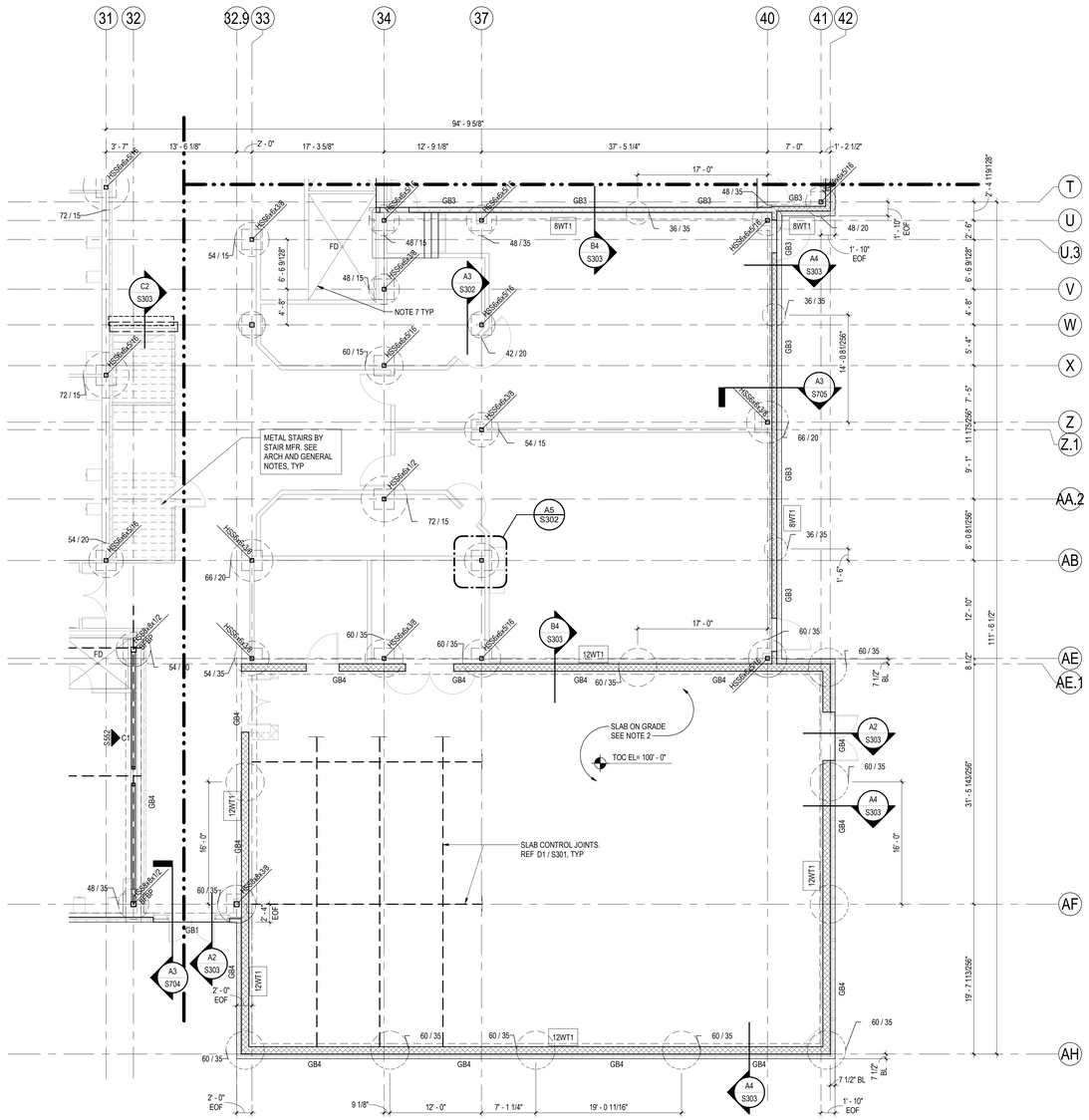
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Title
LEVEL 1 FOUNDATION PLAN - AREA C

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	**S113**

<Pick location in Project Information>
8/11/2025 10:05:42 PM

ORIGINAL SHEET - ARCH E1



1 S114

LEVEL 1 FOUNDATION PLAN - AREA D

1/8" = 1'-0"

PIER REINFORCING SCHEDULE			
SHAFT DIA	DEPTH	VERT REINF	TIES
18	35' - 0"	(6) #7	#3 @ 14"
24	15' - 0"	(8) - #8	#3 @ 14"
24	35' - 0"	(8) - #8	#3 @ 14"
30	35' - 0"	(8) - #8	#3 @ 14"
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48	15' - 0"	(20) - #9	#3 @ 14"
48	20' - 0"	(20) - #9	#3 @ 14"
48	35' - 0"	(20) - #9	#3 @ 14"
54	10' - 0"	(25) #9	#3 @ 14"
54	15' - 0"	(25) #9	#3 @ 14"
54	20' - 0"	(25) #9	#3 @ 14"
54	35' - 0"	(25) #9	#3 @ 14"
60	15' - 0"	(30) - #9	#3 @ 14"
60	20' - 0"	(30) - #9	#3 @ 14"
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66	20' - 0"	(30) - #10	#3 @ 14"
66	35' - 0"	(30) - #10	#3 @ 14"
72	15' - 0"	(35) - #10	#3 @ 14"
72	20' - 0"	(35) - #10	#3 @ 14"

GRADE BEAM SCHEDULE						
TYPE	WIDTH (IN)	DEPTH (IN)	TOP BARS	BOT BARS	STIRRUPS	COMMENTS
GB1	1' - 2"	2' - 6"	(3) #8	(3) #8	#4 AT 12" OC	
GB2	1' - 2"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB3	1' - 6"	2' - 6"	(3) #9	(3) #9	#4 AT 12" OC	
GB4	2' - 0"	3' - 0"	(6) #8	(6) #8	#4 AT 12" OC	#4 4-LEGGED STIRRUPS @ 8" OC, 5'-0" FROM FACE OF EACH SUPPORT

SLAB-ON-GRADE (SOG) PLAN NOTES

1. REFERENCE ELEVATION 100' - 0" CORRESPONDS TO CIVIL ELEVATION 94.70', UNO. VERIFY WITH CIVIL.
2. SLAB-ON-GRADE SHALL BE FIVE (5) INCHES THICK W/ #4 BARS AT 16" OC EACH WAY, UNO.
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1 SHEET REVISED

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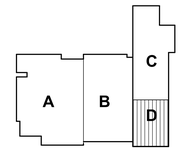
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Permit/Seal



Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

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Title
LEVEL 1 FOUNDATION PLAN - AREA D

Project No.
214001269

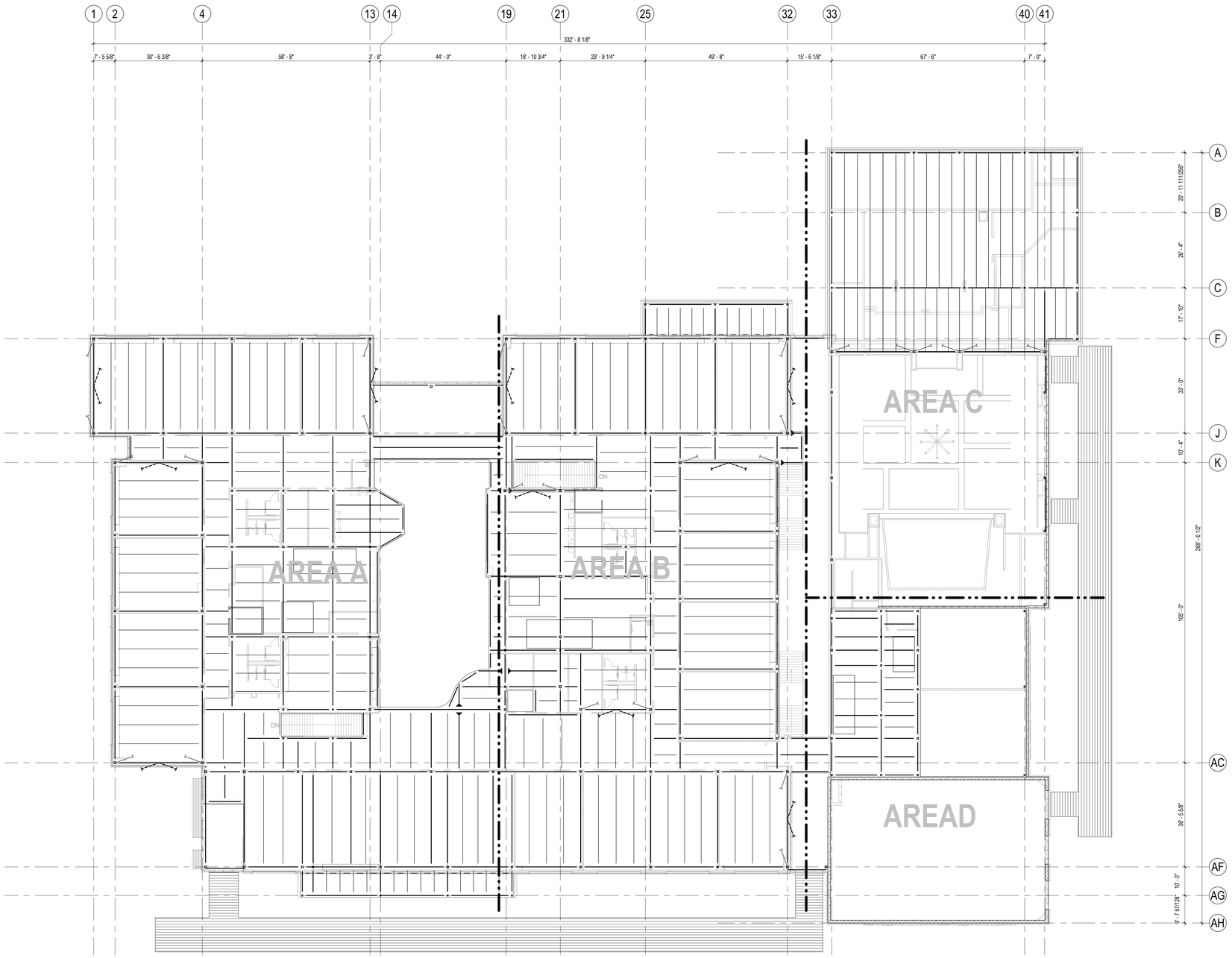
Scale
As indicated

Revision
1

Drawing No.
S114

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9/11/2025 10:02:44 PM

ORIGINAL SHEET - ARCH E1



1 S120 **LEVEL 2 COMPOSITE FLOOR FRAMING PLAN**

1/16" = 1'-0"

SHEET REVISED

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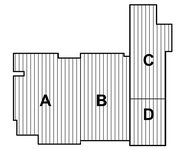
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	BIDDING DOCUMENTS			09.01.2025
	FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd	YYYY.MM.DD

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Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
LEVEL 2 COMPOSITE FLOOR FRAMING PLAN

Project No.
214001269

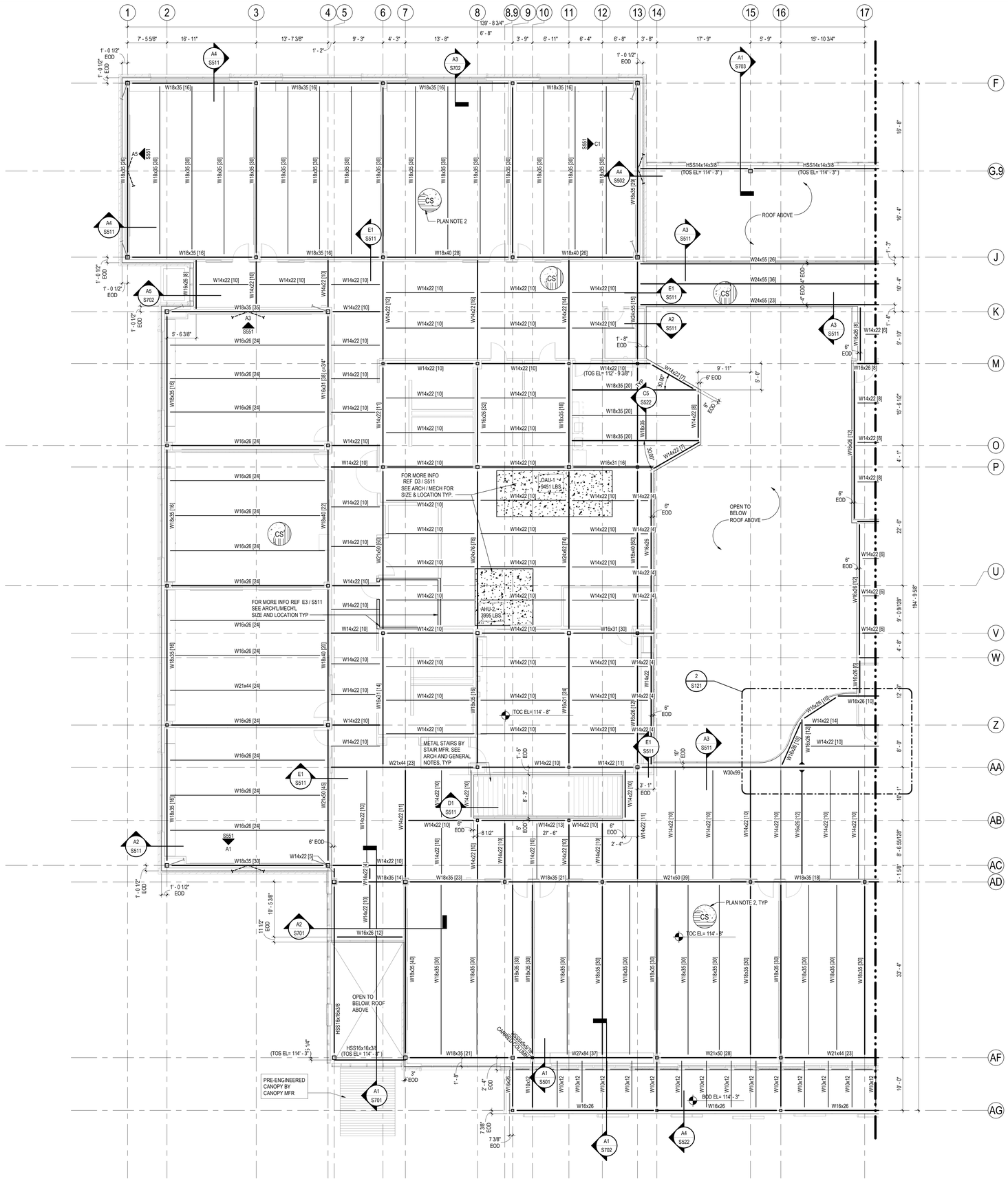
Scale
1/16" = 1'-0"

Revision
1

Drawing No.
S120

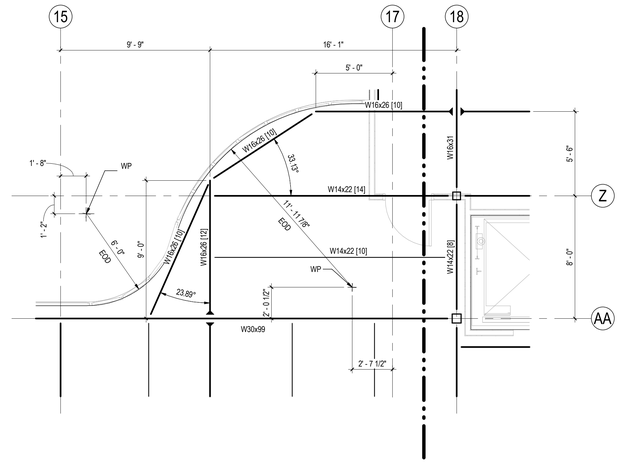
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ORIGINAL SHEET - ARCH E1



1 S121 LEVEL 2 FLOOR FRAMING PLAN - AREA A

1/8" = 1'-0"



2 S121 ENLARGED PLAN AT ATRIUM

1/4" = 1'-0"

ELEVATED FLOOR FRAMING PLAN NOTES - COMPOSITE SLAB/BEAM:

1. TOP OF CONCRETE ELEVATION = SEE PLAN. (TOP OF STRUCTURAL STEEL = BOTTOM OF DECK.)
2. FLOOR SLAB
   A. UNLESS NOTED OTHERWISE, PROVIDE 3.5 INCHES OF NORMAL WEIGHT CONCRETE OVER 1.5 INCH COMPOSITE METAL DECK . (5 INCH TOTAL SLAB THICKNESS.) SEE GENERAL NOTES FOR CONCRETE, METAL DECK PROPERTIES, AND ATTACHMENT TO STRUCTURE.
   B. REINFORCE CONCRETE SLABS WITH #3 @16" O.C. EA. WAY UNLESS NOTED OTHERWISE.
      a. SEE S511 FOR OTHER REINFORCING REQUIREMENTS.
3. FLOOR PENETRATIONS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION WITH ALL TRADES PRIOR TO CONSTRUCTION OR FABRICATION. SEE D4/S511 FOR TYPICAL SLAB OPENING DETAIL.
4. SPACE BEAMS EQUALLY BETWEEN COLUMNS UNO.

SHEET REVISED

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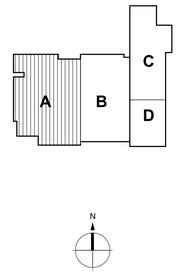
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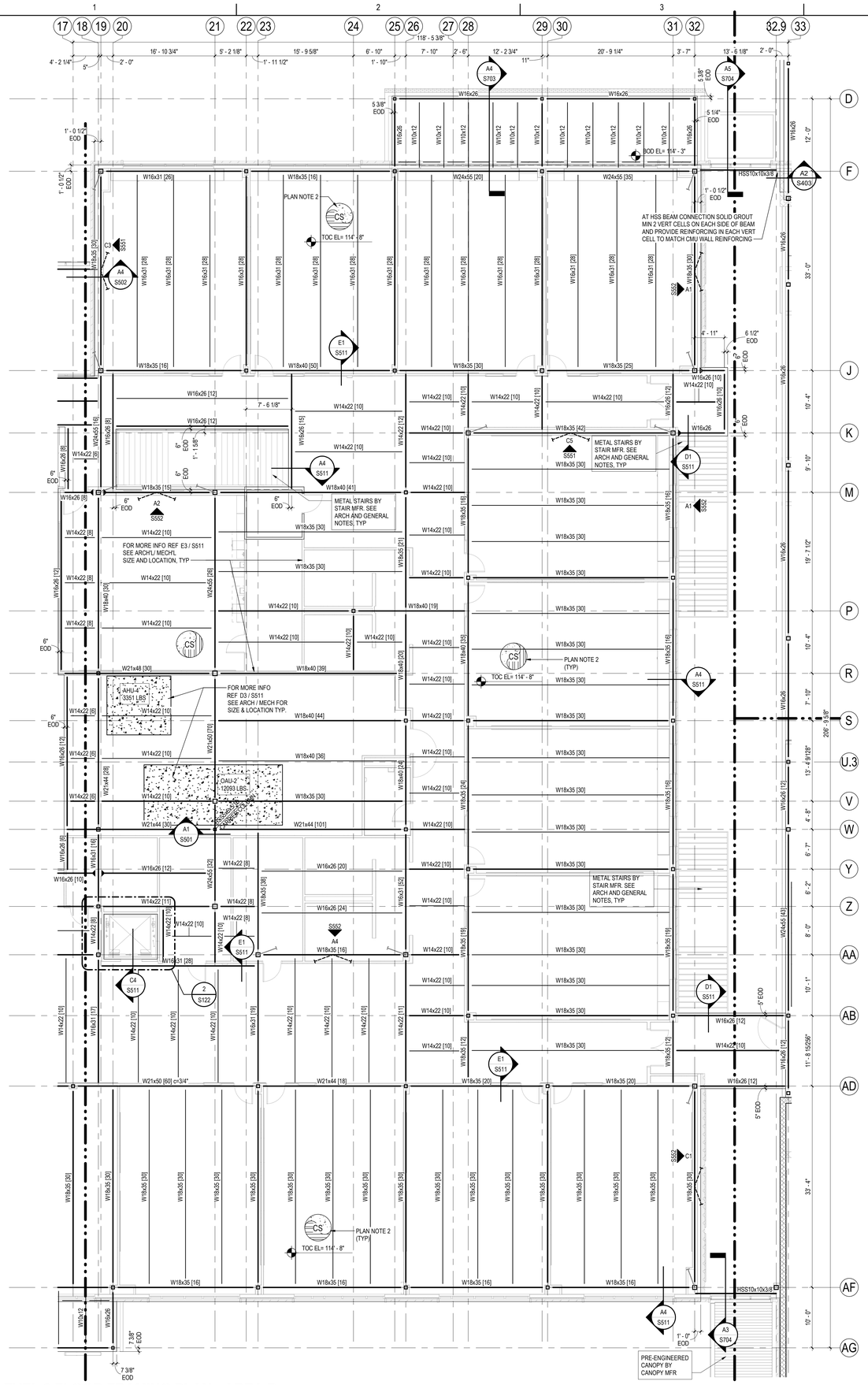
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IOWA COLONY, TEXAS 77583

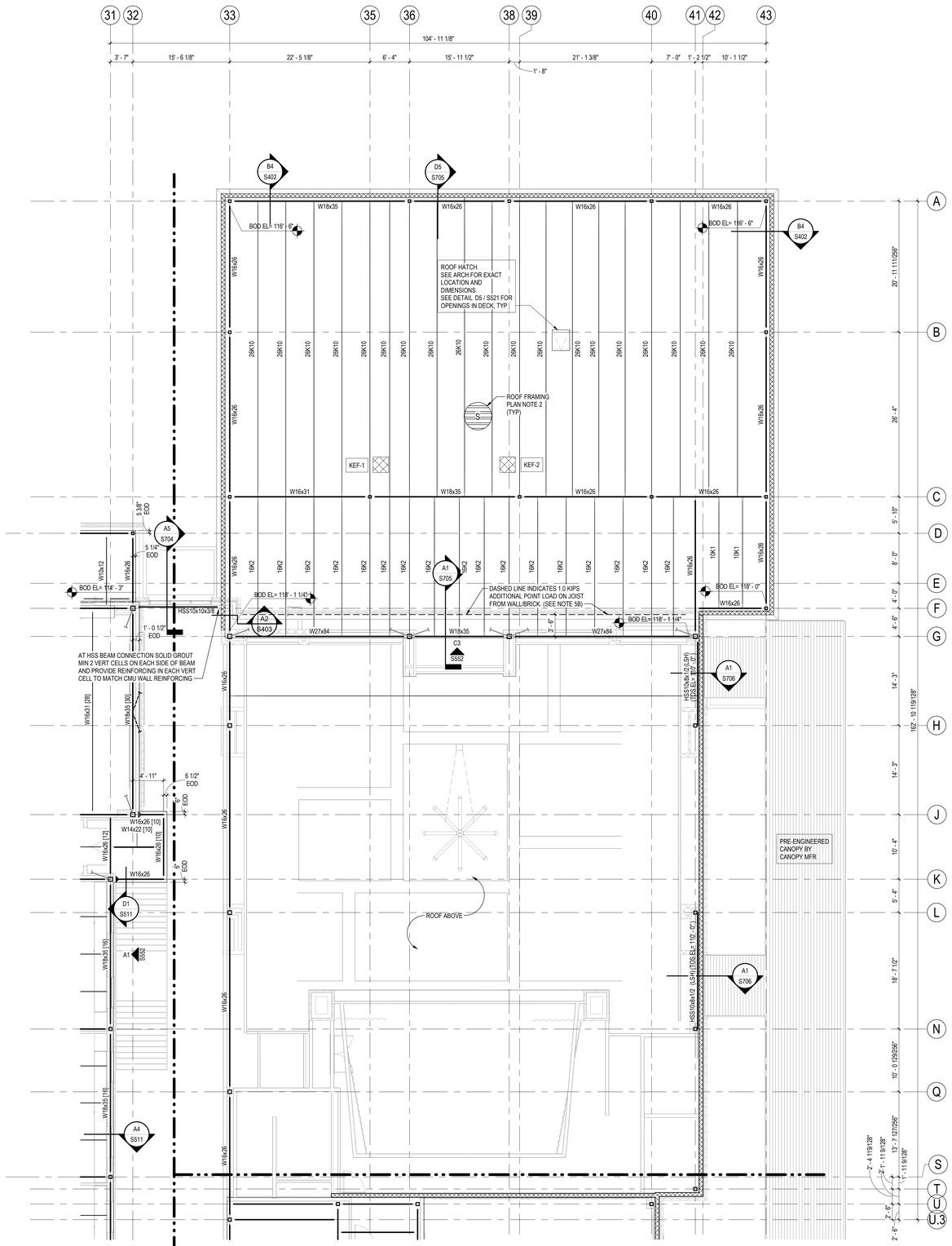
Title
LEVEL 2 FLOOR FRAMING PLAN - AREA A

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	S121

<Plot Number in Project Information>
11/11/2025 10:03:53 PM

ORIGINAL SHEET - ARCH E1


17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 32.9 33
118' - 5 3/8"
4' - 2 1/4"
16' - 10 3/4"
5' - 2 1/8"
15' - 9 5/8"
6' - 10"
7' - 10"
2' - 6"
12' - 2 3/4"
20' - 9 1/4"
3' - 7"
13' - 6 1/8"
2' - 0"
D
F
J
K
M
P
R
S
U.3
V
W
Y
Z
AA
AB
AD
AF
AG
W16x26
W16x12
W18x35 [16]
W24x55 [20]
W24x55 [35]
HSS10x10x3/8
W16x31 [26]
W16x31 [28]
W18x40 [50]
W18x35 [30]
W18x35 [25]
W14x22 [10]
W16x26 [12]
W18x35 [30]
W18x40 [41]
W18x40 [39]
W18x40 [44]
W18x40 [36]
W18x35 [16]
W21x48 [30]
W21x44 [28]
W21x44 [101]
W21x50 [60] c=3/4"
W21x44 [18]
W18x35 [20]
W16x26 [10]
W16x26 [8]
W14x22 [8]
W14x22 [11]
W16x31 [19]
W16x31 [16]
W16x26 [15]
W16x26 [20]
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W16x31 [32]
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W24x55 [26]
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W24x55 [40]
W21x50 [70]
W16x26 [8]
W16x31 [28]
W14x22 [8]
W14x22 [10]
W14x22 [11]
W18x35 [30]
W18x35 [16]
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W18x35 [16]
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W18x35 [30]
W18x35 [30



1 S123 **LEVEL 2 FLOOR FRAMING PLAN - AREA C**

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. TOP OF STEEL= BOTTOM OF DECK ELEVATION= SEE PLAN.
2. ROOF DECK IS 1.0CSV-36 20G DECK TYPICAL.
   A. ROOF DECK IN HATCHED AREA ▭ IS TORIS 5.5A. SEE GENERAL NOTES.
3. REFER TO ARCHITECTURAL AND MEP FOR LOCATIONS OF ROOF AND OVERFLOW DRAINS, OTHER OPENINGS, ROOFING, AND TAPERED INSULATION.
4. JOISTS OR BEAMS SPACED EQUALLY BETWEEN COLUMNS UNO.
5. OPEN WEB STEEL JOISTS
   A. K-JOIST SEAT DEPTH SHALL BE 2.5" AND LH/DLH-JOIST SEAT DEPTH SHALL BE 5" UNO.
   B. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS FOR ADDITIONAL ROOF LOADS SHOWN ON PLAN OR DETAILS AND SUBMIT TO ENGINEER FOR REVIEW DURING SHOP DRAWING STAGE.
   C. ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED FOR A UPLIFT LOAD SHOWN ON S021.
   D. ROOF JOISTS MAY BE OFFSET NO MORE THAN SIX (6) INCHES TO MEET MINIMUM BEARING REQUIREMENTS.
   E. ROOFTOP EQUIPMENT AND PENETRATIONS HAVE BEEN SHOWN FOR JOIST LOADING AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL VERIFY FINAL LOADS, SUPPORT REQUIREMENTS FOR EQUIPMENT AND PENETRATION SIZE AND LOCATION WITH ALL TRADES. ANY SUBSEQUENT SUPPORT FRAMING NOT SHOWN IN THE STRUCTURAL DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND COMMENT.
   F. REFER TO MECHANICAL DRAWINGS FOR CONDITIONS WHERE DUCTWORK RUNS ARE ABOVE BOTTOM OF JOIST CHORD. SEE GENERAL NOTES FOR BRIDGING ADJUSTMENTS.
6. BOTTOM FLANGE RACING FOR ALL BEAMS SHALL BE PROVIDED AT 12' - 0" O.C. MAX UNO. SEE DETAIL A1/SS21.

ELEVATOR NOTES:

A. ALL ELEVATOR HOIST BEAM ELEVATIONS, QUANTITY, AND LOCATION SHALL BE COORDINATED WITH ELEVATOR MANUFACTURER PRIOR TO FABRICATION AND CONSTRUCTION.

ELEVATED FLOOR FRAMING PLAN NOTES - COMPOSITE SLAB/BEAM:

1. TOP OF CONCRETE ELEVATION = SEE PLAN. (TOP OF STRUCTURAL STEEL = BOTTOM OF DECK.)
2. FLOOR SLAB
   A. UNLESS NOTED OTHERWISE, PROVIDE 3.5 INCHES OF NORMAL WEIGHT CONCRETE OVER 1.5 INCH COMPOSITE METAL DECK . (5 INCH TOTAL SLAB THICKNESS.) SEE GENERAL NOTES FOR CONCRETE, METAL DECK PROPERTIES, AND ATTACHMENT TO STRUCTURE.
   B. REINFORCE CONCRETE SLABS WITH #3 @16" O.C. EA. WAY UNLESS NOTED OTHERWISE.
      a. SEE SS11 FOR OTHER REINFORCING REQUIREMENTS.
3. FLOOR PENETRATIONS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION WITH ALL TRADES PRIOR TO CONSTRUCTION OR FABRICATION. SEE D4/SS11 FOR TYPICAL SLAB OPENING DETAIL.
4. SPACE BEAMS EQUALLY BETWEEN COLUMNS UNO.

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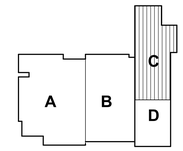
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Texas Firm Registration No. F-13678

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Client/Project
ALVIN ISD

Elementary School No 23

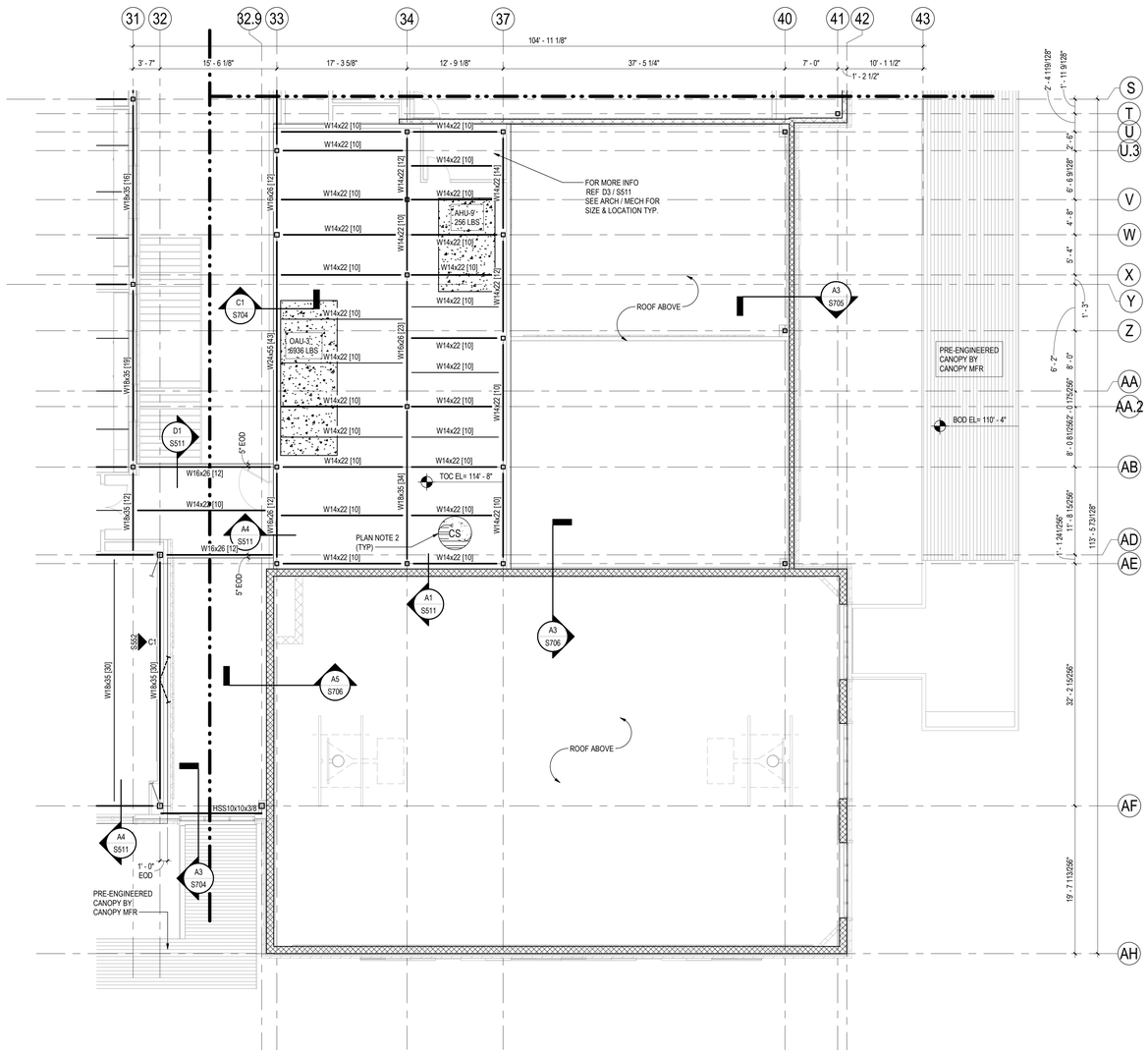
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Title
LEVEL 2 FLOOR FRAMING PLAN - AREA C

Project No.	Scale
214001269	As indicated
Revision	**Drawing No.**
1	**S123**

eDrx location in Project Information
4/11/2025 10:53:02 PM

ORIGINAL SHEET - ARCH E1



1 S124 **LEVEL 2 FLOOR FRAMING PLAN - AREA D**

1/8" = 1'-0"

ELEVATED FLOOR FRAMING PLAN NOTES - COMPOSITE SLAB/BEAM:

1. TOP OF CONCRETE ELEVATION = SEE PLAN. (TOP OF STRUCTURAL STEEL = BOTTOM OF DECK.)
2. FLOOR SLAB
   A. UNLESS NOTED OTHERWISE, PROVIDE 3.5 INCHES OF NORMAL WEIGHT CONCRETE OVER 1.5 INCH COMPOSITE METAL DECK . (5 INCH TOTAL SLAB THICKNESS.) SEE GENERAL NOTES FOR CONCRETE, METAL DECK,PROPERTIES, AND ATTACHMENT TO STRUCTURE.
   B. REINFORCE CONCRETE SLABS WITH #3 @16" O.C. EA. WAY UNLESS NOTED OTHERWISE.
      a. SEE SS11 FOR OTHER REINFORCING REQUIREMENTS.
3. FLOOR PENETRATIONS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION WITH ALL TRADES PRIOR TO CONSTRUCTION OR FABRICATION. SEE D4/SS11 FOR TYPICAL SLAB OPENING DETAIL.
4. SPACE BEAMS EQUALLY BETWEEN COLUMNS UNO.

1 SHEET REVISED

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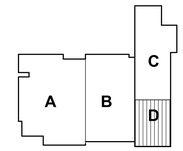
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2025.09.11

Texas Firm Registration No. F-13679

Client/Project Logo

Client/Project
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Elementary School No 23

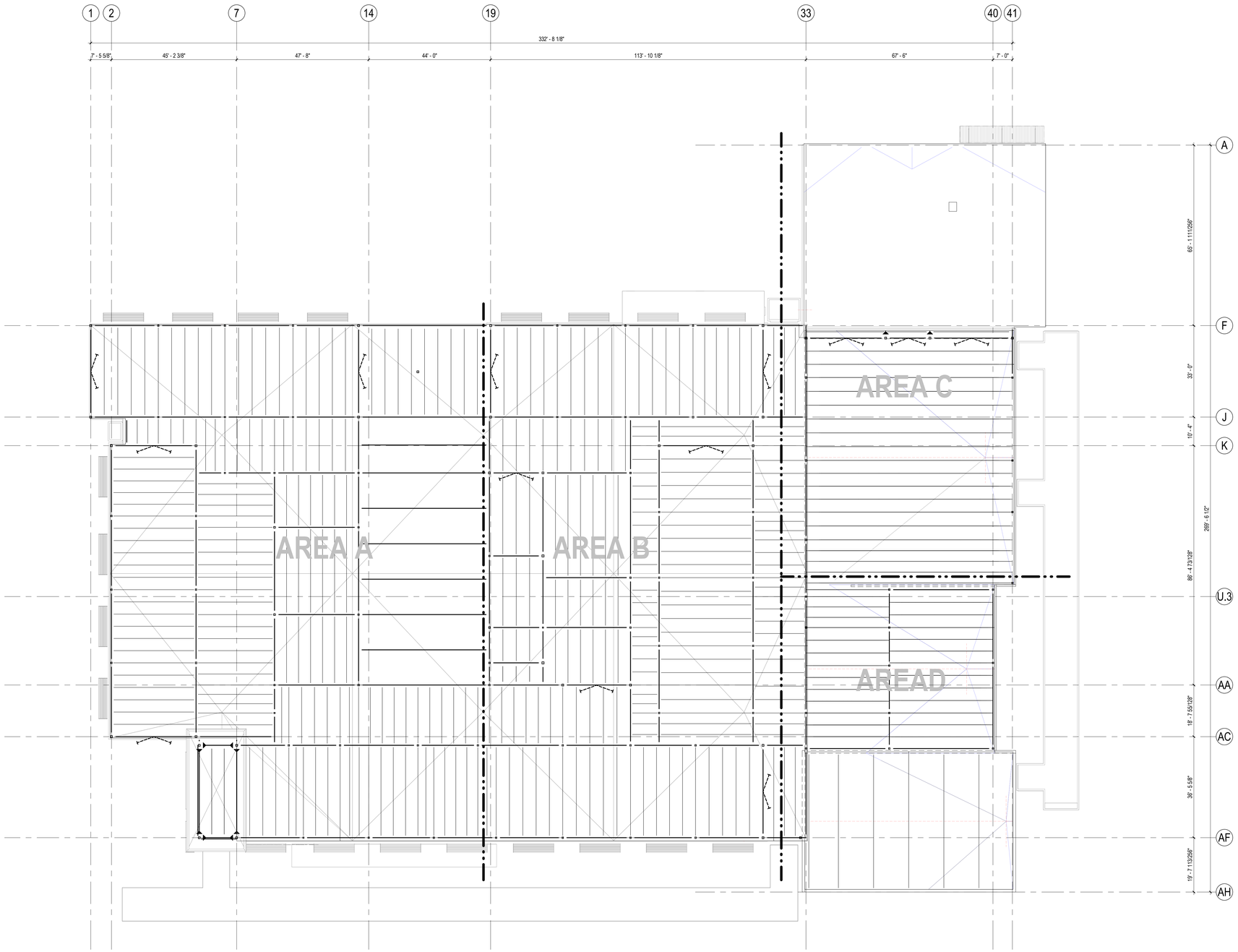
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Title
LEVEL 2 FLOOR FRAMING PLAN - AREA D

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	**S124**

•Pick location in Project Information•
9/11/2025 10:03:04 PM

ORIGINAL SHEET - ARCH E1



1 S130 **COMPOSITE ROOF FRAMING PLAN**

1/16" = 1'-0"

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STATE OF TEXAS
BRITNEY R. WEIDERT
132068
LICENSED
PROFESSIONAL ENGINEER
2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
COMPOSITE ROOF FRAMING PLAN

Project No.
214001269

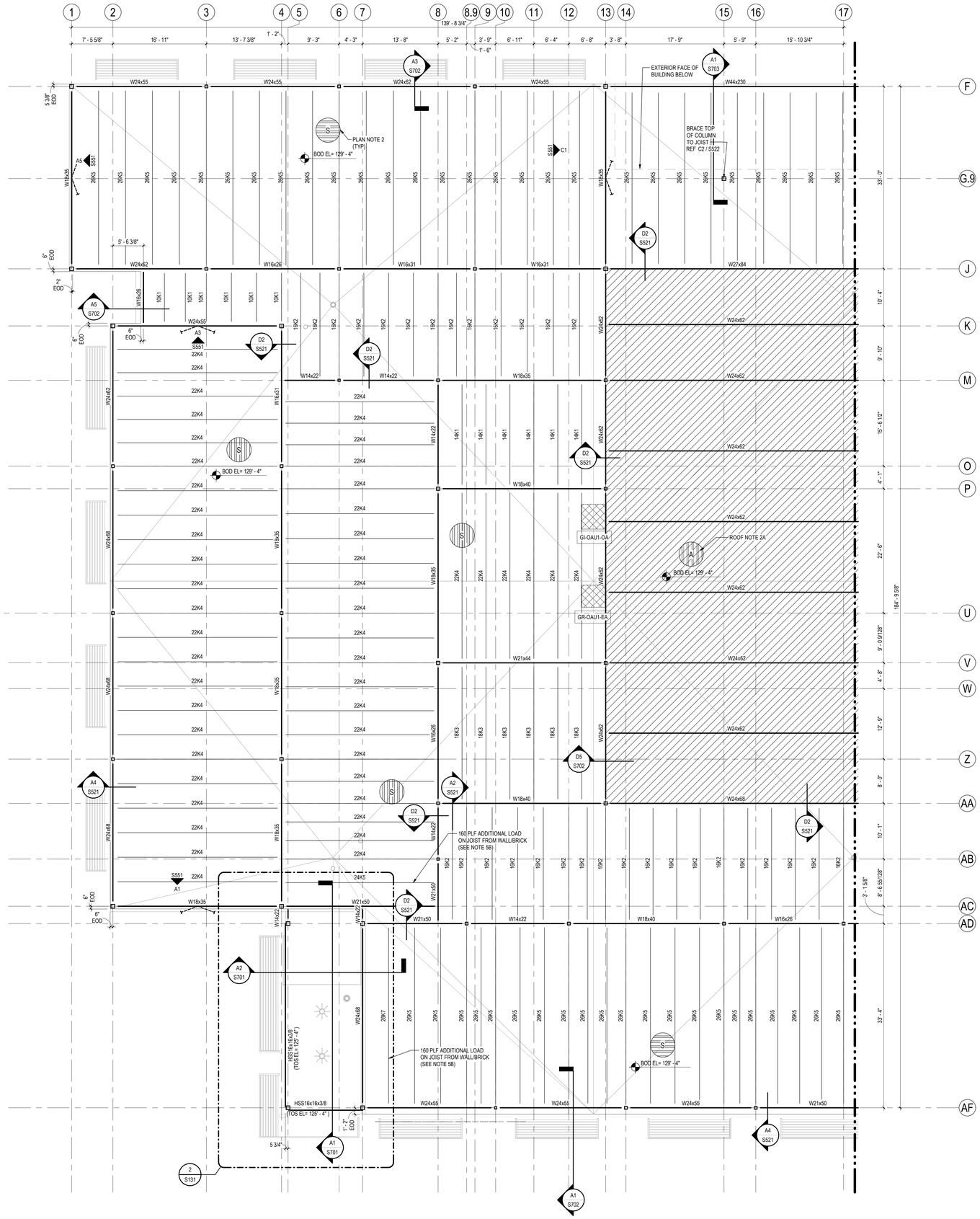
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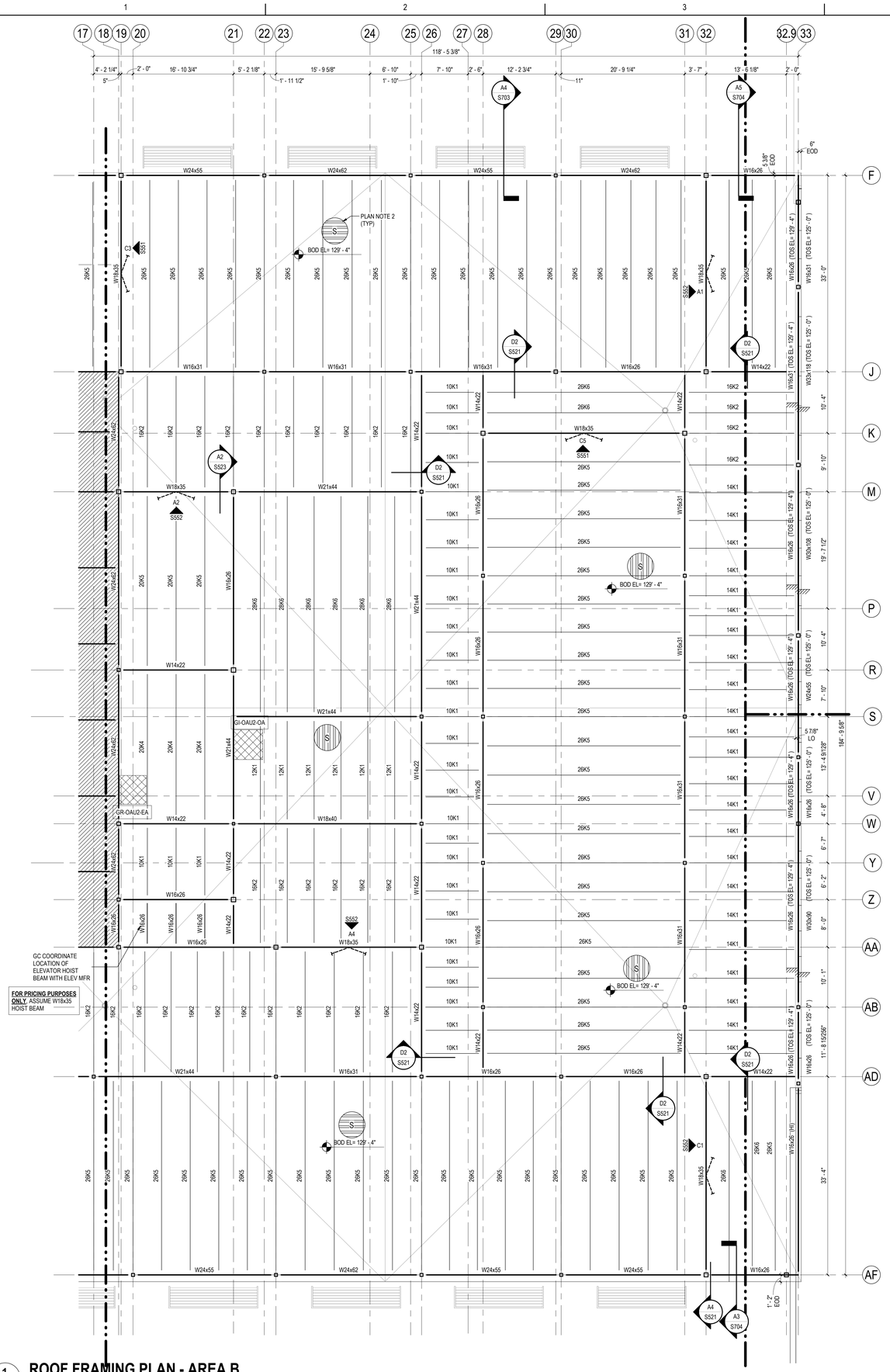
Revision
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Drawing No.
S130

<Pic location in Project Information>
9/11/2025 10:03:04 PM

ORIGINAL SHEET - ARCH E1


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139' - 8 3/4"
7' - 5 5/8"
16' - 11"
13' - 7 3/8"
1' - 2"
9' - 3"
4' - 3"
13' - 8"
5' - 2"
3' - 9"
1' - 6"
6' - 11"
6' - 4"
6' - 8"
3' - 8"
17' - 9"
5' - 9"
15' - 10 3/4"
F
G.9
J
K
M
O
P
U
V
W
Z
AA
AB
AC
AD
AF
33' - 0"
10' - 4"
9' - 10"
15' - 6 1/2"
4' - 1"
22' - 6"
184' - 9 5/8"
9' - 0 9/128"
4' - 8"
12' - 9"
8' - 0"
10' - 1"
3' - 1 5/8"
8' - 6 55/128"
33' - 4"
EXTERIOR FACE OF BUILDING BELOW
BRACE TOP OF COLUMN TO JOIST H REF C2 / SS22
PLAN NOTE 2 (TYP)
BOD EL= 129' - 4"
ROOF NOTE 2A
GI-OAU1-OA
GR-OAU1-EA
160 PLF ADDITIONAL LOAD ON JOIST FROM WALL/BRICK (SEE NOTE 5B)
HSS16x16x3/8 (TOS EL= 125' - 4")
W24x55
W24x62
W16x26
W16x31
W18x35
W18x40
W14x22
W21x44
W21x50
W21x57
W24x68
W24x84
W10x68
W10x45
W10x49
W12x40
W12x45
W12x50
W12x53
W12x58
W12x65
W12x72
W12x79
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W12x96
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W12x19114720
W12x19132208
W12x19149712
W12x19167216
W12x19184736
W12x19202256
W12x19219792
W12x19237328
W12x19254880
W12x19272432
W12x19290000
W12x19307568
W12x19325152
W12x19342736
W12x19360336
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W12x19395552
W12x19413168
W12x19430800
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W12x19501392
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W12x19536736
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W12x19589808
W12x19607520
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W12x19678432
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W12x20196368
W12x



1 S132 **ROOF FRAMING PLAN - AREA B**

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES

1. TOP OF STEEL= BOTTOM OF DECK ELEVATION= SEE PLAN.
2. ROOF DECK IS 1.0CSV-36 20G DECK TYPICAL.
   A. ROOF DECK IN HATCHED AREA ▨ IS TORIS 5.5A. SEE GENERAL NOTES.
3. REFER TO ARCHITECTURAL AND MEP FOR LOCATIONS OF ROOF AND OVERFLOW DRAINS, OTHER OPENINGS, ROOFING, AND TAPERED INSULATION.
4. JOISTS OR BEAMS SPACED EQUALLY BETWEEN COLUMNS UNO.
5. OPEN WEB STEEL JOISTS
   A. K-JOIST SEAT DEPTH SHALL BE 2.5" AND LH/DLH-JOIST SEAT DEPTH SHALL BE 5" UNO.
   B. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS FOR ADDITIONAL ROOF LOADS SHOWN ON PLAN OR DETAILS AND SUBMIT TO ENGINEER FOR REVIEW DURING SHOP DRAWING STAGE.
   C. ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED FOR A UPLIFT LOAD SHOWN ON S021.
   D. ROOF JOISTS MAY BE OFFSET NO MORE THAN SIX (6) INCHES TO MEET MINIMUM BEARING REQUIREMENTS.
   E. ROOFTOP EQUIPMENT AND PENETRATIONS HAVE BEEN SHOWN FOR JOIST LOADING AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL VERIFY FINAL LOADS, SUPPORT REQUIREMENTS FOR EQUIPMENT AND PENETRATION SIZE AND LOCATION WITH ALL TRADES. ANY SUBSEQUENT SUPPORT FRAMING NOT SHOWN IN THE STRUCTURAL DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND COMMENT.
   F. REFER TO MECHANICAL DRAWINGS FOR CONDITIONS WHERE DUCTWORK RUNS ARE ABOVE BOTTOM OF JOIST CHORD. SEE GENERAL NOTES FOR BRIDGING ADJUSTMENTS.
6. BOTTOM FLANGE RACING FOR ALL BEAMS SHALL BE PROVIDED AT 12' - 0" O.C. MAX UNO. SEE DETAIL A1/S521.

ELEVATOR NOTES:

A. ALL ELEVATOR HOIST BEAM ELEVATIONS, QUANTITY, AND LOCATION SHALL BE COORDINATED WITH ELEVATOR MANUFACTURER PRIOR TO FABRICATION AND CONSTRUCTION.

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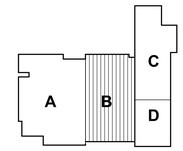
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Notes



Revision	By	Appd	
1 ADDENDUM #2			09.11.2025
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

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Title
ROOF FRAMING PLAN - AREA B

Project No.
214001269

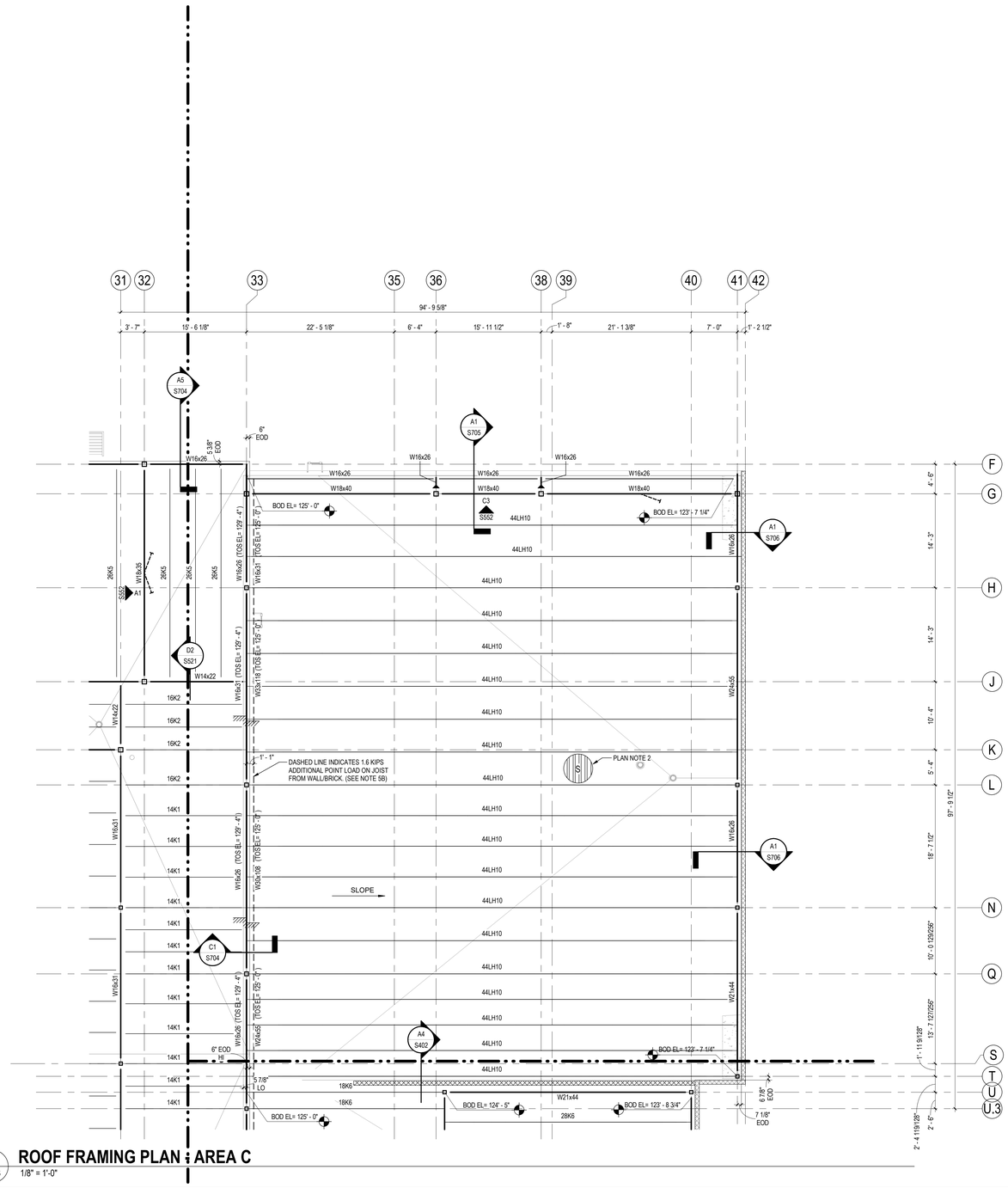
Scale
As indicated

Revision
1

Drawing No.
S132

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ORIGINAL SHEET - ARCH E1



1 S133 **ROOF FRAMING PLAN - AREA C**

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES

1. TOP OF STEEL= BOTTOM OF DECK ELEVATION= SEE PLAN.
2. ROOF DECK IS 1.0CSV-36 20G DECK TYPICAL.
   A. ROOF DECK IN HATCHED AREA ▨ IS TORIS 5.5A. SEE GENERAL NOTES.
3. REFER TO ARCHITECTURAL AND MEP FOR LOCATIONS OF ROOF AND OVERFLOW DRAINS, OTHER OPENINGS, ROOFING, AND TAPERED INSULATION.
4. JOISTS OR BEAMS SPACED EQUALLY BETWEEN COLUMNS UNO.
5. OPEN WEB STEEL JOISTS
   A. K-JOIST SEAT DEPTH SHALL BE 2.5" AND LH/DLH-JOIST SEAT DEPTH SHALL BE 5" UNO.
   B. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS FOR ADDITIONAL ROOF LOADS SHOWN ON PLAN OR DETAILS AND SUBMIT TO ENGINEER FOR REVIEW DURING SHOP DRAWING STAGE.
   C. ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED FOR A UPLIFT LOAD SHOWN ON S021.
   D. ROOF JOISTS MAY BE OFFSET NO MORE THAN SIX (6) INCHES TO MEET MINIMUM BEARING REQUIREMENTS.
   E. ROOFTOP EQUIPMENT AND PENETRATIONS HAVE BEEN SHOWN FOR JOIST LOADING AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL VERIFY FINAL LOADS, SUPPORT REQUIREMENTS FOR EQUIPMENT AND PENETRATION SIZE AND LOCATION WITH ALL TRADES. ANY SUBSEQUENT SUPPORT FRAMING NOT SHOWN IN THE STRUCTURAL DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND COMMENT.
   F. REFER TO MECHANICAL DRAWINGS FOR CONDITIONS WHERE DUCTWORK RUNS ARE ABOVE BOTTOM OF JOIST CHORD. SEE GENERAL NOTES FOR BRIDGING ADJUSTMENTS.
6. BOTTOM FLANGE RACING FOR ALL BEAMS SHALL BE PROVIDED AT 12' - 0" O.C. MAX UNO. SEE DETAIL A1/SS21.

ELEVATOR NOTES:

A. ALL ELEVATOR HOIST BEAM ELEVATIONS, QUANTITY, AND LOCATION SHALL BE COORDINATED WITH ELEVATOR MANUFACTURER PRIOR TO FABRICATION AND CONSTRUCTION.

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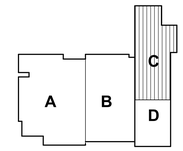
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal



Texas Firm Registration No. F-13678

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Client/Project
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Elementary School No 23

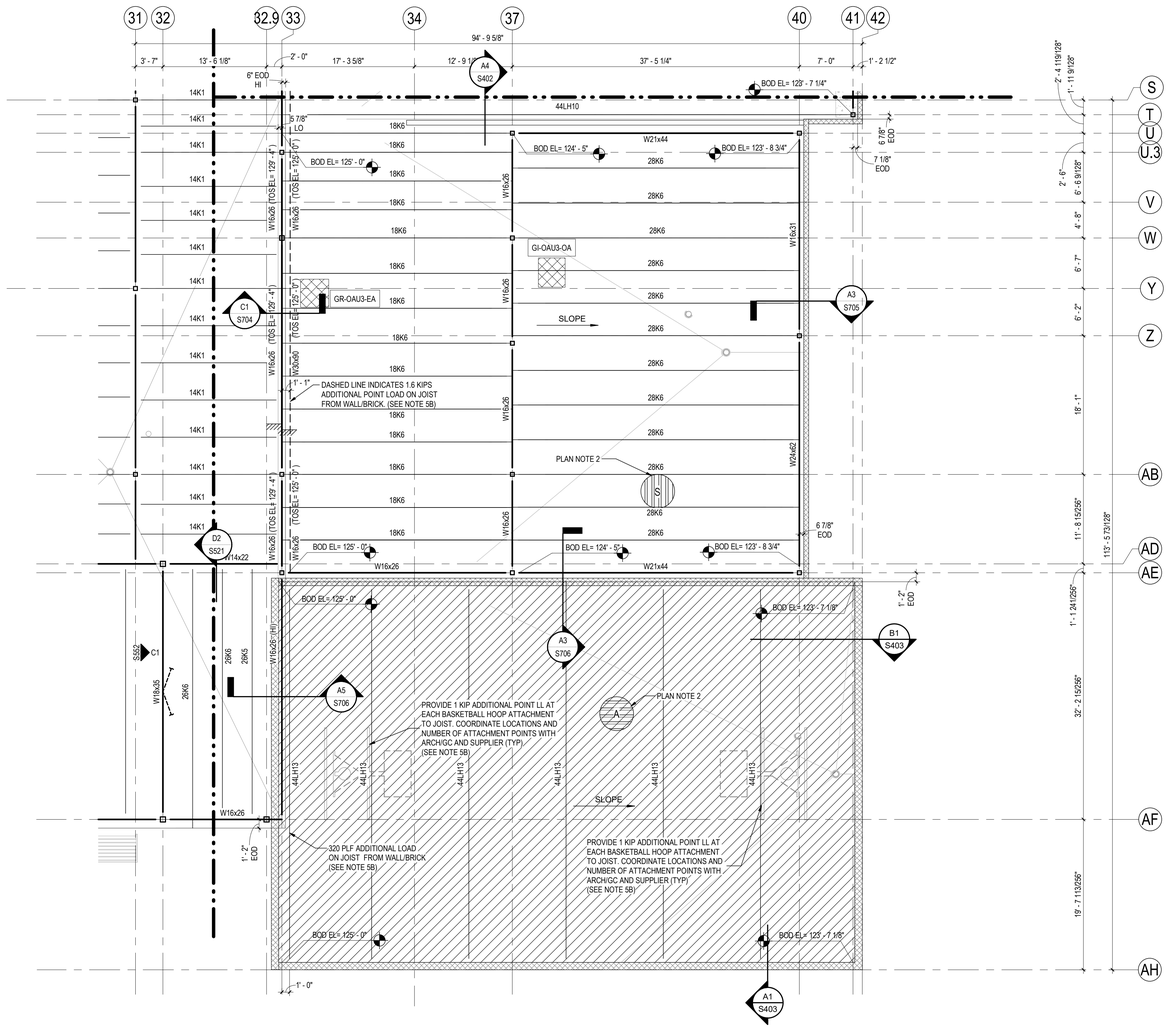
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Title
ROOF FRAMING PLAN - AREA C

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	S133

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ORIGINAL SHEET - ARCH E1



1 S134 **ROOF FRAMING PLAN - AREA D**

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. TOP OF STEEL= BOTTOM OF DECK ELEVATION= SEE PLAN.
2. ROOF DECK IS 1.0CSV-36 20G DECK TYPICAL.
   A. ROOF DECK IN HATCHED AREA ▱ IS TORIS 5.5A. SEE GENERAL NOTES.
3. REFER TO ARCHITECTURAL AND MEP FOR LOCATIONS OF ROOF AND OVERFLOW DRAINS, OTHER OPENINGS, ROOFING, AND TAPERED INSULATION.
4. JOISTS OR BEAMS SPACED EQUALLY BETWEEN COLUMNS UNO.
5. OPEN WEB STEEL JOISTS
   A. K-JOIST SEAT DEPTH SHALL BE 2.5" AND LH/DLH-JOIST SEAT DEPTH SHALL BE 5" UNO.
   B. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS FOR ADDITIONAL ROOF LOADS SHOWN ON PLAN OR DETAILS AND SUBMIT TO ENGINEER FOR REVIEW DURING SHOP DRAWING STAGE.
   C. ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED FOR A UPLIFT LOAD SHOWN ON S021.
   D. ROOF JOISTS MAY BE OFFSET NO MORE THAN SIX (6) INCHES TO MEET MINIMUM BEARING REQUIREMENTS.
   E. ROOFTOP EQUIPMENT AND PENETRATIONS HAVE BEEN SHOWN FOR JOIST LOADING AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL VERIFY FINAL LOADS, SUPPORT REQUIREMENTS FOR EQUIPMENT AND PENETRATION SIZE AND LOCATION WITH ALL TRADES. ANY SUBSEQUENT SUPPORT FRAMING NOT SHOWN IN THE STRUCTURAL DOCUMENTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND COMMENT.
   F. REFER TO MECHANICAL DRAWINGS FOR CONDITIONS WHERE DUCTWORK RUNS ARE ABOVE BOTTOM OF JOIST CHORD. SEE GENERAL NOTES FOR BRIDGING ADJUSTMENTS.
6. BOTTOM FLANGE RACING FOR ALL BEAMS SHALL BE PROVIDED AT 12' - 0" O.C. MAX UNO. SEE DETAIL A1/S521.

ELEVATOR NOTES:

A. ALL ELEVATOR HOIST BEAM ELEVATIONS, QUANTITY, AND LOCATION SHALL BE COORDINATED WITH ELEVATOR MANUFACTURER PRIOR TO FABRICATION AND CONSTRUCTION.

1 SHEET REVISED

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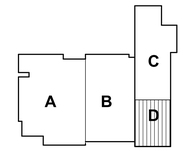
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1 ADDENDUM #2			09.11.2025
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BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

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ALVIN ISD

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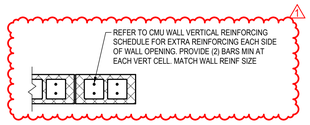
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Title
ROOF FRAMING PLAN - AREA D

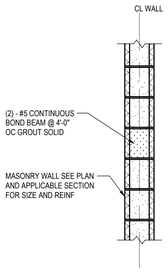
Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	**S134**

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ORIGINAL SHEET - ARCH E1

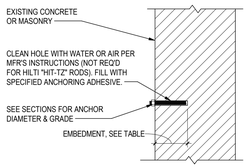


D1 TYPICAL JAMB
S401 — 3/4" = 1'-0"



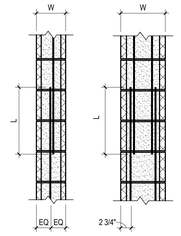
D2 TYP HORIZ BOND BEAM IN MASONRY WALL
S401 — 3/4" = 1'-0"

ANCHOR INSTALLATION INFORMATION				
	POST-INSTALLED ANCHOR TYPE	ANCHOR DIAMETER		
		1/2"	5/8"	3/4"
EMBEDMENT (INCHES)	ADHESIVES	4 1/4"	5 1/2"	6 3/4"
	SCREEN TUBES	SEE NOTE 9		
	MECHANICAL	3 1/2"	4"	4 3/4"
DRILL BIT DIAMETER	ADHESIVES	9/16"	11/16"	13/16"
	SCREEN TUBES	11/16"	7/8"	1"
	MECHANICAL	1/2"	5/8"	3/4"



NOTES:
1. SEE GENERAL NOTES AND SPECS FOR ANCHOR REQUIREMENTS.
2. LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE OR CMU USING NON-DESTRUCTIVE METHODS AND POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS WITH EXISTING REINFORCING. DO NOT DAMAGE EXISTING REINFORCING DURING THE DRILLING PROCESS. ANCHOR LOCATIONS CAN BE ADJUSTED BY A MAXIMUM OF 1 1/2" FROM DETAILED LOCATIONS TO AVOID CONFLICTS WITH AS-BUILT CONDITIONS. UNO.
3. BASED ON FIELD VERIFIED LOCATIONS OF REINFORINGIN STEEL AND EMBEDDED ITEMS, CONTRACTOR SHALL CREATE TEMPLATES FOR EACH ANCHOR GROUP FOR FABRICATION OF ANCHORED ITEM.
4. INSTALL ANCHORS PER MANUFACTURER RECOMMENDATIONS. LIMIT THE TORQUE OF TIGHENING WRENCHES TO THE MAXIMUM ALLOWABLE PER THE MANUFACTURER'S RECOMMENDATIONS.
5. ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.
6. HOLES IN CONNECTION PLATES SHALL BE NO MORE THAT 1/16" LARGER THAN THE ANCHOR DIAMETER. IF LARGER HOLES ARE REQUIRED FOR ERECTION PURPOSES, PROVIDE 1/4"X3"X3" PLATE WASHERS CONTINUOSLY WELDED TO THE CONNECTION PLATE.
7. 2" FOR HILTI HIT-HY 20 – PER MFR RECOMMENDATIONS
   3" FOR SIMPSON TITEN HD – PER MFR RECOMMENDATIONS

D4 TYP POST INSTALLED ANCHORS IN CMU
S401 — 3/4" = 1'-0"

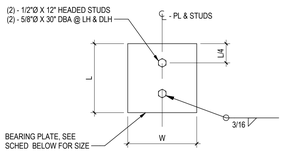


1 VERTICAL BAR **2 VERTICAL BAR**

LAP LENGTH "L" (INCHES) FOR F'm = 2000 PSI							
BAR SIZE	NOMINAL CMU WIDTH "W"						
	16"		12"		8"		6"
	1 BAR	2 BAR	1 BAR	2 BAR	1 BAR	2 BAR	1 BAR
#3	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
#4	1'-0"	1'-8"	1'-0"	1'-8"	1'-0"	1'-8"	1'-4"
#5	1'-1"	2'-9"	1'-1"	2'-9"	1'-6"	2'-9"	2'-0"
#6	1'-7"	5'-4"	1'-10"	5'-4"	2'-10"	5'-4"	3'-9"
#7	1'-11"	NOTE 2	2'-6"	NOTE 2	3'-10"	NOTE 2	5'-2"
#8	2'-10"	↓	3'-9"	↓	5'-9"	↓	—
#9	3'-7"	↓	4'-9"	↓	—	—	—

NOTES:
1. BARS SHALL BE SPACED W/ "DUR-O-WAL" VERTICAL BAR POSITIONER OR APPROVED EQUAL.
2. PROVIDE ONE OF THE FOLLOWING MECHANICAL SPLICES OR APPROVED EQUAL:
   A. ERICO "LENTON" COUPLER SYSTEM
   B. BARLOCK "S-SERIES" COUPLER SYSTEM
   C. RICHMOND "USIMC-SAE" COUPLERS SYSTEM
3. MECHANICAL COUPLERS MAY BE USED IN LIEU OF LAP SPLICES AT CONTRACTOR'S OPTION.

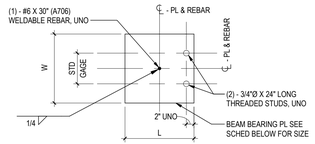
D5 TYP SPLICE DTL IN CMU
S401 — 3/4" = 1'-0"



PLAN VIEW

JOIST BEARING PLATE SCHEDULE				
JOIST SERIES	THICKNESS (IN)	MIN LENGTH L (IN)	W (IN)	REMARKS
K & KCS	3/8	8	6	
LH & DLH	1/2	12	11 1/2	
K & KCS (HEAD TO HEAD)	3/8	8	7 1/2 11 1/2	FOR 8" WALLS FOR 12" WALLS
LH & DLH (HEAD TO HEAD)	1/2	12	11 1/2	12" WALLS ONLY
K & KCS (STAGGERED)	3/8	???	???	
LH & DLH (STAGGERED)	1/2	???	???	

C1 TYP JOIST BEARING PLATE
S401 — 3/4" = 1'-0"

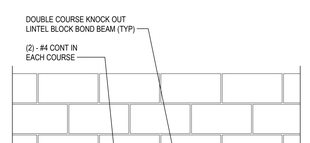


PLAN VIEW

BEAM BEARING PLATE SCHEDULE				
BEAM SIZE	THICKNESS T (IN)	W (IN)	L (IN)	REMARKS
W8, W10, W12	1/2	8	7 1/2	L = 11 1/2 @ 12" CMU
W14, W16	1/2	10	7 1/2	L = 11 1/2 @ 12" CMU
W18, W21	5/8	12	7 1/2	L = 11 1/2 @ 12" CMU
W24, W27	7/8	18	7 1/2	L = 11 1/2 @ 12" CMU
W33	1 1/4	24	7 1/2	L = 11 1/2 @ 12" CMU
HSS10x10	1	11	7 1/2	L = 11 1/2 @ 12" CMU

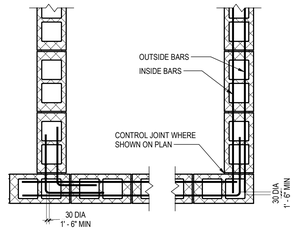
NOTES:
1. ALL CELLS UNDER BEAM SHALL BE FULLY GROUTED AND REINFORCED TO MATCH WALL REINFORCING SCHEDULE.

C2 TYP BEAM BEARING PLATE
S401 — 3/4" = 1'-0"



ELEVATION

C4 TYP STEP IN BOND BEAM
S401 — 3/4" = 1'-0"



PLAN AT INTERSECTION **PLAN AT CORNER**

NOTES:
1. OUTSIDE BARS EXTEND AROUND CORNER, INSIDE BARS EXTEND AS FAR AS POSSIBLE AND BEND INTO CORNER CELL.
2. WHERE SINGLE LAYER OF REINFORCING OCCURS, BEND REINFORCEMENT AS SHOWN OUTSIDE BARS.

B4 TYP ENGINEERED MASONRY WALL CORNER BARS
S401 — 3/4" = 1'-0"

MASONRY LINTEL TABLE				
CLEAR OPENING	8" CMU	12" CMU	JAMB WIDTH	
UP TO 4'-0"	8" DEEP BOND BEAM W/ (2) - #4	8" DEEP BOND BEAM W/ (2) - #5	8"	
UP TO 6'-0"	8" DEEP BOND BEAM W/ (2) - #4	8" DEEP BOND BEAM W/ (2) - #5	16"	
UP TO 8'-0"	16" DEEP BOND BEAM W/ (2) - #5 W/ #3 STIRRUPS AT 12" OC	16" DEEP BOND BEAM W/ (2) - #6 W/ #3 STIRRUPS AT 12" OC	16"	
UP TO 10'-0"	16" DEEP BOND BEAM W/ (2) - #6 W/ #3 STIRRUPS AT 12" OC	24" DEEP BOND BEAM W/ (2) - #6 W/ #3 STIRRUPS AT 12" OC	24"	

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATIONS OF OPENINGS.
2. FOR UNSCHEDULED OPENING GREATER THAN 10'-0", CONSULT THE STRUCTURAL ENGINEER.
3. PROVIDE SOLID BOTTOM MASONRY LINTEL FOR HEAD CONDITION OF ALL CMU OPENINGS. SOLID GROUTED KNOCK-OUT CMU CORES **SHALL NOT** BE ALLOWED AND WILL BE REQUIRED TO BE REPLACED AT THE CONTRACTOR'S EXPENSE IF USED.
4. PROVIDE BLOCK LINTELS FOR ALL OPENINGS AT INTERIOR/EXTERIOR WALLS FOR WHICH A STEEL LINTEL IS NOT SCHEDULED.
5. REF D1 / S401 FOR TYPICAL JAMB DETAIL.

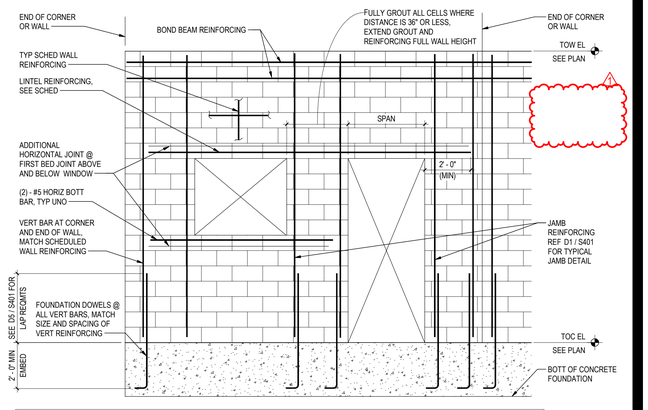
AT CMU LOAD BEARING AND SHEAR WALL

C5 TYP MASONRY LINTEL SCHEDULE
S401 — NTS

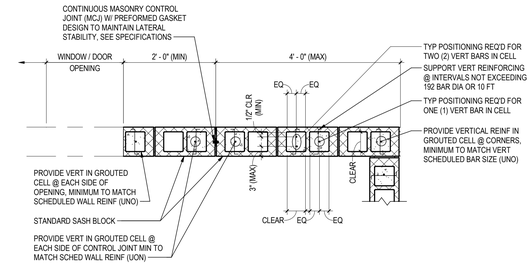
CMU WALL SCHEDULE			
TYPE	WIDTH (IN)	VERTICAL BAR REINFORCING	NOTES
8WT1	8	#7 @ 16" OC	
12WT1	12	#9 @ 16" OC	
NOTES:			

CMU LOAD BEARING AND SHEAR WALL SCHEDULE

B5 CMU WALL SCHEDULE
S401 — 3/4" = 1'-0"



NOTES:
1. ALL REINF SHOWN IN ADDITION TO SCHEDULED WALL REINFORCEMENT.
2. ALL REINFORCING SHALL BE SOLID GROUTED USING 2500 PSI (SPEC COURSE GROUT.
3. REFER TO PLANS, GENERAL NOTES, AND WALL ELEVATIONS FOR TYPICAL VERTICAL AND HORIZONTAL WALL REINFORCEMENT.
4. SEE PLAN A4 / S401 FOR LOCATION OF CONTROL JOINTS.
5. USE VERT BAR POSITIONERS AT 192 BAR DIAMETER OR 10 FT WHICH EVER IS LESS.
6. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM BLOCKS EXCEPT JOINT REINFORCING.
7. HORIZONTAL REINFORCEMENT SHALL BE DISCONTINUOUS THROUGH CONTROL JOINTS EXCEPT BOND BEAMS AT ROOF FLOORS AND AT MASONRY LINTELS.
8. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT FIRST BED JOINT ABOVE AND BELOW OPENINGS AND EXTEND 1'-0" BEYOND THE OPENING.



A4 TYP MASONRY WALL JOINTS
S401 — 3/4" = 1'-0"

A5 TYP REINF/ENGINEERED/STRUCT MASONRY WALL ELEVATION
S401 — NTS

Stantec

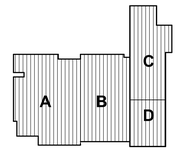
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Notes



Revision	By	Appd	
1 ADDENDUM #2			09.11.2025
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
TYPICAL MASONRY DETAILS

Project No.
21400269

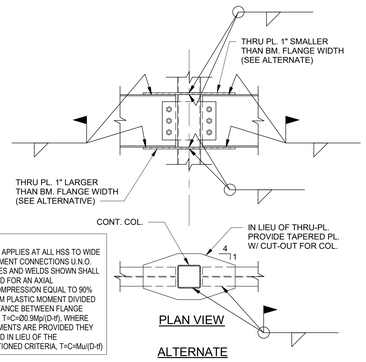
Scale
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Revision
1

Drawing No.
S401

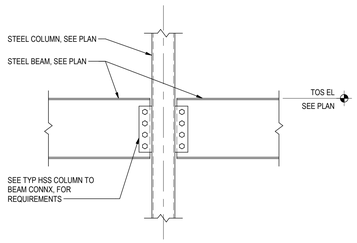
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ORIGINAL SHEET - ARCH E1



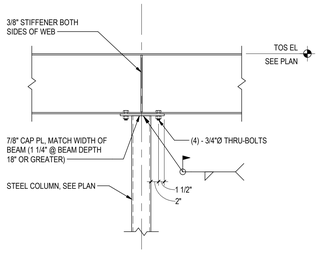
NOTES
1. THIS DETAIL APPLIES AT ALL HSS TO WIDE FLANGE MOMENT CONNECTIONS U.N.O.
2. U.N.O. PLATES AND WELDS SHOWN SHALL BE DESIGNED FOR AN AXIAL TENSION/COMPRESSION EQUAL TO 90% OF THE BEAM PLASTIC MOMENT DIVIDED BY THE DISTANCE BETWEEN FLANGE CENTROIDS. T=C=0.9Mp/(D-tf), WHERE DESIGN MOMENTS ARE PROVIDED THEY MAY BE USED IN LIEU OF THE AFOREMENTIONED CRITERIA, T=C=Mu/(D-tf)

C1 TYP BEAM-TO-HSS COL MOMENT CONNX
S501 NTS

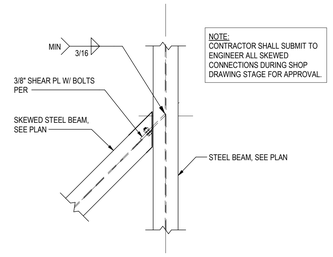


ELEVATION VIEW

B1 TYP WF BEAM TO HSS COL CONNX
S501 NTS

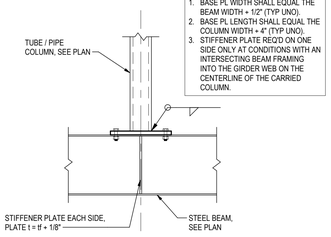


B2 TYP BEAM OVER COL
S501 NTS



NOTE:
CONTRACTOR SHALL SUBMIT TO ENGINEER ALL SKEWED CONNECTIONS DURING SHOP DRAWING STAGE FOR APPROVAL.

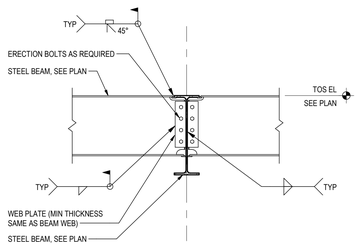
B3 TYP SKEWED BEAM TO BEAM
S501 NTS



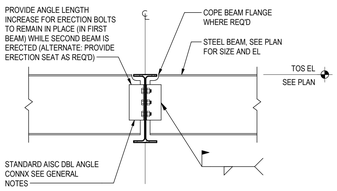
NOTES:
1. BASE PL WIDTH SHALL EQUAL THE BEAM WIDTH + 1/2" (TYP UNO).
2. BASE PL LENGTH SHALL EQUAL THE COLUMN WIDTH + 4" (TYP UNO).
3. STIFFENER PLATE REQ'D ON ONE SIDE ONLY AT CONDITIONS WITH AN INTERSECTING BEAM FRAMING INTO THE GIRDER WEB ON THE CENTERLINE OF THE CARRIED COLUMN.

PIPE / TUBE COLUMN

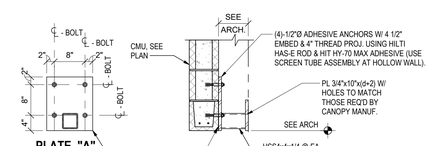
A1 TYP SECTION @ CARRIED COL
S501 3/4" = 1'-0"



A2 WF BEAM-TO-BEAM MOMENT CONNX
S501 NTS

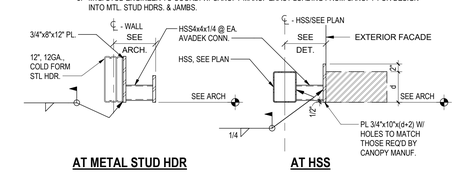


A3 WF BEAM-TO-BEAM SHEAR CONNX
S501 NTS



AT CMU WALL

NOTES:
1. ALL STEEL TO BE GALVANIZED.
2. COORDINATE BOLT HOLE LOCATIONS AND PLATE SIZE WITH CANOPY SUPPLIER.
3. MTL. STUD ENGINEER TO COORD. W/ CANOPY MANUF EXACT LOADING FROM CANOPY FOR DESIGN INTO MTL. STUD HDRS. & JAMBS.



AT METAL STUD HDR AT HSS

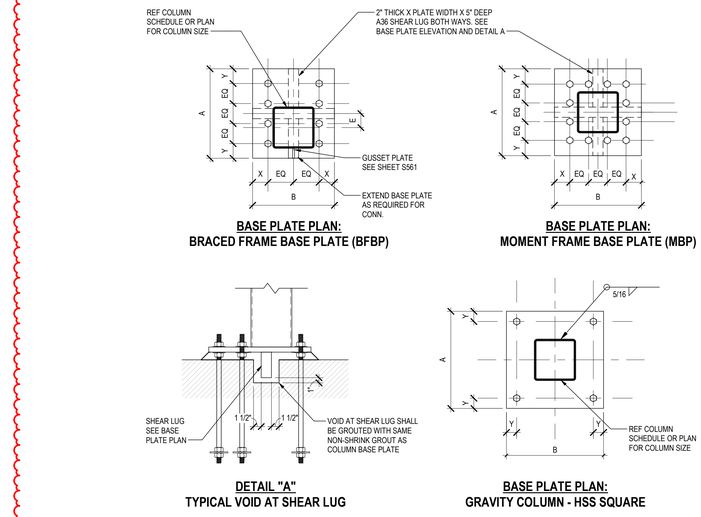
D4 TYP DTL @ ALUMINUM/AVADEK CANOPY CONNX
S501 3/4" = 1'-0"

LOOSE LINTEL SCHEDULE

CLEAR OPENING	4" CMU AND FACEBRICK
UP TO 4'-0"	L3-1/2X3-1/2X1/4
UP TO 6'-0"	L3-1/2X3-1/2X1/4
UP TO 8'-0"	L4X3-1/2X5/16
UP TO 10'-0"	L7X4X3/8

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATIONS OF OPENINGS.
2. FOR UNSCHEDULED OPENING GREATER THAN 10'-0", CONSULT THE STRUCTURAL ENGINEER.

D5 TYP LOOSE LINTEL SCHED
S501 NTS

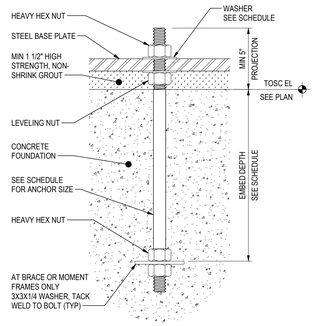


BASE PLATE PLAN:
BRACED FRAME BASE PLATE (BFBP)

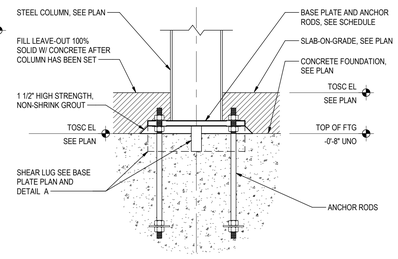
BASE PLATE PLAN:
MOMENT FRAME BASE PLATE (MBP)

DETAIL "A"
TYPICAL VOID AT SHEAR LUG

BASE PLATE PLAN:
GRAVITY COLUMN - HSS SQUARE



ELEVATION : ANCHOR ROD



BASE PLATE ELEVATION

COLUMN BASE PLATE SCHEDULE

COL	DETAIL TYPE	PLATE SIZE A	B	X	Y	E	C	ANCHOR RODS QTY	DIA	EMBED	NOTES
HSS 5	-	12"	12"	1 1/2"	1 1/2"		3/4"	4	3/4"	12"	
HSS 6	-	14"	14"	1 1/2"	1 1/2"		3/4"	4	3/4"	12"	
HSS 7	-	14"	14"	1 1/2"	1 1/2"		3/4"	4	3/4"	12"	
HSS 8	-	14"	14"	1 1/2"	1 1/2"		1 1/2"	4	3/4"	12"	
HSS 9	-	16"	16"	1 1/2"	1 1/2"		1 1/2"	4	3/4"	12"	
HSS8_BFBP	BFBP	34"	24"	3"	3"	4"	1 1/2"	8	1 1/2"	18"	
HSS8_MBP	MBP	34"	24"	3"	3"		1 1/2"	12	1 1/2"	18"	

NOTES:
1. ANCHOR BOLTS SHALL COMPLY WITH BELOW UNO.
   a. ASTM 1554 GRADE 36
   b. ASTM 1554 GRADE 55
   c. ASTM 1554 GRADE 105
2. AT MOMENT FRAMES, ANCHOR BOLT QUANTITY TO BE 12 UNO.
3. C =BASE PLATE THICKNESS
   E = ECCENTRICITY

MAXIMUM SIZES FOR ANCHOR ROD HOLES IN BASE PLATES

ANCHOR ROD DIAMETER	MAXIMUM HOLE DIAMTER	MINIMUM WASHER SIZE	MINIMUM WASHER THICKNESS
3/4"	1 5/16"	3"	3/8"
7/8"	1 9/16"	3"	3/8"
1"	1 13/16"	3"	3/8"
1 1/4"	2 1/16"	3"	1/2"
1 1/2"	2 5/16"	3 1/2"	1/2"
1 3/4"	2 3/4"	4"	5/8"
2"	3 1/4"	5"	3/4"

A4 BASE PLATE & ANCHOR BOLT SCHED & DTL
S501 NTS

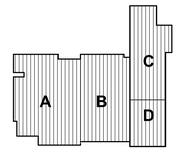
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N

	Revision	By	Appd	
1	ADDENDUM #2			09.11.2025
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	FINAL CONSTRUCTION DOCUMENTS			08.18.2025
	Issued	By	Appd	YYYY.MM.DD

Permit/Seal

STATE OF TEXAS
BRITNEY R. WEIDERT
132068
LICENSED
PROFESSIONAL ENGINEER
2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
TYPICAL STEEL DETAILS

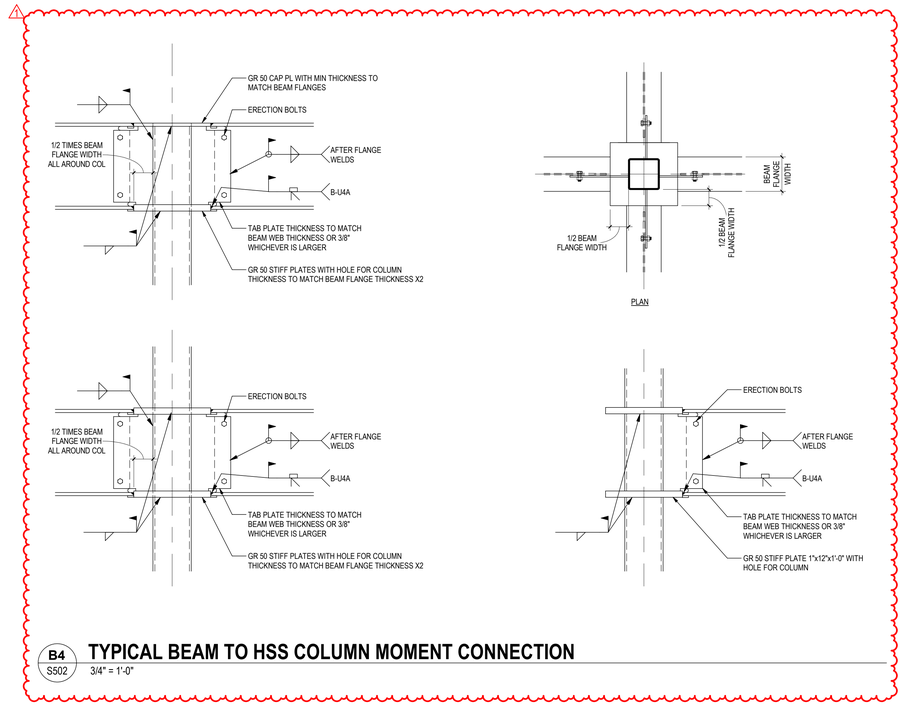
Project No.
214001269

Scale
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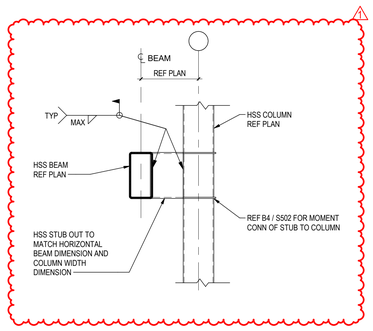
Revision
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Drawing No.
S501

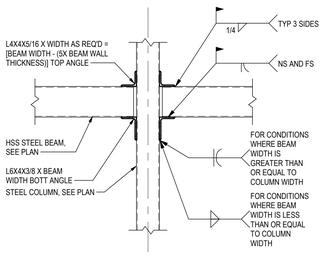
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ORIGINAL SHEET - ARCH E1



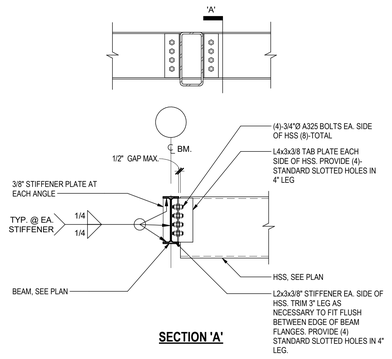
B4 S502 — **TYPICAL BEAM TO HSS COLUMN MOMENT CONNECTION**
3/4" = 1'-0"



A2 S502 — **HSS BEAM TO HSS COL OFFSET CONNECTION**
3/4" = 1'-0"

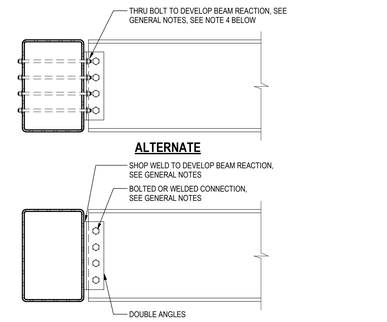


A3 S502 — **TYP HSS MISC BEAM TO HSS COL**
3/4" = 1'-0"



SECTION 'A'

A4 S502 — **TYP DTL HSS BEAM TO WF BEAM**
NTS



NOTES:
1. REFER TO GENERAL NOTES FOR BEAM REACTION DESIGN CRITERIA.
2. PROVIDE PRE-DESIGNED CONNECTIONS AS SHOWN IN AISC MANUAL PART 4 WHERE APPLICABLE.
3. REFER TO GENERAL NOTES FOR BOLT TYPE.
4. DO NOT PRETENSION THRU-BOLTS AT HSS, INSTALL BOLTS IN A SNUG-TIGHT CONDITION.

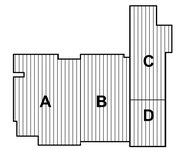
A5 S502 — **TYP DTL WF TO HSS CONNX**
NTS

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1	ADDENDUM #2		09.11.2025
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Permit/Seal

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

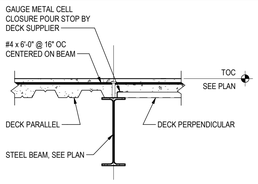
Elementary School No 23

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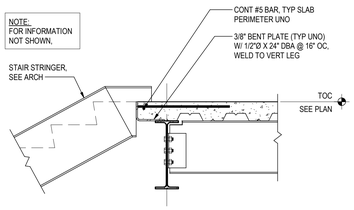
Title
TYPICAL STEEL DETAILS

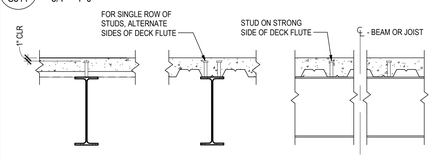
Project No.	Scale
214001269	3/4" = 1'-0"
Revision	Drawing No.
1	**S502**

ORIGINAL SHEET - ARCH E1
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E1 TYP DECKING DIRECTION CHANGE
S511 3/4" = 1'-0"

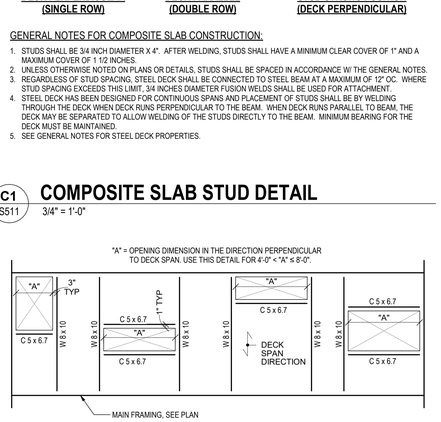




D1 TYP SECTION @ STAIR STRINGER
S511 3/4" = 1'-0"

GENERAL NOTES FOR COMPOSITE SLAB CONSTRUCTION:

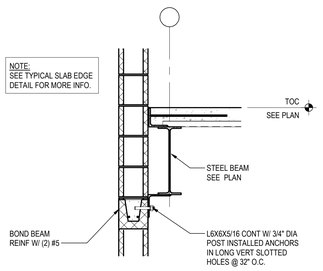
1. STUDS SHALL BE 3/4 INCH DIAMETER X 4". AFTER WELDING, STUDS SHALL HAVE A MINIMUM CLEAR COVER OF 1" AND A MAXIMUM COVER OF 1 1/2 INCHES.
2. UNLESS OTHERWISE NOTED ON PLANS OR DETAILS, STUDS SHALL BE SPACED IN ACCORDANCE W/ THE GENERAL NOTES.
3. REGARDLESS OF STUD SPACING, STEEL DECK SHALL BE CONNECTED TO STEEL BEAM AT A MAXIMUM OF 12" OC. WHERE STUD SPACING EXCEEDS THIS LIMIT, 3/4 INCHES DIAMETER FUSION WELDS SHALL BE USED FOR ATTACHMENT.
4. STEEL DECK HAS BEEN DESIGNED FOR CONTINUOUS SPANS AND PLACEMENT OF STUDS SHALL BE BY WELDING THROUGH THE DECK WHEN DECK RUNS PERPENDICULAR TO THE BEAM. WHEN DECK RUNS PARALLEL TO BEAM, THE DECK MAY BE SEPARATED TO ALLOW WELDING OF THE STUDS DIRECTLY TO THE BEAM. MINIMUM BEARING FOR THE DECK MUST BE MAINTAINED.
5. SEE GENERAL NOTES FOR STEEL DECK PROPERTIES.



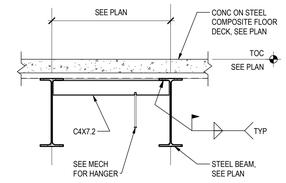
NOTES :
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. THIS DETAIL SHOWS TYPICAL CONFIGURATIONS. VERIFY WITH STRUCTURAL ENGINEER FOR SPECIAL CASES.
3. CONTACT STRUCTURAL ENGINNER FOR FRAMING IF DIMENSION "A" EXCEEDS 8'-0".
4. DECK MANUFACTURER TO PROVIDE 14 GAGE METAL EDGE CLOSURE AROUND EACH OPENING UNLESS DETAILED OTHERWISE.

C1 COMPOSITE SLAB STUD DETAIL
S511 3/4" = 1'-0"

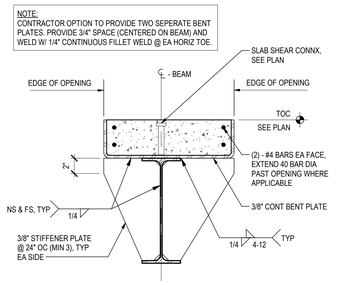
B1 TYP FRAMED OPENINGS IN COMPOSITE METAL DECK SLAB FLOOR OR ROOF
S511 3/4" = 1'-0"



A1 TYP EDGE OF SLAB AT INTERIOR CMU WALL
S511 3/4" = 1'-0"

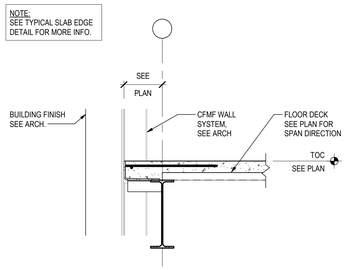


E2 TYP MECH HANGER @ FLOOR
S511 3/4" = 1'-0"



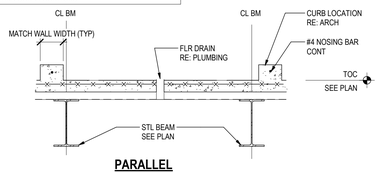
D2 TYP SECTION @ OPENING (EA SIDE)
S511 1 1/2" = 1'-0"

TYP COMPOSITE SLAB CONSTRUCTION JOINT
S511 3/4" = 1'-0"

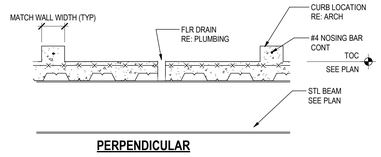


A2 TYP 2ND FLOOR SLAB EDGE
S511 3/4" = 1'-0"

NOTE:
CURBS TO BE PROVIDED AT ALL MECHANICAL ROOMS AND RESTROOMS WITH METAL STUD WALL TYPES. SEE ARCH FOR WALL TYPES AND CURB LOCATIONS.

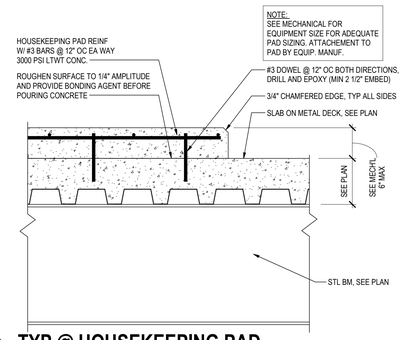


PARALLEL



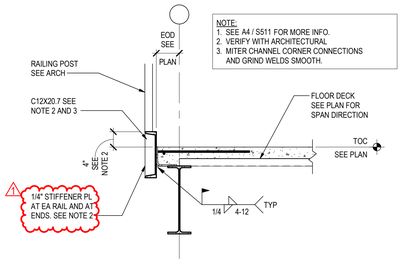
PERPENDICULAR

E3 TYP CURB & DRAIN @ 2ND FLOOR
S511 3/4" = 1'-0"



D3 TYP @ HOUSEKEEPING PAD
S511 1 1/2" = 1'-0"

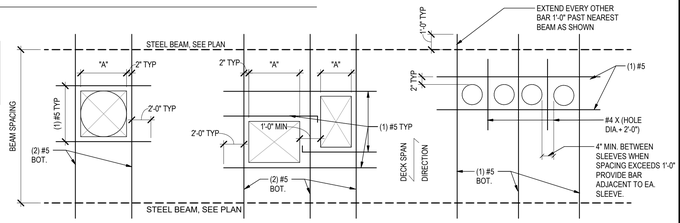
B3 TYP WINDOW SUPPORT AT SLAB EDGE
S511 3/4" = 1'-0"



A3 TYP EDGE OF SLAB WITH HANDRAIL ATTACHMENT
S511 3/4" = 1'-0"

NOTE:
WHEN SPACING BETWEEN MULTIPLE OPENINGS <2'-0" REINFORCEMENT SHOULD BE LACED AS SHOWN IN SINGLE OPENING CONDITION REF C3 / S511 FOR MORE INFO

"A" = OPENING DIMENSION IN THE DIRECTION PERPENDICULAR TO DECK SPAN. USE THIS DETAIL FOR "A" <4'-0" GC SHALL CONTACT EOR FOR REDESIGN FOR LARGER OPENINGS

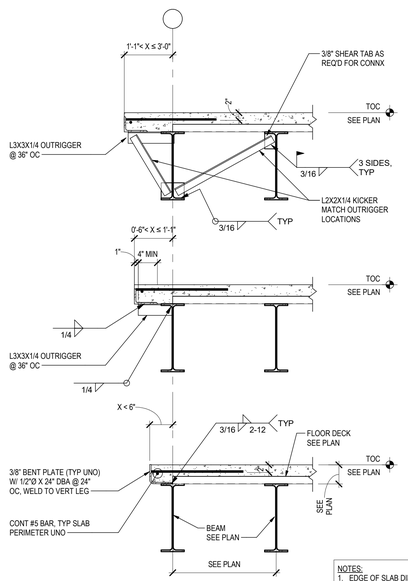


SINGLE OPENING | MULTIPLE OPENING | PIPE SLEEVES

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. MAXIMUM DIMENSION "A" SHALL BE 4'-0". REFER TO PLAN OR DETAIL ON DRAWINGS FOR FRAMING OF OPENINGS GREATER THAN 4'-0".
3. SLAB REINFORCEMENT SHALL BE CUT AROUND OPENING. WWF REINFORCEMENT (WHERE USED) SHALL EXTEND TO WITHIN 2" OF OPENING ON ALL SIDES.
4. OPENINGS 10" AND SMALLER DO NOT REQUIRE ADDITIONAL REINFORCEMENT.
5. FIELD CUT OPENINGS IN DECK AFTER CONCRETE SLAB HAS BEEN POURED AND HAS ATTAINED MINIMUM OF 75% OF ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
6. REINFORCEMENT PERPENDICULAR TO DECK SPAN SHALL BE PLACED ON TOP OF DECK FLUTES.
7. REINFORCEMENT PARALLEL TO DECK SPAN SHALL BE PLACED IN THE LOWER FLUTE AND SHALL BE CHAIRED TO PROVIDE 3/4" COVER.
8. THIS DETAIL SHOWS TYPICAL CONDITIONS, VERIFY REINFORCING STEEL PLACEMENT WITH ENGINEER FOR SPECIAL CASES.
9. PROVIDE REINFORCEMENT AS SHOWN FOR SQUARE, RECTANGULAR AND ROUND OPENINGS.

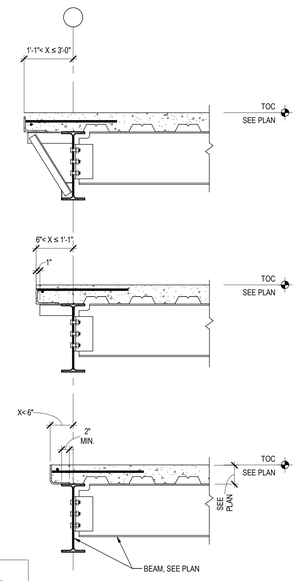
D4 TYP DETAIL OPENINGS IN COMPOSITE METAL DECK SLABS
S511 3/4" = 1'-0"

C4 TYP ELEVATOR OPENING
S511 3/4" = 1'-0"



BEAM PARALLEL

NOTES:
1. EDGE OF SLAB DIMENSION (EOS), SEE PLAN.
2. SLAB REINFORCING NOT SHOWN FOR CLARITY. SEE C5 / S511
3. DETAIL NOT TO BE USED FOR SLAB EDGE SUPPORTING MASONRY. SEE OTHER TYPICAL DETAIL



BEAM PERPENDICULAR

C5 TYP INTERIOR BEAM
S511 3/4" = 1'-0"

A4 TYP EDGE OF SLAB CONDITIONS FOR ELEVATED FLOORS
S511 3/4" = 1'-0"

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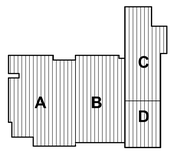
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Notes



N

No.	Revision	By	Appd	YYYY.MM.DD
1	ADDENDUM #2			09.11.2025
	BIDDING DOCUMENTS			09.01.2025
	FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Issued

Permit/Seal



Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
TYPICAL STEEL FLOOR FRAMING DETAILS

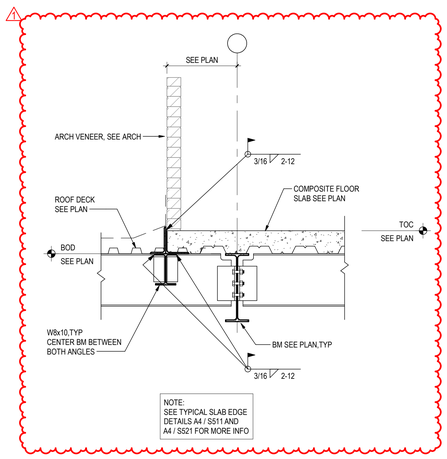
Project No.
214001269

Scale
As indicated

Revision
1

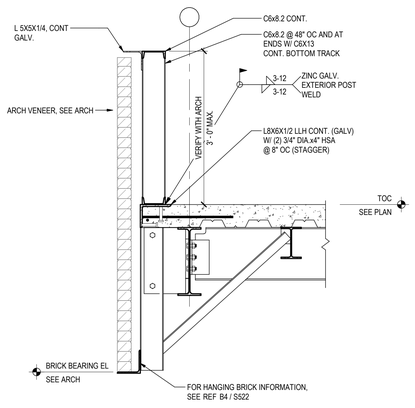
Drawing No.
S511

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ORIGINAL SHEET - ARCH E1



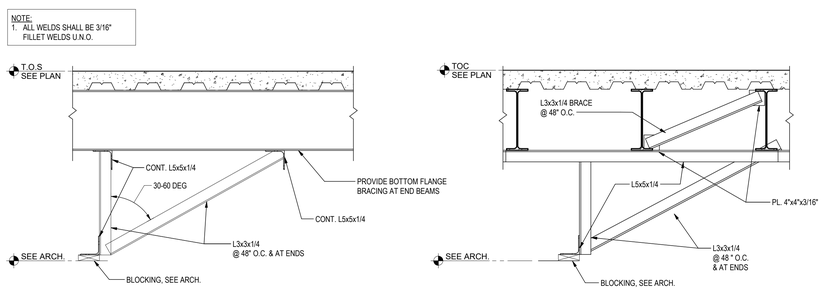
BRICK SUPPORT AT LOW ROOF AT SECOND FLOOR LEVEL

A2 / S512 — 3/4" = 1'-0"



TYP PERIMETER STEM WALL @ ELEVATED SLAB

A3 / S512 — 3/4" = 1'-0"



BEAM PARALLEL

BEAM PERPENDICULAR

TYP TOP OF WALL GLAZING BRACING @ ELEVATED FLOOR

A4 / S512 — NTS

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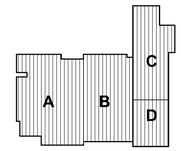
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1	ADDENDUM #2		09.11.2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

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ALVIN ISD

Elementary School No 23

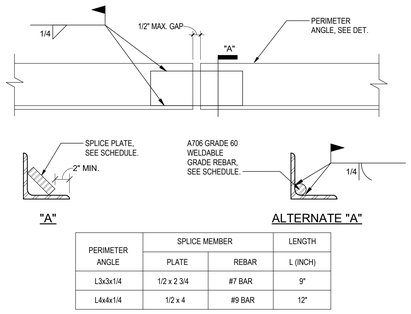
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
TYPICAL STEEL FLOOR FRAMING DETAILS

Project No.	Scale
214001269	3/4" = 1'-0"
Revision	Drawing No.
1	**S512**

*Pick location in Project Information
8/11/2025 10:02:58 PM

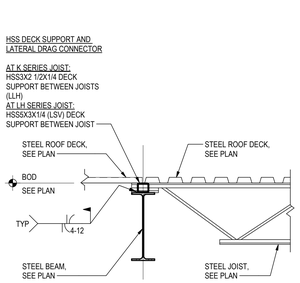
ORIGINAL SHEET - ARCH E1



PERIMETER ANGLE	SPLICE MEMBER		LENGTH
	PLATE	REBAR	L (INCH)
L3x3x1/4	1/2 x 2 3/4	#7 BAR	9"
L4x4x1/4	1/2 x 4	#9 BAR	12"

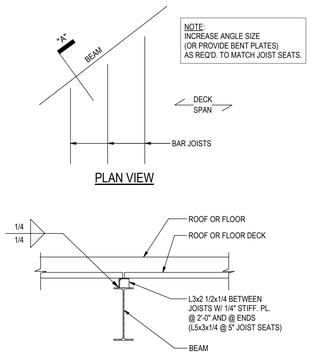
D1 S521 TYP SPLICE AT PERIMETER ROOF ANGLE

NTS



D2 S521 TYP CHANGE IN DECK DIRECTION

3/4" = 1'-0"

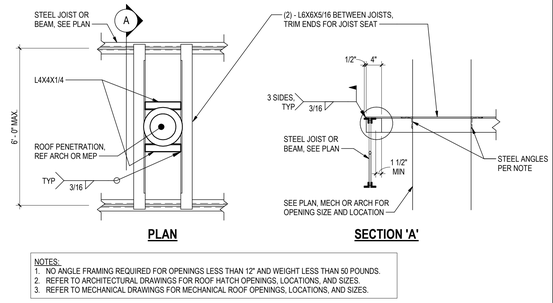


NOTE:
INCREASE ANGLE SIZE (OR PROVIDE BENT PLATES) AS REQ'D. TO MATCH JOIST SEATS.

A

D4 S521 TYPICAL DETAIL DECK SUPPORT AT SKEWED BEAM

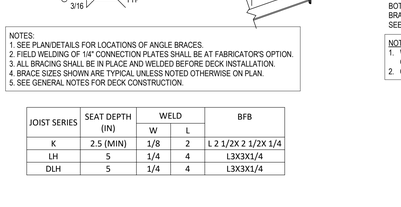
NTS



NOTES:
1. NO ANGLE FRAMING REQUIRED FOR OPENINGS LESS THAN 12" AND WEIGHT LESS THAN 50 POUNDS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF HATCH OPENINGS, LOCATIONS, AND SIZES.
3. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL ROOF OPENINGS, LOCATIONS, AND SIZES.

D5 S521 TYP ROOF OPENING

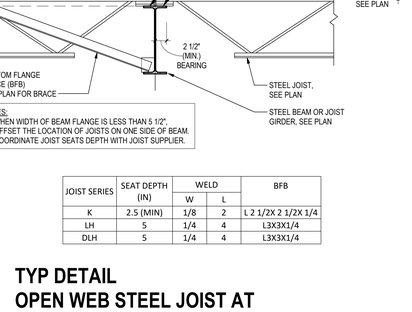
3/4" = 1'-0"



NOTE:
COORDINATE JOIST SEATS WITH JOIST SUPPLIER.

C1 S521 TYP STEEL JOIST/ STEEL BEAM AT INTERIOR STEEL BEAM/ ROOF

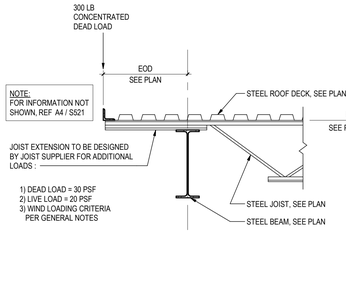
NTS



NOTE:
1. JOIST MFR SHALL DESIGN JOIST FOR ADDL BENDING STRESSES RESULTING FROM THE REACTION OF THE CHANNEL AT ANY LOCATION ALONG THE TOP CHORD. SEE PLAN FOR JOIST SIZE AND BRICK LOADING
2. DETAIL IS APPLICABLE ONLY AT LOCATIONS WITH MAX BRICK HEIGHT OF 5'-0"

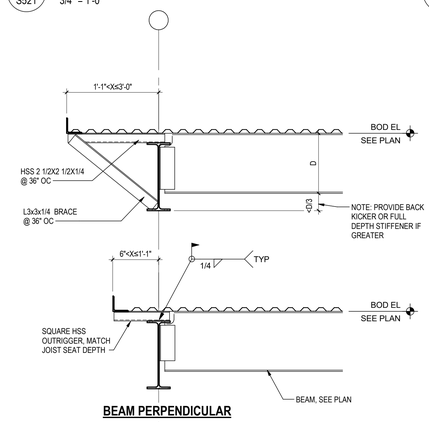
C2 S521 TYP LOW ROOF BRICK SUPPORT

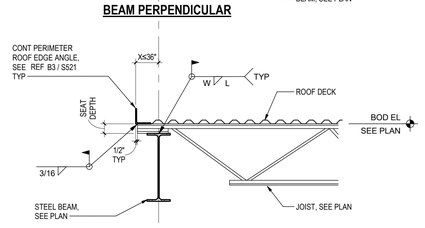
3/4" = 1'-0"



C4 S521 TYP JOIST REINFORCING DETAIL

3/4" = 1'-0"



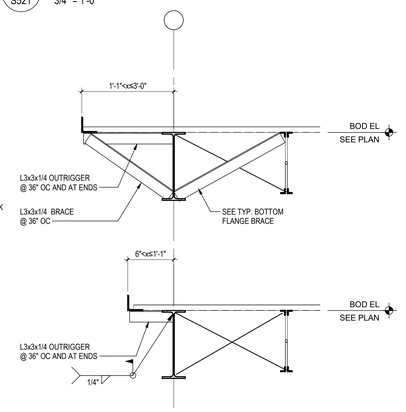


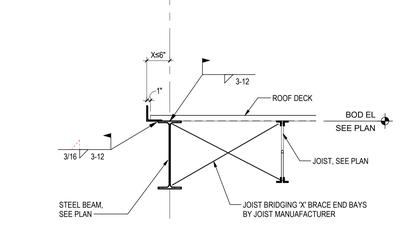
JOIST SERIES	SEAT DEPTH (IN)	WELD DETAILS	
		W	L
K	2.5 (MIN)	1/8"	2
LH	5	1/4"	4
DLH	5	1/4"	4

NOTES:
1. EDGE OF DECK DIMENSION (EOD) = X - SEE PLAN
2. ROOFING NOT SHOWN FOR CLARITY. SEE ARCH.
3. FOR JOIST EXTENSION INFO. SEE A3/S521
4. COORDINATE JOIST SEATS WITH JOIST MANUFACTURER.

C5 S521 TYP MECHANICAL SUPPORT

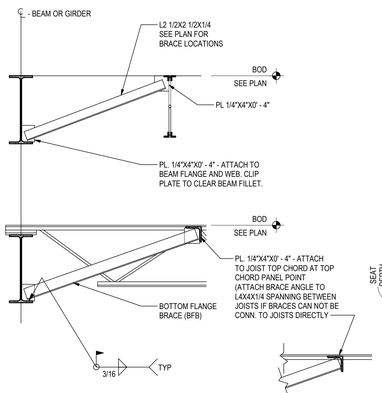
3/4" = 1'-0"





B1 S521 TYP BEAM BOTTOM FLANGE BRACE AT JOIST

3/4" = 1'-0"



NOTES:
1. SEE PLAN/DETAILS FOR LOCATIONS OF ANGLE BRACES.
2. FIELD WELDING OF 1/4" CONNECTION PLATES SHALL BE AT FABRICATOR'S OPTION.
3. ALL BRACING SHALL BE IN PLACE AND WELDED BEFORE DECK INSTALLATION.
4. BRACE SIZES SHOWN ARE TYPICAL UNLESS NOTED OTHERWISE ON PLAN.
5. SEE GENERAL NOTES FOR DECK CONSTRUCTION.

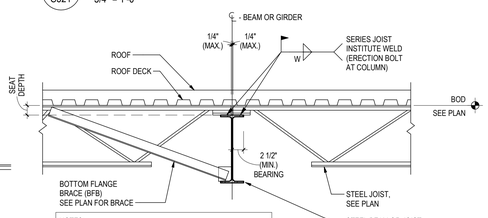
JOIST SERIES	SEAT DEPTH (IN)	WELD		BFB
		W	L	
K	2.5 (MIN)	1/8	2	L 2 1/2X 2 1/2X 1/4
LH	5	1/4	4	L3X3X1/4
DLH	5	1/4	4	L3X3X1/4

A1 S521 TYP BEAM BOTTOM FLANGE BRACE AT JOIST

3/4" = 1'-0"

B2 S521 TYP INTERIOR JOIST BRIDGING DETAIL

3/4" = 1'-0"

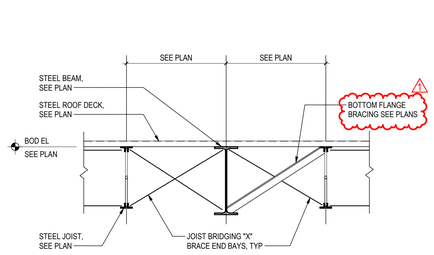


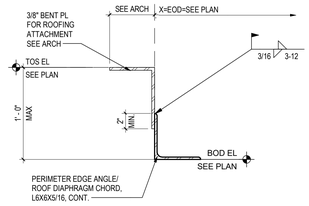
NOTES:
1. WHEN WIDTH OF BEAM FLANGE IS LESS THAN 5 1/2", OFFSET THE LOCATION OF JOISTS ON ONE SIDE OF BEAM.
2. COORDINATE JOIST SEATS DEPTH WITH JOIST SUPPLIER.

JOIST SERIES	SEAT DEPTH (IN)	WELD		BFB
		W	L	
K	2.5 (MIN)	1/8	2	L 2 1/2X 2 1/2X 1/4
LH	5	1/4	4	L3X3X1/4
DLH	5	1/4	4	L3X3X1/4

A2 S521 TYP DETAIL OPEN WEB STEEL JOIST AT INTERIOR STEEL BEAM

3/4" = 1'-0"





NOTE:
1. ROOFING AND ROOF DECK NOT SHOWN FOR CLARITY.
2. FOR PERIMETER ANGLE SPLICE, SEE REF D1 / S521

B3 S521 TYP ROOF EDGE PERIMETER ANGLE

1 1/2" = 1'-0"

NOTE:
FOR INFORMATION NOT SHOWN, REF A4 / S521

A3 S521 TYP ROOF JOIST EXTENSION

3/4" = 1'-0"

A4 S521 TYP ROOF EDGE

3/4" = 1'-0"

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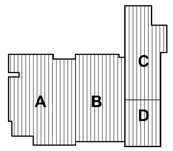
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Texas Firm Registration No. F-13678

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Elementary School No 23

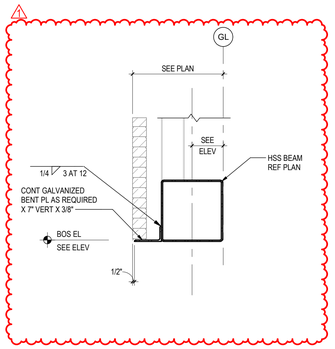
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Title
TYPICAL STEEL ROOF FRAMING DETAILS

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
1	S521

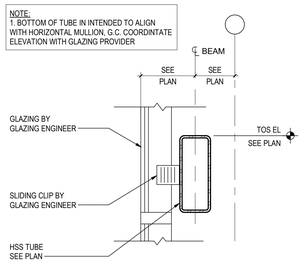
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ORIGINAL SHEET - ARCH E1



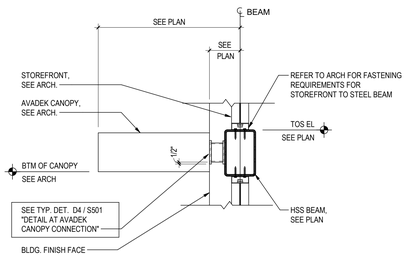
D3 S522 TYP TUE AT BRICK SUPPORT

3/4" = 1'-0"



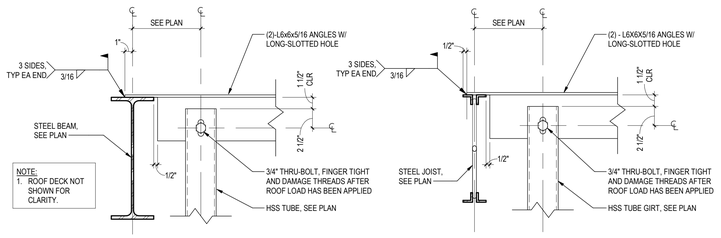
D4 S522 TUBE AT GLAZING

NTS



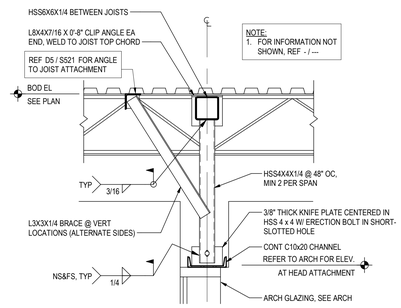
D5 S522 TYPICAL DETAIL GIRT AT STOREFRONT

NTS



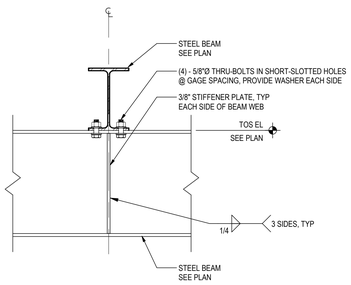
C2 S522 TYP SECTION @ GIRT COLUMN TOP CONNECTION

1 1/2" = 1'-0"



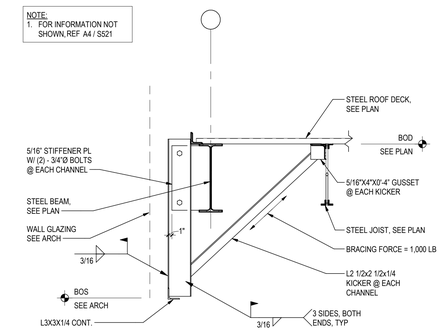
C4 S522 TYP ARCH GLAZING HEAD SUPPORT

3/4" = 1'-0"



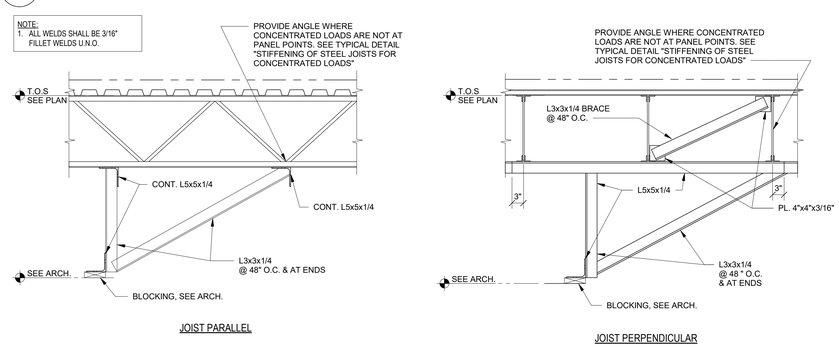
C5 S522 TYP WF BEAM BEARING ON WF BEAM

1 1/2" = 1'-0"



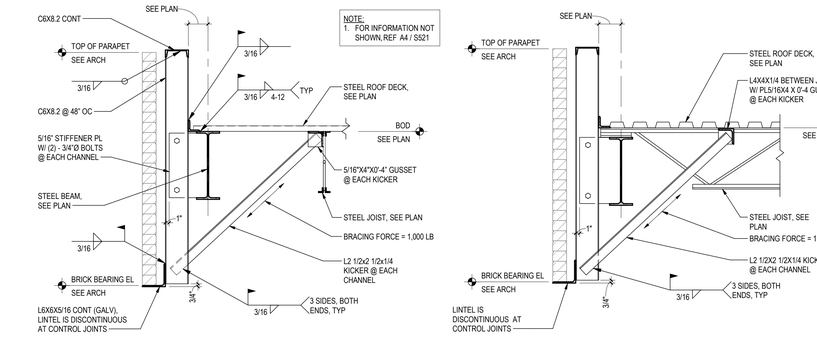
B2 S522 TYP CURTAIN WALL SUPPORT

3/4" = 1'-0"



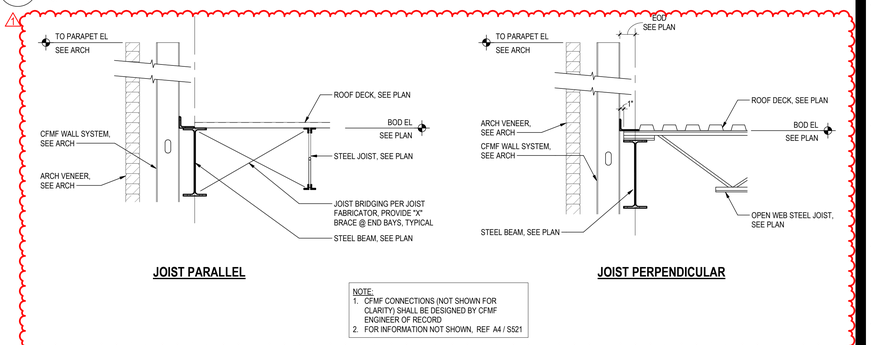
A2 S522 TYP WALL GLAZING AT RECESSED DOORS TO ROOF JOIST

NTS



B4 S522 TYP BRICK HANGER DETAIL

3/4" = 1'-0"



A4 S522 TYP SECTION AT PARAPET ROOF

NTS

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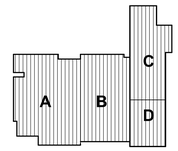
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1 ADDENDUM #2			09.11.2025
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Issued

Permit/Seal



Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
TYPICAL STEEL ROOF FRAMING DETAILS

Project No.
21400269

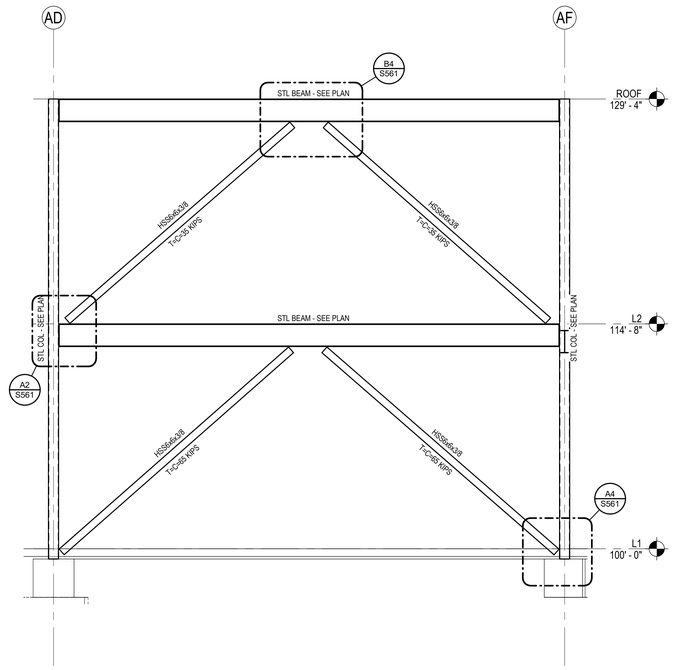
Scale
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Revision
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Drawing No.
S522

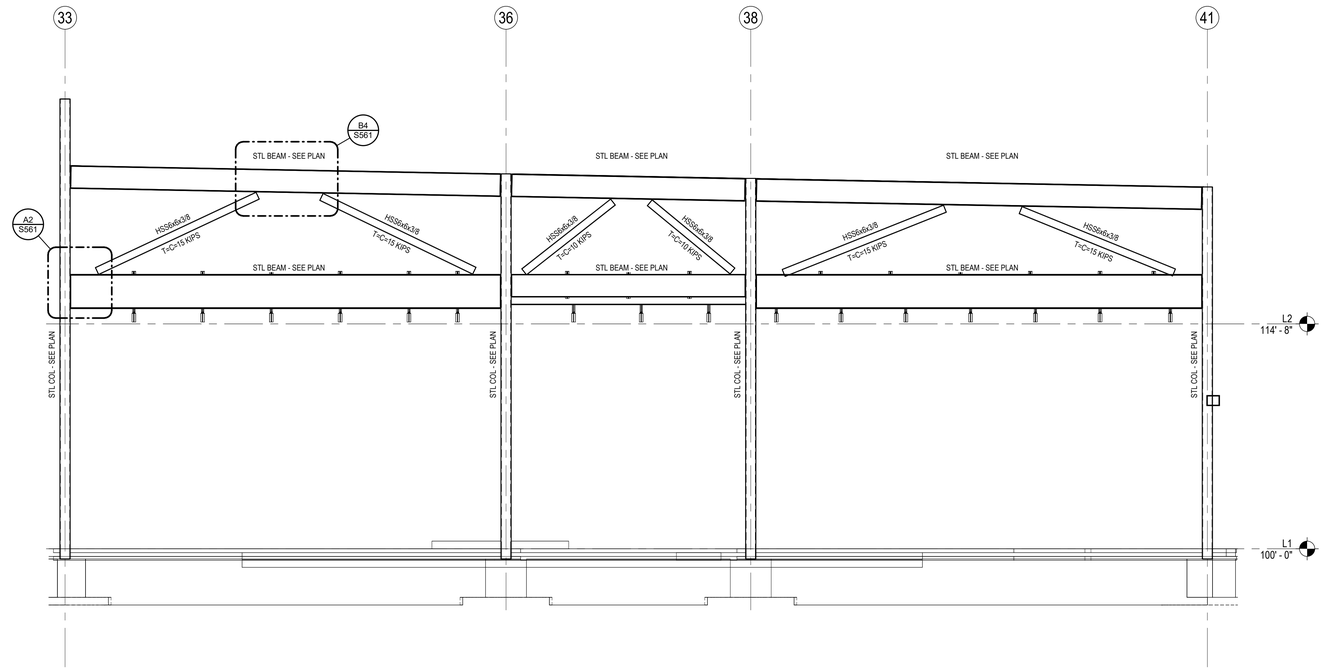
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ORIGINAL SHEET - ARCH E1



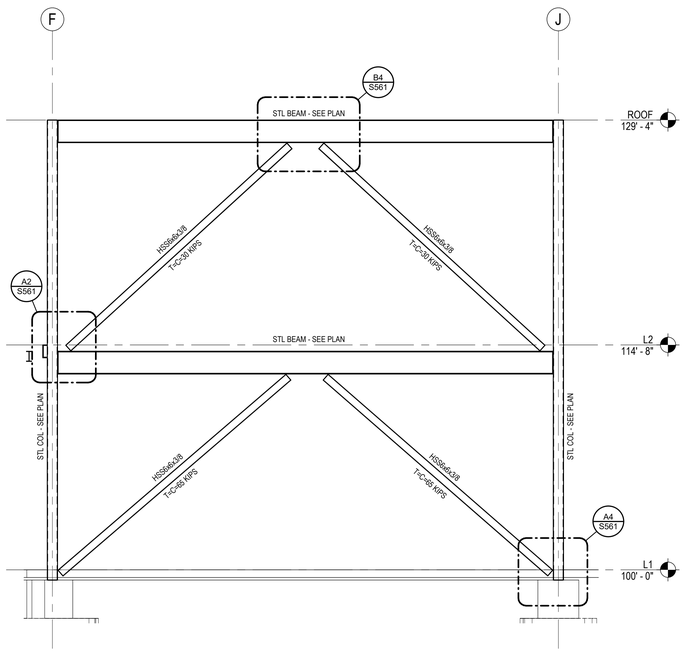
C1 S552 LATERAL BRACE - AREA B - GRID 32

1/4" = 1'-0"



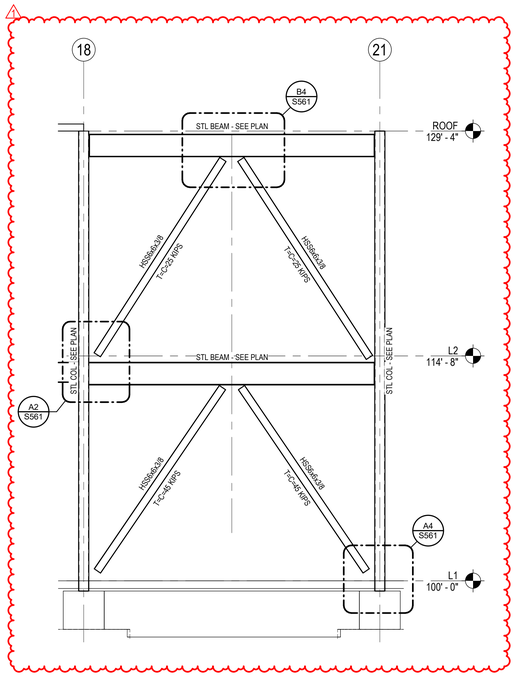
C3 S552 LATERAL BRACE - AREA C - GRID G

1/4" = 1'-0"



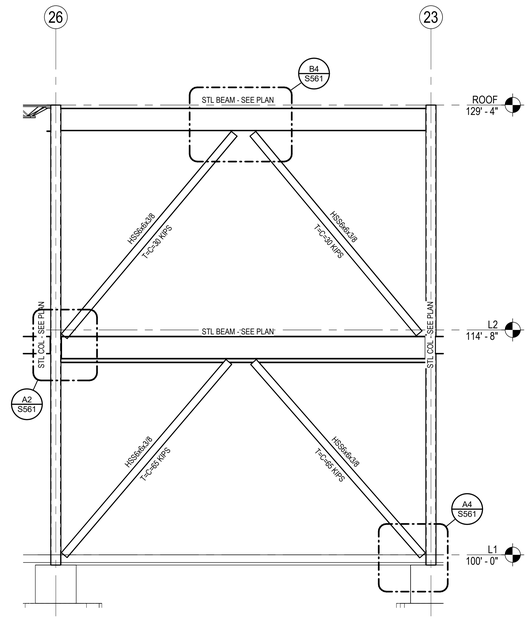
A1 S552 LATERAL BRACE - AREA B - GRID 32

1/4" = 1'-0"



A2 S552 LATERAL BRACE - AREA B - GRID M

1/4" = 1'-0"



A4 S552 LATERAL BRACE - AREA B - GRID AA

1/4" = 1'-0"

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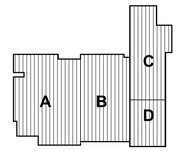
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
LATERAL BRACING ELEVATIONS

Project No.
214001269

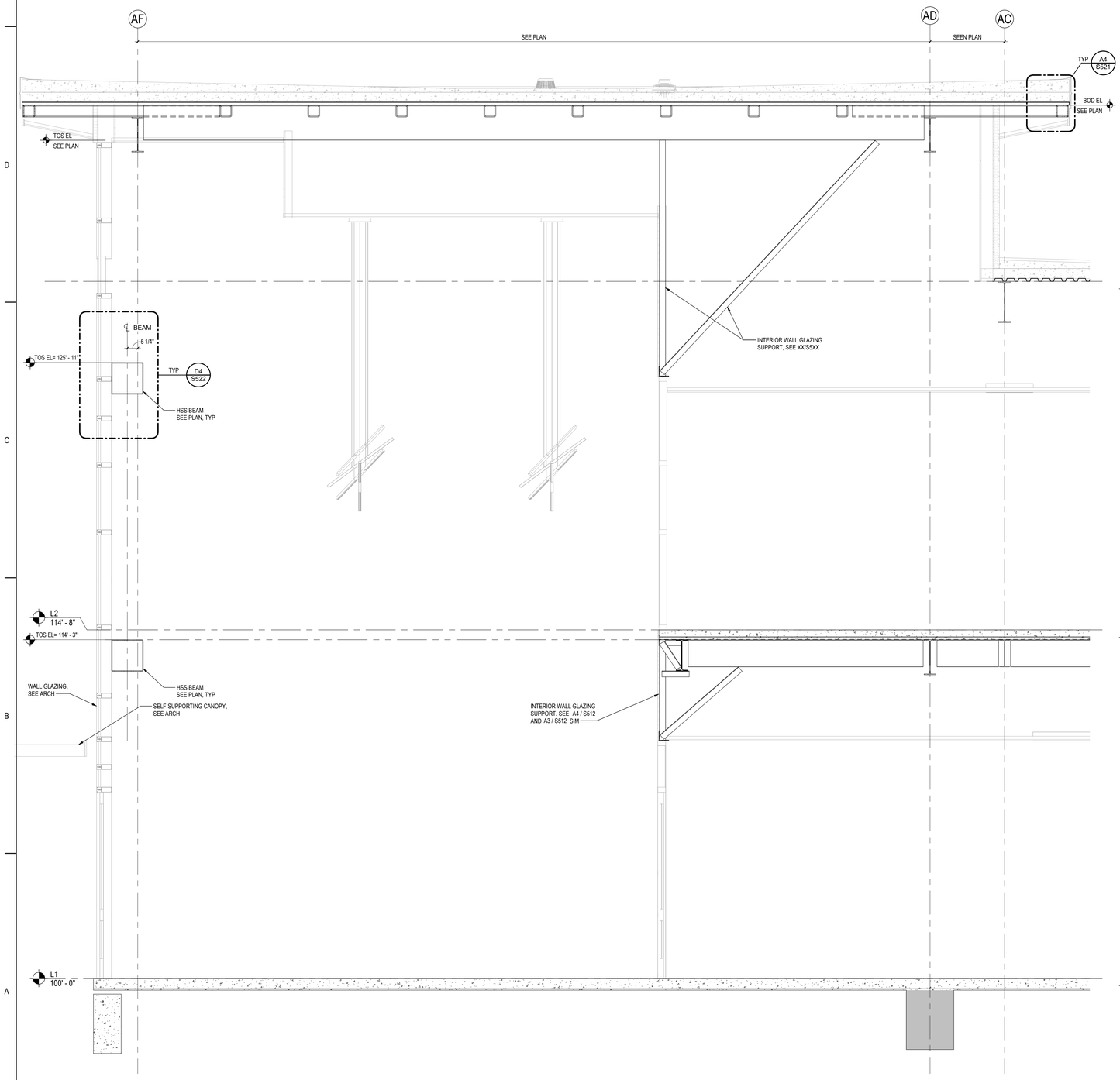
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Revision
1

Drawing No.
S552

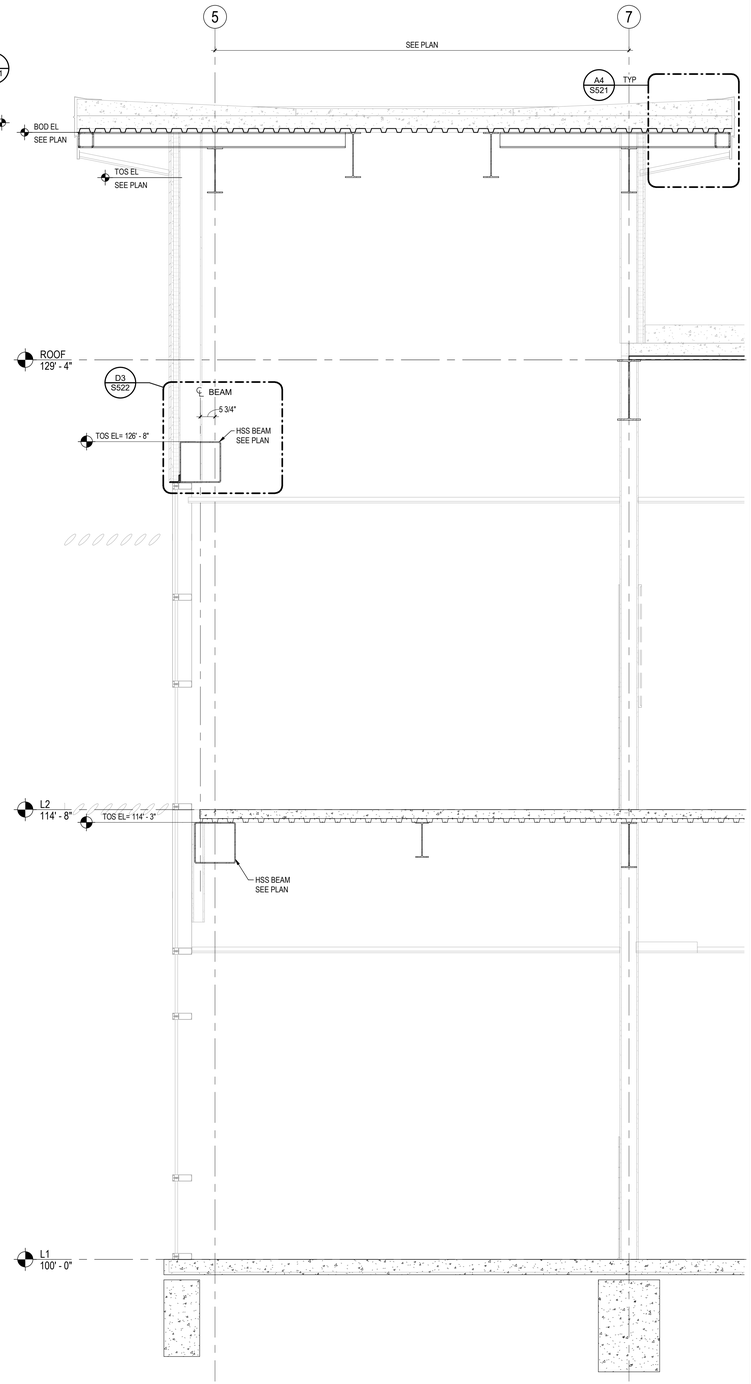
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ORIGINAL SHEET - ARCH E1



A1 S701 **HI ENTRY SOUTH WEST ENTRY - AREA A**

1/2" = 1'-0"



A2 S701 **HI ROOF ENTRY - AREA A**

1/2" = 1'-0"

SHEET REVISED

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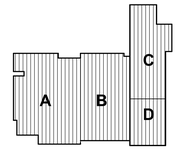
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1 ADDENDUM #2			09.11.2025

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2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
STRUCTURAL WALL SECTIONS

Project No.
214001269

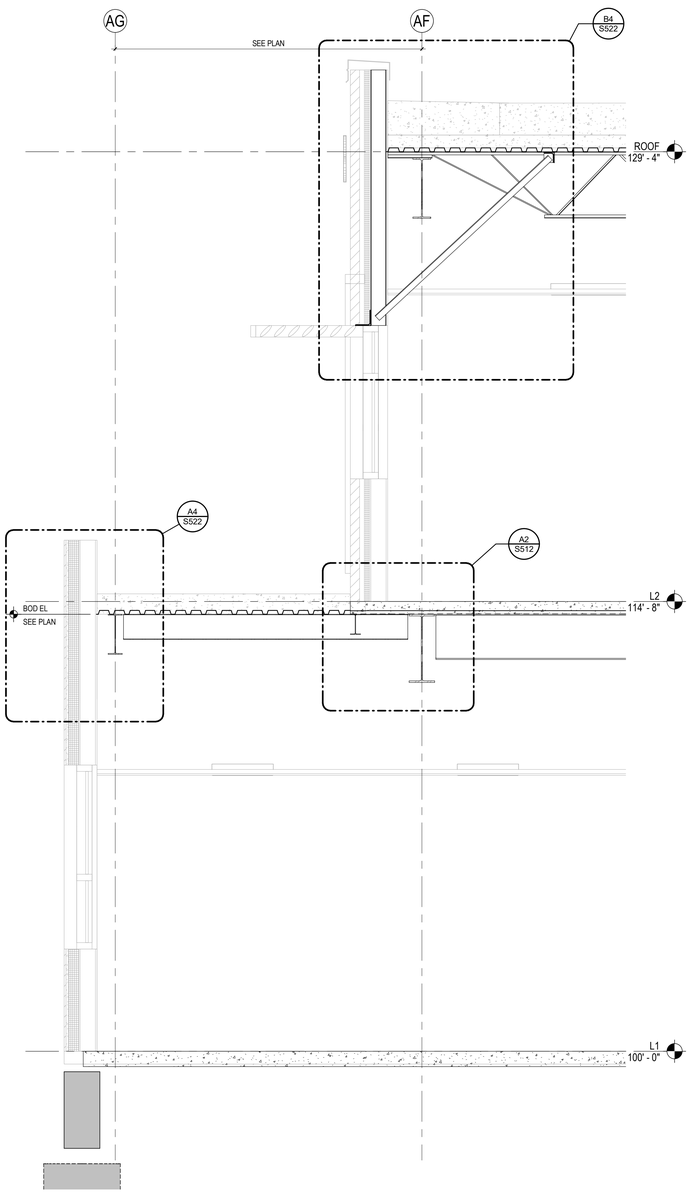
Scale
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Revision
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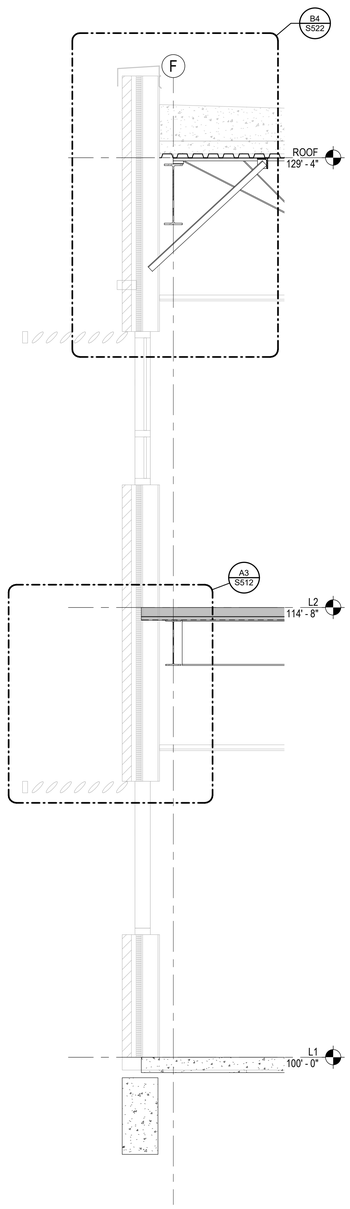
Drawing No.
S701

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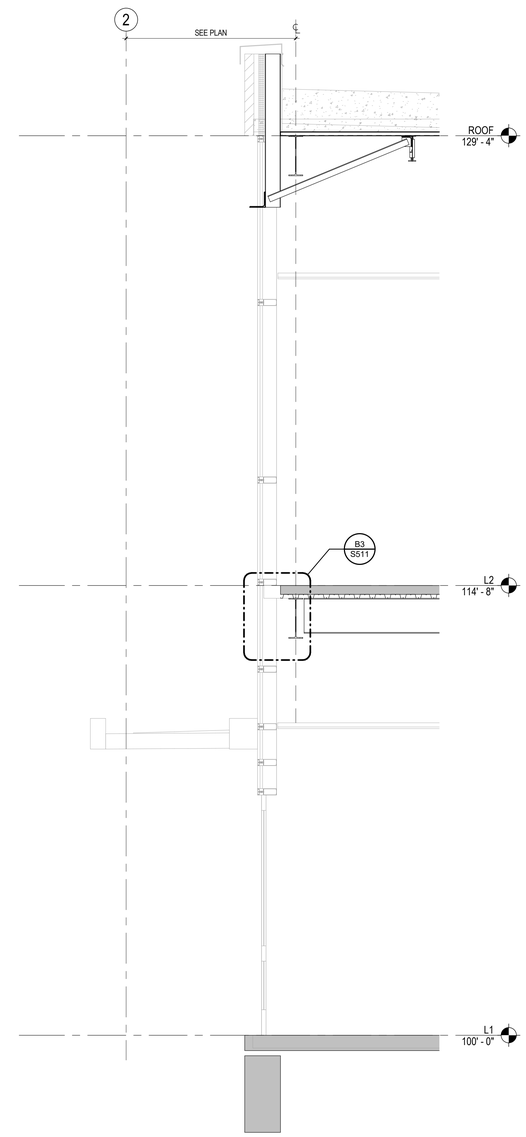
ORIGINAL SHEET - ARCH E1



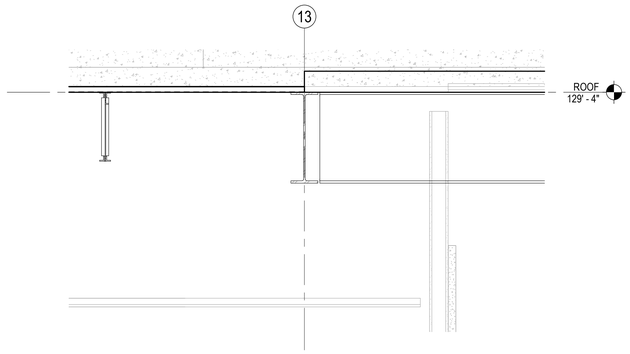
A1 S702 CLASS ROOMS @ HILOW ROOF - AREA A
1/2" = 1'-0"



A3 S702 CLASS ROOM @ 2ND FLR/HI ROOF - AREA A
1/2" = 1'-0"



A5 S702 WEST ENTRY
1/2" = 1'-0"



D5 S702 CHANGE OF DECK AT LONG SPAN BEAM FRAMING
3/4" = 1'-0"

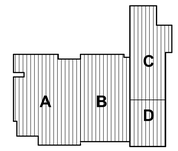
1 SHEET REVISED

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Issued		By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
STRUCTURAL WALL SECTIONS

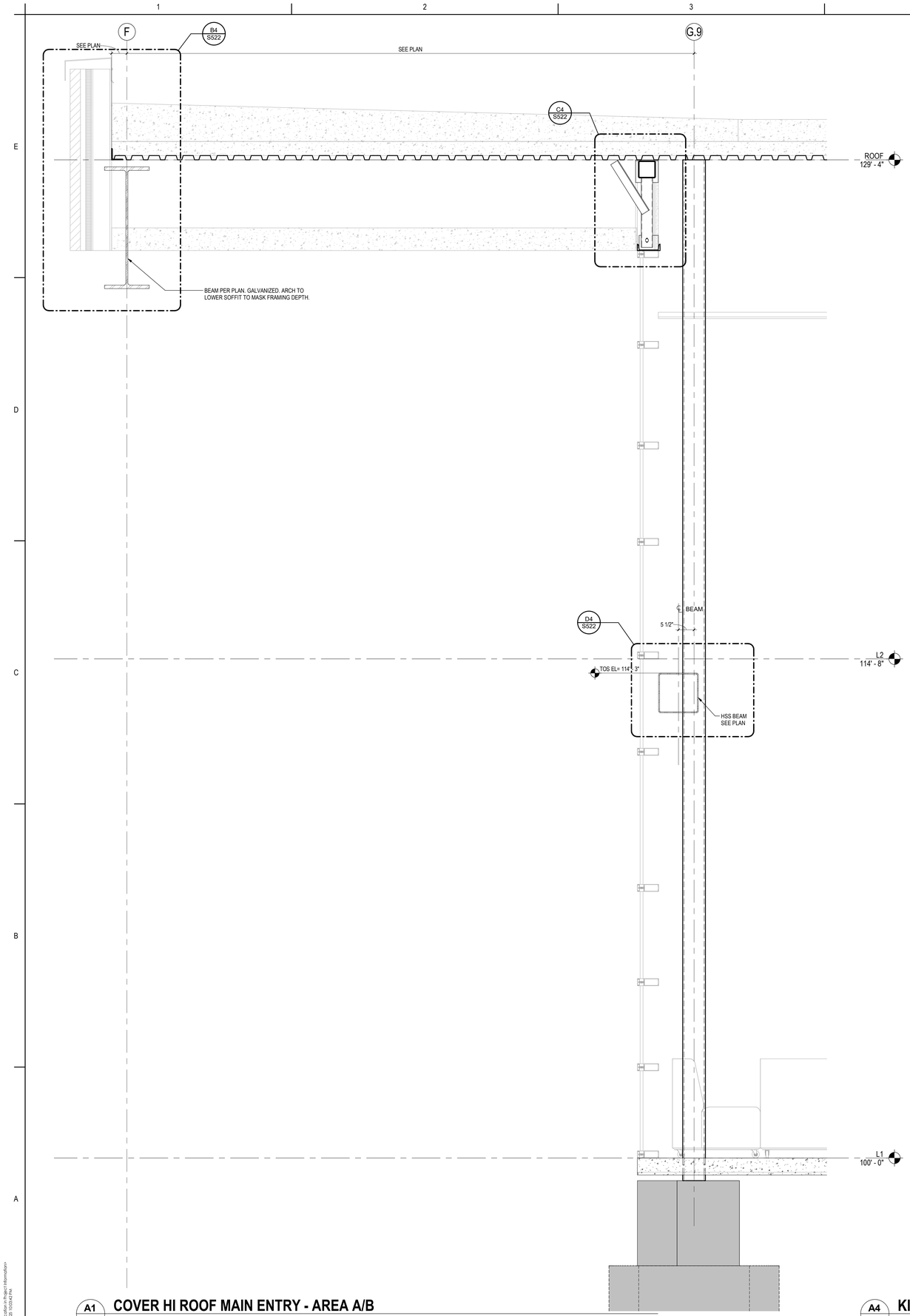
Project No.
214001269

Scale
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Revision
1

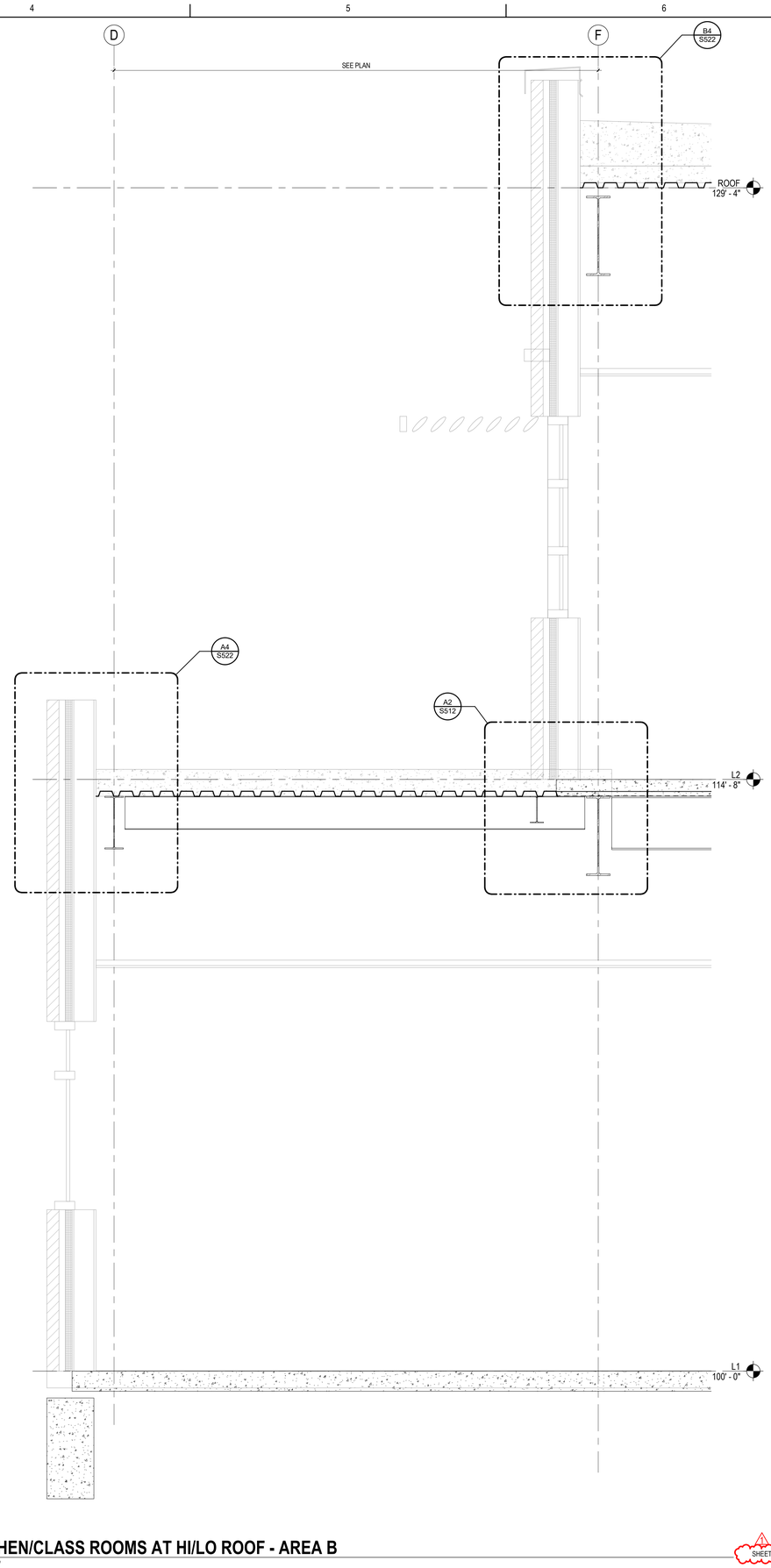
Drawing No.
S702

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ORIGINAL SHEET - ARCH E1



A1 S703 **COVER HI ROOF MAIN ENTRY - AREA A/B**

3/4" = 1'-0"



A4 S703 **KITCHEN/CLASS ROOMS AT HI/LO ROOF - AREA B**

3/4" = 1'-0"

1 SHEET REVISED

Stantec

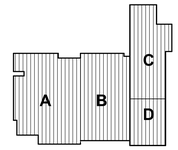
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Elementary School No 23

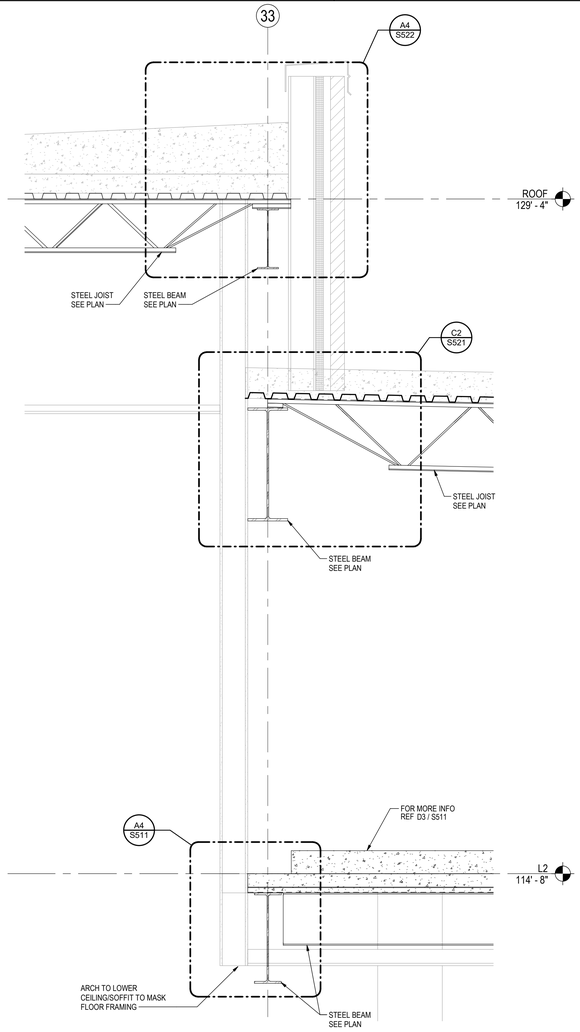
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
STRUCTURAL WALL SECTIONS

Project No.	Scale
214001269	3/4" = 1'-0"
Revision	Drawing No.
1	**S703**

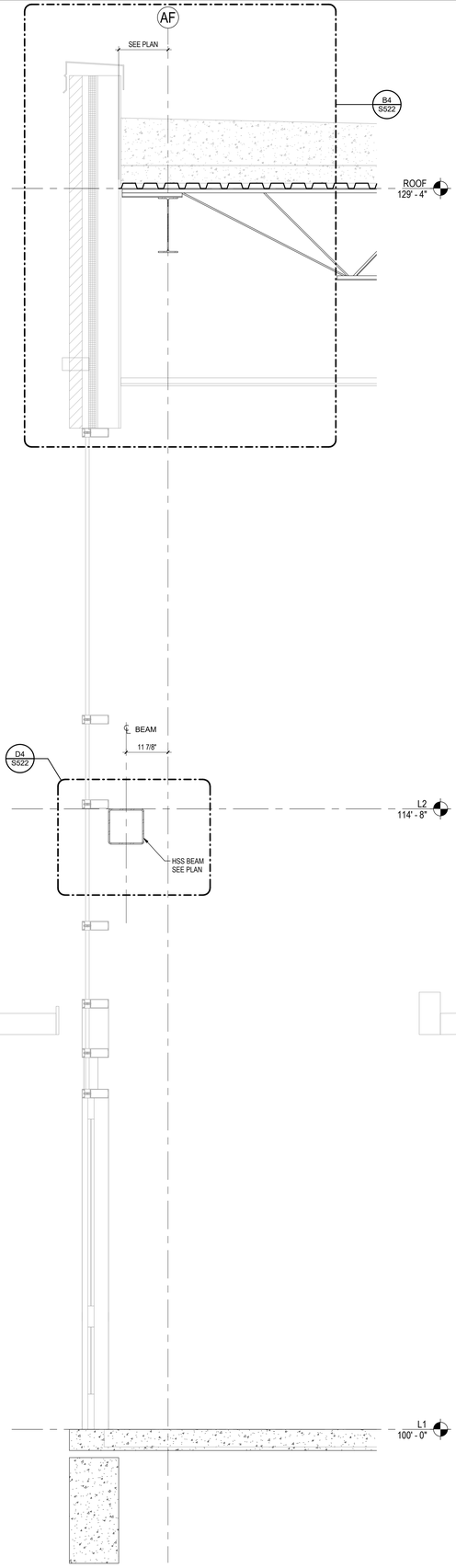
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ORIGINAL SHEET - ARCH E1



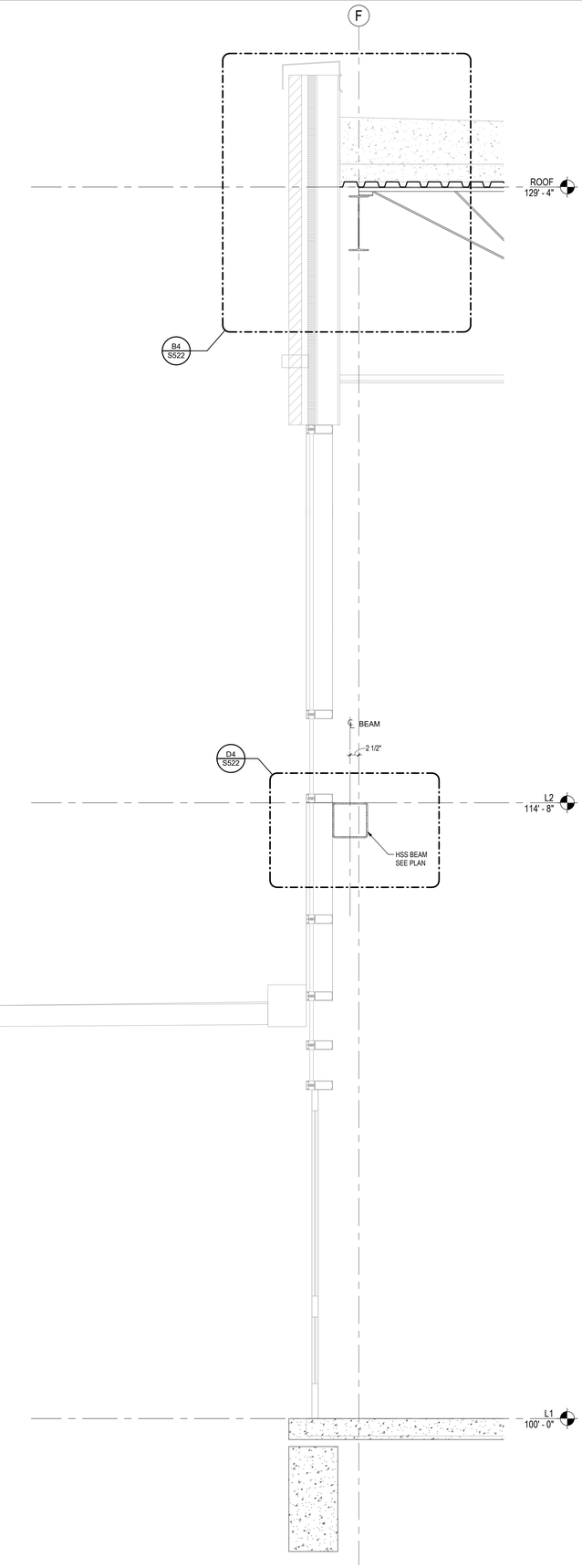
C1 S704 **HI LO ROOF AT MEZZANINE- AREA C**

3/4" = 1'-0"



A3 S704 **SOUTH ENTRY - AREA B**

3/4" = 1'-0"



A5 S704 **NORTH ENTRY - AREA B**

3/4" = 1'-0"

1 SHEET REVISED

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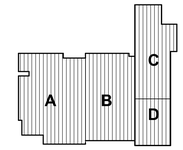
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Issued	By	Appd	YYYY.MM.DD

Permit/Seal



2025.09.11

Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

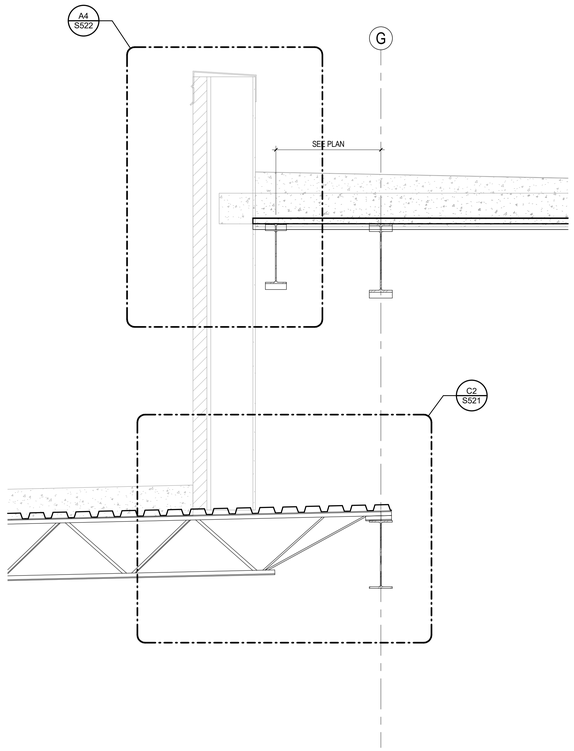
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

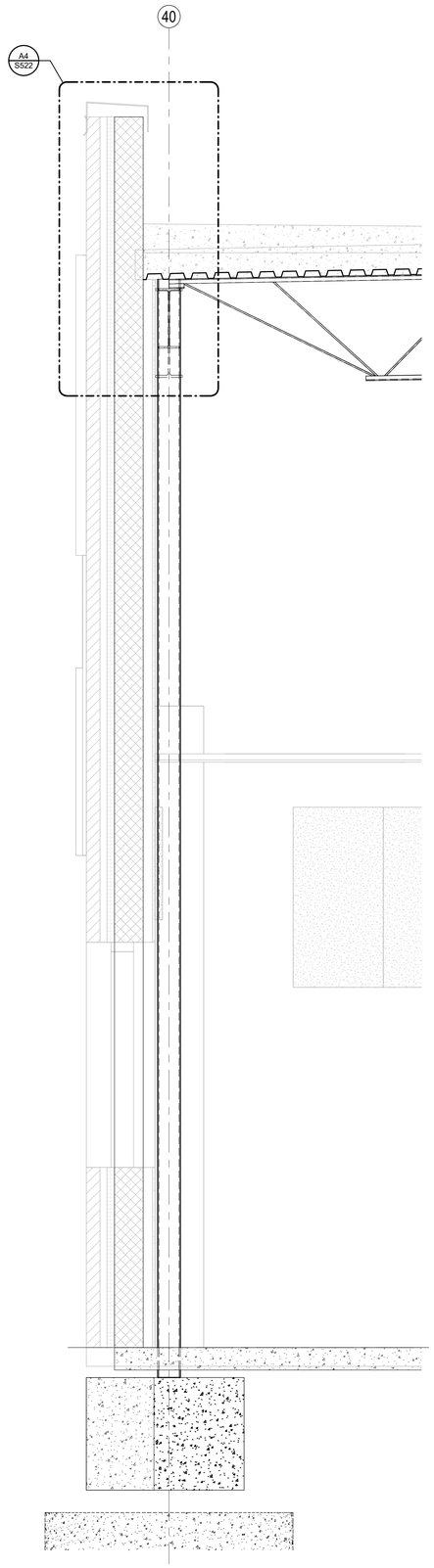
Title
STRUCTURAL WALL SECTIONS

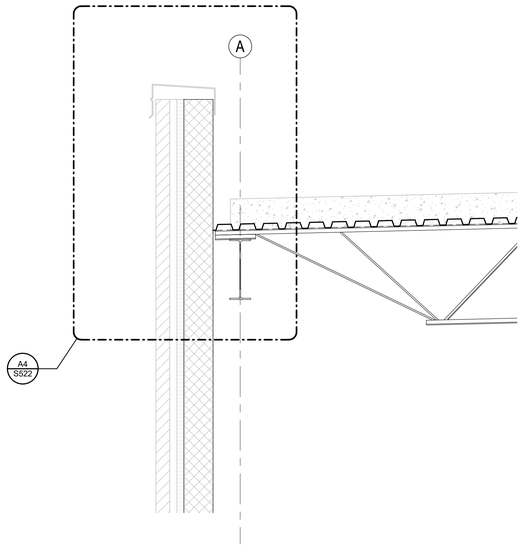
Project No.	Scale
214001269	3/4" = 1'-0"
Revision	Drawing No.
1	**S704**

*Pick location in Project Information
8/11/2025 10:03:43 PM

ORIGINAL SHEET - ARCH E1







D5 / S705 **KITCHEN ROOF**
3/4" = 1'-0"

A1 / S705 **HI LOW ROOF AT KITCHEN/DINING**
3/4" = 1'-0"

A3 / S705 **DOUBLE HEIGHT SPACE- AREA C/D**
3/4" = 1'-0"

SHEET REVISED

Stantec

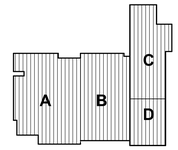
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Issued	By	Appd	YYYY.MM.DD

Permit/Seal



Texas Firm Registration No. F-13678

Client/Project Logo

Client/Project
ALVIN ISD

Elementary School No 23

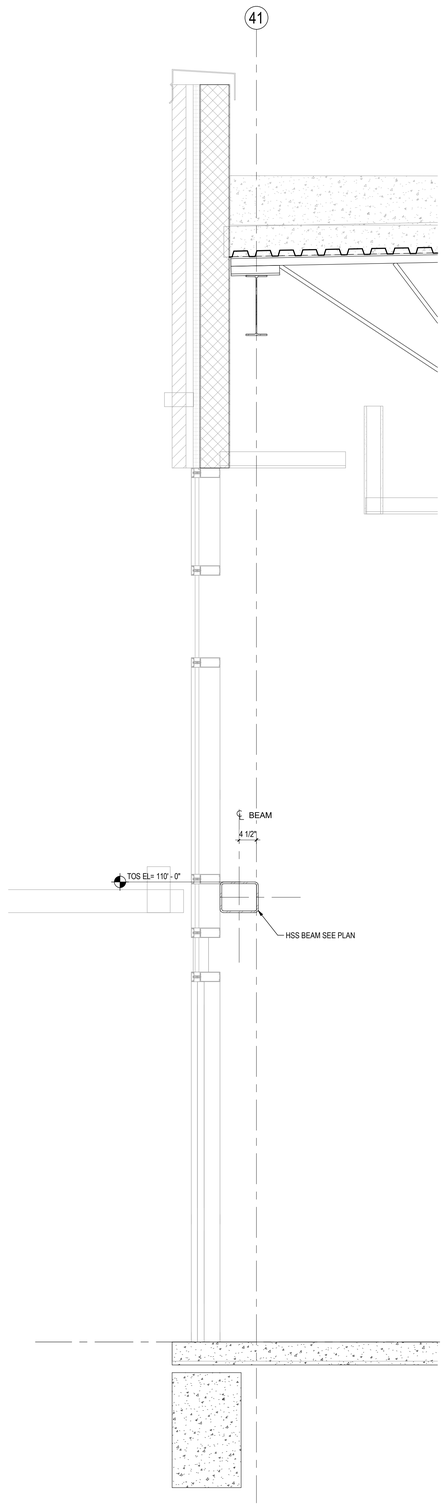
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
STRUCTURAL WALL SECTIONS

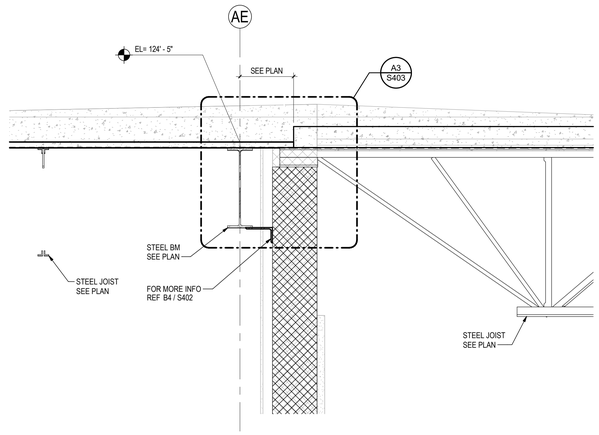
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Revision 1	Drawing No. **S705**

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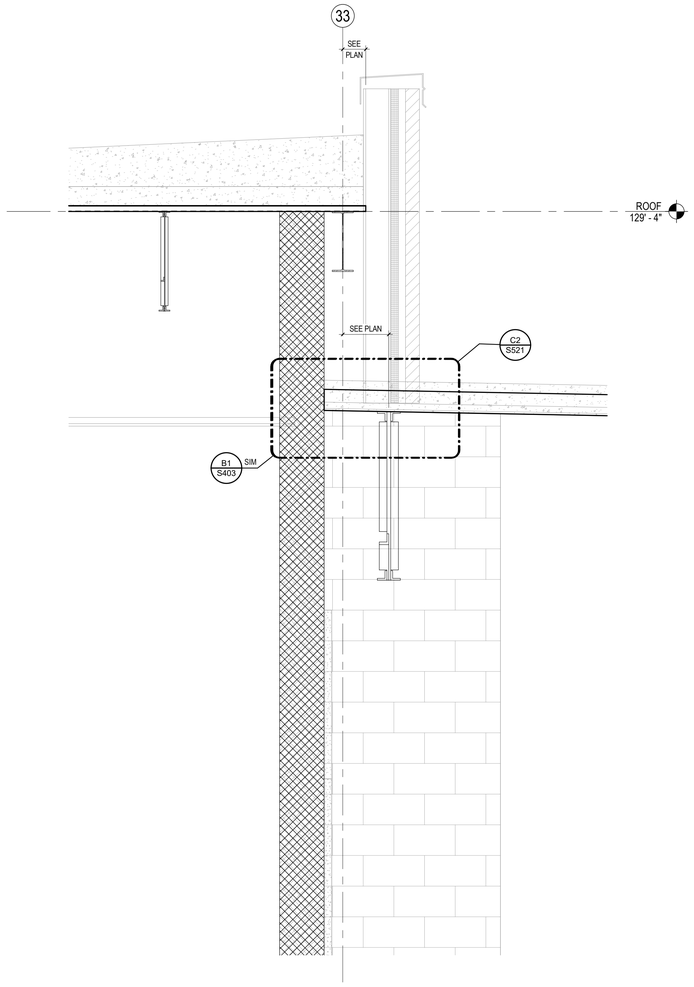
ORIGINAL SHEET - ARCH E1



A1 / S706 NORTH/EAST ENTRY - AREA C
3/4" = 1'-0"



A3 / S706 GYM SECTION
3/4" = 1'-0"



A5 / S706 HI LO ROOF AT GYM
3/4" = 1'-0"

1 SHEET REVISED

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A B C D

N

Revision	By	Appd	YYYY.MM.DD
1 ADDENDUM #2			09.11.2025

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Permit/Seal

STATE OF TEXAS
BRITNEY R. WEIDERT
112068
LICENSED
PROFESSIONAL ENGINEER
2025.09.11

Texas Firm Registration No. F-1678

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

Elementary School No 23

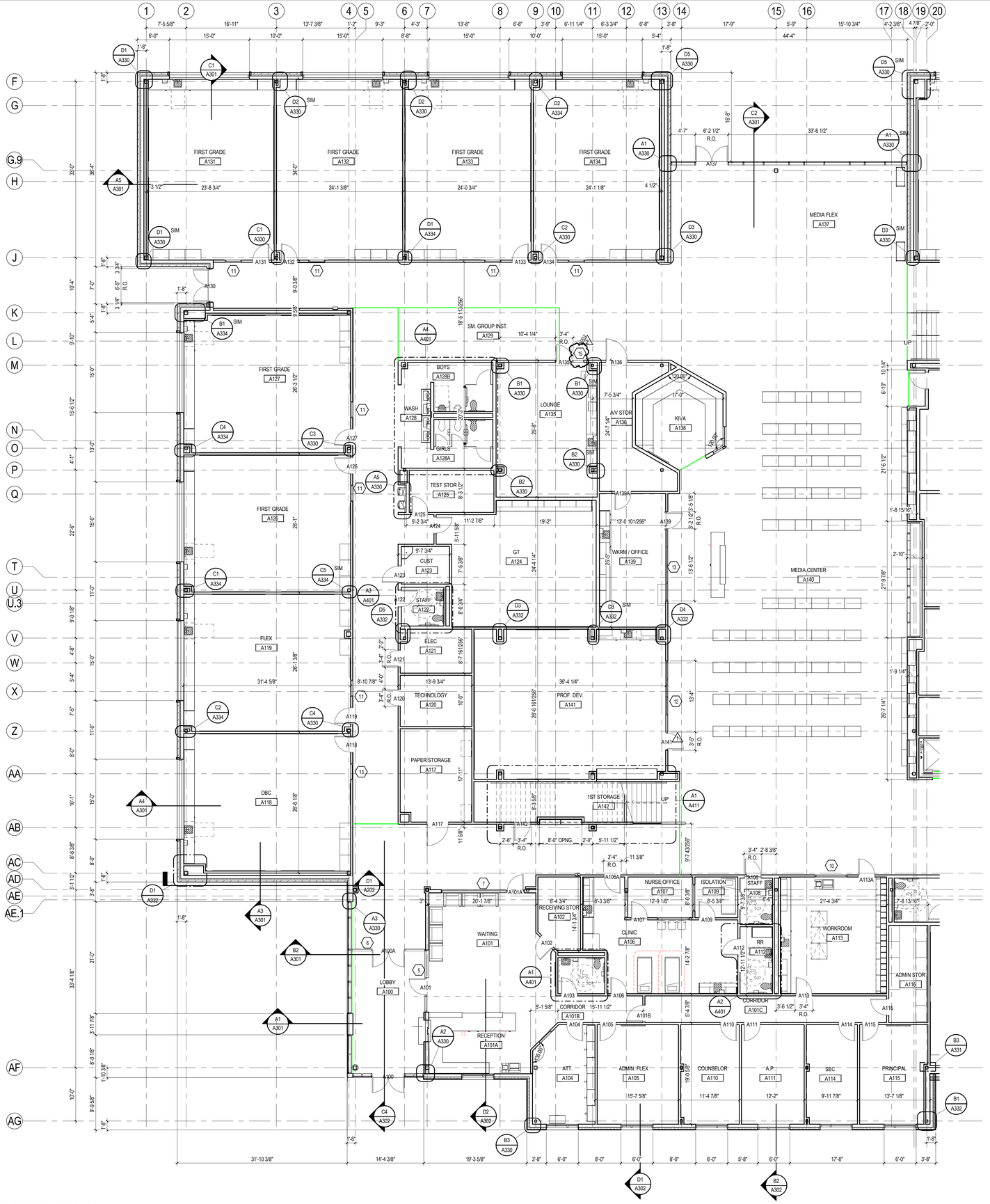
WHITE GOLD RD & KARSTEN DR
IOWA COLONY, TEXAS 77583

Title
STRUCTURAL WALL SECTIONS

Project No.	Scale
214001269	3/4" = 1'-0"
Revision	Drawing No.
1	S706

•Pick location in Project Information•
9/11/2025 10:03:49 PM

ORIGINAL SHEET - ARCH E1



A1 A111 **LEVEL 1 FLOOR PLAN - AREA A**
1/8" = 1'-0"

AREA PLAN NOTES:

1. ON THIS PLAN, PARTITION TYPE **"SD3N"** IS TYPICAL AT INTERIOR WALL, U.O.N.
2. ON THIS PLAN, PARTITION TYPE **"SB3N"** IS TYPICAL AT ALL INTERIOR STEEL STUD COLUMN WRAPS, TYP., U.O.N.
3. ON THIS PLAN, PARTITION TYPE **"M09"** IS TYPICAL AT ALL INTERIOR CMU COLUMN WRAPS, TYP., U.O.N.
4. REFER TO A501 FOR DOOR SCHEDULES.
5. REFER TO A802 FOR ROOM FINISH SCHEDULES.

CONSTRUCTION LEGEND:

- METAL FRAMING WALLS (REFER TO PARTITION TYPES)
- METAL FRAMING WALLS (REFER TO PARTITION TYPES) - PROVIDE CONCRETE CURB.
- CMU WALLS (REFER TO PARTITION TYPES)

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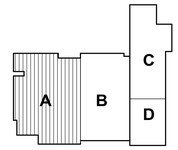
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1 NOTED INTERIOR FRAME TYPES ON AREA PLAN DRAWINGS

2	ADD#02		09/11/2025
1	ADD#01		09/08/2025
Revision		By	Appd	YYYY.MM.DD
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Permit/Seal



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ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

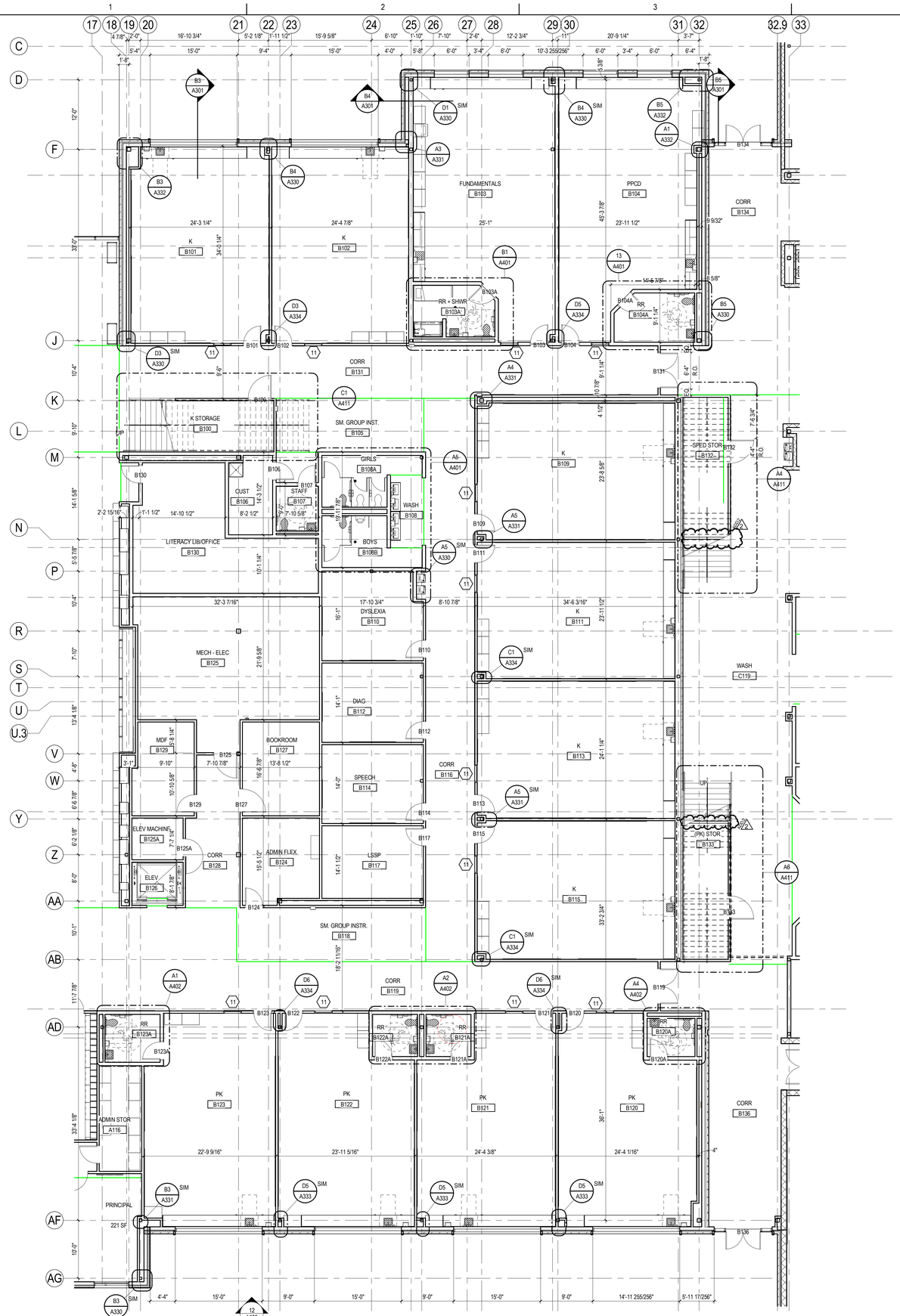
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 FLOOR PLAN - AREA A

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
2	**A111**

<Pick location in Project Information>
8/11/2025 8:54:48 AM

ORIGINAL SHEET - ARCH E1



A1 A112 **LEVEL 1 FLOOR PLAN - AREA B**

1/8" = 1'-0"

AREA PLAN NOTES:

1. ON THIS PLAN, PARTITION TYPE **"SD3N"** IS TYPICAL AT INTERIOR WALL, U.O.N.
2. ON THIS PLAN, PARTITION TYPE **"SB3N"** IS TYPICAL AT ALL INTERIOR STEEL STUD COLUMN WRAPS, TYP., U.O.N.
3. ON THIS PLAN, PARTITION TYPE **"M09"** IS TYPICAL AT ALL INTERIOR CMU COLUMN WRAPS, TYP., U.O.N.
4. REFER TO A501 FOR DOOR SCHEDULES.
5. REFER TO A802 FOR ROOM FINISH SCHEDULES.

CONSTRUCTION LEGEND:

- METAL FRAMING WALLS (REFER TO PARTITION TYPES)
- METAL FRAMING WALLS (REFER TO PARTITION TYPES) - PROVIDE CONCRETE CURB.
- CMU WALLS (REFER TO PARTITION TYPES)

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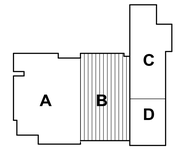
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1	ADD#01		09/08/2025
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

NOTED INTERIOR FRAME TYPES ON AREA PLAN DRAWINGS

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Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

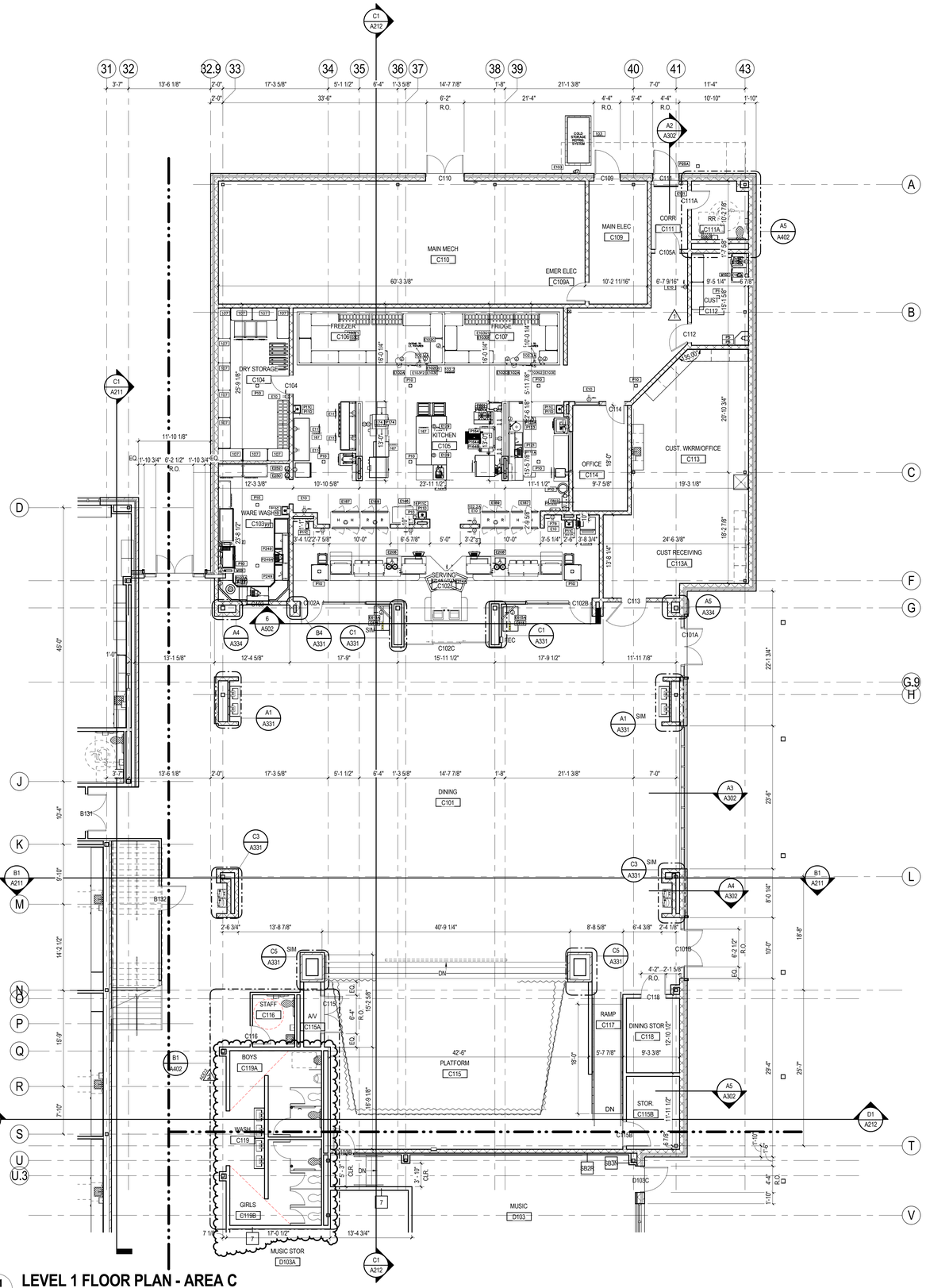
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 FLOOR PLAN - AREA B

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
2	**A112**

<Plot location in Project Information>
7/15/2025 4:34:20 AM

ORIGINAL SHEET - ARCH E1



A1 LEVEL 1 FLOOR PLAN - AREA C

A113 1/8" = 1'-0"

ORIGINAL SHEET - ARCH E1

<Path>\\Revit location in Project Information>
9/11/2025 3:54:53 AM

AREA PLAN NOTES:

1. ON THIS PLAN, PARTITION TYPE **"SD3N"** IS TYPICAL AT INTERIOR WALL, U.O.N.
2. ON THIS PLAN, PARTITION TYPE **"SB3N"** IS TYPICAL AT ALL INTERIOR STEEL STUD COLUMN WRAPS, TYP., U.O.N.
3. ON THIS PLAN, PARTITION TYPE **"M09"** IS TYPICAL AT ALL INTERIOR CMU COLUMN WRAPS, TYP., U.O.N.
4. REFER TO A501 FOR DOOR SCHEDULES.
5. REFER TO A802 FOR ROOM FINISH SCHEDULES.

CONSTRUCTION LEGEND:

- METAL FRAMING WALLS (REFER TO PARTITION TYPES)
- METAL FRAMING WALLS (REFER TO PARTITION TYPES) - PROVIDE CONCRETE CURB.
- CMU WALLS (REFER TO PARTITION TYPES)

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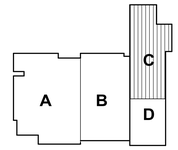
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2 ADD#02			09/11/2025
1 BIDDING DOCUMENTS - UPDATED INFO			09.01.2025

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

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REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

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ALVIN Independent School District

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

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Iowa Colony, Texas 77583

Title

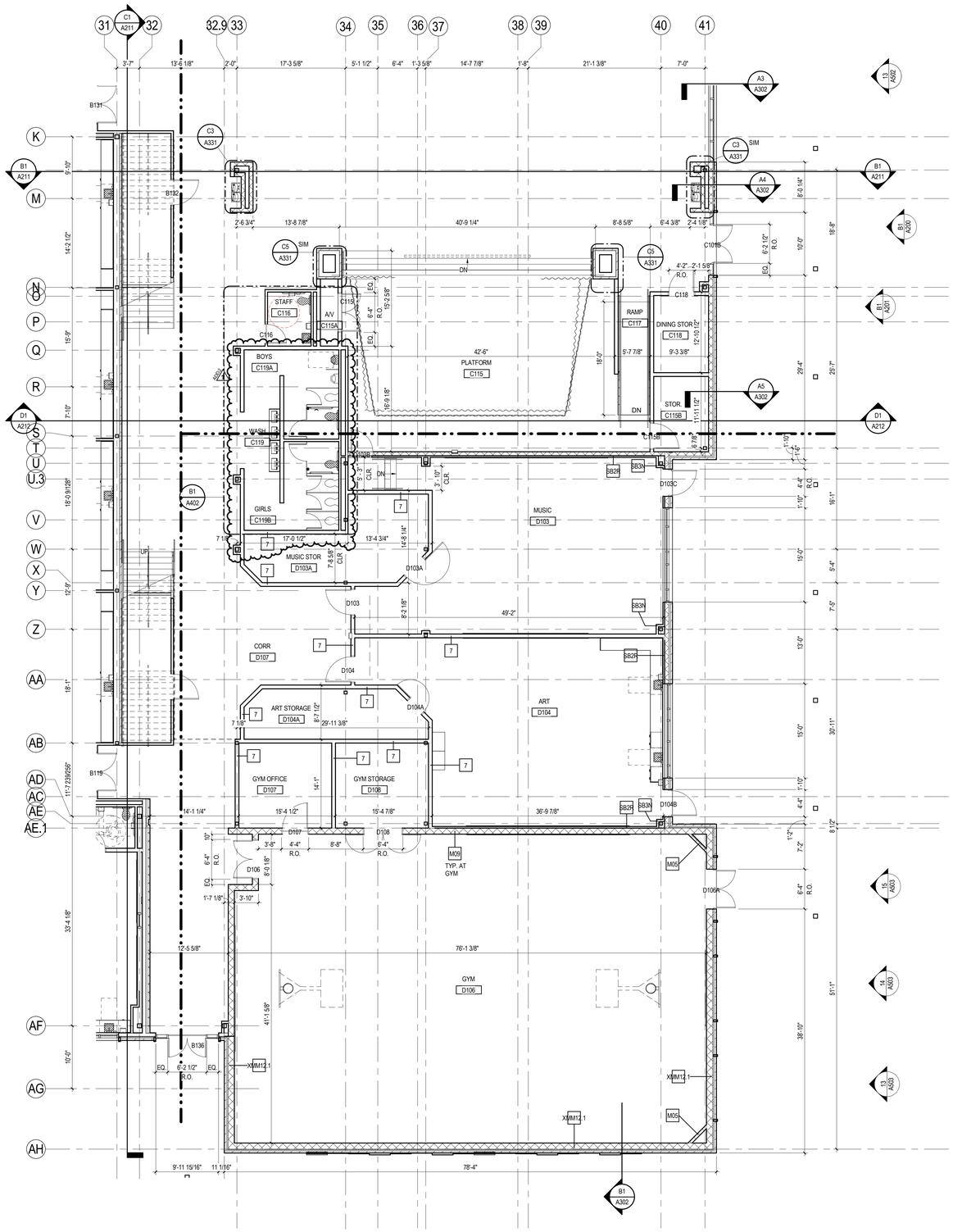
LEVEL 1 FLOOR PLAN - AREA C

Project No. 214001269

Scale As indicated

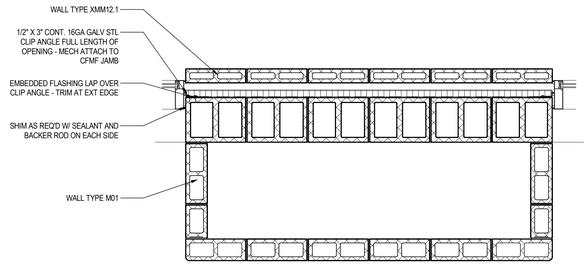
Revision 2

Drawing No. **A113**



A1 A114 **LEVEL 1 FLOOR PLAN - AREA D**

1/8" = 1'-0"



C5 A114 **PLAN DETAIL**

3/4" = 1'-0"

AREA PLAN NOTES:

1. ON THIS PLAN, PARTITION TYPE "**SD3N**" IS TYPICAL AT INTERIOR WALL, U.O.N.
2. ON THIS PLAN, PARTITION TYPE "**SB3N**" IS TYPICAL AT ALL INTERIOR STEEL STUD COLUMN WRAPS, TYP., U.O.N.
3. ON THIS PLAN, PARTITION TYPE "**M09**" IS TYPICAL AT ALL INTERIOR CMU COLUMN WRAPS, TYP., U.O.N.
4. REFER TO A501 FOR DOOR SCHEDULES.
5. REFER TO A802 FOR ROOM FINISH SCHEDULES.

CONSTRUCTION LEGEND:

- METAL FRAMING WALLS (REFER TO PARTITION TYPES)
- METAL FRAMING WALLS (REFER TO PARTITION TYPES) - PROVIDE CONCRETE CURB,
- CMU WALLS (REFER TO PARTITION TYPES)

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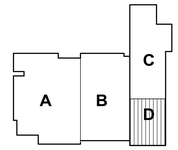
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1 ADD#02			09/11/2025
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ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 FLOOR PLAN - AREA D

Project No.
214001269

Scale
As indicated

Revision
1

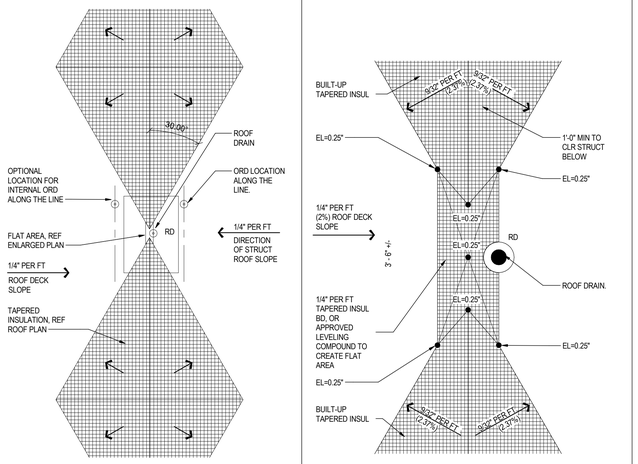
Drawing No.
A114

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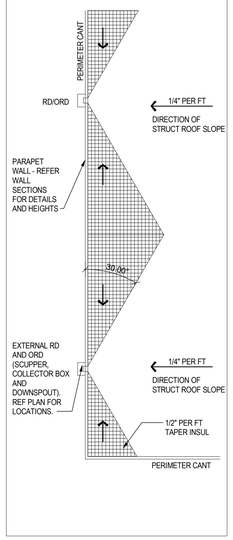
ORIGINAL SHEET - ARCH E1

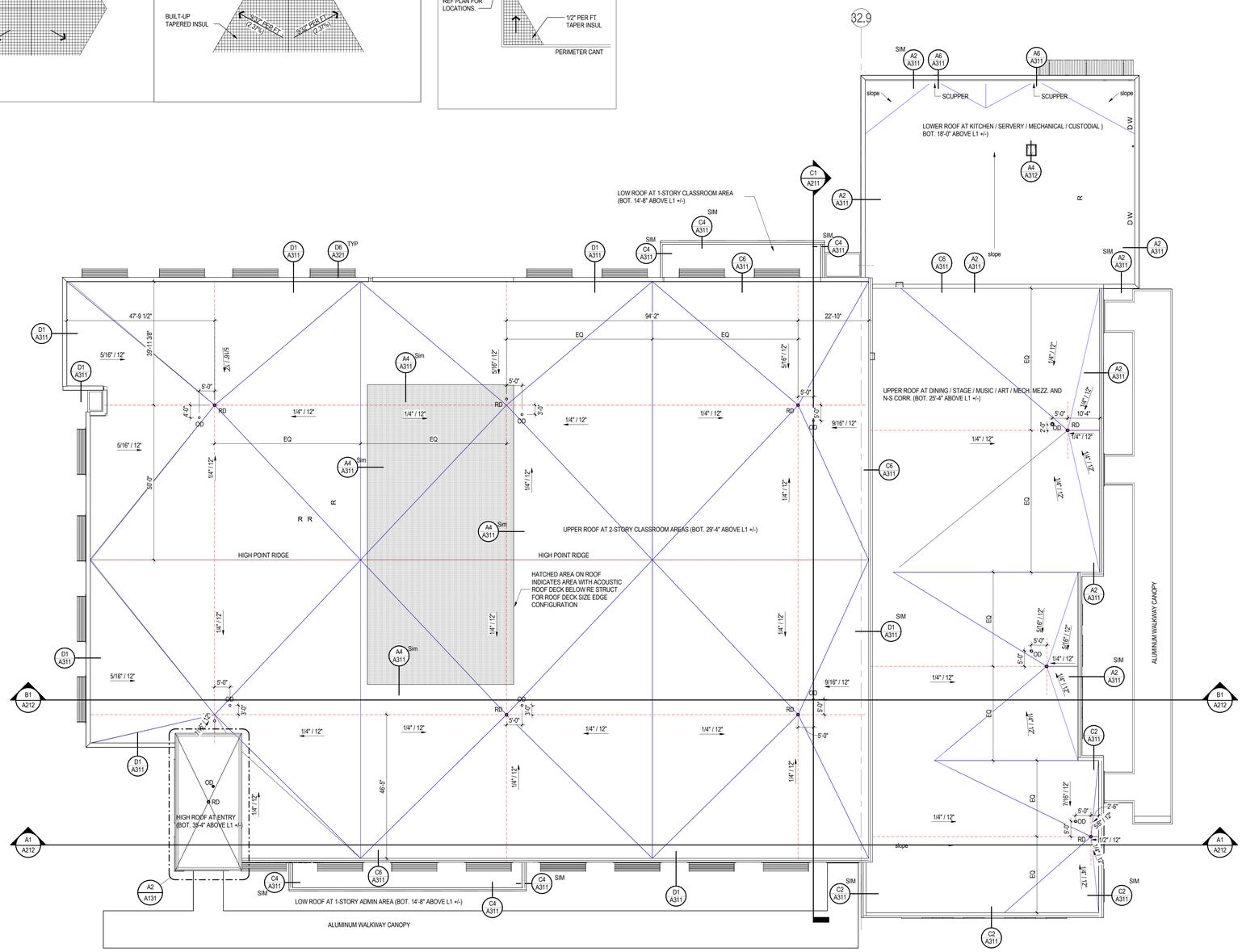
TYP NOTES AT INTERIOR ROOF DRAIN LOCATIONS

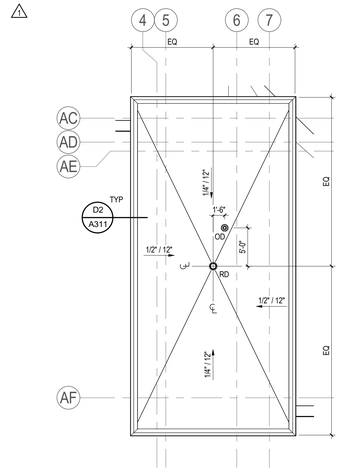
ENLARGED PLAN INTERIOR ROOF DRAIN



TYP NOTES AT ROOF EDGE/ SCUPPER LOCATIONS







GENERAL NOTES - ROOF:

1. FOR TYPICAL ROOF PENETRATION DETIALS REFER TO SHEET A312.

2. FOR ADDITIONAL ROOF PENETRATION DETAILS: REFER TO MEP DOCS.

3. REFER MEP DOCUMENTS FOR ROOFTOP EQUIPMENT NOT SHOWN. MECHANICAL, ELECTRICAL AND PLUMBING ROOF EQUIPMENT DEPICTED ON THIS SHEET IS FOR GENERAL ARCHITECTURAL INFORMATION ONLY.

4. PROVIDE WALKWAY PAD AT PIPE SUPPORT LOCATIONS. REFER MEP DOCS FOR PIPE SUPPORT LOCATIONS AND TYPES. PAD SHALL BE MIN 2'-0" WIDER THAN SUPPORT IN ALL DIRECTIONS.

5. PROVIDE CONT 36" WIDE WALKWAY PADS AT SERVICE SIDE OF ALL MECH EQUIP. REFER TO MEP DOCS FOR NUMBER AND LOCATION OF ROOFTOP MECH EQUIP. PROVIDE CONT 36" WIDE WALKWAY BOARDS AT STEPPING AREAS AT THE TOPS AND BOTTOMS OF ACCESS LADDERS.

6. EXPOSED METAL FLASHING/TRIM PIECES ARE TO BE PREFIN GALV STL, UON. REFER TO COLOR SCHEDULE AND NOTES, SHEET A801.

7. LIGHTWEIGHT INSULATING CONCRETE SHALL BE SLOPED AT 1/4"/FT MIN SLOPE TO DRAIN. SLOPE SHOWN ON ROOF PLAN IS GRAPHIC ONLY - ONLY TO SHOW DRAINAGE DIRECTION AND APPROX LOCATION. (VERIFY INSULATED CONCRETE FORMS REQUIRED TO MAINTAIN DRAINAGE SLOPE, PRIOR TO CONSTRUCTION).

8. PROVIDE TAPERED RIGID INSULATION CRICKETS (1/4"/FT MIN SLOPE) AT HIGH SIDE OF ALL MECH UNITS, ROOF HATCHES AND MISC ROOF PENETRATIONS, TO SHED WATER AROUND, AND TO INSURE POSITIVE ROOF DRAINAGE.

9. WOOD BLOCKING AT ROOF EDGES, RIDGES, ETC SHALL BE FABRICATED FROM CONT MIN 2X6s FIRE TREATED WOOD BLOCKING. PROVIDE LARGER 2X FIRE TREATED WOOD WHERE REQUIRED PER DETAIL DIMENSIONS.

10. WHERE FRT WOOD BLOCKING EXCEEDS 6" THICKNESS AT LIGHTWEIGHT INSULATING CONCRETE, PROVIDE STEM WALL CONSTRUCTED OF 6" GALV CFMF AT 16" O.C. W/ CONT TRAOK TOP AND BOTTOM AD W/ 3/4" PT FRT PLYWOOD AT EA SIDE AND TOP, TO SLOPE W/ LIGHTWEIGHT INSULATING CONCRETE.

11. PERFORMANCE REQUIREMENTS

A. WIND UPLIFT: IN ACCORDANCE WITH ASCE-7 REQUIREMENTS.
B. ROOF SURFACE: PROVIDE COOL ROOF WITH MINIMUM TOTAL SOLAR REFLECTANCE OF 70 AND THERMAL EMITTANCE OF 75 WHEN TESTED IN ACCORDANCE WITH THE FOLLOWING:
   1. REFLECTANCE: MEASURED IN ACCORDANCE WITH ASTM C1549, ASTM E903, ASTM E1175, OR ASTM E1918.
   2. EMITTANCE: MEASURED IN ACCORDANCE WITH ASTM C835, ASTM C1371, OR ASTM E408.

ROOF LEGEND:

- THERMOPLASTIC MEMBRANE ROOFING OVER LIGHTWEIGHT INSULATING CONCRETE ON METAL DECK, TYP. MIN. R-25. (MIN 1/4" FT SLOPE IN DIRECTION OF ARROW) REFER TO TYPICAL NOTES @ INTERIOR DRAIN LOCATIONS & EXTERIOR DRAIN LOCATIONS.
- THERMOPLASTIC MEMBRANE ROOFING OVER ADDITIONAL LIGHTWEIGHT INSULATING CONCRETE THICKNESS AS REQUIRED TO CREATE 1/4" /FT SLOPE.
- 1:12 — ROOF SLOPE DIRECTION (1/4"/FT MIN AT LIGHT WEIGHT CONCRETE ROOF, UON.)
- RD ORD — INTERNAL ROOF DRAIN AND OVERFLOW ROOF DRAIN (A1/A312)
- ORD RD — INTERNAL ROOF DRAIN (A1/A312) AND ROOF OVERFLOW SCUPPER (A4 & A6/A311)
- LINE OF ROOF EJ.
- 16" CLR WIDE ROOF ACCESS LADDER, INSTALL IN ACCORDANCE WITH MANUFACTURER'S STANDARDS.
- 2'-6"x3'-0" ROOF HATCH ON INTEGRAL CURB (A4/A312)
- 30" WIDE ROOF WALK PADS TO EACH ROOF ACCESS POINT AND SERVICE SIDE OF EACH MECH UNIT

A1 A131 **ROOF PLAN**
1/16" = 1'-0"

A2 A131 **ENLARGED ROOF PLAN**
1/8" = 1'-0"

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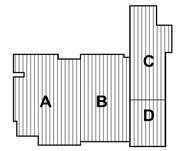
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Notes





REFERENCES ON ROOF PLAN UPDATED — 2

SHOWN AREA OF ACOUSTIC ROOF DECK. — 1

UPDATED AND ADDED DETAIL REFERENCES

ADDED ENLARGED ROOF PLAN OF ROOF OVER LOBBY

2	ADD#02		09/11/2025
1	ADD#01		09/08/2025
Revision		By	Appd YYYY.MM.DD
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FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

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REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
ROOF PLAN

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
2	**A131**

<Pick location in Project Information>
10/13/2025 8:33:00 AM

ORIGINAL SHEET - ARCH E1

MATERIAL SCHEDULE - EXTERIOR

NAME	MARK	MANUFACTURER	COLOR	STYLE	REMARKS	E P D	H P D	REQ'D CLASS / TEST
ALUMINUM FRAMES	-	-	-	-	-			
BRICK	BK-1	CLOUD CERAMICS (UPCHURH KIMBROUGH)	COFFEE - VELOUR	MODULAR	BID BOTH PRODUCTS			
BRICK	BK-1a	ACME			BID BOTH PRODUCTS			
BRICK	BK-2	CLOUD CERAMICS (UPCHURH KIMBROUGH)	MIDNIGHT IS -VELOUR	MODULAR	BID BOTH PRODUCTS			
BRICK	BK-2a	ACME			BID BOTH PRODUCTS			
CAST STONE	CS-1	ARRISCRAFT	MONTECITO - SMOOTH		-			
CONCRETE MASONRY UNIT	MU	-	-	-	-			
GLAZING		-	-	-				
METAL SOFFIT	MP-1	-	-	-	-			
MORTAR	-	-	-	-	-			

EXTERIOR MATERIAL LEGEND

BK-1 - BRICK - (MODULAR)
CLOUD CERAMIC (UPCHURCH KIMBROUGH) - COFFEE - VELOUR

BK-2 - BRICK - (MODULAR)
CLOUD CERAMIC (UPCHURCH KIMBROUGH) - MIDNIGHT IS - VELOUR

CS-1 - ARRISCRAFT- (SIZE: 4" FACE)
UPCHURCH KIMBROUGH - MONTECITO - SMOOTH

LS-1 - 1 LIMESTONE TILES (SIZES VARY) - U.S. STONE INDUSTRIES
PLAZA GRAY - HONED

COLORS SHOWN ARE NOT REPRESENTATIONAL OF ACTUAL COLOR.

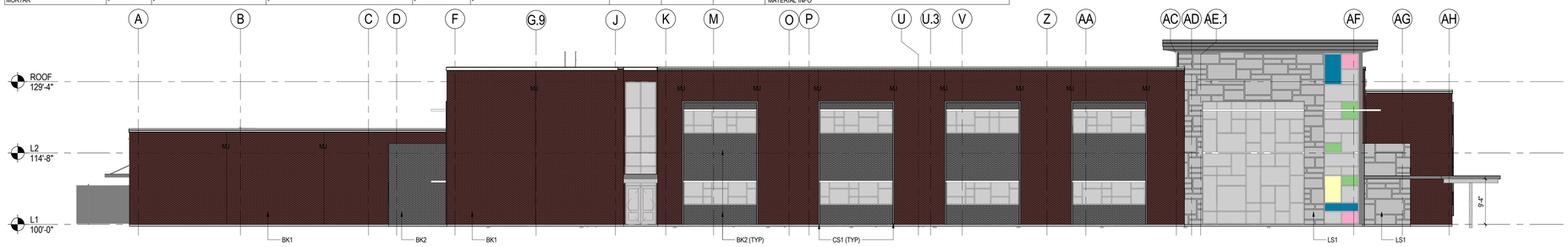
REFER TO COLOR SCHEDULE (A801) FOR COMPLETE LIST AND ADDITIONAL MATERIAL INFO

GENERAL NOTES

1. M.J. LOCATIONS: (FACE BRICK - CMU) - 4'-0" FROM OUTSIDE CORNERS.
2. C.J. LOCATIONS: (CEMENT PLASTER) - EQUALLY SPACE - (MAX. 18'-0")
3. REFER TO SHEET A801 FOR ADDITIONAL EXTERIOR FINISHES AND FINISH NOTES, TYP.
4. PAINT STEEL ACCESS LADDERS TO MATCH COLOR OF ADJACENT WALL SURFACE TYP.
5. CONTINUE MASONRY AND CMU ACCENT SCHEME AT ALL EXTERIOR WALLS INCLUDING AT ENTRIES, COLUMNS, AND WALLS OR PORTIONS OF WALLS NOT SHOWN ON ELEVATIONS, TYP.
6. COLOR OF SEALANT TO MATCH COLOR OF BRICK - CMU AT MASONRY JOINTS. ARCHITECT TO VERIFY IN FIELD.
7. COORDINATE WITH ARCHITECT FOR LOCATION OF ALL EXTERIOR WALL PACKS, SECURITY CAMERAS, SPEAKERS, HORNS, ECT. PRIOR TO INSTALLATION.

TYPICAL CONSTRUCTION JOINT NOTES

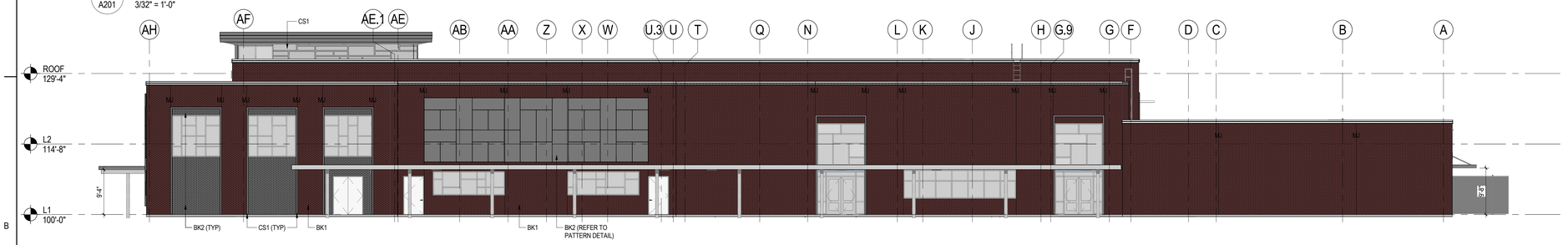
1. ALIGN ALL C.J. LOCATIONS WITH WINDOW OPENINGS.
2. CENTER C.J.s TO CENTER OF WINDOW MULLIONS BOTH VERTICAL AND HORIZONTAL.
3. U.O.N. LOCATE ALL OTHER ADJACENT C.J.s AT THE SAME DISTANCE AS THAT OF THOSE ALIGNED WITH CENTER OF MULLIONS ON THAT FACE OF THE WALL.



D1 OVERALL WEST ELEVATION
A201 3/32" = 1'-0"



C1 OVERALL NORTH ELEVATION
A201 3/32" = 1'-0"



B1 OVERALL EAST ELEVATION
A201 3/32" = 1'-0"



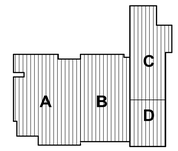
A1 OVERALL SOUTH ELEVATION
A201 3/32" = 1'-0"

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Consultant

Notes



N

2 ADDED MATERIAL IDENTITY TAGS.
ADDED "MJ" LOCATIONS.
FIXED GRAPHIC ERROR OF CANOPY COLUMNS DISAPPEARING.

1 INDICATED COLOR GLAZING FOR REFERENCE, AS NOTED ON FRAME ELEVATIONS. COLORS TBD.
NORTH ELEVATION - LEVEL BUMP-OUT INDICATED AS BRICK BK-2

2	ADD#02		09/11/2025
1	ADD#01		09/08/2025
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
OVERALL EXTERIOR ELEVATIONS

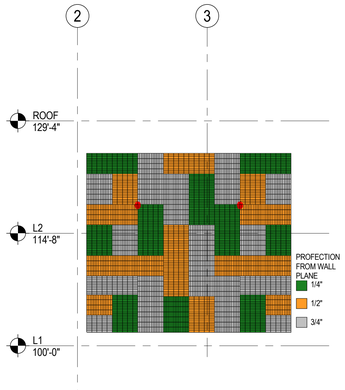
Project No.
214001269

Scale
As indicated

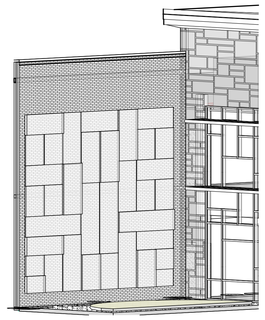
Revision
2

Drawing No.
A201

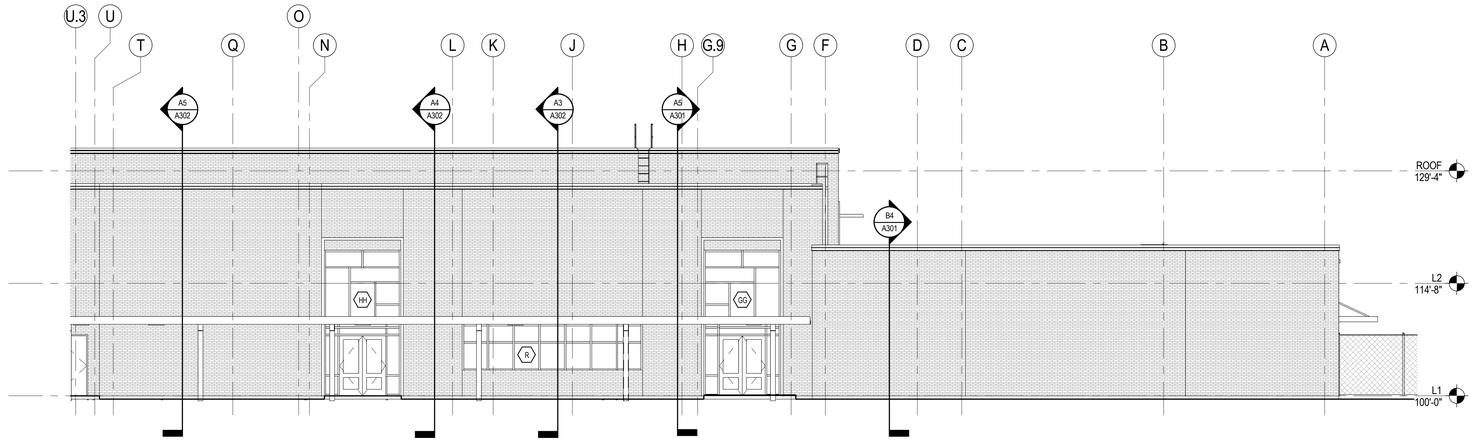
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ORIGINAL SHEET - ARCH E1



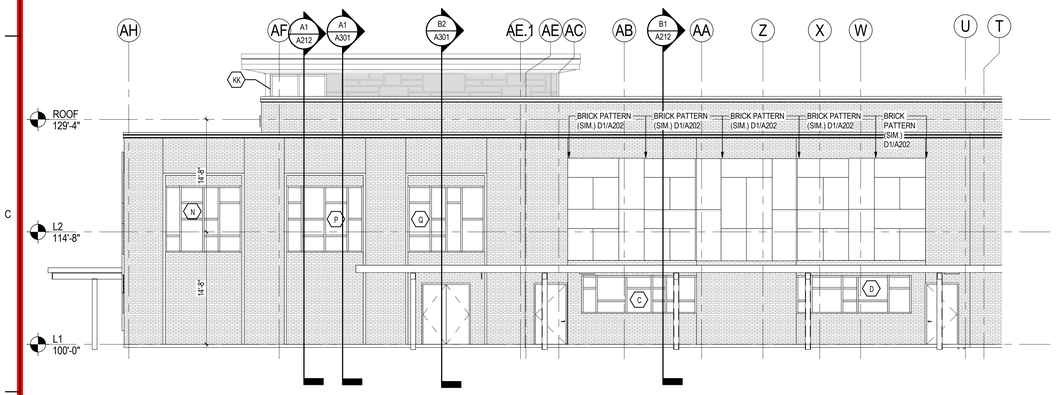
D1 A202 **BRICK PATTERN**
1/8" = 1'-0"



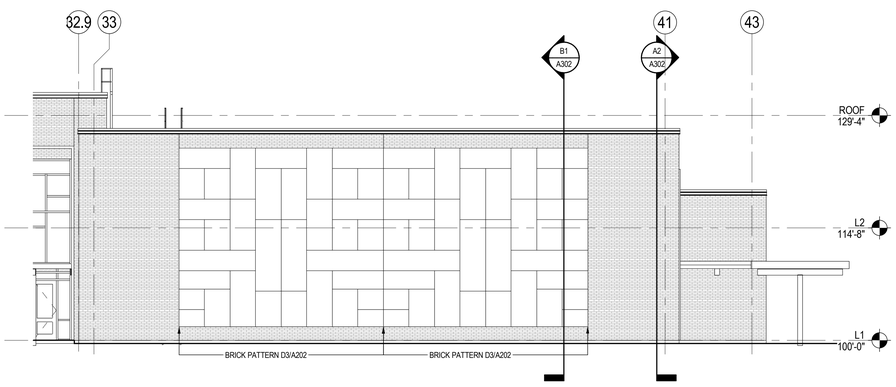
D2 A202 **BRICK PATTERN - 3D**



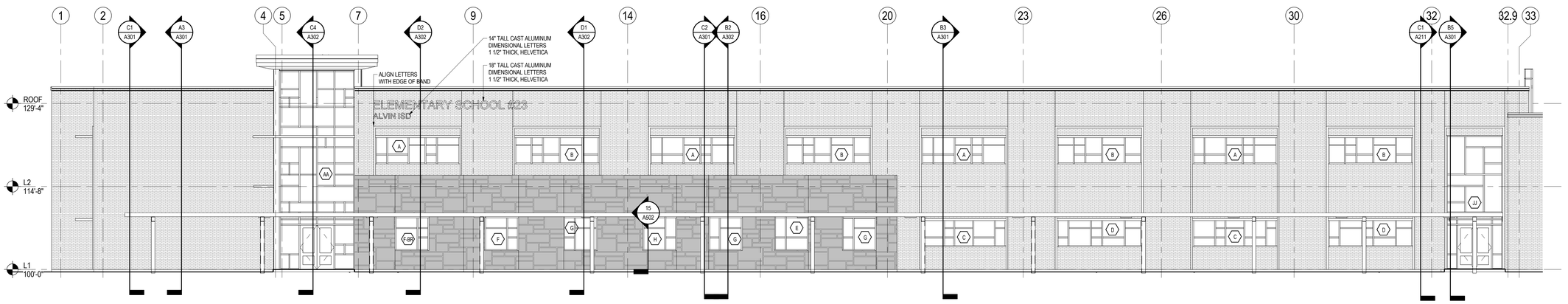
D3 A202 **ENLARGED EAST EXTERIOR PARTIAL ELEVATION 2**
1/8" = 1'-0"



C1 A202 **ENLARGED EAST EXTERIOR PARTIAL ELEVATION 1**
1/8" = 1'-0"



C4 A202 **ENLARGED SOUTH EXTERIOR PARTIAL ELEVATION 2**
1/8" = 1'-0"



A1 A202 **ENLARGED SOUTH EXTERIOR PARTIAL ELEVATION 1**
1/8" = 1'-0"

<Pick location in Project Information>
8/11/2025 4:53:53 AM

ORIGINAL SHEET - ARCH E1

Stantec

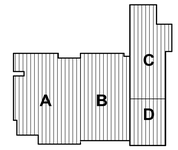
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Notes



N

2 ADDENDUM #2 ADDED BUILDING LETTERING SIZES AND LOCATION INFO.

1 ADDENDUM #1 ADDED BRICK PATTERN REFERENCE NOTES.

REMOVED EXTRA SECTION BUBBLES.

ADDED STORE FRAME TYPE F-BR WITH BULLET RESISTANT GLAZING AT EXTERIOR OF RECEPTION

2	ADD#02			09/11/2025
1	ADD#01			09/08/2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS				09.01.2025
FINAL CONSTRUCTION DOCUMENTS				08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal

REGISTERED ARCHITECT
MARK E. JACKSON
19468
STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

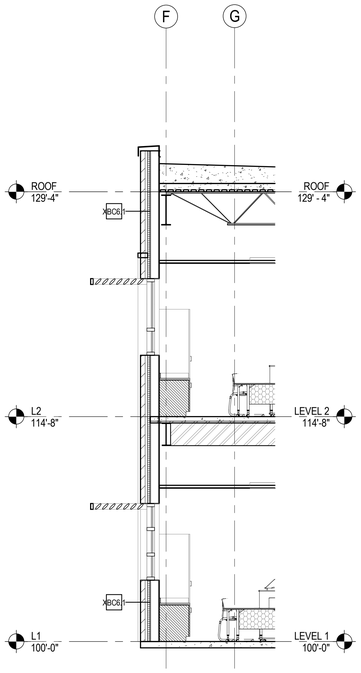
Title
ENLARGED EXTERIOR ELEVATIONS

Project No.
214001269

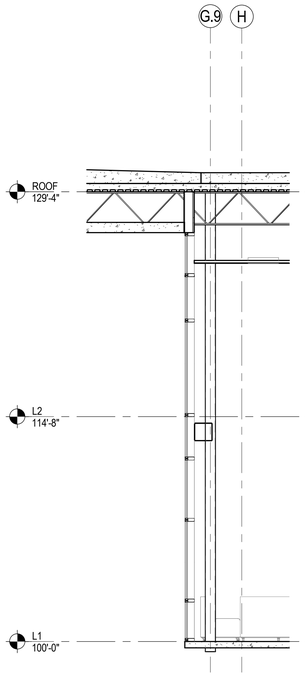
Scale
1/8" = 1'-0"

Revision
2

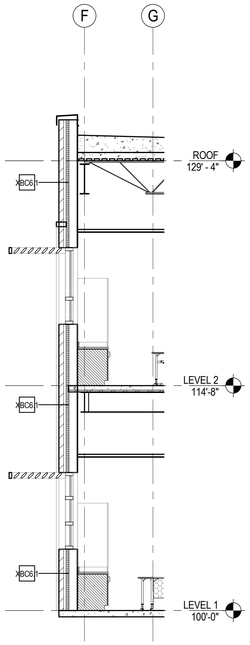
Drawing No.
A202



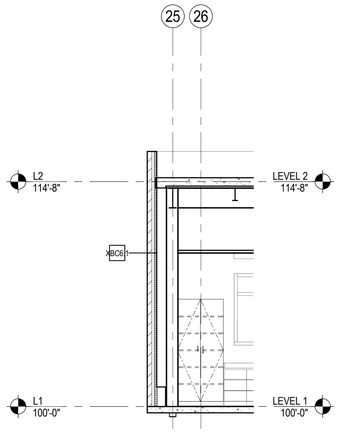
C1 A301 **WALL SECTION** 1/4" = 1'-0"



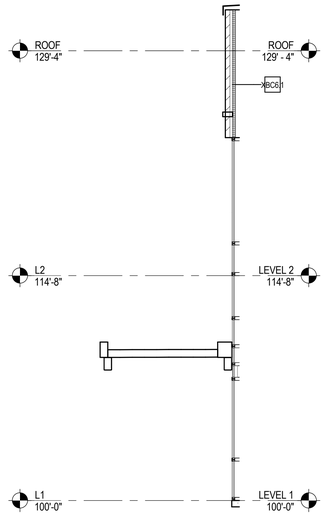
C2 A301 **WALL SECTION** 1/4" = 1'-0"



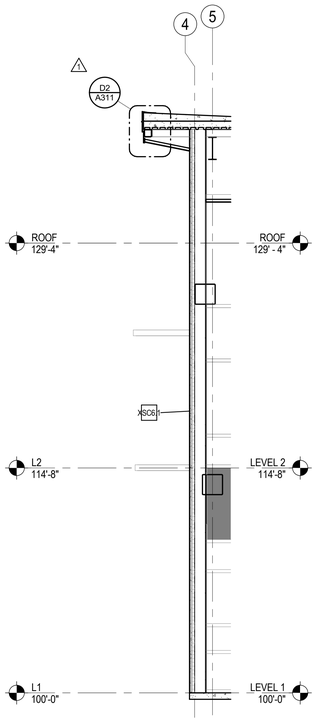
B3 A301 **WALL SECTION** 1/4" = 1'-0"



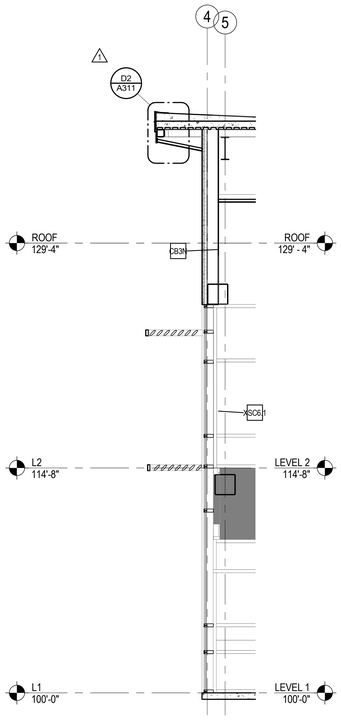
B4 A301 **WALL SECTION** 1/4" = 1'-0"



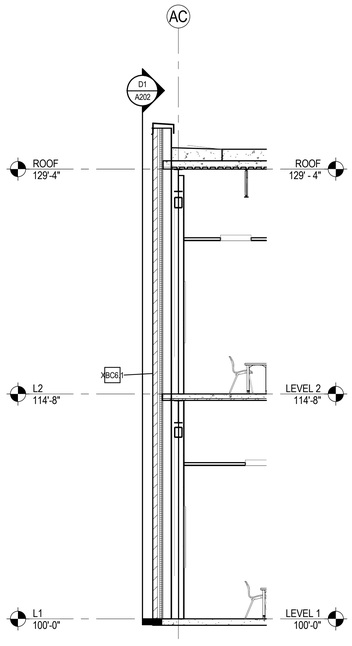
B5 A301 **WALL SECTION** 1/4" = 1'-0"



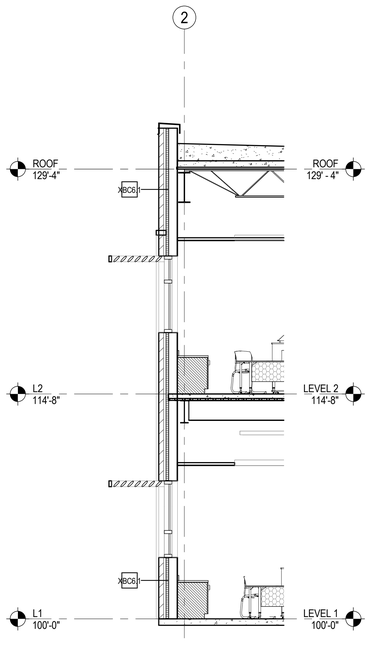
A1 A301 **WALL SECTION** 1/4" = 1'-0"



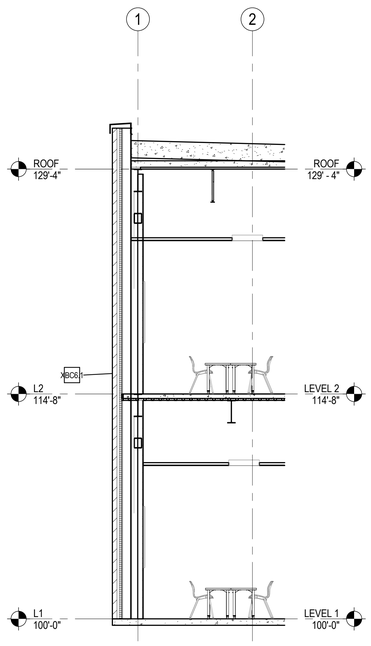
B2 A301 **WALL SECTION** 1/4" = 1'-0"



A3 A301 **WALL SECTION** 1/4" = 1'-0"



A4 A301 **WALL SECTION** 1/4" = 1'-0"



A5 A301 **WALL SECTION** 1/4" = 1'-0"

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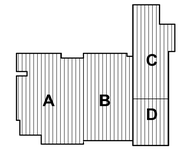
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Notes





ADDED EXTERIOR WALL SYSTEM TAGS

2	ADD#02			09/11/2025
1	ADD#01			09/08/2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS				09.01.2025
FINAL CONSTRUCTION DOCUMENTS				08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal



Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

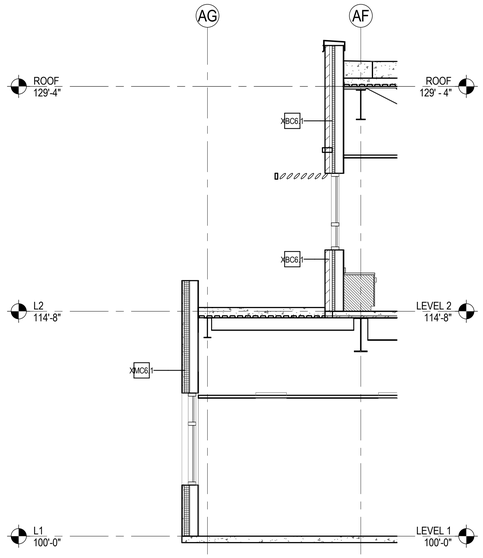
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
WALL SECTIONS & DETAILS

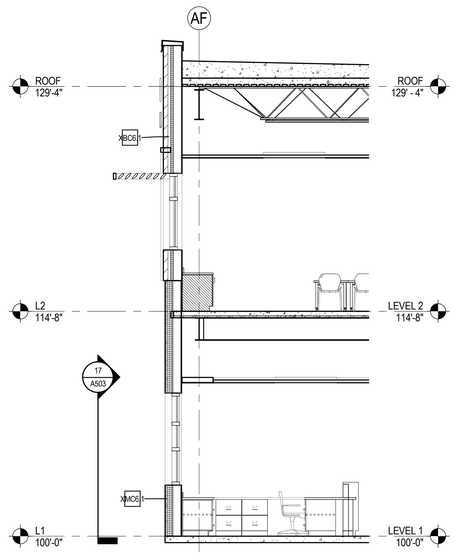
Project No.	Scale
214001269	As indicated
Revision	Drawing No.
2	**A301**

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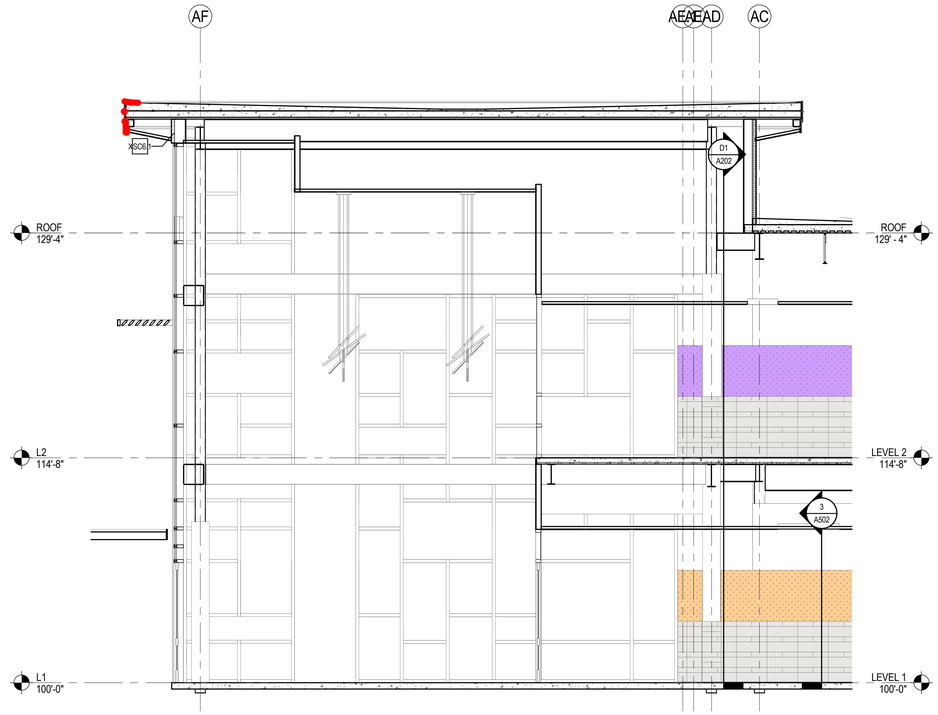
ORIGINAL SHEET - ARCH E1



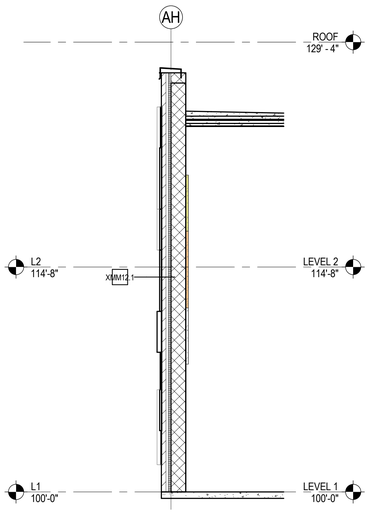
D1 A302 **WALL SECTION** 1/4" = 1'-0"



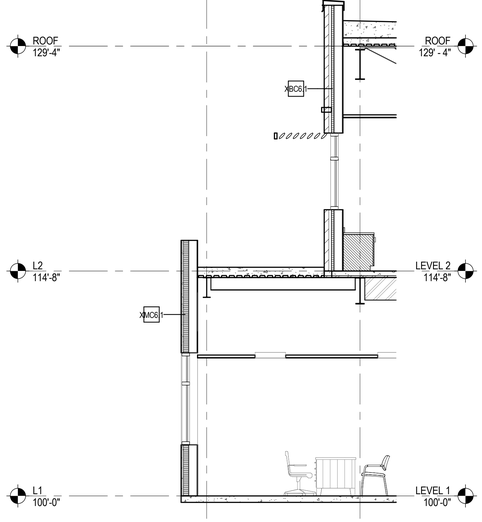
D2 A302 **WALL SECTION** 1/4" = 1'-0"



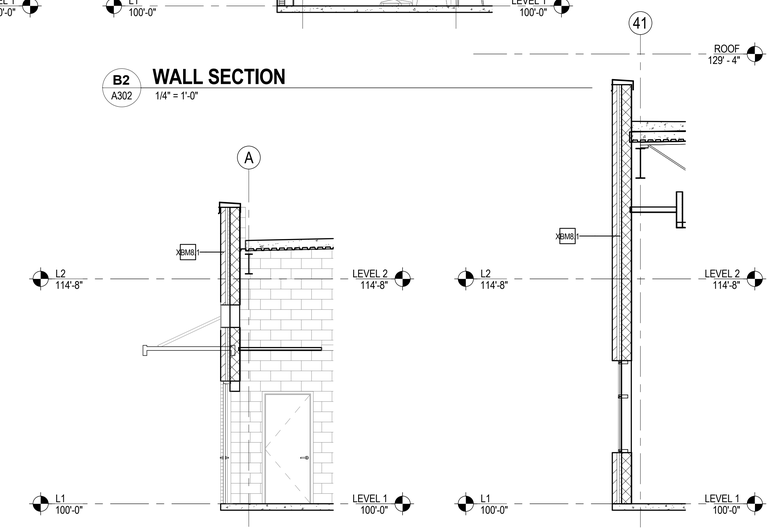
C4 A302 **WALL SECTION** 1/4" = 1'-0"



B1 A302 **WALL SECTION** 1/4" = 1'-0"

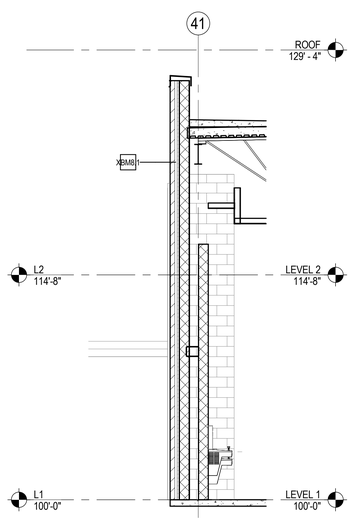


B2 A302 **WALL SECTION** 1/4" = 1'-0"

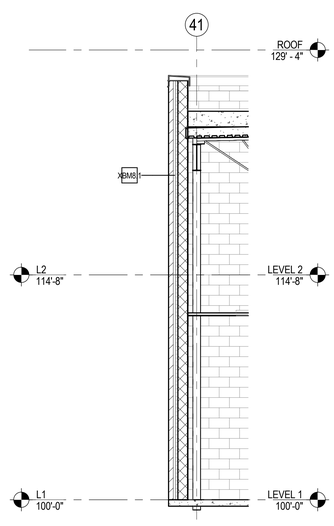


A2 A302 **WALL SECTION** 1/4" = 1'-0"

A3 A302 **WALL SECTION** 1/4" = 1'-0"



A4 A302 **WALL SECTION** 1/4" = 1'-0"



A5 A302 **WALL SECTION** 1/4" = 1'-0"

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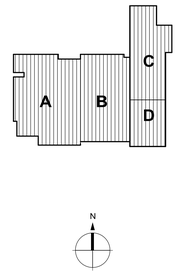
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Notes



1 ADDENDUM #2 — By — Appd — 09/11/2025

ADDED EXTERIOR WALL SYSTEM TAGS

Revision

BIDDING DOCUMENTS — 09.01.2025
FINAL CONSTRUCTION DOCUMENTS — 08.18.2025

Issued — By — Appd — YYYY.MM.DD

Permit/Seal



Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
WALL SECTIONS & DETAILS

Project No.
214001269

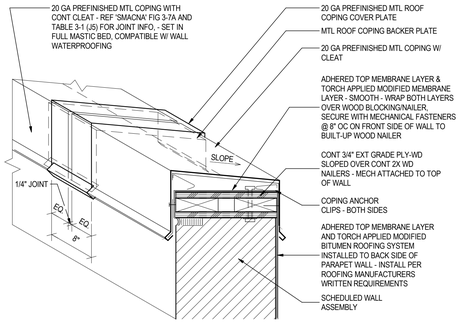
Scale
1/4" = 1'-0"

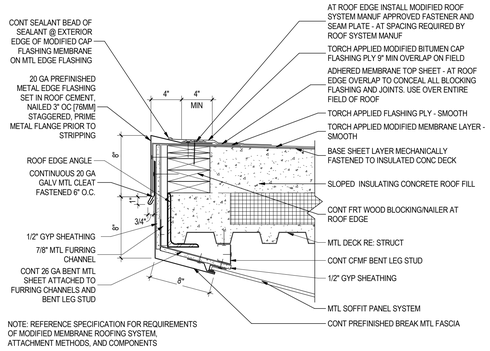
Revision
1

Drawing No.
A302

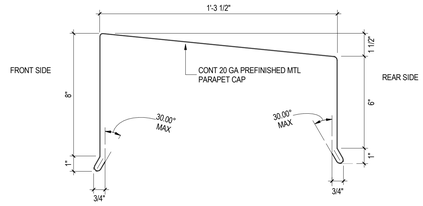
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ORIGINAL SHEET - ARCH E1

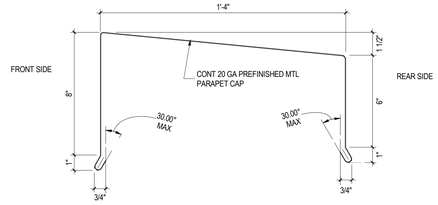




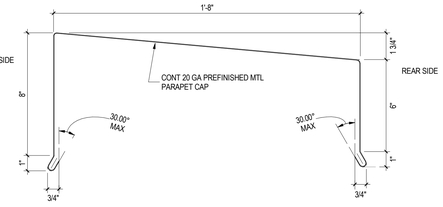
NOTE: REFERENCE SPECIFICATION FOR REQUIREMENTS OF MODIFIED MEMBRANE ROOFING SYSTEM, ATTACHMENT METHODS, AND COMPONENTS



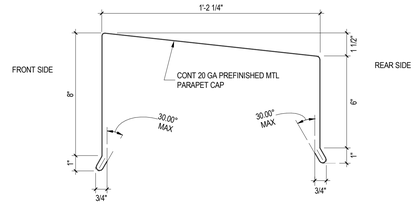
WALL CAP TYPE A



WALL CAP TYPE C



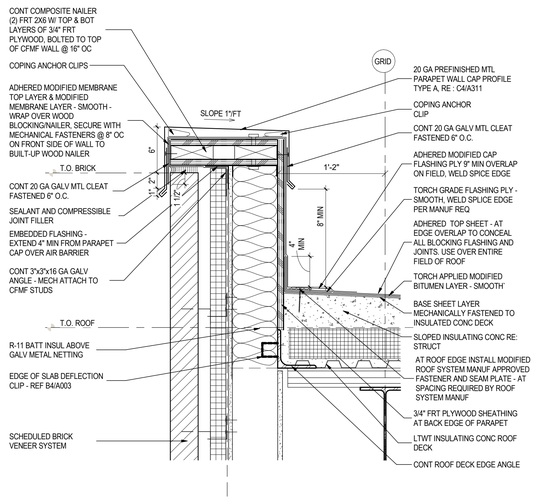
WALL CAP TYPE B



WALL CAP TYPE D

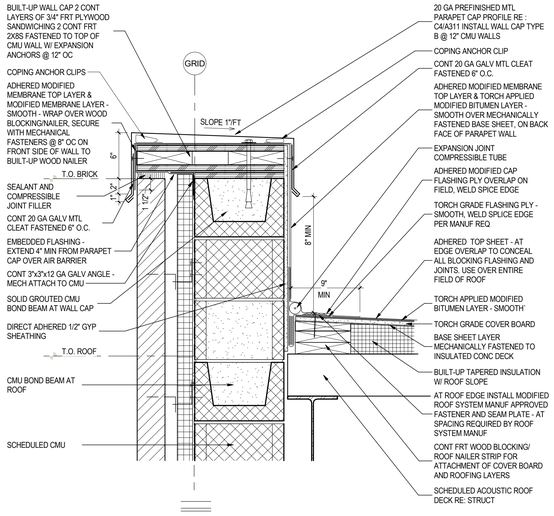
D1 PARAPET COPING DETAIL

A311 — 1 1/2" = 1'-0"



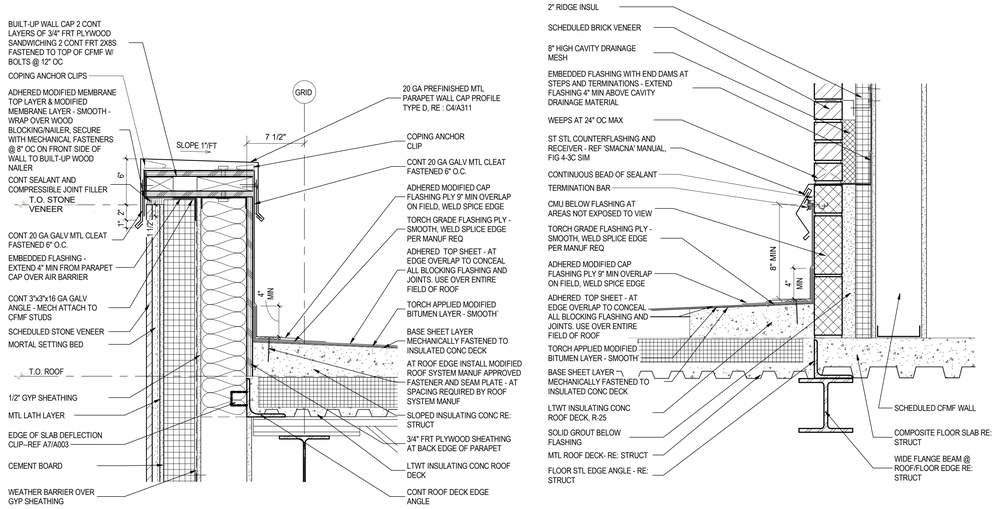
D2 HIGH ROOF EDGE DETAIL

A311 — 1 1/2" = 1'-0"



D4 PARAPET CAP PROFILE TYPES

A311 — 3" = 1'-0"



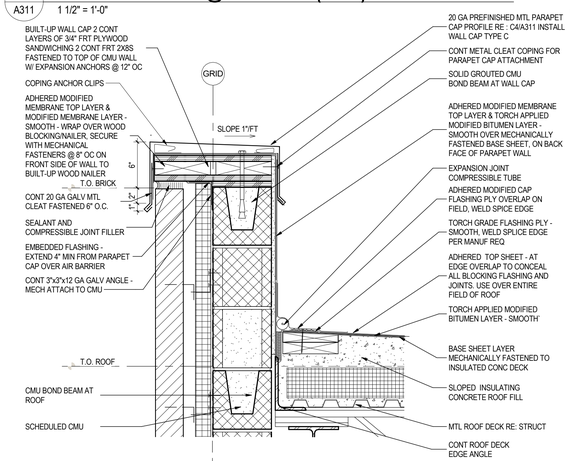
C1 SECTION DETAIL @ PARAPET (CFMF)

A311 — 1 1/2" = 1'-0"

NOT USED

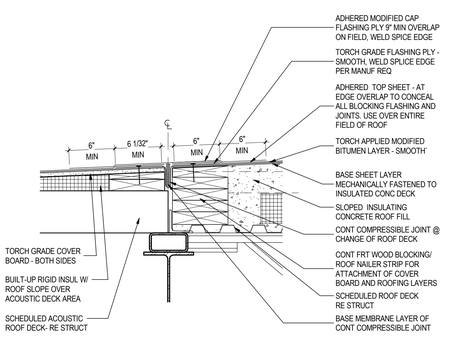
C2 SECTION DETAIL @ PARAPET (CMU)

A311 — 1 1/2" = 1'-0"



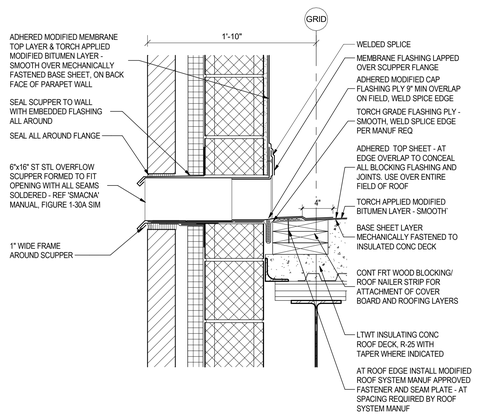
C4 PARAPET DETAIL @ STONE VENEER FINISH

A311 — 1 1/2" = 1'-0"



C6 SECTION DETAIL

A311 — 1 1/2" = 1'-0"



A1 NOT USED

A311 — 1 1/2" = 1'-0"

A2 SECTION DETAIL @ PARAPET (8" CMU)

A311 — 1 1/2" = 1'-0"

A4 TYP ROOF JOINT DETAIL

A311 — 1 1/2" = 1'-0"

A6 SCUPPER DETAIL (CMU)

A311 — 1 1/2" = 1'-0"

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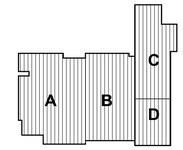
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Notes



N

△2 DETAILS UPDATED TO SHOW MODIFIED BUILT-UP ROOF SYSTEM

△1 UPDATED ROOF DETAILS FOR MODIFIED BUILT-UP ROOFING SYSTEM.
ADDED CAP PROFILE DETAILS FOR PREFINISHED METAL WALL CAPS

2	ADD#02			09/11/2025
1	ADD#01			09/08/2025
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS				09.01.2025
FINAL CONSTRUCTION DOCUMENTS				08.18.2025
Issued		By	Appd	YYYY.MM.DD

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
ROOF DETAILS

Project No.
214001269

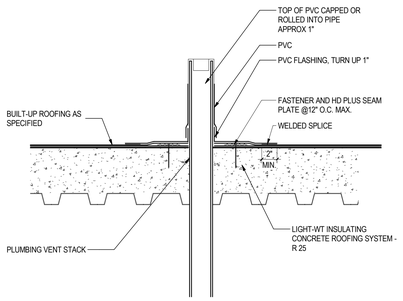
Scale
As indicated

Revision
2

Drawing No.
A311

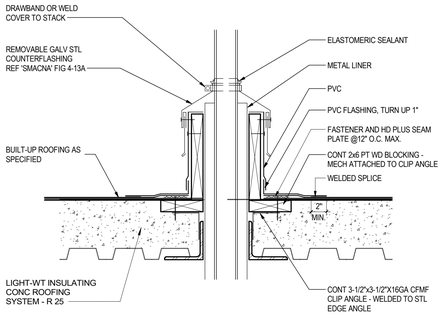
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ORIGINAL SHEET - ARCH E1



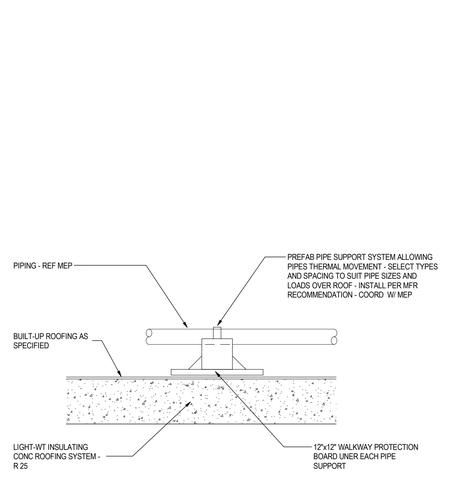
E1 TYP VENT STACK

A312 — 1 1/2" = 1'-0"



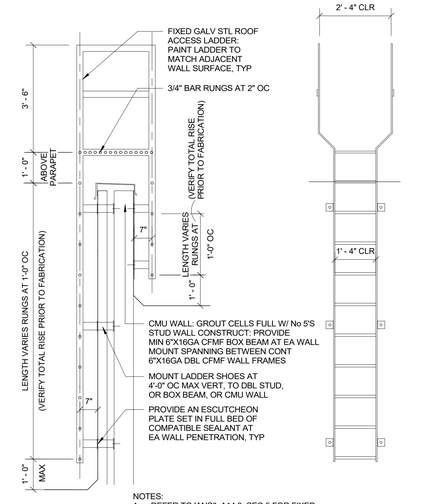
E3 INSUL STACK VENT (HOT)

A312 — 1 1/2" = 1'-0"



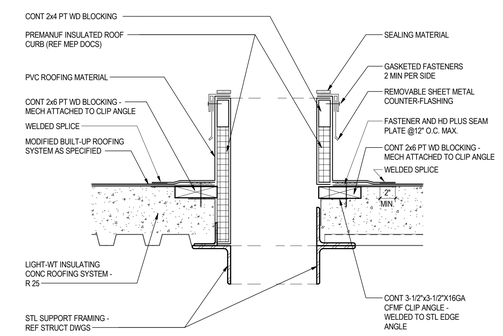
E6 TYP PIPE SUPPORT

A312 — 1 1/2" = 1'-0"



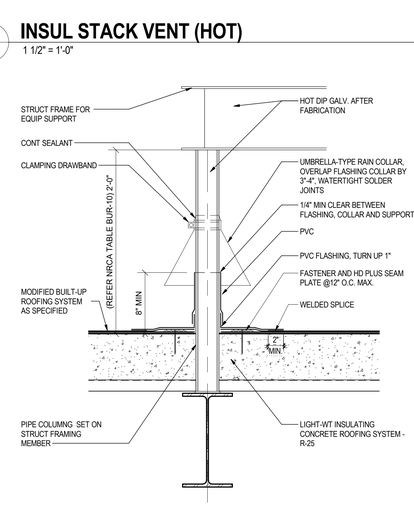
E8 ROOF LADDER DETAIL

A312 — 1/2" = 1'-0"



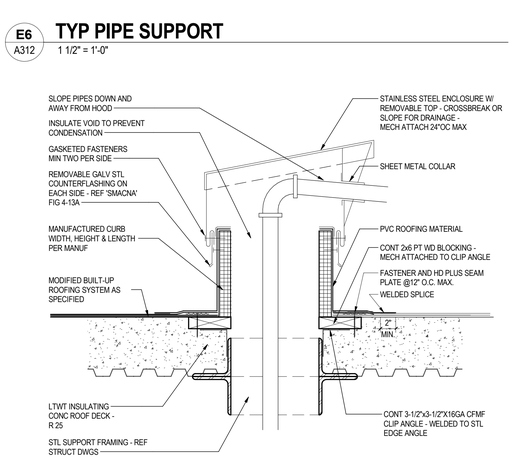
C1 MEP EQUIP CURB (PRE-FAB)

A312 — 1 1/2" = 1'-0"



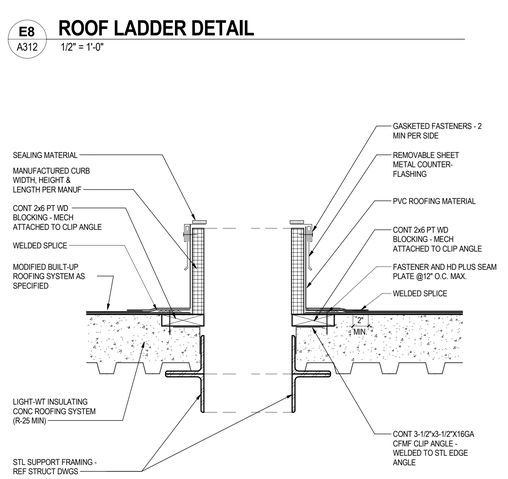
C3 TYP EQUIP SUPPORT

A312 — 1 1/2" = 1'-0"



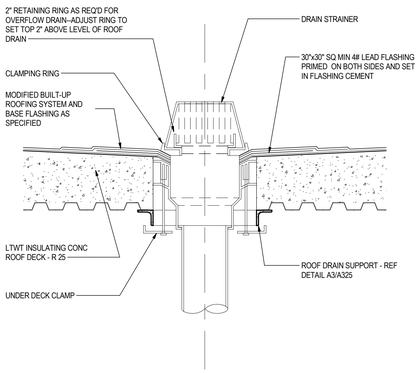
C6 MULTIPLE PIPE PENETRATION

A312 — 1 1/2" = 1'-0"



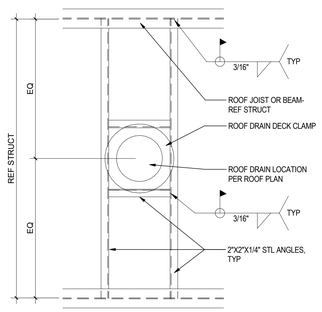
C8 MEP EQUIP CURB (JOB SITE)

A312 — 1 1/2" = 1'-0"



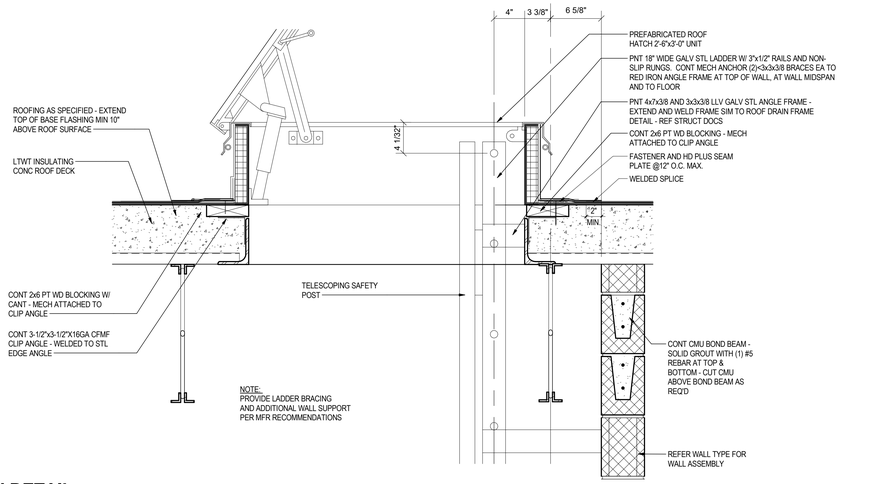
A1 ROOF/OVERFLOW DRAIN

A312 — 1 1/2" = 1'-0"



A2 R.D. SUPPORT

A312 — 1 1/2" = 1'-0"



A4 ROOF HATCH DETAIL

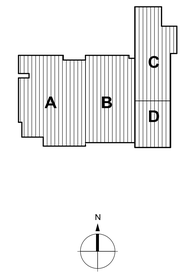
A312 — 1 1/2" = 1'-0"

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Notes



DETAILS UPDATED TO SHOW MODIFIED BUILT-UP ROOF SYSTEM

Revision	By	Appd	YYYY.MM.DD
1 ADD#02			09/11/2025

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 78468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
ROOF DETAILS

Project No.
214001269

Scale
As indicated

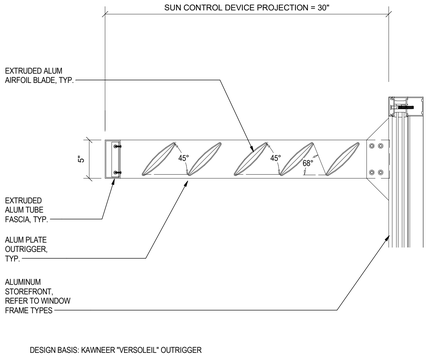
Revision
1

Drawing No.
A312

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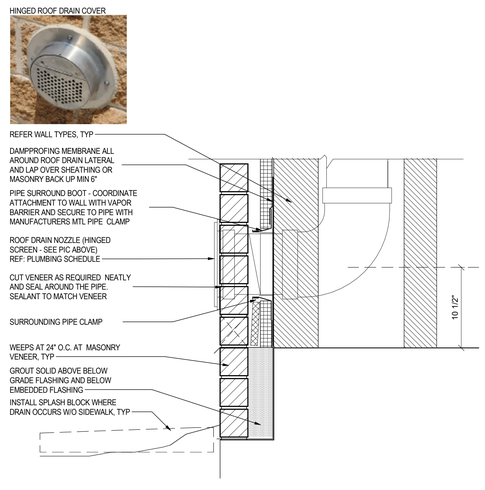
NOT USED

D4 NOT USED
A321 — 1 1/2" = 1'-0"



DESIGN BASIS: KAWNEER "VERSOLEIL" OUTRIGGER

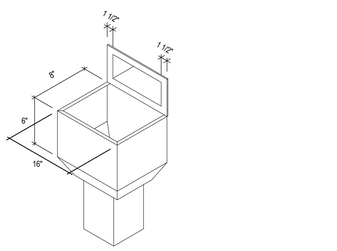
D6 SUN CONTROL DEVICE DETAIL
A321 — 1 1/2" = 1'-0"



C4 DRAIN TO BRICK LEGDE DETAIL
A321 — 1 1/2" = 1'-0"

NOT USED

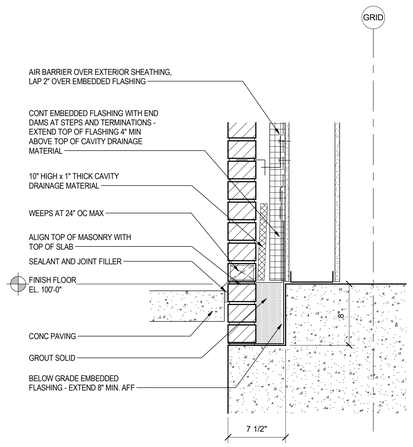
C6 NOT USED
A321 — 1 1/2" = 1'-0"



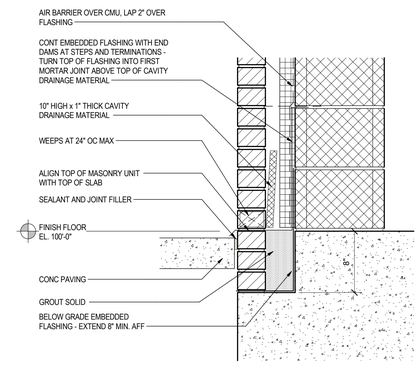
PRIMARY SCUPPER

NOTES:
1. CONDUCTOR HEADS AND DOWNSPOUTS SHOULD BE FABRICATED OF THE SAME MATERIAL. RECOMMENDED MINIMUM FOR CONSTRUCTION OF CONDUCTOR HEADS IS 24 GA. PREFINISHED GALVANIZED STEEL

A2 SCUPPER BOX
A321 — 1 1/2" = 1'-0"



A4 BRICK LEDGE DETAIL @ CFMF
A321 — 1 1/2" = 1'-0"



A6 BRICK LEDGE DETAIL @ CMU
A321 — 1 1/2" = 1'-0"

Stantec

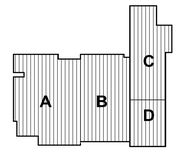
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Notes





2 DRAIN TO BRICK LEDGE DETAIL UPDATED TO INCLUDE PIPE BOOT SURROUND.

DETAILS D4/A321 & C6/A321 REMOVES FROM SHEET

2	ADD#02		09/11/2025
1	BIDDING DOCUMENTS - UPDATED INFO		09/01/2025
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

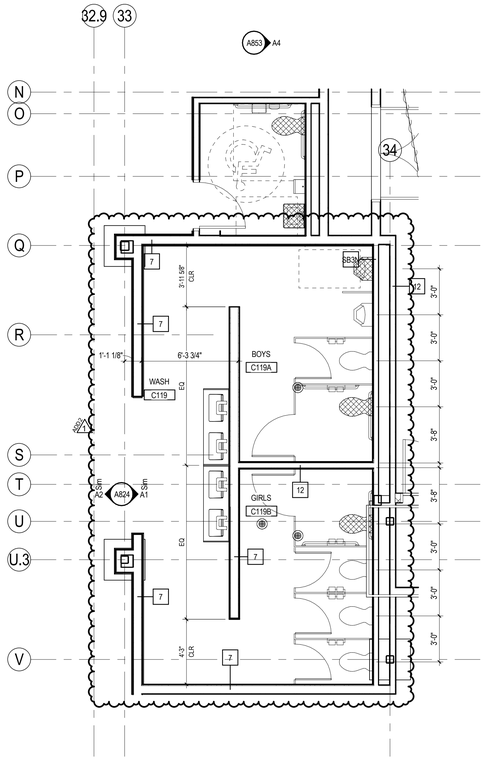
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
SECTION DETAILS

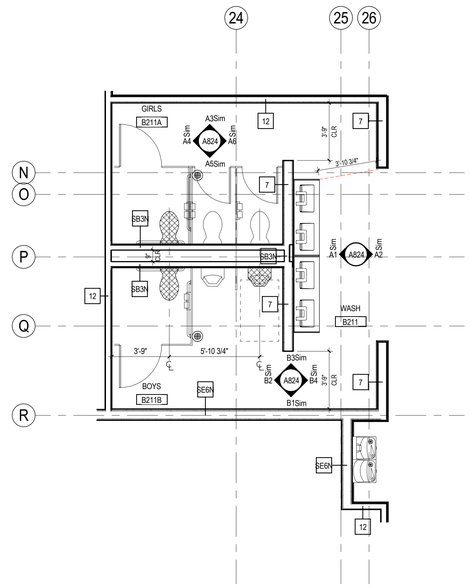
Project No. 214001269
Scale 1 1/2" = 1'-0"
Revision 2
Drawing No. **A321**

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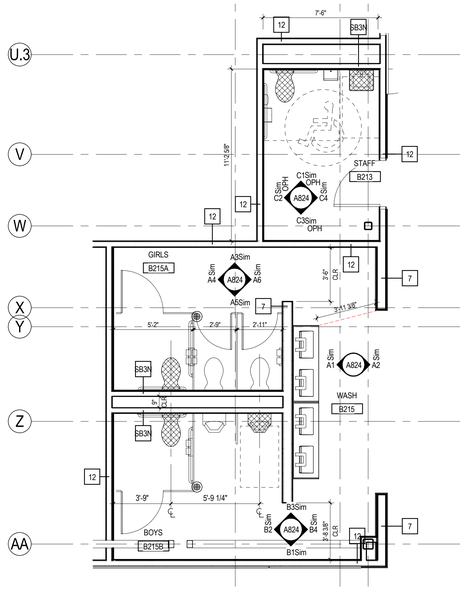
ORIGINAL SHEET - ARCH E1



B1 A402 **ENLARGED TOILET PLAN - L1 AREA C**
1/4" = 1'-0"



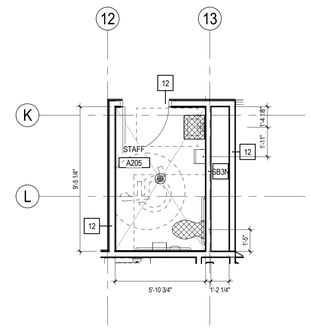
D1 A402 **ENLARGED TOILET PLAN - L2 AREA B - N**
1/4" = 1'-0"



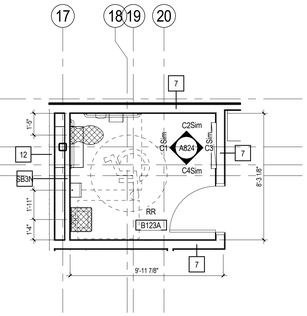
D2 A402 **ENLARGED TOILET PLAN - L2 AREA B - S**
1/4" = 1'-0"

B2 A402 **ENLARGED TOILET PLAN - L2 AREA A - N**
1/4" = 1'-0"

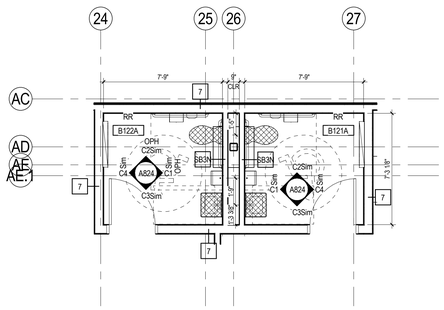
B4 A402 **ENLARGED TOILET PLAN - L2 AREA A - S**
1/4" = 1'-0"



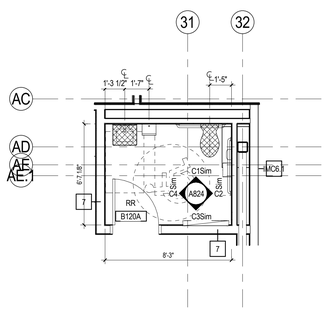
B5 A402 **ENLARGED TOILET PLAN - A2**
1/4" = 1'-0"



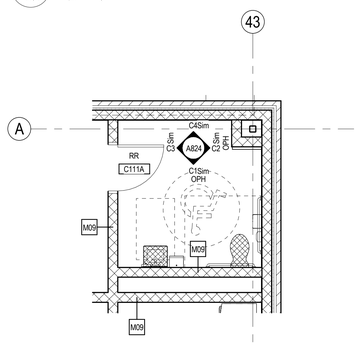
A1 A402 **ENLARGED TOILET PLAN - AREA B PK 1**
1/4" = 1'-0"



A2 A402 **ENLARGED TOILET PLAN - AREA B PK 2**
1/4" = 1'-0"



A4 A402 **ENLARGED TOILET PLAN - AREA B PK 3**
1/4" = 1'-0"



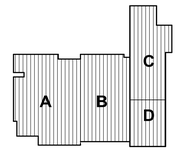
A5 A402 **ENLARGED TOILET PLAN - C114**
1/4" = 1'-0"

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Notes



No.	Revision	By	Appd	YYYY.MM.DD
1	ADD#02			09/11/2025
	BIDDING DOCUMENTS			09.01.2025
	FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Issued

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 78468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

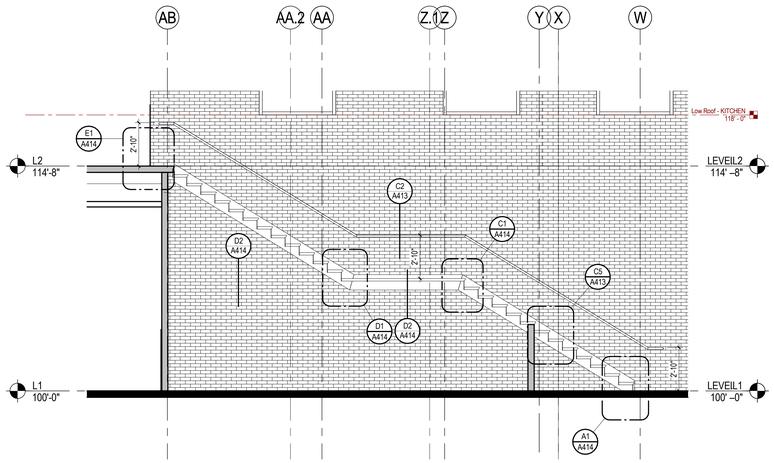
ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
ENLARGED TOILET ROOM PLANS

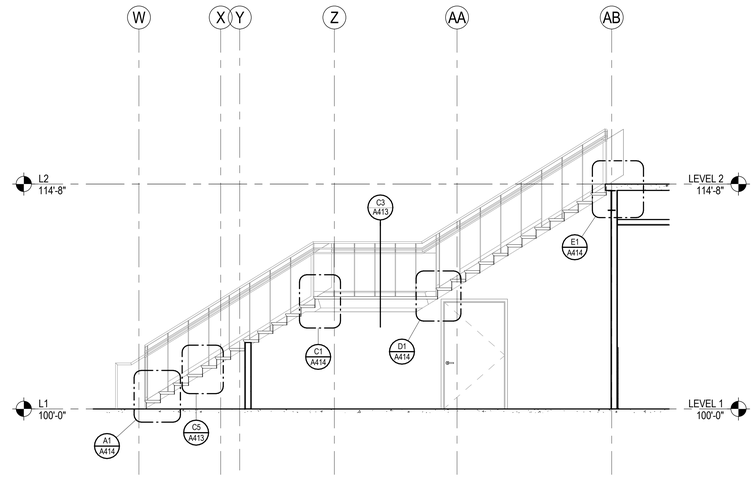
Project No. 214001269
Scale 1/4" = 1'-0"
Revision 1
Drawing No. **A402**

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ORIGINAL SHEET - ARCH E1



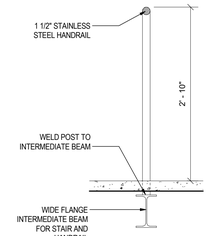
D1 A413 STAIR B3 SECTION A

1/4" = 1'-0"



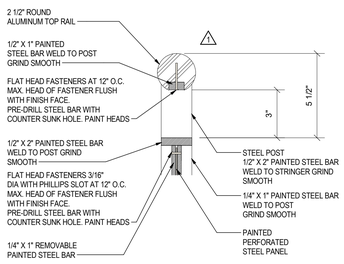
D3 A413 STAIR B3 SECTION B

1/4" = 1'-0"



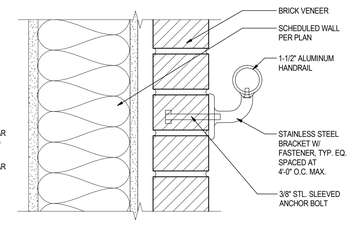
D5 A413 INTERMEDIATE HANDRAIL DTL

1" = 1'-0"



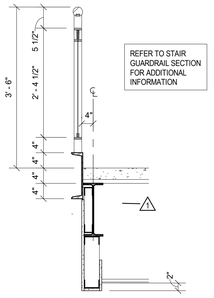
C1 A413 ALUMINUM TOP RAIL DTL

3" = 1'-0"



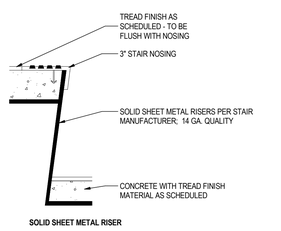
C2 A413 HANDRAIL AT BRICK VEENER WALL

3" = 1'-0"



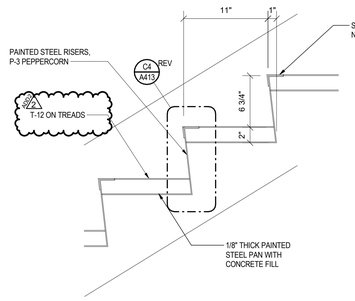
C3 A413 GUARDRAIL SECTION

3/4" = 1'-0"



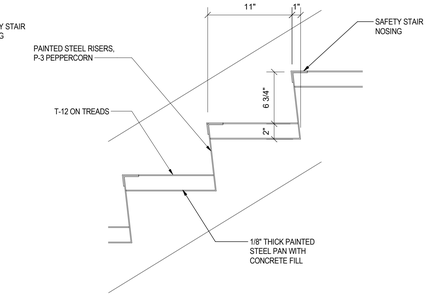
C4 A413 STAIR RISER DETAIL

3" = 1'-0"



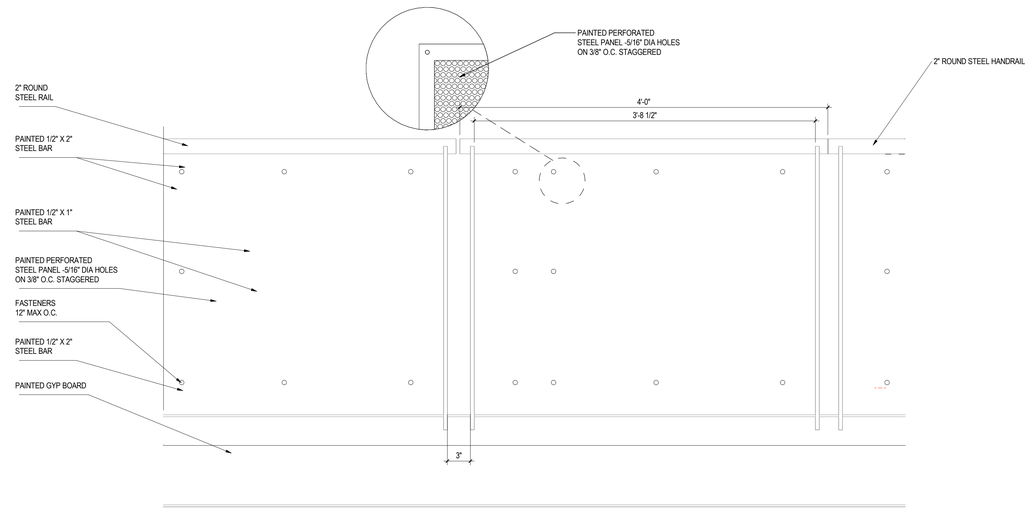
C5 A413 TYP. STAIR RISER DETAIL

1 1/2" = 1'-0"



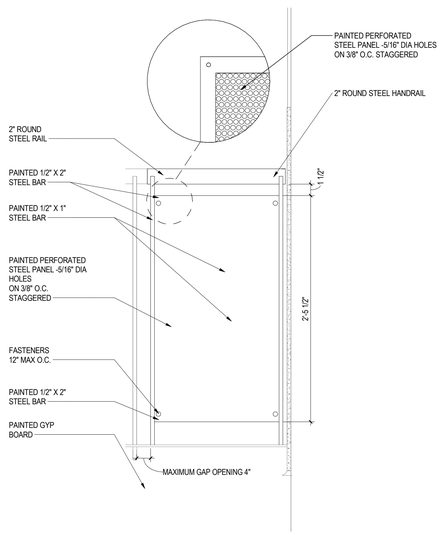
C6 A413 ENTRY STAIR RISER DETAIL

1 1/2" = 1'-0"



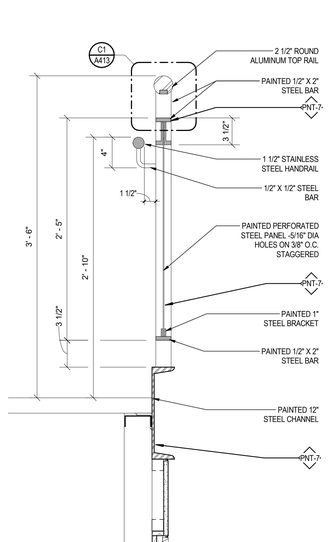
A1 A413 GUARDRAIL ELEVATION - G1

1 1/2" = 1'-0"



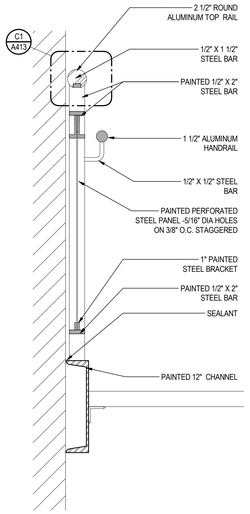
A3 A413 GUARDRAIL ELEVATION - G2

1 1/2" = 1'-0"



A4 A413 STAIR GUARDRAIL SECTION

1 1/2" = 1'-0"



A5 A413 STAIR GUARDRAIL NO PANELS

1 1/2" = 1'-0"

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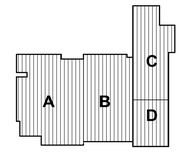
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Consultant

Notes





Revision	By	Appd	YYYY.MM.DD
2 ADD#02			09/11/2025
1 BIDDING DOCUMENTS - UPDATED INFO			09/01/2025

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Permit/Seal



Client/Project Logo

ALVIN Independent School District

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title

STAIR SECTIONS & DETAILS

Project No. 214001269

Scale As indicated

Revision 2

Drawing No. **A413**

•Pick location in Project Information•
8/11/2025 4:55:51 AM

ORIGINAL SHEET - ARCH E1

DOOR SCHEDULE - LEVEL 1 - AREA 'A'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
A100	6'-0"	7'-10"	FLD	ALUM	ALUM	WC714MA		ALUM				D	CARD READER
A100A	6'-0"	7'-10"	FLD	ALUM	ALUM	CV710MA B		ALUM				-	CARD READER - BALLISTIC
A101	3'-0"	7'-10"	FLD	ALUM	PRINTED	CVR711A B		ALUM				-	CARD READER - BALLISTIC,PANIC BAR
A101A	3'-0"	7'-10"	FLD	WD	P.LAM	ER201A		ALUM				-	REMOTE PUSH BUTTON RELEASE
A101B	3'-0"	7'-2"	F	WD	P.LAM	CR711		HM				-	CARD READER / REMOTE PUSH BUTTON @ DESK
A102	3'-0"	7'-2"	F	WD	P.LAM	203		HM				C	STOREROOM SET - NO CLOSER
A103	3'-0"	7'-2"	F	WD	P.LAM	341		HM				A	PRIVACY SET
A104	3'-0"	7'-2"	NL	WD	P.LAM	103		HM				B	
A105	3'-0"	7'-2"	NL	WD	P.LAM	103		HM				B	
A106	3'-0"	7'-2"	F	WD	P.LAM	201		HM				B	STOREROOM SET - W/ CLOSER
A106A	3'-0"	7'-2"	F	WD	P.LAM	103		HM				B	
A107	3'-0"	7'-2"	F	WD	P.LAM	103		HM				B	
A108	3'-0"	7'-2"	F	WD	P.LAM	341-STF		HM				A	PRIVACY SET
A109	3'-0"	7'-2"	F	WD	P.LAM	103		HM				C	
A110	3'-0"	7'-2"	F	WD	P.LAM	103		HM				B	OFFICE SET - NO CLOSER
A111	3'-0"	7'-2"	F	WD	P.LAM	103		HM				B	OFFICE SET - NO CLOSER
A112	3'-0"	7'-2"	F	WD	P.LAM	341		HM				A	
A113	3'-0"	7'-2"	F	WD	P.LAM	201		HM				C	STOREROOM SET - W/ CLOSER
A113A	3'-0"	7'-2"	F	WD	P.LAM	201		HM				C	STOREROOM SET - W/ CLOSER
A114	3'-0"	7'-2"	NL	WD	P.LAM	103		HM				B	OFFICE SET - NO CLOSER
A115	3'-0"	7'-2"	NL	WD	P.LAM	103		HM				B	OFFICE SET - NO CLOSER
A116	3'-0"	7'-2"	F	WD	P.LAM	203		HM				C	STOREROOM SET - NO CLOSER
A117	4'-0"	7'-2"	F	WD	P.LAM	203W		HM				C	STOREROOM SET - NO CLOSER
A118	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A119	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A120	3'-0"	7'-2"	F	WD	P.LAM	CE201		HM				B	CARD READER
A121	3'-0"	7'-2"	F	WD	P.LAM	C711		HM				C	STORERROM SET - W/ CLOSER, PANIC BAR, CARD READER
A122	3'-0"	7'-2"	F	WD	P.LAM	341-STF		HM				A	
A123	3'-0"	7'-2"	F	WD	P.LAM	203-CUST		HM				C	
A124	3'-0"	7'-2"	F	WD	P.LAM	553		HM				A	
A125	3'-0"	7'-2"	F	WD	P.LAM	203		HM				C	
A126	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A127	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A130	6'-0"	7'-10"	FLD	ALUM	ALUM	W714MA		ALUM				D	
A131	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A132	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A133	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A134	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
A135	3'-0"	7'-0"	FLD	WD	P.LAM	553		ALUM				C	
A136	4'-0"	7'-0"	NL	WD	P.LAM	203WK		HM				C	STOREROOM SET - NO CLOSER, 12" KICK PLATE
A137	6'-0"	7'-10"	FLD	ALUM	ALUM	W714MA		ALUM				D	CARD READER
A139	3'-0"	7'-0"	F	WD	P.LAM	203		ALUM				B	STOREROOM SET - NO CLOSER
A139A	3'-0"	7'-2"	F	WD	P.LAM	203		HM				C	STOREROOM SET - NO CLOSER
A141	3'-0"	6'-11 1/2"	F	WD	P.LAM	203		HM				C	
A142	3'-0"	7'-0"	F	WD	P.LAM	201K		HM				C	

DOOR SCHEDULE - LEVEL 1 - AREA 'B'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
B100	4'-0"	7'-0"	F	WD	P.LAM	201K		HM				C	
B101	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B102	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B103	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B103A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				B	INDICATOR,. NO CLOSURE
B104	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B104A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				A	INDICATOR,. NO CLOSURE
B106	3'-0"	7'-2"	F	WD	P.LAM	203-CUST		HM				C	
B107	3'-0"	7'-2"	F	WD	P.LAM	341-STF		HM				A	
B109	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B110	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B111	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B112	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B113	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B114	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B115	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B117	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B119	6'-0"	7'-0"	F	WD	P.LAM	710M		HM				-	
B120	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B120A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				A	INDICATOR,. NO CLOSURE
B121	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B121A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				A	INDICATOR,. NO CLOSURE
B122	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B122A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				A	INDICATOR,. NO CLOSURE
B123	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B123A	3'-0"	7'-2"	F	WD	P.LAM	343-PRE		HM				A	INDICATOR,. NO CLOSURE
B124	3'-0"	7'-2"	F	WD	P.LAM	553		HM				B	
B125	4'-0"	7'-0"	F	HM	P.LAM	C711		HM				C	CARD READER
B125A	3'-0"	7'-2"	F	WD	P.LAM	201K		HM				C	
B127	4'-0"	7'-2"	F	WD	P.LAM	203W		HM				C	
B129	3'-0"	7'-2"	F	WD	P.LAM	CE201		HM				C	CARD READER
B130	3'-0"	7'-0"	FL	WD	P.LAM	203		HM				B	STORERROM SET
B131	6'-0"	7'-0"	F	HM	P.LAM	710M		HM				-	
B132	4'-0"	7'-0"	F	WD	P.LAM	201K		HM				C	STOREROOM SET - W/ CLOSER
B133	4'-0"	7'-0"	F	WD	P.LAM	201K		HM				C	STOREROOM SET - W/ CLOSER
B134	6'-0"	7'-10"	FLD	ALUM	ALUM	WC714MA -NM		ALUM				D	CARD READER
B136	6'-0"	7'-10"	FLD	ALUM	ALUM	WC714MA		ALUM				D	CARD READER

DOOR SCHEDULE - LEVEL 1 - AREA 'C'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
C101A	6'-0"	7'-10"	FLD	ALUM	ALUM	WC714MA MTK		ALUM				D	CARD READER
C101B	6'-0"	7'-10"	FLD	ALUM	ALUM	W714MA-N M		ALUM				D	
C102A	3'-6"	7'-0"	FLD	ALUM	ALUM	203AW		ALUM				C	
C102B	3'-6"	7'-0"	FLD			203AW						C	
C102C	14'-0"	8'-0"	FL	GLASS	ALUM	001SL		ALUM				-	(2) 58" WIDE SLIDERS, (1) FIXED GLASS PANEL. INSIDE LOCKABLE
C103	3'-5"	2'-8"	OCD	FDP		001		FDP				C	COUNTER SHUTTER
C104	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
C105A	4'-0"	7'-0"	HL	HM	P.LAM	C711WAP		HM				C	CARD READER, BELL, 12" KICKPLATE, BELL
C109	4'-0"	7'-10"	F	HM	PNT	WC715-BO H		HM				C	PANIC BAR, NO DOGGING, CARD READER
C109A	3'-0"	7'-2"	F	HM	P.LAM	711EL		HM				C	STOREROOM SET - W/ CLOSER, PANIC BAR
C110	6'-0"	7'-10"	F	HM	PNT	WC714MH- MEC		HM				C	PANIC BAR BOTH PANELS, NO TRIM REMOVABLE KEYED MULLION, PEEP PROTECTION PLATE, CLOSURE W/ HOLD OPEN, CARD READER
C111	4'-0"	7'-10"	F	HM	PNT	WC715V		HM				C	CARD READER, 12' KICKPLATE, BELL, PEEP
C111A	3'-0"	7'-2"	F	HM	P.LAM	341		HM				A	
C112	3'-0"	7'-2"	F	HM	P.LAM	203-CUST		HM				C	
C113	4'-0"	7'-0"	F	HM	P.LAM	CE201W		HM				C	CARD READER, STOREROOM, NO CLOSURE,180 DEGREES SWING
C114	3'-0"	7'-2"	HL	WD	P.LAM	103		HM				A	
C115	6'-0"	7'-2"	F	WD	BLACK P.LAM	212		HM				C	
C115B	4'-0"	7'-2"	F	WD	P.LAM	203W		HM				C	
C116	3'-0"	7'-2"	NL	HM	P.LAM	341-STF		HM				A	
C118	4'-0"	7'-2"	F	HM	P.LAM	203W		HM				C	-STOREROOM -NO CLOSURE180 DEGREES SWING

DOOR SCHEDULE - LEVEL 1 - AREA 'D'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
D103	4'-0"	7'-2"	F	HM	P.LAM	553W		HM				B	NO CLOSER
D103A	4'-0"	7'-2"	F	HM	P.LAM	203W		HM				C	NO CLOSER
D103B	3'-6"	7'-2"	F	HM	P.LAM	203W		HM				C	STOREROOM SET - NO CLOSER
D103C	4'-0"	7'-10"	F	HM	HM	WC715-EN T		HM				D	
D104	4'-0"	7'-2"	F	HM	P.LAM	553W		HM				B	NO CLOSER
D104A	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
D104B	4'-0"	7'-10"	F	HM	HM	WC715-EN T		HM				D	
D106	6'-0"	7'-2"	F	WD	P.LAM	710M-NM		HM				C	(1) NARROW LIGHT ON LEFT
D106A	6'-0"	7'-10"	F	HM	P.LAM	W714M-EN T		HM				D	(1) NARROW LIGHT ON RIGHT, REMOVABLE MULLION W/ KEY
D107	4'-0"	7'-2"	HL	WD	P.LAM	103W		HM				B	OFFICE SET - NO CLOSER
D108	6'-0"	7'-2"	F	HM	P.LAM	212LG		HM				C	NO CLOSER,. STOREROOM ON RIGHT, THROW BOLT ON LEFT, LATCH GUARD

DOOR SCHEDULE - LEVEL 2 - AREA 'A'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
A201	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A202	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A203	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A204	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A205	3'-0"	7'-2"	F	HM	P.LAM	341-STF		HM				A	
A206	3'-0"	7'-2"	F	HM	P.LAM	201		HM				C	
A207	3'-0"	7'-0"	NL	HM	P.LAM	203		HM				C	
A208	3'-0"	7'-0"	NL	HM	P.LAM	203		HM				C	
A210	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A212	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A213	4'-0"	7'-0"	F	HM	P.LAM	CE201W		HM				C	CARD READER
A214	3'-0"	7'-2"	F	HM	P.LAM	CE201		HM				C	CARD READER
A215	3'-0"	7'-2"	F	HM	P.LAM	203-CUST		HM				C	
A216	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A218	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A219	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A219A	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
A220	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A221	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A222	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
A223	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	

DOOR SCHEDULE - LEVEL 2 - AREA 'B'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	FINISH	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
B201	4'-0"	7'-0"	F	HM	P.LAM	553W		HM				B	
B201A	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
B202	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B203	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B204	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B205	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B206	6'-0"	7'-0"	F	HM	P.LAM	710M		HM				-	
B207	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B209	3'-0"	7'-2"	F	HM	P.LAM	203-CUST		HM				C	
B210	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B212	4'-0"	7'-0"	F	HM	P.LAM	CE201W		HM				C	CARD READER
B213	3'-0"	7'-2"	F	HM	P.LAM	341-STF		HM					
B214	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B216	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B217	6'-0"	7'-0"	F	HM	P.LAM	710M		HM				-	
B218	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B219	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B220	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B222	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
B223	3'-0"	7'-2"	F	HM	P.LAM	553		HM				B	
B224	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	
B225	3'-0"	7'-2"	F	HM	P.LAM	203		HM				C	

DOOR SCHEDULE - LEVEL 2 - AREA 'D'

DOOR #	DOOR DIMENSION WIDTH	DOOR DIMENSION HEIGHT	DOOR TYPE	DOOR MATERIAL	HARDWARE SET	FRAME TYPE	FRAME MATERIAL	FRAME DETAILS HEAD DETAIL	FRAME DETAILS JAMB DETAIL	FRAME DETAILS SILL DETAIL	SIGN TYPES	COMMENTS / FIRE LABEL
D201	4'-0"	7'-2"	F								C	CARD READER
D201A	3'-0"	7'-2"	F								C	CARD READER

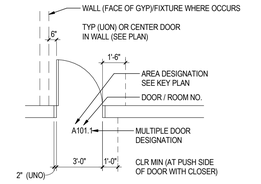
2 THE FOLLOWING DOORS WERE MODIFIED DURING THIS ISSUE (ADD#02):
- B103A
- B106
- B107
- B109
- B111

ADDED SIGNAGE TYPE TO DOORS

1 THE FOLLOWING DOORS WERE MODIFIED DURING THIS ISSUE (ADD#01):
- A124
- A141
- B136
- C109A
- D103C
- D104A
- D104B
- D201
- D201A

ADDED HARDWARE SET NUMBER TO ALL OPENINGS FROM ALLEGION

DOOR MARK KEY



GENERAL DOOR AND WINDOW NOTES:

1. REFER TO SHEETS A501 FOR DOOR SCHEDULES.
2. REFER TO SHEET A004 AND A005 FOR LINTEL SCHEDULES AND DOOR AND WINDOW JAMB STUD FRAMING SCHEDULE.
3. PROVIDE REMOVABLE MULLION AT ALL FGIR DOUBLE DOORS.
4. ALL DOORS TO BE 1 3/4" THICK (UON) - REFER TO SPECIFICATION.
5. ALL STL FRAMES TO HAVE A 2" FACE DIMENSION UON, W/ 5/8" STOP. 3/4" STOP REQUIRED FOR FIRE RATED FRAMES.
6. STEEL FRAME DEPTHS INDICATED IN THE DETAILS ARE NOMINAL. PROVIDE STANDARD WIDTH FRAME WITH THROAT OPENING APPROPRIATE TO PARTITION TYPE.
7. COORDINATE WITH MECH DOCUMENTS FOR DOOR UNDERCUTS AND DOOR LOUVERS, IF ANY.
8. ALL LIGHTS IN DOORS TO HAVE SAFETY GLAZING (UON).
9. EXTERIOR DOORS TO HAVE TINTED GLAZING (UON) AND INTERIOR DOORS TO HAVE CLEAR GLAZING.
10. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATING FRAMES.
11. PROVIDE WD BLKG IN GYP BD WALLS BEHIND DOORS SCHEDULED TO HAVE WALL MOUNTED DOOR STOPS. (REFER HARDWARE SCHEDULE SUBMITTAL).
12. REFER DETAILS A3/A004 FOR TYP WINDOW AND DOOR CONTROL JOINTS IN MASONRY WALLS. REFER DETAILS A1/A005 FOR TYP WINDOW AND DOOR CONTROL JOINTS IN STEEL STUD FRAMED WALLS.
13. FLOOR MATERIAL CHANGES BETWEEN ROOMS TO OCCUR UNDER DOOR.
14. PROVIDE DRIP AT HEAD OF ALL EXTERIOR HM DOORS
15. PROVIDE 2" WIDE ADA COMPLIANT MARBLE THRESHOLD WITH CHAMFERED EDGES AT ENTRY DOOR OF ALL SINGLE HOLE TOILET ROOMS, TYP.
16. TYPICAL EXTERIOR GLAZING UNITS ARE TYPE GL-1 (TINTED - GRAY, LOW-E, INSULATED 1" THICK GLAZING). EXTERIOR GLAZING IS TYPE GL-1 U.O.N.

FRAME TYPE LEGEND

M#	STEEL (STL) FRAME TYPE
#	INTERIOR ALUMINUM (STOREFRONT) TYPE (1) BASIS OF DESIGN: KAWNEER TRIFAB 450 (2" X 4 1/2" MULLIONS)
A	EXTERIOR ALUMINUM (STOREFRONT) TYPE (2) BASIS OF DESIGN: KAWNEER TRIFAB 451T (2" X 4 1/2" MULLIONS)
AA	EXTERIOR ALUMINUM (CURTAIN WALL) TYPE (3) BASIS OF DESIGN: KAWNEER 1600 (2 1/2" X 7 1/2" MULLIONS)

GLAZING KEY

NAME	DESCRIPTION
GL1	EXTERIOR - TINTED, (GRAY), LOW-E, LAMINATED INSULATED 1 5/16" THICK GLAZING UNIT.
GL2	EXTERIOR - CLEAR, LOW-E, LAMINATED. INSULATED 1 5/16" THICK GLAZING UNIT W/ COLOR FILM (VANCEVA). - COLOR TBD
GL3	EXTERIOR - SPANDREL PANEL, LOW-E, LAMINATED INSULATED 1 5/16" THICK. GLAZING UNIT.
GL4	INTERIOR - TEMPERED GLAZING. 1/4" THICK.
GL5	EXTERIOR - BALLISTIC RATED GLAZING, TINTED GRAY, LOW-E, INSULATED UNIT.
GL6	INTERIOR BALLISTIC RESISTANT GLAZING 9/16" THICK. UL 752 LEVEL 3 REF: SPECS
GL7	INTERIOR FORCED ENTRY RESISTANT GLAZING. 9/16" THICK REF: SPECS

NOTE: GLASS THICKNESS DESIGNATION INDICATED ARE MINIMUMS & ARE FOR DETAILING ONLY. GLAZING TRADE CONTRACTOR TO DETERMINE SAFETY GLAZING REQUIREMENTS & TO CONFIRM GLASS THICKNESS BY ANALYZING PROJECT LOADS, IN-SERVICE CONDITIONS & GLASS LOCATIONS. PROVIDE GLASS LITES / UNITS IN THE THICKNESS DESIGNATIONS INDICATED ABOVE FOR VARIOUS SIZE OPENINGS, BUT NOT LESS THAN THICKNESS & IN STRENGTH (ANNEALED, TEMPERED OR HEAT TREATED) REQUIRED TO MEET OR EXCEED CODE & PERFORMANCE CRITERIA, RE: SPECIFICATION SECTION 08 8000.

DOOR SCHEDULE REMARKS

NOTE: DOOR SCHEDULED AS WOOD (WD) SHALL HAVE PLASTIC LAMINATE VENEER (PL1) U.O.N. - REFER TO A501 FOR DOOR MARK KEY.

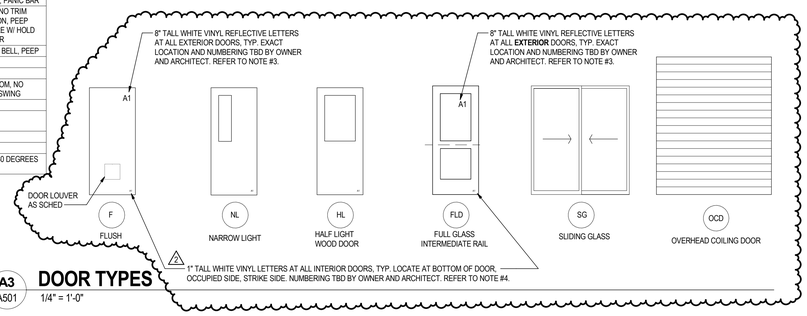
1. PROVIDE EXTERIOR GRADE DOOR SIGN.
2. PROVIDE ACCESS CONTROL (CARD READER). REFER TO ELECTRICAL DOCUMENTS FOR POWER. AT DOUBLE DOORS PROVIDE ELECTRIC STRIKE AT REMOVABLE MULLION.
3 AT EXTERIOR DOORS: PROVIDE 8" REFLECTIVE WHITE VINYL LETTERS, ON BLACK FILM BACKGROUND - AT BOTH INTERIOR AND EXTERIOR OF DOOR - VERIFY WITH OWNER/ARCHITECT FOR NUMBER SEQUENCE.
4. PROVIDE 1" WHITE VINYL DECAL LETTERS - AT INTERIOR OF ALL DOORS ON OCCUPIED SIDE OF DOOR LOCATED AT STRIKE SIDE BOTTOM OF DOOR LEAF
5. REFER TO FRAME TYPES ON A501 - A505 FOR DOOR GLAZING TO MATCH ADJACENT GLAZING TYPES
6. MANUAL OPERATED.

DOOR TYPE ABBREVIATIONS

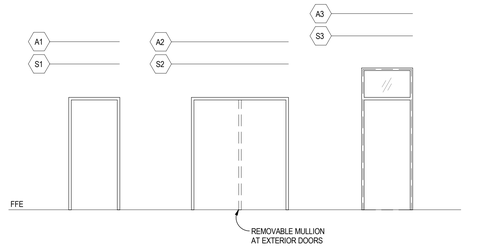
NL - NARROW LITE
HL - HALF LITE
F - FLUSH
FLD - FULL GLASS INTERMEDIATE RAIL
OCD - OVERHEAD COILING DOOR
SG - SLIDING GLASS

DOOR SIGNAGE NOTES

1. **REFER TO A803 FOR ROOM SIGNAGE TYPES.**
2. PROVIDE FULL CONCEALED BACK PIECE FOR SIGNS MOUNTED ON GLASS.
3. PROVIDE EXTERIOR GRADE SIGN AT DOORS INDICATED WITH REMARK '2'. PROVIDE EXTERIOR GRADE ACRYLIC SIGN.
4. PROVIDE SIGN TYPE 'J' AT ALL ACCESSIBLE EXITS TO THE EXTERIOR. SIGN TO BE PLACED AT INTERIOR OF SPACE.
5. PROVIDE SIGN TYPE 'H' AT GYM, DINING, AND COMMUNITY ROOM



A3 / A501 **DOOR TYPES** 1/4" = 1'-0"



A5 / A501 **DOOR FRAME TYPES** 1/4" = 1'-0"

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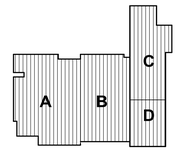
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Notes



N

Revision	By	Appd	YYYY.MM.DD
2 ADD#02			09/11/2025
1 ADD#01			09/08/2025
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Issued

Permit/Seal

REGISTERED ARCHITECT MARK E. JACKSON 19468 STATE OF TEXAS

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
DOOR SCHEDULES, NOTES, AND DETAILS

Project No.
214001269

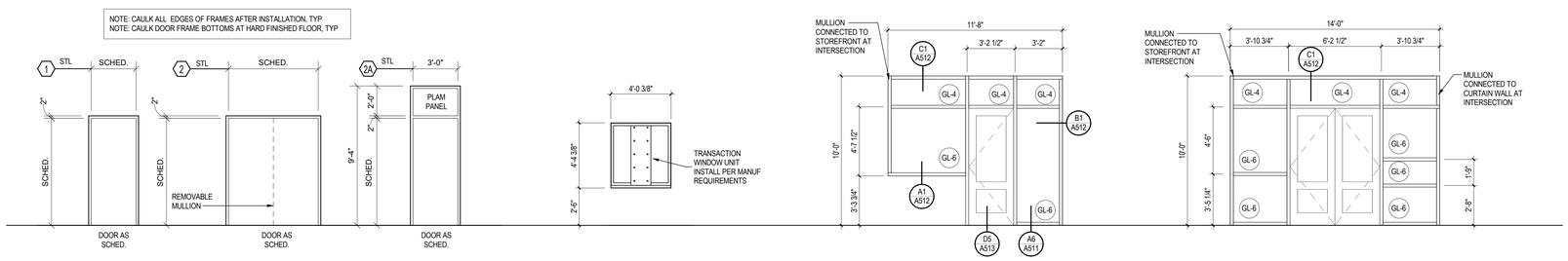
Scale
As indicated

Revision
2

Drawing No.
A501

xRef location in Project Information
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ORIGINAL SHEET - ARCH E1



FRAME TYPES 1 TO 3

1/4" = 1'-0"

FRAME TYPE 4

1/4" = 1'-0"

FRAME TYPE 5

1/4" = 1'-0"

FRAME TYPE 6

1/4" = 1'-0"

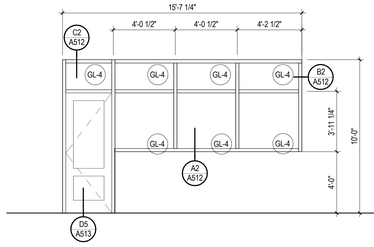
FRAME TYPE LEGEND

M#	STEEL (STL) FRAME TYPE
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AA	EXTERIOR ALUMINUM (CURTAIN WALL) TYPE (3) BASIS OF DESIGN: KAWNEER 1600 (2 1/2" X 7 1/2" MULLIONS)

GLAZING KEY

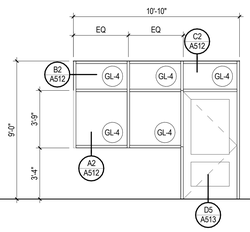
NAME	DESCRIPTION
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GL3	EXTERIOR - SPANDREL PANEL, LOW-E, LAMINATED INSULATED 1 5/16" THICK. GLAZING UNIT.
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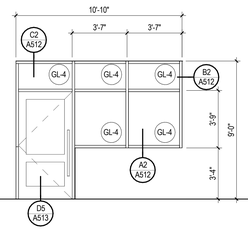
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1/4" = 1'-0"



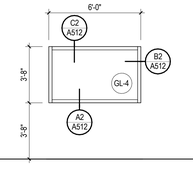
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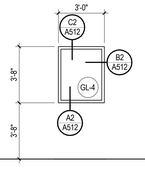
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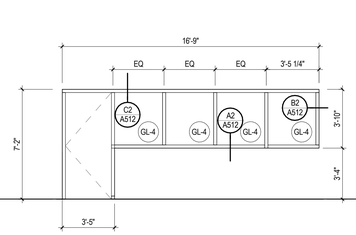
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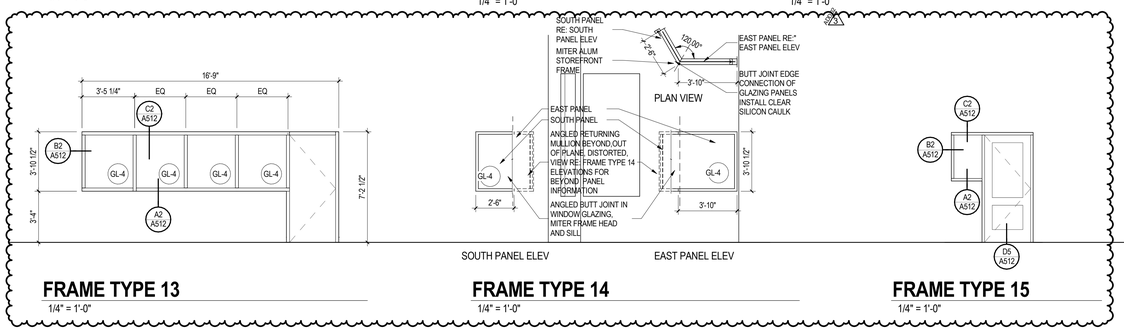
FRAME TYPE 11

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FRAME TYPE 12

1/4" = 1'-0"



FRAME TYPE 13

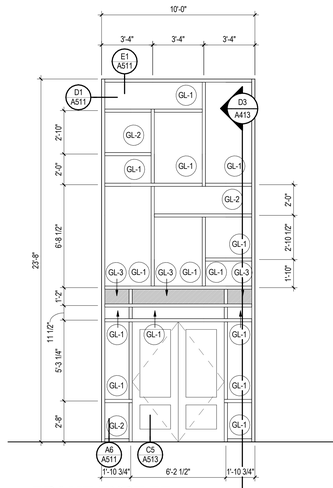
1/4" = 1'-0"

FRAME TYPE 14

1/4" = 1'-0"

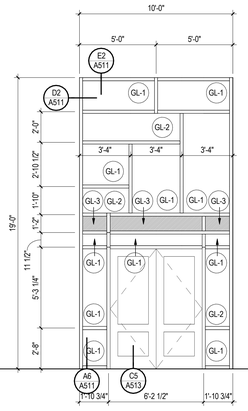
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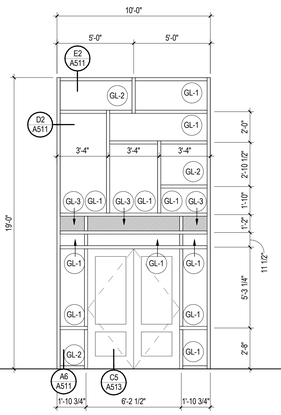
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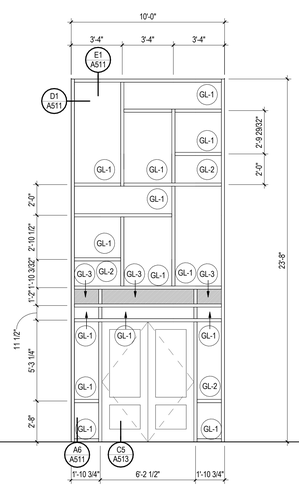
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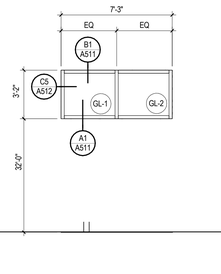
FRAME TYPE HH

1/4" = 1'-0"



FRAME TYPE JJ

1/4" = 1'-0"



FRAME TYPE KK

1/4" = 1'-0"

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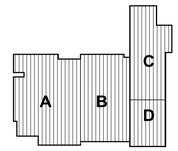
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Revision	By	Appd	YYYY.MM.DD
3 ADD#02			09/11/2025
2 ADD#01			09/08/2025
1 BIDDING DOCUMENTS - UPDATED INFO			09/01/2025

UPDATED FRAME HEAD DETAIL REFERENCE TO C2/A512 & JAMB DETAIL REFERENCE TO B2/A512 FOR HOLLOW METAL FRAMES.

ADDED ELEVATION FOR FRAME TYPE 12

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025

Permit/Seal



Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
FRAME TYPES

MODIFIED ENTIRE SHEET 1

Project No.
21401269

Scale
As indicated

Revision
3

Drawing No.
A502

ORIGINAL SHEET - ARCH E1



REFLECTED CEILING PLAN LEGEND

- APC-1 - 2X2 ACOUSTIC PANEL CEILING
  REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS (UON)
- APC-2 - VINYL FACED GYPSUM BOARD PANEL LAY IN CEILING
  REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS (UON)
- APC-3 - 2X2 ACOUSTIC PANEL CEILING
  REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS (UON)
- APC-4 - 2X2 ACOUSTIC PANEL CEILING, HIGH NRC
  REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS (UON)
- GYPSUM BOARD BULKHEAD - PAINTED
  REFER TO FINISH SCHEDULE FOR MORE INFORMATION
- APC-5 - METAL PANELS
  REFER TO FINISH SCHEDULE FOR MORE INFORMATION
- MP-1 - METAL SOFFIT
  REFER TO FINISH SCHEDULE FOR MORE INFORMATION
- EXPOSED TO STRUCTURE ABOVE (PAINTED)
- RECESSED 2X4 LIGHT FIXTURE
  REF MEP DOC
- PENDANT MTD FIXTURE - 4' STRIP
  REF MEP DOC
- HIGH BAY LED FIXTURE WITH SAFETY LOOP.
  REF MEP DOC
- ROUND LIGHT FIXTURE, RE: ELECTRICAL
- SUPPLY AND RETURN AIR GRILLS
  REF MEP DOC

CEILING PLAN GENERAL NOTES:

1. GRIDS SHOWN ON THIS SHEET ARE FOR DESIGN INTENT ONLY. FOR GRID PATTERNS, REFER TO ELECTRICAL DRAWINGS.
2. REFER TO SECTIONS, PLANS AND SHEETS A612, A621,A631 FOR ENLARGED CEILING AREAS.
3. REFER TO ROOM FINISH SCHEDULE ON SHEET A802 FOR CEILING HEIGHTS NOT SHOWN.
4. FIELD VERIFY ALL BULKHEAD DIMENSIONS PRIOR TO CONSTRUCTION.
5. PROVIDE CJ'S AT 30'-0" O.C. MAX AT AL GYP BD BULKHEADS (UON).
6. CENTER ALL SPRINKLER HEADS & LIGHT FIXTURES IN CEILING TILES.(UON)
7. ALL BULKHEADS SHALL BE CONSTRUCTED AS FOLLOWS: 5/8" GYP BD OVER 3 5/8" STL STUD FRAMING AT 16" OC W/ 3 5/8" STL STUD BRACES, STAGGERED, AT 48"OC, UON. ANCHOR FRAMING TO STRUCT ABOVE W/ CONT 18GA RUNNER TRACK MECH ATTACHED TO 3"x3"x3/16" BENT PLATE, WHICH IS MECH ATTACHED TO STL STRUCTURE, TYP. PROVIDE CONT 3"x3"x18GA SHT MTL CORNER ANGLES AT ALL EXPOSED OUTSIDE CORNERS AND CONT STL STUDS AT FRAMING INTERSECTIONS, TYP. CONT 5/8" GYP BD 8" ABOVE ADJACENT APC, WHERE OCCURS, AND CONT BULKHEAD 4" BELOW APC, WHERE OCCURS, UON.
8. ALL VERTICAL SIDES OF GYP BD BULKHEADS SHALL BE OFFSET BACK 2" FROM ADJACENT, PERPENDICULAR SURFACE EDGES AT CMU AND TO ALIGN WITH ADJ GYP BD WALLS, UON.
9. ALL GYP BD BULKHEAD WIDTHS SHALL BE NO LESS THAN 12" WIDE, UON.
10. ALL GYP BD BULKHEAD BOTTOM ELEVATIONS SHALL BE NO LESS THAN 4" BELOW SCHEDULED APC ELEVATIONS, UON.
11. REFER TO MEP DOCUMENTS AND COORDINATE THE LOCATIONS OF LIGHTS,DIFFUSERS, ETC. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT.
12. IN SQUARE OR RECTANGULAR ROOMS, CENTER APC BOTH WAYS, TYP.
13. REFER TO SECTIONS, PLANS, AND SHEETS A611 - A631 FOR LOCATIONS OF BULKHEADS. THIS DRAWING IS FOR DESIGN INTENT ONLY.
14. BULKHEAD AND CEILING ELEVATIONS ARE TO FACE OF STUD, NOT TO FINISH MATERIAL.
15. REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS.

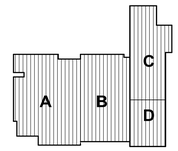
A1 / A602 **LEVEL 2 - COMPOSITE REFLECTED CEILING PLAN**
1/16" = 1'-0"

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1 ADD#02			09/11/2025
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



Client/Project Logo

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ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 2 - COMPOSITE CEILING PLAN

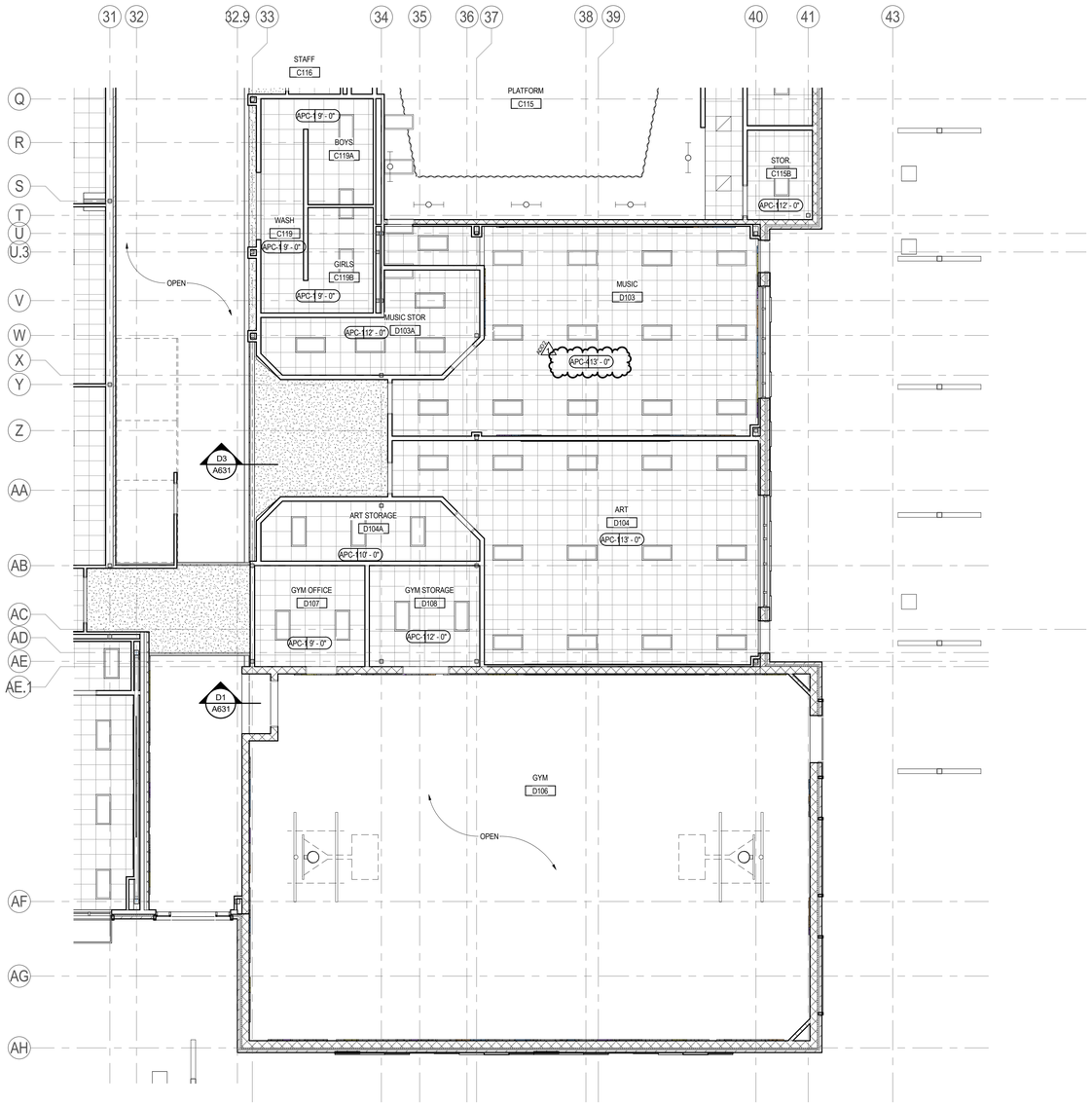
Project No.
214001269

Scale
As indicated

Revision
1

Drawing No.
A602

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ORIGINAL SHEET - ARCH E1



A1 / A614 **LEVEL 1 - REFLECTED CEILING PLAN AREA D**

1/8" = 1'-0"

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ORIGINAL SHEET - ARCH E1

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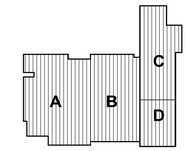
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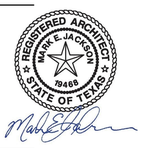
Notes





1 ADD#02			09/11/2025
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



Client/Project Logo

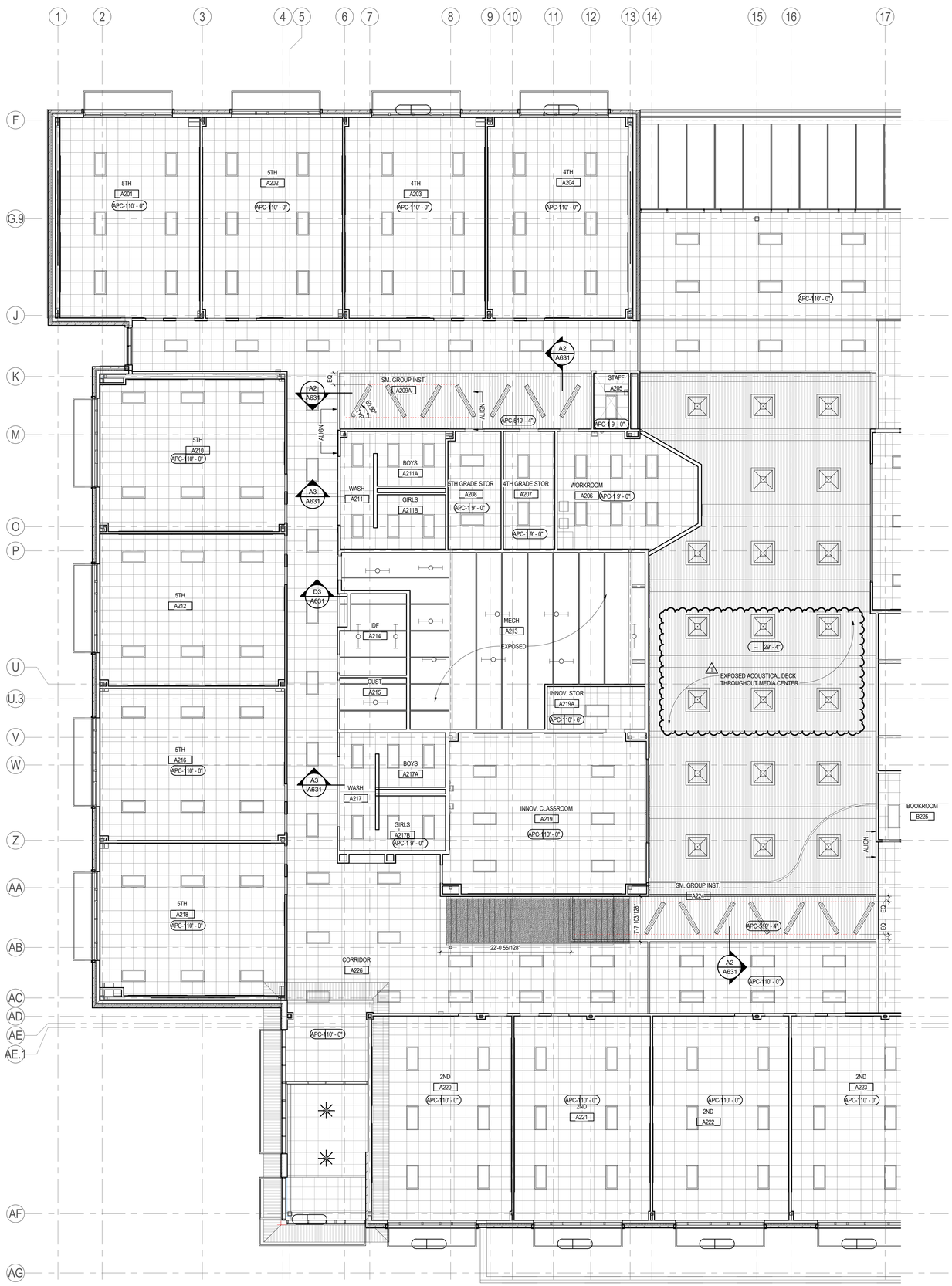
Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - CEILING PLAN - AREA D

Project No.	Scale
214001269	1/8" = 1'-0"
Revision	Drawing No.
1	**A614**



A1 / A621 **LEVEL 2 - REFLECTED CEILING PLAN AREA A**

1/8" = 1'-0"

<Pick location in Project Information>
9/11/2025 8:46:01 AM

ORIGINAL SHEET - ARCH E1

Stantec

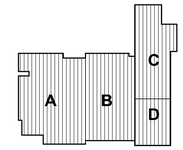
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1	ADD#02		09/11/2025
Revision		By	Appd	YYYY.MM.DD
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Issued		By	Appd	YYYY.MM.DD

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Client/Project Logo

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ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

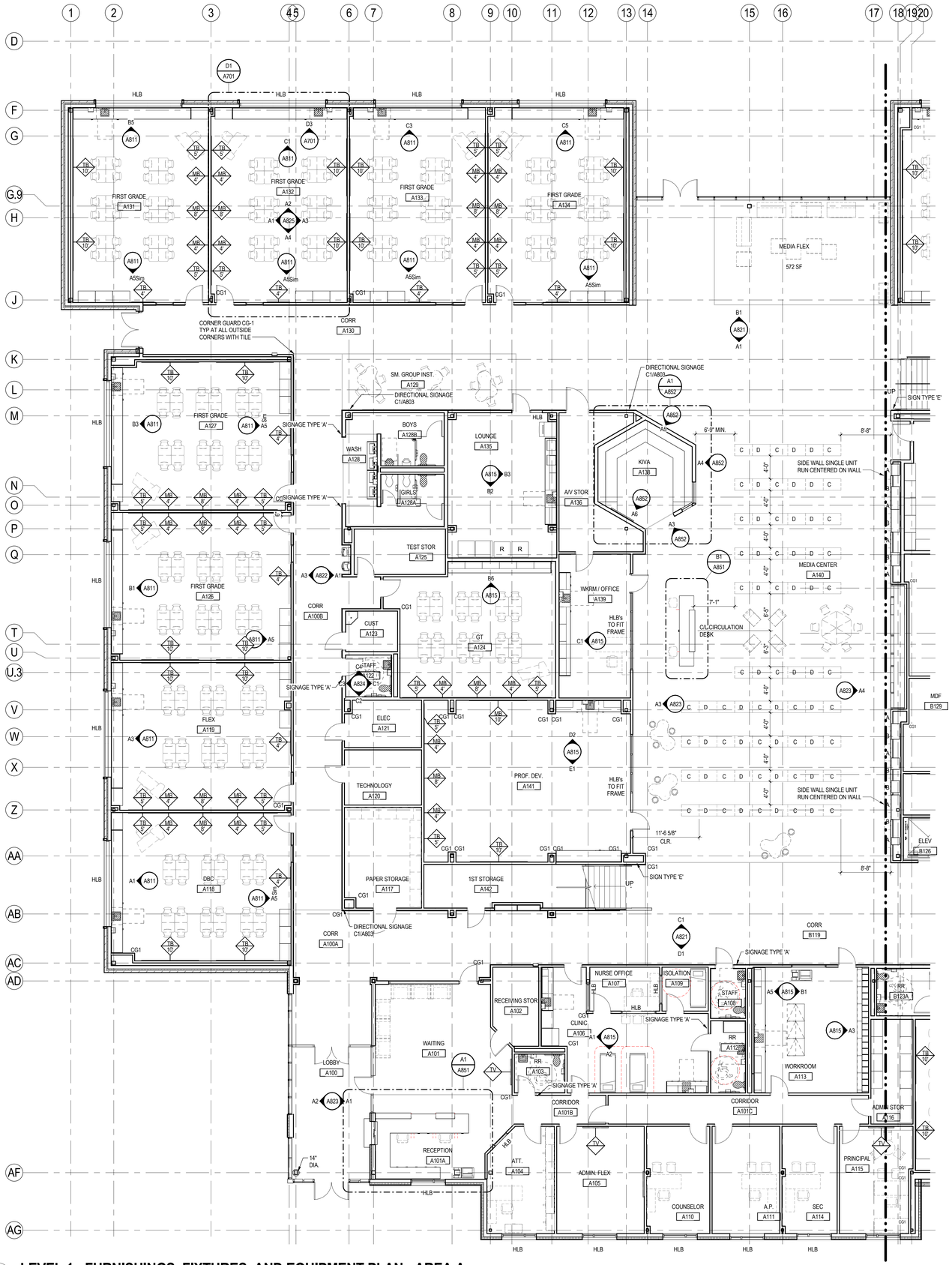
Title
LEVEL 2 - CEILING PLAN - AREA A

Project No.
214001269

Scale
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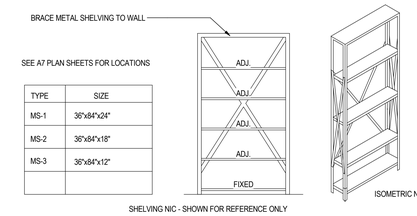
Revision
1

Drawing No.
A621



A1 LEVEL 1 - FURNISHINGS, FIXTURES, AND EQUIPMENT PLAN - AREA A

A711 — 1/8" = 1'-0"



SEE A7 PLAN SHEETS FOR LOCATIONS

TYPE	SIZE
MS-1	36"x84"x24"
MS-2	36"x84"x18"
MS-3	36"x84"x12"

SHELVING NIC - SHOWN FOR REFERENCE ONLY

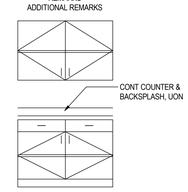
E4 METAL SHELVING TYPES

A711 — 3/8" = 1'-0"

FFE PLAN LEGEND

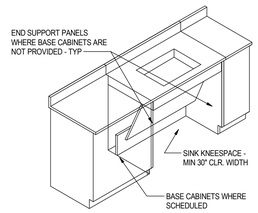
- EXTERIOR WALL OR INTERIOR PARTITION
- FURNITURE NIC
- FURNITURE, FIXTURES, OR EQUIPMENT IN CONTRACT

CASEWORK KEY



NOTE:

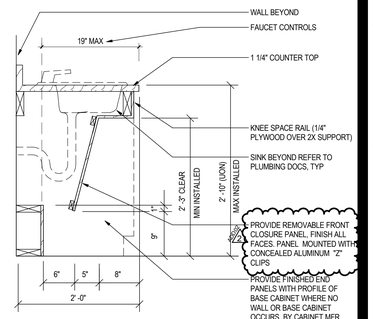
1. GENERAL CASEWORK MODEL NUMBERS REFERENCE THE ARCHITECTURAL WOODWORK INSTITUTE (AWI) AS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ACCEPTABLE CASEWORK MANUFACTURERS.
2. BASE CABINET HEIGHT IS GIVEN TO THE TOP OF COUNTER TOP, UON.
3. REFER TO SHEET A801 FOR MATERIAL SCHEDULE, NOTES, AND FINISHES, TYP.



ISOMETRIC

NTS

ACCESSIBLE KNEESPACE DETAIL (ELEMENTARY)



ACCESSIBLE KNEESPACE DETAIL (STAFF)

ADDED REFERENCE MARKINGS TO PLAN.

LIBRARY SHELVING SCHEDULE

DESIGN BASIS: TESCO LIBRARY FURNITURE - PATRIOT SERIES (SOLID OAK). FINAL COLOR TBD.

TYPE A: SINGLE FACE STARTER, 36X42X12, BULLNOSE EDGE TOP
TYPE B: SINGLE FACE ADDER, 36X42X12, BULLNOSE EDGE TOP
TYPE C: DOUBLE FACE STARTER, 36X42X24, BULLNOSE EDGE TOP
TYPE D: DOUBLE FACE ADDER, 36X42X24, BULLNOSE EDGE TOP

NOTES (TYP. ALL UNITS):
- NO CASTERS
- NO CONTINUOUS TOPS

REVISED DEPTH OF UNITS. ADDED TYPICAL NOTES.

Stantec

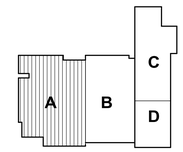
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1	ADD#01		09/08/2025
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Permit/Seal



Client/Project Logo

ALVIN Independent School District

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

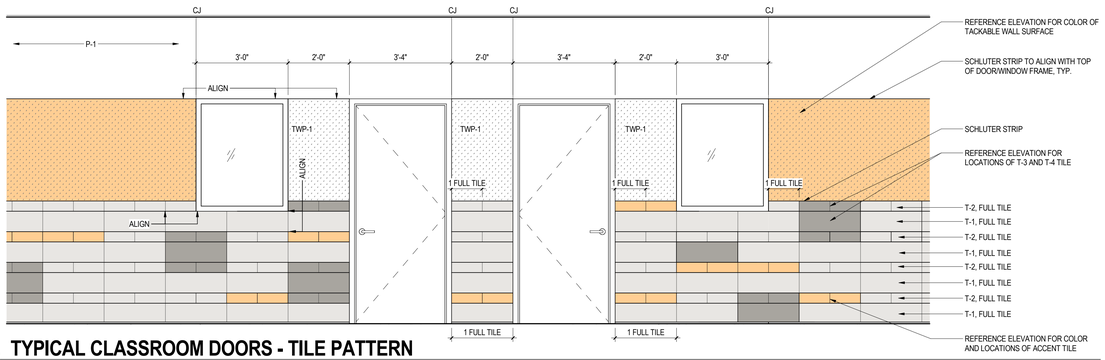
Title

LEVEL 1 - FURNISHINGS, FIXTURES, AND EQUIPMENT PLAN - AREA A

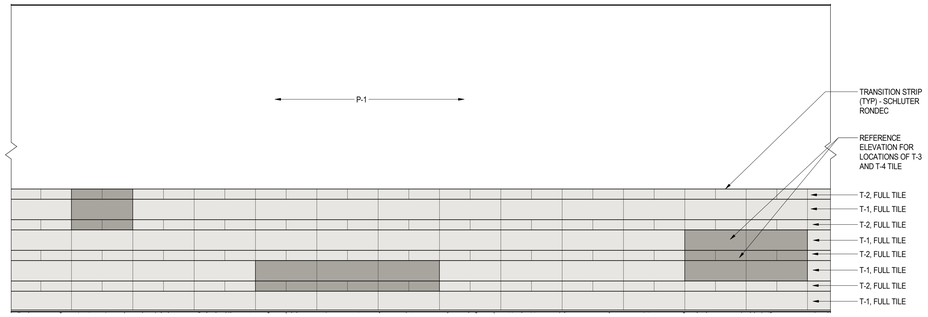
Project No.	Scale
214001269	As indicated
Revision	Drawing No.
2	A711

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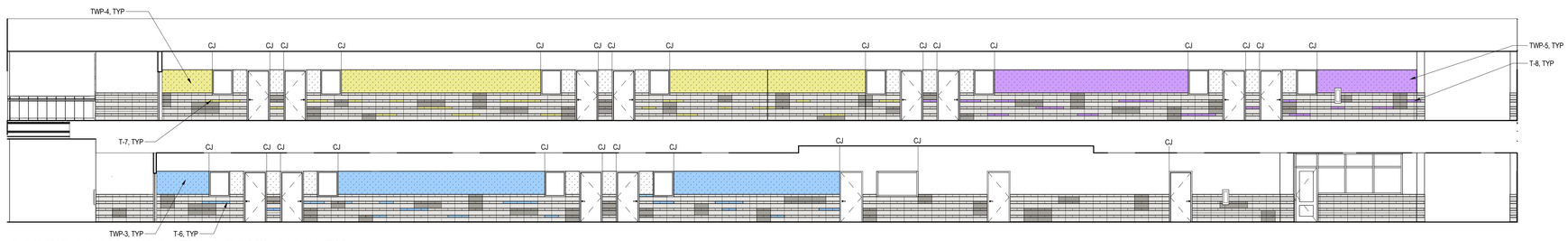
ORIGINAL SHEET - ARCH E1



E1 A821 **TYPICAL CLASSROOM DOORS - TILE PATTERN**
1/2" = 1'-0"

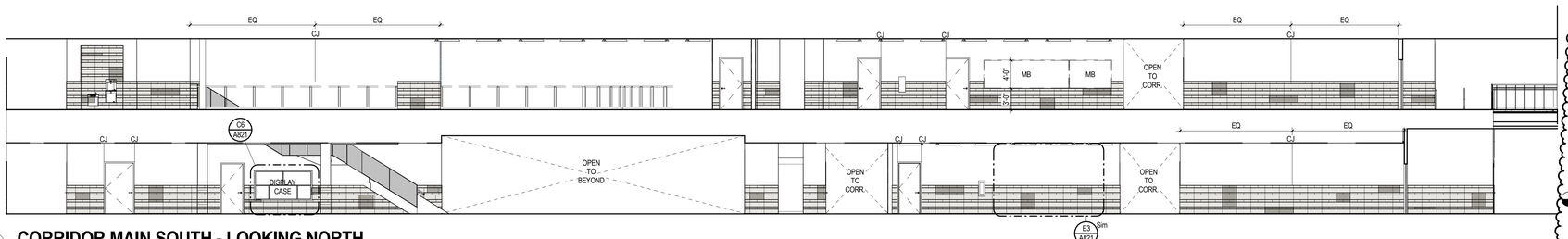


E3 A821 **TYPICAL WAINSCOT TILE PATTERN**
1/2" = 1'-0"

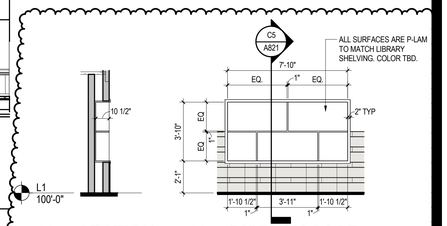


D1 A821 **CORRIDOR MAIN SOUTH - LOOKING SOUTH**
1/8" = 1'-0"

1



C1 A821 **CORRIDOR MAIN SOUTH - LOOKING NORTH**
1/8" = 1'-0"



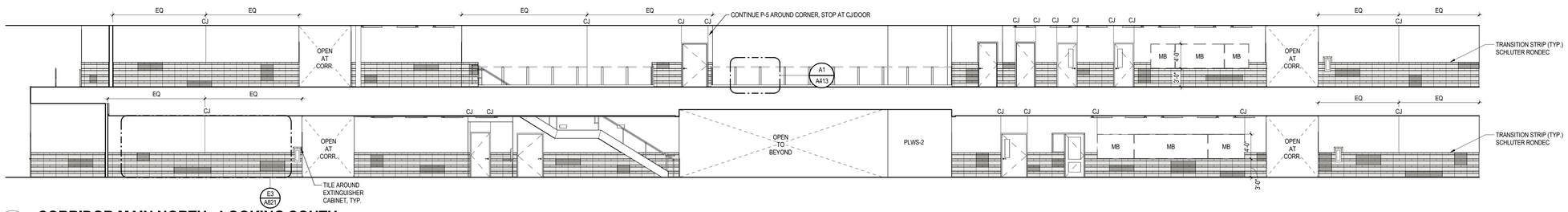
C5 A821 **SECTION**
1/4" = 1'-0"

C6 A821 **DISPLAY CASE**
1/4" = 1'-0"



B1 A821 **CORRIDOR MAIN NORTH - LOOKING NORTH**
1/8" = 1'-0"

1



A1 A821 **CORRIDOR MAIN NORTH - LOOKING SOUTH**
1/8" = 1'-0"

Stantec

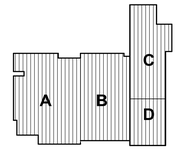
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Issued		By	Appd YYYY.MM.DD

Permit/Seal



Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
INTERIOR ELEVATIONS

Project No.
214001269

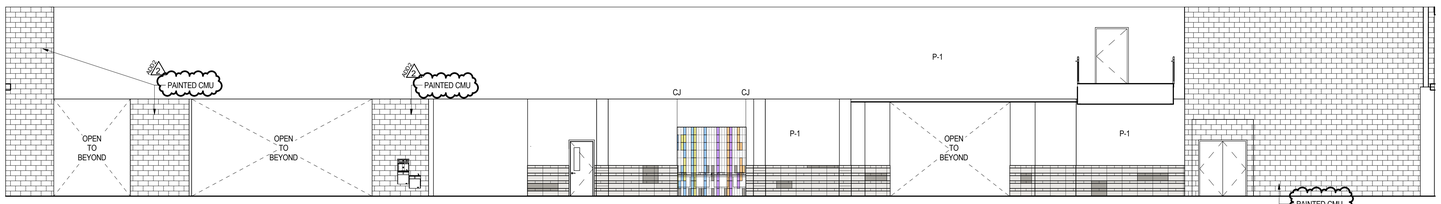
Scale
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Revision
2

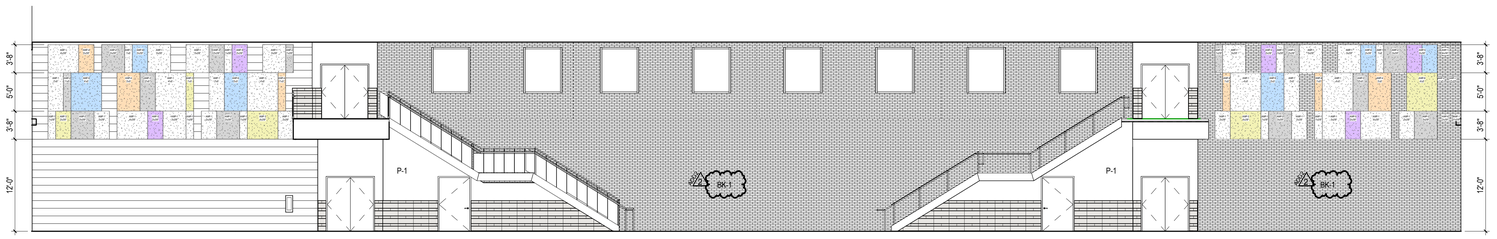
Drawing No.
A821

•Pick location in Project Information•
8/11/2025 8:46:11 AM

ORIGINAL SHEET - ARCH E1



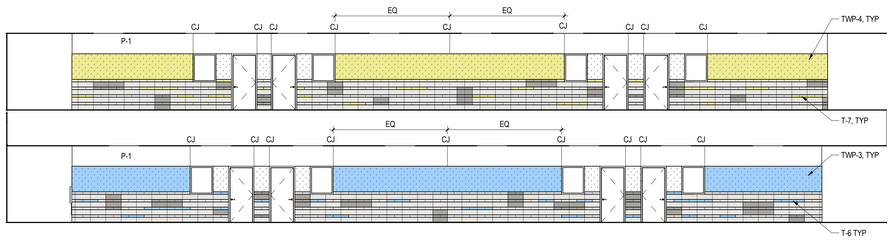
D1 / A822 CORRIDOR EAST - LOOKING EAST
1/8" = 1'-0"



C1 / A822 CORRIDOR EAST - LOOKING WEST
1/8" = 1'-0"



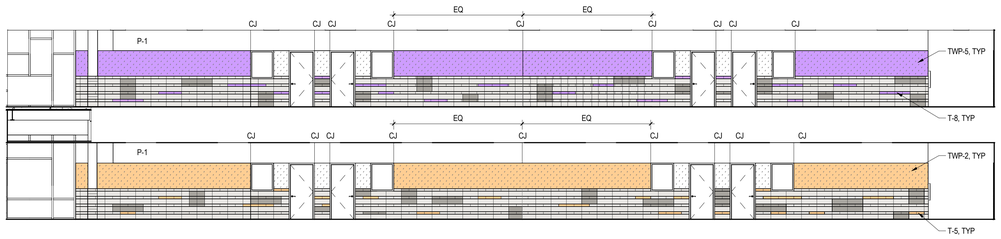
B1 / A822 CORRIDOR MAIN EAST - LOOKING WEST
1/8" = 1'-0"



B4 / A822 CORRIDOR MAIN EAST - LOOKING EAST
1/8" = 1'-0"



A1 / A822 CORRIDOR MAIN WEST - LOOKING EAST
1/8" = 1'-0"



A3 / A822 CORRIDOR MAIN WEST - LOOKING WEST
1/8" = 1'-0"

Stantec

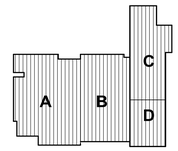
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Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
INTERIOR ELEVATIONS

Project No.
214001269

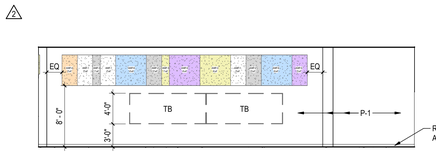
Scale
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Revision
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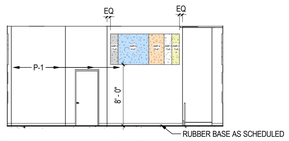
Drawing No.
A822

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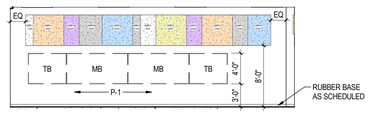
ORIGINAL SHEET - ARCH E1



E1 MUSIC SOUTH
A823 1/8" = 1'-0"



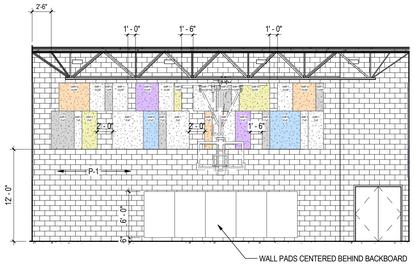
E2 MUSIC WEST
A823 1/8" = 1'-0"



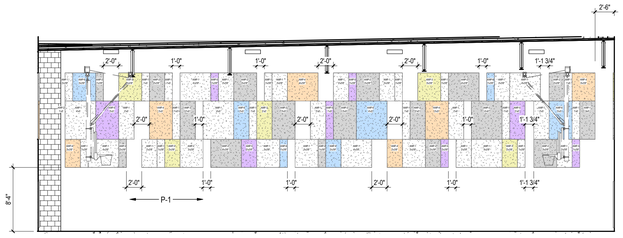
E3 MUSIC NORTH
A823 1/8" = 1'-0"



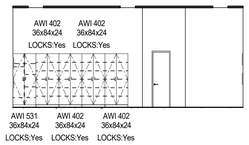
E4 MUSIC EAST
A823 1/8" = 1'-0"



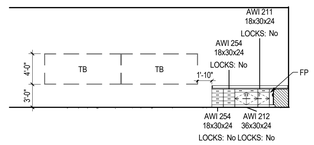
D1 GYM - WEST
A823 1/8" = 1'-0"



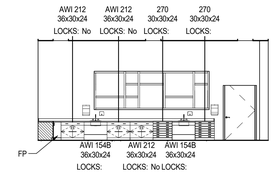
D2 GYM - SOUTH
A823 1/8" = 1'-0"



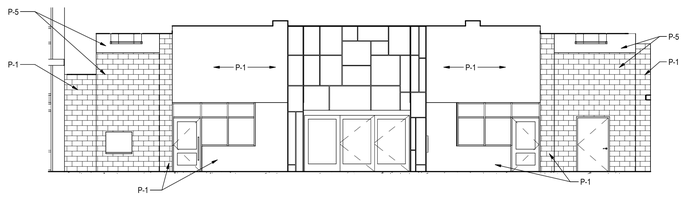
D4 D104 - WEST
A823 1/8" = 1'-0"



D5 D104 - NORTH
A823 1/8" = 1'-0"



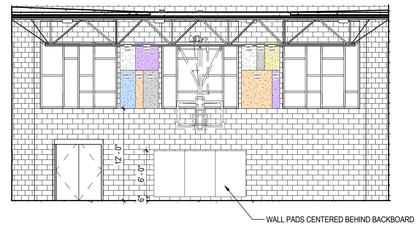
D6 D104 - EAST
A823 1/8" = 1'-0"



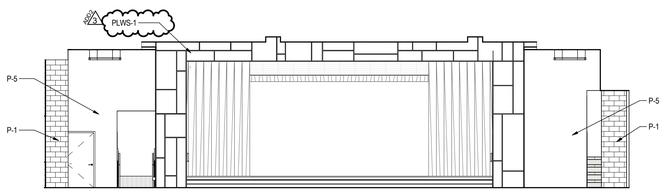
C1 DINING NORTH
A823 1/8" = 1'-0"



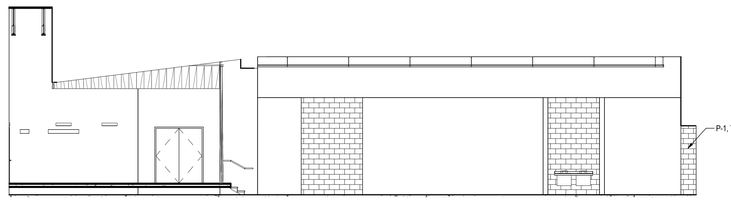
C3 GYM - NORTH
A823 1/8" = 1'-0"



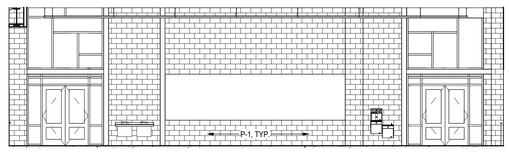
C5 GYM - EAST
A823 1/8" = 1'-0"



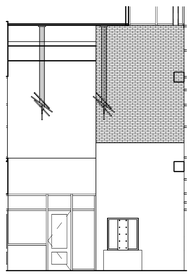
B1 DINING SOUTH
A823 1/8" = 1'-0"



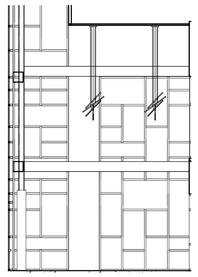
B3 DINING WEST
A823 1/8" = 1'-0"



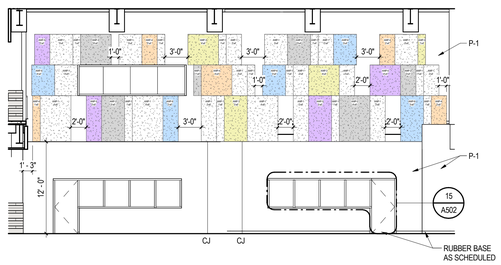
B5 DINING EAST
A823 1/8" = 1'-0"



A1 VESTIBULE EAST
A823 1/8" = 1'-0"



A2 VESTIBULE WEST
A823 1/8" = 1'-0"



A3 A140 MEDIA CENTER - WEST
A823 1/8" = 1'-0"



A4 A140 MEDIA CENTER BUILT-INS
A823 1/8" = 1'-0"

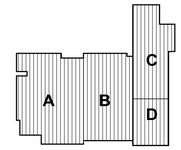
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3	ADD#02		09/11/2025
2	ADD#01		09/08/2025
1	BIDDING DOCUMENTS - UPDATED INFO		09/01/2025
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			09.01.2025
FINAL CONSTRUCTION DOCUMENTS			08.18.2025
Issued		By	Appd YYYY.MM.DD

Permit/Seal



Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
INTERIOR ELEVATIONS

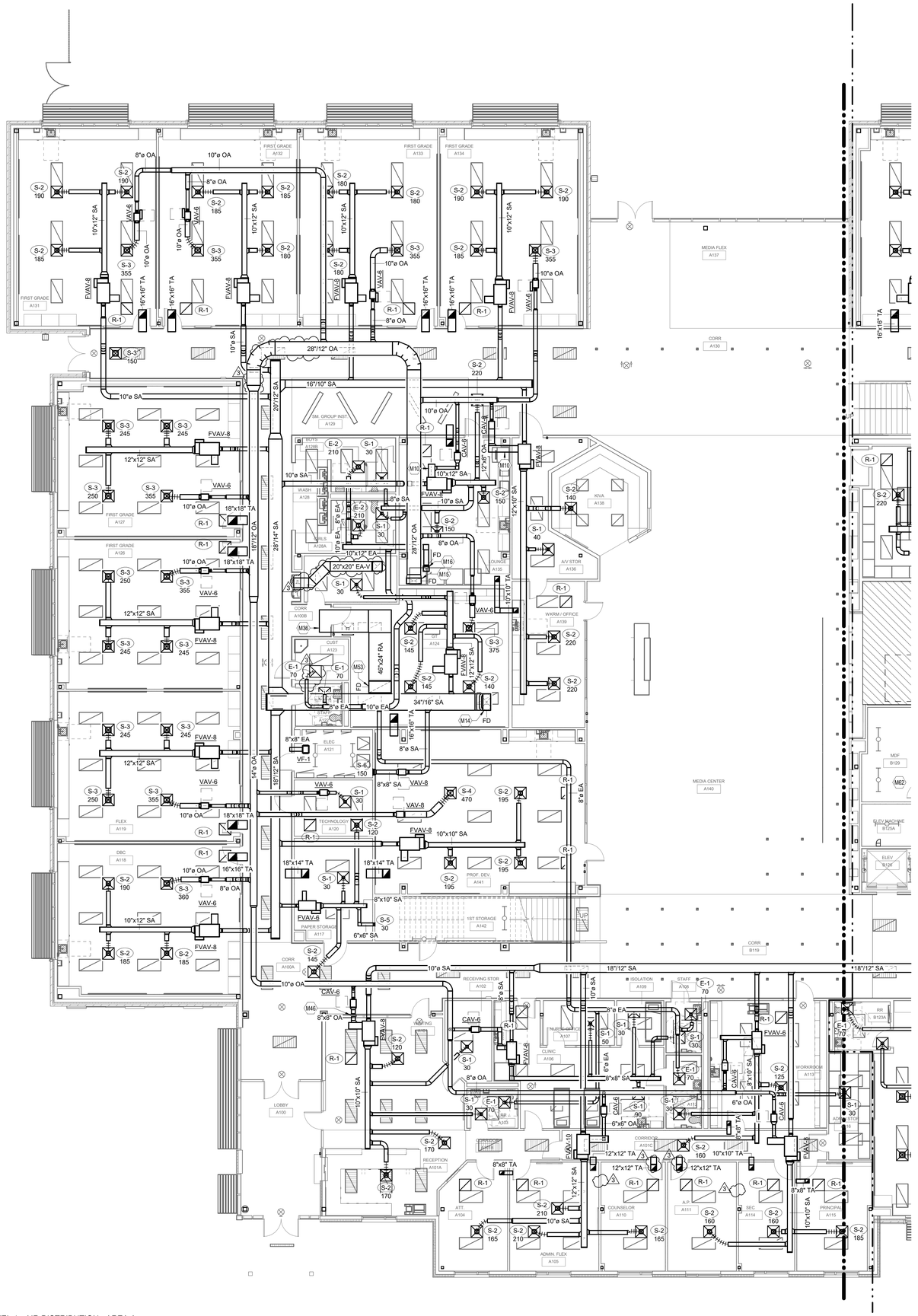
Project No.
214001269

Scale
1/8" = 1'-0"

Revision
3

Drawing No.
A823

•Pick location in Project Information•
9/11/2025 3:34:21 PM
ORIGINAL SHEET - ARCH E1



1 LEVEL 1 - AIR DISTRIBUTION - AREA A
1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

A. PROVIDE 2" OF ACOUSTICAL LINING IN RETURN DUCT FROM THE PLENUM RETURN OPENING TO DOWNSTREAM 15 FT.

TAGGED NOTES	(#)
M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M14	SA DUCT UP TO SECOND FLOOR SPACE.
M15	OA DUCT UP TO SECOND FLOOR SPACE.
M16	EA DUCT UP TO SECOND FLOOR SPACE.
M36	FLARE RETURN AIR DICT OPENING TO PLENUM WITH 2" OPENING.
M46	PROVIDE BALANCING DAMPER FOR 120 CFM.
M53	RETURN AIR DUCT UP TO SECOND FLOOR SPACE.
M62	MOUNT AC UNIT ON WALL ABOVE DOOR. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.

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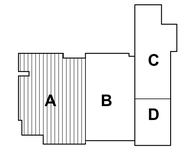
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Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

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STATE OF TEXAS
RICHARD JAMES
125539
LICENSED
PROFESSIONAL ENGINEER
CMTA # 8427
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - AIR DISTRIBUTION - AREA A

Project No.
214001269

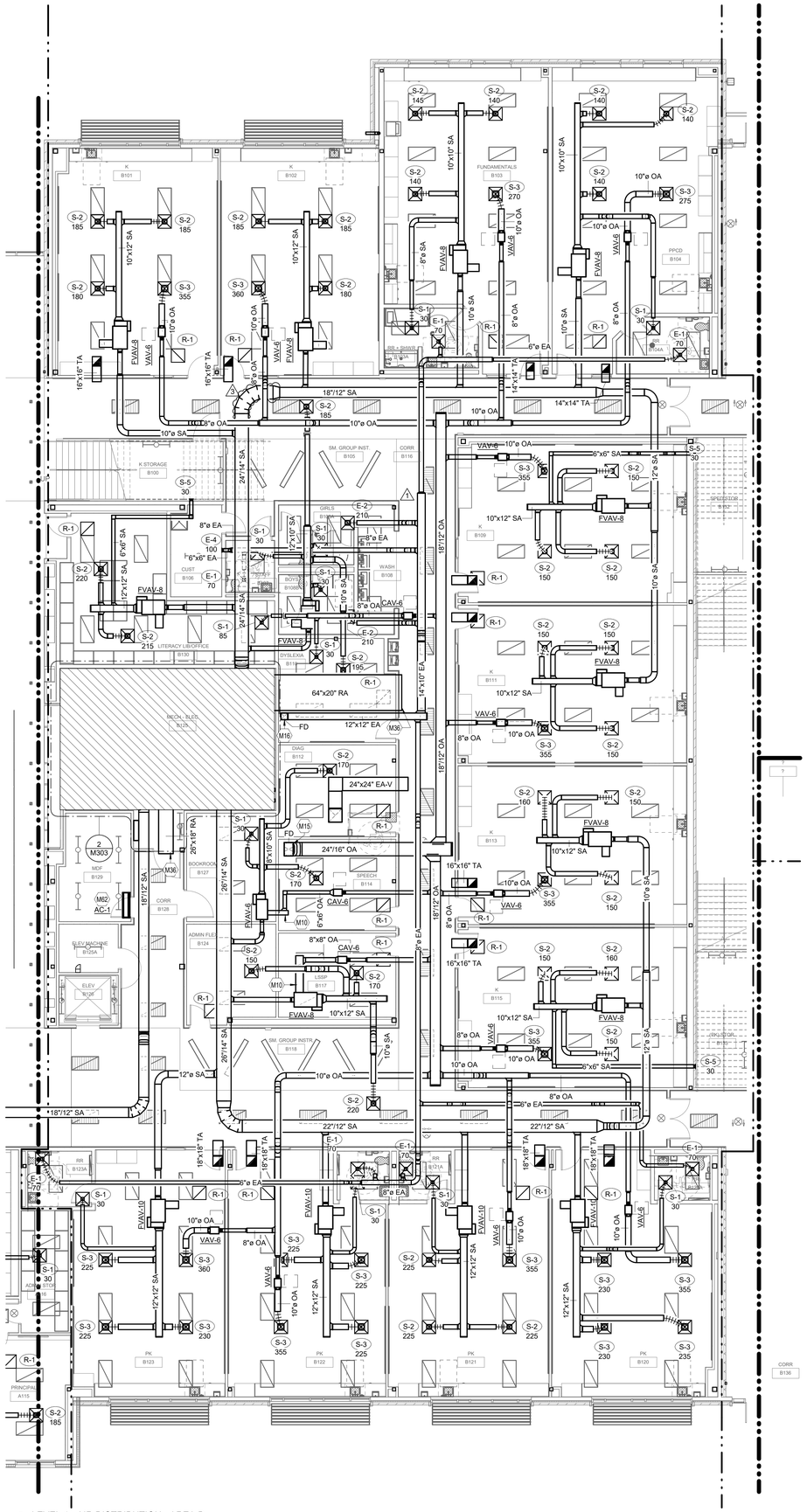
Scale
1/8" = 1'-0"

Revision
3

Drawing No.
M111

ORIGINAL SHEET - ARCH E1

<File location in Project Information>
10/1/2025 5:12:44 PM



1 LEVEL 1 - AIR DISTRIBUTION - AREA B
1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

A. PROVIDE 2" OF ACOUSTICAL LINING IN RETURN DUCT FROM THE PLENUM RETURN OPENING TO DOWNSTREAM 15 FT.

TAGGED NOTES (#)

M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M15	OA DUCT UP TO SECOND FLOOR SPACE.
M16	EA DUCT UP TO SECOND FLOOR SPACE.
M36	FLARE RETURN AIR DICT OPENING TO PLENUM WITH 2" OPENING.
M62	MOUNT AC UNIT ON WALL ABOVE DOOR. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.

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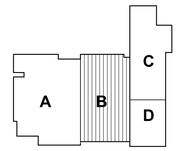
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3	ADDENDUM 2		2025.09.12
1	BIDDING DOCUMENTS - UPDATED INFO		2025.09.01
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued		By	Appd YYYY.MM.DD

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CMTA F-8627
2025.09.12

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Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - AIR DISTRIBUTION - AREA B

Project No. 214001269	Scale 1/8" = 1'-0"
Revision 3	Drawing No. **M112**

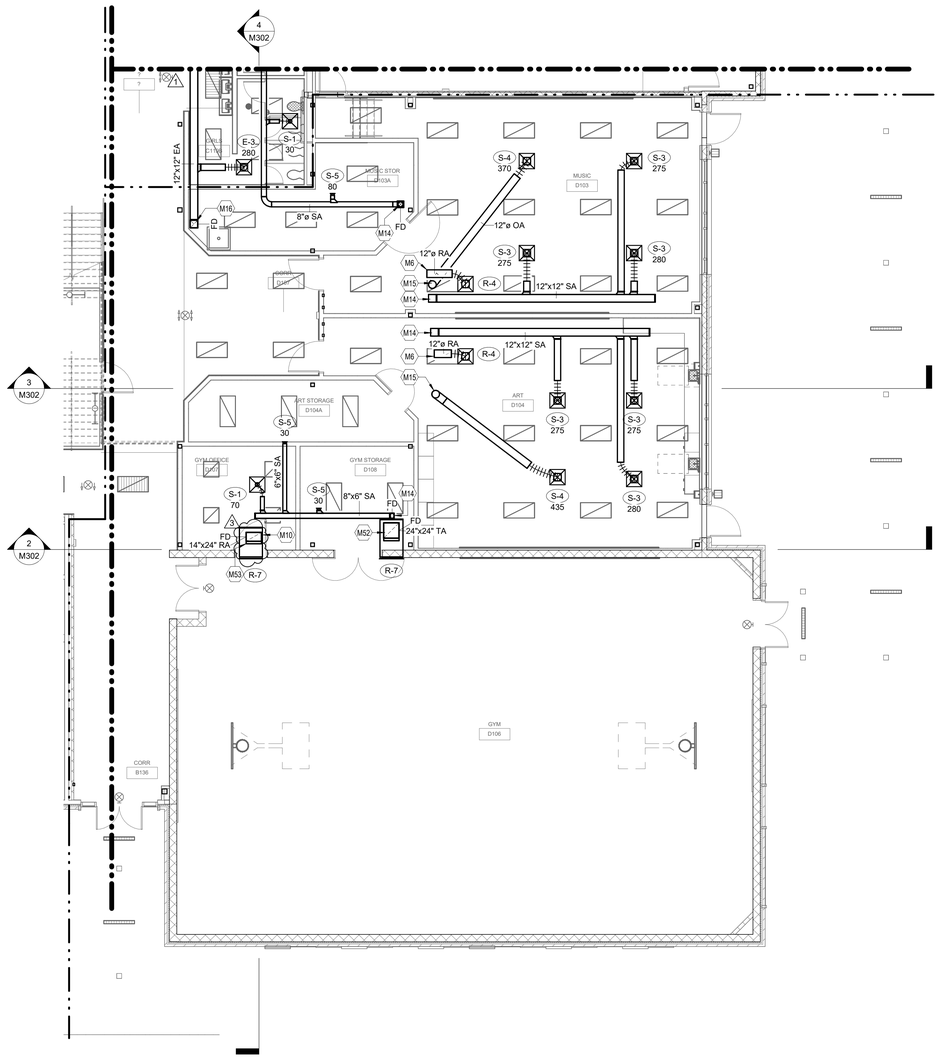
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ORIGINAL SHEET - ARCH E1

MECHANICAL GENERAL NOTES:

A. PROVIDE 2" OF ACOUSTICAL LINING IN RETURN DUCT FROM THE PLENUM RETURN OPENING TO DOWNSTREAM 15 FT.

TAGGED NOTES	
M6	RETURN AIR DUCT TO CONTINUE IN 2ND FLOOR SPACE ON M124.
M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M14	SA DUCT UP TO SECOND FLOOR SPACE.
M15	OA DUCT UP TO SECOND FLOOR SPACE.
M16	EA DUCT UP TO SECOND FLOOR SPACE.
M52	TRANSFER AIR DUCT UP TO SECOND FLOOR SPACE.
M53	RETURN AIR DUCT UP TO SECOND FLOOR SPACE.



1 LEVEL 1 - AIR DISTRIBUTION - AREA D
1/8" = 1'-0"

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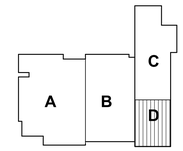
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3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

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CMTA F-8627
2025.09.12

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Client/Project
ALVIN ISD

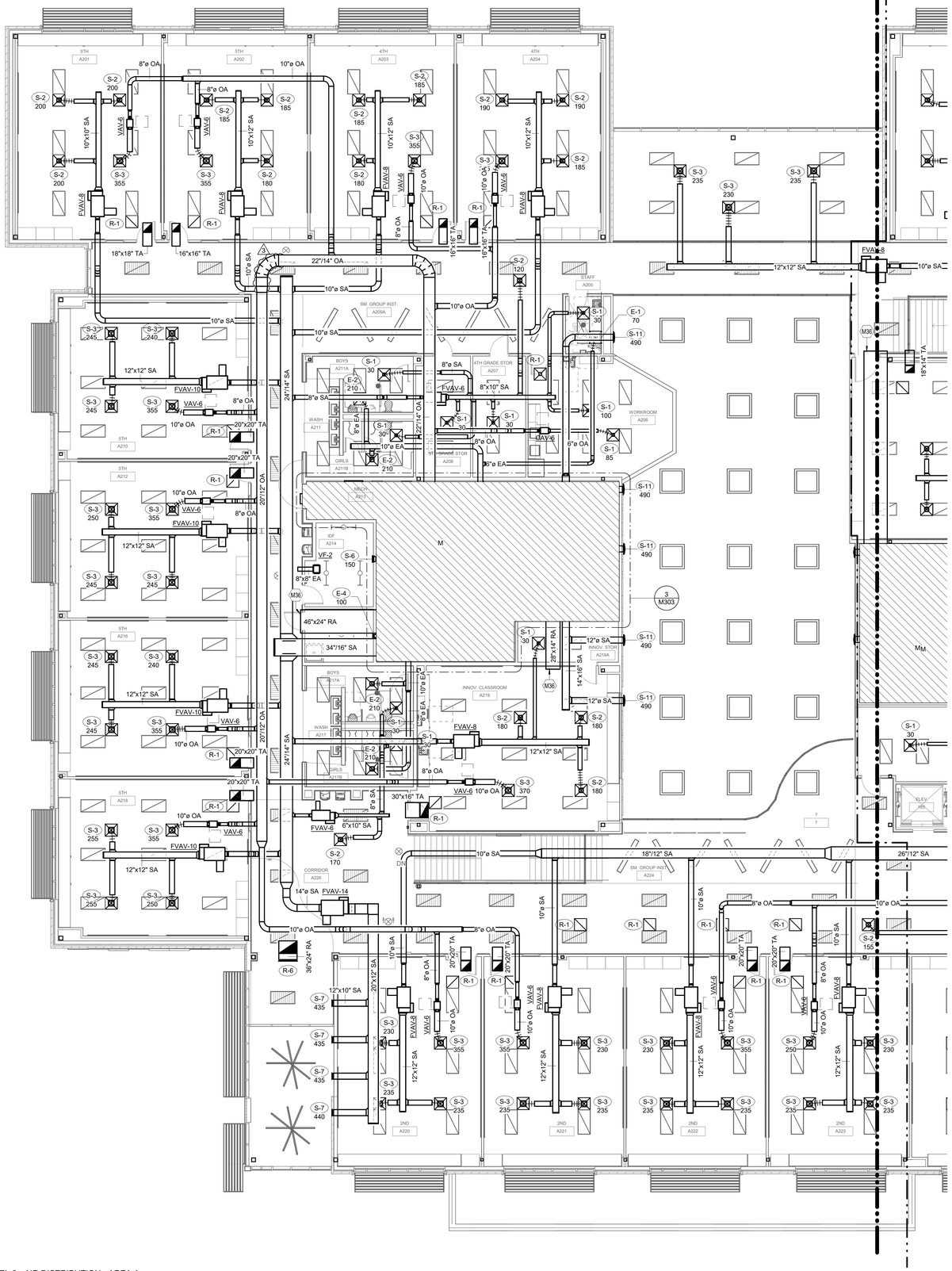
ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - AIR DISTRIBUTION - AREA D

Project No.	Scale
214001269	1/8" = 1'-0"
Revision	Drawing No.
3	M114

ORIGINAL SHEET - ARCH E1



1 LEVEL 2 - AIR DISTRIBUTION - AREA A
1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

A. PROVIDE 2" OF ACOUSTICAL LINING IN RETURN DUCT FROM THE PLENUM RETURN OPENING TO DOWNSTREAM 15 FT.

TAGGED NOTES (#)

M36	FLARE RETURN AIR DICT OPENING TO PLENUM WITH 2" OPENING.

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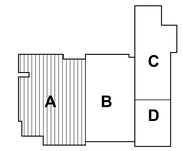
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FINAL CONSTRUCTION DOCUMENTS			2025.08.18
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CMTA # 8427
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

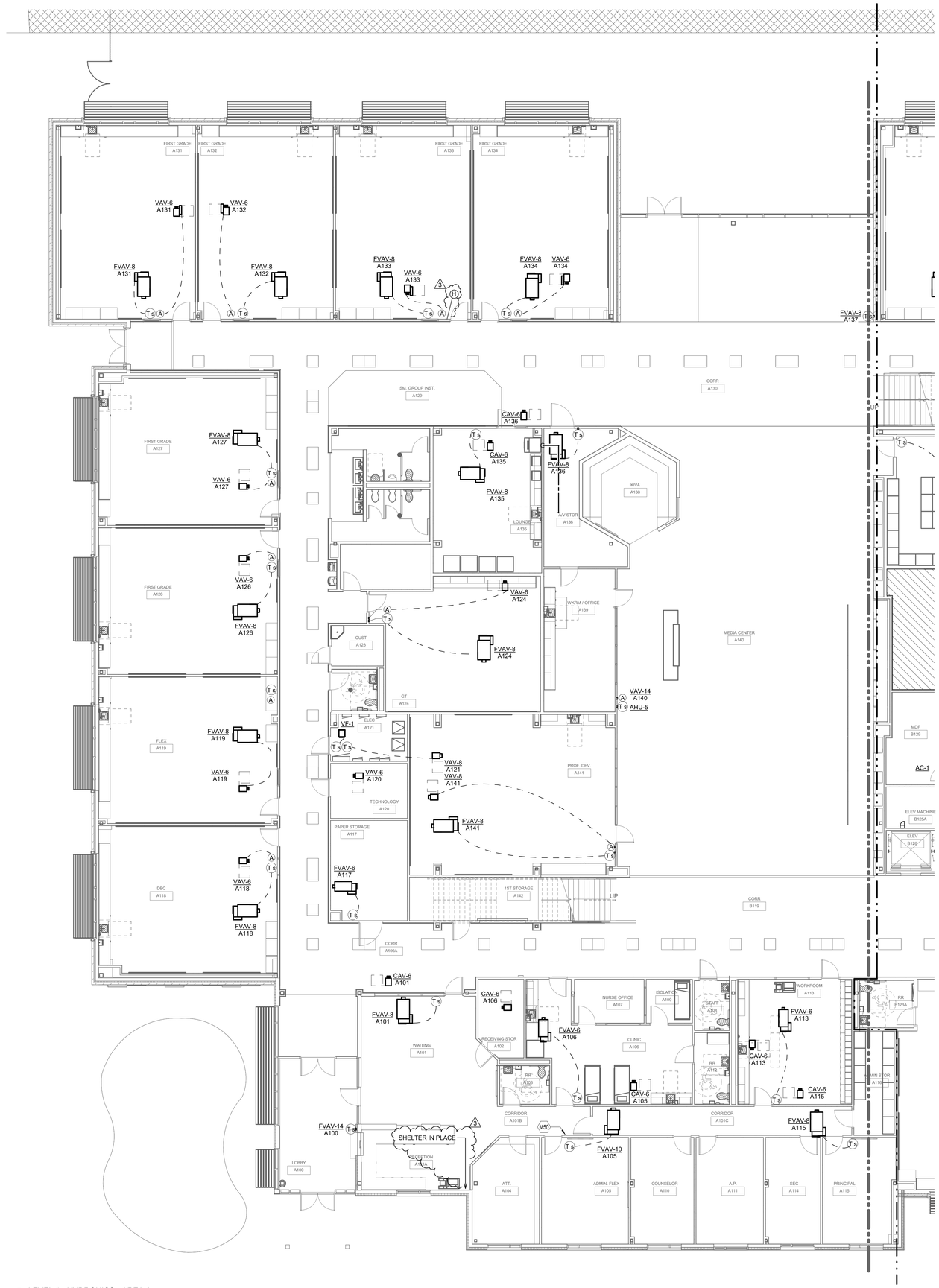
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 2 - AIR DISTRIBUTION - AREA A

Project No.	Scale
214001269	1/8" = 1'-0"
Revision	Drawing No.
3	M121

<Pick location in Project Information>
11/1/2025 5:13:00 PM

ORIGINAL SHEET - ARCH E1



1 LEVEL 1 - HYDRONICS - AREA A
1/8" = 1'-0"

TAGGED NOTES #

M50	EMERGENCY HVAC SHUTOFF BUTTON. COORDINATE EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION.

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3	ADDENDUM 2			2025.09.12
	BIDDING DOCUMENTS			2025.09.01
	FINAL CONSTRUCTION DOCUMENTS			2025.08.18
	Issued	By	Appd	YYYY.MM.DD

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138539
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2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - HYDRONICS - AREA A

Project No.
214001269

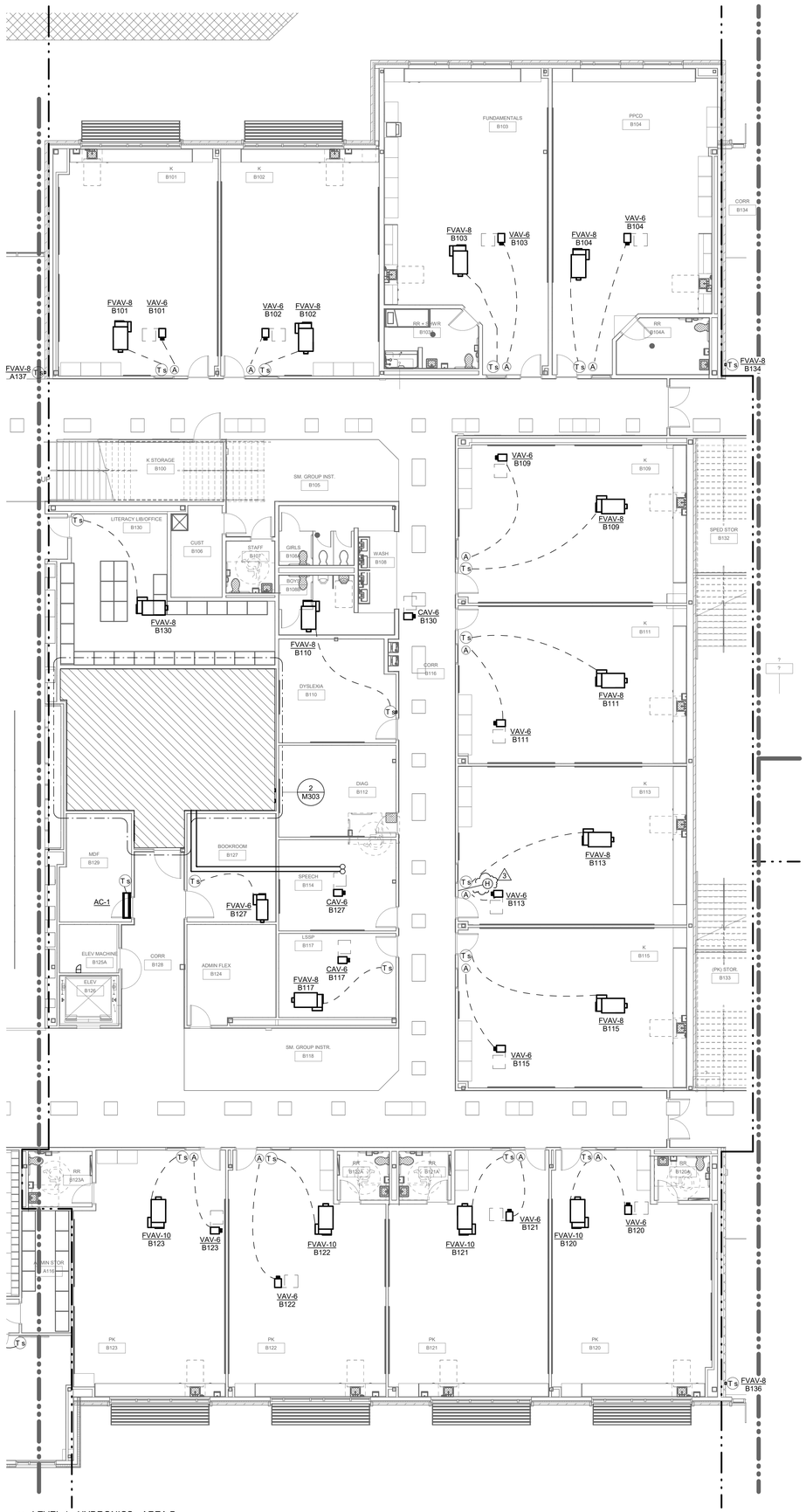
Scale
1/8" = 1'-0"

Revision
3

Drawing No.
M211

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10/17/2025 5:35:54 PM

ORIGINAL SHEET - ARCH E1



1 LEVEL 1 - HYDRONICS - AREA B
1/8" = 1'-0"

TAGGED NOTES #

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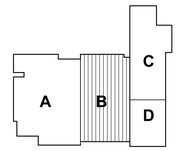
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3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
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2025.09.12

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ELEMENTARY SCHOOL #23

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Title
LEVEL 1 - HYDRONICS - AREA B

Project No.
21400269

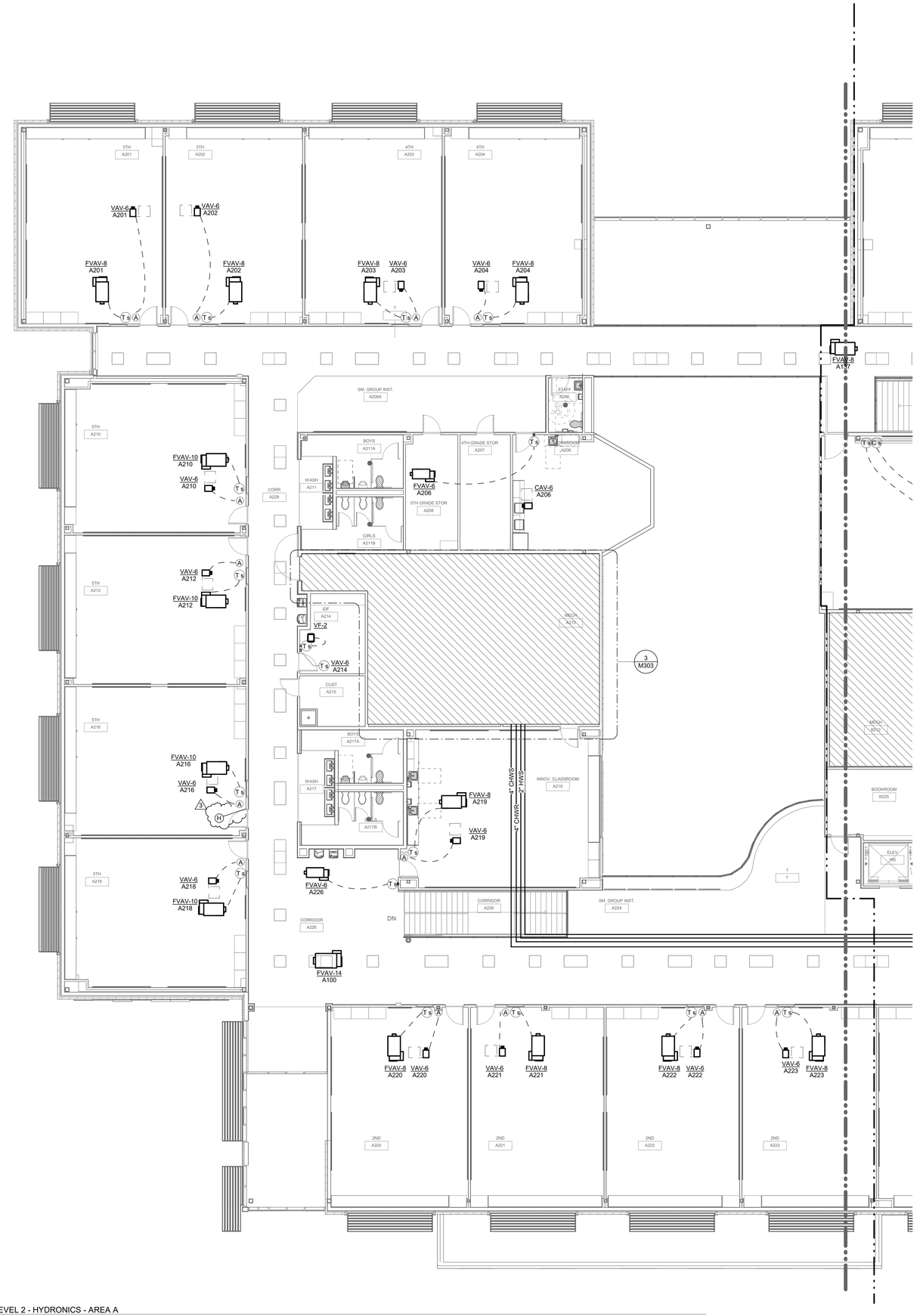
Scale
1/8" = 1'-0"

Revision
3

Drawing No.
M212

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4/11/2025 3:13:07 PM

ORIGINAL SHEET - ARCH E1



1 LEVEL 2 - HYDRONICS - AREA A
1/8" = 1'-0"

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3 ADDENDUM 2			2025.09.12
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
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RICHARD LORENZ
125535
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PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

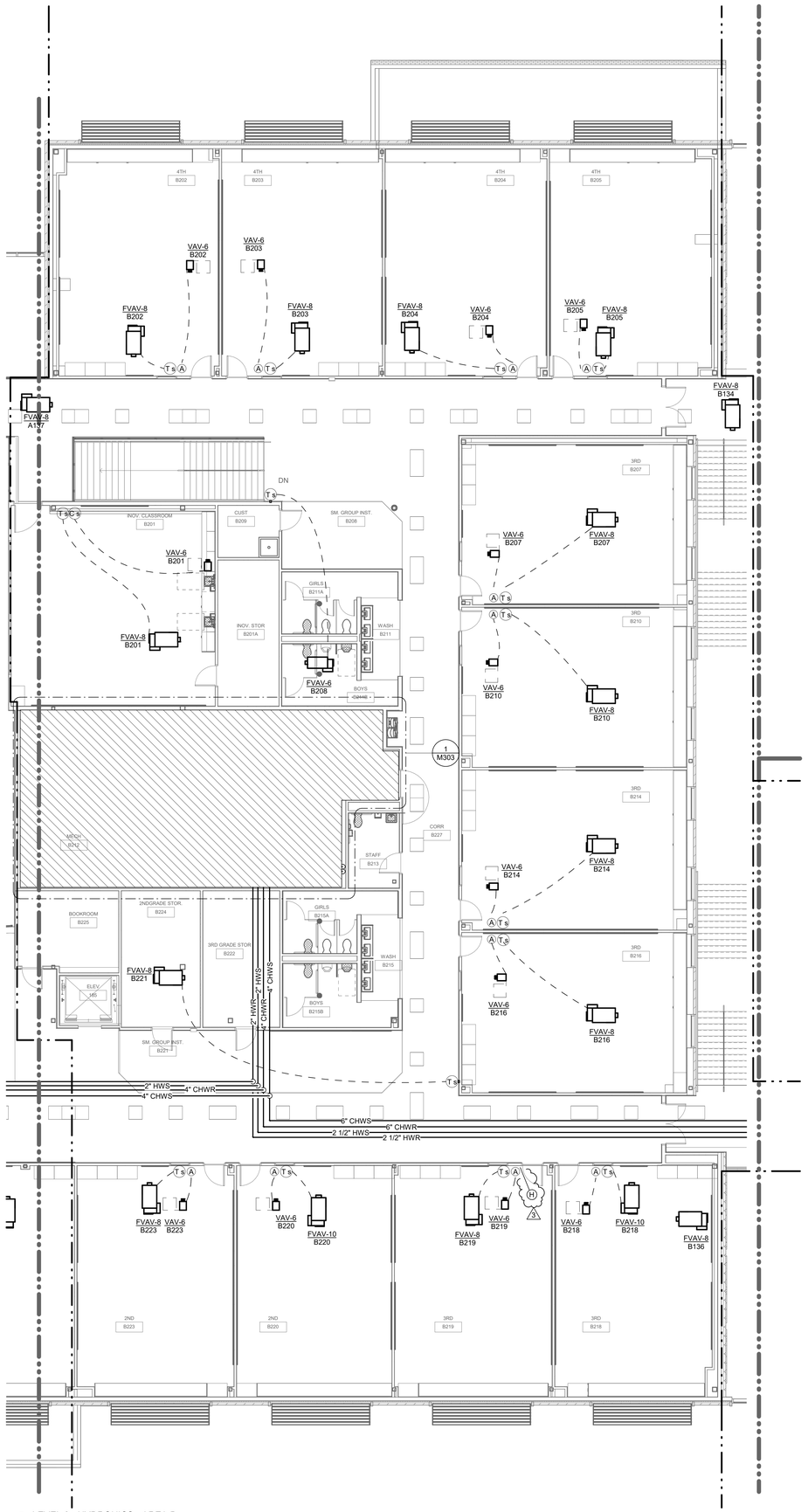
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 2 - HYDRONICS - AREA A

Project No.	Scale
214001269	1/8" = 1'-0"
Revision	Drawing No.
3	M221

<Pick location in Project Information>
8/11/2025 5:13:55 PM

ORIGINAL SHEET - ARCH E1



1 LEVEL 2 - HYDRONICS - AREA B
1/8" = 1'-0"

TAGGED NOTES #

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A | B | C | D

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3 ADDENDUM 2			2025.09.12
Revision	By	Appd	YYYY.MM.DD
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FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

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CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

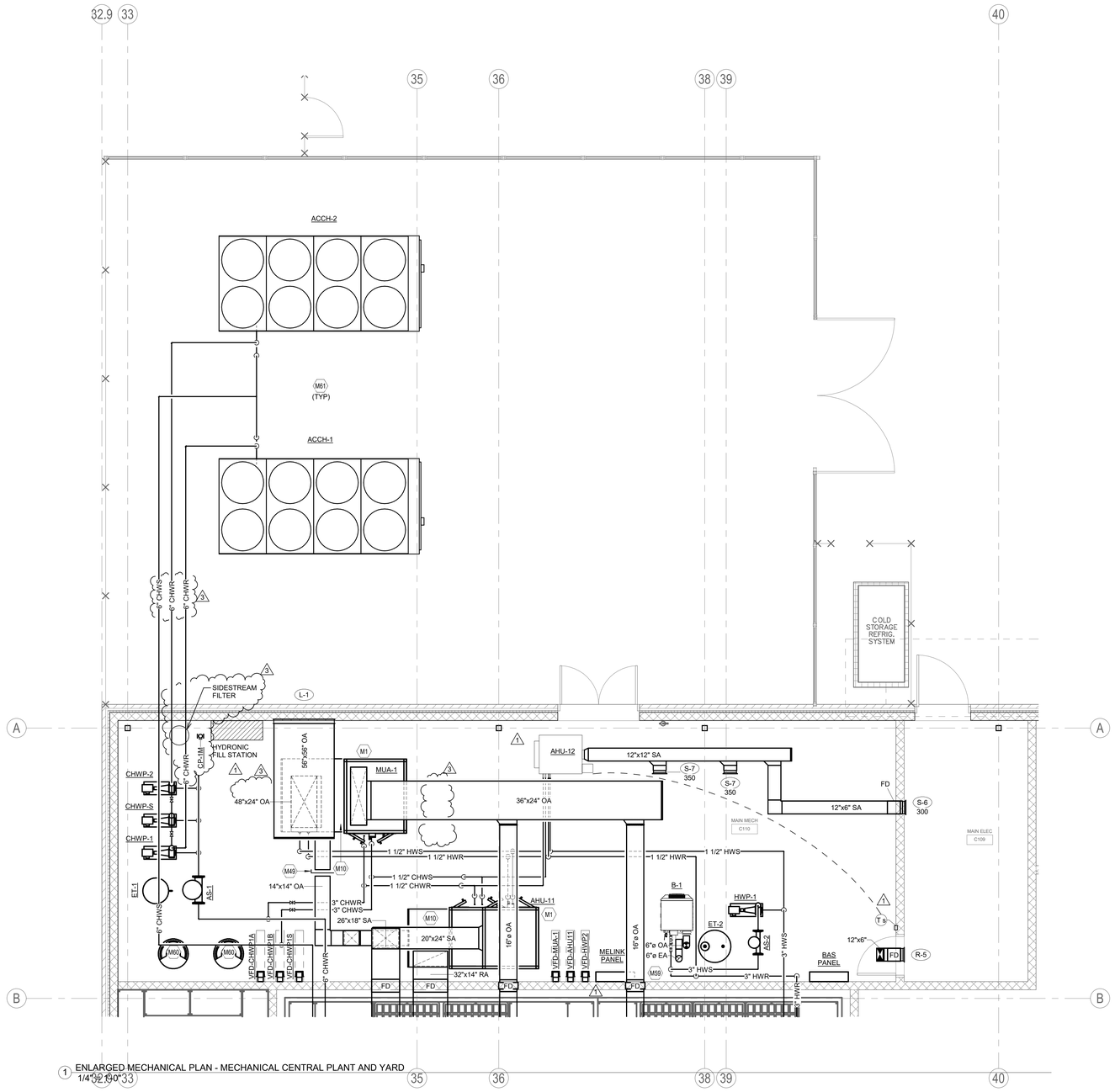
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 2 - HYDRONICS - AREA B

Project No.	Scale
214001269	1/8" = 1'-0"
Revision	Drawing No.
3	**M222**

<Pick location in Project Information>
5/17/2025 2:33:13 PM

ORIGINAL SHEET - ARCH E1



1 ENLARGED MECHANICAL PLAN - MECHANICAL CENTRAL PLANT AND YARD
1/4" = 1'-0"

TAGGED NOTES

M1	FURNISH AND INSTALL AIR HANDLING UNITS ON 6" TALL HOUSEKEEPING PAD THAT EXTENDS 6" PAST UNIT ON ALL SIDES. CONNECT HYDORNIC PIPING TO UNIT AND ROUTE ASSOCIATED HYDRONIC MAINS. SPILL CONDENSATE TO ADJACENT FLOOR SINK. REFER TO SHEET M503 FOR AHU DETAILS AND ADDITIONAL REQUIREMENTS.
M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M49	PROVIDE BALANCING DAMPER FOR 800 CFM.
M59	CARBON MONOXIDE SENSOR FOR BOILER. SENSOR SHALL DISABLE BOILER WHEN SENSOR DETECTS 100 PPM OF CARBON MONOXIDE IN SPACE. REFER TO BOILER CARBON MONOXIDE SENSOR SHUTOFF DETAIL.
M60	HOT WATER HEATER INTAKE AND EXHAUST DUCT. PROVIDE 4" DUCT AT INTAKE AND EXHAUST CONNECTIONS AND TERMINATE IN CONCENTRIC VENT KIT. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
M61	CHILLERS SHALL BE MOUNTED ON CONCRETE RAILS ALONG LONG AXIS OF THE MACHINE TO ALLOW FOR PROPER DRAINAGE IN MECHANICAL YARD.

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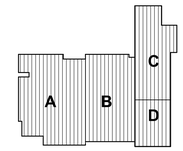
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3	ADDENDUM 2		2025.09.12
1	BIDDING DOCUMENTS - UPDATED INFO		2025.09.01
Revision		By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued		By	Appd	YYYY.MM.DD

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2025.09.12

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ALVIN ISD

ELEMENTARY SCHOOL #23

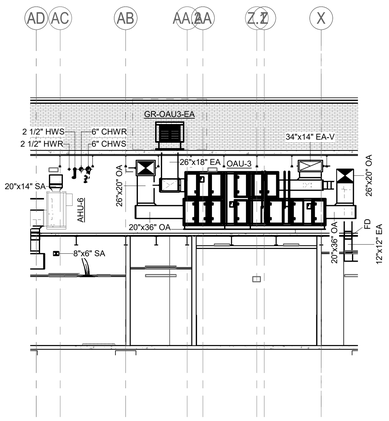
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL ENLARGED PLANS

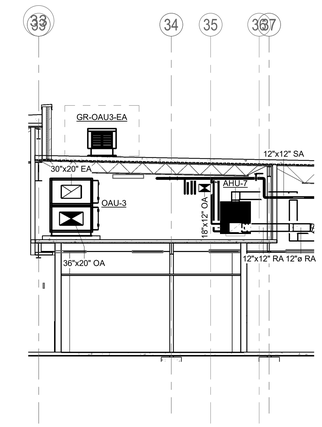
Project No.	Scale
214001269	1/4" = 1'-0"
Revision	Drawing No.
3	M301

<Pick location in Project Information>
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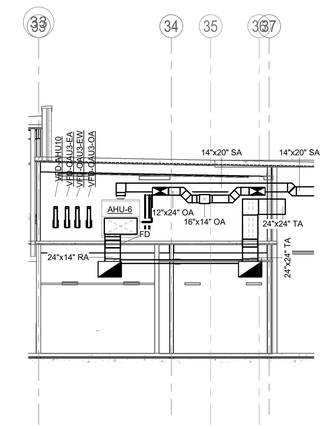
ORIGINAL SHEET - ARCH E1



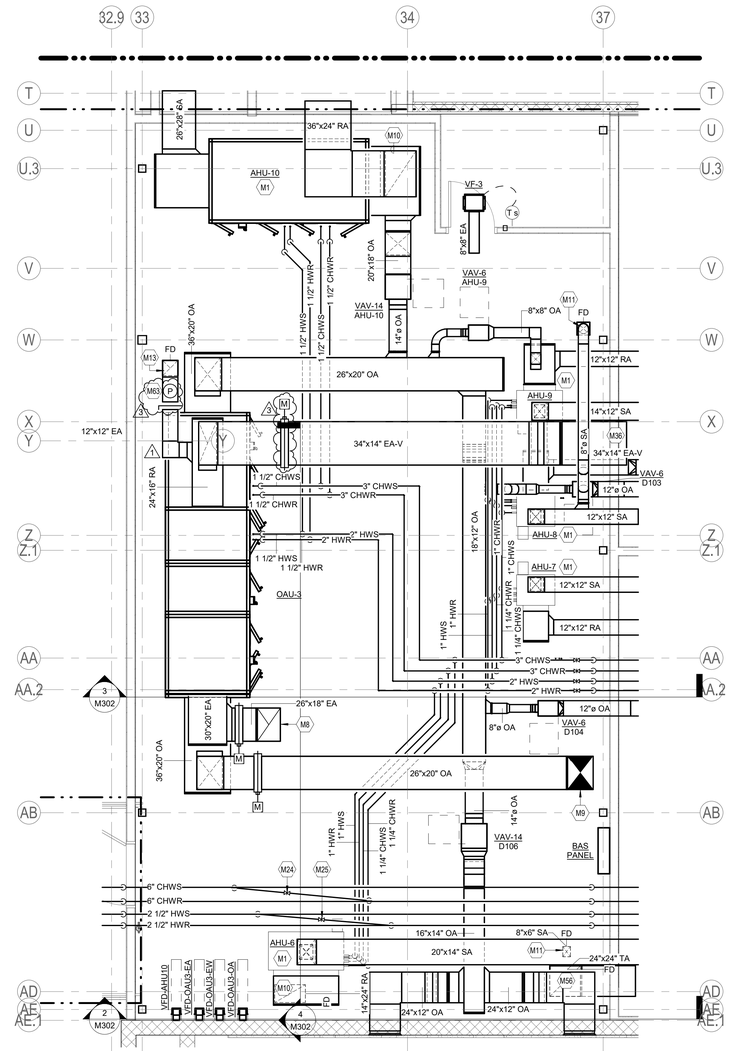
4 MECHANICAL MEZZANINE - SECTION #3
1/8" = 1'-0"



3 MECHANICAL MEZZANINE - SECTION #2
1/8" = 1'-0"



2 MECHANICAL MEZZANINE - SECTION #1
1/8" = 1'-0"



1 ENLARGED MECHANICAL PLAN - MECHANICAL PLATFORM
1/4" = 1'-0"

TAGGED NOTES

M1	FURNISH AND INSTALL AIR HANDLING UNITS ON 6" TALL HOUSEKEEPING PAD THAT EXTENDS 6" PAST UNIT ON ALL SIDES. CONNECT HYDORNIC PIPING TO UNIT AND ROUTE ASSOCIATED HYDRONIC MAINS. SPILL CONDENSATE TO ADJACENT FLOOR SINK. REFER TO SHEET M503 FOR AHU DETAILS AND ADDITIONAL REQUIREMENTS.
M8	EA DUCT UP TO GRAVITY VENTILATOR ON ROOF.
M9	OA DUCT UP TO GRAVITY VENTILATOR ON ROOF.
M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M11	SA DUCT DOWN TO FIRST FLOOR SPACE.
M13	EA DUCT DOWN TO FIRST FLOOR SPACE.
M24	PROVIDE 4" BYPASS VALVE FOR CHILLED WATER LOOP IN MECHANICAL PLATFORM.
M25	PROVIDE 2" BYPASS VALVE FOR HEATING HOT WATER LOOP IN MECHANICAL PLATFORM.
M36	FLARE RETURN AIR DICT OPENING TO PLENUM WITH 2" OPENING.
M56	TRANSFER AIR DUCT DOWN TO FIRST FLOOR SPACE.
M63	DUCT STATIC PRESSURE SENSOR.

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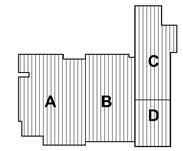
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Notes



N

Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal



CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL ENLARGED PLANS

Project No.
21400126

Scale
As indicated

Revision
3

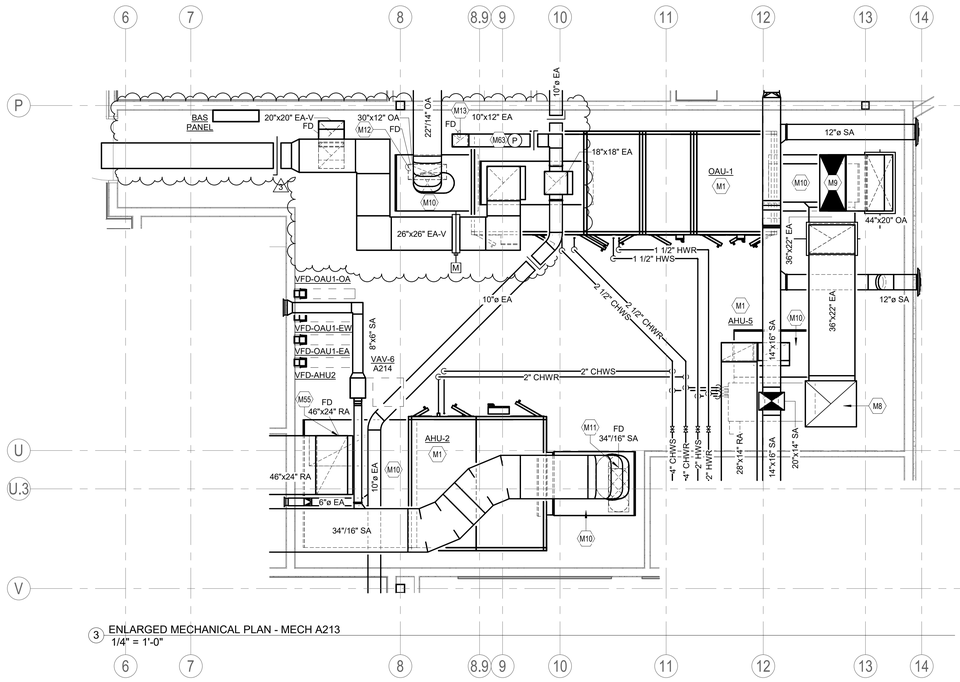
Drawing No.
M302

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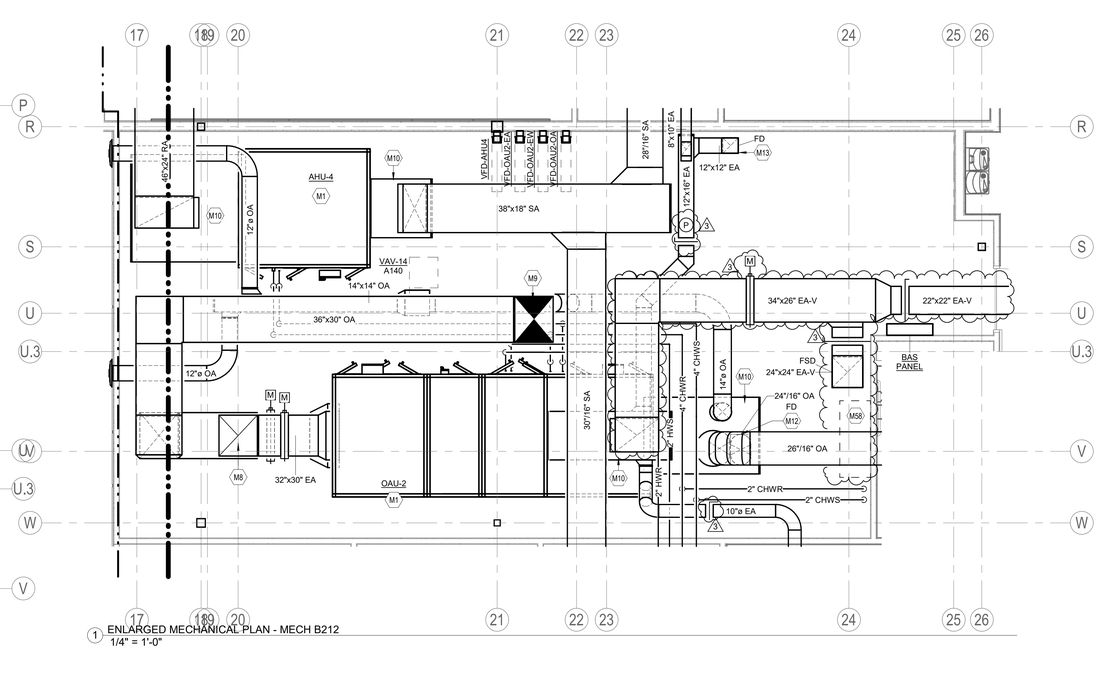
ORIGINAL SHEET - ARCH E1

TAGGED NOTES (#)

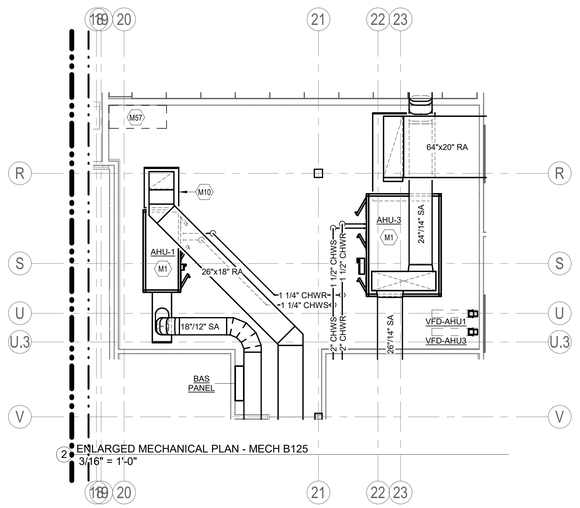
M1	FURNISH AND INSTALL AIR HANDLING UNITS ON 6" TALL HOUSEKEEPING PAD THAT EXTENDS 6" PAST UNIT ON ALL SIDES. CONNECT HYDORNIC PIPING TO UNIT AND ROUTE ASSOCIATED HYDRONIC MAINS. SPILL CONDENSATE TO ADJACENT FLOOR SINK. REFER TO SHEET M503 FOR AHU DETAILS AND ADDITIONAL REQUIREMENTS.
M8	EA DUCT UP TO GRAVITY VENTILATOR ON ROOF.
M9	OA DUCT UP TO GRAVITY VENTILATOR ON ROOF.
M10	PROVIDE FULL SIZED PLENUM RETURN BOX.
M11	SA DUCT DOWN TO FIRST FLOOR SPACE.
M12	OA DUCT DOWN TO FIRST FLOOR SPACE.
M13	EA DUCT DOWN TO FIRST FLOOR SPACE.
M55	RETURN AIR DUCT DOWN TO FIRST FLOOR SPACE.
M57	AIRCUITY SYSTEM COMPONENTS. PROVIDE IMS - 24X24 WALL MOUNTED SERVER, SST1 - 20X20 WALL MOUNTED SENSOR SUITE, AND HVP1 - FLOOR MOUNTED PUMPS.
M58	AIRCUITY SYSTEM COMPONENTS. PROVIDE SST1 - 20X20 WALL MOUNTED SENSOR SUITE AND HVP1 - FLOOR MOUNTED PUMPS.
M63	DUCT STATIC PRESSURE SENSOR.



3 ENLARGED MECHANICAL PLAN - MECH A213
1/4" = 1'-0"



1 ENLARGED MECHANICAL PLAN - MECH B212
1/4" = 1'-0"



2 ENLARGED MECHANICAL PLAN - MECH B125
3/16" = 1'-0"

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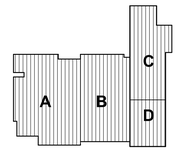
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Revision	By	Appd	
3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

Permit/Seal

STATE OF TEXAS
RICHARD LOPEZ
126938
LICENSED
PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL ENLARGED PLANS

Project No.
214001269

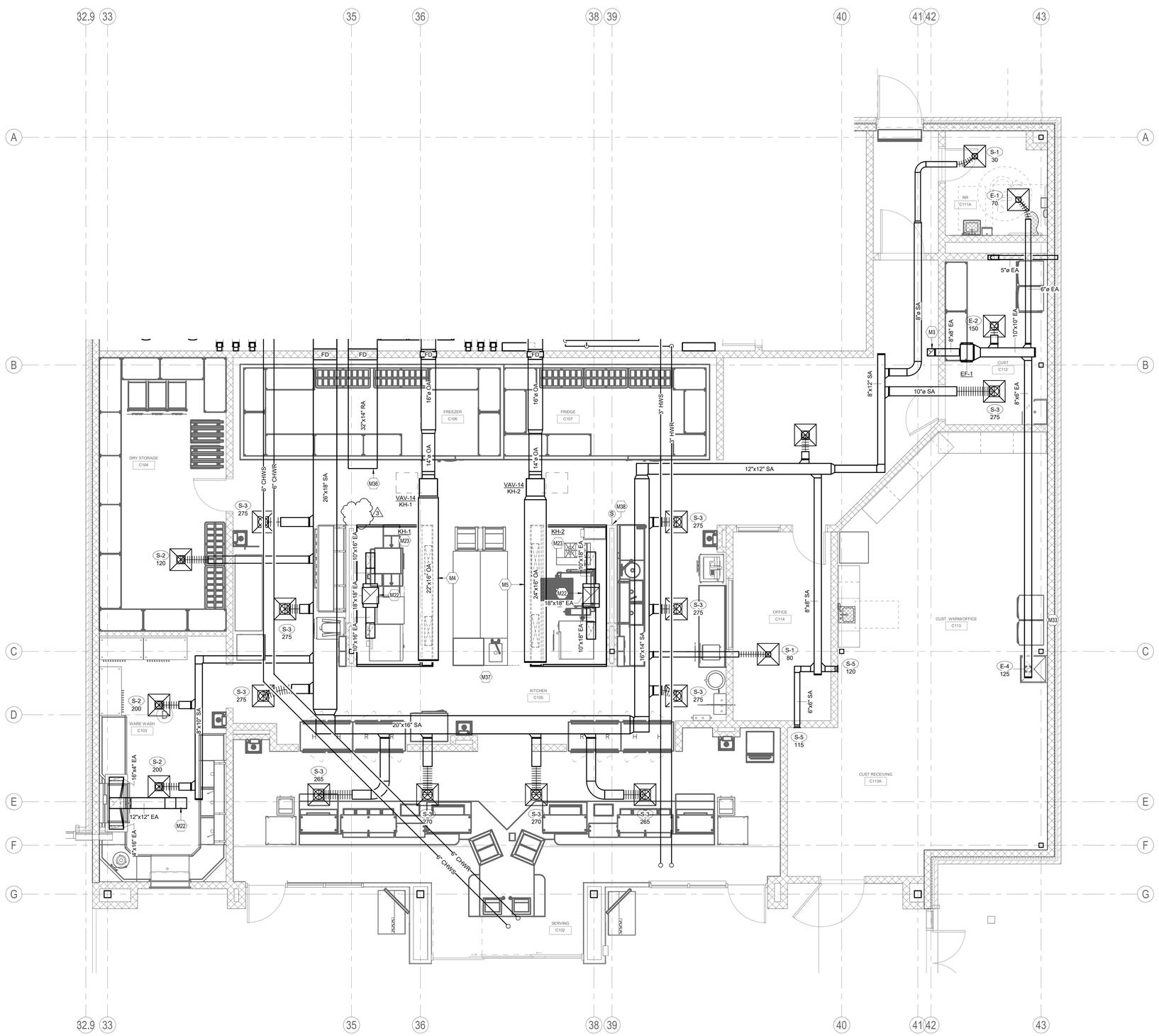
Scale
As indicated

Revision
3

Drawing No.
M303

•Plot location in Project Information•
9/11/2025 5:13:24 PM

ORIGINAL SHEET - ARCH E1



1 ENLARGED MECHANICAL PLAN - KITCHEN
1/4" = 1'-0"

TAGGED NOTES

M3	ROUTE EXHAUST AIR DUCT UP TO ROOF AND GOOSENECK A MINIMUM OF 24" ABOVE ROOF.
M4	PROVIDE (2)8X32 TAP CONNECTIONS TO SUPPLY COLLAR OF KITCHEN HOOD 1.
M5	PROVIDE (2) 8X36 TAP CONNECTIONS TO SUPPLY COLLAR OF KITCHEN HOOD 2.
M22	CONNECT KITCHEN HOOD GREASE DUCT TO KITCHEN HOOD. REFER TO MECHANICAL DETAIL KITCHEN HOOD SHEET M505 FOR CONNECTION SIZES. ROUTE KITCHEN GREASE DUCT UP TO EXHAUST FAN ON ROOF. REFER TO KITCHEN GREASE DUCT DETAIL ON M504 FOR GREASE DUCT ROUTING REQUIREMENTS.
M23	KITCHEN EXHAUST HOOD. REFER TO KITCHEN HOOD DETAILS ON SHEETS M505 FOR MORE INFORMATION.
M33	PROVIDE 8" WALL CAP FOR DRYER EXHAUST.
M36	FLARE RETURN AIR DICT OPENING TO PLENUM WITH 2" OPENING.
M37	PROVIDE RED INDICATION LIGHT TO BE ON WHEN HOODS ARE RUNNING. CONNECT TO BAS.
M38	MELINK REMOTE ON/OFF SWITCH.

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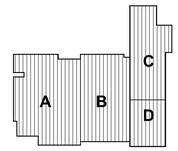
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3	ADDENDUM 2		2025.09.12
Revision		By	Appd YYYY.MM.DD
	BIDDING DOCUMENTS		2025.09.01
	FINAL CONSTRUCTION DOCUMENTS		2025.08.18
Issued		By	Appd YYYY.MM.DD

Permit/Seal



CMTA F-8627
2025.09.12

Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

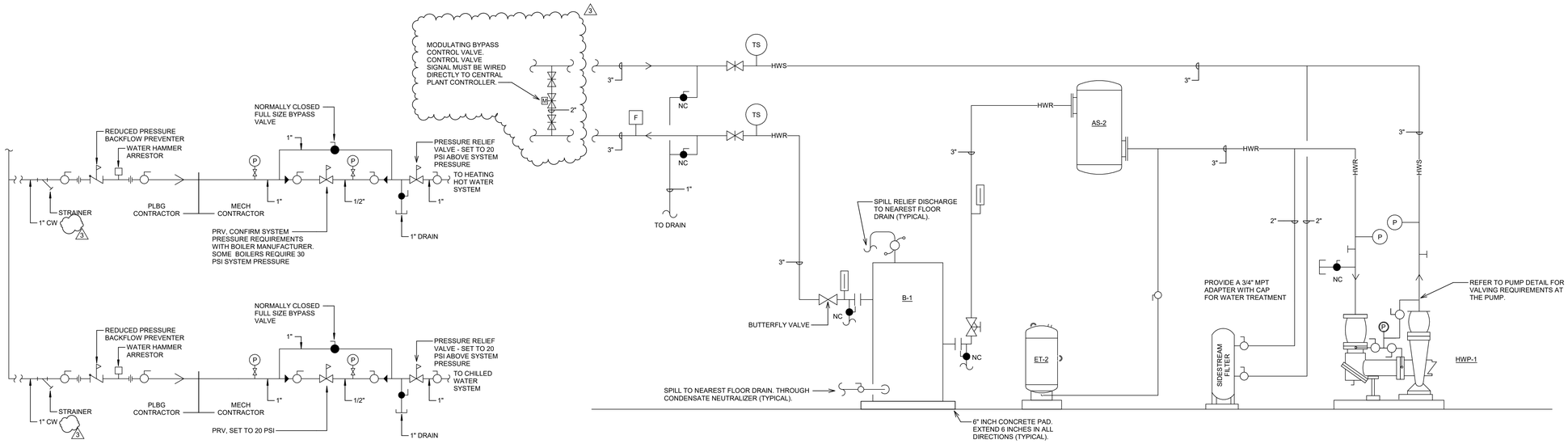
2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL ENLARGED PLANS

Project No. 214001269	Scale 1/4" = 1'-0"
Revision 3	Drawing No. **M304**

<Pick location in Project Information>
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ORIGINAL SHEET - ARCH E1

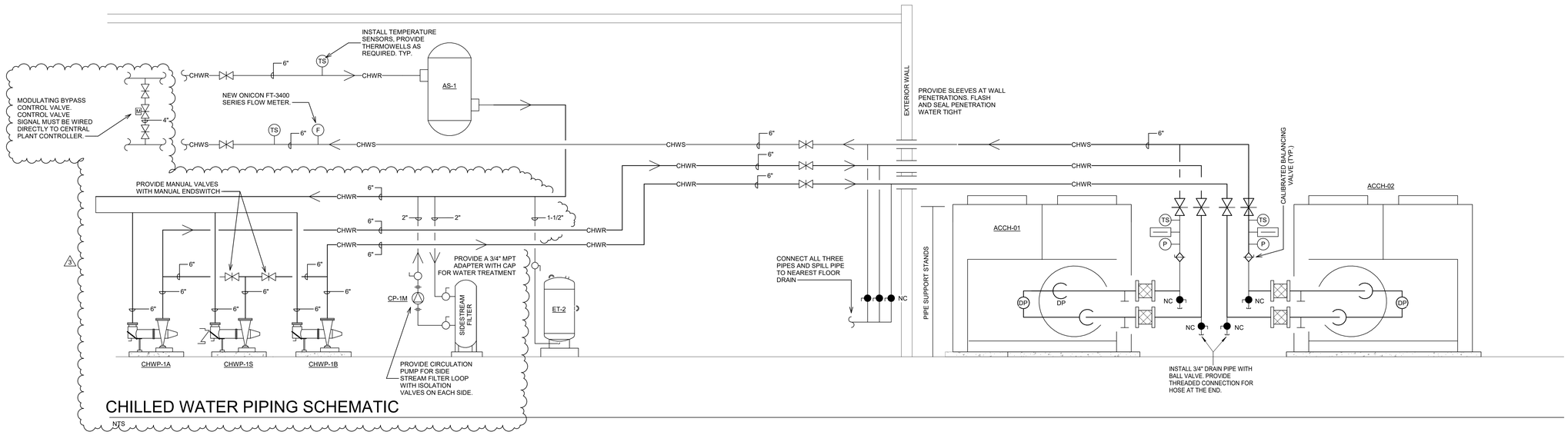


HW & CHW HYDRONIC FILL SYSTEM PIPING SYSTEM

NTS

HEATING HOT WATER PIPING SCHEMATIC

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CHILLED WATER PIPING SCHEMATIC

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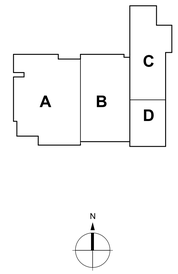
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3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

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2025.09.12

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ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL SCHEMATICS

Project No.
21400269

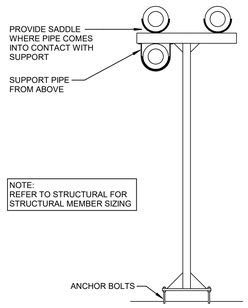
Scale

Revision
3

Drawing No.
M501

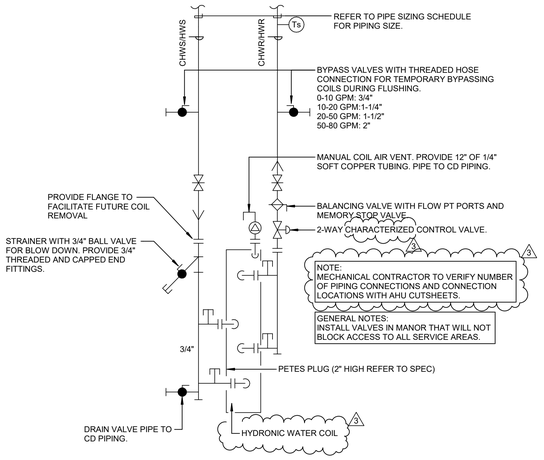
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ORIGINAL SHEET - ARCH E1



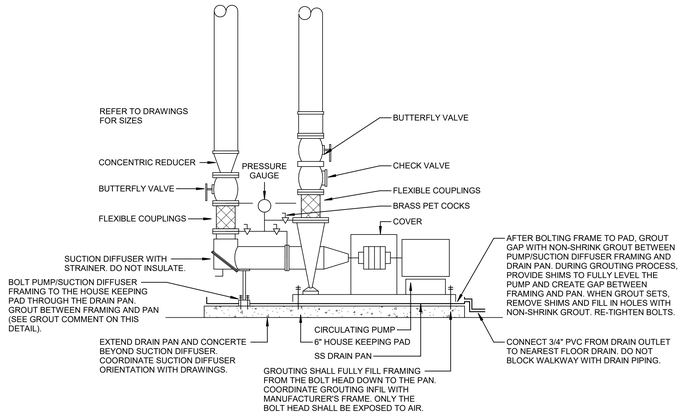
MECHANICAL YARD CHILLED WATER PIPING SUPPORTS

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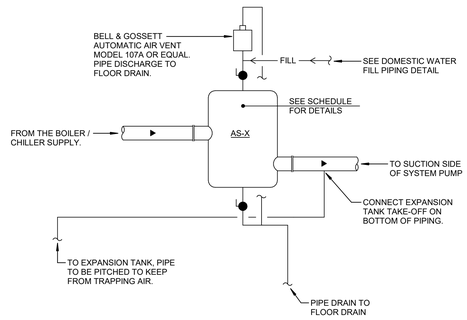
AIR HANDLING UNIT HYDRONIC COIL PIPING SCHEMATIC

NTS



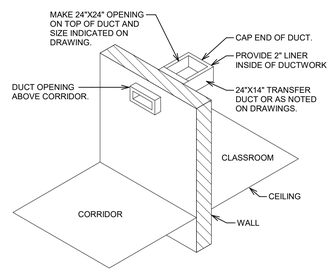
BASE MOUNT END SUCTION PUMP DETAIL

NTS



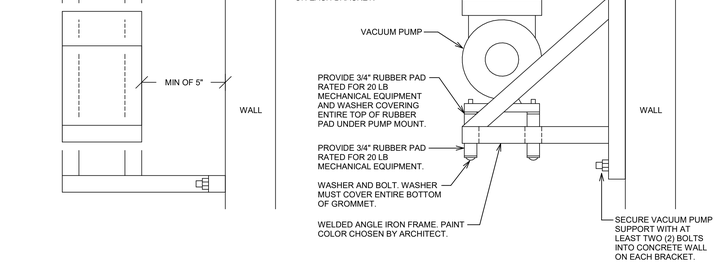
AIR SEPERATOR TANK DETAIL

NTS



TRANSFER AIR DUCT CORRIDOR - ROOM

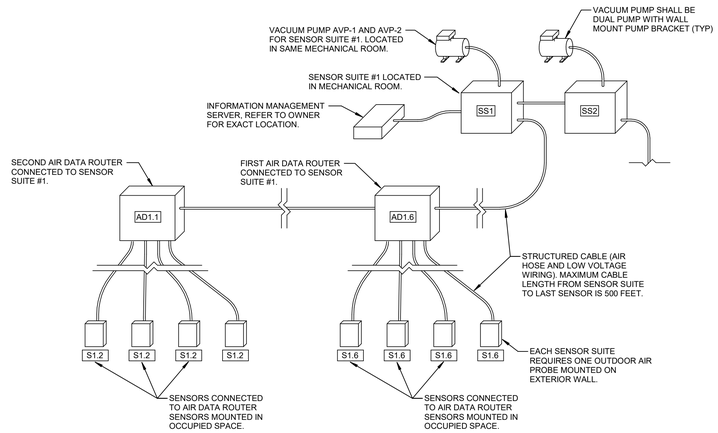
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PLAN VIEW FRONT VIEW

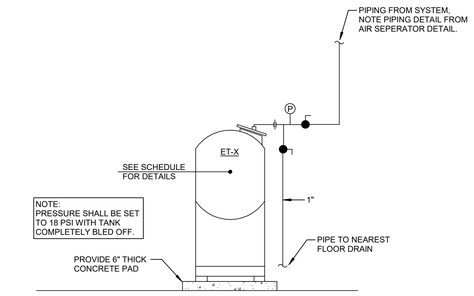
AIRCUITY VACUUM PUMP MOUNTING DETAIL

NTS



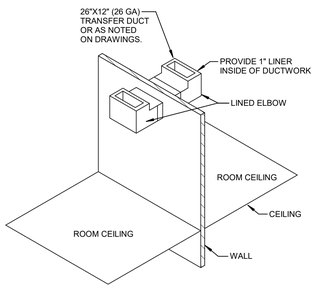
TYPICAL FACILITY MONITORING SYSTEM DETAIL

NTS



EXPANSION TANK PIPING DETAIL

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TRANSFER AIR DUCT ABOVE ROOM - ROOM

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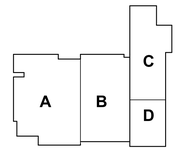
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Notes





Revision	By	Appd	
3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



CMTA F-8627
2025.09.12

Client/Project Logo



Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL DETAILS

Project No.
214001269

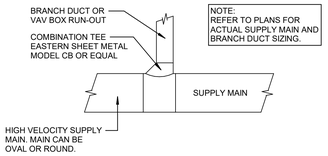
Scale

Revision
3

Drawing No.
M502

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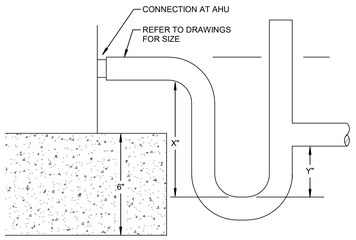
ORIGINAL SHEET - ARCH E1



HIGH VELOCITY BRANCH TAKE-OFF DETAIL

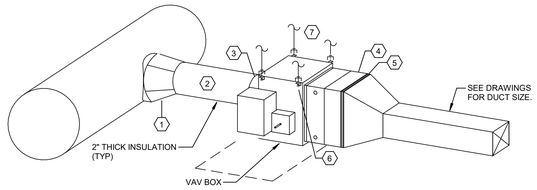
NTS

NOTE:
THIS DETAIL APPLIES TO DRAINS
FROM CW COIL SECTIONS IF
REQUIRED, OFFSET PIPE THRU FLOOR
SLAB TO MAINTAIN PROPER DEPTH



AHU P-TRAP DETAIL (DRAW-THRU COIL)

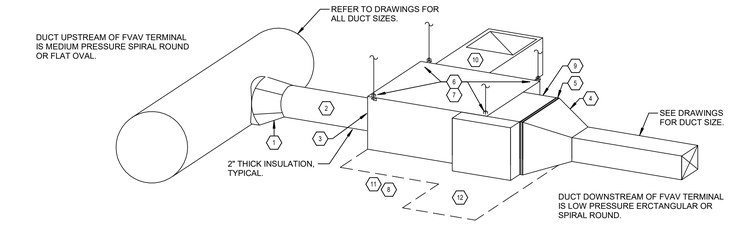
NTS



TAG NOTES:
1. HIGH EFFICENCY DUCT TAKE-OFF EQUAL TO UNIT INLET SIZE.
2. MAINTAIN A MINIMUM OF DISTANCE EQUAL TO 3 INLET DIAMETER OF ITS FVAV BOX BETWEEN TAKE- OFF AND FVAV UNIT. NO FLEXIBLE DUCTWORK ALLOWED ON THE INLET SIDE OF THE UNIT. SOME LOCATIONS REQUIRED UPSIZED DUCTWORK. SEE DRAWINGS FOR LOCATIONS.
3. MAINTAIN INSULATION TO EDGE OF VAV UNIT.
4. PROVIDE TRANSITION BETWEEN VAV UNIT AND DUCT.
5. PROVIDE FLEXIBLE CONNECTION BETWEEN VAV UNIT AND DUCT.
6. SUPPORT VAV BOX WITH THREADED ROD HANGERS ATTACHED TO HANGER TABS.
7. SUPPORT UNIT FROM STRUCTURE.
8. DISTANCE FROM CEILING TO BOTTOM OF BOX MUST BE WITHIN 8"-12" OFFSET DUCT TAPS FROM HIGH MAINS AS REQUIRED.

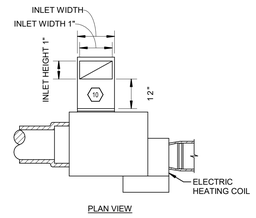
TYPICAL VAV INSTALLATION DETAIL

NTS



X TAG NOTES:

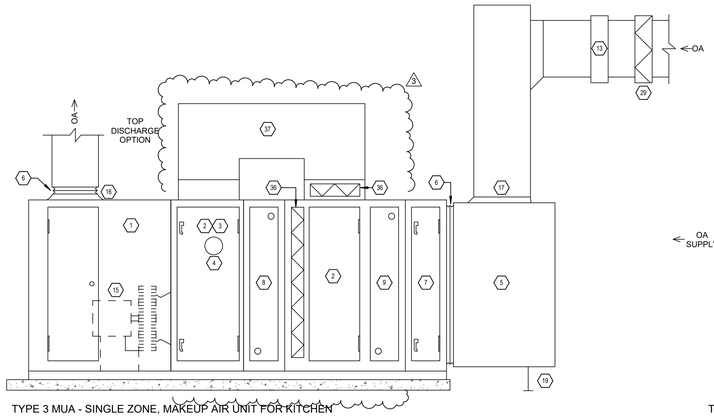
1. HIGH EFFICIENCY DUCT TAKE-OFF - EQUAL TO UNIT INLET SIZE.
2. MAINTAIN A MINIMUM OF DISTANCE EQUAL TO 3 INLET DIAMETER OF ITS FVAV BOX BETWEEN TAKE-OFF AND FVAV UNIT. NO FLEXIBLE DUCTWORK ALLOWED ON THE INLET SIDE OF THE UNIT. SOME LOCATIONS REQUIRE UPSIZED DUCTWORK. SEE DRAWINGS FOR LOCATIONS.
3. MAINTAIN INSULATION TO EDGE OF FVAV UNIT.
4. PROVIDE TRANSITION BETWEEN FVAV UNIT AND DUCT.
5. PROVIDE FLEXIBLE CONNECTION BETWEEN FVAV UNIT AND DUCT.
6. SUPPORT FVAV BOX WITH SUPPORT ON FOUR CORNERS WITH THREADED ROD HANGERS ATTACHED TO HANGER TABS. PROVIDE TWO NUTS ON THREADED CONNECTION.
7. SUPPORT UNIT FROM STRUCTURE.
8. OUTLINE AREA AND BOTTOM OF FVAV MUST BE CLEAR OF ANY OBJECT FOR ACCESS. DISTANCE FROM CEILING TO BOTTOM OF BOX MUST BE WITHIN 8"-12" OFFSET DUCT TAPS FROM HIGH MAINS AS REQUIRED.
9. ELECTRIC HEATING COIL. MAINTAIN CLEARANCE
10. FABRICATE AND INSTALL SHEET METAL SECONDARY INLET BOOT. INTERNALLY INSULATE WITH 1" OF ACOUSTICAL LINER.
11. DO NOT ROUTE ANY PIPING, CONDUIT, ETC... BELOW FVAV BOX. ACCESS TO FAN IS FROM BELOW. DO NOT INSTALL BOX OVER LIGHT.
12. MAINTAIN WORKING CLEARANCE ON SIDE OF CONTROL MODULE.



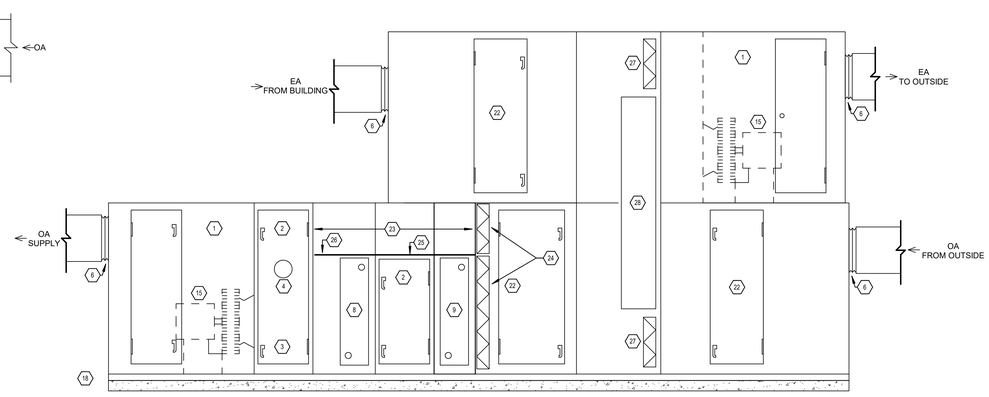
PLAN VIEW

TYPICAL FVAV INSTALLATION DETAIL

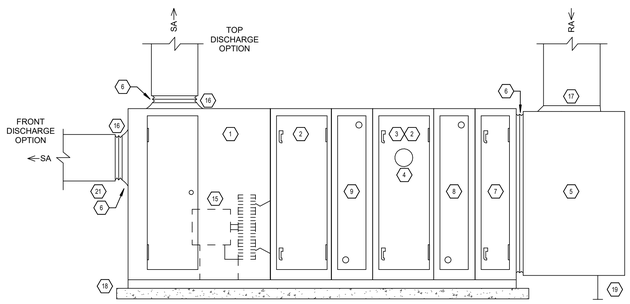
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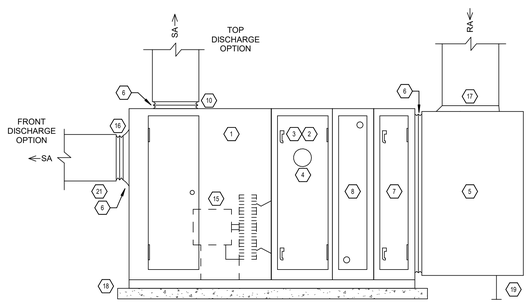
TYPE 3 MUA - SINGLE ZONE, MAKEUP AIR UNIT FOR KITCHEN



TYPE 4 OAU - DEDICATED OUTSIDE AIR UNIT



TYPE 1 AHU - SINGLE ZONE, VARIABLE VOLUME



TYPE 2 AHU - MULTIPLE ZONE, VARIABLE AIR VOLUME VOLUME

TAG NOTES:
*REFER TO OAU/AHU SCHEDULE FOR LIST OF UNIT TYPES.

1. PLENUM FAN SECTION WITH FULL SIZE ACCESS DOOR.
2. ACCESS SECTION WITH MIN 21" (CHILLED WATER COILS) OR 18" (HOT WATER COIL) DOOR. REFER TO SCHEDULE FOR QUANTITY OF FANS REQUIRED.
3. FURNISH AND INSTALL UV LIGHTS IN ACCESS SECTION DOWNSTREAM OF CHW COIL. UV LIGHT SHALL NOT OBSTRUCT ACCESS TO COIL.
4. PROVIDE VIEWING WINDOW IN ACCESS DOOR TO VISUALLY DETECT THAT UV LIGHT IS ON.
5. FIELD FABRICATED RETURN PLENUM. CONSTRUCT FULL SIZE OF UNIT OPENING AND SUPPORT DUCT FROM FLOOR.
6. FLEXIBLE CONNECTION.
7. FLAT PANEL FILTER SECTION.
8. CHILLED WATER COIL SECTION.
9. HEATING HOT WATER COIL SECTION.
10. RECTANGULAR DUCT FITTING. COORDINATE DIMENSIONS WITH PLAN VIEWS.
11. EXTERNALLY DUCTED BYPASS. SIZE DUCT TO MATCH UNIT DUCT OPENINGS. INSULATE DUCT.
12. ACCESS SECITON WITH DOOR.
13. DUCT MOUNTED PRE-HEAT COIL.
14. DUCT MOUNTED RE-HEAT COIL.
15. DRAW-THROUGH PLENUM SUPPLY FAN. PROVIDE WITH MANUAL BLANK-OFF'S. REFER TO SCHEDULE FOR QUANTITY OF FANS REQUIRED.
16. LARGE RADIUS BELLMOUTH FITTING AT SUPPLY TAP. COORDINATE UNIT OPENING WITH DRAWINGS.
17. HIGH EFFICIENCY TAP AT RETURN AIR CONNECTION.
18. 6" DEEP HOUSEKEEPING PAD TO EXTEND 6" PAST UNIT ON ALL SIDES.
19. SUPPORT PLENUM FROM GROUND.
20. UNIT MOTOR OVERLOAD PANEL. ALL WIRING FROM PANEL TO FANS SHALL BE FACTORY INSTALLED.
21. HORIZONTAL OPTION. SUPPLY DUCT TAP TO EXIT "FRONT" OF AHU. REFER TO PLANS FOR LOCATIONS WHERE THIS OCCURS.
22. ANGLED FILTER SECTION.
23. COIL BYPASS SECTION
24. FACE AND BYPASS DAMPERS
25. SHEET METAL SEPARATION BETWEEN COIL AND BYPASS SECTION. THIS SEPARATION MUST BE INDICATED ON SHOP DRAWING SUBMITTALS.
26. EXTEND SHEET METAL SEPARATION OF FACE AND BYPASS SECTIONS A MINIMUM OF 12" PAST CHILLED WATER COIL. CHILLED WATER LEAVING AIR TEMPERATURE SENSOR SHOULD BE LOCATED AT LEAST 8" UPSTREAM OF SHEET METAL SEPARATION TERMINATION.
27. ENERGY RECOVERY WHEEL BYPASS DAMPER.
28. TOTAL ENTHALPIC ENERGY RECOVERY WHEEL.
29. MOTORIZED SHUT-OFF DAMPER.
30. MOTORIZED BYPASS DAMPER FROM EA TO OA STREAM.
31. FACE AND BYPASS DAMPERS ELECTRONICALLY LINKED VIA ACTUATORS. THESE DAMPERS AND THEIR HOUSINGS SHALL BE PROVIDED BY THE AIR HANDLING UNIT MANUFACTURER.
32. ACCESS TO UNIT ON THIS SIDE. MAINTAIN 3' BETWEEN UNIT AND OA INTAKE DUCT.
33. EXTERNAL BYPASS DUCT WITH BYPASS CONTROL DAMPER. SIZE FOR 500 FPM OR PER PLANS. REFER TO AIR HANDLER UNIT SPECIFICATION FOR CONTROL DAMPER SPECIFICATION REQUIREMENTS.
34. AHU MOUNTED AND PROVIDED FACE DAMPER. ELECTRONIC LINK ACTUATORS WITH EXTERNAL BYPASS DAMPER NOTED IN NOTE #33.
35. MITERED TRANSITION ELBOW FOLLOWED BY DUCT WIDTH TRANSITION. REFER TO PLANS FOR SIZING.
36. FACE AND BYPASS DAMPER.
37. BYPASS DUCT SHALL BE FIELD INSTALLED FULL SIZE OF BYPASS DUCT OPENING.

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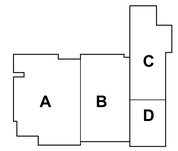
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Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Issued

Permit/Seal



CMTA F-8627
2025.09.12

Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL DETAILS

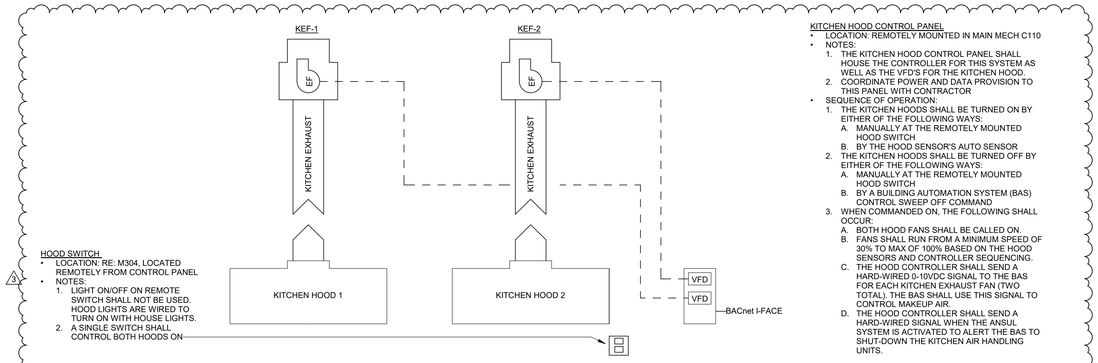
Project No.
214001269

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Revision
3

Drawing No.
M503

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HOOD SWITCH
- LOCATION: RE: M304, LOCATED REMOTELY FROM CONTROL PANEL
- NOTES:
  1. LIGHT ON/OFF ON REMOTE SWITCH SHALL NOT BE USED. HOOD LIGHTS ARE WIRED TO TURN ON WITH HOUSE LIGHTS.
  2. A SINGLE SWITCH SHALL CONTROL BOTH HOODS ON

KITCHEN HOOD CONTROL PANEL
- LOCATION: REMOTELY MOUNTED IN MAIN MECH C110
- NOTES:
  1. THE KITCHEN HOOD CONTROL PANEL SHALL HOUSE THE CONTROLLER FOR THIS SYSTEM AS WELL AS THE VFD'S FOR THE KITCHEN HOOD.
  2. COORDINATE POWER AND DATA PROVISION TO THIS PANEL WITH CONTRACTOR
- SEQUENCE OF OPERATION:
  1. THE KITCHEN HOODS SHALL BE TURNED ON BY EITHER OF THE FOLLOWING WAYS:
     A. MANUALLY AT THE REMOTELY MOUNTED HOOD SWITCH
     B. BY THE HOOD SENSOR'S AUTO SENSOR
  2. THE KITCHEN HOODS SHALL BE TURNED OFF BY EITHER OF THE FOLLOWING WAYS:
     A. MANUALLY AT THE REMOTELY MOUNTED HOOD SWITCH
     B. BY A BUILDING AUTOMATION SYSTEM (BAS) CONTROL SWEEP OFF COMMAND
  3. WHEN COMMANDED ON, THE FOLLOWING SHALL OCCUR:
     A. BOTH HOOD FANS SHALL BE CALLED ON.
     B. FANS SHALL RUN FROM A MINIMUM SPEED OF 30% TO MAX OF 100% BASED ON THE HOOD SENSORS AND CONTROLLER SEQUENCING.
     C. THE HOOD CONTROLLER SHALL SEND A HARD-WIRED 0-10VDC SIGNAL TO THE BAS FOR EACH KITCHEN EXHAUST FAN (TWO TOTAL). THE BAS SHALL USE THIS SIGNAL TO CONTROL MAKEUP AIR.
     D. THE HOOD CONTROLLER SHALL SEND A HARD-WIRED SIGNAL WHEN THE ANSUL SYSTEM IS ACTIVATED TO ALERT THE BAS TO SHUT-DOWN THE KITCHEN AIR HANDLING UNITS.

KITCHEN HOOD CONTROL SYSTEM SCHEMATIC SCOPE

304 STAINLESS STEEL USED FOR HOOD CONSTRUCTION AND ALL EXPOSED AREAS

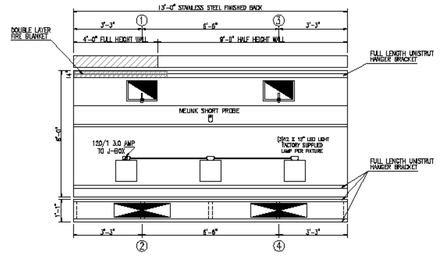
HOODS DESIGNED TO MEET TO THE 2015 IECC C403.2.8, 2018 IECC AND 2021 IECC C403.7.5 USING OPTION 2 PROVIDED BY THE CODES.

NOTE TO E.C. AND CEILING GRID INSTALLERS :
FASTENERS FOR CEILING GRID SURROUNDING KITCHEN HOOD MUST NOT PENETRATE HOOD CAPTURE AREA OR HOOD GREASE PLENUM. IMPROPER PENETRATIONS THROUGH HOOD IN THESE AREAS VIOLATE HOOD U.L. PROCEDURE AND LOCAL MECHANICAL CODE.

VL FILE # MH 39031

MOD U SERVE Air Systems

2305 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

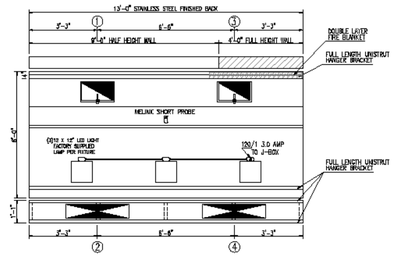


HOOD WGT. – 1365 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 152
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 16"	280	1690	1521	.60"
3	10" X 16"	260	1690	1521	.60"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 32"	216	1404	790	.30"
4	8" X 32"	216	1404	790	.30"

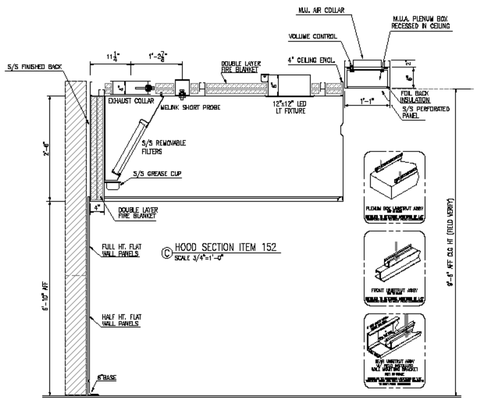


HOOD WGT. – 1365 LBS

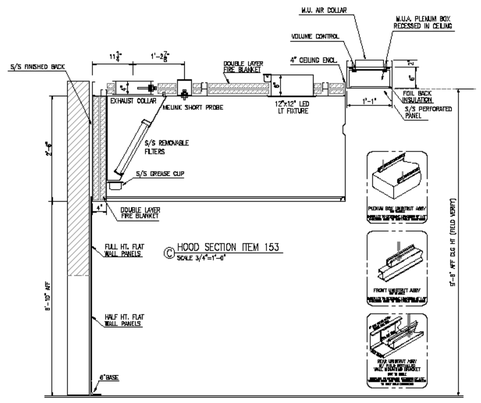
Ⓐ PLAN – MODEL W-cpb ITEM 153
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 18"	300	1950	1560	.65"
3	10" X 18"	300	1950	1560	.65"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 36"	252	1638	819	.30"
4	8" X 36"	252	1638	819	.30"

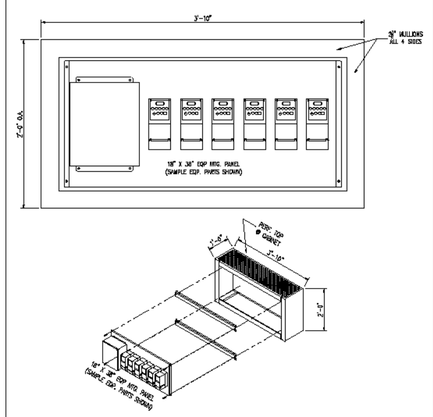


Ⓒ HOOD SECTION ITEM 152
SCALE 3/4"=1'-0"



Ⓑ HOOD SECTION ITEM 153
SCALE 3/4"=1'-0"

REMOTE MOUNT UTILITY CABINET



ONE (1) REMOTE PANEL TO HOUSE MELINK SYSTEM – PROVIDED BY MOD-U-SERVE FOR ITEMS 152 & 153

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COMMERCIAL KITCHENS INC.

2329 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

BY	REVISION	DATE
JO		
ALL	7.29.25 Increased exhaust CFM and added MUA load at 61.5kW	7.29.25

DRAWING #
D25-2049-1.152rev1

DRAWN BY
JO

CHECKED BY
ADC

DATE
May 7, 2025

SHEET
1
OF 1 SHEET

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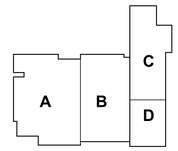
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BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

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STATE OF TEXAS
RICHARD LANGE
126936
LICENSED
PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
KITCHEN HOOD DETAILS

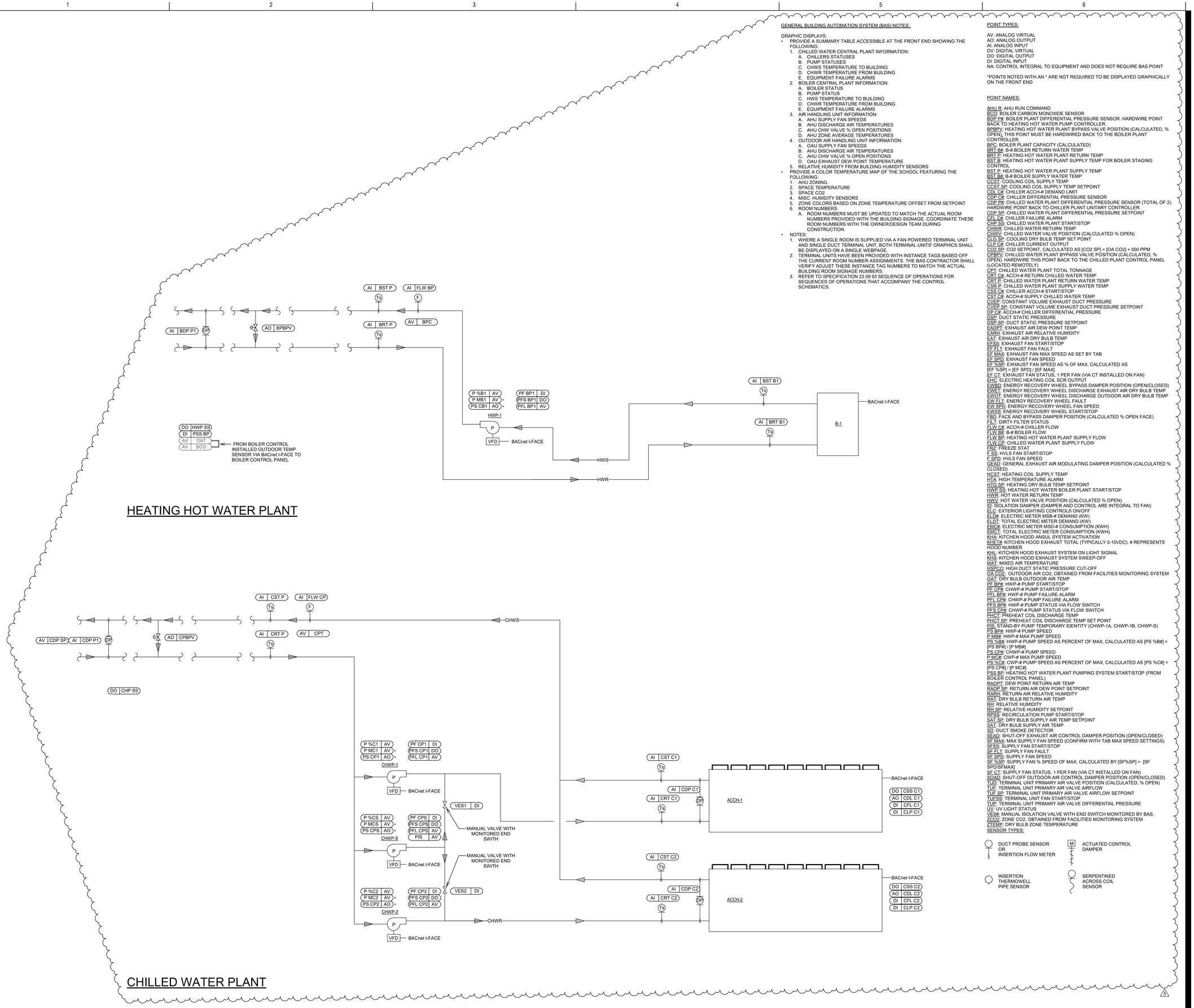
Project No.
214001269

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Revision
3

Drawing No.
M505

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GENERAL BUILDING AUTOMATION SYSTEM (BAS) NOTES:

GRAPHIC DISPLAYS:

- PROVIDE A SUMMARY TABLE ACCESSIBLE AT THE FRONT END SHOWING THE FOLLOWING:
  1. CHILLED WATER CENTRAL PLANT INFORMATION:
     A. CHILLERS STATUSES
     B. PUMP STATUSES
     C. CHWS TEMPERATURE TO BUILDING
     D. CHWR TEMPERATURE FROM BUILDING
     E. EQUIPMENT FAILURE ALARMS
  2. BOILER CENTRAL PLANT INFORMATION:
     A. BOILER STATUS
     B. PUMP STATUS
     C. HWS TEMPERATURE TO BUILDING
     D. CHWR TEMPERATURE FROM BUILDING
     E. EQUIPMENT FAILURE ALARMS
  3. AIR HANDLING UNIT INFORMATION:
     A. AHU SUPPLY FAN SPEEDS
     B. AHU DISCHARGE AIR TEMPERATURES
     C. AHU CHW VALVE % OPEN POSITIONS
     D. AHU ZONE AVERAGE TEMPERATURES
  4. OUTDOOR AIR HANDLING UNIT INFORMATION:
     A. OAU SUPPLY FAN SPEEDS
     B. AHU DISCHARGE AIR TEMPERATURES
     C. AHU CHW VALVE % OPEN POSITIONS
     D. OAU EXHAUST DEW POINT TEMPERATURE
  5. RELATIVE HUMIDITY FROM BUILDING HUMIDITY SENSORS
- PROVIDE A COLOR TEMPERATURE MAP OF THE SCHOOL FEATURING THE FOLLOWING:
  1. AHU ZONING
  2. SPACE TEMPERATURE
  3. SPACE CO2
  4. MSC. HUMIDITY SENSORS
  5. ZONE COLORS BASED ON ZONE TEMPERATURE OFFSET FROM SETPOINT
  6. ROOM NUMBERS
     A. ROOM NUMBERS MUST BE UPDATED TO MATCH THE ACTUAL ROOM NUMBERS PROVIDED WITH THE BUILDING SIGNAGE. COORDINATE THESE ROOM NUMBERS WITH THE OWNER/DESIGN TEAM DURING CONSTRUCTION.
- NOTES:
  1. WHERE A SINGLE ROOM IS SUPPLIED VIA A FAN POWERED TERMINAL UNIT AND SINGLE DUCT TERMINAL UNIT, BOTH TERMINAL UNITS' GRAPHICS SHALL BE DISPLAYED ON A SINGLE WEBPAGE.
  2. TERMINAL UNITS HAVE BEEN PROVIDED WITH INSTANCE TAGS BASED OFF THE CURRENT ROOM NUMBER ASSIGNMENTS. THE BAS CONTRACTOR SHALL VERIFY ADJUST THESE INSTANCE TAG NUMBERS TO MATCH THE ACTUAL BUILDING ROOM SIGNAGE NUMBERS.
  3. REFER TO SPECIFICATION 23 09 93 SEQUENCE OF OPERATIONS FOR SEQUENCES OF OPERATIONS THAT ACCOMPANY THE CONTROL SCHEMATICS.

POINT TYPES:

AV: ANALOG VIRTUAL
AO: ANALOG OUTPUT
AI: ANALOG INPUT
DV: DIGITAL VIRTUAL
DO: DIGITAL OUTPUT
DI: DIGITAL INPUT
NA: CONTROL INTEGRAL TO EQUIPMENT AND DOES NOT REQUIRE BAS POINT

*POINTS NOTED WITH AN * ARE NOT REQUIRED TO BE DISPLAYED GRAPHICALLY ON THE FRONT END

POINT NAMES:

AHU R: AHU RUN COMMAND
BCO: BOILER CARBON MONOXIDE SENSOR
BDP P#: BOILER PLANT DIFFERENTIAL PRESSURE SENSOR. HARDWIRE POINT BACK TO HEATING HOT WATER PUMP CONTROLLER.
BPBPV: HEATING HOT WATER PLANT BYPASS VALVE POSITION (CALCULATED, % OPEN), THIS POINT MUST BE HARDWIRED BACK TO THE BOILER PLANT CONTROLLER.
BPC: BOILER PLANT CAPACITY (CALCULATED)
BRT B#: B-# BOILER RETURN WATER TEMP
BRT P: HEATING HOT WATER PLANT RETURN TEMP
BST B: HEATING HOT WATER PLANT SUPPLY TEMP FOR BOILER STAGING CONTROL
BST P: HEATING HOT WATER PLANT SUPPLY TEMP
BST B#: B-# BOILER SUPPLY WATER TEMP
CCST: COOLING COIL SUPPLY TEMP
CCST SP: COOLING COIL SUPPLY TEMP SETPOINT
CDL C#: CHILLER ACCH-# DEMAND LIMIT
CDP C#: CHILLER DIFFERENTIAL PRESSURE SENSOR
CDP P#: CHILLED WATER PLANT DIFFERENTIAL PRESSURE SENSOR (TOTAL OF 2). HARDWIRE POINT BACK TO CHILLER PLANT UNITARY CONTROLLER.
CDP SP: CHILLED WATER PLANT DIFFERENTIAL PRESSURE SETPOINT
CFL C#: CHILLER FAILURE ALARM
CHP SS: CHILLED WATER PLANT START/STOP
CHWR: CHILLED WATER RETURN TEMP
CHWV: CHILLED WATER VALVE POSITION (CALCULATED % OPEN)
CLG SP: COOLING DRY BULB TEMP SET POINT
CLP C#: CHILLER CURRENT OUTPUT
CO2 SP: CO2 SETPOINT. CALCULATED AS [CO2 SP] = [OA CO2] + 500 PPM
CPBPV: CHILLED WATER PLANT BYPASS VALVE POSITION (CALCULATED, % OPEN). HARDWIRE THIS POINT BACK TO THE CHILLED PLANT CONTROL PANEL (LOCATED REMOTELY)
CPT: CHILLED WATER PLANT TOTAL TONNAGE
CRT C#: ACCH-# RETURN CHILLED WATER TEMP
CRT P: CHILLED WATER PLANT RETURN WATER TEMP
CSR P: CHILLED WATER PLANT SUPPLY WATER TEMP
CSS C#: CHILLER ACCH-# START/STOP
CST C#: ACCH-# SUPPLY CHILLED WATER TEMP
CVEP: CONSTANT VOLUME EXHAUST DUCT PRESSURE
CVEP SP: CONSTANT VOLUME EXHAUST DUCT PRESSURE SETPOINT
DP C#: ACCH-# CHILLER DIFFERENTIAL PRESSURE
DSP: DUCT STATIC PRESSURE
DSP SP: DUCT STATIC PRESSURE SETPOINT
EADPT: EXHAUST AIR DEW POINT TEMP
EARH: EXHAUST AIR RELATIVE HUMIDITY
EAT: EXHAUST AIR DRY BULB TEMP
EFSS: EXHAUST FAN START/STOP
EF FLT: EXHAUST FAN FAULT
EF MAX: EXHAUST FAN MAX SPEED AS SET BY TAB
EF SPD: EXHAUST FAN SPEED
EF %SP: EXHAUST FAN SPEED AS % OF MAX, CALCULATED AS [EF %SP] = [EF SPD] / [EF MAX]
EF CT: EXHAUST FAN STATUS, 1 PER FAN (VIA CT INSTALLED ON FAN)
EHC: ELECTRIC HEATING COIL SCR OUTPUT
EWBD: ENERGY RECOVERY WHEEL BYPASS DAMPER POSITION (OPEN/CLOSED)
EWET: ENERGY RECOVERY WHEEL DISCHARGE EXHAUST AIR DRY BULB TEMP
EWOT: ENERGY RECOVERY WHEEL DISCHARGE OUTDOOR AIR DRY BULB TEMP
EW FLT: ENERGY RECOVERY WHEEL FAULT
EW SPD: ENERGY RECOVERY WHEEL FAN SPEED
EWSS: ENERGY RECOVERY WHEEL START/STOP
FBD: FACE AND BYPASS DAMPER POSITION (CALCULATED % OPEN FACE)
FILT: DIRTY FILTER STATUS
FLW C#: ACCH-# CHILLER FLOW
FLW B#: B-# BOILER FLOW
FLW BP: HEATING HOT WATER PLANT SUPPLY FLOW
FLW CP: CHILLED WATER PLANT SUPPLY FLOW
FRZ: FREEZE STAT
F SS: HVLS FAN START/STOP
F SPD: HVLS FAN SPEED
GEAD: GENERAL EXHAUST AIR MODULATING DAMPER POSITION (CALCULATED % CLOSED)
HCST: HEATING COIL SUPPLY TEMP
HTA: HIGH TEMPERATURE ALARM
HTG SP: HEATING DRY BULB TEMP SETPOINT
HWP SS: HEATING HOT WATER BOILER PLANT START/STOP
HWR: HOT WATER RETURN TEMP
HWV: HOT WATER VALVE POSITION (CALCULATED % OPEN)
ID: ISOLATION DAMPER (DAMPER AND CONTROL ARE INTEGRAL TO FAN)
ELC: EXTERIOR LIGHTING CONTROLS ON/OFF
ELD#: ELECTRIC METER MSB-# DEMAND (KW)
ELDT: TOTAL ELECTRIC METER DEMAND (KW)
EMC#: ELECTRIC METER MSD-# CONSUMPTION (KWH)
EMCT: TOTAL ELECTRIC METER CONSUMPTION (KWH)
KHA: KITCHEN HOOD ANSUL SYSTEM ACTIVATION
KHET#: KITCHEN HOOD EXHAUST TOTAL (TYPICALLY 0-10VDC). # REPRESENTS HOOD NUMBER
KHL: KITCHEN HOOD EXHAUST SYSTEM ON LIGHT SIGNAL
KHS: KITCHEN HOOD EXHAUST SYSTEM SWEEP-OFF
MAT: MIXED AIR TEMPERATURE
HSPCO: HIGH DUCT STATIC PRESSURE CUT-OFF
OA CO2: OUTDOOR AIR CO2, OBTAINED FROM FACILITIES MONITORING SYSTEM
OAT: DRY BULB OUTDOOR AIR TEMP
PF BP#: HWP-# PUMP START/STOP
PF CP#: CHWP-# PUMP START/STOP
PFL BP#: HWP-# PUMP FAILURE ALARM
PFL CP#: CHWP-# PUMP FAILURE ALARM
PFS BP#: HWP-# PUMP STATUS VIA FLOW SWITCH
PFS CP#: CHWP-# PUMP STATUS VIA FLOW SWITCH
PHCT: PREHEAT COIL DISCHARGE TEMP
PHCT SP: PREHEAT COIL DISCHARGE TEMP SET POINT
PIS: STAND-BY PUMP TEMPORARY IDENTITY (CHWP-1A, CHWP-1B, CHWP-S)
PS BP#: HWP-# PUMP SPEED
P MB#: HWP-# MAX PUMP SPEED
PS %B#: HWP-# PUMP SPEED AS PERCENT OF MAX, CALCULATED AS [PS %B#] = [PS BP#] / [P MB#]
PS CP#: CHWP-# PUMP SPEED
P MC#: CWP-# MAX PUMP SPEED
PS %C#: CWP-# PUMP SPEED AS PERCENT OF MAX, CALCULATED AS [PS %C#] = [PS CP#] / [P MC#]
PSS BP: HEATING HOT WATER PLANT PUMPING SYSTEM START/STOP (FROM BOILER CONTROL PANEL)
RADPT: DEW POINT RETURN AIR TEMP
RADP SP: RETURN AIR DEW POINT SETPOINT
RARH: RETURN AIR RELATIVE HUMIDITY
RAT: DRY BULB RETURN AIR TEMP
RH: RELATIVE HUMIDITY
RH SP: RELATIVE HUMIDITY SETPOINT
RPSS: RECIRCULATION PUMP START/STOP
SAT SP: DRY BULB SUPPLY AIR TEMP SETPOINT
SAT: DRY BULB SUPPLY AIR TEMP
SD: DUCT SMOKE DETECTOR
SEAD: SHUT-OFF EXHAUST AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
SF MAX: MAX SUPPLY FAN SPEED (CONFIRM WITH TAB MAX SPEED SETTINGS)
SFSS: SUPPLY FAN START/STOP
SF FLT: SUPPLY FAN FAULT
SF SPD: SUPPLY FAN SPEED
SF %SP: SUPPLY FAN % SPEED OF MAX, CALCULATED BY [SF%SP] = [SF SPD/SFMAX]
SF CT: SUPPLY FAN STATUS, 1 PER FAN (VIA CT INSTALLED ON FAN)
SOAD: SHUT-OFF OUTDOOR AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
TUD: TERMINAL UNIT PRIMARY AIR VALVE POSITION (CALCULATED, % OPEN)
TUF: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW
TUF SP: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW SETPOINT
TUFSS: TERMINAL UNIT FAN START/STOP
TUP: TERMINAL UNIT PRIMARY AIR VALVE DIFFERENTIAL PRESSURE
UV: UV LIGHT STATUS
VES#: MANUAL ISOLATION VALVE WITH END SWITCH MONITORED BY BAS.
ZCO2: ZONE CO2, OBTAINED FROM FACILITIES MONITORING SYSTEM
ZTEMP: DRY BULB ZONE TEMPERATURE
SENSOR TYPES:

Stantec

Stantec Architecture Inc.
910 Louisiana Street Suite 2600
Houston, TX 77002-4916
Tel: (713) 548-5700 • www.stantec.com

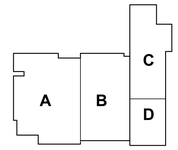
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THE WOODLANDS, TX. 77380
281.419.9899 | www.cmta.com

Notes



3 ADDENDUM 2			2025.09.12
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

Permit/Seal

STATE OF TEXAS
RICHARD LOPEZ
126938
LICENSED
PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL CONTROL SCHEMATICS

Project No.
21400126 9

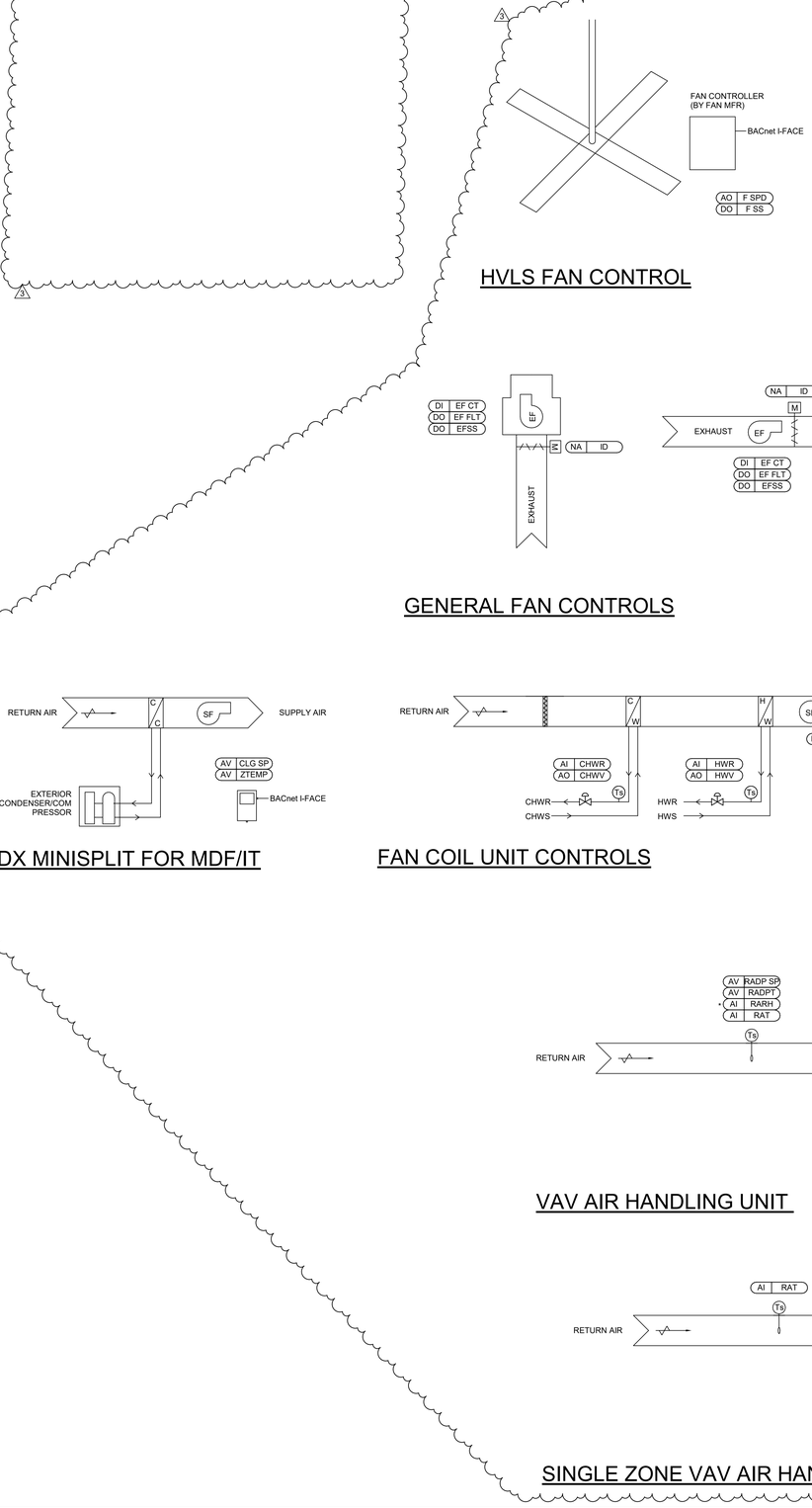
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Revision
3

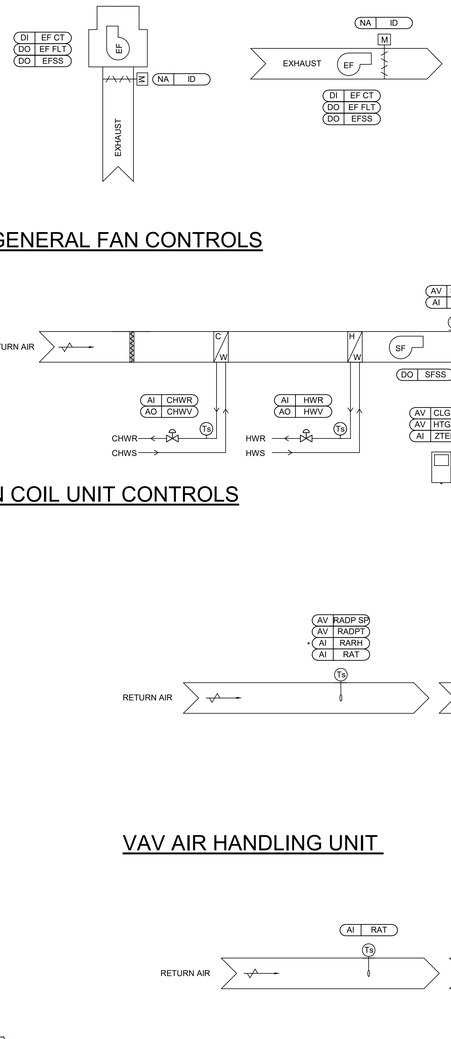
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ORIGINAL SHEET - ARCH E1

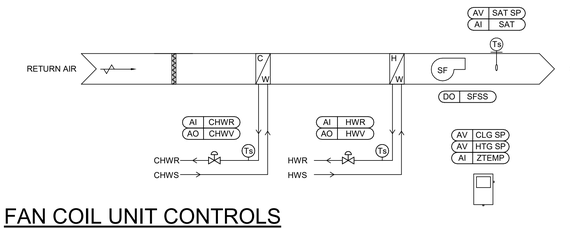


HVLS FAN CONTROL

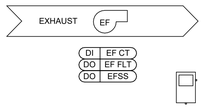


GENERAL FAN CONTROLS

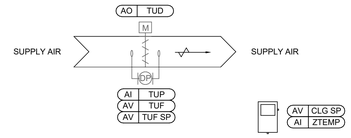
DX MINISPLIT FOR MDF/IT



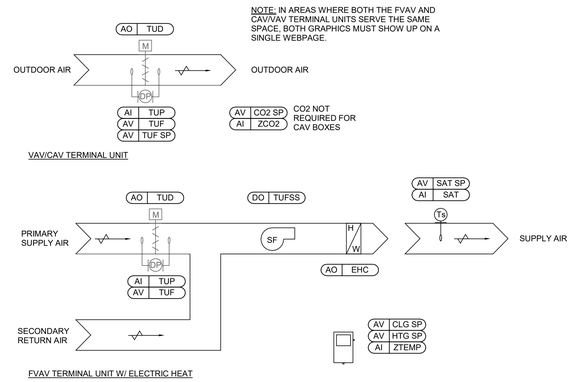
FAN COIL UNIT CONTROLS



VENTILATION FAN CONTROLS

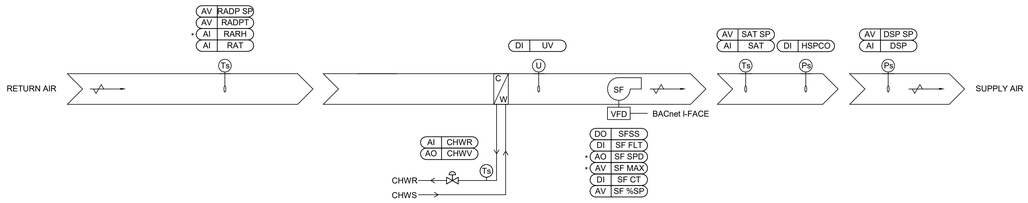


VAV TERMINAL UNIT FOR COOLING ONLY (IDF ROOMS)

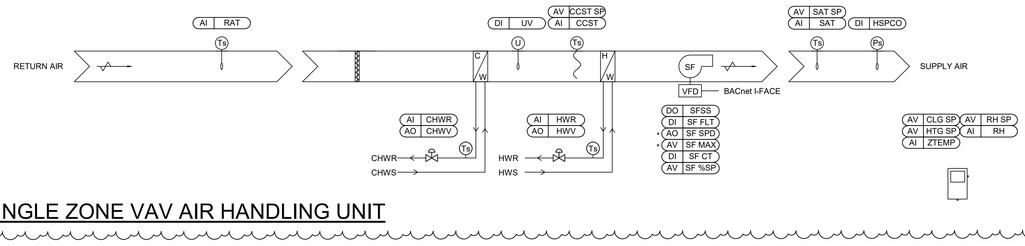


NOTE: IN AREAS WHERE BOTH THE FVAV AND CAV/VAV TERMINAL UNITS SERVE THE SAME SPACE, BOTH GRAPHICS MUST SHOW UP ON A SINGLE WEBPAGE.

SERIES FAN POWERED TERMINAL UNIT (SVAV) + SINGLE DUCT TERMINAL UNIT (CAV/VAV) CONTROLS



VAV AIR HANDLING UNIT



SINGLE ZONE VAV AIR HANDLING UNIT

DUCT PROBE SENSOR OR INSERTION FLOW METER

ACTUATED CONTROL DAMPER

INSERTION THERMOWELL PIPE SENSOR

SERPENTINED ACROSS COIL SENSOR

POINT TYPES:

AV: ANALOG VIRTUAL
AO: ANALOG OUTPUT
AI: ANALOG INPUT
DV: DIGITAL VIRTUAL
DO: DIGITAL OUTPUT
DI: DIGITAL INPUT
NA: CONTROL INTEGRAL TO EQUIPMENT AND DOES NOT REQUIRE BAS POINT

*POINTS NOTED WITH AN * ARE NOT REQUIRED TO BE DISPLAYED GRAPHICALLY ON THE FRONT END

POINT NAMES:

AHU R: AHU RUN COMMAND
BCO: BOILER CARBON MONOXIDE SENSOR
BDP P#: BOILER PLANT DIFFERENTIAL PRESSURE SENSOR. HARDWIRE POINT BACK TO HEATING HOT WATER PUMP CONTROLLER.
BPBPV: HEATING HOT WATER PLANT BYPASS VALVE POSITION (CALCULATED, % OPEN), THIS POINT MUST BE HARDWIRED BACK TO THE BOILER PLANT CONTROLLER.
BPC: BOILER PLANT CAPACITY (CALCULATED)
BRT B#: B-# BOILER RETURN WATER TEMP
BRT P: HEATING HOT WATER PLANT RETURN TEMP
BST B: HEATING HOT WATER PLANT SUPPLY TEMP FOR BOILER STAGING CONTROL
BST P: HEATING HOT WATER PLANT SUPPLY TEMP
BST B#: B-# BOILER SUPPLY WATER TEMP
CCST: COOLING COIL SUPPLY TEMP
CCST SP: COOLING COIL SUPPLY TEMP SETPOINT
CDL C#: CHILLER ACCH-# DEMAND LIMIT
CDP C#: CHILLER DIFFERENTIAL PRESSURE SENSOR
CDP P#: CHILLED WATER PLANT DIFFERENTIAL PRESSURE SENSOR (TOTAL OF 2). HARDWIRE POINT BACK TO CHILLER PLANT UNITARY CONTROLLER.
CDP SP: CHILLED WATER PLANT DIFFERENTIAL PRESSURE SETPOINT
CFL C#: CHILLER FAILURE ALARM
CHP SS: CHILLED WATER PLANT START/STOP
CHWR: CHILLED WATER RETURN TEMP
CHWV: CHILLED WATER VALVE POSITION (CALCULATED % OPEN)
CLG SP: COOLING DRY BULB TEMP SET POINT
CLP C#: CHILLER CURRENT OUTPUT
CO2 SP: CO2 SETPOINT, CALCULATED AS [CO2 SP] = [OA CO2] + 500 PPM
CPBPV: CHILLED WATER PLANT BYPASS VALVE POSITION (CALCULATED, % OPEN). HARDWIRE THIS POINT BACK TO THE CHILLED PLANT CONTROL PANEL (LOCATED REMOTELY)
CPT: CHILLED WATER PLANT TOTAL TONNAGE
CRT C#: ACCH-# RETURN CHILLED WATER TEMP
CRT P: CHILLED WATER PLANT RETURN WATER TEMP
CSR P: CHILLED WATER PLANT SUPPLY WATER TEMP
CSS C#: CHILLER ACCH-# START/STOP
CST C#: ACCH-# SUPPLY CHILLED WATER TEMP
CVEP: CONSTANT VOLUME EXHAUST DUCT PRESSURE
CVEP SP: CONSTANT VOLUME EXHAUST DUCT PRESSURE SETPOINT
DP C#: ACCH-# CHILLER DIFFERENTIAL PRESSURE
DSP: DUCT STATIC PRESSURE
DSP SP: DUCT STATIC PRESSURE SETPOINT
EADPT: EXHAUST AIR DEW POINT TEMP
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EF FLT: EXHAUST FAN FAULT
EF MAX: EXHAUST FAN MAX SPEED AS SET BY TAB
EF SPD: EXHAUST FAN SPEED
EF %SP: EXHAUST FAN SPEED AS % OF MAX, CALCULATED AS [EF %SP] = [EF SPD] / [EF MAX]
EF CT: EXHAUST FAN STATUS, 1 PER FAN (VIA CT INSTALLED ON FAN)
EHC: ELECTRIC HEATING COIL SCR OUTPUT
EWBD: ENERGY RECOVERY WHEEL BYPASS DAMPER POSITION (OPEN/CLOSED)
EWET: ENERGY RECOVERY WHEEL DISCHARGE EXHAUST AIR DRY BULB TEMP
EWOT: ENERGY RECOVERY WHEEL DISCHARGE OUTDOOR AIR DRY BULB TEMP
EW FLT: ENERGY RECOVERY WHEEL FAULT
EW SPD: ENERGY RECOVERY WHEEL FAN SPEED
EWSS: ENERGY RECOVERY WHEEL START/STOP
FBD: FACE AND BYPASS DAMPER POSITION (CALCULATED % OPEN FACE)
FILT: DIRTY FILTER STATUS
FLW C#: ACCH-# CHILLER FLOW
FLW B#: B-# BOILER FLOW
FLW BP: HEATING HOT WATER PLANT SUPPLY FLOW
FLW CP: CHILLED WATER PLANT SUPPLY FLOW
FRZ: FREEZE STAT
F SS: HVLS FAN START/STOP
F SPD: HVLS FAN SPEED
GEAD: GENERAL EXHAUST AIR MODULATING DAMPER POSITION (CALCULATED % CLOSED)
HCST: HEATING COIL SUPPLY TEMP
HTA: HIGH TEMPERATURE ALARM
HTG SP: HEATING DRY BULB TEMP SETPOINT
HWP SS: HEATING HOT WATER BOILER PLANT START/STOP
HWR: HOT WATER RETURN TEMP
HWV: HOT WATER VALVE POSITION (CALCULATED % OPEN)
ID: ISOLATION DAMPER (DAMPER AND CONTROL ARE INTEGRAL TO FAN)
ELC: EXTERIOR LIGHTING CONTROLS ON/OFF
ELD#: ELECTRIC METER MSB-# DEMAND (KW)
ELDT: TOTAL ELECTRIC METER DEMAND (KW)
EMC#: ELECTRIC METER MSD-# CONSUMPTION (KWH)
EMCT: TOTAL ELECTRIC METER CONSUMPTION (KWH)
KHA: KITCHEN HOOD ANSUL SYSTEM ACTIVATION
KHET#: KITCHEN HOOD EXHAUST TOTAL (TYPICALLY 0-10VDC). # REPRESENTS HOOD NUMBER
KHL: KITCHEN HOOD EXHAUST SYSTEM ON LIGHT SIGNAL
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PHCT: PREHEAT COIL DISCHARGE TEMP
PHCT SP: PREHEAT COIL DISCHARGE TEMP SET POINT
PIS: STAND-BY PUMP TEMPORARY IDENTITY (CHWP-1A, CHWP-1B, CHWP-S)
PS BP#: HWP-# PUMP SPEED
P MB#: HWP-# MAX PUMP SPEED
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PS %C#: CWP-# PUMP SPEED AS PERCENT OF MAX, CALCULATED AS [PS %C#] = [PS CP#] / [P MC#]
PSS BP: HEATING HOT WATER PLANT PUMPING SYSTEM START/STOP (FROM BOILER CONTROL PANEL)
RADPT: DEW POINT RETURN AIR TEMP
RADP SP: RETURN AIR DEW POINT SETPOINT
RARH: RETURN AIR RELATIVE HUMIDITY
RAT: DRY BULB RETURN AIR TEMP
RH: RELATIVE HUMIDITY
RH SP: RELATIVE HUMIDITY SETPOINT
RPSS: RECIRCULATION PUMP START/STOP
SAT SP: DRY BULB SUPPLY AIR TEMP SETPOINT
SAT: DRY BULB SUPPLY AIR TEMP
SD: DUCT SMOKE DETECTOR
SEAD: SHUT-OFF EXHAUST AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
SF MAX: MAX SUPPLY FAN SPEED (CONFIRM WITH TAB MAX SPEED SETTINGS)
SFSS: SUPPLY FAN START/STOP
SF FLT: SUPPLY FAN FAULT
SF SPD: SUPPLY FAN SPEED
SF %SP: SUPPLY FAN % SPEED OF MAX, CALCULATED BY [SF%SP] = [SF SPD/SFMAX]
SF CT: SUPPLY FAN STATUS, 1 PER FAN (VIA CT INSTALLED ON FAN)
SOAD: SHUT-OFF OUTDOOR AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
TUD: TERMINAL UNIT PRIMARY AIR VALVE POSITION (CALCULATED, % OPEN)
TUF: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW
TUF SP: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW SETPOINT
TUFSS: TERMINAL UNIT FAN START/STOP
TUP: TERMINAL UNIT PRIMARY AIR VALVE DIFFERENTIAL PRESSURE
UV: UV LIGHT STATUS
VES#: MANUAL ISOLATION VALVE WITH END SWITCH MONITORED BY BAS.
ZCO2: ZONE CO2, OBTAINED FROM FACILITIES MONITORING SYSTEM
ZTEMP: DRY BULB ZONE TEMPERATURE
SENSOR TYPES:

Stantec

Stantec Architecture Inc.
910 Louisiana Street Suite 2600
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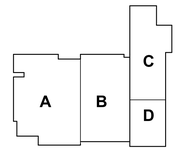
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Notes



N

3 ADDENDUM 2			2025.09.12
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

Permit/Seal

STATE OF TEXAS
RICHARD LORENZ
126938
LICENSED
PROFESSIONAL ENGINEER
CMTA # 8627
2025.09.12

Client/Project Logo

ALVIN Independent School District

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title

MECHANICAL CONTROL SCHEMATICS

3

Project No.
214001269

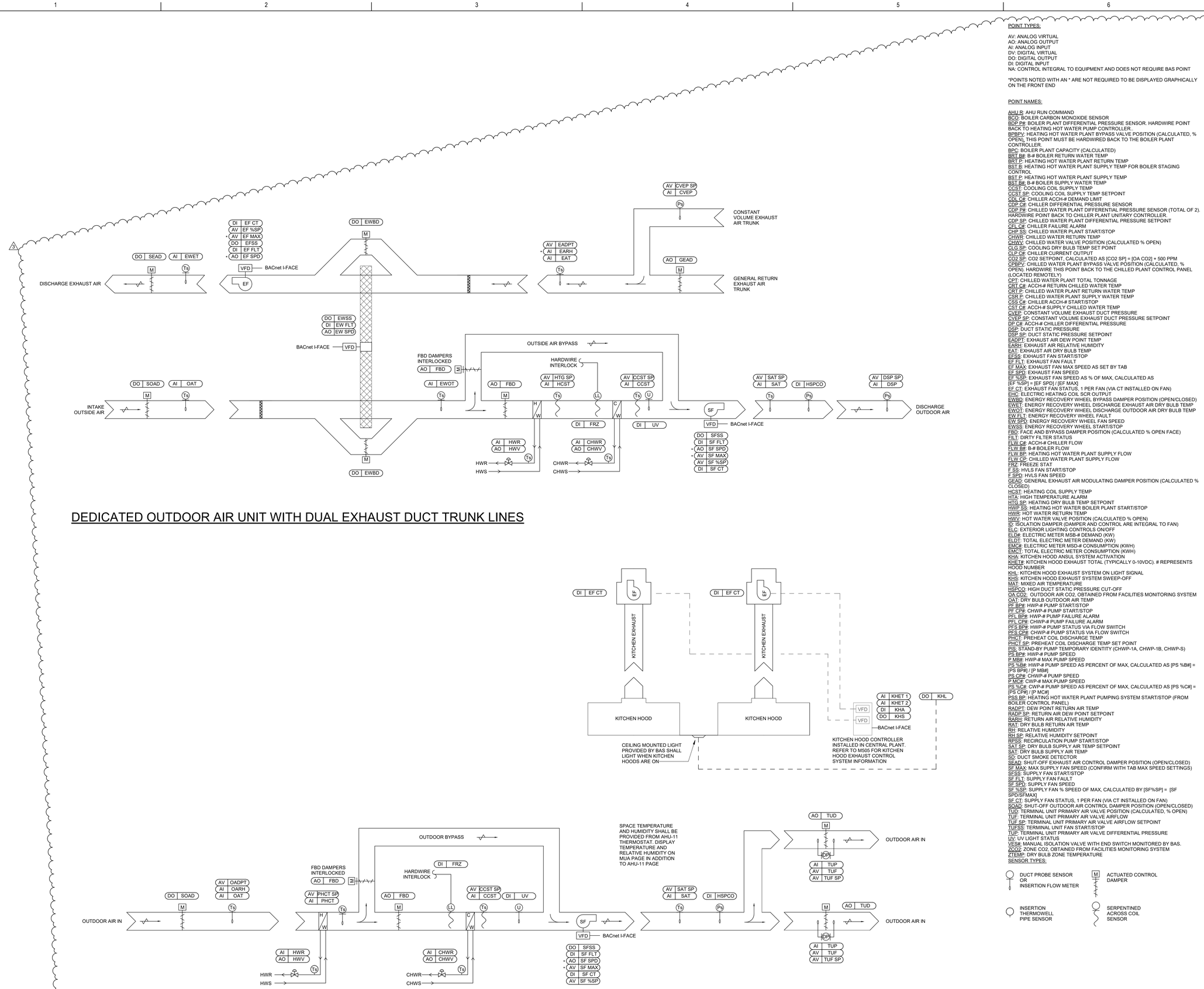
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Revision
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Drawing No.
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ORIGINAL SHEET - ARCH E1



DEDICATED OUTDOOR AIR UNIT WITH DUAL EXHAUST DUCT TRUNK LINES

KITCHEN MAKEUP AIR HANDLING UNIT

POINT TYPES:

AV: ANALOG VIRTUAL
AO: ANALOG OUTPUT
AI: ANALOG INPUT
DV: DIGITAL VIRTUAL
DO: DIGITAL OUTPUT
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POINT NAMES:

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BRT B#: B-# BOILER RETURN WATER TEMP
BRT P: HEATING HOT WATER PLANT RETURN TEMP
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BST P: HEATING HOT WATER PLANT SUPPLY TEMP
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CDL C#: CHILLER ACCH-# DEMAND LIMIT
CDP C#: CHILLER DIFFERENTIAL PRESSURE SENSOR
CDP P#: CHILLED WATER PLANT DIFFERENTIAL PRESSURE SENSOR (TOTAL OF 2). HARDWIRE POINT BACK TO CHILLER PLANT UNITARY CONTROLLER.
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ELD#: ELECTRIC METER MSB-# DEMAND (KW)
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EMCT: TOTAL ELECTRIC METER CONSUMPTION (KWH)
KHA: KITCHEN HOOD ANSUL SYSTEM ACTIVATION
KHET#: KITCHEN HOOD EXHAUST TOTAL (TYPICALLY 0-10VDC). # REPRESENTS HOOD NUMBER
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PFS CP#: CHWP-# PUMP STATUS VIA FLOW SWITCH
PHCT: PREHEAT COIL DISCHARGE TEMP
PHCT SP: PREHEAT COIL DISCHARGE TEMP SET POINT
PIS: STAND-BY PUMP TEMPORARY IDENTITY (CHWP-1A, CHWP-1B, CHWP-S)
PS BP#: HWP-# PUMP SPEED
P MB#: HWP-# MAX PUMP SPEED
PS %B#: HWP-# PUMP SPEED AS PERCENT OF MAX, CALCULATED AS [PS %B#] = [PS BP#] / [P MB#]
PS CP#: CHWP-# PUMP SPEED
P MC#: CWP-# MAX PUMP SPEED
PS %C#: CWP-# PUMP SPEED AS PERCENT OF MAX, CALCULATED AS [PS %C#] = [PS CP#] / [P MC#]
PSS BP: HEATING HOT WATER PLANT PUMPING SYSTEM START/STOP (FROM BOILER CONTROL PANEL)
RADPT: DEW POINT RETURN AIR TEMP
RADP SP: RETURN AIR DEW POINT SETPOINT
RARH: RETURN AIR RELATIVE HUMIDITY
RAT: DRY BULB RETURN AIR TEMP
RH: RELATIVE HUMIDITY
RH SP: RELATIVE HUMIDITY SETPOINT
RPSS: RECIRCULATION PUMP START/STOP
SAT SP: DRY BULB SUPPLY AIR TEMP SETPOINT
SAT: DRY BULB SUPPLY AIR TEMP
SD: DUCT SMOKE DETECTOR
SEAD: SHUT-OFF EXHAUST AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
SF MAX: MAX SUPPLY FAN SPEED (CONFIRM WITH TAB MAX SPEED SETTINGS)
SFSS: SUPPLY FAN START/STOP
SF FLT: SUPPLY FAN FAULT
SF SPD: SUPPLY FAN SPEED
SF %SP: SUPPLY FAN % SPEED OF MAX, CALCULATED BY [SF%SP] = [SF SPD/SFMAX]
SF CT: SUPPLY FAN STATUS, 1 PER FAN (VIA CT INSTALLED ON FAN)
SOAD: SHUT-OFF OUTDOOR AIR CONTROL DAMPER POSITION (OPEN/CLOSED)
TUD: TERMINAL UNIT PRIMARY AIR VALVE POSITION (CALCULATED, % OPEN)
TUF: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW
TUF SP: TERMINAL UNIT PRIMARY AIR VALVE AIRFLOW SETPOINT
TUFSS: TERMINAL UNIT FAN START/STOP
TUP: TERMINAL UNIT PRIMARY AIR VALVE DIFFERENTIAL PRESSURE
UV: UV LIGHT STATUS
VESP: MANUAL ISOLATION VALVE WITH END SWITCH MONITORED BY BAS.
ZCO2: ZONE CO2, OBTAINED FROM FACILITIES MONITORING SYSTEM
ZTEMP: DRY BULB ZONE TEMPERATURE
SENSOR TYPES:

DUCT PROBE SENSOR OR INSERTION FLOW METER
ACTUATED CONTROL DAMPER
INSERTION THERMOWELL PIPE SENSOR
SERPENTINED ACROSS COIL SENSOR

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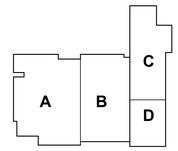
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Notes



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Revision	By	Appd	
3 ADDENDUM 2			2025.09.12
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued	By	Appd	YYYY.MM.DD

Permit/Seal



CMTA F-8627
2025.09.12

Client/Project Logo

ALVIN ISD

Client/Project

ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title

MECHANICAL CONTROL SCHEMATICS

Project No.
214001269

Scale

Revision
3

Drawing No.
M508

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ORIGINAL SHEET - ARCH E1

MAKE UP AIR HANDLING UNIT SCHEDULE

MARK	MFG	MODEL	CONFIGURATION	AREA SERVED	LOCATION	SUPPLY AIR (CFM)	TSP/ESP (IN WG)	HEATING HOT WATER COIL (PREHEAT)						CHILLED WATER COOLING COIL						FILTERS		ELECTRICAL							VFD	UNIT SIZE (LxWxH INCH)	UNIT WEIGHT (LBS)
								TMBH	AIRFLOW (CFM)	EAT (DB)	LAT (DB)	GPM/MAX PD	EWT/LWT	TMBH/SMBH	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	EWT/LWT (°F)	FACE VELOCITY/MAX APD (INCH)	GPM/MAX PD (FT)	FILTER EFF	FILTER RESISTANCE (CLEAN/DIRTY)	# OF FANS	MOTOR HP	MOTOR BHP	FLA (AMPS)	MCA	MOCP	VOLT/PH/HZ			
MUA-1	YORK	XTI-45X69	TYPE 3 MUA	KITCHEN HOODS	MAIN MECH C110	6090	4.4/1.3	283	6090	25	68	19/5	130/100	508/305	97.6/76.6	52.8/52	42/57.1	440/0.9	67.1/11.1	2" MERV 8	CLEAN	1	7.5	6.06	9.5	11.88	20	460/3/60	Yes		2709

AIR HANDLING UNIT SCHEDULE

MARK	MFG	MODEL	CONFIGURATION	AREA SERVED	LOCATION	SUPPLY AIR (CFM)	TSP/ESP (IN WG)	CHILLED WATER COOLING COIL						HOT WATER COIL (REHEAT)						FILTERS		ELECTRICAL							VFD	UNIT SIZE (LxWxH INCH)	UNIT WEIGHT (LBS)
								TMBH/SMBH	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	EWT/LWT (°F)	FACE VELOCITY/MAX APD (INCH)	GPM/MAX PD (FT)	TMBH	EAT (°F)	LAT (°F)	EWT/LWT (°F)	FACE VELOCITY/APD (INCH)	GPM/MAX PD (FT)	FILTER EFF	FILTER RESISTANCE (CLEAN/DIRTY)	# OF FANS	MOTOR HP EACH	FLA (AMPS)	MCA	MOCP	VOLT/PH/HZ			
AHU-1	YORK	XTI-36x39	TYPE 2 AHU	ADMIN	MECH B125	2300	4.46/3	60/49	74/63	54.9/54.1	42/57	446/0.62	8/1.4	-	-	-	-	-	-	2" MERV 8	CLEAN	1	3	4.2	5.25	15	460/3/60	Yes	86X45X42	1205
AHU-2	YORK	XTI-69X105	TYPE 2 AHU	CLASSROOMS	MECH A213	16500	4.56/3	475/347	74/63	55/53.2	42/57	444/0.43	63.1/11.7	-	-	-	-	-	-	2" MERV 8	CLEAN	2	10	25	28.13	40	460/3/60	Yes	108X115X77	3995
AHU-3	YORK	XTI-51X78	TYPE 2 AHU	CLASSROOMS	MECH B125	8500	4.42/3	232/180	74/63	54.9/53.7	42/57.1	446/0.62	30.6/5.8	-	-	-	-	-	-	2" MERV 8	CLEAN	2	5	13.4	15.08	20	460/3/60	Yes	107X88X57	2715
AHU-4	YORK	XTI-63X93	TYPE 2 AHU	CLASSROOMS	MECH B212	13000	4.37/3	368/273	74/63	52.5/51.4	42/57.1	440/0.43	48.8/7.8	-	-	-	-	-	-	2" MERV 8	CLEAN	2	7.5	19	21.38	30	460/3/60	Yes	103X103X71	3351
AHU-5	YORK	AVD40	VERTICAL BLOWER COIL UNIT	MEDIA CENTER	MECH A213	2450	1.31/1	68.7/51.7	74/63	54.9/53.4	42/57	290/0.13	9.1/5.25	59.67	65	87.4	130/99.9	290/0.05	4/0.69	2" MERV 8	CLEAN	2	3/4	11	12.38	15	277/1/60	No	30x68x59	569
AHU-6	YORK	AVD30	VERTICAL BLOWER COIL UNIT	GYM	MECH MEZZ 095	2200	1.43/1	62.2/46.4	74/63	54.9/53.3	42/57	337/0.22	8.3/4.45	18.82	65	86.9	130/99.9	337/0.08	3.5/1.21	2" MERV 8	CLEAN	2	3/4	11	12.38	15	277/1/60	No	30x59x56	485
AHU-7	YORK	AVD8	VERTICAL BLOWER COIL UNIT	ART	MECH MEZZ 095	830	1.39/0.75	23.1/17.9	74/63	54.1/53.2	42/57.1	360/0.27	2.8/3.54	19.72	65	87.7	130/100	/0.09	1.3/0.7	2" MERV 8	CLEAN	1	1/2	4.1	5.12	15	277/1/60	No	24x30x44	245
AHU-8	YORK	AVD12	VERTICAL BLOWER COIL UNIT	MUSIC	MECH MEZZ 095	1000	1.28/0.75	27.8/21.3	74/63	54.1/53.2	42/57.1	360/0.27	2.8/3.54	19.72	65	87.7	130/100	/0.09	1.3/0.7	2" MERV 8	CLEAN	1	1	6.9	8.62	15	277/1/60	No	24x30x44	275
AHU-9	YORK	AVD12	VERTICAL BLOWER COIL UNIT	STAGE	MECH MEZZ 095	650	1.22/1	19.1/14.3	74/63	52.7/52.1	42/56.9	369/0.31	4.2/3.56	22.53	65	85.7	130/100	/0.07	1.5/0.95	2" MERV 8	CLEAN	1	1/2	4.1	5.12	15	277/1/60	No	24x36x44	256
AHU-10	YORK	XTI-54X66	TYPE 1 AHU	DINING	MECH MEZZ 095	7600	2.26/1	222/165	74/63	54.4/53	42/57.1	450/0.44	29.4/8.4	167	65	85.2	130/100	450/0.09	11.3/0.7	2" MERV 8	CLEAN	1	5	6.7	8.38	15	460/3/60	Yes	125X72X60	2612
AHU-11	YORK	XTI-39x57	TYPE 1 AHU	KITCHEN	MAIN MECH C110	4000	2.81/1	118/88	74/63	54.1/52.9	42/56.9	427/0.45	15.7/4.3	96	65	87	130/100	427/0.09	6.5/0.9	2" MERV 8	CLEAN	1	5	6.7	8.38	15	460/3/60	Yes	83X63X84	2374
AHU-12	YORK	AHD12	HORIZONTAL BLOWER COIL UNIT	MAIN MECH & ELEC	MAIN MECH C110	800	1.07/0.75	22.3/16.8	74/63	55/53.5	42/56.9	-	3/6.03	19.29	65	87.2	130/100	-	1.3/0.79	2" MERV 8	CLEAN	1	1/2	4.1	5.12	15	277/1/60		40X36X21	256

REMARKS (AHU AND MUA'S): 3
1. ENTIRE UNIT SHALL BE DOUBLE WALL CONSTRUCTION. REFER TO SPECIFICATION DIVISION 23 FOR MORE DETAIL.
2. PROVIDE STAINLESS STEEL IAQ CONDENSATE DRAIN PAN. ENTIRE PAN SHALL BE PITCHED TO OUTLET.
3. PROVIDE STAINLESS STEEL CHILLED WATER COIL CASING.
4. PROVIDE ALL COIL SECTIONS WITH A MINIMUM OF 18 INCH ACCESS DOOR.
5. PROVIDE CONDENSATE TRAP SIZED PER MANUFACTURERS RECOMMENDATIONS.
6. PROVIDE UNITS WITH A FLAT FILTER SECTION WITH A 4 INCH FILTER RACK.
7. PROVIDE ALL UNITS WITH MERV 8 FILTERS. SECTION SHALL BE BASED ON DIRTY FILTER STATIC PRESSURE 0.64" WG FOR MERV 8.
8. ALL UNITS TO BE PROVIDE WITH DIRECT DRIVE PLENUM FANS.
9. PROVIDE BLANK OFF PLATE ON MULTIPLE MOTOR UNITS.
10. PROVIDE ALL UNITS WITH WALL MOUNTED VFD(S). VFD ID NUMBER SHALL MATCH WITH AHU NUMBER. IT IS MANUFACTURERS RESPONSIBILITY TO COORDINATE LOCATION OF VFD WITH MECHANICAL PLANS.
11. ALL UNIT MOTOR(S) SHALL BE FACTORY WIRED TO AN EXTERNAL UNIT MOUNTED MOTOR OVERLOAD PROTECTION PANEL. THIS PANEL CONTAINS ALL MOTOR OVERLOAD AND TERMINAL BLOCK FOR CONNECTION BY DIVISION 26 CONTRACTOR.
12. TOTAL STATIC PRESSURE OF THE SUPPLY FAN SHALL INCLUDE THE FOLLOWING: (A) THE LISTED ESP ON THE ABOVE SCHEDULE, (B) DIRTY FILTER ALLOWANCE FOR PRE FILTER AND ACTUAL PRESSURE DROPS OF UNIT CONFIGURATIONS (COILS, AIR BLENDER, ETC...).
13. COORDIANTE FACTORY CUT OPENINGS IN ALL OF THE SUPPLY AIR FAN SECTIONS.
14. PROVIDE 6 INCH HOUSE KEEPING PAD THAT EXTENDS 6 INCHES FROM ALL UNIT SIDES. COORDIANTE WITH MECHANICAL PLANS FOR UNITS WITH 4 INCH HOUSE KEEPING PAD.
15. SMOKE DETECTORS TO BE FURNISHED AND INSTALL IN THE SUPPLY AND RETURN AIR DUCT PLENUMS AND INTERLOCKED WITH AIR HANDLER FAN ON ALL AIR HANDLERS GREATER THAN 2000 CFM. SMOKE DETECTOR IN THE SUPPLY AIR STREAM MAY BE OMITTED IN SYSTEMS 2000 CFM OR LESS CAPACITY.
16. BASIS OF DESIGN FOR AHU(S) IS YORK. IF A DIFFERENT MANUFACTURER IS SELECTED, ANY CHANGES TO UNIT DIMENSIONS AND WEIGHT MUST BE COORDINATED BY THE MECHANICAL CONTRACTOR AND VENDOR TO FIT IN THE SPACES PROVIDED.
17. SPACE IS LIMITED, CONTRACTOR IS RESPONSIBLE FOR VERIFYING UNIT SELECTED WILL FIT IN THE SPACE DESIGNATED WITH ALL REQUIRED CLEARANCES TO STRUCTURE AND OTHER EQUIPMENT, AS WELL AS THE ABILITY TO BE DELIVERED IN SECTIONS THROUGH AVAILABLE ACCESS DOORS.
18. PROVIDE VIBRATION ISOLATION PAD UNDER ENTIRE UNIT.
19. PROVIDE MUA-1 UNIT WITH FACE AND BYPASS DAMPER THAT BYPASSES CHILLED WATER COIL. 3

OUTSIDE AIR UNIT SCHEDULE

MARK	MFG	MODEL	LOCATION	OUTSIDE AIR FAN						EXHAUST AIR FAN						CHILLED WATER COOLING COIL					HOT WATER HEAT COIL						FILTERS		UNIT SIZE (LxWxH INCH)	UNIT WEIGHT (LBS)
				DESIGN CFM	TSP/ESP (IN WG)	# OF FANS	MOTOR HP	TOTAL BHP	VOLT/PH/HZ	DESIGN CFM	TSP/ESP (IN WG)	# OF FANS	MOTOR HP	TOTAL BHP	VOLT/PH/HZ	AIRFLOW CFM	TMBH/SMBH	EWT/LWT (°F)	FACE VELOCITY/MAX APD	GPM/WPD	DESIGN EAT (DB/WB) (°F)	DESIGN LAT (DB/WB) (°F)	AIRFLOW CFM	TMBH	EWT/LWT (°F)	FACE VELOCITY/ APD	GPM/WPD	DESIGN EAT (DB) (°F)	DESIGN LAT (DB) (°F)	FILTER TYPE	FILTER RESISTANCE SUPPLY (CLEAN/DIRTY)		
OAU-1	YORK	XTI-51X85	MECH A213	7500	5.32/2.5	2	5	9.02	460/3/60	6300	2.95/1	1	5	4.32	460/3/60	7500	410/253	45/57	482/0.9	67.9/9.7	83.5/70	52.7/52.3	7500	204	130/100	482/0.11	13.8/0.7	48.7	72.9	2" MERV 8	CLEAN	239X89X108	9451
OAU-2	YORK	XTI-57X96	MECH B212	10000	5.24/2.5	2	7.5	11.86	460/3/60	8500	3.09/1	2	5	5.94	460/3/60	10000	514/335	45/56.9	490/0.85	85.9/11.8	83.3/68.9	52.4/51.8	10000	293	130/100	490/0.11	19.8/0.11	48.9	75	2" MERV 8	CLEAN	251X104X120	12093
OAU-3	YORK	XTI-42X66	MECH PLATFORM	4600	4.81/2.5	1	7.5	5.57	460/3/60	3900	2.9/1	1	5	2.66	460/3/60	4600	150/150	45/56.9	491/0.38	39.2/7.7	83.6/60	52.7/47.4	4600	144	130/100	491/0.11	9.7/1.1	48.5	76.3	2" MERV 8	CLEAN	223X72X90	6936

REMARKS:
1. ENTIRE UNIT SHALL BE DOUBLE WALL CONSTRUCTION. REFER TO SPECIFICATION DIVISION 23 FOR MORE DETAIL.
2. PROVIDE STAINLESS STEEL IAQ CONDENSATE DRAIN PAN. ENTIRE PAN SHALL BE PITCHED TO OUTLET.
3. PROVIDE STAINLESS STEEL CHILLED WATER COIL CASING.
4. PROVIDE WITH HIGH EFFICIENCY SUPPLY AND EXHAUST AIR FAN MOTORS.
5. PROVIDE BLANK OFF PLATE ON SUPPLY AND EXHAUST FAN.
6. COORDINATE FACTORY CUT OPENINGS IN ALL OF THE SUPPLY, RETURN, AND EXHAUST AIR FAN SECTIONS.
7. PROVIDE VIBRATION ISOLATION PAD UNDER ENTIRE UNIT.
8. ALL UNIT MOTOR(S) SHALL BE FACTORY WIRED TO AN EXTERNAL UNIT MOUNTED MOTOR OVERLOAD PROTECTION PANEL. THIS PANEL CONTAINS ALL MOTOR OVERLOAD AND TERMINAL BLOCK FOR CONNECTION BY DIVISION 26 CONTRACTOR.
9. CONTROLS CONTRACTOR TO PROVIDE CONTACTOR TO CONTROL ENERGY RECOVERY WHEEL OPERATION.
10. PROVIDE SUPPLY, EXHAUST, AND ENERGY RECOVERY WHEEL (ERW) WITH A WALL MOUNTED VFD. VFD ID NUMBER SHALL MATCH WITH UNIT NUMBER. IT IS THE MANUFACTURERS RESPONSIBILITY TO COORDIANTE LOCATION OF VFD WITH MECHANICAL PLANS.
11. PROVIDE CONDENSATE TRAP SIZED PER MANUFACTURERS RECOMMENDATIONS.
12. PROVIDE 6 INCH HOUSE KEEPING PAD THAT EXTENDS 6 INCHES FROM ALL UNIT SIDES. COORDIANTE WITH MECHANICAL PLANS FOR UNITS WITH 6 INCH HOUSE KEEPING PAD.
13. SMOKE DETECTORS TO BE FURNISHED AND INSTALL IN THE SUPPLY AND RETURN AIR DUCT PLENUMS AND INTERLOCKED WITH AIR HANDLER FAN ON ALL AIR HANDLERS GREATER THAN 2000 CFM. SMOKE DETECTOR IN THE SUPPLY AIR STREAM MAY BE OMITTED IN SYSTEMS 2000 CFM OR LESS CAPACITY.
14. BASIS OF DESIGN FOR AHU(S) IS YORK. IF A DIFFERENT MANUFACTURER IS SELECTED, ANY CHANGES TO UNIT DIMENSIONS AND WEIGHT MUST BE COORDINATED BY THE MECHANICAL CONTRACTOR AND VENDOR TO FIT IN THE SPACES PROVIDED.
15. SPACE IS LIMITED, CONTRACTOR IS RESPONSIBLE FOR VERIFYING UNIT SELECTED WILL FIT IN THE SPACE DESIGNATED WITH ALL REQUIRED CLEARANCES TO STRUCTURE AND OTHER EQUIPMENT, AS WELL AS THE ABILITY TO BE DELIVERED IN SECTIONS THROUGH AVAILABLE ACCESS DOORS/OPENINGS PROVIDED.
16. CHILLED WATER COIL AND HOT WATER COIL SECTION SHALL BE PROVIDED WITH INTERNAL FACE AND BYPASS DAMPERS, A SHEET METAL SHALL BE PROVIDED BETWEEN COIL SECTION AND FACE AND BYPASS SECTION.
17. TOTAL STATIC PRESSURE OF THE SUPPLY FAN SHALL INCLUDE THE FOLLOWING: (A) THE LISTED ESP ON THE ABOVE SCHEDULE, (B) DIRTY FILTER ALLOWANCE FOR PRE FILTER AND ACTUAL PRESSURE DROPS OF UNIT CONFIGURATIONS (COILS, AIR BLENDER, ETC...).

OUTSIDE AIR UNIT ENERGY RECOVERY WHEEL SCHEDULE

MARK	ERW TYPE	AIRFLOW		SUMMER CONDITIONS			WINTER CONDITIONS			ELECTRICAL	
		OA WHEEL CFM/APD (INCH)	EA WHEEL CFM/APD (INCH)	SUMMER OA EAT (DB/WB) (°F)	SUMMER EA EAT (DB/WB) (°F)	SUMMER OA LAT (DB/WB) (°F)	WINTER OA EAT (DB/WB) (°F)	WINTER EA EAT (DB) (°F)	WINTER LAT (DB/WB) (°F)	ERW MOTOR HP	VOLT/PH/HZ
OAU-1	ENTHALPY	8070/0.81	6870/0.71	96.8/75.4	74.5/63.57	83.46/69	27/25	65/50	48.7/40.2	0.3	460/3/60
OAU-2	ENTHALPY	10712/0.79	9212/0.7	96.8/75.4	74.5/63.57	83.34/68.9	27/25	65/50	48.92/40.34	0.3	460/3/60
OAU-3	ENTHALPY	4968/0.84	4268/0.74	96.8/75.4	74.5/63.57	83.57/69	27/25	65/50	48.5/40	0.3	460/3/60

PUMP SCHEDULE

MARK	MFG	MODEL	TYPE	AREA SERVED	GPM	FOH	ELECTRICAL				IMPELLER DIA. (INCH)	PUMP EFF	TRIPLE DUTY VALVE	SUCTION DIFFUSER
							MOTOR HP	BHP	VFD	VOLT/PH/HZ				
CHWP-1	GRUNDFOS	NBS 020	END SUCTION	CHILLED WATER	255	80	10	6.74	Yes	460/3/60	9.15	76.5	NO	YES
CHWP-2	GRUNDFOS	NBS 020	END SUCTION	CHILLED WATER	255	80	10	6.74	Yes	460/3/60	9.15	76.5	NO	YES
CHWP-3	GRUNDFOS	NBS 020	END SUCTION	CHILLED WATER	255	80	10	6.74	Yes	460/3/60	9.15	76.5	NO	YES
CP-1M	GRUNDFOS	MAGNA3 40-80 GF	INLINE	FILL STATION	50	5	0.37	0.37	No	115/1/60	NA	44.77	NO	NO
HWP-1	GRUNDFOS	NBS 015	END SUCTION	HEATING HOT WATER	71	70	5	2.15	Yes	460/3/60	8.28	58.4	NO	YES

REMARKS:
1. PROVIDE PREMIUM MOTORS WITH SHAFT GROUNDING RING.
2. PROVIDE ALL PUMPS WITH VFD'S
3. VENDOR TO SIZE SUCTION DIFFUSER PER FLOWS AND PIPE SIZES.
4. CP-1M SHALL BE PROVIDED WITH INTEGRAL VFD/ECM AND FLOW SENSOR AND SHALL HAVE INDIVIDUAL CONTROL TO MAINTAIN CONSTANT FLOW GPM WHEN OPERATING. PUMP SHALL BE CALLED TO RUN VIA BAS. 3

BOILER SCHEDULE

MARK	MFG	MODEL	TYPE	FUEL	INLET PRESSURE TO GAS TRAIN	IRI APPROVED GAS TRAIN	CAPACITY				ELECTRICAL	
							INPUT/OUTPUT (MBH)	DESIGN / MIN / MAX GPM	DESIGN PRESSURE DROP (FT)	EWT/LWT (°F)	FLA	VOLT/PH/HZ
B-1	CAMUS	AR(N)-1000	HIGH EFFICIENCY CONDENSING BOILER	NATURAL GAS	4" WC MIN/ 14" WC MAX	Yes	1000/945	71/7.9	16	100/130	-	115/1/60

REMARKS:
1. PROVIDE FACTORY START UP.
2. MANUFACTURER TO PROVIDE INTERFACE TO CONTROLS SPECIFIED IN SECTION 23 09 00. INTERFACE TO INCLUDE ALL HARDWARE NECESSARY TO COMMUNICATE WITH LONWORKS OR BACNET PROTOCOL, WHICHEVER IS REQUIRED. PROVIDE HARDWARE AND SOFTWARE IDENTIFIERS FOR THE INTERFACE POINTS, VALUES, UNITS, ETC... PROVIDE ON SITE TECHNICAL PERSONNEL TO FACILITATE WITH INTERFACE WITH THE TCC.
3. CONTROLS CONTRACTOR TO PROVIDE WALL MOUNTED CO SENSOR. CO SENSOR SHALL HAVE BUILT IN ALARM AND 24V / 120V TRANSFORMER. CO SENSOR SHALL BE CONNECTED TO AUXILIARY SWITCH ON BOILER AND IT SHALL BE PROGRAMED TO OPEN CONTACTOR ON BOILER AND WATER HEATERS AT 100 PPM TO DISABLE THE BOILER. SENSOR SHALL BE PROVIDED WITH TEST BUTTON FOR TESTING.
4. PROVIDE WITH ACID NEUTRALIZATION TANK AND ADDITIONAL 50 LBS OF NEUTRALIZATION AGENT

CHILLER SCHEDULE

MARK	MFG	MODEL	TYPE	TOTAL COOLING CAPACITY	EWT/LWT (°F)	GPM/WPD	MIN/MAX FLOW RATE (GPM)	AMBIENT TEMP (°F)	EER	IEER	IPLV/NPLV	SOUND POWER LEVELS FULL	# OF CONNECTIONS	ELECTRICAL			NEOPRENE ISOLATORS	UL LISTED	LOW AMBIENT CONTROLS	CONTROL POWER TRANSFORMER
														MCA	MOCP	VOLT/PH/HZ				
ACCH-1	YORK	YLAA0155SJ	AIR COOLED HERMETIC SCROLL CHILLER	130	57/42	207/8.44	150/625	105	8.201	17.75	17.75/17.11	99 98 94 92 88 85 82 LWA=97	1	310	350	460/3/60	Yes	Yes	Yes	Yes
ACCH-2	YORK	YLAA0155SJ	AIR COOLED HERMETIC SCROLL CHILLER	130	57/42	207/8.44	150/625	105	8.201	17.75	17.75/17.11	99 98 94 92 88 85 82 LWA=97	1	310	350	460/3/60	Yes	Yes	Yes	Yes

REMARKS:
1. PROVIDE WITH CONTROL POWER TRANSFORMER AND NEOPRENE VIBRATION PADS.
2. PROVIDE CONDENSER FANS WITH VARIABLE FREQUENCY DRIVE.
3. PROVIDE WITH INTEGRAL, LOCKABLE, DISCONNECT SWITCH WITH 42kA SCCR.
4. MANUFACTURER SHALL SUBMIT CHILLER SELECTION TO ENGINEER FOR APPROVAL PRIOR TO BIDDING CHILLER.
5. PROVIDE WITH FACTORY MOUNTED DIFFERENTIAL PRESSURE SWITCHES FOR PROVING FLOW.
6. PROVIDE WITH INLET STRAINER. IF NOT PROVIDED BY MANUFACTURER, THE MECHANICAL CONTRACTOR SHALL PROVIDE A STRAINER.
7. PROVIDE CONDENSER COILS WITH FACTORY COATING.

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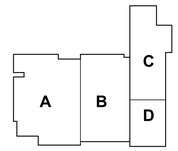
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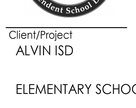
3 ADDENDUM 2			2025.09.12
Revision	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.09.18
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ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
MECHANICAL SCHEDULES

Project No.	Scale
214001269	
Revision	Drawing No.
3	M601

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ORIGINAL SHEET - ARCH E1

EXPANSION TANK SCHEDULE

MARK	MFG	MODEL	TYPE	SERVICE	ACCEPT VOLUME (GAL)	TOTAL VOLUME (GAL)	UNIT SIZE (LxWxH INCH)	UNIT WEIGHT (LBS)
ET-1	GRUNDFOS	GNLA-300	DIAPHRAGM	CHILLED WATER	79	79	24X55	225
ET-2	GRUNDFOS	GNLA-400	DIAPHRAGM	HEATING HOT WATER	106	106	30X49	300

REMARKS:
1. INSTALL EXPANSION TANKS ON 4" CONCRETE PAD.

AIR SEPARATOR SCHEDULE

MARK	MFG	MODEL	SERVICE	INLET/OUTLET SIZE (INCH)	GPM	MAX WPD	ACCESSORIES		
							INTEGRAL STRAINER	AIR PRESSURE CHARGE	ASME RATED
AS-1	BELL & GOSSETT	ROLAIRTROL RL-6	CHILLED WATER	6	510	1	No	Yes	Yes
AS-2	BELL & GOSSETT	ROLAIRTROL RL-3	HEATING HOT WATER	3	71	1	No	Yes	Yes

REMARKS:
1. PROVIDE STRUCTURAL FLOOR STAND FOR MOUNTING OF AIR SEPERATOR FOR AS-1.
2. INSULATE AIR SEPARATORS.

VARIABLE FREQUENCY DRIVE SCHEDULE

MARK	MFG	MODEL	SERVICE	MOTOR HP	VOLT/PH/HZ	FUSED DISCONNNECT & NEMA 1 ENCLOSURE	BYPASS STARTER
VFD-AHU1	ABB	550	AHU-1	3	460/3/60	Yes	Yes
VFD-AHU2	ABB	550	AHU-2	20	460/3/60	Yes	Yes
VFD-AHU3	ABB	550	AHU-3	10	460/3/60	Yes	Yes
VFD-AHU4	ABB	550	AHU-4	15	460/3/60	Yes	Yes
VFD-AHU10	ABB	550	AHU-10	5	460/3/60	Yes	Yes
VFD-AHU11	ABB	550	AHU-11	5	460/3/60	Yes	Yes
VFD-CHWP1A	ABB	550	P-1A	10	460/3/60	Yes	Yes
VFD-CHWP1B	ABB	550	P-1B	10	460/3/60	Yes	Yes
VFD-CHWP1S	ABB	550	P-1C	10	460/3/60	Yes	Yes
VFD-HWP2	ABB	550	P-2	5	460/3/60	Yes	Yes
VFD-MUA-1	ABB	550	MUA-1	7.5	460/3/60	Yes	Yes
VFD-OAU1-EA	ABB	550	OAU-1-EA	5	460/3/60	Yes	Yes
VFD-OAU1-EW	ABB	550	OAU-1-EW	0.3	460/3/60	Yes	Yes
VFD-OAU1-OA	ABB	550	OAU-1-OA	10	460/3/60	Yes	Yes
VFD-OAU2-EA	ABB	550	OAU-2-EA	10	460/3/60	Yes	Yes
VFD-OAU2-EW	ABB	550	OAU-2-EW	0.3	460/3/60	Yes	Yes
VFD-OAU2-OA	ABB	550	OAU-2-OA	15	460/3/60	Yes	Yes
VFD-OAU3-EA	ABB	550	OAU-3-EA	5	460/3/60	Yes	Yes
VFD-OAU3-EW	ABB	550	OAU-3-EW	0.3	460/3/60	Yes	Yes
VFD-OAU3-OA	ABB	550	OAU-3-OA	15	460/3/60	Yes	Yes

REMARKS:
1. COORDINATE AND VERIFY ACTUAL VFD SUBMISSIONS WITH AHU, OAU, AND PUMPS HORSE POWER / FAN QUANTITIES ON THE APPROVED AHU / PUMP SHOP DRAWINGS. WHERE MULTIPLE FANS ARE TO BE SERVED BY A SINGLE VFD, THE MANUFACTURER SHALL PROVIDE A VFD SIZED APPROPRIATELY FOR THE QUANTITY AND SIZE OF FANS. REFER TO AHU, OAU, AND PUMP SCHEDULES FOR MOTOR QUANTITIES AND SIZES.
2. ALL AHU, OAU, AND PUMPS SHALL BE PROVIDED WITH VFD'S.

OUTDOOR SPLIT SYSTEM CONDENSER SCHEDULE

MARK	MFG	MODEL	COOL/HEAT MBH	SEER	ELECTRICAL			UNIT WEIGHT (LBS)
					MCA	MOCP	VOLT/PH/HZ	
CU-1	HITACHI	PAS-24	22/-	21.5	14.3	25	208/1/60	104.5

INDOOR SPLIT SYSTEM SCHEDULE

MARK	MFG	MODEL	TYPE	AREA SERVED	AIRFLOW CFM	UNIT WEIGHT (LBS)
AC-1	HITACHI	PPK-B24	WALL MOUNTED DUCTLESS MINISPLIT	MDF B129	735	54

REMARKS:
1. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION. POWER TO INDOOR UNIT SHALL COME FROM OUTDOOR UNIT. IF MECHANICAL CONTRACTOR SELECTS OTHER MANUFACTURER, MECHANICAL CONTRACTOR SHALL PROVIDE DISCONNECT AND NECESSARY WIRING FOR INDOOR UNIT.
2. NO CONDENSATE PUMP SHALL BE USED. DRAINS MUST ALL BE GRAVITY DRAINED.
3. PROVIDE INDOOR UNIT WITH FACTORY WALL MOUNTING HARDWARE, INSTALL PER MANUFACTURERS CLEARANCE RECOMMENDATIONS.
4. TEMPERATURE SENSOR FOR SPLIT SYSTEM SHALL BE REMOTE WALL MOUNTED WITH NO LOCAL CONTROLS. ALL SETPOINTS / OCCUPANCY CONTROLS SHALL BE THROUGH THE BAS.
5. ALL ROOF MOUNTED EQUIPMENT SHALL BE ANCHORED TO ROOF TO WITHSTAND WIND SPEED IN ACCORDANCE WITH ASCE 7.
6. CONDENSER COIL TO HAVE COIL COATING.

CIRCULATING FAN SCHEDULE

MARK	MFG	MODEL	FAN TYPE	AREA SERVED	ELECTRICAL		UNIT WEIGHT (LBS)	REMARKS
					FLA	VOLT/PH/HZ		
CF-1	BIGASS FAN	ESSENCE 3	DIRECT DRIVE CIRCULATING FAN	DINING	4.1	120/1/60	83	ALL

REMARKS:
1. PROVIDE WITH ONBOARD NEMA 1 VFD WITH WALL MOUNTED CONTROLLER.
2. COORDINATE MOUNTING HARDWARE WITH THE MANUFACTURER PRIOR TO PURCHASE.
3. CONFIRM INSTALLATION HEIGHT WITH ARCHITECT; BOTTOM OF FANS SHALL BE NO LESS THAN A MINIMUM 10' AFF.
4. FANS SHALL BE A MINIMUM 2' FROM ANY OBSTRUCTIONS.
5. FANS SHALL NOT BE MOUNTED LESS THAN TWO TIMES THE FAN DIAMETER FROM EACH OTHER, EXHAUST/RETURN INTAKES, ETC.
6. EXTENSION TUBES 48" AND LONGER SHALL BE INSTALLED WITH GUY WIRES PER THE MANUFACTURERS INSTALLATION REQUIREMENTS.
7. PROVIDE SWITCH ON WALL TO TURN FAN ON AND OFF.
8. PROVIDE UNIT WITH FIRE ALARM INTERFACE CONNECTION TO SHUT OFF UNIT IN EVENT OF FIRE ALARM.
9. PROVIDE FAN WITH BAFCON CONTROLLER OR EQUAL LOCATED IN DINING STORAGE C118 BY DOOR. CONTRACTOR SHALL COORDINATE POWER AND DATA TO THIS LOCATION.

FAN SCHEDULE

MARK	MFG	MODEL	FAN TYPE	AREA SERVED	LOCATION	EA DESIGN CFM	EA TSP/ESP (IN WG)	FAN SONES	ELECTRICAL		UNIT WEIGHT (LBS)	REMARKS 2
									MOTOR HP	VOLT/PH/HZ		
EF-1	GREENHECK	CSP-A410	DIRECT DRIVE INLINE EXHAUST FAN	KITCHEN	CEILING	345	-/0.3	2.6	122 WATTS	115/1/60	39	3,7,11,12
KEF-1	GREENHECK	CUE-160-VG	DIRECT DRIVE UPBLAST CENTRIFUGAL EXHAUST FAN	KITCHEN HOODS	ROOF	3380	-/1	21	2	460/3/60	175	1,2,5,8,9,11
KEF-2	GREENHECK	CUE-180-VG	DIRECT DRIVE UPBLAST CENTRIFUGAL EXHAUST FAN	KITCHEN HOODS	ROOF	3900	-/1	18.5	2	460/3/60	183	1,2,5,8,9,11
KEF-3	GREENHECK	CUE-120-VG	DIRECT DRIVE UPBLAST CENTRIFUGAL EXHAUST FAN	DISHWASHER	ROOF	1200	-/0.3	8.8	1/4	115/1/60	86	1,2,5,9,10,11
VF-1	GREENHECK	SP-A390	CEILING MOUNTED - DIRECT DRIVE	ELEC A121	CEILING	300	-/0.125	2.5	135W	115/1/60	35	3,6,7,11
VF-2	GREENHECK	SP-A390	CEILING MOUNTED - DIRECT DRIVE	IDF A214	CEILING	300	-/0.125	2.5	135W	115/1/60	35	3,6,7,11
VF-3	GREENHECK	SP-A390	CEILING MOUNTED - DIRECT DRIVE	IDF D102	CEILING	300	-/0.125	2.5	135W	115/1/60	35	3,6,7,11

REMARKS:
1. PROVIDE FACTORY ROOF CURB, FIELD VERIFY ROOF PITCH AND INSULATION DEPTH PRIOR TO ORDERING.
2. ALL ROOF MOUNTED EQUIPMENT SHALL BE ANCHORED TO ROOF TO WITHSTAND WIND SPEED IN ACCORDANCE WITH ASCE 7.
3. PROVIDE FAN WITH INTEGRAL DISCONNECT.
4. PROVIDE FAN WITH AUTOMATIC BACKDRAFT DAMPER.
5. PROVIDE WITH VARIABLE MOTOR SPEED CONTROLLER. FAN VFD PROVIDED IN KITCHEN HOOD CONTROL ENCLOSURE.
6. FAN TO BE CONTROLLED ON/OFF BY ROOM MOUNTED TEMPERATURE SENSOR (PROVIDED BY BAS). PROVIDE CONTACTS AND RELAYS AS NECESSARY TO WIRE FAN TO SENSOR.
7. PROVIDE FACTORY CEILING HUNG VIBRATION ISOLATORS, INSTALL PER MANUFACTURERS RECOMMENDATIONS.
8. FAN TO BE INTERCONNECTED TO TURN ON WITH ASSOCIATED KITCHEN HOOD. COORDINATE STARTER LOCATION AND CONNECTION WITH ELECTRICAL CONTRACTOR (BY ELEC CONTRACTOR).
9. FAN TO BE UL 762 LISTED FOR "POWER VENTILATORS FOR RESTAURANT EXHAUST APPLIANCES".
10. FAN TO BE INTERCONNECTED TO TURN ON WITH ASSOCIATED DISHWASHER.
11. REFER TO THE CORRESPONDING CONTROL SHEET.
12. FAN SHALL BE CONTROLLED OFF/ON BY BAS. FAN SHOULD RUN DURING OCCUPIED HOURS.
13. EXHAUST FAN CONTROL SHALL BE PROVIDED WITH OCCUPANCY SENSOR.

LOUVER SCHEDULES

MARK	MFG	MODEL	CFM	AREA SERVED	CONSTRUCTION	DEPTH (INCH)	PHYSICAL SIZE (WxH INCH)	ACCESSORIES		
								COLOR	FINISH	DRAINABLE BLADE
L-1	GREENHECK	EVH-501	6890	MUA-1 INTAKE	EXTRUDED ALUMINUM WIND-DRIVEN RAIN LOUVER	5	56X56	ARCH	ARCH	Yes

REMARKS:
1. PROVIDE WITH BIRD SCREEN.
2. COLOR AND FINISH TO BE SELECTED BY ARCHITECT. REFER TO ARCH PLANS.
3. COORDINATE LOCATIONS WITH ARCHITECTURE ELEVATIONS.
4. LOUVERS MUST BE AMCA 540 AND AMCA 550 RATED.

GRAVITY VENTILATOR SCHEDULE

MARK	MFG	MODEL	SERVICE	CFM/APD	DIMENSION		UNIT WEIGHT (LBS)	REMARKS
					THROAT SIZE (LxW INCH)	OVERALL SIZE (LxW INCH)		
GI-OAU1-OA	GREENHECK	FGI-42X42	OAU-1 INTAKE AIR	7500/0.088	42X42	75X78	235	ALL
GI-OAU2-OA	GREENHECK	FGI-48X48	OAU-2 INTAKE AIR	10000/0.092	48X48	87X86	321	ALL
GI-OAU3-OA	GREENHECK	FGI-30X34	OAU-3 INTAKE AIR	4600/0.099	46X32	60X46	157	ALL
GR-OAU1-EA	GREENHECK	FGR-36X42	OAU-1 EXHAUST AIR	6300/0.095	40X36	63X52	163	ALL
GR-OAU2-EA	GREENHECK	FGR-42X46	OAU-2 EXHAUST AIR	8500/0.096	42X46	63X68	214	ALL
GR-OAU3-EA	GREENHECK	FGR-30X30	OAU-3 EXHAUST AIR	4300/0.072	32X32	46X46	126	ALL

REMARKS:
1. PROVIDE FACTORY ROOF CURB, FIELD VERIFY ROOF PITCH AND INSULATION DEPTH PRIOR TO ORDERING.
2. ALL HOODS MUST BE ANCHORED TO ROOF TO WITHSTAND WIND SPEED IN ACCORDANCE WITH ASCE 7.
3. PROVIDE WITH BIRD SCREEN.
4. HOOD TO BE FACTORY PAINTED WITH BAKED ENAMLE FINISH. COORDIANTE COLOR WITH ARCHITECT PRIOR TO ORDERING.

GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

MARK	MFG	MODEL	TYPE	PANEL SIZE (INCH)	GRILLE SIZE (INCH)	INLET DUCT SIZE (INCH)	CFM RANGE	REMARKS 2
E-1	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	6"Ø	0-100	1,4
E-2	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	8"Ø	101-225	1,4
E-3	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	10"Ø	226-360	1,4
E-4	PRICE	610Z	ALUMINUM DOUBLE DEFLECTION EXHAUST GRILLE	8"X8"	6"X6"	6"X6"	30-125	2,4
R-1	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	6"Ø	-	1,4
R-4	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	12"Ø	-	1,4
R-5	PRICE	610Z	ALUMINUM LOUVERED FACE RETURN GRILLE	14"X8"	12"X6"	12"X8"	150-300	2,4
R-6	PRICE	635	EXTRUDED ALUMINUM, 1/2" BLADE SPACING, 45 DEGREE DEFLECTION RETURN GRILLE	38"X26"	36"X24"	36"X24"	1500-2000	2,4
R-7	PRICE	97	EXTRUDED ALUMINUM, 1/2" BLADE SPACING, 0 DEGREE DEFLECTION HEAVY DUTY RETURN GRILLE	38"X26"	36"X24"	36"X24"	2000-2400	2,4
S-1	PRICE	AMD	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	6"X6"	6"Ø	0-100	1,3,4
S-2	PRICE	AMD	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	9"X9"	8"Ø	101-225	1,3,4
S-3	PRICE	AMD	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	12"X12"	10"Ø	226-375	1,3,4
S-4	PRICE	AMD	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	12"X12"	12"Ø	376-600	1,3,4
S-5	PRICE	610	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE	8"X8"	6"X6"	6"X6"	30-125	2,4
S-6	PRICE	610	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE	14"X8"	12"X6"	12"X6"	126-300	2,4
S-7	PRICE	610	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE	14"X12"	12"X10"	12"X10"	300-450	2,4
S-10	PRICE	HCD	ALUMINUM DRUM LOUVER	26"X14"	24"X12"	24"X12"	700-1000	2,4
S-11	PRICE	ANR	ALUM CONSTRUCTION, ADJ CORE NOZZLE DIFFUSER	14 1/4"Ø	12"Ø	12"Ø	400-700	2,4

REMARKS:
1. CEILING T-BAR MOUNTED IN 24"x24" ALUMINUM PANEL, UNLESS MARKED OTHERWISE. REFER TO GENERAL NOTES FOR SPECIAL MARK CALLOUTS.
2. SIDEWALL OR DUCT MOUNTED.
3. INLET TRANSITION BOX, ROUND TO RECTANGULAR AS INDICATED ON PLANS.
4. WHITE IN COLOR.
5. BLACK IN COLOR.
6. COORDINATE COLOR WITH ARCHITECT PRIOR TO ORDERING. IF COLOR CHOICE IS NOT AVAILABLE, DIFFUSER / GRILLE TO BE FIELD PAINTED.

GENERAL NOTES:
1. GRD'S MARKED WITH 'A' ARE TO BE INSTALLED IN A HARD CEILING AND PROVIDED WITH A 12"X12" FRAME SIZE.

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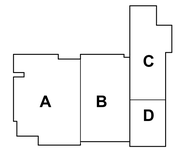
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3	ADDENDUM 2		2025.09.12
2	ADDENDUM 1		2025.09.08
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued		By	Appd YYYY.MM.DD

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CMTA # 8627
2025.09.12

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Project No.
214001269

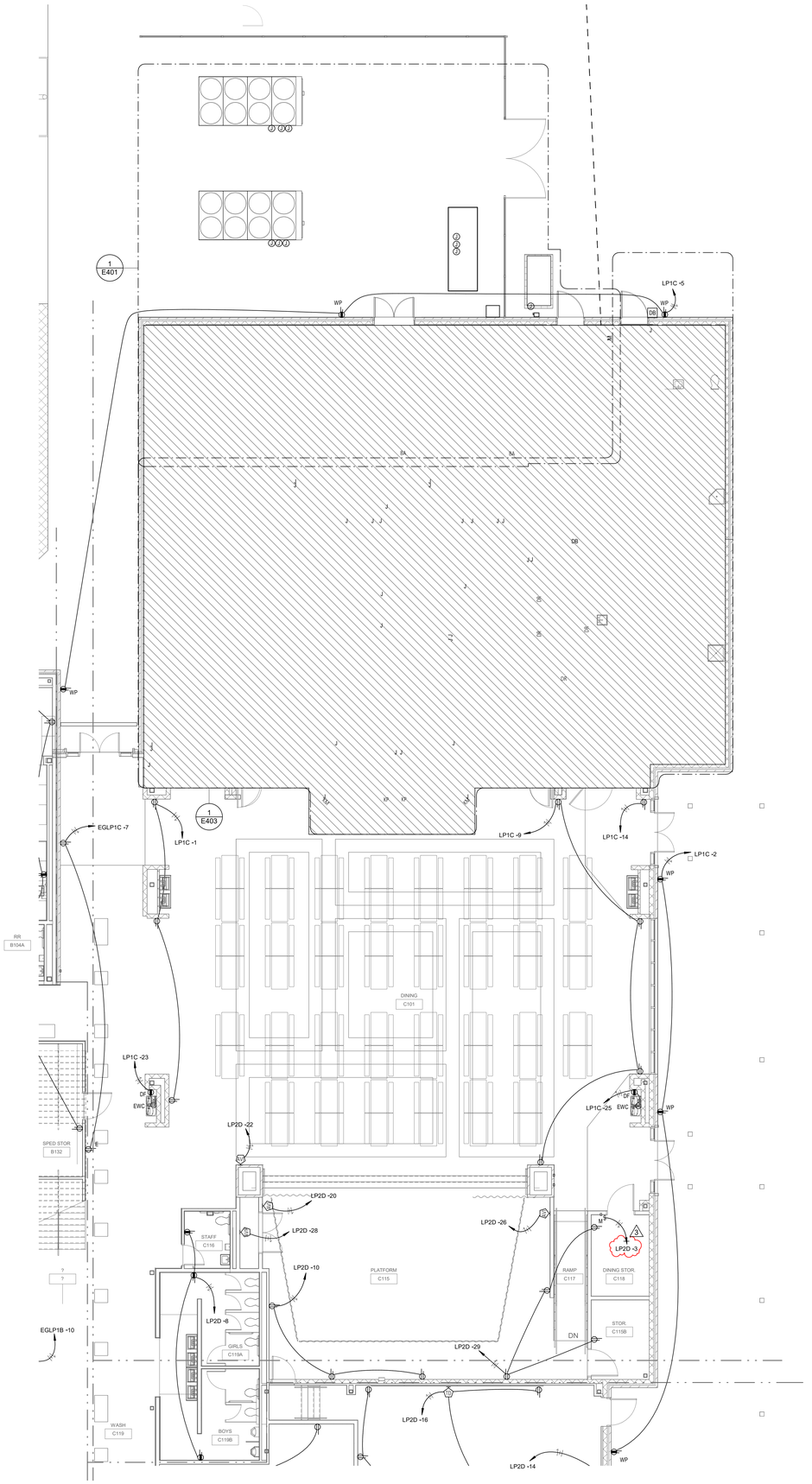
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3

Drawing No.
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ORIGINAL SHEET - ARCH E1



1 LEVEL 1 - POWER PLAN - AREA C
1/8" = 1'-0"

GENERAL NOTES (POWER):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING.

C. IF ADDITIONAL CONDUCTORS ARE RUN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C.

D. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.

E. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING ON OUTSIDE OF COVER PLATE. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.

F. RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM SHALL BE MARKED IN ACCORDANCE WITH NEC 406.3(E).

G. LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER TRADES.

TAGGED NOTES ##

ELECTRICAL/TECHNOLOGY COMBO ROUGH-IN KEY

XX

THESE SYMBOLS REPRESENT LOCATIONS WHERE BOTH POWER AND TECHNOLOGY INSTALLATIONS ARE REQUIRED. DIV_26 SHALL PROVIDE BOX AND CONDUIT FOR THE TECHNOLOGY DEVICE(S).

PWR: D - DUPLEX | Q - QUAD | H - HARDWIRED CONNECTION
DATA: #D - DATA DROPS - # INDICATES QUANTITY.
AV: Y - AV AT THIS LOCATION AS SCHEDULED

TAG	DESCRIPTION	PWR	DATA	AV
AVI	AV INPUT PLATE	D	2D	Y
AVR	AV RACK	(2)D	2D	Y
BA	BUILDING AUTOMATION (HVAC CONTROLS) PANEL	D	2D	--
CO	COPIER	D	2D	--
DR	OFFICE DESK RECEPTACLE	D	2D	--
DRA	OFFICE DESK RECEPTACLE ABOVE COUNTER	D	2D	--
F1	FLOOR BOX 1			
KM	DINING ROOM MENU BOARD TV	D	2D	Y
KP	KITCHEN POS SYSTEM	D	2D	--
TD	TEACHING DISPLAY	D	2D	Y*
TS	TEACHER DESK STATION	Q	2D	Y*
TV	CONFERENCE ROOM TV	D	2D	Y
TVK	KIVA ROOM TV	D	2D	Y
VP	VIDEO PROJECTOR (CAFETORIUM)	Q	2D	Y
VS	VIDEO PROJECTOR SCREEN (CAFETORIUM)	H	--	Y

REFER TO SHEET E601 FOR FULL SCHEDULE(S)

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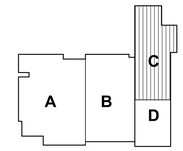
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2025.09.01

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Title
LEVEL 1 POWER PLAN - AREA C

Project No. 214001269
Scale 1/8" = 1'-0"
Revision 3
Drawing No. **E213**

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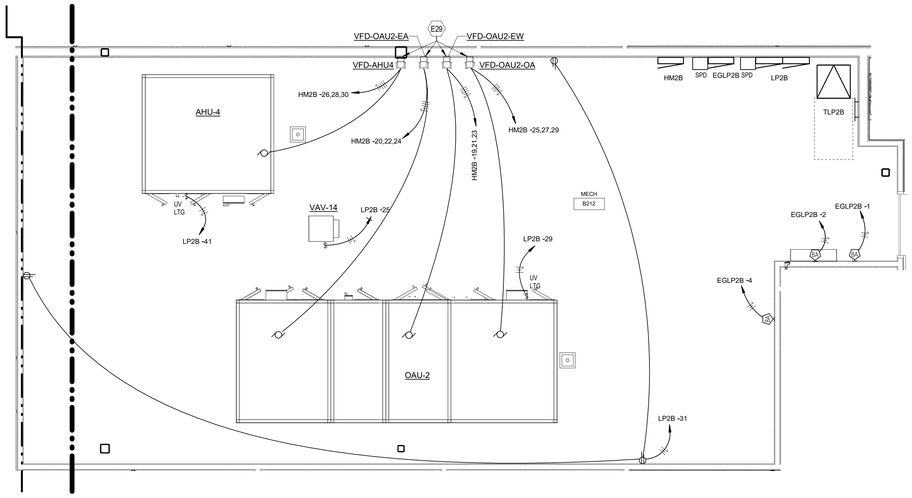
ORIGINAL SHEET - ARCH E1

GENERAL NOTES (ENLARGED AND TYPICAL):

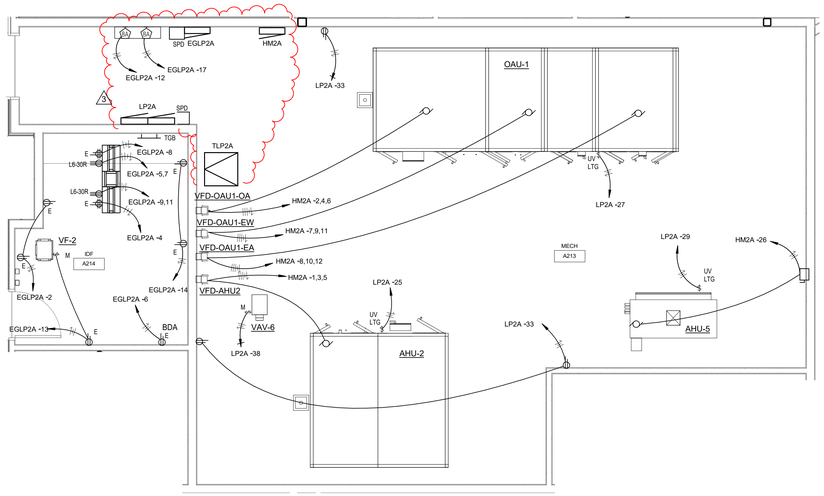
A. ALL ROOM LAYOUTS ARE TYPICAL AND MAY VARY OR MIRROR OTHER ASSOCIATED ROOMS. CONTRACTOR SHALL REFER TO ARCHITECTURAL ELEVATIONS AND COORDINATE EACH ROOM PRIOR TO ROUGH-IN.

TAGGED NOTES	##
E18	EXTERIOR BUILDING MOUNTED LIGHTING IN AREA C AND D SHALL BE ROUTED THROUGH LIGHTING CONTACTOR 'LCC' IN ELECTRICAL ROOM C110. REFER TO DETAIL '2' ON SHEET E603 FOR INFORMATION.
E23	EXTERIOR BUILDING MOUNTED LIGHTING IN AREA A AND B SHALL BE ROUTED THROUGH LIGHTING CONTACTOR 'LCA' IN ELECTRICAL ROOM A121. REFER TO DETAIL '3' ON SHEET E603 FOR INFORMATION.
E29	VFD WILL BE PROVIDED BY DIV 23. CONFIRM EXACT SPECIFICATIONS WITH OWNER PRIOR TO INSTALL.
E30	PROVIDE 60A/600V/3P/NF NEMA 3R HEAVY DUTY DISCONNECT SWITCH. PROVIDE ALL DISCONNECTS WITH UNISTRUT MOUNTING ACCESSORIES AS NEEDED.
E40	EPO BUTTON LOCATION. REFER TO ONE-LINE DIAGRAM ON SHEET 'E501' FOR MORE INFORMATION.
E41	PROVIDE 30A/600V/1P/NF NEMA 1 HEAVY DUTY DISCONNECT SWITCH. PROVIDE ALL DISCONNECTS WITH UNISTRUT MOUNTING ACCESSORIES AS NEEDED.

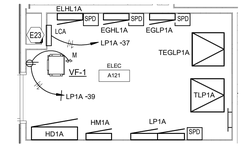
1



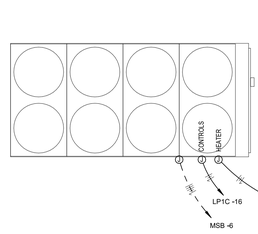
4 ENLARGED FLOOR PLAN - MECH B212
1/4" = 1'-0"

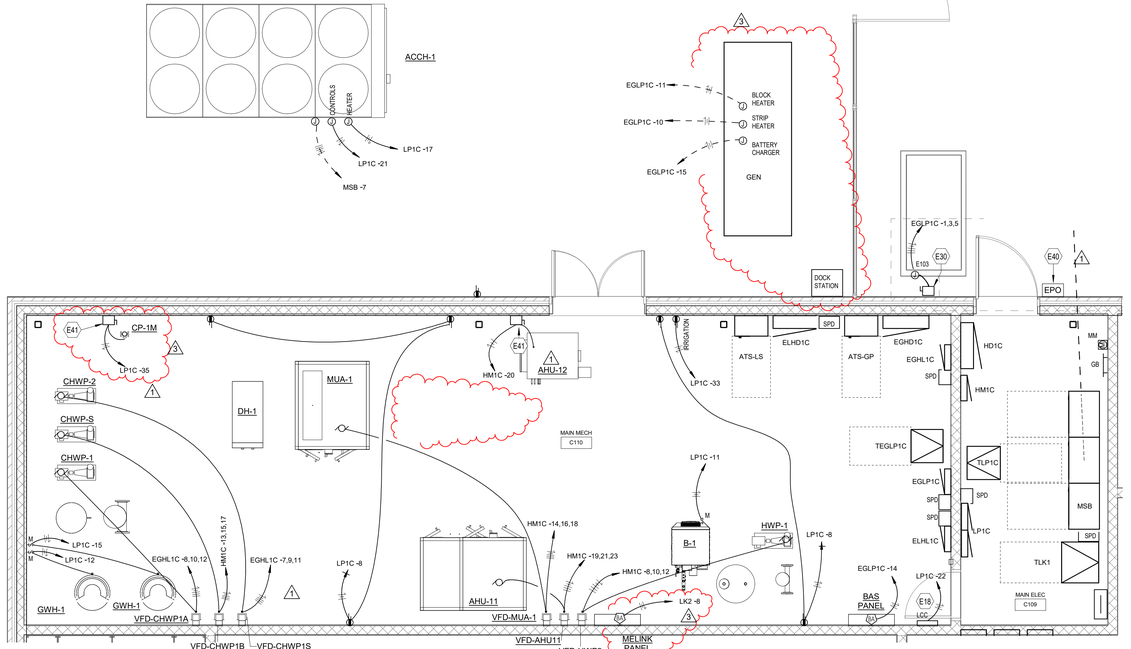


3 ENLARGED FLOOR PLAN - MECH A213
1/4" = 1'-0"



2 ENLARGED FLOOR PLAN - ELEC A121
1/4" = 1'-0"





1 ENLARGED FLOOR PLAN - MAIN ELEC/MECH C109/C110
1/4" = 1'-0"

Stantec

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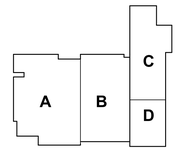
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Notes



N

Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal

STATE OF TEXAS
JAMIE JOHN HOIT
103747
LICENSED PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN ISD
Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
ELECTRICAL ENLARGED PLANS

Project No.	Scale
214001269	1/4" = 1'-0"
Revision	Drawing No.
3	E401

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4/11/2025 10:18:44

ORIGINAL SHEET - ARCH E1

PANELBOARD AND WIRING SCHEDULE

PANEL: HM2A — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 15kA — **PANEL INTERRUPTING RATING:** 22kA — **LOCATION:** MECH A213 — **SUPPLY FROM:** HD1A

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	8.7	4.7		2						
AHU-2	4	8	1-1/4	70	3	3			8.7	4.7	4	3	35		10	8	OAU-1 OA
						5				8.7	4.7	6					
						7	0.1	2.1				8					
OAU-1 ERW				15	3	9			0.1	2.1	10	3	20				OAU-1 EA
						11				0.1	2.1	12					
						13	3.6	4.6				14	1	20			A203 4TH FVAV-8
A209 CORR FVAV-14	10	10		25	3	15			3.6	4.6		16	1	20			A201 5TH FVAV-8
						17					3.6	4.6	16	1	20			A202 FVAV-8
A216 5TH FVAV-10	10	10		30	1	19	6.7	4.6				20	1	20			A219 INNOV CR FVAV-8
A218 FVAV-10	10	10		30	1	21			6.7	4.6		22	1	20			A204 4TH FVAV-8
A212 5TH FVAV-10	10	10		30	1	23					6.7	4.6	24	1	20			A223 2ND FVAV-8
A222 2ND FVAV-8				20	1	25	4.6	3.6				26	1	35		10	8	AHU-5
A221 2ND FVAV-8				20	1	27			4.6	4.6		28	1	20				A220 2ND FVAV-8
A210 5TH FVAV-10	10	10		30	1	29					6.7	2.8	30	1	15			A208 5TH GRADE FVAV-6
A209 FVAV-6				15	1	31	2.8	0.0				32	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	33			0.0	0.0		34	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	35					0.0	0.0	36	1	20	--	--	SPARE
SPARE	--	--	--	20	1	37	0.0	0.0				38	1	20	--	--	--	SPARE
SPACE	--	--	--	--	1	39			--	--		40	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	41					--	--	42	1	--	--	--	SPACE
							TOTAL LOAD (kVA):		46.2 kVA	44.4 kVA		44.7 kVA				
							TOTAL CURRENT (A):		167 A	160 A		162 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Motor	70367 VA	100.00%	70367 VA	TOTAL CONNECTED LOAD: 135367 VA
HEAT	65000 VA	100.00%	65000 VA	TOTAL ESTIMATED DEMAND: 135367 VA
				TOTAL CONNECTED CURRENT: 163 A
				TOTAL ESTIMATED DEMAND CURRENT: 163 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: LP2A — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 3.5kA — **PANEL INTERRUPTING RATING:** 10kA — **LOCATION:** MECH A213 — **SUPPLY FROM:** TLP2A

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
A201 5TH DUPLEXES				20	1	1	0.9	0.7		2	1	20				A201 5TH TS
A202 5TH DUPLEXES				20	1	3			0.9	0.7	4	1	20				A202 5TH TS
A203 4TH DUPLEXES				20	1	5					0.9	0.7	6	1	20			A203 4TH TS
A204 4TH DUPLEXES				20	1	7	0.9	0.7				8	1	20				A204 4TH TS
A223 2ND DUPLEXES				20	1	9			0.9	0.7		10	1	20				A223 2ND TS
A222 2ND DUPLEXES				20	1	11					0.9	0.7	12	1	20			A222 2ND TS
A221 2ND DUPLEXES				20	1	13	0.9	0.7				14	1	20				A221 2ND DUPLEXES
A220 2ND DUPLEXES				20	1	15			0.9	0.7		16	1	20				A220 2ND TS
A218 5TH DUPLEXES				20	1	17					0.9	0.7	18	1	20			A218 5TH TS
A212 5TH DUPLEXES				20	1	19	0.9	0.7				20	1	20				A212 5TH TS
A216 5TH DUPLEXES				20	1	21			0.9	0.7		22	1	20				A216 5TH TS
A210 5TH DUPLEXES				20	1	23					0.9	0.7	24	1	20			A210 5TH TS
AHU-2 UV LTG				20	1	25	1.0	0.4				26	1	20				A206 WRK RM COUNTER
OAU-1 UV LTG				20	1	27			1.0	0.4		28	1	20				A209A SM GROUP USBS
AHU-5 UV LTG				20	1	29					1.0	0.4	30	1	20			A206 WRK RM FRIDGE
A215/17A/B/19A CUST/RR/STOR...				20	1	31	0.7	0.2				32	1	20				B136 CORR DRINKING FOUNTAIN
A213 MECH DUPLEXES				20	1	33			0.5	0.4		34	1	20				2ND/5TH CR VAVS
A205/206 WRK RM/STAFF RR...				20	1	35					0.5	0.4	36	1	20			A224 SM GROUP USB
A219 INNOV CR DUPLEXES				20	1	37	1.3	0.4				38	1	20				5TH CR VAVS
A206 WRK RM MW				20	1	39			1.0	0.7		40	1	20				A219 INNOV CR TS
A206 WRK RM MW				20	1	41					1.0	0.7	42	1	20			RR/STOR DUPLEXES
A209A SM GROUP COPIER				20	1	43	0.2	0.0				44	1	20	--	--	--	SPARE
A209 CORR DRINKING FOUNTAIN				20	1	45			0.2	0.0		46	1	20	--	--	--	SPACE
A224 SM GROUP COPIER				20	1	47					0.2	0.0	48	1	20	--	--	SPACE
SPARE	--	--	--	20	1	49	0.0	--				50	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	51			0.0	--		52	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	53					0.0	--	54	1	--	--	--	SPACE
SPARE	--	--	--	20	1	55	0.0	0.0				56						
SPACE	--	--	--	20	1	57			0.0	0.0		58	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	59					--	0.0	60					
							TOTAL LOAD (kVA):		10.6 kVA	10.6 kVA		10.6 kVA				
							TOTAL CURRENT (A):		88 A	89 A		89 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	2000 VA	100.00%	2000 VA	TOTAL CONNECTED LOAD: 31850 VA
LTNG	3000 VA	125.00%	3750 VA	TOTAL ESTIMATED DEMAND: 24550 VA
Motor	750 VA	100.00%	750 VA	TOTAL CONNECTED CURRENT: 88 A
REC	26100 VA	69.16%	18050 VA	TOTAL ESTIMATED DEMAND CURRENT: 68 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: EGLP2A — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 1.9 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MECH A213 — **SUPPLY FROM:** EGLP1A

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
B135 CORR DUPLEXES				20	1	1	0.4	0.4		2	1	20				A214 IDF 2 DUPLEXES
A228 CORR DUPLEXES				20	1	3			0.4	0.4	4	1	20				A214 IDF RACK QUAD
A214 IDF L6-30R				30	2	5					1.0	0.2	6	1	20			BOA POWER
						7	1.0	0.4				8	1	20				A214 IDF RACK QUAD
A214 IDF L6-30R				30	2	9			1.0	0.4		10	1	20				A229 CORR DUPLEXES
						11					1.0	0.2	12	1	20			MECH BAS PANEL
A214 IDF DUPLEX/VF-2				20	1	13	0.3	0.4				14	1	20				A214 IDF 2 DUPLEXES
A209 CORR DUPLEXES				20	1	15			0.4	0.0		16	1	20	--	--	--	SPARE
MECH BAS PANEL				20	1	17					0.2	0.0	18	1	20	--	--	SPARE
SPARE	--	--	--	20	1	19	0.0	0.0				20	1	--	--	--	--	SPARE
SPARE	--	--	--	20	1	21			0.0	--		22	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	23					0.0	--	24	1	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0				26						
SPACE	--	--	--	--	1	27			--	0.0		28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29					--	0.0	30					
							TOTAL LOAD (kVA):		2.8 kVA	2.4 kVA		2.5 kVA				
							TOTAL CURRENT (A):		23 A	20 A		21 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	4000 VA	100.00%	4000 VA	TOTAL CONNECTED LOAD: 7735 VA
Motor	135 VA	100.00%	135 VA	TOTAL ESTIMATED DEMAND: 7735 VA
REC	3600 VA	100.00%	3600 VA	TOTAL CONNECTED CURRENT: 21 A
				TOTAL ESTIMATED DEMAND CURRENT: 21 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: EGHL1B — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 9.4 kA — **PANEL INTERRUPTING RATING:** 14 kA — **LOCATION:** MECH - ELEC B125 — **SUPPLY FROM:** EGHD1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	5.3	1.8		2	1	20				FLR 1 B CENTRAL LIGHTING
TEGLP1B	*	*	*	50	3	3			5.5	1.4	4	1	20				B2 CR/RR/STOR LTG
						5					6	1	20				B120-123 LIGHTING
B101-104 LIGHTING				20	1	7	1.9	0.1			8	1	20				ELEV LTG
3RD B207/B210/B214/B216 LTG				20	1	9			1.4	1.4	10	1	20				INOV/MECH/RR/STOR LTG
B109/111/113/115 LIGHTING				20	1	11					1.5	1.4	12	1	20			AREA B2 CR/RR/MECH LTG
						13	9.6	0.0				14	1	20	--	--	--	SPARE
ELEV MOTOR	4	8	1-1/4	80	3	15			9.6	0.0		16	1	20	--	--	--	SPARE
						17					9.6	0.0	18	1	20	--	--	SPARE
SPARE	--	--	--	20	1	19	0.0	--				20	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	21			0.0	--		22	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	23					0.0	--	24	1	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0				26						
SPACE	--	--	--	--	1	27			--	0.0		28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29					--	0.0	30					
							TOTAL LOAD (kVA):		18.7 kVA	19.3 kVA		19.5 kVA				
							TOTAL CURRENT (A):		68 A	70 A		71 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	8100 VA	100.00%	8100 VA	TOTAL CONNECTED LOAD: 57511 VA
LTNG	12641 VA	125.00%	15801 VA	TOTAL ESTIMATED DEMAND: 56047 VA
REC	5940 VA	100.00%	5940 VA	TOTAL CONNECTED CURRENT: 69 A
				TOTAL ESTIMATED DEMAND CURRENT: 67 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.
* REFER TO ONE-LINE FOR FEEDER INFORMATION.

PANELBOARD AND WIRING SCHEDULE

PANEL: EGLP1C — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: 100A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 3.2 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MAIN MECH C110 — **SUPPLY FROM:** TEGLP1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	4.8	1.7		2						
REFRIGERATION SYSTEM	6	10	1	50	3	3			4.8	1.7	4	2	20			FREEZER COIL
						5				4.8	1.9	6	1	20			DOOR HEATER/LIGHT
AREA C CORR DUPLEXES				20	1	7	0.4	1.9				8	1	20			DOOR HEATER/LIGHT
COOLER COIL				20	1	9			1.2	0.8		10	1	20			GEN ALT HEATER
GEN BLOCK HEATER	10	10		20	1	11					1.0	0.6	12	1	20			PRESSURE RELIEF PORT
AREA C CORR DUPLEXES				20	1	13	0.4	0.2				14	1	20				C110 MAIN MECH BAS PANEL
GEN BATTERY CHARGER				20	1	15			0.5	0.0		16	1	20	--	--	--	SPARE
PRESSURE RELIEF PORT				20	1	17					0.6	0.0	18	1	20	--	--	SPARE
SPARE	--	--	--	20	1	19	0.0	0.0				20	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	21			0.0	--		22	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	23					0.0	--	24	1	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0				26						
SPACE	--	--	--	--	1	27			--	0.0		28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29					--	0.0	30					
							TOTAL LOAD (kVA):		9.3 kVA	8.9 kVA		8.9 kVA				
							TOTAL CURRENT (A):		77 A	74 A		74 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	1100 VA	100.00%	1100 VA	TOTAL CONNECTED LOAD: 27050 VA
Motor	19500 VA	100.00%	19500 VA	TOTAL ESTIMATED DEMAND: 27050 VA
REC	900 VA	100.00%	900 VA	TOTAL CONNECTED CURRENT: 75 A
HEAT	5550 VA	100.00%	5550 VA	TOTAL ESTIMATED DEMAND CURRENT: 75 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: EGHL1C — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 30.4 kA — **PANEL INTERRUPTING RATING:** 35 kA — **LOCATION:** MAIN MECH C110 — **SUPPLY FROM:** EGHD1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	9.3	2.7		2	1	20				PLATFORM LTG
TEGLP1C	*	*	*	20	3	3			8.9	2.4	4	1	20			LTNG DINING C101
						5					6	1	20			KITCHEN/SERVERY LTG
						7	3.9	3.9			8					
CHWP-1B	10	10		30	3	9			3.9	3.9	10	3	30		10	10	CHWP-1A
						11					3.9	3.9	12				
LTNG GYM D106				20	1	13	2.1	--				14	1	--	--	--	--	SPACE
						15			--			16	1	--	--	--	--	SPACE
						17					--	18	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--				20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21			--	--		22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23					--	--	24	1	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0				26						
SPACE	--	--	--	--	1	27			--	0.0		28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29					--	0.0	30					
							TOTAL LOAD (kVA):		21.8 kVA	19.0 kVA		19.0 kVA				
							TOTAL CURRENT (A):		79 A	69 A		69 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	1100 VA	100.00%	1100 VA	TOTAL CONNECTED LOAD: 59823 VA
LTNG	9495 VA	125.00%	11869 VA	TOTAL ESTIMATED DEMAND: 62197 VA
Motor	42778 VA	100.00%	42778 VA	TOTAL CONNECTED CURRENT: 72 A
REC	900 VA	100.00%	900 VA	TOTAL ESTIMATED DEMAND CURRENT: 75 A
HEAT	5550 VA	100.00%	5550 VA	

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: ELHL1C — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 14.2 kA — **PANEL INTERRUPTING RATING:** 22 kA — **LOCATION:** EMER ELEC C109A — **SUPPLY FROM:** ELHD1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
GYM LTG LS				20	1	1	0.5	0.8		2	1	20				KITCHEN
AREA C EXT LTNG				20	1	3			0.4	1.5	4	1	20			AREA 2B CORRIDOR LIGHTING
SPARE	--	--	--	20	1	5					0.0	3.0	6	1	20			AREA 1B CORRIDOR LIGHTING
SPARE	--	--	--	20	1	7	0.0	0.0				8	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	9			0.0	0.0		10	1	20	--	--	--	SPARE
SPACE	--	--	--	--	1	11					--	0.0	12	1	20	--	--	SPARE
SPACE	--	--	--	--	1	13	--	--				14	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	15			--	--		16	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	17					--	--	18	1	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--				20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21			--	--		22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23					--	--	24	1	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0				26						
SPACE	--	--	--	--	1	27			--	0.0		28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29					--	0.0	30					
							TOTAL LOAD (kVA):		1.3 kVA	1.8 kVA		3.0 kVA				
							TOTAL CURRENT (A):		5 A	7 A		11 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	0 VA	0.00%	0 VA	TOTAL CONNECTED LOAD: 6158 VA
LTNG	6158 VA	125.00%	7697 VA	TOTAL ESTIMATED DEMAND: 7697 VA
				TOTAL CONNECTED CURRENT: 7 A
				TOTAL ESTIMATED DEMAND CURRENT: 9 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: HM1C — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 37.2 kA — **PANEL INTERRUPTING RATING:** 42 kA — **LOCATION:** MAIN ELEC C109 — **SUPPLY FROM:** HD1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	0.9	0.9		2						
KEF-1 ROOF				15	3	3			0.9	0.9	4	3	15			KEF-2 ROOF
						5					0.9	0.9	6			
SPACE	--	--	--	--	1	7	--	2.1				8				
SPACE	--	--	--	--	1	9			--	2.1		10	3	20		HWP-2
SPACE	--	--	--	--	1	11					--	2.1	12			
						13	3.9	3.0				14				
CHWP-1S	10	10		30	3	15			3.9	3.0		16	3	25	10	10	MUA-1
						17					3.9	3.0	18			
						19	2.1	1.6				20	1	15			AHU-12 (1)
AHU-11				20	3	21			2.1	0.0		22	1	20	--	--	--	SPARE
						23					2.1	0.0	24	1	20	--	--	SPARE
SPARE	--	--	--	20	1	25	0.0	0.0				26	1	20	--	--	--	SPACE
SPARE	--	--	--	20	1	27			0.0	0.0		28	1	20	--	--	--	SPACE
SPARE	--	--	--	20	1	29					0.0	--	30	1	--	--	--	SPACE
SPARE	--	--	--	20	1	31	0.0	--				32	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	33			0.0	--		34	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	35					--	--	36	1	--	--	--	SPACE
SPACE	--	--	--	--	1	37	--	--				38	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	39			--	--		40	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	41					--	--	42	1	--	--	--	SPACE
							TOTAL LOAD (kVA):		14.7 kVA	13.0 kVA		13.0 kVA				
							TOTAL CURRENT (A):		53 A	47 A		47 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	500 VA	100.00%	500 VA	TOTAL CONNECTED LOAD: 40709 VA
Motor	40209 VA	100.00%	40209 VA	TOTAL ESTIMATED DEMAND: 40709 VA
				TOTAL CONNECTED CURRENT: 49 A
				TOTAL ESTIMATED DEMAND CURRENT: 49 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: LP1C — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: 100A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 3.3 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MAIN ELEC C109 — **SUPPLY FROM:** TLP1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
C101 DINING DUPLEXES				20	1	1	0.5	0.5		2	1	20				AREA C EXT DUPLEXES
C114 OFFICE REC				20	1	3			0.7	0.7	4	1	20				C111/A/112 GENERAL REC
AREA C EXT DUPLEXES				20	1	5					0.5	0.4	6	1	20			PLATFORM STAGE RIGHT LTG
PLATFORM STAGE LEFT LTG				20	1	7	0.4	0.7				8	1	20				MAIN MECH C110
DINING DUPLEXES				20	1	9		

PANELBOARD AND WIRING SCHEDULE

PANEL: EGLP2B — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: 60A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 2.2 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MECH B212 — **SUPPLY FROM:** EGLP1B

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
B212 MECH BAS PANEL				20	1	1	0.2	0.2		2	1	20				B212 MECH BAS PANEL
B134 CORR DUPLEXES				20	1	3			0.4 0.2	4	1	20				B212 MECH AIRCUITY
A209 CORR DUPLEXES				20	1	5			0.4 0.0	6	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	7	0.0	0.0		8	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	9			0.0 --	10	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	11			0.0 --	12	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	13	--	--		14	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	15			-- --	16	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	17	--	--		18	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--		20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21			-- --	22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23			-- --	24	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	--		26	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	27			-- --	28	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	29			-- --	30	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	14.4 kVA	14.4 kVA	14.4 kVA							
						TOTAL CURRENT (A):	52 A	52 A	52 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	20368 VA	100.00%	20368 VA	TOTAL CONNECTED LOAD:	43231 VA
KITCH	0 VA	0.00%	0 VA	TOTAL ESTIMATED DEMAND:	43231 VA
HEAT	22863 VA	100.00%	22863 VA	TOTAL CONNECTED CURRENT:	52 A
				TOTAL ESTIMATED DEMAND CURRENT:	52 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: HK1 — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** FLUSH
AVAILABLE FAULT CURRENT: 24.8 kA — **PANEL INTERRUPTING RATING:** 35 kA — **LOCATION:** Space D107 — **SUPPLY FROM:** HD1C

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	7.6	6.8		2						
DISHMACHINE CONTROLS AND BOOSTER HEATER				40	3	3		7.6	6.8	4	3	35				DISHMACHINE, MOTORS, AND TANK HEAT
						5			7.6 6.8	6						
SPACE	--	--	--	--	1	7	--	--		8	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	9		--	--	10	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	11			-- --	12	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	13	--	--		14	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	15		--	--	16	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	17			-- --	18	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--		20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21		--	--	22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23			-- --	24	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	--		26	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	27		--	--	28	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	29			-- --	30	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	14.4 kVA	14.4 kVA	14.4 kVA							
						TOTAL CURRENT (A):	52 A	52 A	52 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	20368 VA	100.00%	20368 VA	TOTAL CONNECTED LOAD:	43231 VA
KITCH	0 VA	0.00%	0 VA	TOTAL ESTIMATED DEMAND:	43231 VA
HEAT	22863 VA	100.00%	22863 VA	TOTAL CONNECTED CURRENT:	52 A
				TOTAL ESTIMATED DEMAND CURRENT:	52 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: EGLP2D — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: 60A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 1.0 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MECH / ELEC MEZZ D201 — **SUPPLY FROM:** TEGLP2D

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
IDF D201A RACK QUAD				20	1	1	0.4	0.2		2	1	20				MECH MEZZ BAS PANEL
						3			1.0 0.2	4	1	20				MECH MEZZ BAS PANEL
IDF D201A RACK L6-30R	10	10		30	2	5			1.0 0.4	6	1	20				IDF D201A RACK QUAD
						7	1.0	0.4		8	1	20				IDF D201A REC
IDF D201A RACK L6-30R	10	10		30	2	9			1.0 0.1	10	1	20				IDF D201A VF-3
IDF D201A REC				20	1	11			0.4 0.0	12	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	13	0.0	0.0		14	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	15		0.0	0.0	16	1	20	--	--	--	SPARE
SPACE	--	--	--	20	1	17			0.0 --	18	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--		20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21		--	--	22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23			-- --	24	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	0.0		26						
SPACE	--	--	--	--	1	27			-- 0.0	28	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	29			-- 0.0	30						
						TOTAL LOAD (kVA):	1.9 kVA	2.3 kVA	1.7 kVA							
						TOTAL CURRENT (A):	16 A	20 A	14 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	4000 VA	100.00%	4000 VA	TOTAL CONNECTED LOAD:	5935 VA
Motor	135 VA	100.00%	135 VA	TOTAL ESTIMATED DEMAND:	5935 VA
REC	1800 VA	100.00%	1800 VA	TOTAL CONNECTED CURRENT:	16 A
				TOTAL ESTIMATED DEMAND CURRENT:	16 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: LK1 — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 400 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** FLUSH
AVAILABLE FAULT CURRENT: 8.8 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** Space D107 — **SUPPLY FROM:** TLK1

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
E189 REFRIGERATOR				20	1	1	1.0	0.4		2	1	20				CONVENIENCE
CLOTHES DRYER				20	2	3			3.1 0.4	4	1	20				CONVENIENCE
						5				6	1	20				CONVENIENCE
ICE MACHINE				20	1	7	1.4	0.6		8	1	20				VIDEO/DATA SYSTEM
CLOTHES WASHER				20	1	9			1.5 0.4	10	1	20				CONVENIENCE
E189 REFRIGERATOR				20	1	11			1.0 0.4	12	1	20				CONVENIENCE
INSUL. MOBILE PROOFER				20	1	13	1.8	0.7		14	1	20				SLICER
						15			1.3 0.3	16	1	20				HANGING HEATED LAMPS
DISPOSER				20	3	17			1.3 0.5	18	1	20				TABLE REC
						19	1.3	0.2		20	1	20				REVERSE OSMOSIS CONTROL...
						21			6.0 0.3	22	1	20				HANGING HEATED LAMPS
LOAD CENTER	4	10	1-1/4	60	3	23			6.0 0.6	24	1	20				AIR SCREEN
						25	6.0	1.3		26						
						27			6.0 1.3	28	3	20				DISPOSER
LOAD CENTER ⚠1	4	10	1-1/4	60	3	29				30						
						31	6.0	1.4		32	2	20				MICROWAVE OVEN
BLAST CHILLER				20	2	33			1.7 1.4	34						
						35			1.7 0.5	36	1	20				CONVENIENCE
20 QT. MIXER				20	1	37	1.0	0.6		38	1	20				VIDEO/DATA SYSTEM
REVERSE OSMOSIS CONTROL...				20	1	39			0.7 0.2	40	1	20				TABLE REC
KITCHEN POS				20	1	41			0.4 1.6	42	2	20				E187 HEATER CABINET
E11_ABOVE COUNTER DUPLEX				20	1	43	0.2	1.6		44						
SPARE	--	--	--	20	1	45			0.0 0.8	46	2	20				E187 HEATER CABINET
SPARE	--	--	--	20	1	47			0.0 0.8	48						
SPARE	--	--	--	20	1	49	0.0	0.0		50	1	20	--	--	--	SPARE
SPACE	--	--	--	--	1	51		--	0.0	52	1	20	--	--	--	SPARE
						53			4.1 0.0	54	1	20	--	--	--	SPACE
LK2	*	*	*	60	3	55	3.6	--		56	1	--	--	--	--	SPACE
						57		3.8	--	58	1	--	--	--	--	SPACE
SHUNT TRIP	--	--	--	--	1	59			-- --	60	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	29.1 kVA	29.0 kVA	29.6 kVA							
						TOTAL CURRENT (A):	242 A	242 A	247 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	2270 VA	100.00%	2270 VA	TOTAL CONNECTED LOAD:	87698 VA
Motor	2064 VA	100.00%	2064 VA	TOTAL ESTIMATED DEMAND:	64500 VA
REC	6548 VA	100.00%	6548 VA	TOTAL CONNECTED CURRENT:	243 A
KITCH	66280 VA	65.00%	43082 VA	TOTAL ESTIMATED DEMAND CURRENT:	179 A
HEAT	10536 VA	100.00%	10536 VA		

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.
* REFER TO ONE-LINE FOR FEEDER INFROMATION.

PANELBOARD AND WIRING SCHEDULE

PANEL: HM2B — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 20.5 kA — **PANEL INTERRUPTING RATING:** 22 kA — **LOCATION:** MECH B212 — **SUPPLY FROM:** HD1B

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
B218 3RD FVAV-10	10	10		30	1	1	6.7	4.6		2	1	20				B223 2ND FVAV-8
B219 3RD FVAV-8				20	1	3			4.6 4.6	4	1	20				B216 3RD FVAV-8
B220 FVAV-10	10	10		30	1	5			6.7 4.6	6	1	20				B214 3RD FVAV-8
B210 3RD FVAV-8				20	1	7	4.6	4.6		8	1	20				B204 4TH FVAV-8
B207 3RD FVAV-8				20	1	9			4.6 4.6	10	1	20				B203 4TH FVAV-8
B205 4TH FVAV-8				20	1	11			4.6 4.6	12	1	20				B202 4TH FVAV-8
B228 FVAV-8				20	1	13	4.6	4.6		14	1	20				039 BRIDGE FVAV-8
SPARE	--	--	--	20	1	15		0.0	4.6	16	1	20				B201 INNOV CR FVAV-8
⚠1 SPARE	--	--	--	20	1	17			0.0 4.6	18	1	20				B224 STOR FVAV-8
						19	0.1	4.7		20						
OAU-2 ERW			15	3	21			0.1	4.7	22	3	35		10	8	OAU-2 EA
						23			0.1 4.7	24						
						25	6.9	6.9		26						
OAU-2 OA	6	10	1	50	3	27		6.9	6.9	28	3	50	1	10	6	AHU-4
						29			6.9 6.9	30						
⚠1 SPARE	--	--	--	20	1	31	0.0	--		32	1	--	--	--	--	SPACE
B216 FVAV-8				20	1	33		4.6	--	34	1	--	--	--	--	SPACE
B208 SM GROUP FVAV-6				15	1	35			2.8 --	36	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	37	--	--		38	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	39		--	--	40	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	41			-- --	42	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	48.4 kVA	46.3 kVA	46.6 kVA							
						TOTAL CURRENT (A):	175 A	167 A	168 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor	76616 VA	100.00%	76616 VA	TOTAL CONNECTED LOAD:	141316 VA
HEAT	64700 VA	100.00%	64700 VA	TOTAL ESTIMATED DEMAND:	141316 VA
				TOTAL CONNECTED CURRENT:	170 A
				TOTAL ESTIMATED DEMAND CURRENT:	170 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: LP2D — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 125 A
MAINS TYPE: 100A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: — **PANEL INTERRUPTING RATING:** — **LOCATION:** MECH / ELEC MEZZ D201 — **SUPPLY FROM:** TLP2D

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
⚠2 SPARE	--	--	--	20	1	1	0.0	1.0		2	1	20				AHU-10 UV LTG
CF-1 DINING				20	1	3			0.5 1.0	4	1	20				OAU-3 UV LTG
PROJECTOR				20	1	5			0.2 0.2	6	1	20				VIDEO SCREEN
MECH MEZZ DUPLEXES				20	1	7	0.7	0.5		8	1	20				RR/CUST DUPLEXES
D106 BASKETBALL GOAL	10	10		20	1	9			1.0 0.5	10	1	20				C115 STAGE DUPLEXES
D106 BASKETBALL GOAL	10	10		20	1	11			1.0 0.3	12	1	20				MECH MEZZ VAVS
GYM CONVENIENCE	10	10		20	1	13	0.7	0.7		14	1	20				D103 MUSIC DUPLEXES
D104 ART TS				20	1	15		0.7	0.7	16	1	20				D103 MUSIC TS
D104 ART COUNTER DUPLEXES				20	1	17			0.7 0.5	18	1	20				D103A MUSIC STOR DUPLEXES
D104A/D108 ART STOR/STAFF RR				20	1	19	0.7	0.2		20	1	20				C115 STAGE AVI
GYM CONVENIENCE	10	10		20	1	21		0.7	0.2	22	1	20				C115 STAGE AVI
D106A GYM OFFICE				20	1	23			0.9 0.2	24	1	20				D107 GYM OFFICE AVR
D104 ART DUPLEXES				20	1	25	0.5	0.2		26	1	20				C115 STAGE AVI
GYM EXT DUPLEXES	10	10		20	1	27		0.4	0.2	28	1	20				C115 PLATFORM AVR
STAGE DUPLEXES				20	1	29			0.7 0.0	30	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	31	0.0	0.0		32	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	33		0.0	0.0	34	1	20	--	--	--	SPACE
SPARE	--	--	--	20	1	35			0.0 --	36	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	37	--	0.0		38						
SPACE	--	--	--	--	1	39		--	0.0 0.0	40	3	30	1	8	8	SPD
SPACE	--	--	--	--	1	41			-- 0.0	42						
						TOTAL LOAD (kVA):	5.3 kVA	5.9 kVA	4.7 kVA							
						TOTAL CURRENT (A):	45 A	50 A	39 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	0 VA	0.00%	0 VA	TOTAL CONNECTED LOAD:	15902 VA
LTNG	2000 VA	125.00%	2500 VA	TOTAL ESTIMATED DEMAND:	15822 VA
Motor	2742 VA	100.00%	2742 VA	TOTAL CONNECTED CURRENT:	44 A
REC	11160 VA	94.80%	10580 VA	TOTAL ESTIMATED DEMAND CURRENT:	44 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: LK2 — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 100 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** FLUSH
AVAILABLE FAULT CURRENT: 7.9 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** Space D107 — **SUPPLY FROM:** LK1

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
HOT WATER DISPENSER				20	2	1	2.5	0.7		2	1	20				CONVECTION OVEN
						3			2.5 1.0	4	1	20				COMBI OVEN
CONVEYOR OEB				20	1	5			1.9 1.9	6	1	20				CONVEYOR OEB
CONVECTION OVEN				20	1	7	0.7	0.2		8	1	20				C110 MAIN MECH MELINK
TILT BRAISING PAN				20	1	9			0.2 0.0	10	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	11			0.0 0.0	12	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	13	0.0	--		14	1	--	--	--	--	SPACE
SPARE	--	--	--	20	1	15			0.0 --	16	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	17		--	--	18	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	19	--	--		20	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	21		--	--	22	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	23			-- --	24	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	25	--	--		26	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	27		--	--	28	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	29			-- --	30	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	4.1 kVA	3.6 kVA	3.8 kVA							
						TOTAL CURRENT (A):	35 A	30 A	32 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
REC	180 VA	100.00%	180 VA	TOTAL CONNECTED LOAD:	11592 VA
KITCH	11412 VA	65.00%	7418 VA	TOTAL ESTIMATED DEMAND:	7598 VA
				TOTAL CONNECTED CURRENT:	32 A
				TOTAL ESTIMATED DEMAND CURRENT:	21 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: HM2D — **VOLTAGE:** 480Y/277V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: MLO — **SPD:** No — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: — **PANEL INTERRUPTING RATING:** — **LOCATION:** MECH / ELEC MEZZ D201 — **SUPPLY FROM:** MSB

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
						1	3.0	0.1		2						
AHU-10	10	10		25	3	3		3.0	0.1	4	3	15				OAU-3 ERW
						5			3.0 0.1	6						
						7	6.9	2.1		8						
OAU-3 OA	6	10	1	50	3	9		6.9	2.1	10	3	20				OAU-3 EA
						11			6.9 2.1	12						
AHU-7				15	1	13	1.1	5.3		14						
AHU-6	8	10	1	35	1	15		5.1	5.9	16	3	70	*	*	*	TLP2D
AHU-9				15	1	17			1.8 4.7	18						
AHU-8				15	1	19	1.1	0.0		20	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	21		0.0	0.0	22	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	23			0.0 0.0	24	1	20	--	--	--	SPARE
SPACE	--	--	--	--	1	25	0.0	--		26	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	27		--	--	28	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	29			-- --	30	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	31	--	--		32	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	33		--	--	34	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	35			-- --	36	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	37	--	--		38	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	39		--	--	40	1	--	--	--	--	SPACE
SPACE	--	--	--	--	1	41			-- --	42	1	--	--	--	--	SPACE
						TOTAL LOAD (kVA):	19.7 kVA	23.2 kVA	18.6 kVA							
						TOTAL CURRENT (A):	72 A	84 A	67 A							

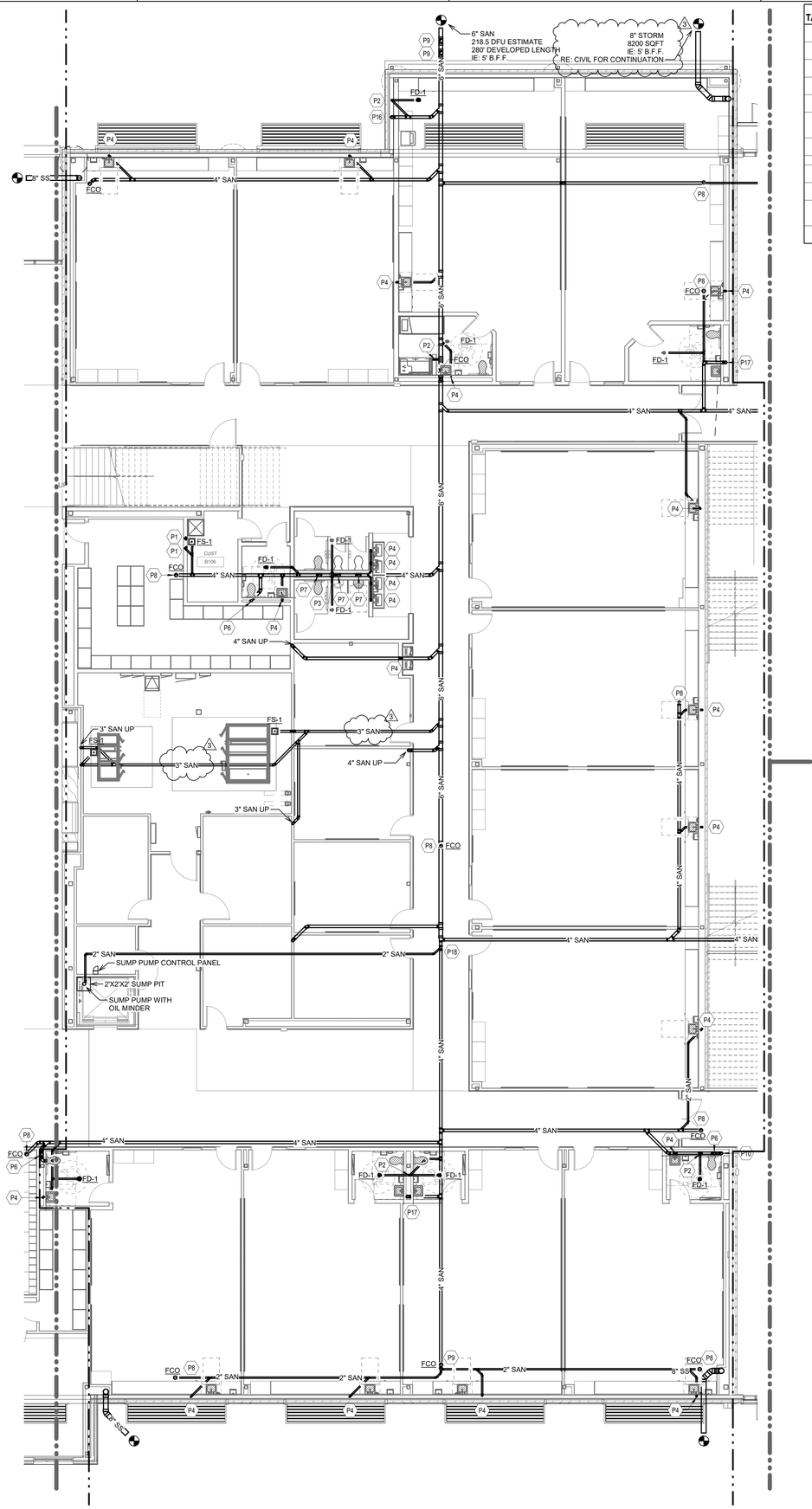
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	1000 VA	100.00%	1000 VA	TOTAL CONNECTED LOAD:	61507 VA
LTNG	2000 VA	125.00%	2500 VA	TOTAL ESTIMATED DEMAND:	61427 VA
Motor	47347 VA	100.00%	47347 VA	TOTAL CONNECTED CURRENT:	74 A
REC	11160 VA	94.80%	10580 VA	TOTAL ESTIMATED DEMAND CURRENT:	74 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.
* REFER TO ONE-LINE FOR FEEDER INFORMATION.

PANELBOARD AND WIRING SCHEDULE

PANEL: LP2B — **VOLTAGE:** 208Y/120V,3P,4W — **AMPERES:** 225 A
MAINS TYPE: 150A MCB — **SPD:** Yes — **MOUNTING:** SURFACE
AVAILABLE FAULT CURRENT: 3.7 kA — **PANEL INTERRUPTING RATING:** 10 kA — **LOCATION:** MECH B212 — **SUPPLY FROM:** TLP2B

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
B202 4TH DUPLEXES				20	1	1	0.9	0.7		2	1	20				B203 4TH TS
B203 4TH DUPLEXES				20	1	3		0.9	0.7	4	1	20				B205 4TH TS
B204 4TH DUPLEXES				20



1 LEVEL 1 - UNDERSLAB PLUMBING PLAN - AREA B
1/8" = 1'-0"

TAGGED NOTES

P1	ROUTE 3" SANITARY UP THROUGH GRADE TO SERVE FLOOR DRAIN/SINK. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P2	ROUTE 2" SANITARY UP THROUGH GRADE TO SERVE FLOOR DRAIN/SINK. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P3	ROUTE 3" SANITARY UP THROUGH GRADE TO SERVE BACK TO BACK FLOOR DRAINS. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P4	ROUTE 2" SANITARY UP THROUGH GRADE/FLOOR TO SERVE PLUMBING FIXTURE. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P6	ROUTE 4" SANITARY UP THROUGH GRADE TO SERVE WATER CLOSET. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P7	ROUTE 4" SANITARY UP THROUGH GRADE TO SERVE BACK TO BACK WATER CLOSETS/ URINALS. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P8	ROUTE 4" SANITARY UP THROUGH SLAB TO FLOOR CLEANOUT MOUNTED AT GRADE.
P9	ROUTE 4" SANITARY UP THROUGH GRADE TO EXTERIOR CLEANOUT.
P10	ROUTE 4" SANITARY UP THROUGH SLAB TO WALL CLEANOUT. REFER TO ARCH ELEVATIONS FOR MOUNTING HEIGHT.
P16	ROUTE 3" SANITARY UP THROUGH GRADE TO WASHER BOX. REFER TO ARCH FOR ELEVATIONS.
P17	ROUTE 4" SANITARY UP THROUGH GRADE AND ROUTE AS REQUIRED IN CHASE TO SERVE RESTROOM FIXTURES. ROUTE VENTS SERVING FIXTURES UP IN WALL/CHASE AND CONNECT TO VENT MAIN IN CEILING SPACE.
P18	SUMP PUMP DISCHARGE LINE TO BE CONNECTED VERTICALLY THROUGH WYE FITTING AT TOP OF THE HORIZONTAL SANITARY MAIN PIPE.

SHEET REVISED 1

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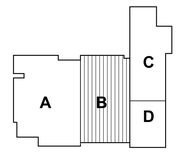
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Notes



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Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.09.18

Permit/Seal

STATE OF TEXAS
RICHARD J. MOREZ
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CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - UNDERSLAB PLUMBING PLAN - AREA B

Project No.
214001269

Scale
1/8" = 1'-0"

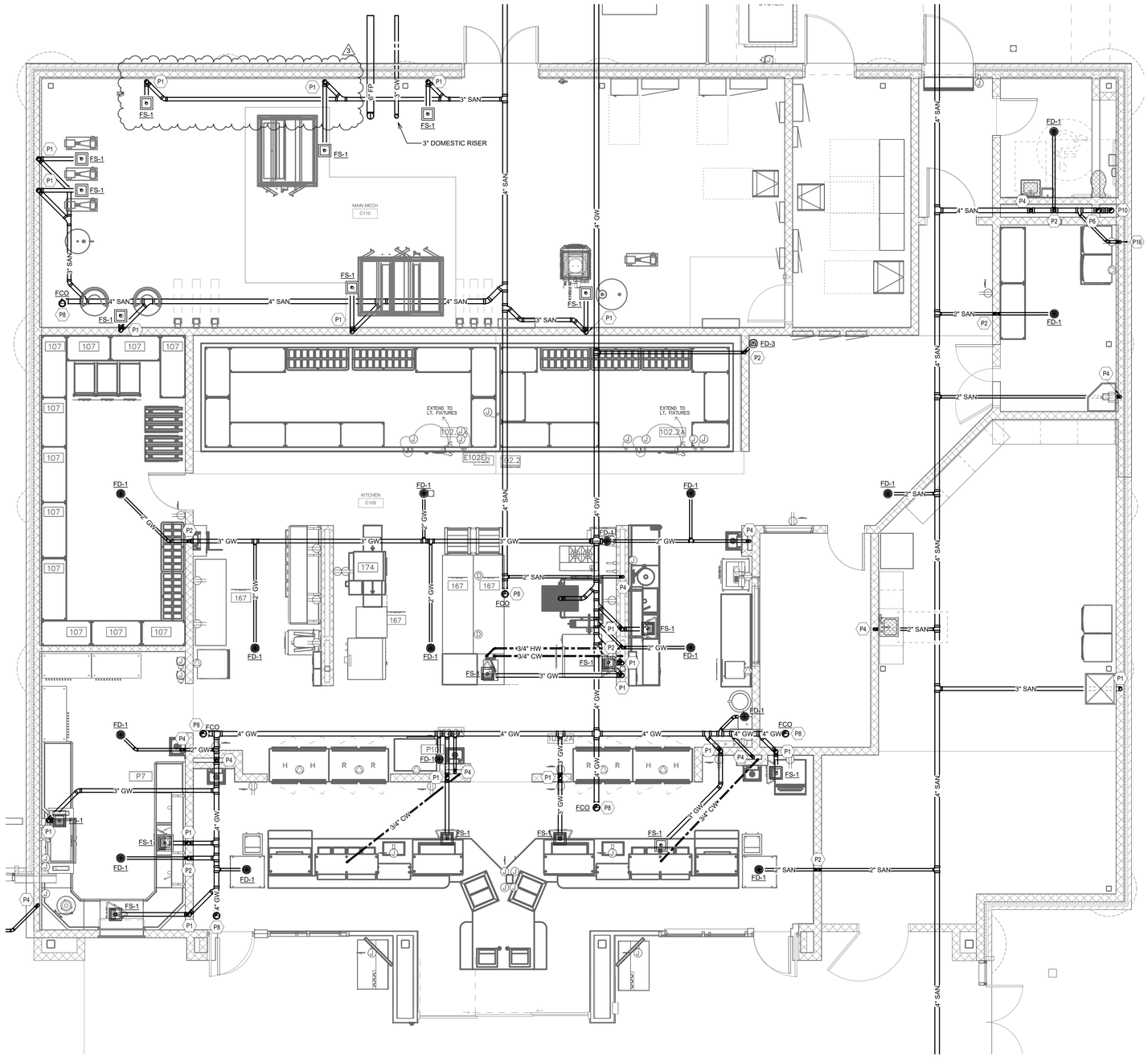
Revision
3

Drawing No.
P102

«Pick location in Project Information»
9/11/2025 4:57:54 PM

ORIGINAL SHEET - ARCH E1

TAGGED NOTES	
P1	ROUTE 3" SANITARY UP THROUGH GRADE TO SERVE FLOOR DRAIN/SINK. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P2	ROUTE 2" SANITARY UP THROUGH GRADE TO SERVE FLOOR DRAIN/SINK. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P4	ROUTE 2" SANITARY UP THROUGH GRADE/FLOOR TO SERVE PLUMBING FIXTURE. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P6	ROUTE 4" SANITARY UP THROUGH GRADE TO SERVE WATER CLOSET. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P8	ROUTE 4" SANITARY UP THROUGH SLAB TO FLOOR CLEANOUT MOUNTED AT GRADE.
P10	ROUTE 4" SANITARY UP THROUGH SLAB TO WALL CLEANOUT. REFER TO ARCH ELEVATIONS FOR MOUNTING HEIGHT.
P16	ROUTE 3" SANITARY UP THROUGH GRADE TO WASHER BOX. REFER TO ARCH FOR ELEVATIONS.



1 ENLARGED UNDERSLAB PLUMBING PLAN - KITCHEN
1/4" = 1'-0"

SHEET REVISED 1

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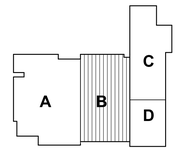
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Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal

STATE OF TEXAS
RICHARD LOPEZ
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CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

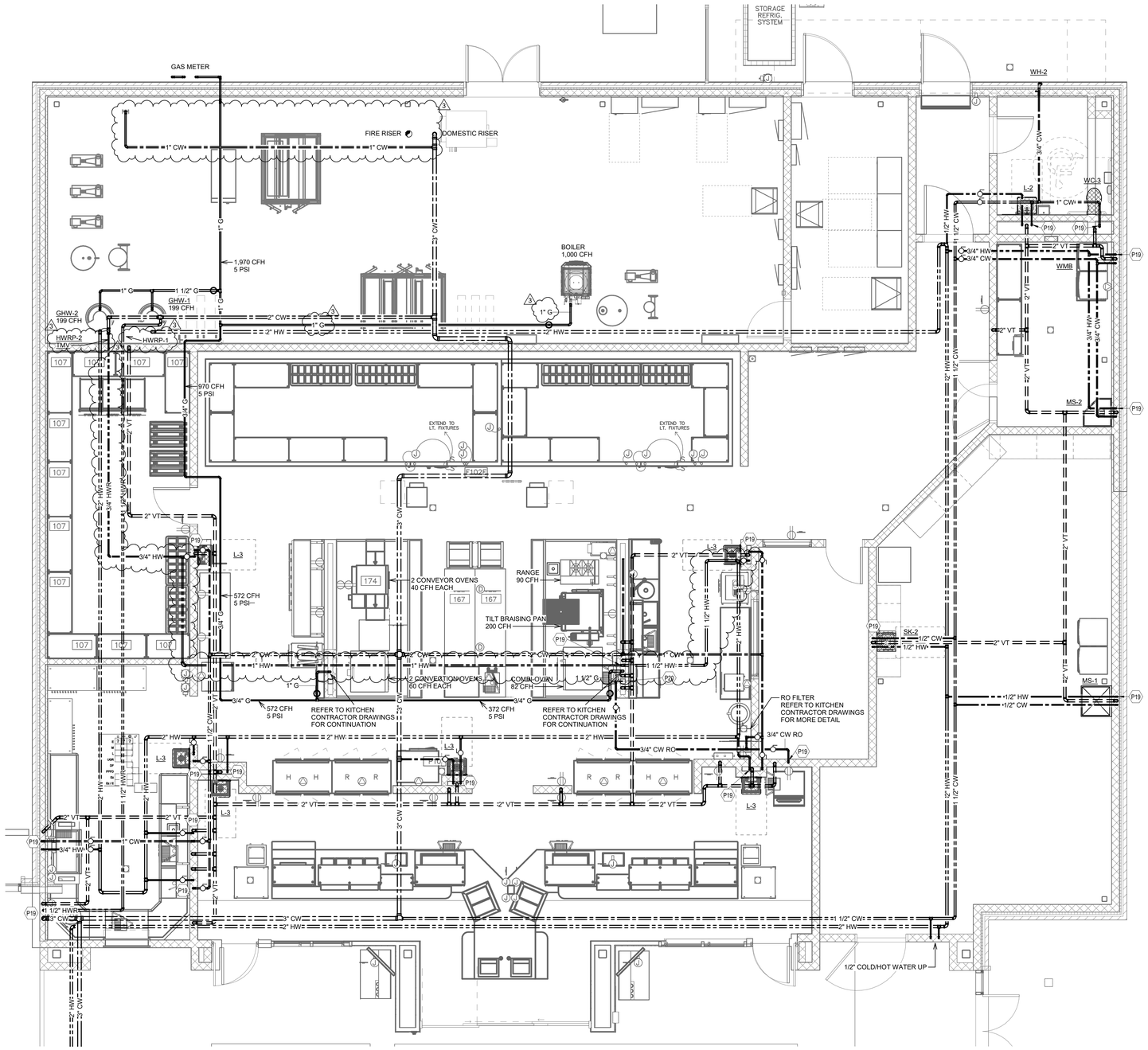
Title
PLUMBING ENLARGED PLAN - UNDERSLAB KITCHEN

Project No.	Scale
214001269	1/4" = 1'-0"
Revision	Drawing No.
3	P301

<Pick location in Project Information>
1/17/2025 4:37:57 PM

ORIGINAL SHEET - ARCH E1

TAGGED NOTES	##
P19	ROUTE COLD AND HOT WATER LINE IN WALL/CHASE AS REQUIRED TO SERVE ALL LOCAL FIXTURES.
P20	ROUTE COLD WATER LINE IN WALL/CHASE AS REQUIRED TO SERVE ALL LOCAL FIXTURES.



1 ENLARGED PLUMBING PLAN - KITCHEN
1/4" = 1'-0"

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3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal

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2025.09.01

Client/Project Logo

ALVIN Independent School District

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ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

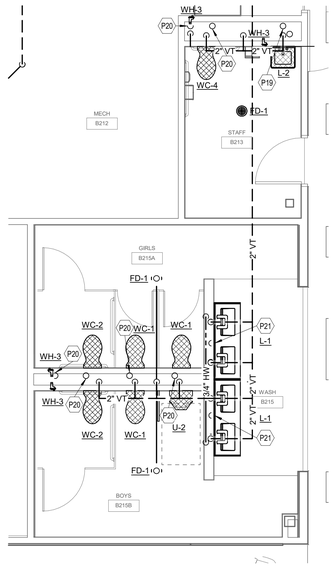
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PLUMBING ENLARGED PLAN - KITCHEN

Project No.	Scale
214001269	1/4" = 1'-0"
Revision	Drawing No.
3	P302

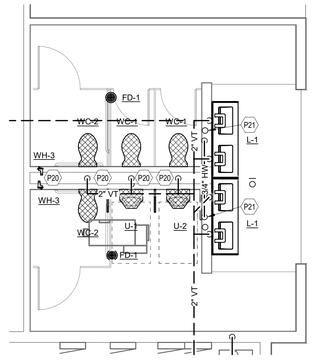
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ORIGINAL SHEET - ARCH E1

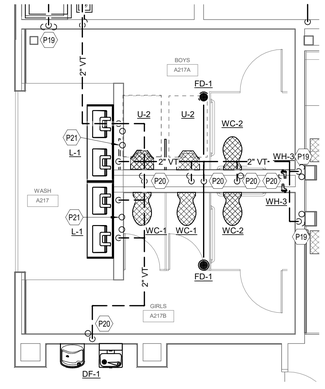
TAGGED NOTES	##
P2	ROUTE 2" SANITARY UP THROUGH GRADE TO SERVE FLOOR DRAIN/SINK. ROUTE 2" VENT UP WITHIN WALL/CHASE TO VENT MAIN IN CEILING.
P19	ROUTE COLD AND HOT WATER LINE IN WALL/CHASE AS REQUIRED TO SERVE ALL LOCAL FIXTURES.
P20	ROUTE COLD WATER LINE IN WALL/CHASE AS REQUIRED TO SERVE ALL LOCAL FIXTURES.
P21	ROUTE COLD AND HOT WATER LINE IN WALL/CHASE AS REQUIRED TO SERVE ALL LOCAL FIXTURES. HOT WATER LOOP SHALL BE ROUTED TO WITHIN 6" OF THE HOT WATER CONNECTION.



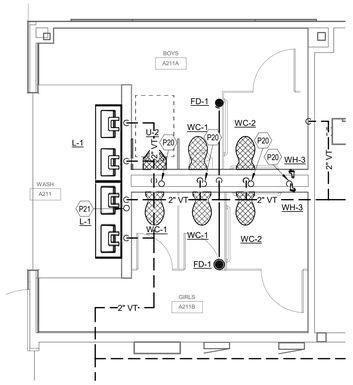
8 ENLARGED PLUMBING PLAN - LEVEL 2, AREA B, GROUP RR 2
1/4" = 1'-0"



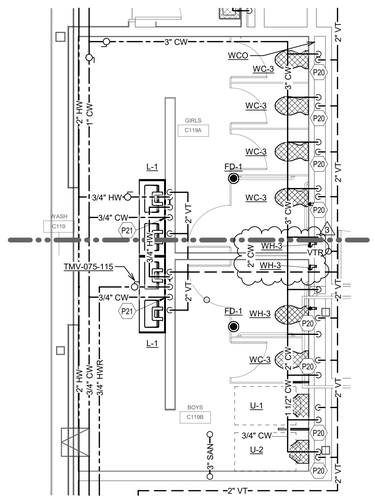
7 ENLARGED PLUMBING PLAN - LEVEL 2, AREA B, GROUP RR 1
1/4" = 1'-0"



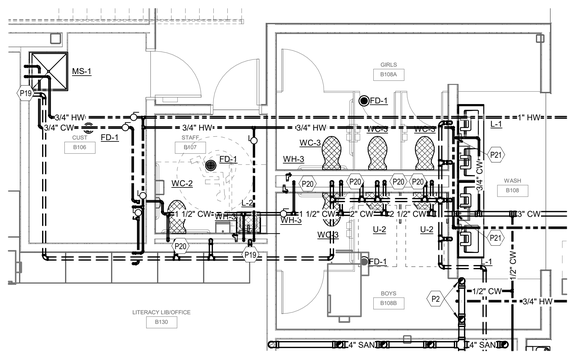
6 ENLARGED PLUMBING PLAN - LEVEL 2, AREA A, GROUP RR 2
1/4" = 1'-0"



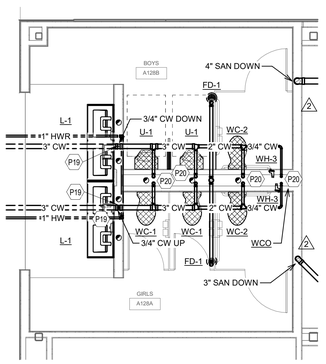
5 ENLARGED PLUMBING PLAN - LEVEL 2, AREA A, GROUP RR 1
1/4" = 1'-0"



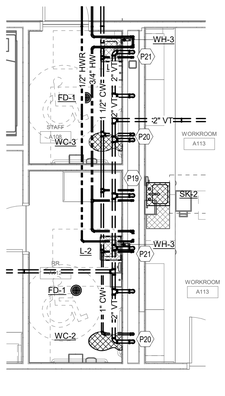
4 ENLARGED PLUMBING PLAN - LEVEL 1, AREA C/D GROUP RR
1/4" = 1'-0"



3 ENLARGED PLUMBING PLAN - LEVEL 1, AREA B, GROUP RR 1
1/4" = 1'-0"



2 ENLARGED PLUMBING PLAN - LEVEL 1, AREA A, GROUP RR 1
1/4" = 1'-0"



1 ENLARGED PLUMBING PLAN - ADMIN RR'S
1/4" = 1'-0"

SHEET REVISED 1

Stantec

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Houston, TX 77002-4916
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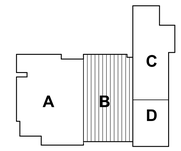
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Notes



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Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
2 ADDENDUM 1			2025.09.08
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal

STATE OF TEXAS
RICHARD LOPEZ
125635
LICENSED
PROFESSIONAL ENGINEER
CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
PLUMBING ENLARGED PLANS

Project No.
214001269

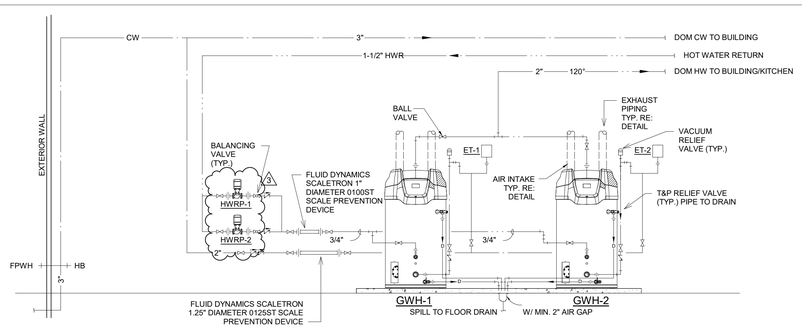
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Revision
3

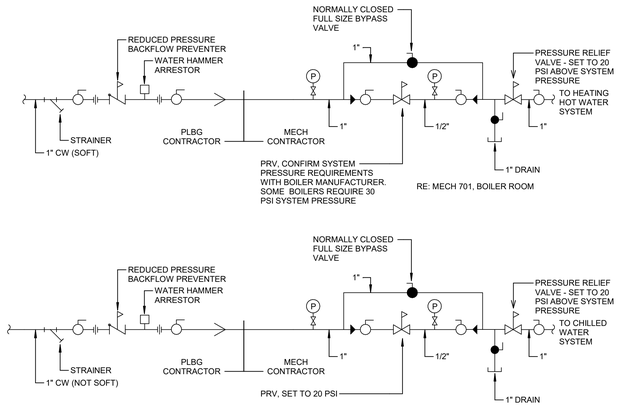
Drawing No.
P303

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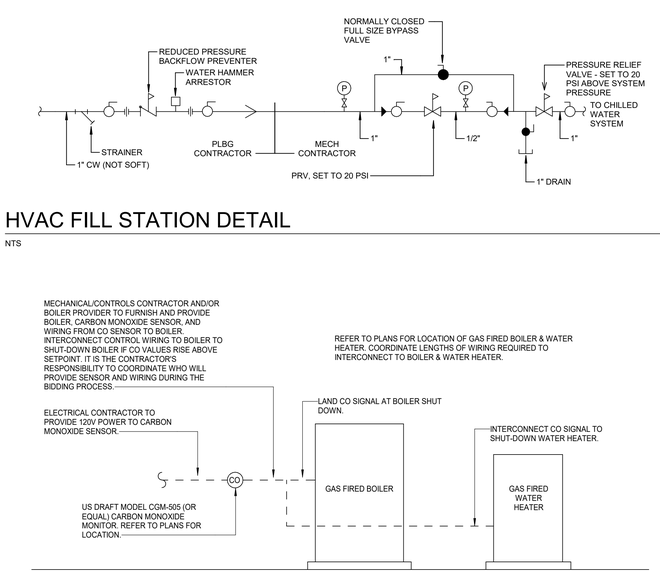
ORIGINAL SHEET - ARCH E1



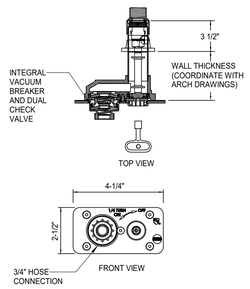
01 GAS WATER HEATER DETAIL
NTS



HVAC FILL STATION DETAIL
NTS

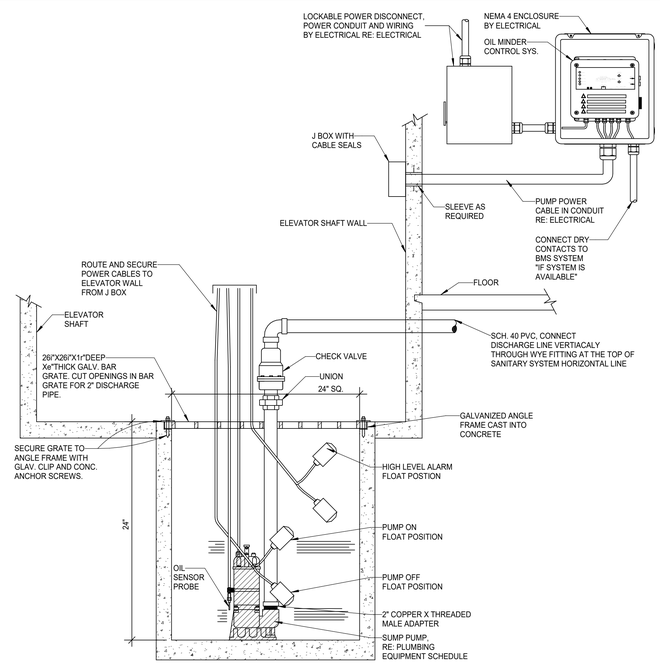


BOILER & WATER HEATER CARBON MONOXIDE SENSOR SHUT-OFF DETAIL
NTS



MIFAB-MHY-15
LOOSE KEY LOCK (LOW LEAD FREEZE PROOF)

03 EXTERIOR WALL HYDRAINT (WH-1)
NTS

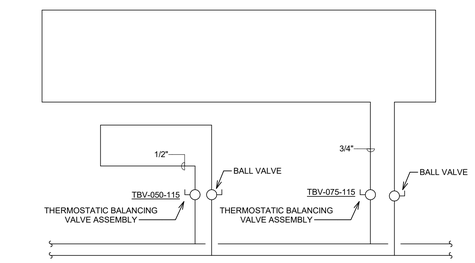


02 ELEVATOR SUMP PUMP DETAIL W/ OIL MINDER SYSTEM
NTS

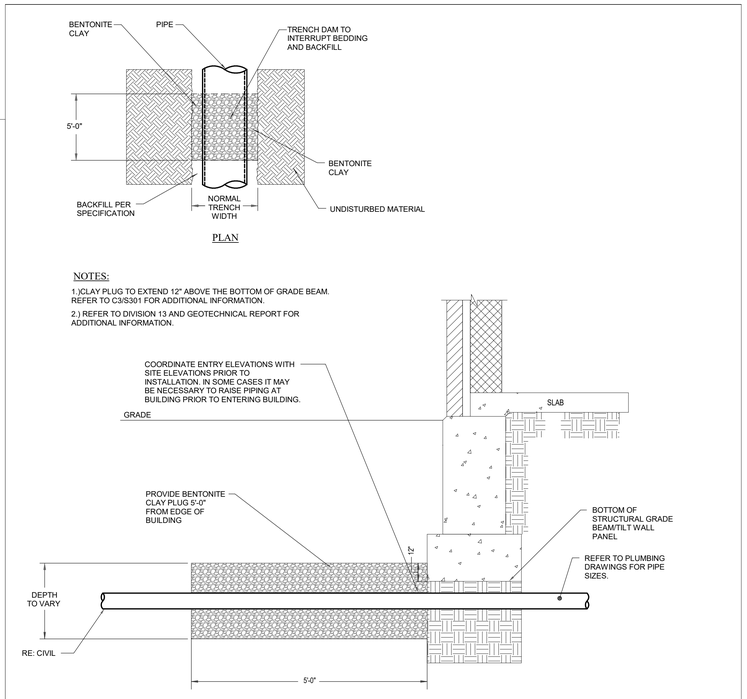


NOTE:
ROUTE VENT THROUGH AN EXTERIOR WALL, OR THROUGH THE ROOF. IF ROUTED THROUGH ROOF, GOOSENECK AND SCREEN THE OPENING. PROVIDE THE REQUIRED FLASHING FOR EITHER INSTALLATION AS REQUIRED PER BUILDING OWNER.

06 GAS PRESSURE REGULATOR
NTS



05 THERMOSTATIC BALANCING VALVE DETAIL (TBV)
NTS



04 SANITARY AND STORM PIPING UNDER GRADE BEAM DETAIL
NTS

SHEET REVISED 1

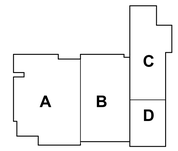
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Notes



N

Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal



CMTA F-8627
2025.09.01

Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
PLUMBING DETAILS

Project No.
214001269

Scale
1/8" = 1'-0"

Revision
3

Drawing No.
P403

*Pick location in Project Information
8/11/2025 4:57:43 PM

ORIGINAL SHEET - ARCH E1

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	LOCATION	SIZE OF CONNECTION					PLUMBING FIXTURE SINK / CHINA	FLUSH VALVE / FAUCET TYPE	PLUMBING FIXTURE FLUSH VALVE / FAUCET / DEVICE	MIXING VALVE	ADDITIONAL REQUIREMENTS
			TRAP	SAN	VT	CW	HW					
DF-1	BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER	RE: PLANS	1-1/2"	2"	2"	1/2"	1/2"			ELKAY NO. LMABFTLDDWSSK BI-LEVEL, NON-REFRIGERATED STAINLESS STEEL CONSTRUCTION DRINKING FOUNTAIN		PROVIDE WITH WITH FLEXIBLE GUARD BUBBLER, WATER FILTER AND LEAD FILTER OPTIONS. POWER: 115V/1P/60HZ FOR ACTIVATION AND ELECTRONIC BOTTLE FILLER SENSOR ONLY. DRINKING FOUNTAIN TO BE PROVIDED WITH EZH20 BOTTLE FILLING STATION. MCGUIRE NO. HST02 STOP VALVE FOR COLD WATER SUPPLY. "
L-1	GROUP RR WASH-STATIONS	GROUP RR	1-1/4"	2"	2"	1/2"	1/2"	BRADLEY LD-3010 2-STATION SOLID SURGACE LAVATORY DECK. PROVIDE WITH (2) SL-TR1 OVAL BOWLS WITH ADA OFFSET TAILPIECE PROVIDED WITH INTEGRAL STRAINER. ARCHITECT TO CHOOSE FINISH.	MANUAL	ZURN NO. Z86100-XL MANUAL METERED PUSH-BUTTON FAUCET (QTY 2) WITH 0.5 GPM, VANDAL-RESISTANT SPRAY OUTLET	QTY (2) TOTO NO. TLT10 THERMOSTATIC MIXING VALVE	PROVIDE WITH ZURN R7308-WLCHR-STRNR GRID WITH STRAINER, P-TRAP AND WALL-MOUNTED CARRIER
L-2	WALL-MOUNTED LAVATORY		1-1/4"	2"	2"	1/2"	1/2"					"McGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANGLE STOPS WITH SUPPLIES. MCGUIRE NO. 155A OPEN GRID STRAINER. MCGUIRE NO. 8872 1-1/4"" P-TRAP. McGUIRE NO. HD155WC OFFSET GRID STRAINER. TRUEBRO NO. 102 & 105 TRAP AND SUPPLIES WRAP KIT. REFER TO ARCHITECTUAL PLANS FOR MOUNTING HEIGHT. "
L-2	WALL-MOUNTED LAVATORY	RE: PLANS	1-1/4"	2"	2"	1/2"	1/2"	AMERICAN STANDARD NO. 0356.115 LUCERNE WALL-HUNG SINK WITH FAUCET CENTER HOLE, FRONT OVERFLOW, WHITE VITREOUS CHINA.	MANUAL	ZURN NO. Z86100-XL MANUAL METERED PUSH-BUTTON FAUCET WITH 0.5 GPM, VANDAL-RESISTANT SPRAY OUTLET	TOTO NO. TLT10 THERMOSTATIC MIXING VALVE	"McGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANGLE STOPS WITH SUPPLIES. MCGUIRE NO. 155A OPEN GRID STRAINER. MCGUIRE NO. 8872 1-1/4"" P-TRAP. McGUIRE NO. HD155WC OFFSET GRID STRAINER. TRUEBRO NO. 102 & 105 TRAP AND SUPPLIES WRAP KIT. REFER TO ARCHITECTUAL PLANS FOR MOUNTING HEIGHT. "
L-3	WALL-MOUNTED LAVATORY		1-1/4"	2"	2"	1/2"	1/2"					"McGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANGLE STOPS WITH SUPPLIES. MCGUIRE NO. 155A OPEN GRID STRAINER. MCGUIRE NO. 8872 1-1/4"" P-TRAP. McGUIRE NO. HD155WC OFFSET GRID STRAINER. TRUEBRO NO. 102 & 105 TRAP AND SUPPLIES WRAP KIT. REFER TO ARCHITECTUAL
L-3	WALL-MOUNTED LAVATORY	KITCHEN & KITCHEN RR	1-1/4"	2"	2"	1/2"	1/2"	AMERICAN STANDARD NO. 0355.041 LUCERNE WALL-HUNG SINK WITH 4" CENTERS FAUCET HOLES, FRONT OVERFLOW, WHITE VITREOUS CHINA.	MANUAL	ZURN NO. Z812B4-XL-17 GOOSE NECK FAUCET, 1.0 GPM AERATOR, 5-3/8" SPOUT, 4" VR COLOR CODED WRIST BLADE HANDLES.	TOTO NO. TLT10 THERMOSTATIC MIXING VALVE	"McGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANGLE STOPS WITH SUPPLIES. MCGUIRE NO. 155A OPEN GRID STRAINER. MCGUIRE NO. 8872 1-1/4"" P-TRAP. McGUIRE NO. HD155WC OFFSET GRID STRAINER. TRUEBRO NO. 102 & 105 TRAP AND SUPPLIES WRAP KIT. REFER TO ARCHITECTUAL
MS-1	MOP SINK		3"	3"	2"	3/4"	3/4"					
MS-1	MOP SINK	RE: PLANS	3"	3"	2"	3/4"	3/4"	FIAT TSBC1610 TERRAZZO, MOP BASIN - 12" DEPTH WITH DROP FRONT. 24" X 24" X 12" WITH STAINLESS STEEL CAP ON THRESHOLD. STAINLESS STEEL CAST INTEGRAL DRAIN BODY, STAINLESS STEEL STRAINER #1453BB.	MANUAL	ZURN NO. Z842M1 FAUCET WITH VACUUM BREAKER, SUPPLY ARM WITH BUILT-IN SHUT-OFF WITH INTEGRAL CHECK STOPS AND CHROME-PLATED FINISH		
MS-2												
SH-1	WALL-MOUNTED SHOWER		2"	2"	2"	3/4"	3/4"			*COORDINATE FINAL SHOWER HEAD HEIGHT/LOCATION WITH ARCHITECT/OWNER. *TILE AND OTHER COMPONENTS BY OTHERS, REFER TO ARCHITECTURAL FOR WATER PROOFING INFORMATION. BRADLEY 1C-HD-B30 BUILT-IN SHOWER WITH EQUA FLO HD PRESSURE BALANCING VALVE, 60" FLEXIBLE HOSE, AND 30" SLIDEBAR. SHOWER HEAD SHALL BE ATTACHED TO SLIDEBAR AND ADJUSTS TO HEIGHT TO MEET ADA REQUIREMENTS. NO SECONDARY, WALL-MOUNTED SHOWER HEAD TO BE PROVIDED. GRAB BAR, SEAT, AND CURTAINS PROVIDED BY ARCHITECT. *COORDINATE FINAL VALVE LOCATION WITH ARCHITECT/OWNER. PROVIDE WITH FD-1 FLOOR DRAIN CENTERED IN SHOWER.			COORDINATE FINAL HEIGHT/LOCATION WITH ARCHITECTURAL ELEVATIONS
SI-1	SOLIDS INTERCEPTOR	ART ROOM SINKS	-	2"	-	-	-		MANUAL	WADE 5790 STAINLESS STEEL SIDE ACCESS SOLIDS INTERCEPTOR, PERFORATED SEDIMENT BASEMENT, AND GASKETED LATCHED LID		
SK-2	STAINLESS STEEL SINK		1-1/2"	2"	2"	1/2"	1/2"					JUST NO. J-35 (QUANTITY-1) STRAINER WITH 1 1/2" TAILPIECE. MCGUIRE NO. 8912 1-1/2" ADJUSTABLE SEMI-CAST CHROME-PLATED BRASS P-TRAP WITH TUBING WASTE TO WALL AND CHROME-PLATED CAST WALL FLANGE WITH SET SCREW. MCGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANG
SK-2	STAINLESS STEEL SINK	RE: PLANS	1-1/2"	2"	2"	1/2"	1/2"	JUST SL-1921-A-GR, SINGLE COMPARTMENT STAINLESS STEEL SINK, 19" X 21" X 5" DEEP, 18 GAUGE, TYPE 304 STAINLESS STEEL WITH 3-HOLE FAUCET PUNCHING AT REAR. LOCATE DRAIN AT CENTER REAR	MANUAL	ZURN NO. Z831C4-XL-17F WIDESPREAD GOOSENECK FAUCET WITH 8" SPOUT, 1.5 GPM AERATOR, 4" VR COLOR CODED WRIST BLADES, CERAMIC DISC CARTRIDGE, WITH CHROME FINISH.	TOTO NO. TLT10 THERMOSTATIC MIXING VALVE	JUST NO. J-35 (QUANTITY-1) STRAINER WITH 1 1/2" TAILPIECE. MCGUIRE NO. 8912 1-1/2" ADJUSTABLE SEMI-CAST CHROME-PLATED BRASS P-TRAP WITH TUBING WASTE TO WALL AND CHROME-PLATED CAST WALL FLANGE WITH SET SCREW. MCGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANG
SK-3	STAINLESS STEEL SINK		1-1/2"	2"	2"	1/2"	-					JUST NO. J-35 (QUANTITY-1) STRAINER WITH 1 1/2" TAILPIECE. MCGUIRE NO. 8912 1-1/2" ADJUSTABLE SEMI-CAST CHROME-PLATED BRASS P-TRAP WITH TUBING WASTE TO WALL AND CHROME-PLATED CAST WALL FLANGE WITH SET SCREW. MCGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANG
SK-3	STAINLESS STEEL SINK	RE: PLANS	1-1/2"	2"	2"	1/2"	-	JUST SL-ADA-1921-A-GR, SINGLE COMPARTMENT STAINLESS STEEL SINK, 19" X 21" X 5.5" DEEP, 18 GAUGE, TYPE 304 STAINLESS STEEL WITH 3-HOLE FAUCET PUNCHING AT REAR. LOCATE DRAIN AT CENTER REAR	MANUAL	ZURN, Z825C1-XL AquaSpec® single-control lab faucet with 8" gooseneck and 2-1/2" lever handle, PROVIDE ELKAY LKAV71F Avado® Single Lever Filtered Beverage Faucet		JUST NO. J-35 (QUANTITY-1) STRAINER WITH 1 1/2" TAILPIECE. MCGUIRE NO. 8912 1-1/2" ADJUSTABLE SEMI-CAST CHROME-PLATED BRASS P-TRAP WITH TUBING WASTE TO WALL AND CHROME-PLATED CAST WALL FLANGE WITH SET SCREW. MCGUIRE NO. LF2165LK (QUANTITY-2) LOOSE KEY ANG
U-1	WALL-HUNG URINAL	KINDERGARTEN RR	-	2"	2"	3/4"	-	SAME AS U-1	MANUAL	TOTO TMU1LN12#CP 0.5 GPF MANUAL FLUSH VALVE		WADE OR APPROVED EQUAL WALL-MOUNTED FIXTURE CARRIER. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT.
U-1	WALL-HUNG URINAL	GROUP RR	-	2"	2"	3/4"	-	TOTO NO. UT447E, 0.5 GP FLOW CONSUMPTION WASHOUT URINAL, 3/4" TOP SPUD INLET, WALL HUNG, WHITE, VIRTEOUS CHINA URINAL.	INFRARED	TOTO ECOPOWER NO. TEU1UA12#CP 0.125 GPF FLUSH VALVE.		WADE OR APPROVED EQUAL WALL-MOUNTED FIXTURE CARRIER. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT.
U-2	WALL-HUNG URINAL		-	2"	2"	3/4"	-					WADE OR APPROVED EQUAL WALL-MOUNTED FIXTURE CARRIER. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT.
U-2	WALL-HUNG URINAL	KINDERGARTEN RR	-	2"	2"	3/4"	-	SAME AS U-1	MANUAL	TOTO TMU1LN12#CP 0.5 GPF MANUAL FLUSH VALVE		WADE OR APPROVED EQUAL WALL-MOUNTED FIXTURE CARRIER. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT.
U-2	WALL-HUNG URINAL	GROUP RR	-	2"	2"	3/4"	-	TOTO NO. UT447E, 0.5 GP FLOW CONSUMPTION WASHOUT URINAL, 3/4" TOP SPUD INLET, WALL HUNG, WHITE, VIRTEOUS CHINA URINAL.	INFRARED	TOTO ECOPOWER NO. TEU1UA12#CP 0.125 GPF FLUSH VALVE.		WADE OR APPROVED EQUAL WALL-MOUNTED FIXTURE CARRIER. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT.
WC-1	WALL-HUNG WATER CLOSET	GROUP RR	-	4"	2"	1"	-	TOTO NO. CT708E, 1.28 GPF, WALL HUNG WHITE VITREOUS CHINA, ELONGATED, 1-1/2" TOP SPUD	INFRARED	TOTO NO. ECOPOWER NO. TET1LA32#CP, 1.28 GPF HET FLUSH VALVE WITH SELF GENERATING POWER SYSTEM AND BACKUP BATTERY.		BEMIS NO. 1955SSCT WHITE, OPEN FRONT, SELF-SUSTAINING SEAT. WADE OR EQUAL FLOOR MOUNTED ADJUSTABLE FIXTURE CARRIER RATED FOR 500 LBS. INSTALLED AT STANDARD MOUNTING HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR REQUIRED MOUNTING HEIGHT.
WC-2	WALL-HUNG WATER CLOSET	ADA WATER CLOSETS	-	4"	2"	1"	-	SAME AS WC-1	INFRARED	TOTO NO. ECOPOWER NO. TET1LA32#CP, 1.28 GPF HET FLUSH VALVE WITH SELF GENERATING POWER SYSTEM AND BACKUP BATTERY.		BEMIS NO. 1955SSCT WHITE, OPEN FRONT, SELF-SUSTAINING SEAT. WADE OR EQUAL FLOOR MOUNTED ADJUSTABLE FIXTURE CARRIER RATED FOR 500 LBS. INSTALLED AT STANDARD MOUNTING HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR REQUIRED MOUNTING HEIGHT. PROVIDE OFFSET VACUUM BREAKER FLUSH TUBES AS REQUIRED AROUND GRAB BARS.
WC-3	WALL-HUNG WATER CLOSET		-	4"	2"	1"	-					BEMIS NO. 1955SSCT WHITE, OPEN FRONT, SELF-SUSTAINING SEAT. WADE OR EQUAL FLOOR MOUNTED ADJUSTABLE FIXTURE CARRIER RATED FOR 500 LBS. INSTALLED AT STANDARD MOUNTING HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR REQUIRED MOUNTING HEIGHT.
WC-3	WALL-HUNG WATER CLOSET	RE: PLANS	-	4"	2"	1"	-	SAME AS WC-1	MANUAL	TOTO NO. TMT1LN MANUAL NON-HOLD OPEN FLUSHOMETER VALVE, 1.28 GPF		BEMIS NO. 1955SSCT WHITE, OPEN FRONT, SELF-SUSTAINING SEAT. WADE OR EQUAL FLOOR MOUNTED ADJUSTABLE FIXTURE CARRIER RATED FOR 500 LBS. INSTALLED AT STANDARD MOUNTING HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR REQUIRED MOUNTING HEIGHT.
WC-4	WALL-HUNG WATER CLOSET	STAFF RR	-	4"	2"	1"	-	SAME AS WC-1	INFRARED	SAME AS WC-1		BEMIS NO. 1955SSCT WHITE, OPEN FRONT, SELF-SUSTAINING SEAT. WADE OR EQUAL FLOOR MOUNTED ADJUSTABLE FIXTURE CARRIER RATED FOR 500 LBS. INSTALLED AT STANDARD MOUNTING HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR REQUIRED MOUNTING HEIGHT. PROVIDE OFFSET VACUUM BREAKER FLUSH TUBES AS REQUIRED AROUND GRAB BARS.
WH-1	FREEZE-PROOF WALL HYDRANT	RE: PLANS	-	-	-	3/4"	-	MIFAB MHY-15 NON-FREEZE WALL HYDRANT, VANDAL RESISTANT WITH VACUUM BREAKER WITH MALE HOSE CONNECTION AND NEOPRENE PLUNGER. HEAVY DUTY BRASS CASING, 360 DEGREE SWIVEL, HEAVY DUTY CHROME PLATED BRONZE HEAD CASTING. COORDINATE WALL THICKNESS WITH EACH LOCATION PRIOR TO ORDERING.	MANUAL	MIFAB MHY-15 SEMI-RECESSED LOW LEAD NON-FREEZE WALL HYDRANT WITH ANTI-SIPHON AND VANDAL RESISTANT INTAGRAL VACUUM BREAKER. PROVIDE WITH OPERATING KEY.		
WH-2	FREEZE-PROOF WALL HYDRANT		-	-	-	3/4"	3/4"	MIFAB MHY-40 NON-FREEZE WALL HYDRANT, VANDAL RESISTANT WITH VACUUM BREAKER WITH MALE CW & HW HOSE CONNECTION AND NEOPRENE PLUNGER. HEAVY DUTY BRASS CASING, HEAVY DUTY CHROME PLATED BRONZE HEAD CASTING. COORDINATE WALL THICKNESS WITH EACH LOCATION PRIOR TO ORDERING.				
WH-3	HOSE BIB	<varies>	-	-	-	3/4"	-		<varies>	<varies>		

PUMP SCHEDULE

HWRP - DOMESTIC INLINE CIRCULATING PUMP, GRUNDFOS MAGNA 3-32-60, PUMP TO BE STAINLESS STEEL TO MEET THE LOW THE LOW LEAD REQUIREMENTS. RE-CIRCULATING PUMPS SHALL BE CONTROLLED BY THE BUILDING'S AUTOMATED SYSTEM. PUMPS TO BE SET TO TURN OFF DURING NON OPERATIONAL HOURS.

SP-1 - ELEVATOR SUBMERSIBLE SUMP PUMP, STANCORE NO. SE50, 15 FT HEAD, 50 GPM, 1/2 HP, 3600 RPM, 115 V SINGLE PHASE, PROVIDE PUMP WITH OIL SENSING CONTROL PANEL. COORDINATE PANEL LOCATION WITH G.C. PUMPS SHALL BE CONTROLLED BY THE BUILDING'S AUTOMATED SYSTEM.

~~GREASE TRAP/SAMPLE WELL SCHEDULE~~ 3

GT-1 - SCHIER NO. GT 1000, 1000 GALLON HYDROMECHANICAL GREASE INTERCEPTOR, 4" SANITARY INLET/OUTLET. SUPPLY ROAD RATED MANHOLE COVER OPTION AS THIS WILL BE LOCATED IN A DRIVEWAY.

SW-1 - PARK NO. SWB WITH 4" CONNECTIONS.

PLUMBING FIXTURE SCHEDULE

TP-1 - FLUSH VALVE TAIL PIECE TRAP PRIMER, SLOAN NO. VBF-72-A, VACUUM BREAKER TRAP PRIMER FOR USE WITH EXPOSED FLUSHOMETER. ROUTE TO FLOOR DRAIN IN RESTROOM. COORDINATE NUMBER OF FLUSH-VALVES REQUIRING TRAP PRIMER WITH PLANS.

WMB-1 - WASHING MACHINE BOX, GUY GRAY NO. WB200HA, 20 GAUGE HOT-DIPPED GALVANIZED STEEL WALL BOX, 1/2" NPT INLET, WITH INTEGRAL HAMMER ARRESTERS SINGLE LEVER VALVE, 3/4" HOSE CONNECTION OUTLET AND 2" THREADED DRAIN CONNECTION.

PLUMBING DRAIN SCHEDULE

MARK	DESCRIPTION	LOCATION	TRAP PRIMER CONNECITON	TRAP GUARD DEVICE	FIXTURE INFORMATION
DN-1	DOWNSPOUT NOZZLE	RE: PLANS	NO	NO	MIFAB R1960-NH TYPE 304 STAINLESS STEEL DOWNSPOUT WITH HINGED PERFORATED BIRD SCREEN COVER. OUTLET SHALL EXTEND OUT OF EXTERIOR BUILDING FINISH BY APPROXIMATELY 2-1/2"
FD-1	FLOOR DRAIN	<varies>	<varies>	<varies>	ZURN NO. ZS415BS FLOOR DRAIN WITH 6" DIAMETER STAINLESS STEEL STRAINER, LAQUERED CAST IRON BODY WITH 3" OUTLET.
FD-3	FLOOR DRAIN WITH FUNNEL				ZURN NO. ZN-415 FLOOR DRAIN WITH 6" DIAMETER NICKEL BRONZE STRAINER, TYPE "E", DURA-COATED CAST IRON BODY WITH 3" BOTTOM OUTLET. PROVIDE WITH 4" DIAMETER FUNNEL.
FS-1	12" SQUARE FLOOR SINK	<varies>	<varies>	<varies>	ZURN NO. Z1900, 12" SQUARE, 6" DEEP CAST IRON BODY AND SQUARE LIGHT DUTY GRATE WITH ACID RESISTANT PORCELAIN ENAMEL INTERIOR AND TOP. LOOSE SET CAST IRON SECONDARY STRAINER WITH 1/2 TOP GRATE. PROVIDE WITH PROSET TRAP GUARD DEVICE
OD-1	OVERFLOW ROOF DRAIN	<varies>	<varies>	<varies>	ZURN NO. ZC-100-AW-C WITH ALUMINUM DOME, ADJUSTABLE WATER LEVEL REGULATOR UNDER DECK CLAMP, CAST IRON BODY WIT H ACCESSORIES AS REQUIRED FOR ROOF CONSTRUCTION, PROVIDE WATER TIGHT SEAL AT THE CONNECTION OF THE BODY TO THE DOME TO PREVENT ROOF WATER FROM ENTER INTO THE BODY
ODN					
RD-1	ROOF DRAIN	<varies>	<varies>	<varies>	ZURN NO. ZC-100-DP ROOF DRAIN WITH SUMP RECIEVER, DECK PLATE AND CAST IRON DOME STRAINER. PROVIDE ACCESS AS REQUIRED TO MATCH ROOF CONSTRUCTION.

WATER HEATER SCHEDULE

MARK	DESCRIPTION	MANUFACTURER & MODEL NO.	LOCATION	INPUT (CFH)	CAPACITY (GAL)	RECOVERY GPH AT 80 F. RISE	TYPE GAS/KW	VOLTS	PHASE	HERTZ	REMARKS
GWH-1	GAS WATER HEATER	A. O. SMITH/BTH-199	MAIN MECH C123	199.0	100	294	NATURAL GAS	120 V	1	60 Hz	PROVIDE ET-1 & ET-2 WATTS DETA-12 150 MAX PSI, 200 DEG MAX TEMP, 5 GALLON TANK VOLUME, 3.1 GALLON TANK ACCEPTABLE EXPANSION TANK.

SHEET REVISED 1

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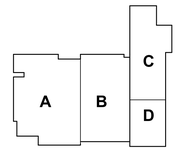
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Notes





Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal



CMTA F-8627
2025.09.01

Client/Project Logo

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
PLUMBING SCHEDULES

Project No.
214001269

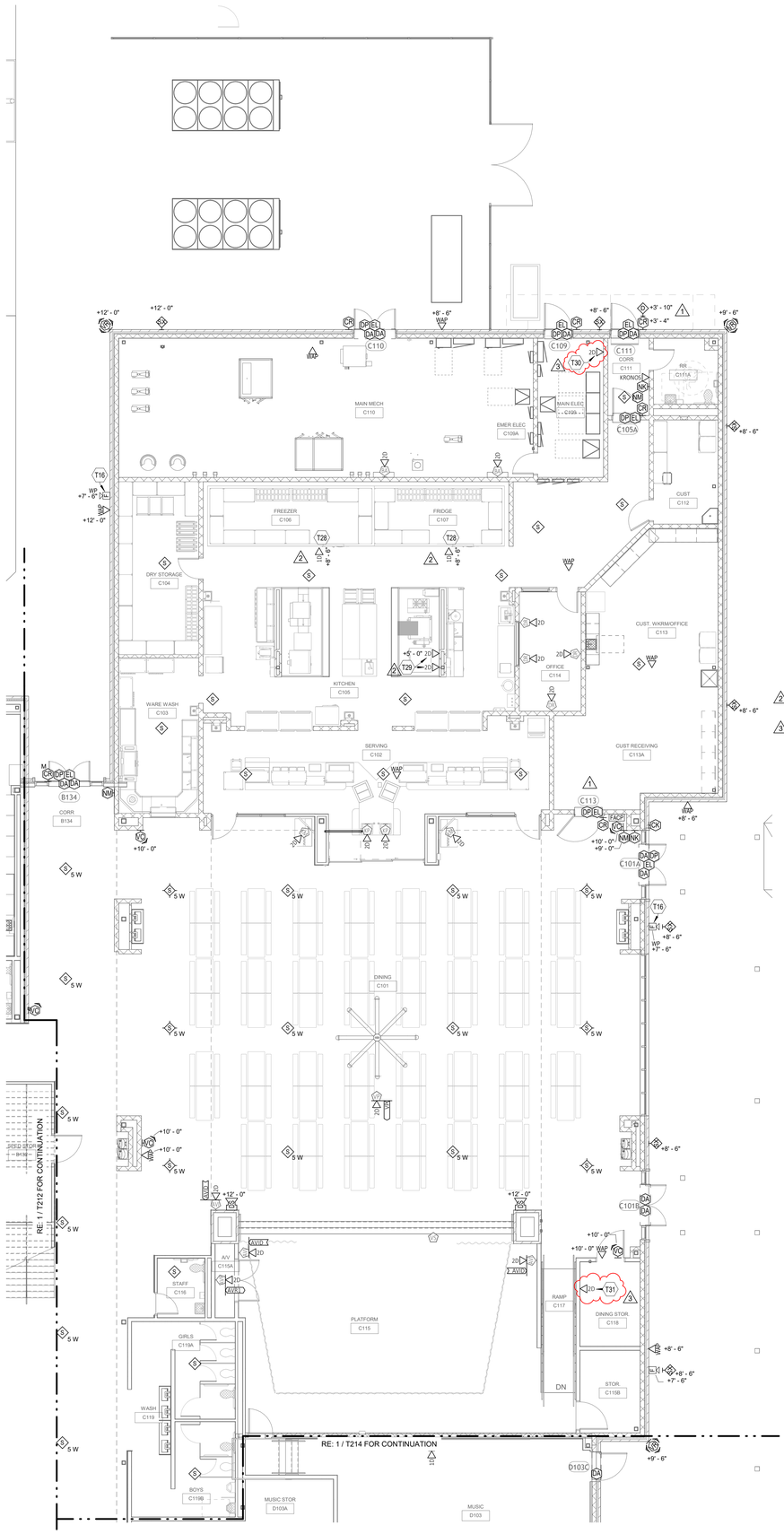
Scale

Revision
3

Drawing No.
P501

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ORIGINAL SHEET - ARCH E1



1 LEVEL 1 - TECHNOLOGY PLAN - AREA C
1/8" = 1'-0"

GENERAL NOTES (TECHNOLOGY):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED SYSTEM DEVICES.

B. IDENTIFY AND LABEL ALL STRUCTURED CABLING SYSTEM DROPS AT BOTH ENDS OF CABLE PER SPECS. PROVIDE PRINTED ADHESIVE LABELS COLORED AND AFFIXED AS DESCRIBED IN SPECIFICATIONS.

C. REFER TO SCOPE-OF-WORK SPECIFICATIONS AND "SYSTEM INSTALLATION MATRIX" (ON TECHNOLOGY LEGEND SHEET) FOR CONTRACTOR REQUIREMENTS OF EACH SYSTEM.

D. THE CONTRACTOR SHALL ROUTE ALL "SYSTEM CONDUIT STUB-UPS" TO THE NEAREST CORRIDOR CABLING PATH (SEE "STUB-UP" DETAILS). REFER TO CABLING PATH INSTALLATION DETAIL FOR ADDITIONAL REQUIREMENTS.

E. PROVIDE PULL STRINGS IN ALL NEW CONDUIT RUNS FOR SYSTEM CABLING INSTALLATION.

F. PROVIDE, AND INSTALL PER MANUFACTURER'S INSTRUCTIONS, LISTED FIRESTOPPING SYSTEMS AT ALL SYSTEMS CONDUIT AND/OR CABLING PENETRATIONS THROUGH FIRE/SMOKE RATED PARTITIONS SO THAT THE RATING OF THE PARTITION IS NOT DIMINISHED IN ANY WAY BY THE PENETRATION.

PROJECT PERFORMANCE-BASED FIRE ALARM REQUIREMENTS:

A. **DELEGATED DESIGN:** CONTRACTOR SHALL PROVIDE A COMPLETE BUILDING FIRE ALARM SYSTEM ON A TURNKEY BASIS, INCLUDING DESIGN SERVICES BY A LICENSED FIRE ALARM PLANNING PROFESSIONAL *(FPP)*.
1. *FPP* SHALL BE LICENSED AS A FIRE ALARM PLANNING SUPERINTENDENT (APS) BY THE TEXAS STATE FIRE MARSHALL'S OFFICE, AND BE NICET-CERTIFIED LEVEL III IN FIRE ALARM SYSTEMS.
2. *FPP* SHALL DEVELOP COMPLETE PLANS FOR FIRE ALARM SYSTEM COVERAGE IN ACCORDANCE WITH APPLICABLE CODES AND/OR STANDARDS.
3. CONTRACTOR SHALL SUBMIT *FPP* PLANS TO AUTHORITY HAVING JURISDICTION *(AHJ)* FOR PERMITTING AND APPROVAL AS REQUIRED.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILDING FIRE ALARM SYSTEM IN ACCORDANCE WITH *FPP* PLANS APPROVED BY *AHJ*.

B. **DISCLAIMERS:** IN ACCORDANCE WITH POLICY ADVISORY OPINION '04-04-F.A. PLANNING OF FIRE ALARM SYSTEMS' ISSUED BY TEXAS BOARD OF PROFESSIONAL ENGINEERS *(TBPE)*:
1. IT IS THE INTENT OF THE THE ELECTRICAL LICENSED PROFESSIONAL ENGINEER OF RECORD *(EEOR)* TO SPECIFY (BY WRITING IN LIEU OF PLANS) THE INSTALLATION OF A FIRE ALARM SYSTEM.
2. THESE DRAWINGS SHALL NOT BE DEEMED ENGINEERED FIRE ALARM PLANS, AND THE *EEOR* WILL NOT PREPARE SUCH PLANS. **DO NOT INSTALL FROM THESE DRAWINGS.**
3. TO THE EXTENT THAT LOCATIONS OF FIRE ALARM SYSTEM PANELS OR COMPONENTS ARE SHOWN ON THESE PLANS, SUCH LOCATIONS ARE INTENDED ONLY TO INDICATE EXISTING CONDITIONS. OWNER AND ARCHITECT PREFERENCES, ETC. FOR REFERENCE BY THE *FPP*. IT IS THE *FPP*'s RESPONSIBILITY TO DEVELOP PLANS WHICH COMPLY WITH APPLICABLE CODES AND *AHJ* REQUIREMENTS.

REFER TO SHEET T001 FOR LISTING OF PRESCRIPTIVE CODES, BUILDING OCCUPANCY CLASSIFICATION, AND SYSTEM/DEVICE SPECIFICATIONS.

TAGGED NOTES

##	
T16	FIRE ALARM CONTRACTOR TO PROVIDE SPEAKER COVERAGE AT THE FOLLOWING LOCATIONS AROUND BUILDING EXTERIOR: PLAYGROUND, FIRE ALARM MUSTER AREA AT PARENT DROPOFF (NEAR ADMIN), FIRE ALARM MUSTER AREA AT BUS LOOP (NEAR DINING). LOCATIONS SHOWN ARE SCHEMATIC; COORDINATE ACTUAL QUANTITY AND LOCATION OF DEVICES WITH ARCHITECT AND ELECTRICAL CONTRACTOR.
T28	PROVIDE DATA CONNECTION FOR COOLER/FREEZER REFRIGERATION CONTROLLER / TEMPERATURE MONITORING. COORDINATE EXACT LOCATION WITH EQUIPMENT SUPPLIER.
T29	PROVIDE DATA OUTLETS FOR COMBI OVENS.
T30	PROVIDE DATA DROPS FOR ELECTRICAL METERING.
T31	PROVIDE DATA DROPS FOR CEILING FAN CONTROLLER.

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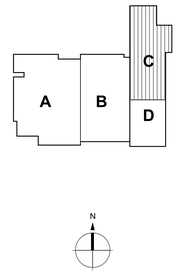
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Notes



Revision	By	Appd	YYYY.MM.DD
3 ADDENDUM 2			2025.09.12
2 ADDENDUM 1			2025.09.08
1 BIDDING DOCUMENTS - UPDATED INFO			2025.09.01

Issued	By	Appd	YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18

Permit/Seal



CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 - TECHNOLOGY PLAN - AREA C

Project No.	Scale
214001269	As indicated
Revision	Drawing No.
3	T213

•Plot location in Project Information
9/11/2025 10:51:05 AM

ORIGINAL SHEET - ARCH E1

GENERAL NOTES (TECHNOLOGY):

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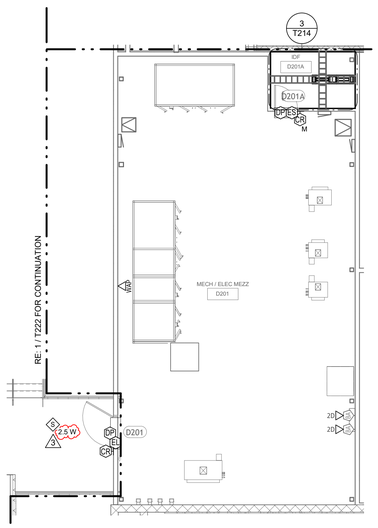
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TAGGED NOTES (##)

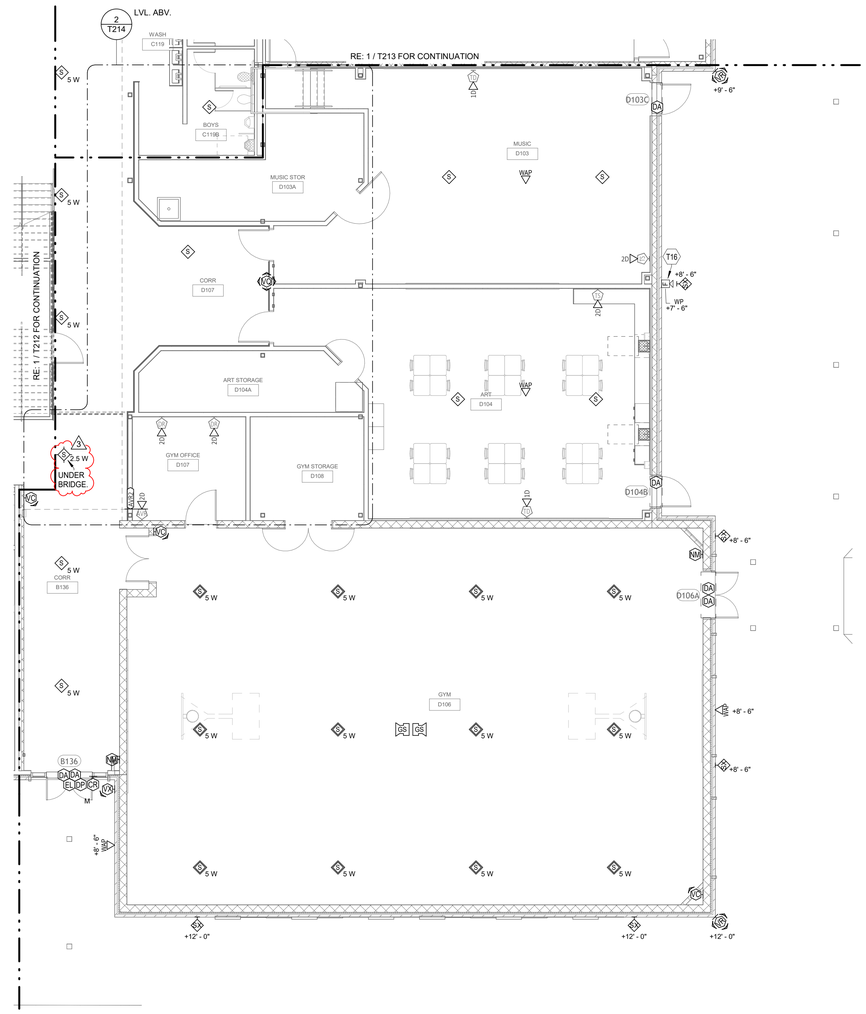
T4	PROVIDE (2) 4" CONDUITS DOWN THROUGH FLOOR TO PLENUM OF LEVEL BELOW FOR CABLE MANAGEMENT PATHWAY.
T5	PROVIDE (2) 4" CONDUITS ACROSS DINING ROOM FOR CABLE MANAGEMENT PATHWAY TO KITCHEN, CENTRAL PLANT, ETC.
T16	FIRE ALARM CONTRACTOR TO PROVIDE SPEAKER COVERAGE AT THE FOLLOWING LOCATIONS AROUND BUILDING EXTERIOR: PLAYGROUND, FIRE ALARM MUSTER AREA AT PARENT DROPOFF (NEAR ADMIN), FIRE ALARM MUSTER AREA AT BUS LOOP (NEAR DINING). LOCATIONS SHOWN ARE SCHEMATIC; COORDINATE ACTUAL QUANTITY AND LOCATION OF DEVICES WITH ARCHITECT AND ELECTRICAL CONTRACTOR.
T21	PROVIDE 12" LADDER CABLE RUNWAY ABOVE RACKS FOR CABLE MANAGEMENT IN IT CLOSET. SEE SPECS.
T22	PROVIDE 2-POST RACK PER SPECIFICATIONS.
T23	PROVIDE VERTICAL CABLE MANAGERS PER SPECIFICATIONS.
T24	PROVIDE 4X8 SHEETS OF FIRE RETARDANT PLYWOOD, PAINTED TO MATCH WALL SURFACE, MOUNTED ON ALL WALLS IN THE MDF/IDF ROOMS.
T26	PROVIDE TELECOM SECONDARY BONDING BUSBAR PER SPECS. REFER TO GROUNDING RISER DIAGRAM FOR BONDING TO PBB & BUILDING GROUNDING SYSTEM.

1

3 ENLARGED TECHNOLOGY PLAN - IDF D201A
1/4" = 1'-0"



2 LEVEL 2 - TECHNOLOGY PLAN - AREA D MECH MEZZ
1/8" = 1'-0"



1 LEVEL 1 - TECHNOLOGY PLAN - AREA D
1/8" = 1'-0"

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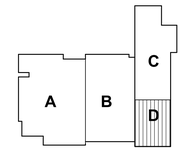
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Notes





3	ADDENDUM 2		2025.09.12
1	BIDDING DOCUMENTS - UPDATED INFO		2025.09.01
Revision		By	Appd YYYY.MM.DD
BIDDING DOCUMENTS			2025.09.01
FINAL CONSTRUCTION DOCUMENTS			2025.08.18
Issued		By	Appd YYYY.MM.DD

Permit/Seal



CMTA F-8627
2025.09.01

Client/Project Logo

ALVIN Independent School District

Client/Project
ALVIN ISD

ELEMENTARY SCHOOL #23

2727 White Gold Drive
Iowa Colony, Texas 77583

Title
LEVEL 1 & 2 - TECHNOLOGY PLAN - AREA D 1

Project No. 214001269	Scale As indicated
Revision 3	Drawing No. **T214**

•Plot location in Project Information
8/13/2025 11:07:18 AM

ORIGINAL SHEET - ARCH E1