DOCUMENT 00 91 02
ADDENDUM NO. 2

PROJECT: 2024 Smith and Spillane MS Renovations

BID DATE: **Thursday, February 20, 2025 (no Change)**

FROM: Carolina Weitzman, A.I.A.
Natex Corporation Architects
447 Heights Blvd, Houston, TX 77007

TO: **Prospective Bidders**

This Addendum forms a part of the Bidding Documents and will be incorporated into Contract Documents. Insofar as the Project Manual or Drawings or both are inconsistent, this Addendum governs. Acknowledge receipt of the Addendum by inserting its number into the Proposal Form. **FAILURE TO DO SO WILL SUBJECT BID TO DISQUALIFICATION**.

PART 1 CHANGES TO PROJECT MANUAL

1. SECTION 01 21 00 ALLOWANCES
   a. Add section to project manual.

2. SECTION 09 72 00 VINYL GRAPHIC WALL COVERING
   a. Add section to project manual

3. SECTION 11 61 23 TIERED CHORAL RISER PLATFORMS
   a. Add section to project manual.

4. SECTION 27 41 16.20 LOCAL SOUND REINFORCEMENT SYSTEMS
   a. Replace this section in its entirety with the attached.

5. SECTION 27 50 00 SCHOOL COMMUNICATIONS SYSTEM REPLACEMENT
   a. Replace this section in its entirety with the attached.

6. SECTION 28 10 00 ACCESS CONTROL SYSTEM (ACS)
   a. Replace this section in its entirety with the attached.

7. 28 31 00 INTRUSION DETECTION SYSTEM (IDS)
   a. Replace this section in its entirety with the attached.

PART 2 CHANGES TO DRAWINGS

SMITH MS

1. C1.01 – FIRE ACCESS PLAN
   a. Add fire lane striping
   b. Refer to revised sheet

2. A1.11 – STORAGE BUILDING PLANS & DETAILS
   a. Details 1 Storage Building plan – relocate exhaust and intake louvers shown on plan to match elevations.

3. A2.10G – 1ST FLOOR PLAN AREA "G"
   a. Locker Room General Notes – Add note number 15 *"GC to field verify existing overall dimensions prior to locker shop drawing submittal to verify number of lockers shown will fit in space allowed".* Added note 15 applies to all sheets where Locker Room General Notes are shown.
   b. Detail 4 Locker Room Vanity Detail – Add note to provide and install heavy duty aluminum brackets as required per HPDE manufacturer's recommendations.

4. A3.01 – RECEPTION PLANS & DETAILS
   a. Detail 7 Reception elevation – Clarify dimensional sign design.
   b. Refer to revised sheet.

5. A3.12 – GIRLS LOCKER ROOM PLAN & ELEVATIONS
   a. Detail 2 Girls RR Elevation E – Revise wall tile layout.
   b. Tile Installation Notes – Move notes down to fix overlapping text.
   c. Refer to revised sheet.

6. A10.01 – CAFETERIA ELEVATIONS
   a. Details 1 Cafeteria Elevation E – Font Type for text shown on Vinyl Graphic Wall Covering should be Uniform Bold.
   b. Remove Finish Notes from sheet.

7. A10.02 – ELEVATIONS – FINE ARTS
   a. Detail 1 Orchestra Elevation W – Add keynotes AE-02 for Speakers shown above marker board. Install speakers and brackets removed from existing orchestra room to new orchestra room per demolition drawing sheet D2.10D
   b. Remove Finish Notes from Sheet
   c. Refer to revised sheet

8. A10.03 – ELEVATIONS – FINE ARTS
   a. Detail 13, 14 & 15 – Revise notes as shown.
   b. Remove Finish Notes from Sheet
   c. Refer to revised sheet

9. A10.04 – ELEVATIONS – FINE ARTS
   a. Remove Finish Notes from Sheet

10. A12.10 – OVERALL FINISH PLANS
    a. Finish Plan General Notes – Remove note 7

11. A12.01 – FINISH LEGEND
    a. Finish Legend – T-4 is not used.
    b. Details 2, 3, 4 – Where notes "Re: Fin Sched" is shown, revise to "Re: Fin Plans".

12. A12.02 – INTERIOR SIGNAGE
    a. Add Signage Notes
       1) General signage scope includes new exterior door numbers, replace existing interior room signs with new and new interior room signs indicated on finish plans.
       2) The signage types provided are for information and general compliance only. Match existing signs for type, size, style, color and finishes.
       3) Refer to specification section 10 14 00 Signage.

13. A12.10 – OVERALL FINISH PLANS
    a. Detail 3 Monumental Stair – Revise “PTO-2” to PT-2.

14. A12.10B – 1ST FLOOR FINISH PLAN – AREA “B”
    a. Detail 1 Finish plan – Stair ST-3 Finish tag shown at walk-off carpet: Revise Wall finish to NOTE 1.
    b. Finish Note #2 – Revise note to *“Install tile base where floor tile is scheduled unless existing base is SGT.”* Revised note applies to all sheets where Finish Notes are shown.
    c. Finish Note #5 – Revise note to *“Where “Note 1” is scheduled for wall finish, refer to 1st floor typical classroom corridor picture for extent of painting required.”* Revised note applies to all sheets where Finish Notes are shown.

15. A12.10C – 1ST FLOOR FINISH PLAN AREA “C”
    a. Detail 1 Finish Plan – Reception A100M: Add same finish schedule / tag as Waiting A100.

16. A12.10G – 1st FLOOR FINISH PLAN AREA “G”
    a. Detail 1 Finish Plan – Revise paint color scheduled for Gym #1 B100 East wall to PT-6.

17. A12.10H – 1st FLOOR FINISH PLAN AREA “H”
    a. Detail 1 Finish Plan – Revise paint color scheduled for Gym #2 B108 East wall to PT-6.

18. E0.01 – ELECTRICAL DEMOLITION POWER FLOOR PLAN -LEVEL 1 -AREA A
    a. Show TELA1 and ELA1 as demolished equipment.

19. E3.01 - ELECTRICAL POWER FLOOR PLAN -LEVEL 1 -AREA A
    a. Show TELA1 and ELA1 as new equipment.

20. E3.04 - ELECTRICAL POWER FLOOR PLAN -LEVEL 1 -AREA D
    a. Provided power to local speaker system in Ensemble C109A.

21. E3.06 - ELECTRICAL POWER FLOOR PLAN -LEVEL 1 -AREA F
    a. Provided power to GSM-1.

22. E3.07 - ELECTRICAL POWER FLOOR PLAN -LEVEL 1 -AREA G
    a. Provided power and plan note to CP-G.

23. E4.01 – ELECTRICAL ENLARGED FLOOR PLANS
    a. ELECTRICAL FLOOR PLAN – LEVEL 1 – AREA D MEZZANINE
        1. Located disconnect switch at SF-1.

24. E5.01 – ELECTRICAL PANEL SCHEDULES
    a. Revisions to panels DPD1 & DPG1.

25. E5.02 – ELECTRICAL PANEL SCHEDULES
    a. Revisions to panels LD2.
    b. Added panel ELA1 to sheet.

26. P3.07 – PLUMBING FIRST FLOOR PLAN – AREA ‘G’
    a. Refer to revised sheet for clarifications and reference to enlarged locker room plan.

27. P3.08 – PLUMBING FIRST FLOOR PLAN - AREA ‘H’
    a. Refer to revised sheet for clarifications and reference to enlarged locker room plan.

28. P3.09 – PLUMBING SECOND FLOOR PLAN – AREA ‘A’
    a. Refer to revised sheet for coordination of mechanical condensate.

29. P3.10 – PLUMBING SECOND FLOOR PLAN – AREA ‘B’
    a. Refer to revised sheet for coordination of mechanical condensate. And pipe to roof.

30. P3.13 – PLUMBING ROOF PLAN
    a. Refer to revised sheet for roof hydrant locations.

31. P4.01 – PLUMBING ENLARGED FIRST FLOOR PLAN – AREA ‘G’
    a. Refer to new sheet for enlarged locker room plan.

32. P4.02 – PLUMBING ENLARGED FIRST FLOOR PLAN - AREA ‘H’
    a. Refer to new sheet for enlarged locker room plan.

33. P5.01 – PLUMBING DETAILS - 1
    a. Refer to revised sheet for updated details.

34. P5.02 – PLUMBING DETAILS - 2
    a. Refer to revised sheet for updated details.

35. P6.01 – PLUMBING SCHEDULES
    a. Refer to revised sheet for updated fixture schedule.

36. T0.00 - TECHNOLOGY NOTES AND LEGENDS
    a. Refer to revised sheet for responsibility matrix.

37. T0.04 – TECHNOLOGY DEMOLITION FIRST FLOOR PLAN – AREA ‘D’
    a. Refer to revised sheet for clarifications to demolition scope in cafeteria and band hall.

38. T2.04 - TECHNOLOGY FIRST FLOOR PLAN – AREA ‘D’
    a. Refer to revised sheet for scope clarifications in Band, Choir and Cafeteria.

39. T5.05 – TECHNOLOGY DETAILS
    a. Refer to revised sheet for changes to kitchen door access control.

SPILLANE MS

1. A2.10G – 1ST FLOOR PLAN – AREA "G"
   a. Locker Room General Notes – Add note number 15 *"GC to field verify existing overall dimensions prior to locker shop drawing submittal to verify number of lockers shown will fit in space allowed".* Added note 15 applies to all sheets where Locker Room General Notes are shown.
   b. Detail 4 Locker Room Vanity Detail – Add note to provide and install heavy duty aluminum brackets as required per HPDE manufacturer's recommendations.

2. A2.10H – 1ST FLOOR PLAN – AREA "H"
   a. Detail 1 Floor Plan – Add locker layout dimensions.
   b. Refer to revised sheet.

3. A3.01 – RECEPTION PLANS & DETAILS
   a. Detail 7 Reception elevation – Clarify dimensional sign design.
   b. Refer to revised sheet.

4. A10.02 – ELEVATIONS – FINE ARTS
   a. Detail 4 Orchestra Elevation N – Add dimensions for acoustical panel layout.
   b. Detail 5, 6, 7, 8 Ensemble Elevations – Lower ceilings to 9'.
   c. Revise Interior Notes. Revisions apply to all sheets where Interior Notes are shown.
   d. Refer to revised sheet

5. A10.03 – ELEVATIONS – FINE ARTS
   a. Detail 1 Choir Elevation E – Revise dimensions for acoustical panel layout.
   b. Refer to revised sheet

6. A11.10D – 1ST FLOOR CEILING PLAN AREA "D"
   a. Detail 1 Ceiling Plan – Ensemble D104C: Revise ceiling height to 9'-0".

7. A12.01 – FINISH LEGEND
   a. Finish Legend – Revise AP-1 Color to Vanilla 2130.
   b. Details 1, 2, 3, 4 – Where notes "Re: Fin Sched" is shown, revise to "Re: Fin Plans".

8. A12.02 – INTERIOR SIGNAGE
   a. Add Signage Notes
      4) General signage scope includes new exterior door numbers, replace existing interior room signs with new and new interior room signs indicated on finish plans.
      5) The signage types provided are for information and general compliance only. Match existing signs for type, size, style, color and finishes.
      6) Refer to specification section 10 14 00 Signage.

9. A12.10 – OVERALL FINISH PLANS
   a. Finish Plan General Notes – Remove note 7

10. A12.10C – 1ST FLOOR FINISH PLAN AREA "C"
    a. Detail 1 Finish Plan – Waiting A100: Add same finish schedule / tag as Reception A100M.

11. A12.10D – 1ST FLOOR FINISH PLAN AREA “D”
    a. Detail 1 Finish plan
       Choir D103: Revise wall finish to PT-1&5.
       Orchestra D104: Revise wall finish to PT-1&5

12. E0.01 – ELECTRICAL DEMOLITION POWER FLOOR PLAN -LEVEL 1 -AREA A
    a. Show TELA1 and ELA1 as demolished equipment.

13. E2.04 – ELECTRICAL LIGHTING FLOOR PLAN – LEVEL 1 – AREA D
    a. Lighting layout revision in SPEECH-1 D101-1.

14. E3.03 - ELECTRICAL POWER FLOOR PLAN -LEVEL 1 -AREA C
    a. Removed FACP From ELEC-1 A100J-1.

15. E3.04 – ELECTRICAL POWER FLOOR PLAN – LEVEL 1 – AREA D
    a. Provided power to local speaker system in Ensemble C109A.

16. E5.01 – ELECTRICAL PANEL SCHEDULES
    a. Revisions to panels DPD1 and DPG1.

17. E5.02 – ELECTRICAL PANEL SCHEDULES
    a. Revisions to panels LD2.

18. E6.02 – ELECTRICAL ONE-LINE DIAGRAM
    a. Revisions to one-line as shown.

19. P0.06 – PLUMBING DEMOLITION FIRST FLOOR PLAN – AREA ‘F’
    a. Refer to revised sheet for clarifications to demolition in central plant.

20. P0.07 – PLUMBING DEMOLITION FIRST FLOOR PLAN – AREA ‘G’
    a. Refer to revised sheet for clarifications to demolition in locker room.

21. P0.08 – PLUMBING DEMOLITION FIRST FLOOR PLAN – AREA ‘H’
    a. Refer to revised sheet for clarifications to demolition in locker room.

22. P1.01 – PLUMBING SITE PLAN
    a. Refer to revised sheet for clarifications to storm lines.

23. P2.04 – PLUMBING UNDERFLOOR PLAN – AREA ‘D’
    a. Refer to revised sheet for clarifications to storm lines.

24. P2.06 – PLUMBING UNDERFLOOR PLAN – AREA ‘F’
    a. Refer to revised sheet for revised scope in central plant.

25. P2.07 – PLUMBING UNDERFLOOR PLAN – AREA ‘G’
    a. Refer to revised sheet for revised scope in locker room.

26. P2.08 – PLUMBING UNDERFLOOR PLAN – AREA ‘H’
    a. Refer to revised sheet for revised scope in locker room.

27. P3.02 – PLUMBING FIRST FLOOR PLAN – AREA ‘B’
    a. Refer to revised sheet for clarifications for mechanical condensate drain.

28. P3.03 – PLUMBING FIRST FLOOR PLAN – AREA ‘C’
    a. Refer to revised sheet for removal of unnecessary scope.

29. P3.04 – PLUMBING FIRST FLOOR PLAN – AREA ‘D’
    a. Refer to revised sheet for clarification for mechanical condensate drain and revisions to storm piping.

30. P3.06 – PLUMBING FIRST FLOOR PLAN – AREA ‘F’
    a. Refer to revised sheet for clarification for mechanical condensate drain and detail reference for central plant.

31. P3.07 – PLUMBING FIRST FLOOR PLAN – AREA ‘G’
    a. Refer to revised sheet for clarifications and reference to enlarged locker room plan.

32. P3.08 – PLUMBING FIRST FLOOR PLAN - AREA ‘H’
    a. Refer to revised sheet for clarifications and reference to enlarged locker room plan.

33. P3.10 – PLUMBING SECOND FLOOR PLAN – AREA ‘A’
    a. Refer to revised sheet for coordination of mechanical condensate.

34. P3.11 – PLUMBING SECOND FLOOR PLAN – AREA ‘B’
    a. Refer to revised sheet for coordination of mechanical condensate. And pipe to roof.

35. P3.13 – PLUMBING SECOND FLOOR PLAN – AREA ‘D’
    a. Refer to revised sheet for revisions to storm system.

36. P3.14 – PLUMBING ROOF PLAN
    a. Refer to revised sheet for roof hydrant locations.

37. P4.01 – PLUMBING ENLARGED FIRST FLOOR PLAN – AREA ‘F’
    a. Refer to new sheet for enlarged central plant plan.

38. P4.01 – PLUMBING ENLARGED FIRST FLOOR PLAN – AREA ‘G’
    b. Refer to new sheet for enlarged locker room plan.

39. P4.02 – PLUMBING ENLARGED FIRST FLOOR PLAN - AREA ‘H’
    a. Refer to new sheet for enlarged locker room plan.

40. P5.01 – PLUMBING DETAILS - 1
    a. Refer to revised sheet for updated details.

41. P5.02 – PLUMBING DETAILS - 2
    a. Refer to revised sheet for updated details.

42. P6.01 – PLUMBING SCHEDULES
    a. Refer to revised sheet for updated fixture schedule.

43. T0.00 - TECHNOLOGY NOTES AND LEGENDS
    a. Refer to revised sheet for responsibility matrix.

44. T0.04 – TECHNOLOGY DEMOLITION FIRST FLOOR PLAN – AREA 'D'
    a. Refer to revised sheet for clarifications to demolition scope in cafeteria and band hall.

45. T2.04 - TECHNOLOGY FIRST FLOOR PLAN – AREA 'D'
    a. Refer to revised sheet for scope clarifications in Band, Choir and Cafeteria.

46. T5.05 – TECHNOLOGY DETAILS
    a. Refer to revised sheet for changes to kitchen door access control.

PART 3 CLARIFICATIONS

1. **Question:** Smith MS – T-4 is listed in the Finish Schedule but not assigned to any room in the finish plans
   Answer: T-4 is not used

2. **Question:** Smith MS – The finish note #2 states "Install tile base where tile floor is scheduled" but the finish plan indicates "existing tile base" in most corridors. Please clarify
   Answer: Will clarify notes in addendum to "Install tile base where floor tile is scheduled unless existing base is SGT.

3. **Question:** Will you be replacing all signs at these schools or just the one listed as new construction? Any chance of getting some type of schedule to say how many sign type will needed?
   Answer: No, the project does not call for the replacement of all signs. Refer to addendum 02 for clarification.

4. **Question:** On Reception logos, will it be a solid piece of acrylic with all of the tex/logo cut out or will it be dimensional.
   Answer: Signage behind receptions is solid aluminum dimensional sign. Refer to Addendum 02 drawings for clarification.

PART 4 PRIOR APPROVALS

1. Section 05 40 00 Cold Formed Metal Framing – CSM Metal Deck is an approved manufacturer.
2. Section 09 67 23 Resinous Flooring – Dex-O-Tex Epoxy is an approved product.
3. Section 10 73 13 Awnings – Canopy Solutions is an approved manufacturer.
4. Section 12 66 15 Telescopic Bleachers – Interkal is an approved manufacturer. Provide seat option: **Excel** Seat Modules. Refer to specification and basis of design for all other requirement.
5. Section 133419 Pre-Engineered Building – Alliance is an approved manufacturer.

END OF ADDENDUM NO. 2

APPROVED FOR ISSUE: _____
By M. Carolina Weitzman, principal, NATEX Architects

END OF DOCUMENT

Total No. of Pages to Addendum No.2: 135 pages.

SECTION 01 21 00

ALLOWANCES

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to the Section.

PART 1 – GENERAL

Refer to Document AB for Substitutions of Materials and Equipment

1.1 CONDITIONS

A. ALLOWANCES shall be included in the Contract sum as specified within this Specification Section in paragraph 3.1 below. These sums shall be reconciled as per AIA Document A201™–2017, as amended.

B. Where allowances are for materials only, the cost of delivery to the job site may be funded from such allowance.

C. Allowances are hereby established for the items in the amounts listed below. If any items exceed the amount listed, such excess cost shall be paid by the Owner. If any items cost less than the amount listed, the Owner shall be given a credit in the amount of the difference. Costs of items listed below are to be net costs to the General Contractor or Subcontractor, whichever makes the direct purchase.

D. The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. These allowances shall cover the net cost of the materials and equipment delivered and unloaded at the site, and all applicable taxes.

1. The Contractor's handling costs on site, labor, installation cost, estimating, labor burden, overhead, profit and other expenses contemplated for the original allowances shall be included in the Contractor's Sum and not in the allowance. Subcontractor and sub-subcontractor markups are allowable as provided in AIA Document A201™–2017, as amended.
2. The Contractor shall cause the work covered by these allowances to be performed for such amounts and by such persons as the Architect may direct, but he will not be required to employ persons against whom he makes reasonable objection.
3. The cost, when determined, is more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order which may include additional handling costs on the site, labor, installation costs, overhead, profit, cleaning, as-builts, standard warranty, cost to update electronic record documents and other expenses resulting to the Contractor from any increase over the original allowance if approved.

E. Contractor shall proceed with the work in question only after receiving written directions executed by the Owner and the Architect. Owner will not be obligated to pay the cost of any work without prior authorization. This written directive shall consist of Owner’s representative and Architect’s signature on Change Proposal Request document submitted by General Contractor with any applicable amendments if required indicating such approval. The Architect and Owner shall respond in a timely manner to document approved Change Proposal Request (CPR) expenditures and credits from such allowances within the contract. The Contractor may request payment for such approved expenditures only upon completion of the work and the completion of a fully executed CPR formally documenting allowance expenditure credits. The Contractor's overhead and profit relative to these allowance sums and work performed in accordance herewith, shall be included in the total Proposal prices, thus not included in the allowance sum. Unexpended balance of allowance sums shall revert to the Owner by Change Order in the final settlement of the contract.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 ALLOWANCES

A. Owner's Betterment Allowance: $4,465,340.00

1. Contractor shall include the amount indicated above in his Base Proposal as a contingency to cover the cost of additional scope of work. Contractor shall proceed with the work in question only after receiving written directions executed by the Owner and the Architect. Owner will not be obligated to pay the cost of any work performed without prior written authorization. The Contractor's overhead and profit relative to this contingency sum and work performed in accordance herewith, shall be included in the total Base Proposal price, but not included in the contingency sum. Unexpended balance of contingency sums shall revert to the Owner via Change Order during project closeout. Other scopes to be funded from this allowance may include, but are not limited to:

Furniture Moving and Relocation
TDLR Allowance
BMCS Allowance
Emergency Radio Amplification
Mud/Utility Allowance
Promethean Board Moving & Storage
Video Surveillance Agreement License Upgrade
Fire Marshall Items
PS Lightwave

END OF SECTION

SECTION 09 72 00
WALL COVERINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

A. Custom Digital Vinyl wall covering.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

A. Include data on physical characteristics, durability, fade resistance, and fire-test-response characteristics.

B. Shop Drawings: Show location and extent of each wall-covering type. Indicate pattern placement, seams and termination points.

C. Samples: For each type of wall covering and for each color, pattern, texture, and finish specified, full width by **36-inch- (914-mm-)** x **36-inch- (914-mm-)** long in size.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Product Test Reports: For each wall covering, for tests performed by a qualified testing agency.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For wall coverings to include in maintenance manuals.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install wall coverings until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity

conditions at levels intended for occupants after Project completion during the remainder of the construction period.

B. Lighting: Do not install wall covering until lighting that matches conditions intended for occupants after Project completion is provided on the surfaces to receive wall covering.

C. Ventilation: Provide continuous ventilation during installation and for not less than the time recommended by wall-covering manufacturer for full drying or curing.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: As determined by testing identical wall coverings applied with identical adhesives to substrates according to test method indicated below by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

a. Flame-Spread Index: **25** or less.
b. Smoke-Developed Index: **450** or less.

2.2 CUSTOM DIGITALVINYL WALL COVERING (WC-1and WC-2)

A. Description: Provide products in rolls from same production run and complying with the following:

A. Type II, 20 ounce vinyl, smooth finish.

B. Width: as recommended to suit digital artwork.

C. Backing: As recommended by the digital wallcovering supplier.

D. Description of scope of work for custom digital wallcovering:
A. Production of 4 mural of custom created artwork of pixelated inspirational figures, to be printed onto Type II vinyl to the dimensions as shown in drawings.
B. Architect will furnish full-size, high-resolution, digital image file(s) of the graphic(s) for use by the manufacturer in the printing of the graphic wallcovering. Image file(s) will include a bleed margin of a width required by the digital wallcovering manufacturer. Manufacturer will provide Architect any specific digital image requirement.
C. Manufacturer shall obtain field measurement of existing wall for final image size required for wall covering.
D. Manufacturers of Digital Wallcovering: Subject to compliance with requirements, products that may be incorporated into the Work include the following:
a. National Wallcovering, 10020 Maumelle Blvd, North Little Rock, AR 72113 Phone: 800.222.1028

b. MDC Wallcovering, 3806 Highlands Parkway SE, Building 8, Smyrna, GA 30082, 1-800-621-4006

2.3 ACCESSORIES

A. Adhesive: Mildew-resistant, nonstaining, adhesive, for use with specific wall covering and substrate application indicated and as recommended in writing by wall-covering manufacturer.

B. Primer/Sealer: Mildew resistant, as recommended in writing by primer/sealer and wall-covering manufacturers for intended substrate.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for levelness, wall plumbness, maximum moisture content, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Comply with manufacturer's written instructions for surface preparation.

B. Clean substrates of substances that could impair bond of wall covering, including dirt, oil, grease, mold, mildew, and incompatible primers.

C. Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.
   A. Gypsum Board: Prime with primer as recommended in writing by primer/sealer manufacturer and wall-covering manufacturer.
   B. Painted Surfaces: Treat areas susceptible to pigment bleeding.

D. Check painted surfaces for pigment bleeding. Sand gloss, semigloss, and eggshell finish with fine sandpaper.

E. Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

F. Acclimatize wall-covering materials by removing them from packaging in the installation areas not less than 24 hours before installation.

3.3 WALL-COVERING INSTALLATION

A. Comply with wall-covering manufacturers' written installation instructions applicable to products and applications indicated.

B. Install wall covering without lifted or curling edges and without visible shrinkage.

C. Install seams vertical and plumb.

D. Trim edges and seams for color uniformity, pattern match, and tight closure. Butt seams without overlaps or gaps between strips.

E. Fully bond wall covering to substrate. Remove air bubbles, wrinkles, blisters, and other defects.

3.4 CLEANING

A. Remove excess adhesive at seams, perimeter edges, and adjacent surfaces.

B. Use cleaning methods recommended in writing by wall-covering manufacturer.

C. Replace strips that cannot be cleaned.

D. Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

END OF SECTION 097200

SECTION 11 61 23
DEMOUNTABLE TIERED CHORAL RISERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Performance equipment including the following:
   1. Tiered Choral Risers.

1.2 RELATED SECTIONS

A. Section 01 35 00 - Special Procedures.

1.3 REFERENCES

A. American National Standards Institute (ANSI):
   1. ANSI/BIFMA X5.1-2002

B. American Plywood Association (APA).
   1. Performance Standards and Policies for Structural Use Panels.

C. ASTM International (ASTM):
   1. ASTM B85 - Standard Specification for Aluminum Alloy Die Castings.
   2. ASTM B429 - Specification for Aluminum-Alloy Extruded Structural Pipe and Tube.
   3. ASTM F851-87 (2000)

D. GREENGUARD Environmental Institute (GEI): GREENGUARD certified low emitting products.

E. International Organization for Standardization (ISO): ISO 9001 Quality management systems - Requirements.

F. International Building Code (IBC).

G. U.S. Department of Commerce, National Institute of Standards and Technology: DOC PS 1: U.S. Product Standard for Construction and Industrial Plywood.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Provide test results by certified independent testing laboratory indicating compliance with performance requirements.
   2. Rated capacities, construction details, material descriptions, dimensions of individual components, profiles, and finishes.
   3. Maintenance instructions and recommendations.

C. Shop Drawings:
   1. Submit component and project specific installation drawings, cut sheets, and schedules showing all information necessary to fully explain the design features, appearance, function, fabrication, installation, and use of system components in all phases of operation. Submit for approval before beginning any fabrication,

installation, or erection.
2. Include fabrication and installation details. Distinguish between factory and field work.
3. Include plans, elevations, sections, attachments and work by other trades.

D. Coordination Drawings: Project-specific Coordination Drawings, indicating the following items drawn and coordinated with each other. Include information required by Installers of each item in order to coordinate the Work. Include the following:
1. Relationship of items shown on separate Shop Drawings.
2. Dimensions and required clearances of adjacent or related work.
3. Order of assembly of separate items.

E. Product Schedule:
1. Use designations indicated on the Drawings.
2. Include room locations, dimensions, accessories, finishes, and project specific notes.

F. Closeout Submittals:
1. Operation and Maintenance Data: For adjusting, repairing and replacing components and accessories.
2. Warranty: Submit manufacturer's warranty.
3. As-Built Drawings: For completed work.

G. Field Quality Control Reports: Documenting inspections and demonstrations of installed products and equipment.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain all products from a single manufacturer through one source providing a comprehensive material and installation package:

B. Manufacturer Qualifications: Minimum 5 years' experience in design and manufacturing of similar products on projects of similar size, scope and complexity, and with the production capacity to meet the construction and installation schedule.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original unopened containers with manufacturer's labels attached. Do not deliver material until spaces to receive them are clean, dry, and ready for their installation. Ship to jobsite only after roughing-in, painting and other finishing work has been completed, installation areas are ready to accept work.

B. Handle and install materials to avoid damage.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install materials until spaces are enclosed and weather tight, wet work in spaces is complete and dry, HVAC system is operating and maintaining ambient temperature at occupancy levels during the remainder of the construction period.

B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Wenger Corporation, including all Wenger, J.R. Clancy and GearBoss product brands. Wenger Corporation, which is located at: 555 Park Dr.; Owatonna, MN 55060; Toll Free Tel: 800-4WENGER (493-6437); Tel: (507) 455-4100; Fax: (507) 455-4258; Email: request info (info@wengercorp.com); Wenger Corporation - Syracuse, which is located at 7041 Interstate Island Road, Syracuse, NY 13209; Toll Free Tel: 800-836-1885; Tel: (315) 451-3440; Email: request info (JRCinfo@wengercorp.com); Web: https://www.wengercorp.com

B. Requests for substitutions shall be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
   1. Manufacturers seeking approval shall submit the following:
      a. Product data, including third-party certified acoustical data and proposed graphic/drawing layout for this project.
      b. Project references: Minimum of 5 installations not less than 3 years old, of comparable size, scope and complexity of this project, complete with owner contact information.
      c. Sample warranty.
   2. Submit substitution request not less than required days prior to bid date.
   3. Approval shall be indicated by issuance of written Addendum.
   4. Approved manufacturers shall meet separate requirements of Submittals Article.
   5. Manufacturers' products that are either listed as pre-approved in these Specifications or who have been granted approval as an alternate must still demonstrate all of the material performance and operational characteristics required by this Section.

2.2 STAGE PLATFORMS

A. Basis of Design: StageTek Platforms; portable stage platforms and seated risers as manufactured by Wenger Corporation.

B. Structural Performance Requirements:
   1. Stage Platforms and Risers: Standard Uniform Load 4 feet by 8 feet (1219 mm by 2438 mm) Deck: 125 lbf/sq ft (6 kN/sq m). Heavy-Duty Uniform Load 4 feet by 8 feet (1219 mm by 2438 mm) Deck with additional 5th leg: 200 lbf/sq ft (9.6 kN sq m).
   2. Stage Platforms and Risers: Dynamic Live Load: Side load of 15 percent of total Uniform Live Load: 600lb (2.7 kN) side load on a 4 feet by 8 feet (1219 mm by 2438 mm) platform under a total Uniform Live Load of 4,000 lbs (17.8 kN).
   3. Stage Platforms and Risers: Point Load: 1,500lb (6.7 kN) applied via 1 inch (2.5 cm) diameter pin.
   4. Stage Platforms and Risers: Fully replaceable components including corners, frame and wood deck. Replaceable in the field with common tools.
   5. Guard Rail Concentrated Load: 200 lbf (0.89 kN) applied at any point in any direction.
   6. Guard Rail Uniform Load: 50 lbf/ft. (0.73 kN/m) applied to top rail.
   7. Intermediate Rails, Panels, and Baluster Concentrated Load: 50 lbf (0.22 kN) applied to 1 sq. ft. (0.093 sq. m) area.
   8. Guard Rail In-Fill Panel compliant with IBC 4 inches (102 mm) sphere code.

C. Materials:
   1. Aluminum: Complies with ASTM Standards listed above in section 1.3 C.
   2. Materials Meeting Sustainable Design Requirements:
      a. Provide stage platforms and risers made with products and adhesives that contain no urea formaldehyde.
   3. Softwood Plywood: DOC APA PS1.
   4. Hardboard: AHA A135.4, Tempered Grade.
   5. Hardware and Fasteners: Manufacturer's standard non-corroding type, permanently

mounted to units, remaining set or tightened under load and vibration in service, and designed to preclude user contact with sharp edges.

D. Frame: Extruded 6063-T6 aluminum, 4 inches tall (102 mm), with hidden contours to accept attachments. Rounded 1.5 inches (38 mm) hand-hold area open to accept power-grip (closed-grip) around entire perimeter. Frame components are repairable and replaceable.

E. Corners: Cast 380 aluminum corner assembly engages leg 3 inches (76.2 mm) and secures leg with a full-length 2.75 inches (69.85 mm) convex brace driven by a threaded bolt operated with a nylon t-handle. Corner assemblies are repairable and replaceable.

F. Legs: Legs operate individually and are constructed of extruded 6063-T6 aluminum round tube, 2.50 inches diameter (63.5 mm) with a wall thickness of .075 inch (1.905 mm). Standard fixed-height legs available in 8, 16, 24, 32, and 40 inches (200, 410, 610, 810, and 1020 mm) high, as required for layout indicated. Non-marking cap. Legs to store resting on frame rails or in clamping brackets within deck frames.
1. Adjustable Legs: Provided where indicated. Constructed of extruded 6063-T6 aluminum tube, 2.50 inches diameter (63.5 mm) with a wall thickness of .0750 inch (1.905 mm) with an adjustable threaded foot for infinite adjustability plus or minus 2 inches (51 mm) from nominal length of leg. The foot shall provide a non-marking rubber pad.

G. Deck Panels: Manufacturer's standard panel construction, 3/4-inch (19-mm) overall thickness, consisting of minimum 1/2-inch (12-mm) thick plywood substrate with finish surfaces consisting of, edged with extruded aluminum:
1. Finish: Gray Carpet, standard finish.
2. Panel Dimensions: Manufacturer's standard sizes, as required for layout indicated.

H. Guards and Railings: Complying with performance requirements, clamp-attached without tools, lower horizontal rail acts as chair stop. Optional infill panels bring Guard Rails into compliance with International Building Code specifying that a 4 inches (102 mm) sphere object cannot pass through the railing.

I. Leg Storage Clips: Provide bottom-of-deck panel leg storage clips.

J. Closure Panels: Closure panels matching Standard textured horizontal surface, not less than 3/4 inch (19 mm) thick plywood, secured with tool-free snap attachment located as follows:
1. Front of unit.
2. Sides of unit.

K. Metal Finishes: Aluminum: Mill finish.

L. Fabrication: Provide portable stages and risers meeting performance requirements, with the following characteristics:
1. Portable and storable in space indicated.
2. Easily set up and disassembled without use of special tools or loose fasteners.
3. Modular and reconfigurable.
4. Platform components replaceable with common tools to include corners, frame sections, and platform decking.
5. Platforms supported by individual legs that are storable inside the platform frame.
6. Platforms designed for comfortable and secure power-grip (closed-grip) anywhere around entire deck perimeter.
7. Lightweight leg sets/understructures - 40 inches (101 cm) tall or shorter weigh less than 10 lbs (4.5 kg).

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine installation areas and mounting surfaces with Installer present, for compliance with manufacturer's installation tolerances including required clearances, floor level, location of blocking and anchoring reinforcements, and other existing conditions that may affect installation or performance.

B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Proceed with installation only after correction of unsatisfactory conditions.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION - GENERAL

A. Install manufactured units in accordance with manufacturer's recommendations, approved submittals, and in proper relationship with adjacent construction.

B. Clean exposed surfaces. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.

3.4 FIELD QUALITY CONTROL

A. Inspect installed work to verify compliance with requirements.
   1. Verify that HVAC work and electrical work complies with manufacturer's submittals and written installation requirements.
   2. Perform installation and startup checks as recommended by manufacturer.
   3. Prepare inspection reports and submit to Architect.

3.5 DEMONSTRATION

A. Train Owner's personnel to adjust, operate, and maintain equipment. Turn over keys, tools, and operation and maintenance instructions to Owner.

3.6 CLEANING AND PROTECTION

A. Repair or replace defective work as directed by Architect upon inspection.

B. Clean surfaces. Touch up marred finishes, or replace damaged components that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by manufacturer.

C. Protect installed products from damage, abuse, dust, dirt, stain, or paint until completion of project. Do not permit use during construction.

END OF SECTION

SECTION 27 41 16.20
LOCAL SOUND REINFORCEMENT SYSTEMS

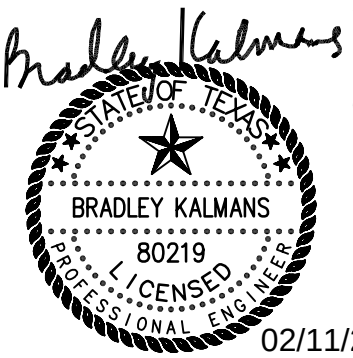
PART 1 – GENERAL

1.1 RELATED WORK

A. The following sections shall associate with this specification as applicable.
   1. General Conditions
   2. Supplementary Conditions
   3. Division 1
   4. Division 26 in its entirety.
   5. Division 27 in its entirety.
   6. Division 28 in its entirety.

1.2 DESCRIPTION

A. Summary of Work:
   1. Provide all equipment specified well as all miscellaneous parts and materials required for the proper, complete, and functional Video and/or Sound Distribution System at the following Venues:
      a. Competition Gym
      b. Practice Gym
   2. All applicable equipment shall bear the UL label.
   3. Governing Codes and Conflicts: If the requirements of these specifications or the Project Drawings exceed those of the governing codes and regulations, then the requirements of these specifications and the Drawings shall govern. However, nothing in the Drawings or Specifications shall be construed to permit work not conforming to all governing codes, regulations, and manufacturer installation requirements.
   4. Locate equipment to accommodate millwork, fixtures, marker boards and other room equipment at no additional cost to the owner.
   5. Plenum rated cable may be used as an option at the contractor's discretion. Wherever cabling is run exposed, conduit shall be used to cover and protect wiring.
   6. These documents are conceptual in nature. It shall be the responsibility of the approved installer to furnish a complete and functional system, including the items shown on the drawings, in the specifications, and items not designated in either. The installer's shop drawings and product data submittals shall represent a complete system and documents accepted do not relieve the installer from being required to provide any materials, equipment, or labor to furnish a complete and functional system as recognized by the Project's Technology Consultant and the Owner.



1.3 QUALITY ASSURANCE

A. Installer Qualifications:
   1. The contractor providing and installing the integrated audiovisual systems and associated infrastructure shall be an authorized dealer of the specified projector manufacturer and be capable of providing the manufacturer's maximum available product warranty.
   2. All individuals installing the audio-video system must be employees of the authorized dealer and at least 75% of the installing staff shall have undergone a training class given by the manufacturer. Current certification indicating the successful completion of the training course shall be available upon request at the

project and submitted in the contractor's product submittals.

3. The proposing contractor and the installing contractor must be the same company. No subcontractor to the proposing audio-video contractor will be allowed for any portion of the audio-video scope of work.
4. The System Installer shall meet all applicable regulations of the State and Department of Labor insofar as they apply to this type of system. The bidder shall be a firm normally employed in the audio-video industry and shall provide a reference list of ten (10) projects of equivalent size or larger and contact names confirming successful completion of projection system installations.
5. The bidder shall have an authorized service center, within 75-miles of the project's location, for the brand of equipment that is submitted for bid. The Owner, Architect, and Consultant reserves the right to perform an onsite inspection as they deem necessary.
6. The bidder must produce a letter from the manufacturer guaranteeing the delivery of all the equipment outlined in the specification herein.
7. The bidder shall have a full-time local service personnel capable of servicing the projector system described herein.

B. Pre-Construction Meeting:
1. The successful Contractor shall attend a mandatory pre-construction meeting with individuals deemed necessary by the Owner's representative prior to the start of the work.
2. The contractor shall provide a mockup of the complete integrated audiovisual system solution for each of the typical spaces below before implanting the installation in multiple like rooms. Mockup shall include all products listed in part 2 of this specification. Coordinate with G.C., Architect, Consultant, and Owner for scheduling and location of mockup.
3. All proposing contractors must have ability to demonstrate a/v system being proposed and provide owner with completely installed system to evaluate performance and operation.

C. Acceptance: The Owner's representative reserves the right to reject all, or a portion of the work performed, either on technical or aesthetic grounds.

D. Warranty:
1. The selected system installer shall be factory authorized service center and shall provide an end-to-end performance warranty of not less than one (1) year. The proposer shall provide current certification documentation. The performance warranty shall be issued by the manufacturer and shall warrant that video projection system projectors have been tested to the district's approval. This end-to-end warranty shall cover the labor associated with removing/reinstalling any associated hardware or equipment as well as the replacement of all defective equipment or hardware.
2. The bidder shall also submit with the materials mentioned in section 1.5 submittals of this specification a written explanation outlining the terms and conditions of product warranty of all parts and service of the integrated a/v solutions.

1.4 REGULATORY REQUIREMENTS

A. Standards: All work shall be performed in accordance with the latest revisions of the following standards and codes:
1. Latest Local Codes and Amendments
2. National Electrical Code, current version

B. Other References:

1. TIA/EIA-568-A Commercial Building Telecommunications Wiring Standard
2. EIA/TIA-569 Commercial Building Standard for Telecommunication Pathways and Spaces.
3. TIA/EIA-606 The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
4. TIA/EIA-607 Commercial Building Grounding and Bonding Requirements for Telecommunications.
5. EIA/TIA 455-A Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers, Sensors, Connecting and Terminating Devices and Other Fiber Optic Components.
6. TIA/EIA TSB 67 Transmission Performance Specification for Field Testing of Unshielded Twisted-Pair Cabling Systems.
7. TIA/EIA TSB 72 Centralized Optical Fiber Cabling Guidelines
8. ISO/IEC 1180 Generic Cabling Standard
9. EN 50173 Generic Cabling Standards for Customer Premises
10. ANSI/EIA/TIA 526-14 Optical Power Loss Measurements of Installed Multimode Fiber Cable Plan.

C. Governing Codes and Conflicts: If the requirements of these specifications or the Project Drawings exceed those of the governing codes and regulations, then the requirements of these specifications and the Drawings shall govern. However, nothing in the Drawings or Specifications shall be construed to permit work not conforming to all governing codes and regulations.

1.5 ABBREVIATIONS

A. The following abbreviations are used in this document:
1. AV-*# Audiovisual input station / Presentation Station (Reference drawing legend) CMP Ceiling Mounted Projector LCD or LED Flat panel screen/monitor

1.6 SUBMITTALS

A. Project Initiation: Within fourteen (14) days of Notice to Proceed, the projection system installer shall furnish the following in a single consolidated submittal:
1. Permits: The Contractor shall obtain all required permits and provide copies to the Owner/Architect/Engineer.
2. Product Literature: Complete manufacturer's product literature for all, speakers, amplifiers, cable, cross-connect blocks, cable supports, cable labels, outlet devices, and other products to be used in the installation. In addition, whenever substitutions for recommended products are made, samples (when requested by the Owner/Designer) and the manufacturer's supporting documentation demonstrating compatibility with other related products shall be included.
3. Construction Schedule: A time-scaled Construction Schedule, using PERT/CPM, indicating general project deadlines and specific dates relating to the installation of the cable distribution system.
4. Testing: Proposed Contractor test result forms, and a list of instrumentation to be used for systems testing.
5. The contractor shall provide a letter from the manufacturer stating that the dealer is an authorized service center.
6. The resume and contact information of the full-time service personnel responsible for the installed projection system.
7. Specification Compliance: A letter shall be provided stating, by section and subsection, that the installer complies with the ENTIRE specification section. If the installer intends to deviate from any portion of the specifications, a detailed

explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.

8. Certifications: The contractor shall submit all of the following certifications and the certifications must contain dates which are valid from the date of proposal and not expirer any sooner than 12 months after substantial completion of the project.
   a. AMX authorized dealer certification
   b. Installer training certification: 1)Provide specification with line-by-line acknowledgement of compliance.

B. Shop Drawings: Submit the following items, for Owner review and approval, within twenty-eight (28) days of notice to proceed:
   1. Proposed wiring and connectivity diagram of the proposed projection system including all faceplates and sound reinforcing equipment
   2. In addition to the wiring/connectivity diagram, the submitted drawings shall indicate the following, even if the following is expected to be provided by the project's electrical or general contractor:
      a. Location of wall penetrations (all penetrations shall be sleeved and contain protective bushings at both ends)
      b. Location of sleeved wall pass-thru
      c. Size of sleeve at each location installed
      d. Quantity of cable passing through each sleeve
      e. Location of drops in each room (quantity or labeling of drops are not required in the submittal plans. Labeling shall be provided in the closeout plans and quantities shall be as per the contract documents, addendums, and issued changes. Each drop shall be labeled for the type of outlet that it is)
      f. Conduit routing, size, quantity, and stub-up locations for all floor mounted outlets.
   3. Drawing Compliance: A letter shall be provided stating that the installer complies with the ENTIRE project drawing, including all general, keyed, and notes to contractor. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. NO DEVIATIONS SHALL BE ACCEPTABLE UNTIL THEY HAVE BEEN ACCEPTED BY THE PROJECT'S TECHNOLOGY CONSULTANT.

C. Project Completion: As a condition for project acceptance, the Contractor shall submit the following for review and approval:
   1. Samples: Complete manufacturer's product literature and samples (if requested) for all pre-approved substitutions to the recommended products made during the course of the Project.
   2. Inspection and Test Reports: During the course of the project, the Contractor shall maintain an adequate inspection system to ensure that the materials supplied, and the work performed conform to Contract requirements. The contractor shall provide written documentation that indicates that materials acceptance testing was conducted as specified. The Contractor shall also provide documentation, which indicates that all cable termination testing was completed and that all irregularities were corrected prior to job completion.
   3. Operating and Maintenance Instructions: Operating and maintenance instructions for all devices within the system. These instructions shall reflect any changes made during the course of construction and shall be provided to the Owner for

their use on disc or USB drive with the project name and description (2 copies).

4. Provide schematic line diagram of system components as deployed in each installation.

PART 2 – PRODUCTS

2.1 GENERAL

All products listed in this section shall be provided and installed by the contractor unless otherwise noted below. The following list is not intended to be a complete list of required equipment or cables as the project is to be Turnkey and may require equipment beyond the depth of this list. It is the contractor's responsibility to ensure that they are providing a complete and functional system with their proposal.

A. Installation: The cabling shall be installed per requirements of the manufacturer and the Project Documents utilizing materials meeting all applicable TIA/EIA standards. The Contractor is responsible for providing all incidental and/or miscellaneous hardware not explicitly specified below as required for a complete and operational system.

B. Materials: Materials shall be as listed or shall be approved equivalent products of other manufacturers meeting the intent and quality level of the TIA/EIA specifications. All approved equivalent products will be published by addendum ten days prior to proposal for Architect / Engineer to review.

C. Testing: All installed cabling shall be tested 100% good after installation by the Contractor.

D. Ratings: All products shall be new and brought to the job site in the original manufacturer's packaging. Electrical components (including innerduct) shall bear the Underwriter's Laboratories label. All communications cable shall bear flammability testing ratings as follows:

CM Communications Cable
CMP Plenum Rated Communications Cable
CMR Riser-Rated Communications Cable

E. Initial Cable Inspection: The Contractor shall inspect all cable prior to installation to verify that it is identified properly on the reel identification label, that it is of the proper gauge, containing the correct number of pairs, etc. Note any buckling of the jacket that would indicate possible problems. Damaged cable or any other components failing to meet specifications shall not be used in the installation.

F. Cable Lubricants: Lubricants specifically designed for installing communications cable may be used to reduce pulling tension as necessary when pulling cable into conduit.

1. Approved Products
   a. Twisted-pair cable: Dyna-Blue
   b/ American Polywater

G. Fire Wall Sealant: Any penetration through firewalls (including those in sleeves) will be resealed with an Underwriter Laboratories (UL) approved sealant.

1. Approved Products
   a. 3M or
   b. Pre-approved equal

2.2 TRAINING

A. A minimum of eight hours for instruction in proper operation and routine maintenance of the system. Instruction shall cover all materials indicated in the Owner's operations manual.

B. Operational guidelines shall be given in written form in sufficient numbers so that all key personnel have operational instructions of programming; station use and special features. Copies of these instructions shall be provided for permanent record in the operations and

maintenance manuals.

2.3 WARRANTY

A. One year from Date of Substantial Completion

2.4 PRODUCTS AND MATERIALS

A. Local Sound Reinforcement System
   1. Amplifier: Crown, QSC or Ashly
   2. DSP with controls
   3. Bluetooth receiver
   4. Minimum (3) microphone jacks for wired jacks
   5. Three (3) Microphones Shure PGA 58-LC
   6. Three (3) Atlas MS-18C stand
   7. Three (3) Generic 25'-0" microphone chords
   8. One (1) Atlas DS-5 Desk Stand
   9. Digital Wireless Mic System – Shure QLX/ULX Wireless
      a. Two (2) receivers
      b. Two (2) Handheld Transmitters
      c. Two (2) Belt Pack Transmitter
      d. Two (2) WH 30 Head worn Mic
      e. Two (2) WL 185 Lapel Mic
      f. Active Directional Antenna
   10. Wall Cabinet to house all local sound equipment.

B. Speakers provided at center court and suspended from ceiling
   (4) JBL AM5215/64 (replaces AC2215) Black or White (coordinate with owner prior to purchase)
   (2) JBL AL7115 Black or White (coordinate with owner prior to purchase)

C. Hearing Assist System – The hearing assist system is to consist of a FM transmitter with one antenna. The transmitter will broadcast in the FM band from 72.1 MHZ to 75.9 MHZ.
   1. Williams Sound PPA L157 system with PPAR35 receivers, one RPK005 rack mount kit and one ANT005 whip antenna

PART 3 – EXECUTION

3.1 GENERAL

A. Contractor is required to properly mount integrated A/V solutions and connect all ceiling video / audio cables to projector component inputs.

B. Contractor is required to thoroughly test and verify operation of all A/V inputs and video modes prior to project completion.

C. Contractor is required to focus and adjust projector to properly project image on viewing surface (screen or multimedia board depending on location).

D. Contractor shall provide owner with written verification test process and results once all projectors have been installed, tested, and placed in final condition.

E. Damage: The Contractor shall replace or rework cables showing evidence of improper handling including stretches, kinks, short radius bends, over tightened bindings, loosely twisted and over-twisted pairs at terminals and cable sheath removed too far (over 1-1/2 inches).

F. The Contractor shall replace any damaged ceiling tiles that are broken during cable installation.

G. Clean Up: All clean up activity related to work performed will be the responsibility of the Contractor and must be completed daily before leaving the facility.

3.2 DOCUMENTATION

A. Contractor shall provide owner with detailed serial number listing and associated graphical room number designation equipment was installed. Contractor shall use actual graphical package room numbers not architectural plan numbers from construction set.

3.3 STATION WIRING INSTALLATION

A. General: All cable must be handled with care during installation so as not to change performance specifications. Factory twists of each individual pair must be maintained up to the connection points at both ends of all category 6 cable. There shall never be more than one and one-quarter inch of unsheathed enhanced Category6 UTP cable at either the wiring USB Transmitter or Receiver.

B. Exposed Cable: All cabling shall be installed inside walls or ceiling spaces whenever possible. Exposed station cable will only be run where indicated on the Drawings. Additional exposed cable runs will require Owner approval and will only be allowed when no other options exist.

C. Placement: All cabling and associated hardware shall be placed so as to make efficient use of available space. All cabling and associated hardware shall be placed so as not to impair the Owner's efficient use of their full capacity.

D. Cable Routes:

1. All cabling placed in ceiling areas must be in conduit, cable tray or an approved J-Hook cable support. Cable supports shall be permanently anchored to building structure or substrates. Provide attachment hardware and anchors designed for the structure to which attached and that are suitably sized to carry the weight of the cables to be supported. Do not route cable through webbing of structural steel. Cabling must be supported in dedicated supports intended to support cabling as described in this section. Contractor shall adhere to the manufacturer's suggested fill ratio for each size cable support installed.
2. Attaching cable to pipes or other mechanical items is not permitted. Communications cable shall be rerouted so as to provide a minimum of 18 inches spacing from light fixtures, sources of heat, power feeder conduits and EMI sources. Cabling shall not be attached to ceiling. Grid support wires. Cable runs shall be routed down the corridors; parallel or perpendicular to building structure. Multiple cables to be bundled together at and between each cable support installed.
3. Contractor shall be responsible for coordinating with other trades on the project so that the installed cable pathway does not interfere with the installation of other systems to ensure that mechanical ducts, pipes, conduits, or any other above ceiling systems are not putting unnecessary stress on any portion of the install audio-video cabling.

3.4 STATION HARDWARE

A. Flush mounted components: all components shall be inserted to a flush mounted faceplate unless designated otherwise.

B. Placement: Where possible, the AV input outlets shall be located so that its centerline is 18 inches above floor level or 12 inches above permanent bench surfaces. Outlets shall not be mounted on temporary, movable, or removable surfaces, doors, or access hatches. The CMP outlet shall route directly to the rear of the projector and does not require any type of faceplates.

3.5 PROGRAMMING

A. Programming shall be coordinated with the Owner and Project's Consultant. Programming shall include, but not be limited to the following:
   1. AV Control Panel Configuration
   2. Audio routing from any source location through the DSP
   3. Projector and screen control via the Audio / Video Control panel
   4. Device resolution and over/under-scanning settings
   5. Incorporation of any Owner furnished source equipment (maximum of 3)

3.6 FINAL TESTING REQUIREMENTS

A. Notification: The Owner and Engineer shall be notified one week prior to any testing so that the testing may be witnessed.

B. Inspection: Before requesting a final inspection, the Contractor shall perform a series of end-to-end installation performance tests. The Contractor shall submit for approval a proposal describing the test procedures, test result forms and timetable for all copper and fiber optic cabling.

C. Procedures: Trained personnel shall perform all testing. Acceptance of the test procedures discussed below is predicated on the Contractor's use of the recommended products and adherence to the inspection requirements and practices set forth. Acceptance of the completed installation will be evaluated in the context of each of these factors. Testing procedures shall consist of, but not me limited to the following:
   1. Input locations to be tested utilizing multiple types of source equipment. Equipment to include:
      a. Personal Computer (laptop)
      b. Apple iMac
      c. Apple Mac Mini
      d. Google Chromebook
      e. Additional devices may be required at the time of testing
      f. contractor to provide devices on a single cart, to roll between inputs during testing.
   2. Routing of video, from any source to each projector and display simultaneously and independently.
   3. Routing of audio, from any source to each audio channel simultaneously and independently.
   4. Control of the entire system from each installed A/V Control Panel
   5. Additional test requirements may be required at the Owner and/or Consultant's request.

3.7 OWNER TRAINING AND DEMO

A. A/V integrator shall provide demonstration of all integrated a/v solutions to owner's staff that have any stake with the operation and maintenance of the a/v solutions. Integrator shall produce sign in sheets for record of who was trained and when. Copies of sign in sheets shall be submitted with close out paperwork. Coordinate training dates with owner at project completion.

B. Integrator shall provide factory training for owner's operations and maintenance personnel for each major component of the systems listed in the A/V solutions outlined in part 2 of these specifications. Training shall be a minimum of 4 hrs. per person. Re-training of staff shall be available, at no cost to the owner, to a maximum of 3 on-site training sessions up to 1 year from the date of project competition.

C. All training is to be recorded via video recording and a copy of the recorded video shall be provided to the owner upon completion. All video recording equipment, for the recording of training, shall be provided by the integrator.

END OF SECTION

SECTION 27 50 00
SCHOOL COMMUNICATION SYSTEM

PART 1 - GENERAL

1.1 RELATED WORK

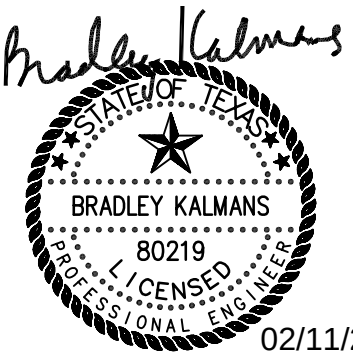
The following, in their entirety and as applicable, shall apply to this section. Including any associated drawings.

A. Conditions of the Contract
B. Division 1
C. Division 26
D. Division 27
E. Division 28

1.2 SUMMARY

A. This section includes a fully operational IP platform for a district-wide internal and school Critical Communications Solution, incorporating school safety notifications and general communications including but not limited to the following:

1. The platform shall provide complete internal communications and employ state of the art IP Technology including the minimum functions listed.
   a. Two-way internal intercommunications between staff locations and classrooms.
   b. Scheduled bell events.
   c. Emergency announcements that will override any pre-programmed audio, assuring that all Emergency/Lockdown etc., are heard at each and every speaker location.
   d. Capability of prerecording emergency announcements that can be activated by a Soft Key on an administrative console, panic button, dial string, or web browser.
   e. Atomic Time Synchronization with Class Change Tones utilizing multiple, programmable schedules for each zone.
   f. District-wide, Emergency, Group, All School and Zone live voice paging.
   g. District-wide, Emergency, Group, All School and Zone paging for pre-recorded audio – tones, music, and voice.
   h. Web-based user interface.
2. The system shall support a minimum of 1000 level priorities which shall be user-definable, allowing each end point to place a minimum of 5 different priority calls at the same time.
3. Any authorized administrator shall be able to call from outside the school into any classroom, zone, or entire school directly via the School District supplied SIP enabled Telephone Network. This shall allow remote monitoring, call-in annunciation, and two-way conversation from outside the facility as well as paging into the system. (Compliance with NEMA Standard SB-40 for emergency communications in K-12 Schools).
4. Authorized system users shall be able to create a minimum of 100 automated sequences with voice instructions, tones, emails, program distribution, and relay activations and replay them.
5. Automated message strings shall be manually initiated from a single-button access on the console, on a SIP connected telephone, a panic button, from the web-based user interface or via interface with third party systems.
6. Paging and two-way intercom features shall be accessible from any system



console or SIP connected telephone for each campus.

7. The platform shall synchronize its system time to the network timeserver or a web-based time server.
8. Each single campus installation shall be locally survivable for intercom, paging, bells, and emergencies such as lockdown, even when the district connection is unavailable.
9. This specification establishes a minimum level of quality, features, and performance for individual components as well as the integrated system.
10. Systems that do not comply with the feature-sets highlighted in this Specification will not be considered.

B. Locate equipment to accommodate millwork, fixtures, marker boards and other room equipment at no additional cost to the Owner.

C. Integrate the communications system with the following systems:
1. Clock and Bell System
2. Local sound reinforcement sound systems

D. Return air plenum cable shall be used. Wherever cabling is run exposed, conduit shall be used to cover and protect wiring.

E. The drawings and specifications are to be considered conceptual in nature and are intended to establish system standards insofar as manufacturer type and system configuration. The contractor shall provide pricing of a complete engineered system based on the issued conceptual documentation. The engineered system is to be submitted to the project's consultant for review prior to installation.

F. If there are any discrepancies between the drawings and specification or among themselves, the contractor shall request clarification prior to providing pricing for the scope of work. If a request is not issued and a response not provided via a posted addendum, the contractor shall provide pricing for the costliest scenario and obtain clarification during the project.

G. 1. Expand existing system with IP speakers for new and remodeled areas as shown.
2. Convert all remaining analog speaker connections from existing Telecenter controller to Rauland Gateways on the Telecenter U controller
3. Remove existing Telecenter controller and return to owner.
4. Connect existing lockdown buttons to Telecenter U controller

I. Replace Master Clock in intercom system headend. Provide new secondary clocks as indicated on drawings. Remove all other secondary clocks, including wiring. Return to owner.

1.3 DEFINITION OF TERMS

A. Installer(s): Shall refer to the person, persons, or company who or which actually contracts to perform the work specified herein.

1.4 SUBMITTALS

A. Product data for each component.

B. Shop Drawings: Prior to proceeding with the work: Provide detailed equipment assemblies and indicate dimensions, weights, required clearances, method of field assembly, components, location of each field connection, and a complete schedule of all equipment and materials with associated manufacturer's cuts sheets which are to be used.
1. Wiring Diagrams: Detail wiring for power, signal, and control systems and differentiate between manufacturer-installed and field-installed wiring. Identify terminals to facilitate installation, operation, and maintenance. Include a single-

line diagram showing cabling interconnection of components and levels throughout system and impedances.

2. Artwork drawings and lists indicating proposed nameplate nomenclature and arrangements for control panels and plug panels prior to fabrication reflecting equipment used.
3. Each drawing shall have a descriptive title and all sub-parts of each drawing shall be labeled. All drawings shall have the name and locations of the project, Systems Contractor's name in the title block.
4. Details and descriptions of any other aspect of the system, which must differ from the contract documents due to field conditions or equipment, furnished.

C. FCC Approval: The system shall be approved for direct interconnection to the telephone utility under Part 68 of FCC rules and regulations. Systems, which are not FCC approved or utilize an intermediary device for connection, will not be considered. Provide the FCC registration number of the system being proposed as part of the submittal process.

D. Product Certificates: Signed by manufacturers certifying that products furnished comply with specified requirements.

E. Installer Certificates: Signed by manufacturers certifying that Installers comply with specified requirements.

F. Manufacturer Certificates: Signed by manufacturers certifying that they comply with specified requirements.

G. Field Test Reports: Indicate and interpret test results for compliance with performance requirements. Include record of final matching transformer-tap settings, and signal ground-resistance measurement certified by Installer.

H. Maintenance Data: For equipment to be included in maintenance manuals specified in Division 1.

1. Record of Owners equipment-programming option decisions.
2. All instructions necessary for proper operation and manufacturer's instructions.
3. "Proof of Performance" information.
4. Manufacturer's maintenance information.
5. Copies of non-proprietary computer programs and system set up disks documenting all programmable features of the installed system.

I. Record Drawings: Prior to final acceptance, provide three (3) complete sets of drawings indicating all cable numbers and construction details in accordance with the actual system installation. Revise all shop drawings to represent actual installation conditions. These Record Drawings will be used during "Final Acceptance Testing".

J. System Training: Submit the following information describing the training programs and system trainers as outlined in paragraph 1.6 of this specification and in accordance with Division 1 specifications.

1. Include with the submittal a preliminary staff development training program in outline form for review and approval by the owner's representative.
2. Include with the submittal a current copy of the trainer's certification from the manufacturer that certifies and identifies the trainer(s) who are eligible to provide training and support for the project.
3. Include with the submittal a current copy of trainer's needs assessment form which will be reviewed with the owner's designated representative for the system's preliminary system programming and configuration.
4. Include with the submittal copies of all documentation used to identify for the owner those participants attending and completing the training programs.

K. A copy of the manufacturer's standard statement of warranty proving all equipment provided for the school communications network is covered with the required five-year warranty shall be included with the project submittal. This statement of warranty shall be

provided on the manufacturer's stationary.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced Installer who is an authorized representative of equipment manufacturer for both installation and maintenance of equipment required for this Section. Provide the following within thirty (30) days after notification to proceed:
   1. Provide a list of installations that the Installer has specifically installed for verification by the Owner. Random installations from other vendors and/or Installers shall not be accepted. The Installer, not its employees, must meet these qualifications.
   2. The Installer shall be bondable.
   3. The Installer shall demonstrate to the satisfaction of the Owner or his representative that he has:
      a. Adequate plant and equipment to pursue the work properly and expeditiously.
      b. Adequate staff and technical experience to implement the work.
      c. Suitable financial status to meet the obligations of the work.
      d. Technically capable and factory trained service personnel at a local service facility to provide routine and emergency service for all products used in this project.

B. Because the life expectancy of this type of communications structure normally exceeds 10 years, the owner expects continuity from the service provider. If the installing/servicing company has not been an authorized provider of the manufacturer's product for it least seven (7) years, the following is required:
   1. A list of two (2) systems manufacturers of which they currently are authorized service providers where the relationship exceeds seven (7) years.
   2. A letter from the manufacturer outlining the details of changes in service providers over the last seven (7) years and what actions they will take to ensure continuity of service to the customer.

C. Each major component of equipment shall have the manufacturers name, address and model number on a plate securely affixed in a conspicuous place. NEMA code ratings, UL Label, or other data that is die-stamped into the surface of the equipment shall be easily visible.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

E. Comply with NFPA 70

F. Comply with NEMA Standard SB-40 for Emergency Communications in K-12 schools.

G. Comply with UL 60950.

1.6 SUBMITTALS

A. Project Initiation:
   1. Within fourteen (14) days of Notice to Proceed, the projection system installer shall furnish the following in a single consolidated submittal:
      a. Product Literature: Complete manufacturer's product literature for all, speakers, amplifiers, cable, cross-connect blocks, cable supports, cable labels, outlet devices, and other products to be used in the installation. In addition, whenever substitutions for recommended products are made, samples (when requested by the Owner/Designer) and the manufacturer's supporting documentation demonstrating compatibility with other related products shall be included.
      b. Construction Schedule: A time-scaled Construction Schedule indicating

general project deadlines and specific dates relating to the installation of the cable distribution system.

c. The contractor shall provide a letter from the manufacturer stating that the dealer is an authorized service center.

d. The resume and contact information of the full-time service personnel responsible for the installed projection system.

e. Specification Compliance: A letter shall be provided stating, by section and subsection, that the installer complies with the entire specification section. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.

f. Certifications: The contractor shall submit all of the following certifications, and the certifications must contain dates which are valid from the date of proposal and not expirer any sooner than 12 months after substantial completion of the project.

1) State Licenses as applicable to this system
2) Manufacturer's Authorized Dealer Certification
3) Manufacture Installer Training Certificate (required for at least 25% of all installers on site.)

g. Provide specification with line-by-line acknowledgement of compliance.

B. Shop Drawings:

1. Submit the following items, for Owner review and approval, within twenty-eight (28) days of notice to proceed:

a. Proposed wiring and connectivity diagram of the proposed projection system including all faceplates and sound reinforcing equipment

b. In addition to the wiring/connectivity diagram, the submitted drawings shall indicate the following, even if the following is expected to be provided by the project's electrical or general contractor:

1) Location of wall penetrations (all penetrations shall be sleeved and contain protective bushings at both ends)
2) Location of sleeved wall pass-thru
3) Size of sleeve at each location installed
4) Quantity of cable passing through each sleeve
5) Location of drops in each room (quantity or labeling of drops are not required in the submittal plans. Labeling shall be provided in the closeout plans and quantities shall be as per the contract documents, addendums, and issued changes. Each drop shall be labeled for the type of outlet that it is)
6) Conduit routing, size, quantity, and stub-up locations for all floor mounted outlets.

c. Drawing Compliance: A letter shall be provided stating that the installer complies with the ENTIRE project drawing, including all general, keyed, and notes to contractor. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.

1.7 IN-SERVICE TRAINING

A. The contractor shall provide and implement a complete and comprehensive staff training program for all administrators, facility staff members, and teachers. This mandatory training program will provide school staff a complete understanding of how to utilize and properly operate all functions.
B. The training program shall be implemented by a staff member/trainer employed by the contractor. The trainer must be factory certified to provide training on their product.
C. All staff development training is to be coordinated through the owner's designated representative. As training sessions are completed, the trainer will provide the school's administrative staff and school district's staff a document listing all the staff and faculty members who attended, received, and completed the training program.

1.8 WARRANTY

A. Provide a manufacturer's five-year warranty of the school communications network equipment against defects in material and workmanship. This warranty will cover all electronic system components. Additional warranties cover clocks, speakers, and call-in switches. If any defects are found within the warranty period, the defective equipment shall be replaced at no cost (equipment only); a one-year warranty shall be provided for labor.
B. A copy of the manufacturer's standard statement of warranty proving all equipment provided for the school communications network is covered with the required five-year warranty shall be included with the project submittal. This statement of warranty shall be provided on the manufacturer's stationary. The standard five-year warranty is an important element in establishing a standard in quality. Manufacturers who circumvent the five-year warranty by offering special "extended warranties" that are not part of their normal published warranty will not be accepted.
C. Contractor shall respond, excluding weekends and holidays, within 24 hours to any warranty service calls. If equipment cannot be repaired within 24 hours of service visit, the contractor shall provide "loaner" equipment to the facility at no charge.
D. Make available a service contract offering continuing factory authorized service of the system after the initial warranty period.

1.9 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide the following system:
    1. Telecenter U as manufactured by Rauland and installed by a Rauland authorized dealer

PART 2 - PRODUCTS

2.1 SYSTEM REQUIREMENTS

A. The New Campus Communications System will connect to the Existing District Server for District Wide announcements and all Management Functions. Server Currently Runs the Rauland Telecenter Campus Enterprise Software.
B. The platform shall utilize state of the art IP Technology for Call-in Notification, School Safety Paging and Evacuation tones, Atomic Time Synchronization, Class Change Tones utilizing multiple, programmable schedules for each zone, Two-way hands-free Internal Communications and Paging, and Program Distribution. The system shall be easy to learn and operate. All standard programming shall be web-based and user friendly to allow the system administrator the ability to easily program system features.
C. Provide complete and satisfactorily operating district/school communications and district/school safety as described herein, using materials and equipment of types, sizes, ratings, and performances as indicated. Use materials and equipment that comply with referenced standards and manufacturers' standard design and construction, in accordance

with published product information. Coordinate the features of all materials and equipment so they form an integrated system, with components and interconnections matched for optimum performance of specified functions.

D. The platform shall be a single electronic system consisting of a minimum of 10 audio channels for each campus, (classroom) IP Speaker Modules and call switches, IP Zone Modules connecting corridor speakers, inside and outside horns, IP Administrative Consoles, SIP enabled PBX integration and district-wide integration for paging, emergency notifications, calendar scheduling and configuration.

E. Each Classroom shall be provided with a Speaker Module interface and a minimum of 5 different call switches, each with their own annunciation path and priority.

F. Call-ins may automatically annunciate (display of priority and location) to administrative consoles, SIP enabled phones, and outside phones.

G. Call-ins shall be programmed to automatically change priority and annunciation route based on age of call-in and original priority.

H. Call-ins may have priority (and annunciation route) changed by user action from a console or SIP enabled phone.

I. Call-in annunciation route shall include playing pre-recorded audio over speakers, sending a pre-configured email, and activating relays.

J. The platform shall lend itself to expansion by simple addition of hardware modules.

K. The platform shall connect directly to an existing, standard protocol WAN/LAN network, without the need for a separate server at each school location. Configuration, including bell schedules, calendars, and emergency sequences can be remotely created, changed, stored, and downloaded to the system by an authorized user from a web-based user interface.

L. The platform shall provide the ability to initiate school safety paging announcements, evacuation tones and take cover tones from any telephone or connected web browser within the facility or outside the facility to any other location within the facility or district.

M. The platform shall provide the ability to selectively communicate or monitor individual classrooms in emergency situations from any telephone within the facility or outside the facility to any other location within the facility; all communication within the classroom shall be hands-free and will not require any interaction by the classroom user.

N. The platform shall provide classroom users the ability to confirm that they have safely secured their classrooms during an emergency with a single button press. The front office administrator will receive confirmation that the classroom is safely secured via an administrative console and web-based user interface. The front office administrator can view classrooms that are not safely secured via the administrative console. The front office administrator can view classrooms that are not safely secured via the web-based user interface. The front office administrator shall be able to initiate two-way communication, without a pre-announcement tone, to the classroom during an emergency via the administrative console. Web-based user interface will still identify that a school is in an emergency, even if all classrooms are safely secured. Individual classroom check-in and school emergency status shall be viewed from the web-based user interface, both on-site and remotely.

O. IP Addressable and POE powered Speaker Modules for individual rooms shall be system programmable and may be assigned any two, three, four, five- or six-digit number as well as name and description. Any extension may be reassigned at any time.

P. IP-enabled two-way voice communication shall be available from any provided telephone or administrative console through any speaker in a campus. This shall allow hands-free communication to any classroom or any individual loudspeaker unit. A programmable pre-announce tone shall sound immediately before the intercom path is opened and a

supervisory tone shall continue to sound at regular intervals when speaker monitoring is active, complying fully with all privacy legislation. Preannounce tone and supervisory tones shall be disabled during designated emergencies automatically.

Q. The platform shall allow users to configure multiple schedules per school, with a minimum of 500 unique events per schedule, and automatic Daylight Savings time correction. Schedules can be programmed to occur once, daily, weekly, monthly, or in any combination of the preceding recurrences. Each school may have a minimum of 20 unique bell schedules, with a minimum of 5 active schedules on any given day for each campus. User shall be able to select from 25 standard included tones as well additional user created and uploaded audio files for class change signaling and messaging. In addition, scheduled events shall include relay actions, email notifications, and paging exclusions as system configuration changes. The platform shall allow control of the bell schedules via the district WAN/LAN without the need for a separate server at each school location. Bell schedules can be remotely created, changed, stored, and assigned to calendar days for the local school by an authorized user from a web-based user interface.

R. The platform shall be able to integrate with an existing PA system or operate as a fully independent IP solution. The platform shall be able to function in combination of said configurations and allow for seamless communication within a school or district-wide, regardless of the type of configuration used. The platform shall be scalable, with the ability to easily add, install, and configure additional equipment to a system.

S. The platform allows for customization of preprogrammed sequences, used for emergencies, events, and everyday communications. Preprogrammed sequences can be activated from the push of a relay button, soft key of an administrative console, a dial string of a SIP phone, or a web browser configured to the district network. Sequences can be initiated automatically as part of a schedule or on the fly. Preprogrammed sequences can be customized to utilize any combination of audio tones, emails, relays, tone exclusions, swings, delays, duples, SIP phone notifications, and program distribution. Audio tones can include customized audio files and voice messages, recorded in any language. Uploaded audio tones and messages can be preprogrammed to annunciate repeatedly or individually, as part of a scheduled sequence or on the fly. Each school in a district can have its own customized sequences, and can be activated individually, in groups, or districtwide.

T. Reference attachment 'A' for more information.

2.2 EQUIPMENT AND MATERIAL

A. Server Software

1. Provides district-wide paging, bell event scheduling, emergency notification and configuration for entire district.
2. Ability to configure system and initiate system features, per school and district-wide via web-based user interface.
3. The software has the ability to sync system time to the Atomic Clock Signal or to the school's or district's network time server.
4. The software will provide a web browser to deliver district-wide emergency paging, pre-recorded messages, and tones from any authorized computer in the facility or the district. The software must be capable of automatically notifying district personnel via the WAN/LAN of an alarm condition.
5. The software can automatically broadcast emergency instructions via associated system hardware throughout an entire district when an alarm (e.g., lockdown, lockout, security, fire) is initiated via the web-based user interface. The emergency instructions are preprogrammed and require no user intervention. Bell tones can be halted during an emergency. The system provides redundant alarm

annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.

6. The software allows for user-uploaded pre-recorded messages and tones. Software supports the upload of MP3 and WAV file types. User-uploaded pre-recorded messages and tones can be part of emergencies, sequences, and bell schedules.
7. The software can be installed in cloud, virtual or physical server environments.
8. The web-based user interface supports secure HTTP browsing.
9. The software supports encryption to ensure secure access.
10. The system shall monitor itself if devices go offline and system actions are not received. Specified users shall receive email notifications when devices go offline. The software shall be able to keep a log and report on system activity within a school or all schools district-wide for a minimum of one year. These reports can be exported to excel spreadsheets.
11. The software will support a minimum of 20 bell schedules per school, with 5 schedules assignable to a specific school day. Bell schedules can be programmed to annunciate tones, activate relays, send emails, activate program distribution, and notify SIP phones.
12. The system allows programmable end points to be automatically included or excluded for live paging, bell tones, or prerecorded audio, depending on the time or day or day of the week. These inclusions/exclusions can be applied manually or automatically depending on their schedule.
13. The software can automatically send an email, as part of a programmed sequence of events, to district administrators alerting them of an emergency within the district.
14. The software provides the ability to view schools that are in an emergency status, using any web browser on the district's network. The software shall identify the name of the school in an emergency as well the type of emergency that school is in.
15. The software provides the ability to view individual classrooms that are not checked-in during an emergency, using any web browser on the district's network. The software shall identify the name, extension, and description of the classroom that is not checked-in during the emergency.
16. The system has a minimum of 5 customizable emergencies, one of them being an All-Clear – with the ability to return the system from an emergency to normal status. Each emergency shall have a minimum of 500 unique events.
17. As a district-wide communications solution, the system shall be able to provide simultaneous communications to all schools or groups of schools within a district. The system shall allow a user to initiate district-wide communications to individual schools, all schools, or groups of schools, from a web-based user interface. The system shall allow a user to initiate prerecorded audio, live paging, or programmed sequences to individual schools, all schools, or groups of schools, from the web-based user interface. Programmed sequences shall be customizable per school, and the system shall be able to activate them simultaneously to individual schools, all schools, or groups of schools, from the web-based user interface.
18. The communications software must allow upgrade from an individual school system to multiple schools, or an entire school district, using the same web-based user interface. The communications software from an individual school system must be identical in typical user operation to the multiple schools or entire school district communications system software.

B. Campus Controller
1. Provides call routing for paging and intercom for a single facility.
2. System shall connect to the district provided Telephone Network via a SIP connection.
3. Support a flexible numbering plan allowing two, three, four, five, or six-digit extensions.
4. SIP interface to a district provided Telephone Network shall be capable of allowing connected phones to display classroom call-ins, answer internal intercom call-ins, make pages, and change priorities of call-ins in progress.
5. Direct dialing, two-way amplified voice intercom between any provided telephone or admin console and speaker without the use of a press-to-talk or talk-listen switch.
6. Ability to upgrade priority level from individual call switch.
7. The ability to answer intercom call-ins registered at administrative consoles and pre-selected telephones.
8. The ability to automatically escalate incoming call-ins to an alternate telephone or group of telephones if they remain unanswered for a predetermined amount of time.
9. The ability to manually upgrade an intercom call-in to an alternate telephone or group of telephones.
10. The ability for classrooms to "check-in" via push button when they have successfully secured their location during emergency.
11. Administrative console shall display locations that have not checked in to confirm their secured location and provide hands-free audio monitoring and communication to unsecured locations.
12. The controller shall not need direct connection to any classroom via home run or distributed wiring. It shall communicate solely through the IP network.
13. Single button access from any console on the system to distribute emergency announcements within the facility to all or select locations equipped with speakers. Emergency announcements originating from any assigned administrative console shall have priority over all regular system functions.
14. Ability for administrative consoles and connected phones to selectively monitor audio at any two-way speaker during an emergency.
15. Stores a minimum of 48 hours' worth of Bell Event Schedules, all emergency notification sequences as well as facility wide configuration.
16. System has the ability to sync system time to the Atomic Clock Signal or to the school's or districts network time server.
17. System's SIP Interface shall provide:
    a. Audio paging access from any telephone to any single intercom speaker, zone (group) of intercom/paging speakers, or all speakers/paging horns throughout the entire facility.
    b. Ability to answer a call-in directed to that SIP extension.
    c. Ability to upgrade a call-in directed to that SIP extension.
    d. Single button access from any telephone on the system to initiate alarm signals within the facility to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating from any assigned administrative telephone shall have priority over all regular system functions.
    e. Ability to initiate a school-wide emergency including lockdown and evacuate sequences.
    f. SIP device shall display call-in information from call in switch.

Information will include a minimum of Classroom Name, Number, and Priority Level.

18. The system will have the ability to utilize a web browser and a USB microphone connected to the PC to deliver district-wide live emergency paging, pre-recorded messages, and tones from any authorized computer in the facility or the district. The system must be capable of automatically notifying district personnel via the WAN of an alarm condition.
19. The system can automatically broadcast emergency instructions throughout an entire campus when an alarm (e.g., lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. Bell tones can be halted during an emergency. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.

C. IP Addressable Modules:
1. System shall provide multiple IP Addressable Modules for intercom, paging and relay activation.
   a. All Modules are POE 802.3af compliant
   b. All Modules support DHCP.
   c. All Modules connect to network with a single RJ45 connector
2. IP Addressable Speaker Module
   a. Shall interface to school's data network, a classroom speaker, and multiple call switches.
   b. A minimum of 5 levels of call-in can be placed from an IP Speaker Module. The call-ins are routed to administrative consoles and select SIP connected telephones and can only be cleared from the system once answered. If a call-in is not answered within a preprogrammed time the call-in may reroute to other telephones, consoles, and speakers.
   c. An option for Privacy call in switches is supported. When the Privacy switch is activated, it prevents administrative or classroom telephones from monitoring the specific classroom/location intercom speaker.
   d. The ability to belong to one or more of a minimum of 100 independent zones for zone paging, program/music distribution zones and class change tone zones; this assignment is a programmable function, changeable by time of day. Each IP Speaker Module's location shall be programmed in software to belong to any combination of software zones. IP Speaker Modules shall be designed to mount near ceiling and wall speakers and in the plenum space.
   e. Intercom and paging volume adjustable from Software interface.
3. IP Addressable Zone Paging Module
   a. Zone Paging Module shall connect multiple speakers for district all page, all page, zone paging, bells, audio events and, emergency notification.
   b. Zone Paging Modules shall be rack and wall mountable.
   c. Zone Paging Modules shall be able to belong to one or more of 100 independent zones for live paging, bells, pre-recorded audio, and emergency notification.
4. IP Addressable Aux I/O Module
   a. Aux I/O Module shall have two input contacts and two output contacts.
   b. Input and output contacts are individually addressable.
   c. Aux I/O Module shall be wall and rack mountable.
   d. User can program relays to be activated manually, through an event/bell schedule, or during emergency notification.

e. Aux I/O Module can perform school lockdown from a single press of a panic button.

5. IP Addressable Program Line Input Module
   a. Program Line Input Module shall provide line level audio program distribution into system.
   b. Program Line Input Module shall have a 3.5mm cable jack.
   c. Program Line Input Module shall be configured via web-based user interface.
   d. User can configure program distribution to be activated manually or automatically through an event/bell schedule.
   e. Program Line Input Module will have a system priority level such that emergency communications override program distribution.

D. IP Addressable Analog Gateway
1. IP Addressable Gateway provides integration with existing analog wiring infrastructure – consisting of shielded two-pair classroom field wiring. The Gateway provides the ability to reuse speaker wiring, speakers, and punch blocks to integrate analog infrastructure with IP platform.
2. Each Gateway will have 5 watts of power per port and 25 watts total per device.
3. Supports 24 classrooms that utilize 25 Volt speakers and all current Telecenter call switches for front office notification.
4. Supports minimum of 5 call switch priorities per classroom, capable of lockdown check-in functionality, while reusing existing shielded two-pair classroom field wiring.
5. Classroom intercom volume adjustable from Software interface.
6. Classroom paging volume adjustable from Software interface.
7. Configured to the school network and can be used in conjunction with IP Addressable Modules.

E. IP Addressable Administrative Console
1. A full color screen with 64 soft keys, 3 line select, volume control, push to talk, speakerphone mode and left/right and up/down scrolling.
2. Audio paging access from any Console to any single intercom speaker, zone (group) of intercom/paging speakers, or all speakers/paging horns throughout the entire school.
3. Programmable soft key access from any console on the system to initiate alarm signals within the school to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating from any assigned administrative console shall have priority over all regular system functions.
4. Programmable soft key access from any console to automatically broadcast page emergency instructions throughout an entire school when an alarm (e.g., lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
5. Ability to perform intercom to any single IP Addressable Speaker Module.
6. Ability to display 3 call-ins at a time on the screen while other call-ins are annunciating and the ability to scroll to view all call-ins.
7. Ability to upgrade a call-in via soft key.
8. Programmable soft key access from any console for activating relays, campus wide.
9. Ability to maintain, along with controller and other IP Modules system functions,

including intercom, bells and paging for the local campus in the event of district-wide connection loss.

10. Classrooms that have not 'checked-in' during an emergency are listed on the Administrative Console's screen.
11. The time duration of an emergency is shown on the screen of the administrative console. The check-in timer is shown on the screen of the administrative console.

F. Audio Paging/Program Amplifiers – Ashly NE 8250
1. Power amplifier(s) shall be provided to provide a minimum of 2 watts of power to all paging speakers, and 15 watts of power to all paging horns.
2. The maximum load on the paging/program amplifiers shall be 80% of the rated maximum output of the amplifiers.

G. Normal/Emergency Call Switch – Rauland Dual Level Call-In Switch
1. Normal/Emergency Call Switches indicated on the drawings shall provide the following functions and features:
   a. One (1) "Normal" call switch that shall activate a distinctive "NORMAL" level call from single button activation. The button shall be clearly marked "NORMAL" and will route the call-in to any one or more Administrative Consoles and/or Marquee Displays for quick and easy response from an Administrative Console.
   b. One (1) "Emergency" call switch that shall activate a distinctive "EMERGENCY" level call from single button activation. The button shall be red in color and shall be clearly marked "EMERGENCY" and will route the call-in to any one or more Administrative Consoles and/or Displays for quick and easy response from an Administrative Consoles.

H. Emergency/Check-In Call Switch – Rauland Check-In Call-In Switch
1. Emergency/Check-In Call Switched indicated on the drawings shall provide the following functions and features:
   a. One (1) "Emergency" call switch that shall activate a distinctive "EMERGENCY" level call from single button activation. The button shall be red in color and shall be clearly marked "EMERGENCY" and will route the call-in to any one or more Administrative Consoles and/or Displays for quick and easy response from an Administrative Consoles.
   b. One (1) "CHECK-IN" call switch that shall activate a distinctive "CHECK-IN" level call from single button activation. The button shall be blue in color and shall be clearly marked "CHECK-IN" and will route the call-in to any one or more Administrative Consoles. This button will be used for emergency check-ins during school emergencies, notifying the front office of the classroom occupants' safety during an emergency.

I. Equipment Racks
1. All equipment racks shall provide 44 spaces (77") minimum for mounted system equipment.
2. All equipment racks shall be multi-rack format ("gangable") style, bolted together, and open cavity.
3. All equipment racks will be provided with lockable rear doors.
4. Equipment rack(s) shall be located in climate-controlled areas/rooms as shown on drawings.
5. All head-end, distribution, and source equipment, including data and power, shall be located in racks configured as approved by the Engineer.
6. Rack mounted equipment shall be accessible from front and rear.
7. All unused rack spaces will be covered with appropriate blank/vent panels.

J. Interior Ceiling Speakers

1. Provide Ceiling Speaker Assembly consisting of 8 Ohm, 8" speaker mounted in a 2 foot by 2 foot, lay-in baffle, with an integrated back box that covers the full area of the baffle.
2. The speaker shall be connected by inserting an 8-pin RJ45 terminated CAT 5e or Cat 6 cable.
3. The speaker shall include provisions to allow attachment of a safety cable if required.

K. Wall Mounted Horns
1. Provide double re-entrant type horn loudspeakers with integral driver. The horn loudspeaker shall be impervious to weather and vandalism. Horn shall be constructed of heavy-duty ABS plastic. Horn loudspeaker drivers shall be rated at 15 watts with a frequency response of 480 Hz to 14 KHz. Sensitivity shall be 106 dB 1 watt, 1 meter. Transformer assembly shall be dual voltage multi-tap type suitable for 25 or 70-volt installations. Dispersion pattern shall be 180 degrees conical. The horn loudspeaker shall be constructed of treated heavy gauge aluminum, with all exposed parts potted and a sealed driver. Wiring terminal shall be fully enclosed. The speaker flange and mounting surface shall have a cork-rubber gasket. The horn loudspeakers finish shall be gray baked on enamel.
2. The recessed back box shall be of heavy gauge cold-rolled steel, spot welded for stability with a rust-retardant gray primer finish. Acoustically treat the interior to eliminate mechanical resonance. The back box shall be 10-3/4"x10-3/4"x6" deep.
3. The baffle shall be vandal proof, the faceplate constructed of 14-gauge carbon steel with a minimum tensile strength of 55,000 PSI. A lattice grid sub-plate shall deny access to the horn but be acoustically transparent for sound projection. Provide tamper-proof, stainless steel mounting hardware. The baffle shall a mar/scratch baked epoxy rust inhibitive finish.

L. Uninterruptible Power Supplies (UPS)
1. UPS equipment provided for this system will include Power Conditioning to smooth current and voltage fluctuations.
2. UPS equipment will be sized in accordance with the system manufacturer's recommendations.
3. Provide an individual UPS for EACH remote gateway outside of the MDF (Gateway) furnished with the system.
4. Provide additional UPS(s) for protection of all other equipment furnished with the system and housed in the equipment racks.
5. All UPS equipment shall be rack mounted.

M. Wall Mounted Volume Control
1. Provide as shown on floor plans. Provide Atlas AT-10PA or approved equal recessed autotransformer volume control. Routine paging shall not override the volume control.

N. Wall Mounted Emergency Lockdown Button
1. Provide Safety Technology International Stopper Station Push, Turn-to-Reset w/shield w/sound, or pre-approved equal in locations as shown on floor plans.
2. Labeled "EMERGENCY"
3. Lockdown shall be Blue

O. Program Source Equipment
1. Provide Qty 1 cd player with blue tooth Interface
2. Provide 1 Program Source Module to interface with the IP Communications system
3. Provide a Mixer Preamp for use in adjusting Sound levels

4. Provide an Interface panel for additional sources and 1 paging Microphone
5. Provide 1 desk top paging Microphone
6. Provide Desktop enclosure to house all program source equipment

P. Additional Equipment:
1. Contractor shall include in their pricing, the cost to furnish and install the following additional equipment. These devices shall be used to fulfill any changes request issued until the list is depleted. Upon the completion of the project, all remaining material shall be delivered to the project for owner stock. No devices shall be used without documentation and written authorization from the project's technology consultant. Contractor shall obtain a signed transmittal of additional equipment to the owner at the end of the project. The signed transmittal shall be included in the contractor's closeout documents.
2. Additional Equipment List:
a. Five (5) Ceiling Mounted Speakers with tile bridges
b. Two (2) Wall Mounted Volume Controls
c. One (1) Exterior Speakers
d. Ten (10) Lock Down Buttons and Covers

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with the Installer present, for compliance with requirements and other conditions affecting the performance of the School Communications and School Safety Network.
B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install system in accordance with NFPA 70 and other applicable codes. Install equipment in accordance with manufacturer's written instructions.
B. Furnish and install all material, devices, components, and equipment for a complete operational system.
C. Impedance and Level Matching: Carefully match input and output impedances and signal levels at signal interfaces. Provide matching networks where required.
D. Control Circuit Wiring: Install control circuits in accordance with NFPA 70 and as indicated. Provide number of conductors as recommended by system manufacturer to provide control functions indicated or specified.
E. All housings are to be located as indicated.
F. The contractor shall provide necessary transient protection on the AC power feed, all copper station lines leaving or entering the building, and all central office trunks. All protection shall be as recommended by the equipment supplier and referenced to earth ground.
G. Wiring within Enclosures: Provide adequate length of conductors. Bundle, lace, and train the conductors to terminal points with no excess. Provide and use lacing bars.
H. Provide physical isolation from speaker-microphone, telephone, line-level wiring, and power wiring. Run in separate raceways, or where exposed or in same enclosure, provide 12-inch minimum separation between conductors to speaker-microphones, telephone wiring and adjacent parallel power. Provide physical separation as recommended by equipment manufacturer for other system conductors.
I. Identification of Conductors and Cables: Use color coding of conductors and apply wire and cable marking tape to designate wires and cables so all media are identified in coordination with system wiring diagrams.
J. Provide integration of local sound reinforcement system override.

K. Provide integration of remote lockdown pushbuttons.
L. Install new speaker types as indicated on the drawings.
M. Speakers in high ambient noise areas (cafetorium, gymnasiums, etc.) shall be tapped as required to overcome the ambient noise generated by the public.
N. Provide silicone sealant to all openings and conduit penetrations at all exterior back box locations.
O. Weatherproofing: Provide weatherproof enclosures for items to be mounted outdoors or exposed to weather.
P. All exterior wall penetrations shall be properly sealed to prevent moisture from entering the building.
Q. Conduit and Cables
1. Install conduit, fittings and boxes as specified in Division 26.
2. Single system cables shall be grouped together in a common conduit of adequate capacity to facilitate the ease of installation and prevent conductor or insulation damage.
a. In no case shall the conduit fill exceed 40% capacity.
b. Do not group conductors or cables of different systems in a common conduit.
c. Provide and install protective bushings on all conduit stub outs and sleeves, prior to cable installation, to prevent cable damage.
3. Cable:
a. Install cables as recommended by the system manufacturer. Conductor quantities specified are minimum required. Conductors to be installed shall be coordinated with the system equipment supplier.
b. Cables installed on exposed surfaces, in inaccessible locations, or underground shall be installed in conduit.
c. Cables installed above accessible ceiling spaces may be installed without conduit. All cables not installed in conduit shall be plenum rated.
d. Cables shall be routed down corridors, parallel and perpendicular to the building walls and structure. Cable to each device shall branch off a main corridor trunk.
e. Routing cables through classrooms, offices, storage rooms, restrooms, or any type of room other than a corridor will not be accepted. Enter rooms above the associated room doorway.
f. All cabling shall be home runs to head-end equipment to allow for zoning to be accomplished.
4. Cables not installed in conduit shall be grouped and bundled. Cable shall be bundled on a maximum of 2'-6" on center. Support cables from D-rings or J-hooks. D-rings and J-hooks shall be secured to the structure at a maximum of 5' on center. Bundling and support shall be with plenum rated cable ties.
5. Cables installed in hollow wall spaces shall be installed in conduit to an accessible location.
6. Tag each circuit at each end and at each terminal with a separate tag indicating the area served.
R. Emergency Lockdown Buttons
1. Cabling for each Emergency Lockdown Button shall be homerun to the Communication System head-end equipment.
2. Communications system shall communicate with intrusion system over the network when there is a lockdown event.
3. Provide connection from the Communication System head-end equipment to the Intrusion Detection System head-end for sending notifications to the CFISD Police Department. Coordinate additional requirements and programming with Owner.
4. Button shall cause the Intercom System to send a distinct alert tone throughout all speakers in the building. Coordinate exact tone with Owner.

5. Button shall send an Emergency Call signal to all Administrative Call Stations.
6. Communication System shall alert essential personnel via SMS and e-mail that a Lockdown event has occurred at the campus. Coordinate additional requirements with Owner.
7. Buttons and alert tone shall be reset by pressing the All-Clear button on any Administrative Call Station console.
8. Coordinate Emergency Lockdown Button device identification naming with Owner.
9. Reference attachment 'A' for more information.

S. Volume Controls

1. Volume Controls shall be configured with emergency call override, allowing emergency announcements to be heard regardless of the position of the volume control.

3.3 ADDITIONAL REQUIREMENTS

A. Provide visual PA indicator light in deaf education areas and wire into the communications system for bell tones.

3.4 GROUNDING

A. Provide equipment grounding connections for Integrated Electronic Communications Network systems as indicated. Tighten connections to comply with tightening torques specified in UL Standard 486A to assure permanent and effective grounds.

B. Racks and cabinets shall be grounded to the metallic structure of the building or to the building system power ground in accordance with NEC section 250. Securely bond equipment to the ground system through a minimum 14-gauge green insulated conductor.

C. Ground equipment, conductor, and cable shields to eliminate shock hazard and to minimize to the greatest extent possible, ground loops, common mode returns, noise pickup, cross talk, and other impairments. Provide 5-ohm ground at main equipment location. Measure, record, and report ground resistance.

D. Electronic systems shall be grounded to the building system ground, with a maximum resistance of 0.1 ohm. Systems ground shall be a driven ground rod, building steel, or other approved ground of the building power systems ground.

E. Provide all necessary transient protection on the AC power feed and on all copper station lines leaving or entering the building. Note in system drawings, the type and location of these protection devices as well as all wiring information.

3.5 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide services of a duly factory authorized service representative for this project location to supervise the field assembly and connection of components and the pre-testing, testing, and adjustment of the system.

B. Inspection: Make observations to verify that units and controls are properly labeled, and interconnecting wires and terminals are identified. Provide a list of final tap settings of paging speaker line matching transformers.

C. Testing: Rectify deficiencies indicated by tests and completely re-test work affected by such deficiencies at Contractor's expense. Verify by the system test that the total system meets the Specifications and complies with applicable standards.

3.6 FINAL ACCEPTANCE TESTING

A. The Final Acceptance Testing shall be provided to the Owner, or the Owners designated representative only. Final acceptance testing to any other trade or service provider for the project will not comply with the requirements of this section.

B. The contractor will provide a Final Acceptance Test record document signed by both the contractor and the Owner or designated Owner's Representative establishing the "In

Warranty" date. The warranty period will not commence until the Final Acceptance Test is completed.

C. Be prepared to verify the performance of any portion of the installation by demonstration, listening and viewing test, and instrumented measurements. Make additional adjustments within the scope of work and which are deemed necessary by the Owner because of the acceptance test.

3.7 COMMISSIONING

A. The contractor shall train the Owner's maintenance personnel in the procedures and schedules involved in operating, troubleshooting, servicing, and preventative maintenance of the system. This training will be in accordance with the training as outlined in Section 1.6 of these specifications. In addition to the Training Materials provided, the contractor will also furnish Operators Manuals and Users Guides at the time of this training.

B. Schedule training with Owner through the Owner's representative, with at least seven days advance notice.

3.8 OCCUPANCY ADJUSTMENTS

A. The contractor shall provide Occupancy Adjustments in accordance with Section 1.6 of these specifications. A response scenario amenable to both the owner and the contractor will be established and followed for the first year of service.

3.9 CLEANING AND PROTECTION

A. Prior to final acceptance, the contractor shall vacuum and clean all system components and protect them from damage and deterioration. All blank spaces in equipment cabinets will be covered with blank panels. Top and side panels, and all cabinet doors will be installed. All general areas within and around all equipment rack/cabinets in the facility will be swept, vacuumed, and cleaned up. No cabinets will be left unlocked, and all cabinet keys will be turned over to the owner or designated owner's representative.

ATTACHMENT 'A'
PROJECT SPECIFIC SCOPE OF WORK AND INSTRUCTIONS

PART 1 – SUMMARY OF WORK – INTERCOM AND CLOCKS

1.1 DESCRIPTION OF WORK

A. This project consists of the provision and installation of a Intercommunications system as required to support intercommunications, clocks and lockdown buttons. This project is a renovation of Langham Creek HS for Cypress-Fairbanks ISD.

B. The work includes provision and installation of a complete Intercom System in compliance with these specifications and associated drawings, pre-proposal addenda, change orders, change directives and any other documents issued both pre-proposal and during the project.

C. It should not be assumed that any portions of a complete and functional system are to be furnished and/or provided by anyone, other than the intercom system installer, unless specifically stated otherwise.

D. Any network switches that are required shall be provided by the owner. Contractor is responsible for coordinating the switch requirements with the owner so the model of switch from the owners approved manufacture can support the systems needs.

E. The existing system is to be demolished and replaced. Reference technology floor plans for existing devices that are to remain.

1.2 DESIGN REQUIREMENTS

A. Provide a complete communications system capable of providing two-way speech communication between selected speaker stations or intercom handsets and main console. System shall also be capable of distributing sound and voice signals to all system speakers simultaneously or in user programmed groups of speaker stations.

1. High School and Middle School classrooms shall have a speaker and a call button. Elementary School classrooms shall have an intercom speaker only. Call button to be Rauland Model #603302.
2. All portable classrooms (A and B sides) shall be updated with IP speakers, Call Buttons and Lock Down buttons. Call Buttons in High Schools and Middle Schools only. Reuse existing call Button and Lock Down Button locations in portables.
3. Reception desk and designated offices shall have Console Phones.
4. All offices shall have a volume control for speakers.

B. Fire Alarm System Interconnection: APPLICABLE IN HIGH SCHOOLS AND IN MIDDLE SCHOOLS – Main communications and local sound reinforcement systems in the Gymnasiums, Cafeteria, Natatorium, Black Box and Large Group Instruction shall be automatically muted during fire alarm system activation (NFPA Life Safety Code 101, 7-6.3.10 and National Fire Alarm Code 72, 3-8.13.5). However, school communication system shall remain capable of manual override so that school staff can deliver voice instructions over the school communications system, such as directing students to return after a fire drill.

C. The system shall be supplied by the manufacturer's authorized contractor, Rauland, Certification shall be submitted verifying that the contractor is the manufacturer's authorized contractor. Included shall be certificates of attendance in manufacturer's installation / maintenance training by the contractors directly employed personnel. The communications contracting company shall have been in business for a minimum of 5 years, continuously furnishing the specified manufacturers' product lines and systems.

D. The system assemblies shall be completely factory built and tested by manufacturers of established reputation, who have and can refer to similar systems which are currently

installed and functioning properly. The factory pre-assembled cabinets, consoles, and power supplies shall be UL approved and listed. whichever is first, against defects in materials, workmanship, design and improper adjustment. Any defects in the system shall be corrected at no expense to the Owner, provided the system does not show signs of abuse. During the guarantee period any work found not to be in conformance with the plans, specifications and addenda shall be brought into conformity with same at no additional cost to the owner.

E. The equipment furnished shall be supplied by one communications contractor. The contractor shall hold the necessary License for this type of work. Contractor is required to submit current certification from manufacturer with submittals.

F. Provide local wall mounted volume control in all offices, work rooms, conference rooms, teaching theaters, large teaching areas, special needs classrooms, band, orchestra and choir and all practice rooms. Provide volume control at intercom/P.A. rack for auditorium all dressing rooms and corridors around auditorium, cafeteria, and corridor circuits for Middle and High Schools.

G. Provide call in switch on wall closest to door leading to hallway in Middle and High Schools. Button to be Rauland model #603302. Red EMERGENCY and white NORMAL call in.

H. Provide IP admin phone and microphone at receptionist, principal's office, AP secretary, all AP's and any admin suite.

I. ADDITIONS/RENOVATIONS (Existing buildings w/analog recording).
   1. Maintain a fully functioning system in unaffected areas.
   2. Remove all abandoned equipment and return to owner, remove all abandoned wiring and patch surfaces at wall and floor penetrations.
   3. Maintain access to all existing equipment.
   4. Prior to construction, a system test will be required of the contractor to demonstrate the current state of the system. Any non-functioning item at this time shall be noted and addressed by CFISD Maintenance. If system is proven to be 100% functional, the contractor is responsible to any repair necessary to return it to its previous state.
   5. At Substantial Completion or when system is ready to be tested, a demonstration is required by the contractor to demonstrate the system mirrors the system condition prior to construction. If system is not functioning the same prior to construction, the contractor shall make necessary repairs to bring the system back up to the pre-construction condition.

PART 2 – SUMMARY OF WORK

2.1 INTERCOM SYSTEM – ADDITIONAL INSTRUCTIONS

A. Manufacturers:
   1. Telecenter U IP (new campuses) by Rauland – No Exceptions.
   2. Existing CFISD campuses have Telecenter U. During renovations, IP modules can be added. Confirm with CFISD during design.

B. Program Source:
   1. Use single gang input jack at reception desk. RDL D-J3 Wall mount RCA and XLR Mic/Line Input Panel or equal. Location of this jack may b e different for each school, depending on counters and cabinets. Jack shall be mounted near an outlet for power requirements. This replaces CD player, radio, mixer and desktop rack unit. Jack is to be wired and run to head end rack where it connects to Telecenter U Line Input Module. Use copper/analog wiring, not Cat 6 network wiring.

C. Classroom Speakers for IP System:

1. Rauland TCC2011A IP Module with BAFKIT2X2L8RJ Speaker or equal, to be used in classrooms.

D. Office and Hallway Speakers:
1. Quam 17URS 2X2 Lay-In Speaker or equal. These offices shall have a volume control.

E. Bathroom and Hard Ceiling Speakers:
1. Rauland ACC 1400 or equal with backcans.

F. Wall-mount Surface Speakers - provide flush mount type

G. Cafeteria and gym intercom speakers should cover entire area; a minimum of six (6) speakers in each gym and nine (9) in each cafeteria. Additional speakers shall be added if required for better coverage.

H. Exterior Mounting: Flush mount with vandal-resistant metal baffle similar to Atlas / Soundolier Model VP161-APF. Baffle shall be square and designed for flush mounting. Provide backbox designed for flush mounting. Backbox shall be metal with all-welded seams and undercoated to eliminate mechanical resonances. Box shall have rust-resistant coating. Backbox shall be Atlas/Soundolier Model 193 Series deep box for specified speaker and baffle or approved equal. Install gaskets to seal enclosure to speaker. Backboxes and conduit shall be sealed and secured to the building.

H. SURGE PROTECTOR: Provide over voltage and transient spike surge protector to condition AC voltages into all microprocessed control systems. Tripp Lite IsoBar.

I. WIRE: Wire shall be #22 gauge at a minimum. Wire for communications system shall consist of 1 twisted pairs #22 copper under jacket and one (1) twisted pair #22 under shield copper with overall plenum rated PVC jacket. No splices are permitted except in approved junction boxes. All terminations shall be made on telephone type punch blocks or at specified devices. Display, speaker, and specialty cables shall be as required for best operation under manufacturer recommendations. All IP speakers/modules shall be wired by structured cabling contractor. All local low voltage by intercom contractor.

J. JACKS: All station device terminations (except speakers) shall be terminated on USOC standard modular jacks. Jacks for wall mounted telephones shall have lugs for securely attaching the instrument to the wall.

K. BACKBOARDS: Provide 4 foot x 8 foot plywood backboards for mounting of system cross connect field. Mount as shown on the plans. Provide Modular Termination backboards with 110 type terminal blocks as required to terminate all cables. Provide distribution and cross connect backboards equal to AT&T 66 Series for all cross connect wiring.

M. CAMPUS CONTROLLER: Integrates with existing District-wide Cisco IP phones. Coordinate with CFISD during design.

N. HYBRID MODULES: for all 25/70V applications, ie corridors / exterior horns, provide and install 24-port hybrid gateways.

O. CLOCK SYSTEM
1. At new construction, provide Master Clock Power Supply and Clocks by Sapling. Clocks are to be installed in the following locations only:
   a. Cafeteria / Commons – 16-inch clock
   b. Library – 16-inch clock
   c. Clinic – 12-inch clock
   d. Gymnasium – Middle Schools and High Schools: 16-inch clock, with protective wire cage; Elementary Schools: LED message board with protective wire cage(no clock).
   e. Behind receptionist area – 12-inch clock
2. At all renovations, provide Master Clock, Power Supply and Clocks by Sapling. Clocks are to be installed at the following locations:

a. Cafeteria / Commons – 16-inch clock
b. Library – 16-inch clock
c. Clinic – 12-inch clock
d. Gymnasium – Middle Schools and High Schools: 16-inch clock, with protective wire cage; Elementary Schools: LED message board with protective wire cage (no clock).
e. Behind receptionist area – 12-inch clock
f. All other clocks on this system to be removed and patched as required.

2.2 LOCKDOWN BUTTONS – ADDITIONAL INSTRUCTIONS

A. Lock Down Buttons are to be Make STI and Model SS24A1EM-EN only. (BLUE IN COLOR)
B. Inside all Main Buildings, wiring for Lock Down Buttons is to be run to the Intercom Head End.
C. The wire circuit is to be hooked up to the normally open relay on the lock down button and run to a TCC 2024 24 port gateway at the head end. Each gateway input is programmed with the lock down button description.
D. Additionally, a cable is run from the Intercom headend to the Burglar/Security headend panel to send notification to our Central Station. This allows the Central Station to also be notified in an instance where the school has activated the lock down system.
E. When the button is activated, the Intercom system sends a distinct tone throughout the building. The tone is the same for all campuses, letting everyone know what they should be doing without having to make an announcement. NOTE: It is not the burglar system sending the tone.
F. Provide (10) STI model SS24A1EM-EN lock down buttons for each campus in the project.
G. ACCEPTABLE WIRING METHODS - The District has two acceptable wiring methods for Lock Down Buttons.
    1. Inside Main Buildings: Run a home run wire from each Lock Down button to the Intercom Head End. The wire shall be white jacket plenum rated 18 gauge single pair red/black. The wire shall be connected to the Normally Open relay on the Lock Down Button and to a TCC 2024 gateway to trigger a Lock Down. The Module shall be programmed to identify the circuit, zone and button.
    2. Inside Portable Buildings: Run a wire circuit to an IP speaker from each Lock Down Button. One wire circuit on the portable A side and one on the B side. The wire shall be plenum rated white jacket 18 gauge single pair red/black. The red/black colored wire is run from the Lock Down Button Normally Open Relay to the IP speaker and terminated on an RJ45 plug (CALRAD Electronics 72-RJ45-T). Each IP speaker module(TCC2011A) has an RJ45 jack on it for AUX inputs. The RJ45 (CALRAD Electronics 72-RJ45-T) is plugged into the Aux Input of the speaker module. The intercom System uses special programming to activate the Lock Down system. (see special programming below).
        a. Special Programming: Special programming can be created for Lock Down Buttons to work independently or with another call button on the same wire circuit. A 220-ohm resistor is need on the call button when used with a Lock Down Button. This will let the system know which button is being used. Call buttons are only used at High Schools and Middle Schools. Trained technicians will do this programming.

END OF SECTION

SECTION 28 10 00
ACCESS CONTROL SYSTEM (ACS)

PART 1 - GENERAL

1.1 RELATED WORK

A. The following, in their entirety and as applicable, shall apply to this section. Including any associated drawings.
   1. Conditions of the Contract
   2. Division 1
   3. Division 26
   4. Division 27
   5. Division 28

1.2 WORK INCLUDED

A. Reference Attachment 'A' of this specification for supplemental scope and product material list as it relates to the project and the Owner standards.

B. ACS devices indicated are for reference and coordination purposes only. The System Installer shall design and provide a complete system, meeting the requirement of specification. Installer shall provide all system devices required to established controlled access and monitoring at locations designated in the contract documents. The system installation shall be in compliance with all governing authorities and the Architect, Engineer, and Owner expectations.

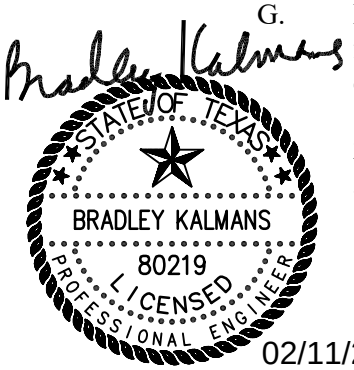
C. Security system devices indicated are for reference and coordination purposes only. The System Installer shall design and provide a complete system, meeting the requirement of specification. The installer shall provide all security system devices required for complete system perimeter coverage acceptable to all governing authorities, Architect and Owner.

D. The system shall include security for all access into building, including but not limited to the following:
   1. Control Panels
   2. Power Supplies
   3. Interconnection of panels
   4. Installation of new devices
   5. Card reader
   6. Magnetic locking hardware
   7. Request to exit devices
   8. Door position sensors
   9. Door Hardware (as specified herein and/or in Division 08, door hardware)
   10. Lockdown and Lockout Buttons
   11. Audio / Video Intercom Systems
   12. All additional material, hardware, and labor required for a fully functional, turnkey system

E. The System Installer shall connect each controller to the ACS Management System.

F. All system programming will be performed by the system installer. The system installer will be required to meet with the Owner, engineer, and system manager to discuss wiring and termination of the system control panels and field devices prior to installation.

G. Licensing: The System Installer shall NOT utilize any of the owner's existing licensing for this scope of work. All licensing shall be provided by the System Installer, no exceptions. Including, but not limited to the following:
   1. Portal Licensing
   2. Controller Licensing
   3. Wireless Licensing



4. Video Management Software Integration Licensing

H. System Installer to refer to Division 08 Door Hardware Specification. Provide and install all hardware specified to be provided by the "Access Control Contractor", "Security Installer", "Division 28", or any variation thereof.

I. System Installer to provide and install door hardware as specified in Specification Section 28 10 00.10 Access Control Hardware Devices - and 28 10 00.05 Access Control Hardware Devices

J. The documents issued for this project are conceptual in nature, including but not limited to specifications and drawings. It shall be the responsibility of the approved installer to furnish a complete and functional system, including the items shown on the drawings, in the specifications, and items not designated in either. The installer's shop drawings and product data submittals shall represent a complete system, and documents accepted do not relieve the installer from being required to provide any materials, equipment, or labor to furnish a complete and functional system as recognized by the Project's Technology Consultant and the Owner.

K. Remove all existing edge controllers. Provide new cabling and connections and necessary controllers to existing and new doors, from centralized controllers. Controllers and card readers that are removed shall be returned to owner.

1.3 REFERENCES

A. Code of Federal Regulations (CFR).

B. Institute of Electrical and Electronics Engineers (IEEE):
   1. 802.3 Ethernet Standards.
   2. IEEE 1100 Recommended Practice for Powering and Grounding Electronic Equipment.

C. International Electrotechnical Commission (IEC).

D. International Organization for Standardization (ISO):
   1. ISO / IEC 10918 - Information technology -- Digital compression and coding of continuous-tone still images: Requirements and guidelines; JPEG.
   2. ISO / IEC 14496-10 - Information Technology - Coding Of Audio-Visual Objects - Part 10: Advanced Video Coding; MPEG-4 Part 10 (ITU H.264).
   3. ISO / IEC 23008-2 - High Efficiency Coding and Media Delivery In Heterogeneous Environments - Part 2: High Efficiency Video Coding; MPEG-H Part2 (ITU H.265, HEVC).

E. Federal Communications Commission (FCC):
   1. FCC Part 15 – Radio Frequency Device

F. Underwriters Laboratories (UL):
   1. UL294 – Access Control Systems Units

G. Electronic Industries Alliance (EIA)
   1. RS485 - Electrical Characteristics of Generators and Receivers for use in Balanced Digital Multi-Point Systems

H. Federal Information Processing Standards (FIPS)
   1. Advanced Encryption Standard (AES) (FIPS197)
   2. FIPS201-2: Open Options DNA Fusion FIPS in conjunction with an E2-SSP-D2-FIPS, NSC-100-FIPS, RSC-2-FIPS and other listed components will provide an access control solution that is fully FIPS 201-2 compliant.
   3. Personal Identity Verification (PIV) of Federal Employees and Contractors

I. Homeland Security Presidential Directive 12 (HSPD12)

J. National Fire Protection Association Standards:
   1. NFPA 70 - National Electrical Code

2. NFPA 72 - National Fire Alarm Code
3. NFPA 101 - Life Safety Code

K. RoHS compliant
L. SIA AC-01-1996.10 - Access Control - Wiegand
M. Local & State Building Codes
N. Requirements of Local Authorities having Jurisdiction
O. Requirements of American Disabilities Act (Public law 101-336).
P. Texas Accessibility Standards (TAS)
Q. Texas Insurance Code.

1.4 QUALITY ASSURANCE

A. System Installer Qualifications:
1. The System Installer shall be the authorized representative of the Access Control Manufacturer to sell, install, and service the proposed manufacturer's equipment. The System Installer shall have represented the security alarm manufacturer's product for at least two years.
2. The System Installer shall be licensed as required, by the State in which the project is located in, as a security services contractor to design, sell, install, and service security alarm systems.
3. The System Installer shall provide 24-hour, 365 days per year emergency service with factory trained service technicians.
4. The installing firm shall have personnel on their staff that has been actively engaged in the business of designing, selling, installing, and servicing security alarm systems for at least ten (10) years.
5. The System Installer must submit to the owner prior to starting any work the factory training certificates for all personnel that will be working on the access control system. No person is allowed to work on the system without proper manufacturer's certification.
6. The proposing System Installer for this system and the installer of this system shall be of the same organization. Absolutely no subcontracting of any portion of this system by the proposing System Installer will be allowed.
7. The proposing/installing contractor of this system must be an authorized dealer / integrator for the project's specified Video Surveillance and the Intrusion Detection systems as well as the system specified in this section.
8. For proper, smooth, and complete integration of the IP security camera, access control, and intrusion detection systems; the proposing/installing contractor of the video surveillance and intrusion detection systems must be the same contractors.
9. The System Installer must be a current integrator of solution in the closest major metropolitan area marketplace, have a permanent office located within 75-miles of the project, and be able to include information on current support staff to be able to service this client.
10. The System Installer must be in good standing with the Owner and have no outstanding performance or warranty items at the time of bid. Any outstanding items or issues is grounds to disqualify the System Installer for performing any work on the project.

1.5 SUBMITTALS AND CLOSE-OUT

A. Product Data: Within fourteen (14) days of Notice to Proceed, the system installer shall furnish the following in a single consolidated submittal:
1. Permits: The Contractor shall obtain all required permits and provide copies to

the Owner / Architect / Engineer.

2. Product Literature: Complete manufacturer's product literature for all system equipment, power supplies, cable, termination components, cable supports, cable labels, field devices, and other products to be used in the installation. In addition, whenever substitutions for recommended products are made, samples (when requested by the Owner/Designer) and the manufacturer's supporting documentation, demonstrating compatibility with other related products shall be included. The submittal shall have some type of distinguishing marker or pointer to indicated what specific product is to be submitted.
3. Construction Schedule: A time-scaled Construction Schedule indicating general project deadlines and specific dates relating to the installation of the cable distribution system.
4. Specification Compliance: A letter shall be provided stating, by section and subsection, that the system installer complies with the ENTIRE specification section. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.
5. Certifications: The System Installer shall submit all of the following certifications and the certifications must contain dates which are valid from the date of proposal and not expirer any sooner than 12 months after substantial completion of the project.
    a. Manufacturer's Authorized Dealer/Installer Certification: This certification must be held by the proposing/installing contractor and state that the proposing/installing contractor is and authorized dealer/installer of the system specified within the project specifications. The certification must have been obtained by the office that is within a 75-mile radius of the project's location.
    b. Installer Certification: This certification must be held by at least 25% of the, on-site, staff and be made available at the site if requested by the owner, architect, and/or project's technology consultant.
    c. Licenses: This includes all licenses required by the state in which the work is being performed, the federal government, local authorities having jurisdiction, and any organization in that governs the specific system

B. Shop Drawings: Submit the following items, for Owner review and approval, within twenty-eight (28) days of notice to proceed:
1. Proposed circuit routing and circuit grouping plan prepared by a system registered designer. The designer's certification must be current. Identifiable, separate routing shall be shown for both the station cabling and any backbone trunk cabling.
2. In addition to the cable routing, the submitted drawings shall indicate the following, even if the following is expected to be provided by the project's electrical or general contractor:
    a. Location of all control equipment and remote power sources
    b. Locations of all field devices and outlets
    c. Location of wall penetrations (all penetrations shall be sleeved and contain protective bushings at both ends)
    d. Location of sleeved wall and/or floor pass-thru
    e. Size of sleeve at each location installed
    f. Quantity of cable passing through each sleeve

g. Conduit routing, size, quantity, and stub-up locations for any floor mounted outlets or outlets installed in casework.

3. Drawing Compliance: A letter shall be provided stating that the system installer complies with the entire project drawing, including all general, keyed, and notes to contractor. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been approved by the project's technology consultant.

C. Close-out Procedures: For review and acceptance, furnish an electronic copy of the following documents to the Architect / Engineer. Upon acceptance of the submitted close-out documents, provide four (4) copies on an electronic storage media (CD or USD Flash Drive) Labeled with the project name, date of submission, and the name of the submitting firm. Final copies shall be delivered directly to the project's Technology Consultant. The closeout submittals shall include the following and be packaged in a storable container with the physical storage media and any physical items listed:

1. Inspection and Test Reports: During the course of the Project, the System Installer shall maintain an adequate inspection system to ensure that the materials supplied, and the work performed, conform to contract requirements. The System Installer shall provide written documentation that indicates that materials acceptance testing was conducted as specified. The System Installer shall also provide documentation, which indicates that all cable termination testing was completed and that all irregularities were corrected prior to job completion.
2. Provide complete test reports for all cabling and devices that comprise system as outlined in this document.
3. Include the Name, address and telephone of the authorized factory representative with a 24-hour emergency service number.
4. The manual shall also include Manufacturer's data sheets and installation manuals/instructions for all equipment installed and a list of recommended spare parts.
5. Generic or typical owner's instruction and operation manual shall not be acceptable to fulfill this requirement.
6. An up-to-date record ("as-built") set of approved shop drawing prints that have been revised to show each and every change made to the system from the original approved shop drawings.
7. As-built Drawings shall include cable pathways; device locations with correct labeling, control equipment locations, remote power supply locations, cross connect locations, and lightning protection locations. The as-built drawings shall be prepared using AutoCAD 2014 or later.
8. All drawings must reflect point to point wiring, device address and programmed characteristics as verified in the presence of the engineer and/or the end user unless device addressing is electronically generated, and automatically graphically self-documented by the system.
9. A copy of the manufacturer's warranty on the installed system.
10. Any keys to cabinets and/or equipment and special maintenance tools required to repair, maintain, or service the system.
11. Operating and Maintenance Instructions for all devices within the system. These instructions shall reflect any changes made during the course of construction, and shall be provided to the Owner, for their use, in a three-ring binder labeled with the project name and description. (4 copies)
12. Upon completion of the work and at a time designated by the Architect or owner,

provide formal training sessions for the Owner's operating personnel to include location, operation, and maintenance of all included systems and equipment. Provide a video copy of the training session as well as all sign in and training sign off sheets

13. One (1) 30" x 42" laminated floor plan sheets illustrating device locations, system wiring configuration, and cable designation. The System Installer shall provide one complete floor plan sheet at each panel location.

1.6 DEFINITIONS

A. Abbreviations:

1. ACS Access Control System
2. VMS Video Management System
3. NVR Network Video Recorder
4. IDS Intrusion Detection System
5. GUI Graphical User Interface
6. IP Internet Protocol
7. CR Card Reader
8. DS Door Station
9. MS Master Station
10. PIR Passive Infrared Sensor
11. LD Lockdown
13. LO Lockout
14. MDF Main Distribution Frame
15. IDF Intermediate Distribution Frame

B. Definitions:

1. Access Card: A coded employee card, usually the size of a credit card, recognizable to the access control system and read by a reader to allow access. It can be used for photo identification of the cardholder and for other data collection purposes. Card technologies include magnetic strips, Wiegand-effect, proximity (active/passive), barium ferrite, smart/intelligent cards, and NFC enabled applications on mobile devices.
2. Access Control System: An interconnected set of controllers, managing the entrance and exit of people through secured areas.
3. Access Level: The door or combination of doors and/or barriers an individual is authorized to pass through and the times they are permitted.
4. Anti-Pass back (Anti-Tailgating): This feature protects against more than one person using the same card or number. It defines each system card reader and card ID number as IN, OUT or other. Once a card is granted access to an IN reader, it must be presented to an OUT reader before another IN reader access is granted. Cards will continue to have access to all authorized OTHER readers.
5. Alarm: A signal that indicates a problem.
6. Alarm input: A device that is monitored by the access control panel. An alarm signal will be generated if the device is activated.
7. Badge: Badge is a template or a design for creating a card. DNA Fusion includes a full-featured badge layout utility for designing, creating, and printing badges. Badge design includes magnetic stripe encoding, bar coding, signatures, and so on.
8. Bar Code: A method of encoding information using lines and blank spaces of varying size and thickness to represent alphanumeric characters.
9. Biometrics: A general term for the verification of individuals using unique biological characteristics (i.e. fingerprints, hand geometry, voice analysis, the

retinal pattern in the eye).

10. Card and Card Holder: A card is an identity proof of a person and a card holder is a person who holds the card. Multiple cards can be assigned to a single card holder to provide different access.
11. Controller: A microprocessor-based circuit board that manages access to a secured area. The controller receives information that it uses to determine through which doors and at what times cardholders are granted access to secure areas. Based on that information, the controller can lock/unlock doors, sound alarms, and communicate status to a host computer.
12. Card Reader: A device that retrieves information stored on an access card and transmits that information to a controller.
13. Digital Video Recorder: A security system device that records the video from the surveillance cameras (IP and Analog) on a hard disk.
14. Door: A generic term for a securable entry way. In many access control applications, a "door" may be a gate, turnstile, elevator door, or similar device.
15. Duress: Forcing a person to provide access to a secure area against that person's wishes.
16. Input: An electronic sensor on a controller that detects a change of state in a device outside the controller.
17. Integrated lockset: An integrated, intelligent locking solution that typically runs on batteries, but can be externally powered, that contains most of the door components, i.e. reader, door contact, and request to exit in a single, mountable unit.
18. Keypad: An alphanumeric grid which allows a user to enter an identification code. A flat device which has buttons that may be pressed in a sequence to send data to a controller, and which differs from a typewriter-like computer keyboard.
19. Output Relay: A device that changes its state upon receiving a signal from a controller. Typically, the state change prompts an action outside of the controller such as activating or deactivating a device. The auxiliary relays found in access control panels or NODES that control external devices.
20. Shunt Time: The length of time a door open alarm is suppressed (shunted) after a valid card access or free egress request. This time should be just enough to allow a card user to open a door or gate, pass through, and then close it.
21. Time Schedules: Schedules that allow cards to function or not function depending on the time of day. This is used to limit access to the facility. The schedule may include not only time but which days of the week a card is valid.
22. Video Management System: An enterprise-class video management and storage solution

1.7 PRE-INSTALLATION MEETINGS

A. No less than a minimum of two weeks prior to rough-in or installation of any access control device, the ACS Installer will be required to attend a pre-construction meeting with the Door Hardware provider / installer to aid in coordination and help avoid gap / overlap during the installation phase.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
B. Handling: Handle materials to avoid damage.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.10 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.11 WARRANTY

A. The ACS furnished by the System Integrator including wiring, software, hardware and third-party products shall be fully warranted for parts, materials and labor for a minimum of 1 year from date of the final acceptance.

B. Manufacturer shall provide a limited 3-year warranty for the product to be free of defects in material and workmanship.

PART 2 - PRODUCTS

2.1 Reference Attachment 'A' of this specification for supplemental scope and product material list as it relates to the project and the Owner standards

2.2 MANUFACTURERS

A. Approved Manufacturers:

1. AMAG Technology Inc.
   20701 Manhattan Place
   Torrance, Ca 90501
   (310).518.2380
   http://www.amag.com

B. Requests for substitutions will be considered in accordance with provisions of Division 1. In the absence of direction by Division 1, substitution request must be submitted no less than ten (1) business days from the time of proposal. Any substitution proposed will have to be proposed as a complete system replacement across the Owner's entire platform, including any cabling and/or hardware changes required to convert all of the Owner's existing sites.

2.3 SERVERS AND USER INTERFACE

A. Servers and Unser Interfaces are existing to remain. The system installer shall coordinate the installation of all new equipment and/or existing equipment that is affected by the project's scope. All equipment shall be modified and/or added in compliance with the existing systems parameters. The system installed shall provide and additional equipment to furnish a complete expansion of the system as shown on the project drawings, access control schedule, details, and legends.

2.4 ACCESS CONTROL SYSTEM (ACS)

A. General: The ACS is a modular and networked based system providing physical access control security to a Wide Area campus enterprise. The system shall be capable of controlling and integrating multiple security functions including the configuration, management and monitoring of cardholder access, locking hardware units, events, alarms, visitors, and real-time tracking and reporting. The ACS is to be alterable at any time depending on the facility requirements and will allow for easy upgradeability or modification of network processors, controller, interface modules, card data, inputs, outputs, and remote workstations. The ACS shall include, but is not be limited to, the following:

1. Client/Server model operating central server host software modules and client workstation software applications in a multi-user and a multi-tasking environment.
    a. The ACS to permit multiple instances of client software applications to run simultaneously on the network. The base system shall include one (1) software application licenses per site with an unlimited number of licenses available subject to connection fees.
2. Partitioning: The system to support security partitioning enabling system administrator to segment the configuration database and group multiple entities within the security partition.
    a. Security partitions limit what users can view in the configuration database. Administrators, who have all rights and privileges, can segment a database into multiple security partitions. A user who is given access to a specific partition will only be able to view entities (components) within the partition they have been assigned.
3. Encryption: The system to support encrypted communication between the central server software and client software applications (sever-to-server and client-to-server) using a 128-bit AES encryption algorithm (at a minimum).
    a. Communication between the central server host software module and system controllers to be encrypted if supported by the controllers.
    b. The ACS client software applications to be password protected with passwords stored in the central server database in an encrypted manner.
4. Distributed Processing: The system is a fully distributed processing application allowing information, including time, date, zones, valid codes, tasks, access levels, and similar data, to be downloaded from the central host station to controller interface devices allowing access-control decisions with or without central host station communication. If communications to a central host station are lost, the controllers will automatically buffer event transactions until communications are restored and events are automatically uploaded to the central host station.
    a. Provide for a higher level of distributed database management at defined perimeter access points such that no single point of failure will allow more than two access points to fail, or affect more than two access points at perimeter points system wide.
5. Single Data Base: The system to support a single database for access control site setup, credential and identity file creation, alarm and control setup, and system user operation and command functions.
6. System Access Management: The system to allow operators through password authentication the ability to make access granted or denied decisions, define access levels, time zones, holidays, assign cardholders, access groups, develop tasks, and generally manage access control, alarm monitoring and response activities system wide from a single login. Operator and user privileges are managed by a system administrator allowing for different levels of system access and system control. Authorization management is fully Owner definable.
7. Cardholder Management: The system to include a cardholder management system integrated within the access control system. This cardholder management functionality allows the enrollment of cardholders into the database, and import / export of employee data.
8. Access Groups and Access Levels: The system to provide adequate access groups and access level assignment capability to meet Owner requirements for the specified project. If required, software application can be expandable to

support unlimited access groups and access levels.

9. Alarm Monitoring: The system is able to monitor, report, and provide information about the time and location of alarms, along with their priority.
10. Event Monitoring: The system is able to monitor, report, and archive network access control activity.
11. Transaction Logs: The system to support an unlimited number of logs and historical transactions (events and alarms) with the maximum allowed being limited by the amount of hard disk space available.
12. System Monitoring: The system to have ability to report on the integrity of all network assigned devices, circuits and communications and provide a diagnostics screen showing field level communications system wide
13. Lock/Unlock Commands: The system to allow an operator to manually lock and unlock doors overriding scheduled access control restrictions and configurations if necessary.
14. Hardware Interface: The system to integrate with and control specified electrified hardware, signaling and monitoring devices.
15. Report Generator: The system to have the ability to generate and output reports with any and all combinations of system fields and data including, but not limited to: by cardholder, by door, by site, by time, by groups of doors and by cardholder field. Any and all combinations of fields must be available for reporting. The report feature to allow exporting of generated reports over a network connection or by remote printing.
16. Multi-User/Web Based Network Capabilities: The system to support multiple operator workstations via local area network/wide area network (LAN/WAN), the Internet, or VPN. The system to be capable of supporting minimum of concurrent users/clients with software expansions to an unlimited number of workstations based on the Owners network requirements.

B. Open Protocol: The ACS manufacturer to provide non-proprietary, open protocol hardware for the system control processors and associated device sub-controllers. Systems utilizing a single manufacturer solution that encompasses combined proprietary software and integrated electronic hardware combinations are not acceptable. In addition, integrated electronic locking hardware requiring a processor or sub-controller module upgrade, or extensive access control firmware upgrades to accommodate integrating with an alternate software package, will not be considered.

C. Network Support: Communication network connecting the central server host software modules, client workstation software applications, and hardware controllers to be designed to support all of the following:
   1. LAN/Ethernet enterprise ring topology and localized star topology based on TCP/IP.
   2. Direct-connected RS-232 and RS-485 communication cabling.
   3. Dial-up modem connection using a standard dial-up telephone line.

D. Provide local communication port at each panel for local configuration of system with laptop.

E. Locate all main control panels in MDF and IDF rooms of each building.

F. Provide 120v at all controller and power supply locations.

G. Provide and transfer all required licensing to the owner.

H. Provide local communication port at each panel for local configuration of system with laptop.

I. Integrated Elevator Destination Dispatch Control Solutions
   1. The ACS shall provide means of integration with the following elevator systems destination dispatch control solution. Integration shall be by software or

input/output connection (software, if available between the specified ASC and Elevator System):
a. Otis
b. Krone
c. Thyssen-Krupp

2. The destination dispatch control solution shall provide the following functions:
a. Provide card reader security within the elevator(s) as required.
b. Provide card reader security at the Destination Dispatch kiosk(s), as required.
c. Allow Default Floor call registration upon card swipe.
d. Allow for card flags such as VIP and ADA from a card swipe
e. Enforce elevator access levels

2.5 ACCESS CONTROL PANEL HARDWARE

A. Reference Attachment 'A'

B. System Back-Up Battery: The System Installer shall provide backup batteries as required to furnish ninety (90) minutes of run time to the complete system, including but not limited to lock power and system power.

2.6 FIELD DEVICES

A. General: Coordinate with door hardware and access control schedule as to whether each access control portal is wireless or directly connected to a control panel. Provide all Controllers, Sub-Controllers, and licensing as required to connect all card reader locations shown on plan.

B. Card Readers: Provide card readers as shown on the floor plans, access control schedule, and access control details.

C. Credentials: Coordinate Facility Code, External Start Number, and Internal Start number with the Owner prior to procuring credentials.

D. Miscellaneous Devices: Provide the following devices as designated per the project floor plans, access control schedules, and access control details:
1. DP/DT Door Position Sensors (Door Contacts)
2. PIR Motion Request to Exit Sensor
3. Lockdown Buttons
4. Door Release Buttons
5. Video Intercom Door Stations (Provide and Install per drawings and Division 28 Audio / Video Intercom specification)
6. Video Intercom Master Stations (Provide and Install per drawings and Division 28 Audio / Video Intercom specification)

2.7 WIRING

A. All cable associated with the ACS shall be purple in color.

B. Ethernet cabling to access control panels shall be as specified in the Structured Cabling System (SCS) specifications and shall be provided by the SCS Installer. In the event that there is not SCS installer on the project, cabling shall be provided and installed by the ACS Installer and shall comply with the Division 27 SCS specification, minimum of Category 6A cable shall be utilized if not specified otherwise.

C. Provide cabling and connections for all access control doors in this scope, existing and new. Conventional access control cable shall be a jacketed composite cable. The minimum conductor requirement shall be as follows:
1. Standard
a. Lock Power: 4-conductor, 18AWG, shielded

b. Card Reader: 6-conductor, 22AWG, OA shielded
c. Door Contact: 2-conductor, 22AWG, shielded
d. Request to Exit/Spare: 4-conductor, 22AWG, shielded

2. Extended Distance
a. Lock Power: 4-conductor, 16AWG, shielded
b. Card Reader: 6-conductor, 18AWG, OA shielded
c. Door Contact: 2-conductor, 18AWG, shielded
d. Request to Exit/Spare: 4-conductor, 18AWG, shielded

D. Wire scheme and conductor quantity shall be as required by the manufacture's specifications. The System Installer to provide and install shielded cable as required.

E. All 120v Power shall be furnished by the Division 26 contractor. In the event that a division 26 contractor is not contracted for the project, the system installer shall contract a licensed electrical firm to provide and install all materials required to furnish a complete and operational system.

F. All Security Conduit as required for a complete installation of this system shall be furnished by the division 26 contractor as part of their scope of work. In the event that a division 26 contractor is not contracted for the project, the system installer shall provide and install all conduit required.

G. Coordination with the Division 26 contractor is the responsibility of the ACS Installer to ensure all conduit is in place for a complete installation.

H. All systems shall be connected to a dedicated circuit and on an emergency power source if available.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All wiring shall be in accordance with the National Electrical Code, Local Codes, and article 760 of NFPA Standard 70. All wiring sizes shall conform to recommendations of the equipment manufacturer, and as indicated on the engineered shop drawings.

B. All wire shall be UL Listed CL2 for limited energy (300V) applications and shall be installed in conduit. Limited energy MPP wire may be run open in return air ceiling plenums provided such wire is UL Listed for such applications and is of the low smoke producing fluorocarbon type and complies with NEC Article 760 if so, approved by the local authority having jurisdiction.

C. No AC wiring or any other wiring shall be run in the same conduit as security alarm wiring.

D. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.

E. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.

F. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed or subject to damage.

G. All vertical wiring and all main trunk/riser wiring shall be installed in a complete raceway/conduit system. All riser boxes shall be adequately sized for the number of conductors transversing the respective box as well as the number of terminations required.

H. Network Connection Cable: Provide a 4 pair Category 6A data cable from the Master Control Panel to the MDF network rack. Category 6A cable shall be purple in color.

I. All plenum wiring is to be installed parallel and perpendicular to the building structure. Install wiring tight up against structure for protection. Cable shall be bundled on a maximum of 2'-6" and secured to the structure at a maximum of 5' on center. Bundling

and support shall be with plenum rated cable ties.

J. System Installer is required to provide all mapping and software configuration required to operate system as per manufacturer's recommendations.

3.2 CABLE PATHWAYS

A. Cable Support:

1. All wire not installed inside conduit or a designated cable tray system shall be installed in a dedicated cable support system for the entire run of each cable. Including, but not limited to service loops.
   a. Approved Cable Support Product:
      1) Panduit
      2) Arlington
      3) Caddy
      4) Support system shall be sized appropriately for the number of wires being installed. Reference the manufacturer's specifications for the suggested maximum cables per support size.
2. The approved cable support system shall be attached directly to the building steel at a serviceable height. In the event that the building steel is not 5' of the finished ceiling, the system installer shall provide a dedicated threaded rod extending within 5' of the finished ceiling and mount the cable support hook to the treaded rod.
3. The cable support shall be installed at a maximum of 5' on center.
4. All cable installed shall be attached to the cable support system with plenum rated Velcro and a plenum rated Velcro tie shall be installed between each cable support to keep wires neatly bundled throughout the entire run. Tie wraps will only be allowed to be used inside the control panels as required to manage the wires within each type of panel.
5. Absolutely no cable, not installed in conduit, will be allowed to be attached directly to the building's steel or supported in any other method than that stated above.
6. It is the responsibility of the system installer to coordinate with all other trades on the project to ensure that the pathway of this system does not interfere with the installation of the other trades and to prevent the installed product of other trades from putting strain on the installed wiring.

B. Conduit / Raceway:

1. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.
2. Conduit and raceway system shall be installed as specified under the general electrical section of the specifications, and per NEC.
3. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.
4. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed or subject to damage.
5. All conduit ends shall have a protective bushing to prevent cable damage. Bushings must be installed prior to installing cable. Cutting bushing to install around installed cables will not be accepted.

3.3 TESTING

A. Submit a written test report from an authorized representative of the equipment manufacturer that the system has been 100% tested and approved. Final test shall be witnessed by Owner and the project's Technology Consultant and performed by the equipment supplier. Final test report must be received and acknowledged by the Owner prior to substantial completion.

B. Provide instruction as to proper use and operation of system, for the Owner's designated personnel.

3.4 WARRANTY

A. Entire system shall be warranted against defects in materials and workmanship for a period of one (1) year from the date of substantial completion.

3.5 SOFTWARE

A. Provide two electronic copies of the final programming and program software to the Owner's Security Supervisor after final approval.

ATTACHMENT 'A'
PROJECT SPECIFIC SCOPE OF WORK AND EQUIPMENT LIST

PART 1 – PROJECT SCOPE

1.1 DESCRIPTION OF WORK

A. This project is an expansion of an existing access control system and consists of the provision and installation of a complete and functional Access Control System (ACS) as required to furnish controlled access and access detection to all controlled portals identified on the project drawings.

B. It should not be assumed that any portions of a complete and functional system are to be furnished and/or provided by anyone, other than the ACS installer, unless specifically stated otherwise.

C. Existing card reader edge controllers shall be returned to owner's security representative. Existing card readers shall be connected to new and existing access control panels via composite cable. Reference floor plans and enlarged plans for ACP locations.

PART 2 – EQUIPMENT LIST

2.1 The ACS installer shall perform no portion of the work requiring submittal and review of record drawings, shop drawings, product data, or samples until the respective documentation has been approved by project's Security Consultant.

2.2 VESTIBULE ACCESS CONTROL PANEL

A. All hardware is to be mounted in an Altronix Trove 2 enclosure with RSB2 switch plate located in the nearest IDF to the main entry vestibule.

B. One (1) Intelligent Door Controller and door SubControllers shall be populated in the Altronix enclosure sufficient to provide access controls for all doors to be controlled from the IDF, for a minimum of eight (8) doors. The Intelligent Controller shall be IP-based. SubControllers should connect to the Intelligent Controller via network or RS-485 Data Bus.

C. An Altronix eFlow 10XNB power supply is required to be provided and installed along with a PDS8CB or PD16W Power Distribution Module and ACM8CB Access Power Controller. A (1) VR6 regulator in the enclosure to provide correct power distribution.

D. Panel must have a provided emergency power circuit to the R2B2 switch panel to enable ease of power shut off for the power supply by one switch and main panel transformer on the secondary switch.

E. Two Category 6A network drops are required within the panel for local configuration of system with laptop and primary panel communication. Each drop should be properly labeled per network cabling guidelines.

F. Panel IP network configuration information shall be provided by the owner.

G. All vestibule doors are to be wired back to this main panel with approved composite access control cable and terminated in the following order
   1. Front Entry Door- Reader 1 -24VDC/12VDC output 1
   2. Reception Entry Door- Reader 2 -24VDC/12VDC output 2
   3. Vestibule Exit Door- Reader 3 -24VDC/12VDC output 3
   4. Reception Exit Door- Reader 4 -24VDC/12VDC output 4

H. Final software configuration / programming of system integration will require owner and system installer consultation.

I. Vestibule Access Control Panel shall not be limited to provide access control power and controllers to the vestibule only, but shall be available for other controlled doors in the area of influence of that IDF.

2.3 PERIMETER AND INTERIOR DOOR CONTROL PANELS

A. Door Control Panels are to be installed as needed in MDF/IDF rooms throughout the campus, to provide communications and power for access control devices in the area of influence of each IDF.

B. All hardware is to be mounted in an Altronix Trove 2 enclosure with RSB2 switch plate. Panel must have a provided emergency power circuit to the RB2 switch panel to enable ease of power shut off for the power supply by one switch and main panel transformer on the secondary switch.

C. One (1) Intelligent Door Controller and door SubControllers shall be populated in the Altronix enclosure sufficient to provide access controls for all doors to be controlled from the IDF, for a minimum eight (8) doors. The Intelligent Controller shall be IP-based. SubControllers should connect to the Intelligent Controller via network or RS-485 Data Bus.

D. An Altronix eFlow 10xNB power supply is required to be provided and installed along with a PDS8CB or PD16W Power Distribution Module and ACM8CB Access Power Controller. A (1) VR6 regulator in the enclosure to provide correct power distribution.

E. Two Category 6 network drops are required within the panel for local configuration of system with laptop and primary panel communication. Each drop should be properly labeled per network cabling guidelines.

F. Panel IP network configuration information shall be provided by the owner.

G. Final software configuration / programming of the system integration will require owner / contractor consultation.

2.4 VEHICLE ACCESS GATES

A. Access Controlled gates shall be connected to an IP-based 2-Door controller which may be installed near the building perimeter wall, closest to the gate, to provide additional cabling distance.

B. 2N IP Verso Video Intercom (w/ Wiegand and Prox Reader module) to be installed on pedestal housing for access control entry through controlled vehicle gate.

C. All gates must have a Tagmaster XT-1 RFID reader installed as the secondary for utilization of district vehicle tag system.

D. Consultation is required with the owner to determine is additional Vehicle Tags will be required at the time of installation and the amounts needed.

2.5 FIELD DEVICES

A. Card Access Equipment

1. All Card Readers locations to be installed on walls or pedestrian gates shall be PR10 card readers as manufactured Schlage.
2. All Card Readers locations to be installed on doors shall be Harmony series readers as manufactured by Sargent.
3. Access Control contractor shall provide ALL electronic components required for a complete and functioning access control system, to include card reader, door contact, lock power supply, electrified locking device with integrated request to exit, power transfer hinge and wiring harnesses. The door hardware contractor shall be responsible for non-electrified, mechanical door hardware.
4. Access Control contractor shall provide all cabling required for connection to any device incorporated and not incorporated in door hardware.
5. Contractor shall provide 300 HID proximity cards 1386 Series for this campus. CFISD has a Corporate 1000 account set up with HID. The contractor shall purchase cards through HID using this account to ensure card numbers and

facility numbers are followed.

6. Provide Ethernet Network Interface to connect school to district-wide access control system. Connect to local area network at each facility.
7. Contractor shall provide all cabling and accessories required to provide complete access control solution and proper integration with building intrusion alarm system for door contact shunting.
8. Provide all door controllers as required to connect all perimeter card reader locations shown on plan plus one additional of each type for attic stock.

2.6 WIRING

A. Access Control Contractor shall provide and install Access Control system cabling.

1. Color code of all security intrusion detection system an access control wiring shall be purple in color.
   Approved products: Lake Composite Access Control Cable: S800081709-07
2. Reference Specification Section 27 10 00 Technical Cabling and Section 28 16 00 Intrusion Detection for cable types.
3. All systems shall be connected to an emergency power source as available.
4. All 120v Power and system conduits as shown on the drawings shall be furnished by a licensed electrical contractor as part of their scope of work.
5. Coordination with the electrical contractor is the responsibility of the Security contractor to ensure all conduit is in place for a complete installation.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All wiring shall be in accordance with the national Electrical Code, Local Codes and article 760 of NFPA Standard 70. All wiring sizes shall conform to recommendations of the equipment manufacturer, and as indicated on the engineered shop drawings.

B. All wire shall be UL Listed CL2 for limited energy (300V) applications and shall be installed in conduit. Limited energy MPP wire may be run open in return air ceiling plenums provides such wire is UL Listed for such applications and is of the low smoke producing fluorocarbon type and complies with NEC Article 760 if so approved by the local authority having jurisdiction.

C. No AC wiring or any other wiring shall be run in the same conduit as security alarm wiring.

D. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.

E. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.

F. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed or subject to damage.

G. All vertical wiring and all main trunk/riser wiring shall be installed in a complete raceway/conduit system. All riser boxes shall be adequately sized for the number of conductors traversing the respective box as well as the number of terminations required.

H. Network Connection Cable: Provide a Category 6 data cable from the Master Control Panel/Node to the MDF network rack. Category 6 cable shall be purple in color.

I. All plenum wiring is to be installed parallel and perpendicular to the building structure. Install wiring tight up against structure for protection. Cable shall be bundled on a maximum of 2'-6" and secured to the structure at a maximum of 5' on center. Bundling and support shall be with plenum rated Velcro ties and J-Hooks. (Ref. 28-13-00 3.3A)

J. Contractor is required to provide all mapping and software configuration required to

operate system as per manufacturer's recommendations.

3.2 CABLE PATHWAYS

A. Cable Support:
   1. All wire not installed inside conduit or a designated cable tray system shall be installed in a dedicated cable support system for the entire run of each cable. Including but not limited to service loops.
      a. Approved Cable Support Product:
         PANDUIT ® Corporate J-MOD TM modular support system (sized appropriately for the number of wires being installed. Reference the manufacturer's specifications for the suggested maximum cables per support size).
   2. The approved cable support system shall be attached directly to the building steel at a serviceable height. In the event that the building steel is not 5' of the finished ceiling, the contractor shall provide a dedicated threaded rod extending within 5' of the finished ceiling and mount the J-MOD TM support hook to the threaded rod.
   3. J-MOD TM cable support shall be installed at a maximum of 5' on center.
   4. All cable installed shall be attached to the J-MOD TM support system with plenum rated Velcro and a plenum rated Velcro tie shall be installed between each J-MOD TM cable support to keep wires neatly bundled throughout the entire run. Tiewraps will only be allowed to be used inside the control panels as required to manage the wires within each type of panel.
   5. ABSOLUTELY NO CABLE, NOT INSTALLED IN CONDUIT, WILL BE ALLOWED TO BE ATTACHED DIRECTLY TO THE BUILDING'S STEEL OR SUPPORTED IN ANY OTHER METHOD THAN THAT STATED ABOVE.
   6. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES ON THE PROJECT TO ENSURE THAT THE PATHWAY OF THIS SYSTEM DOES NOT INTERFERE WITH THE INSTALLATION OF THE OTHER TRADES AND TO PREVENT THE INSTALLED PRODUCT OF OTHER TRADES FROM PUTTING STRAIN ON THE INSTALLED WIRING.

B. Conduit / Raceway
   1. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.
   2. Conduit and raceway system shall be installed as specified under the general electrical section of the specifications, and per the NEC.
   3. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.
   4. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed or subject to damage.
   5. All conduit ends shall have a protective bushing to prevent cable damage. BUSHINGS MUST BE INSTALLED PRIOR TO INSTALLING CABLE. CUTTING BUSHING TO INSTALL AROUND INSTALLED CABLES WILL NOT BE ACCEPTED.

3.3 TESTING

A. Submit a written test report from an authorized representative of the equipment

manufacturer that the system has been 100% tested and approved. Final test shall be witnessed by Owner, Engineer, Electrical Contractor, Door Hardware Installer, and performed by the equipment supplier. Final test report must be received and acknowledged by the Owner prior to substantial completion.

B. Provide instruction as to proper use and operation of the system, for the Owner's designated personnel.

3.4 WARRANTY

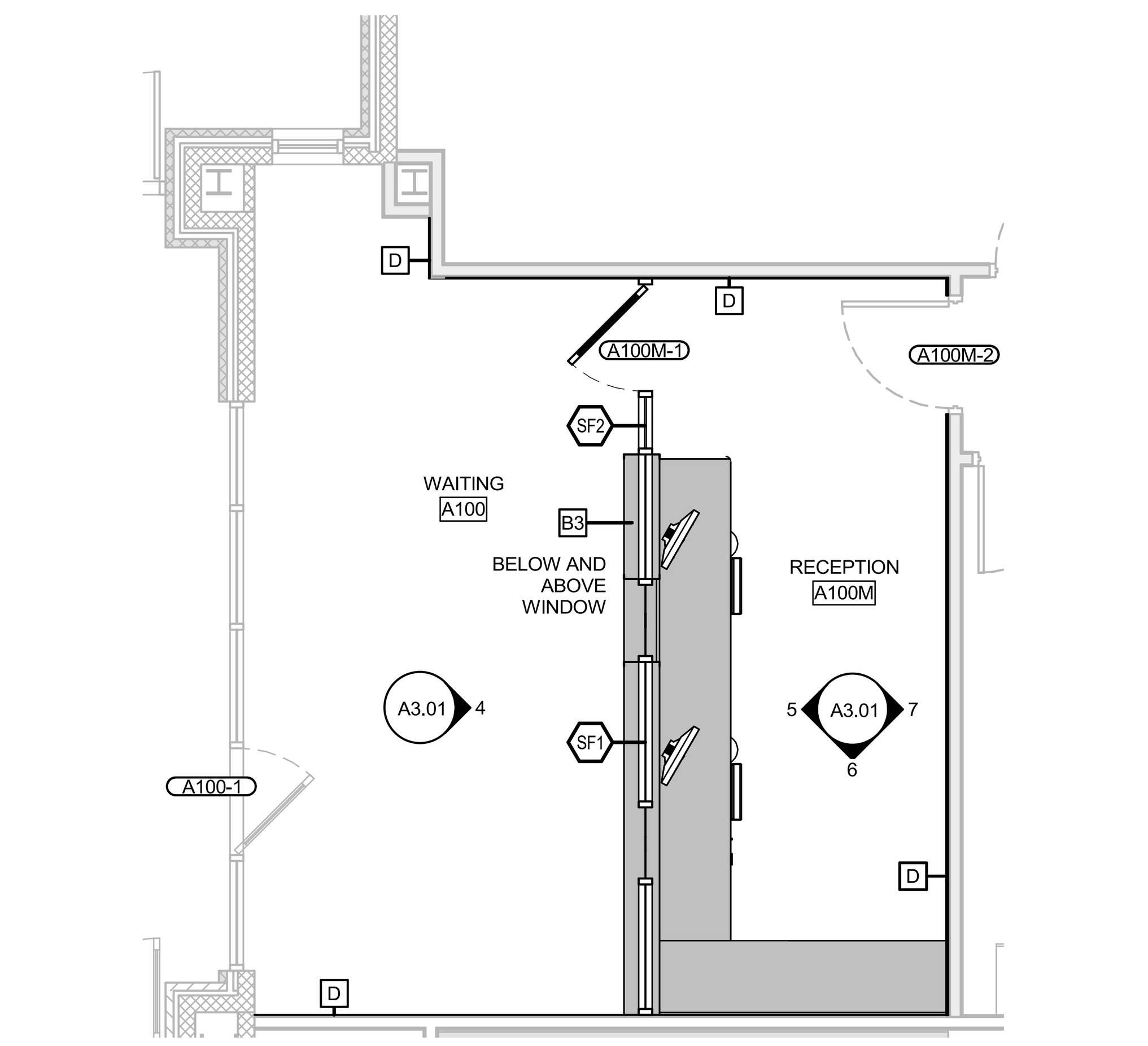
A. Entire system shall be warranted against defects in materials and workmanship for a period of one (1) year from the date of substantial completion.

B. Installed main system devices must be awarded the same warranty provided to the installer by the Manufacturer of the product.

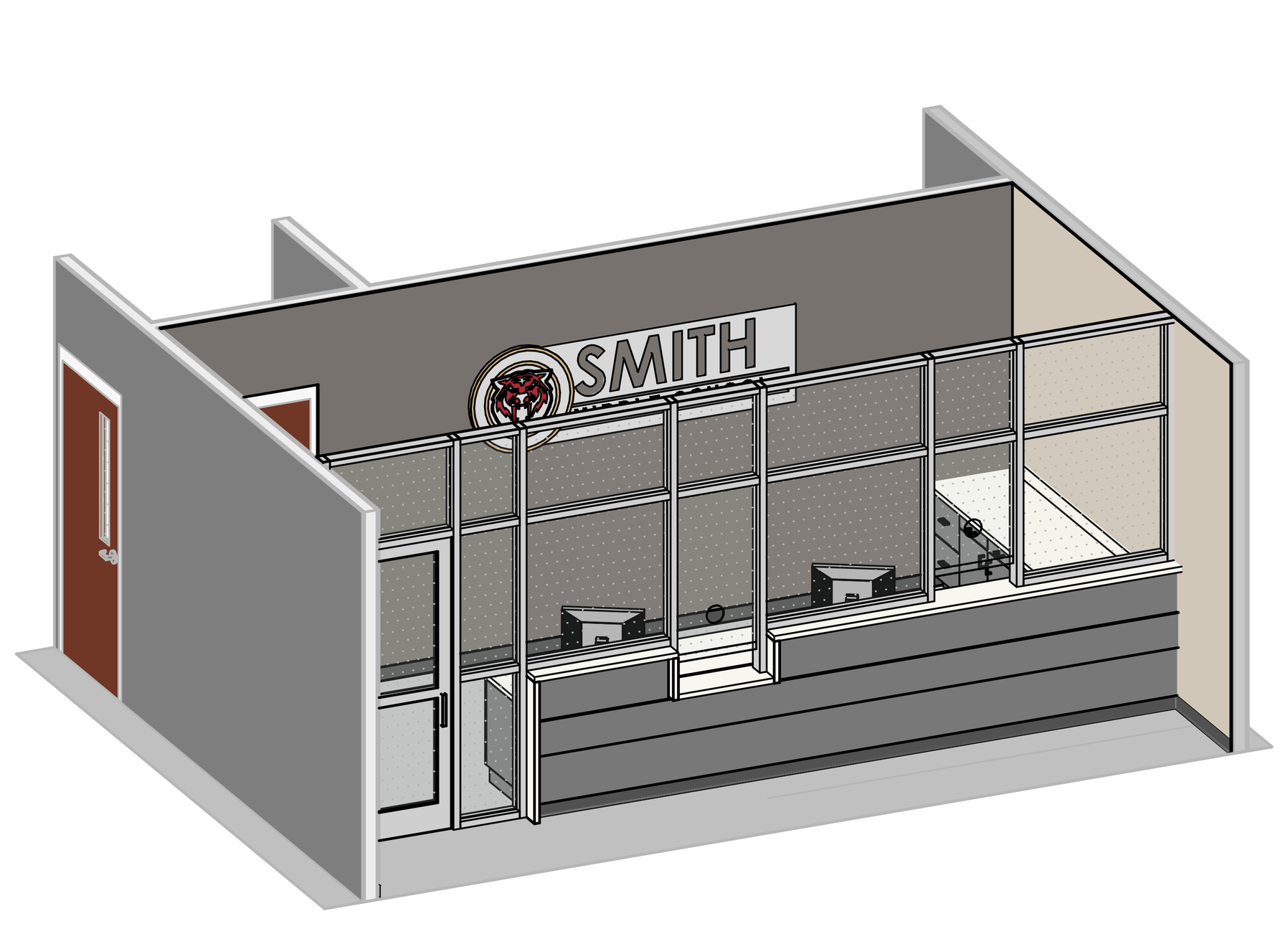
3.5 SOFTWARE

A. Provide two electronic copies of the final programming and program software to the Owner's Security Supervisor after final approval.

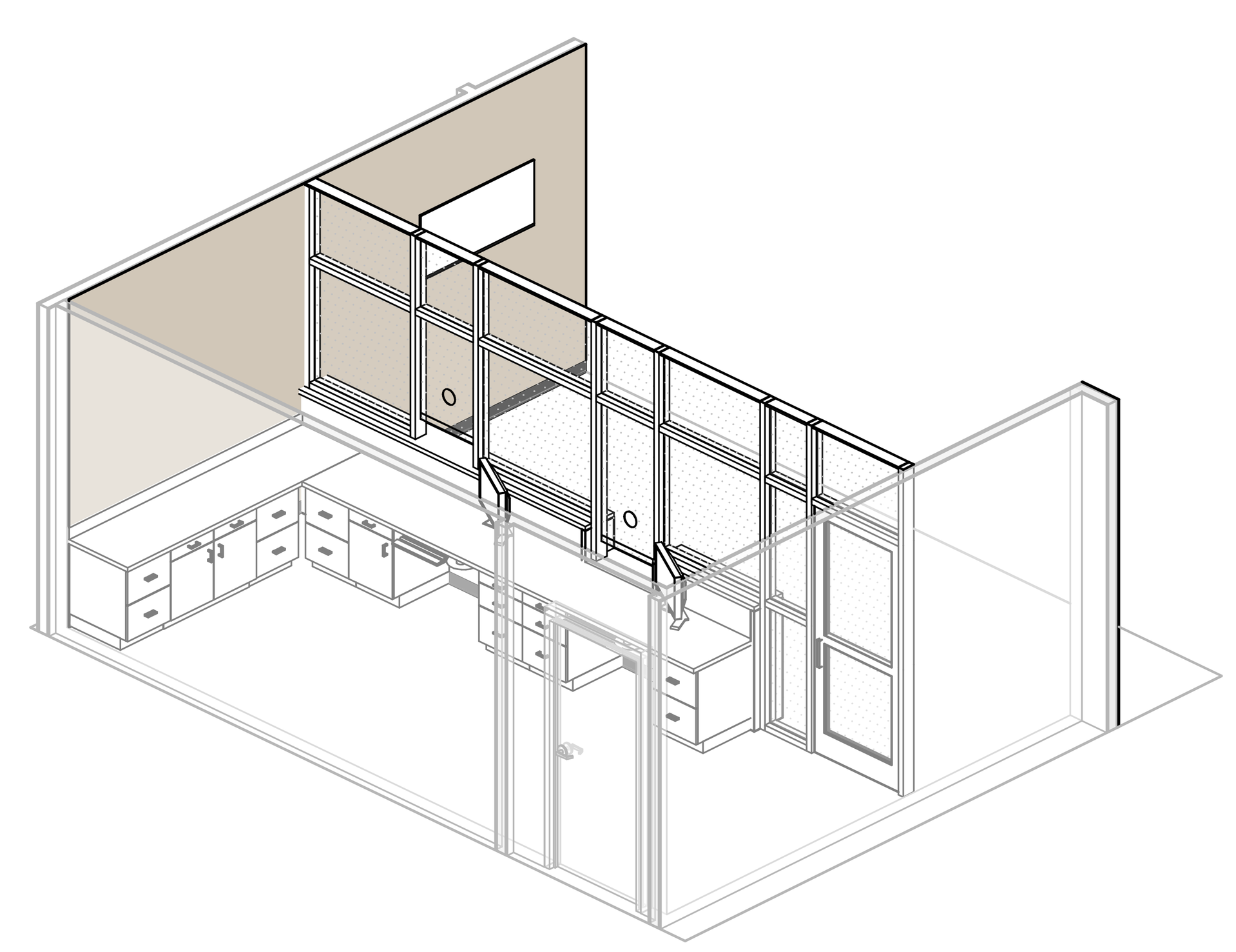
END OF SECTION



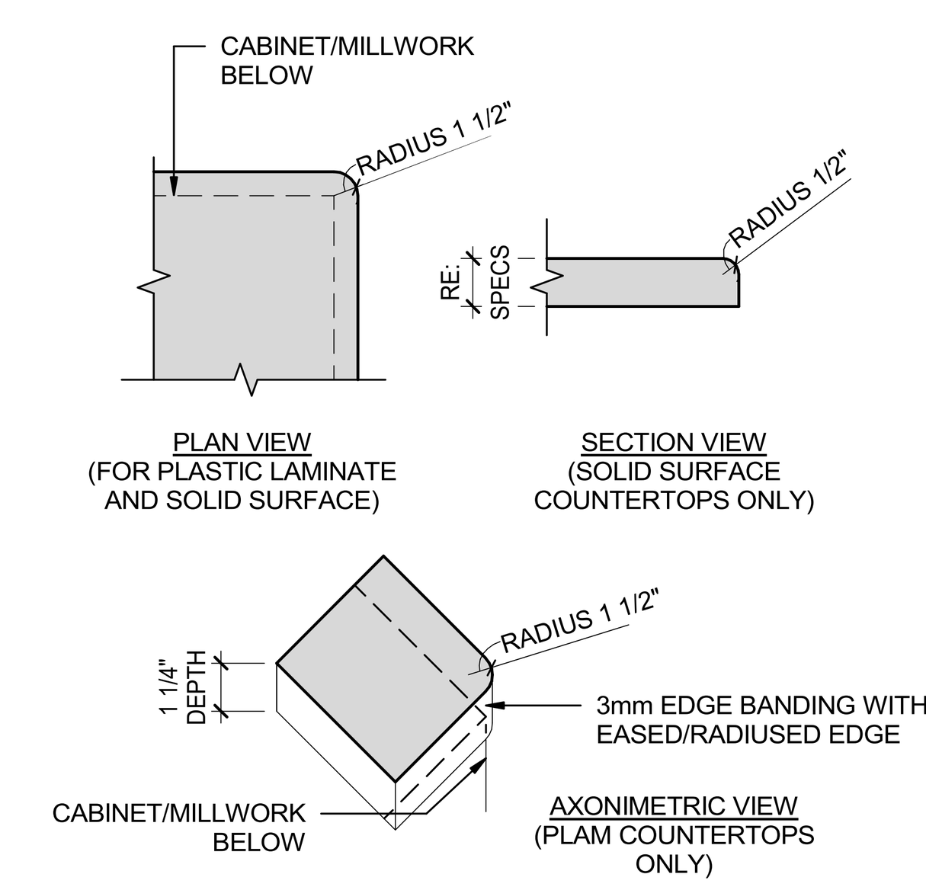
1 ENLG FLOOR PLAN - RECEPTION + ENTRY
1/4" = 1'-0"



2 RECEPTION - 3D VIEW



3 RECEPTION - CASEWORK



16 COUNTERTOP DETAIL
1" = 1'-0"

CASEWORK GENERAL NOTES

1. PROVIDE GROMMET AT COUNTERTOP ABOVE ALL WORKSTATION KNEE SPACE. CENTER GROMMET WITH KNEE SPACE AND AS CLOSE TO BACK WALL AS POSSIBLE.
2. PROVIDE LOCKS AT ALL CABINETS AND DRAWERS. RE: SPECIFICATIONS.
3. PROVIDE ACCESSORIES PER SPECIFICATION FOR ALL FILE DRAWERS.
4. ALL SHELVINGS SHOULD BE ADJUSTIBLE.
5. PROVIDE AND INSTALL PLAM CLAD PLYWD INFILL PANELS BETWEEN CABINETS AND WALLS TO COVER ALL GAPS.
6. ALL EXPOSED PANELS SHALL HAVE PLAM FINISH
7. ALL ACCESSORIES SHALL BE INSTALLED PER TYPICAL ADA GUIDELINES SHOWN ON G SHEETS

KEYNOTES

NATEX
CORPORATION ARCHITECTS
www.natexarchitects.com
447 Heights Boulevard
Houston, TX 77007
Phone: 713-975-9525
Fax: 713-780-7824

Coleman Partners ARCHITECTS
cparch.com
3701 Kirby Drive, Suite 830
Houston,TX 77098
tel 832.947.1038 fax 225.214.5365

CONSTRUCTION DOCUMENT

REGISTERED ARCHITECT
MARIA CAROLINA WEITZMAN
[illegible]
02/11/2025
15620
STATE OF TEXAS

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
tel: 281.578.9595

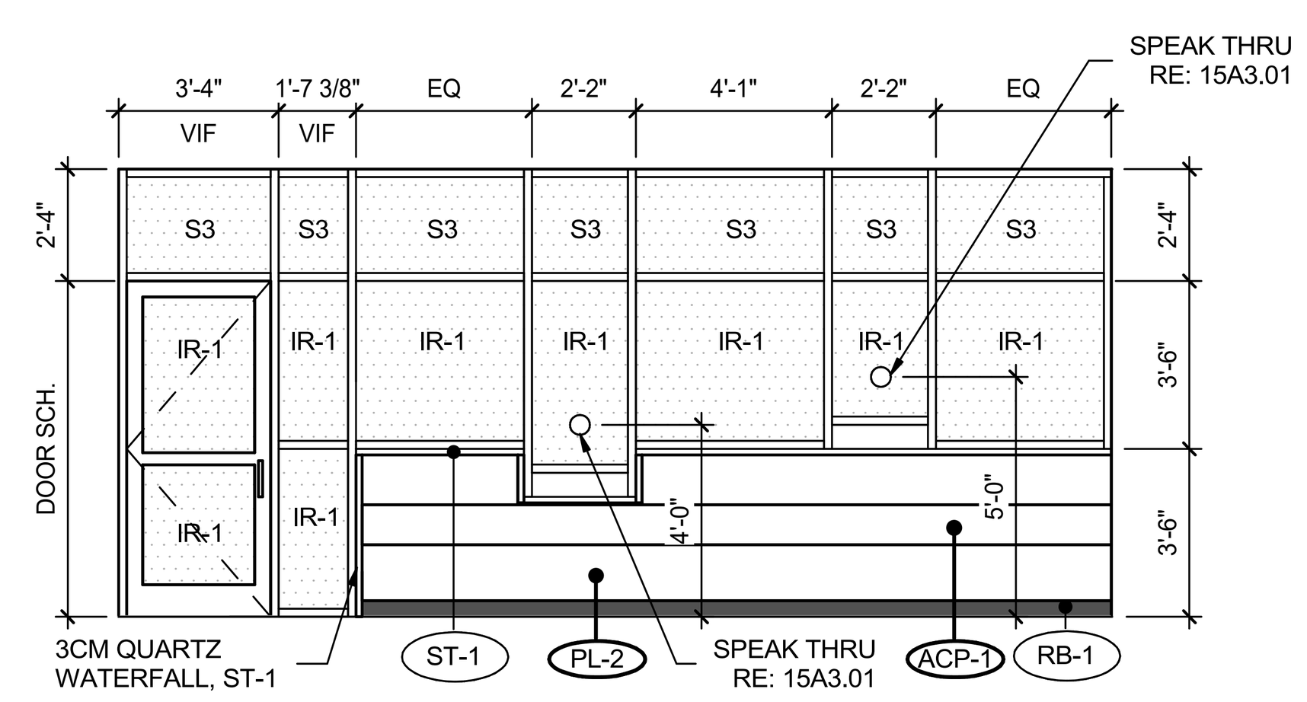
STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
9800 RICHMOND AVE.
SUITE 460
HOUSTON, TX 77042
tel: 713.337.8881

MEPT ENGINEER
SALAS O'BRIEN
10930 W. SAM HOUSTON PKWY. N.
SUITE 900
HOUSTON, TX 77064
tel: 281.664.1900

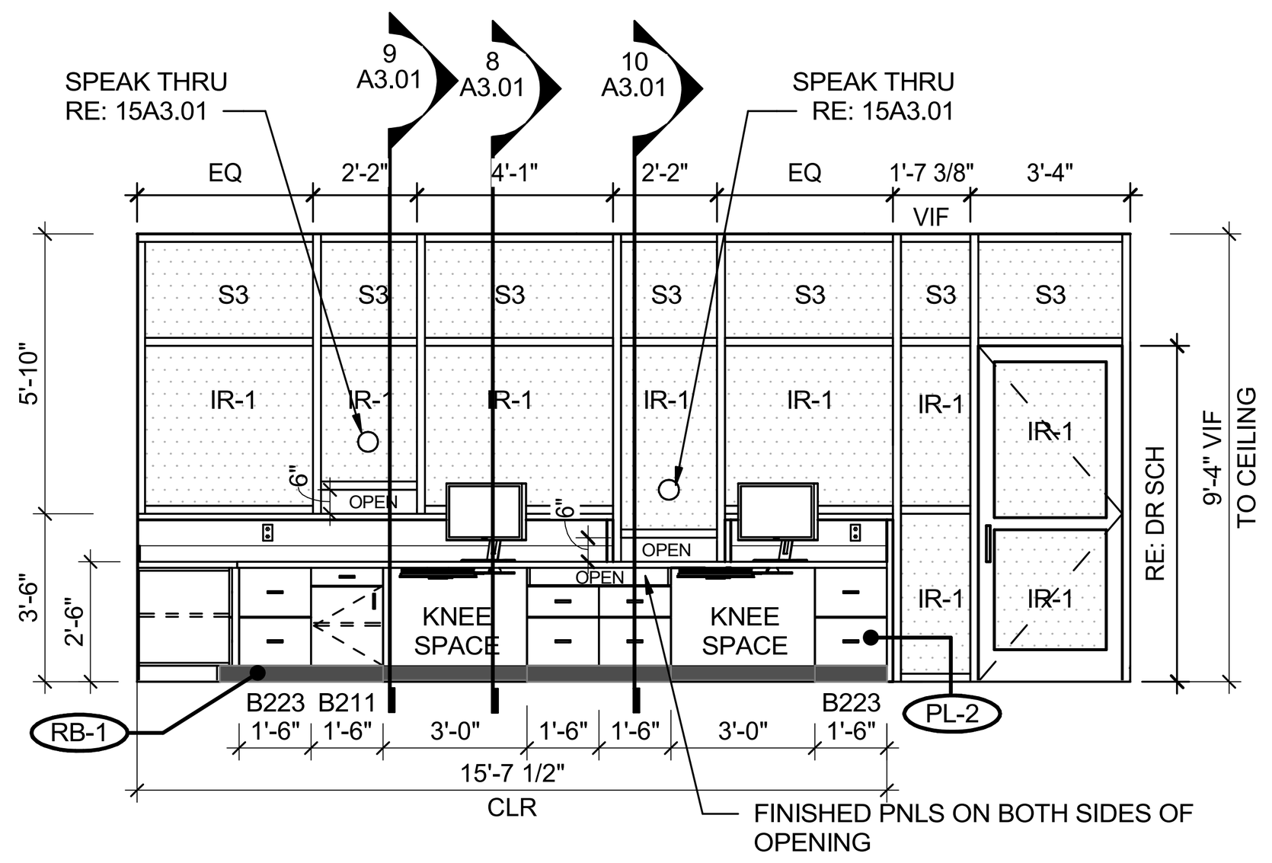
FOOD SERVICE EQUIPMENT
FDP
25317 INTERSTATE 45
THE WOODLANDS, TX 77380
tel: 281.350.2323

LANDSCAPE ARCHITECT
LANDESIGN GROUP
17041 EL CAMINO REAL
SUITE 204
HOUSTON, TX 77058
tel: 281.486.4040

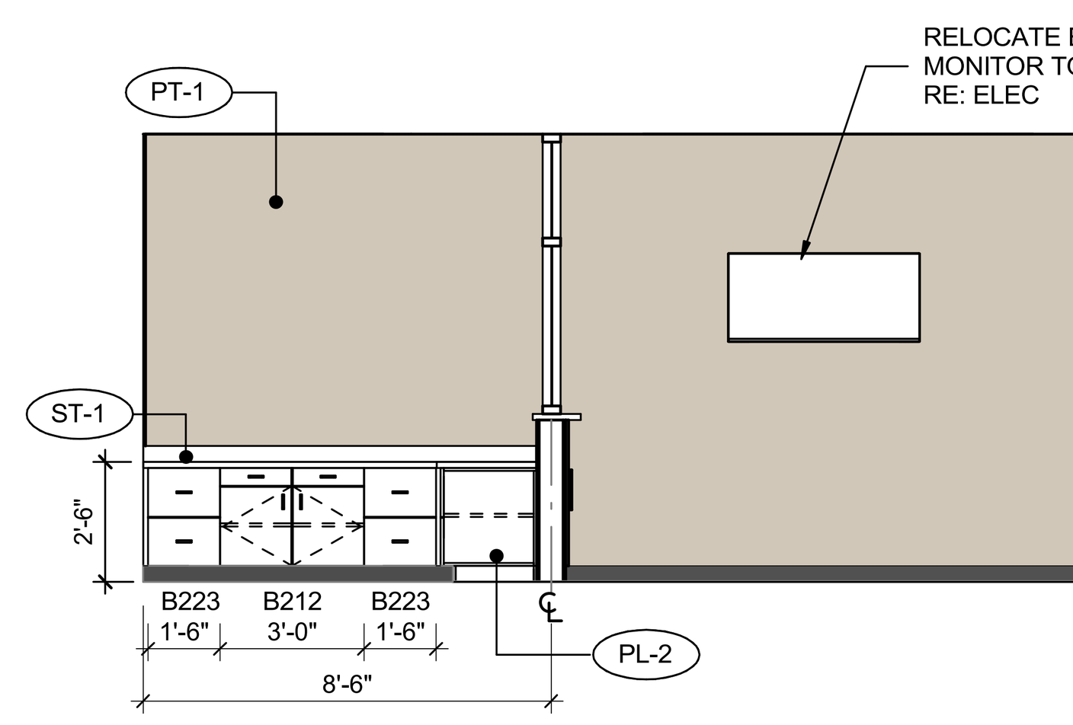
1 20 REFERENCE SIGN PICTURE



4 A100- WAITING - E
1/4" = 1'-0"



5 1126 - RECEPTION - W
1/4" = 1'-0"



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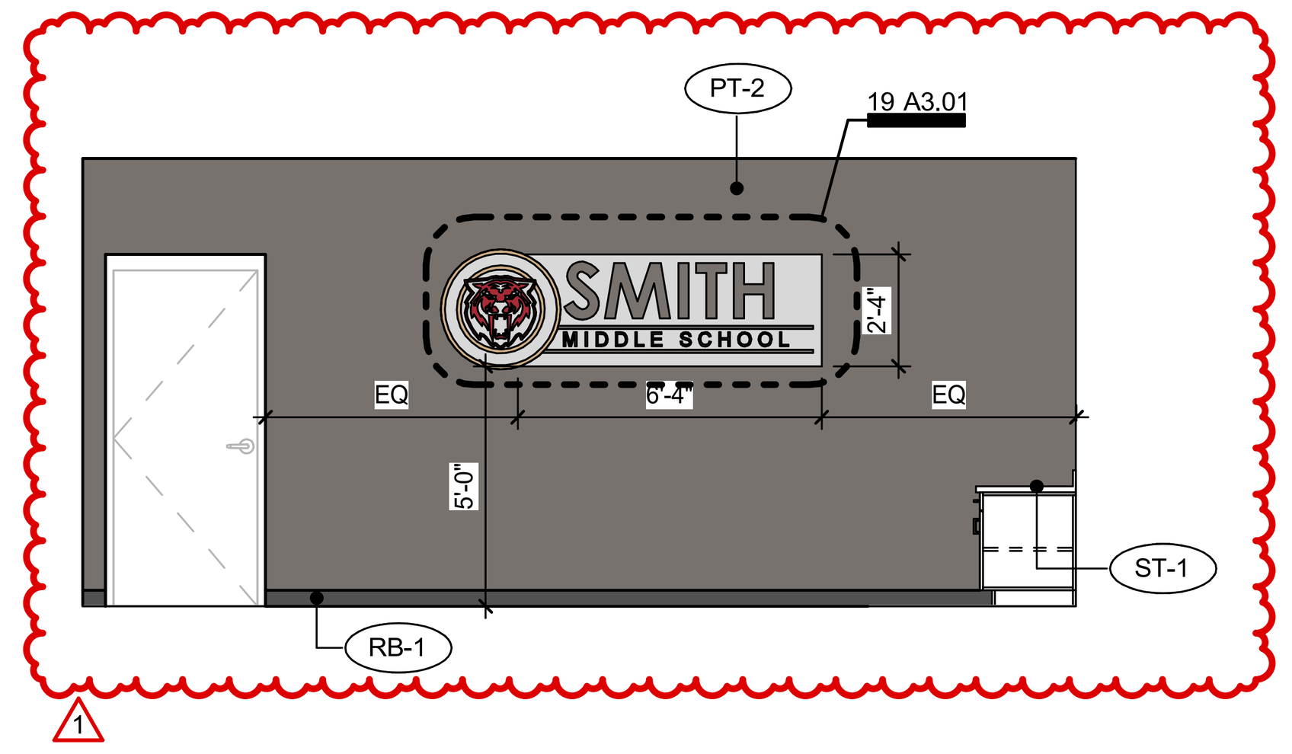

7 1126 - RECEPTION - E
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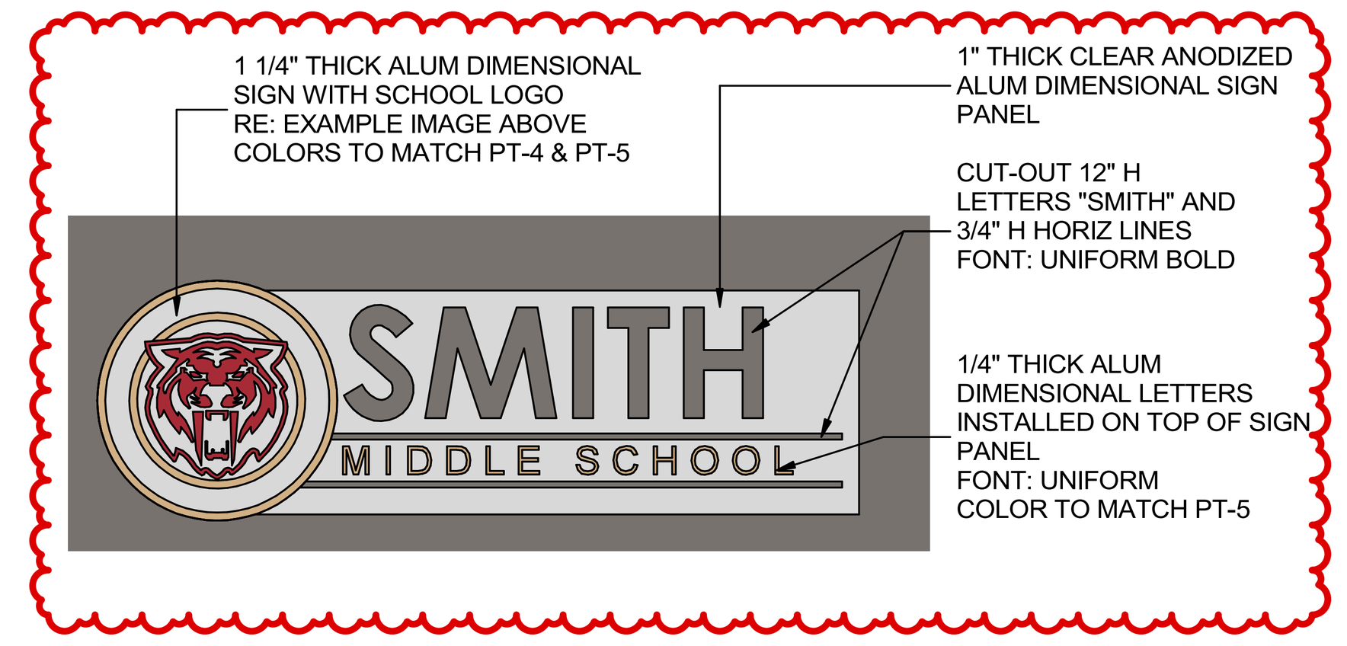
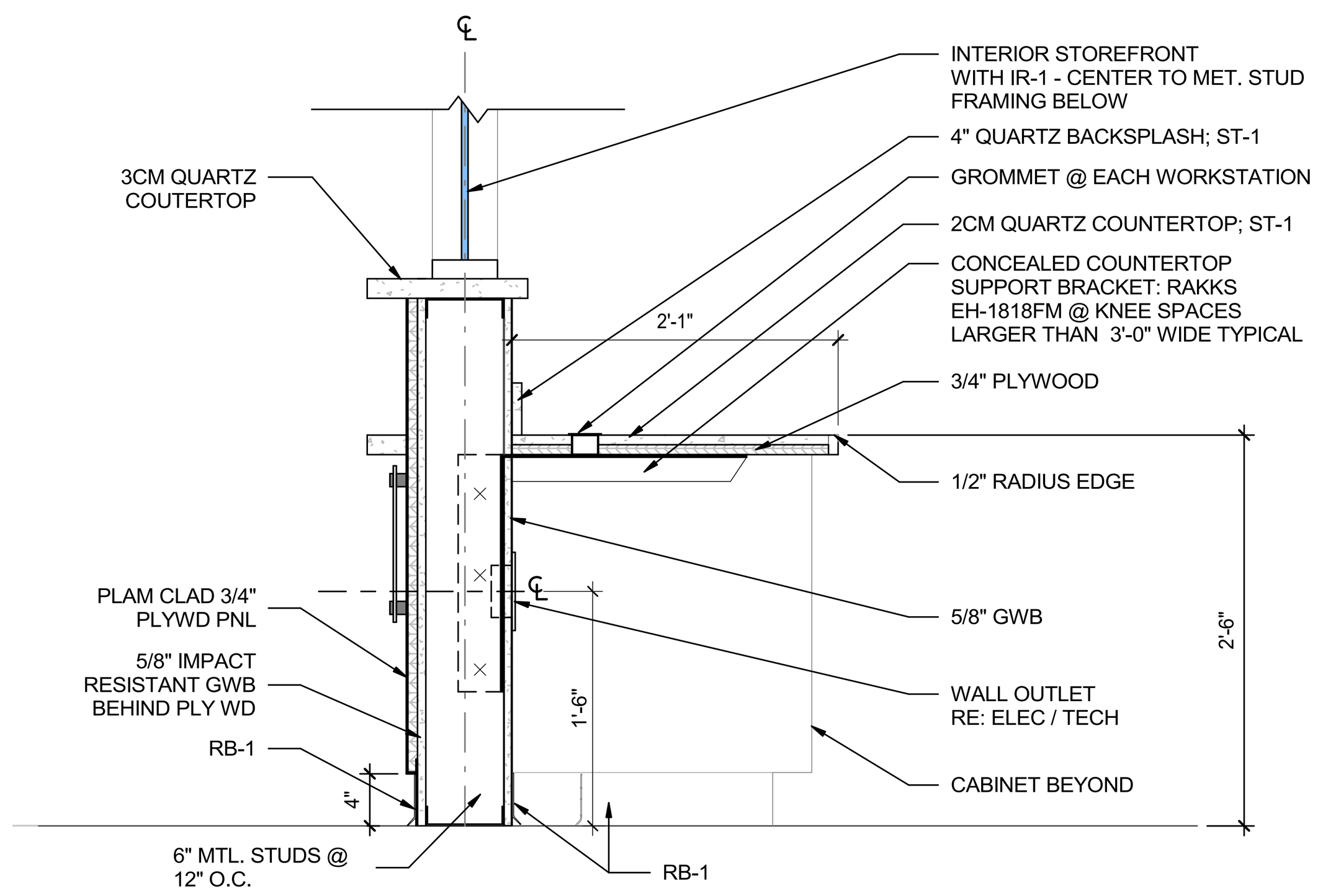
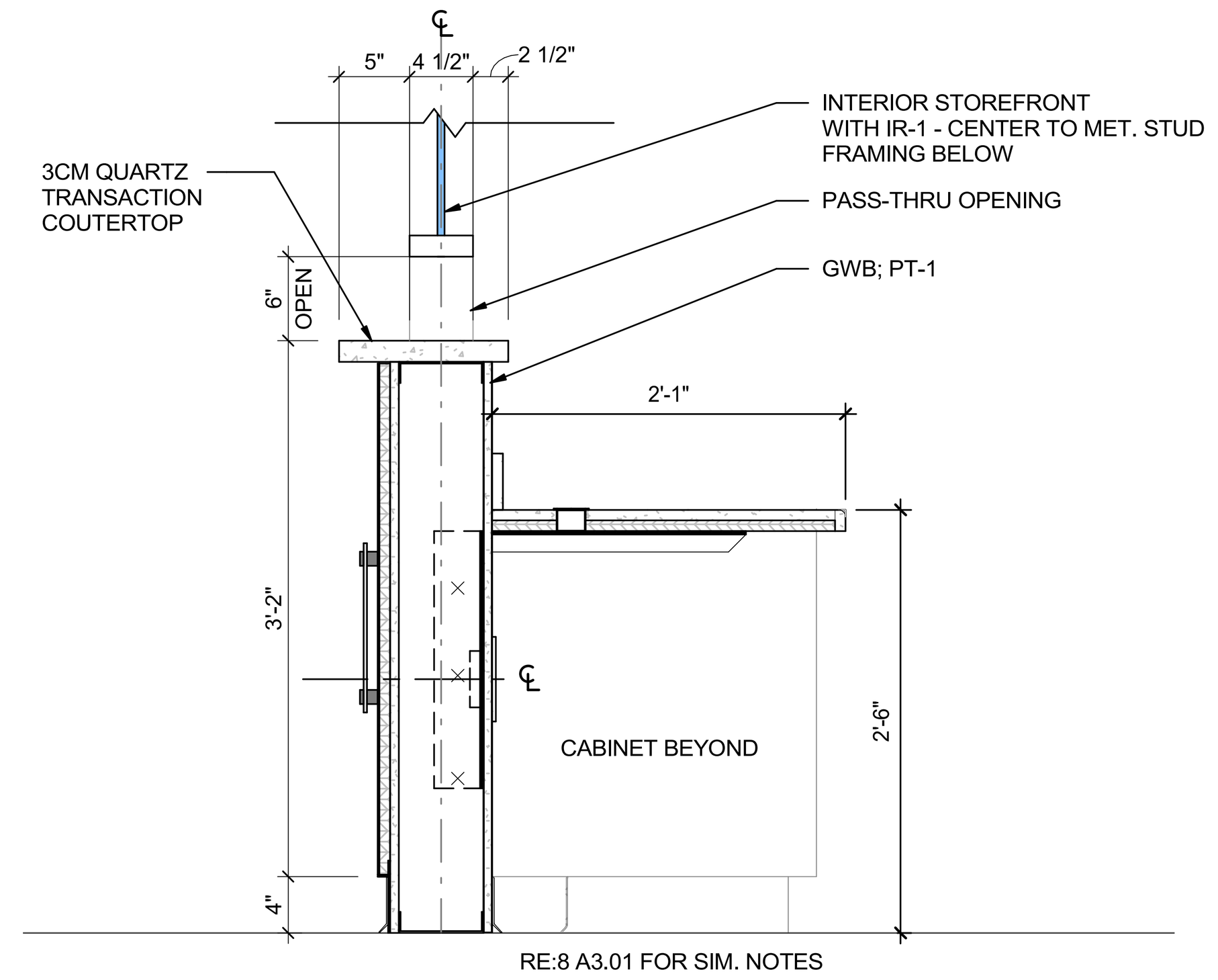


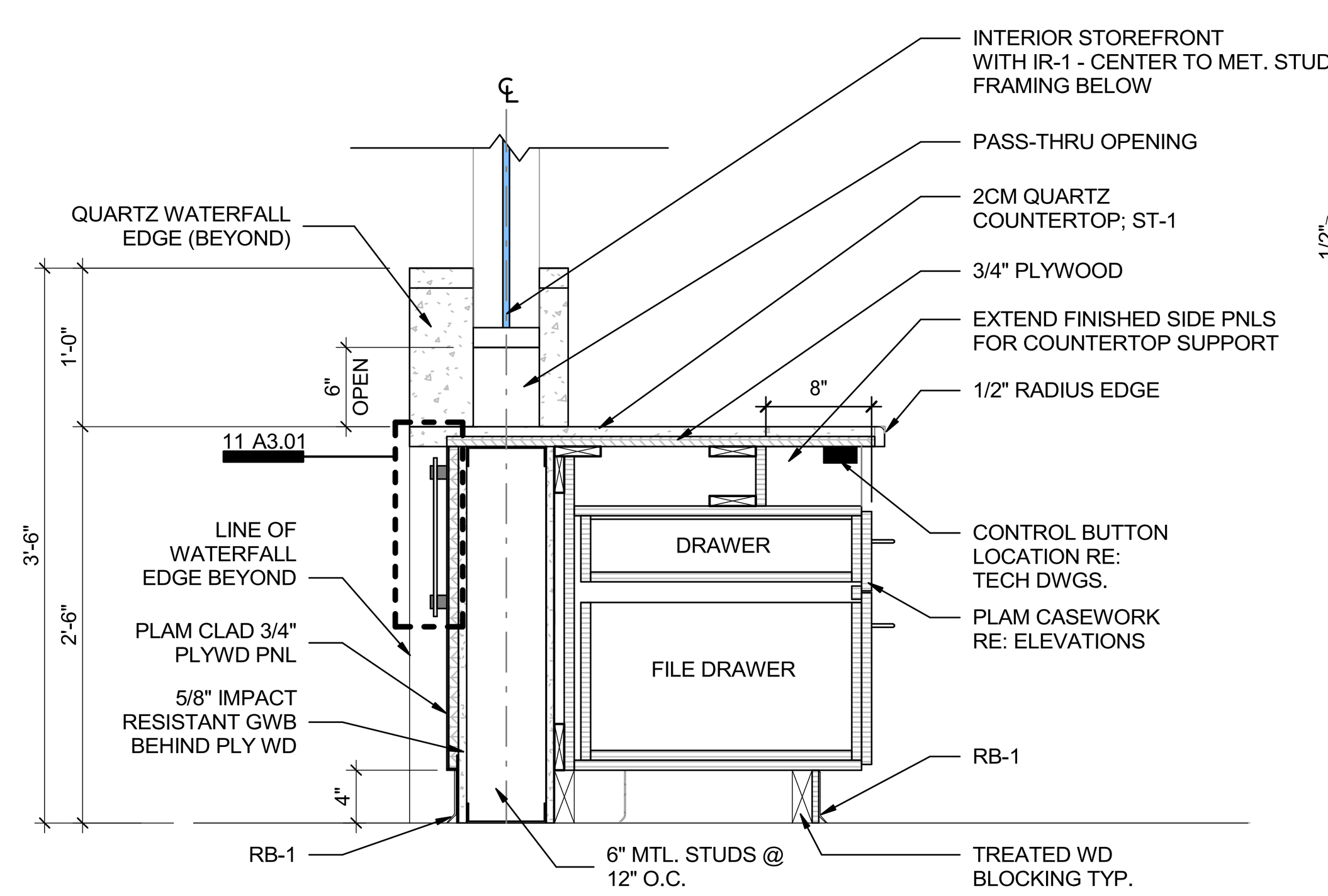
1 19 RECEPTION SIGN DETAIL



8 RECEPTION - KNEE SPACE
1" = 1'-0"



9 RECEPTION - HIGH TRANSACTION
1" = 1'-0"



10 RECEPTION - ADA TRANSACTION
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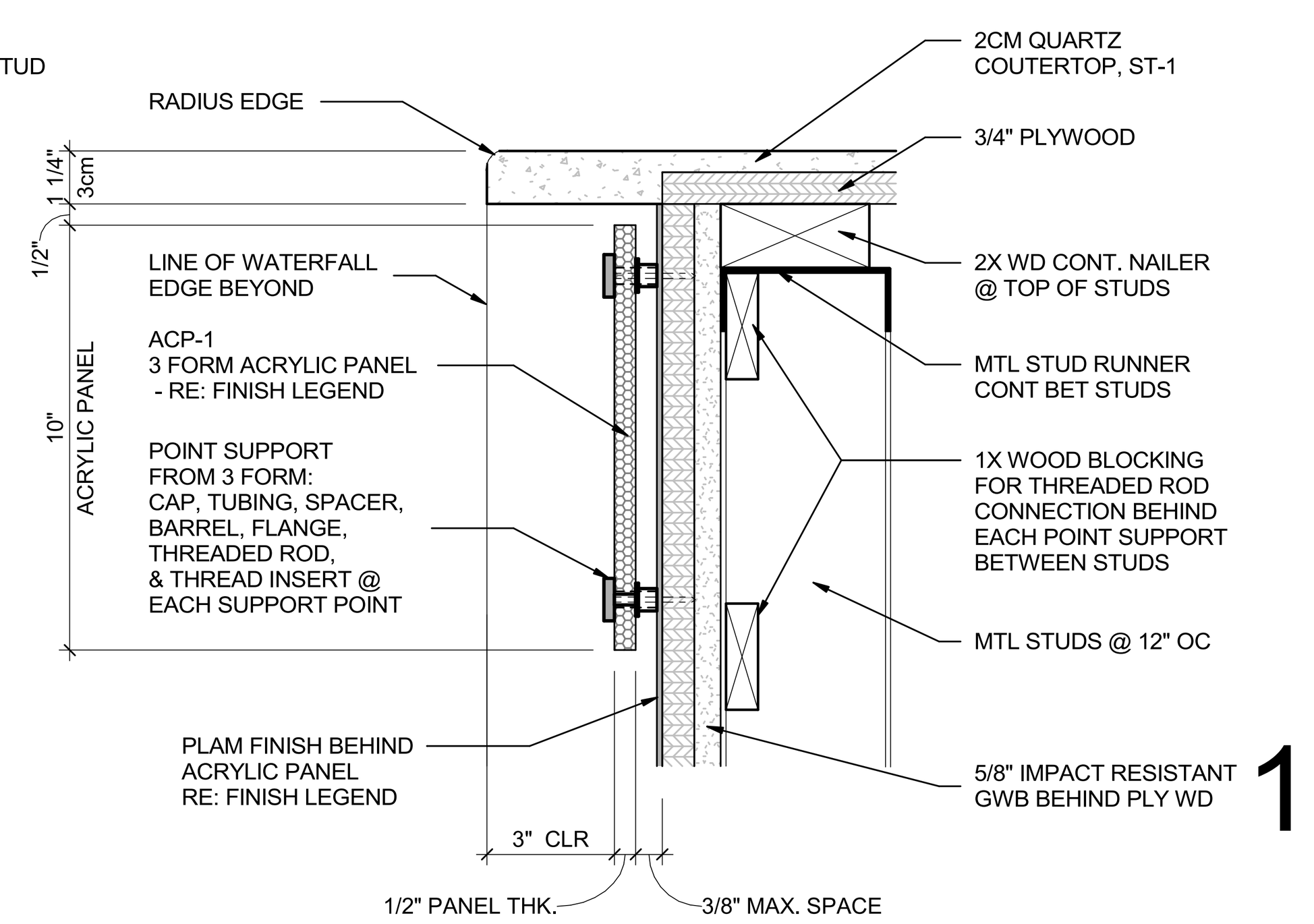
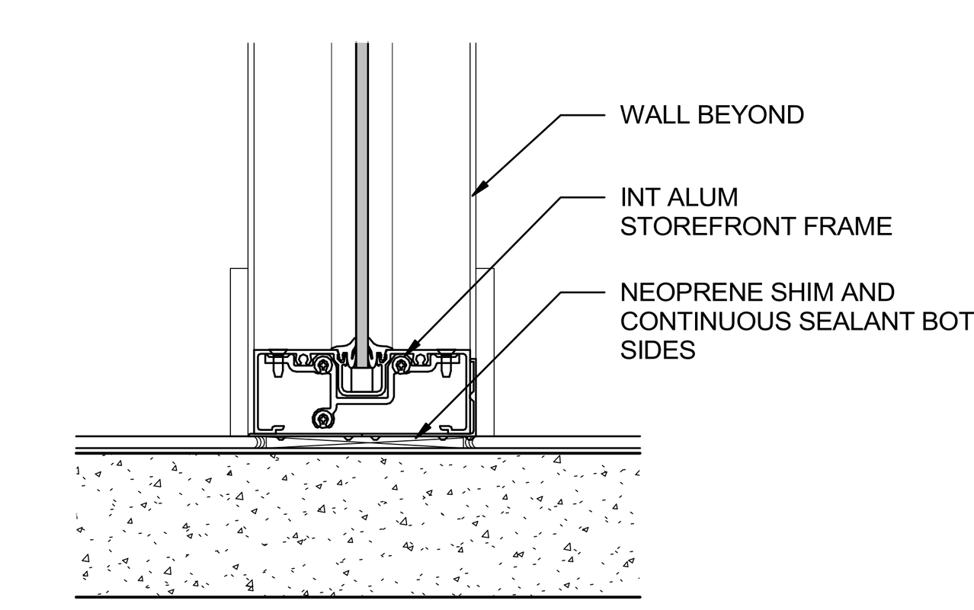
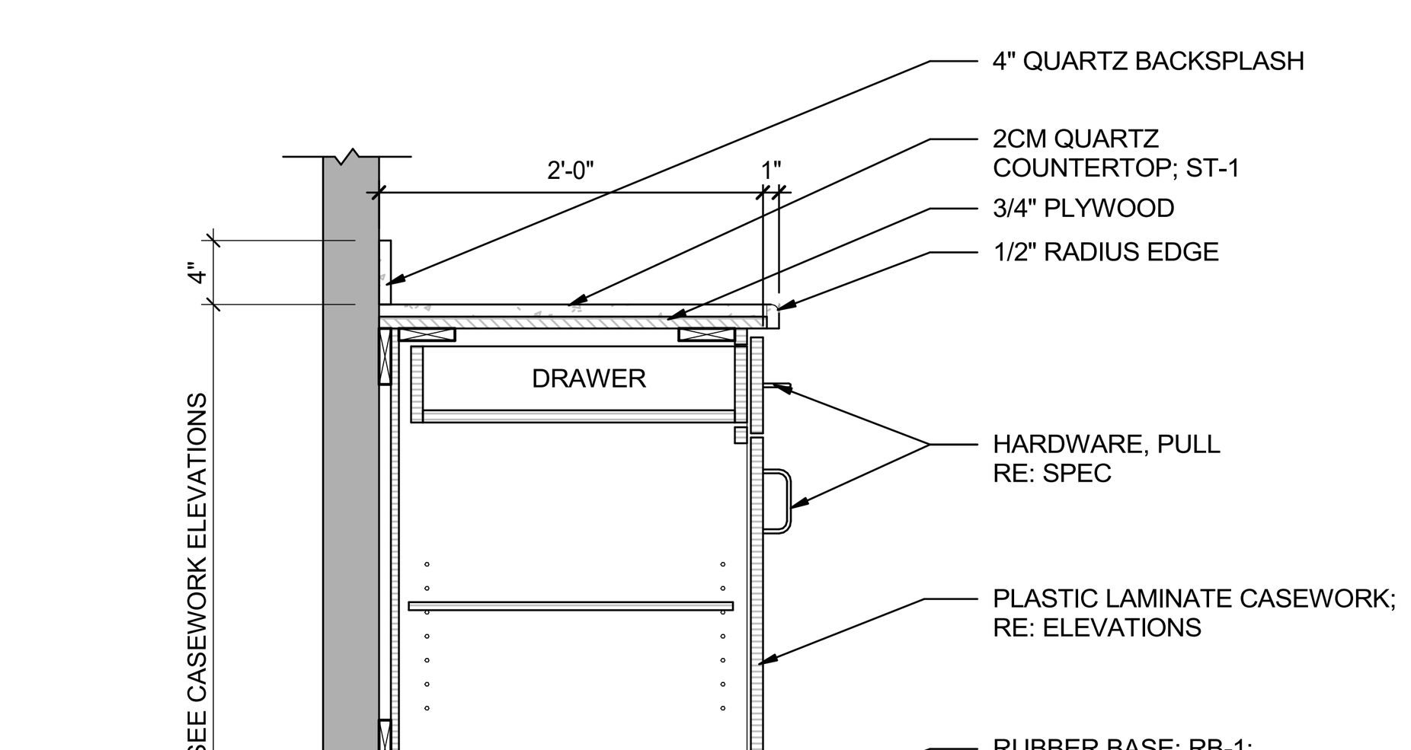


11 DETAIL - ACRYLIC PANEL
3" = 1'-0"



17 INT STOREFRONT - SILL
3" = 1'-0"



12 RECEPTION - CABINET B212
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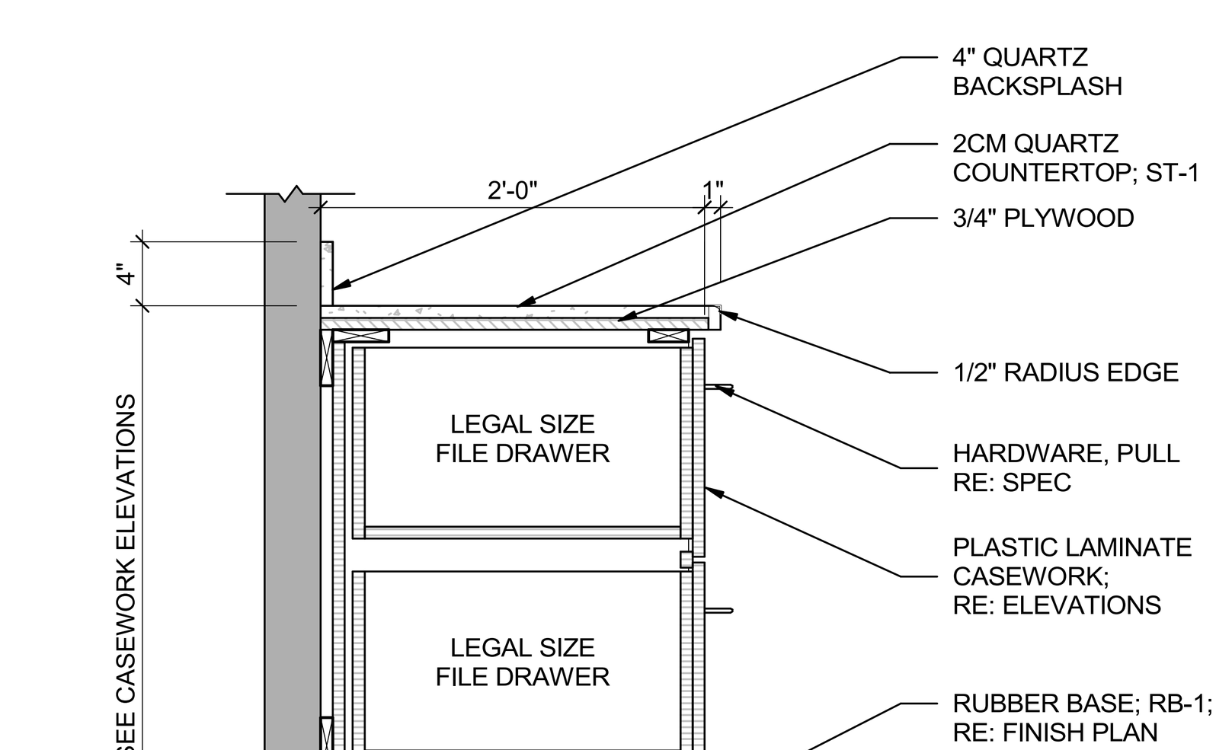

13 RECEPTION - FILES B223
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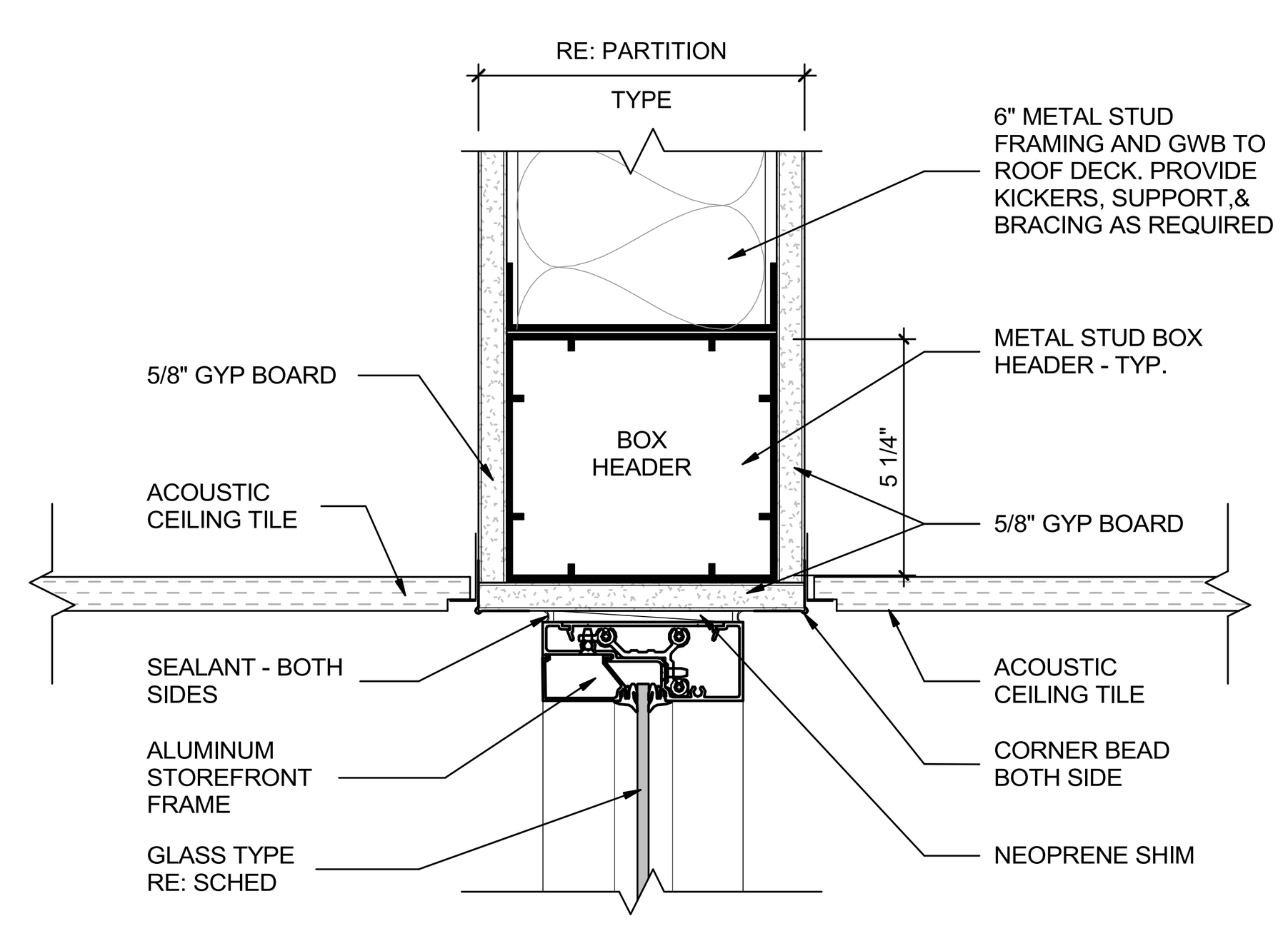
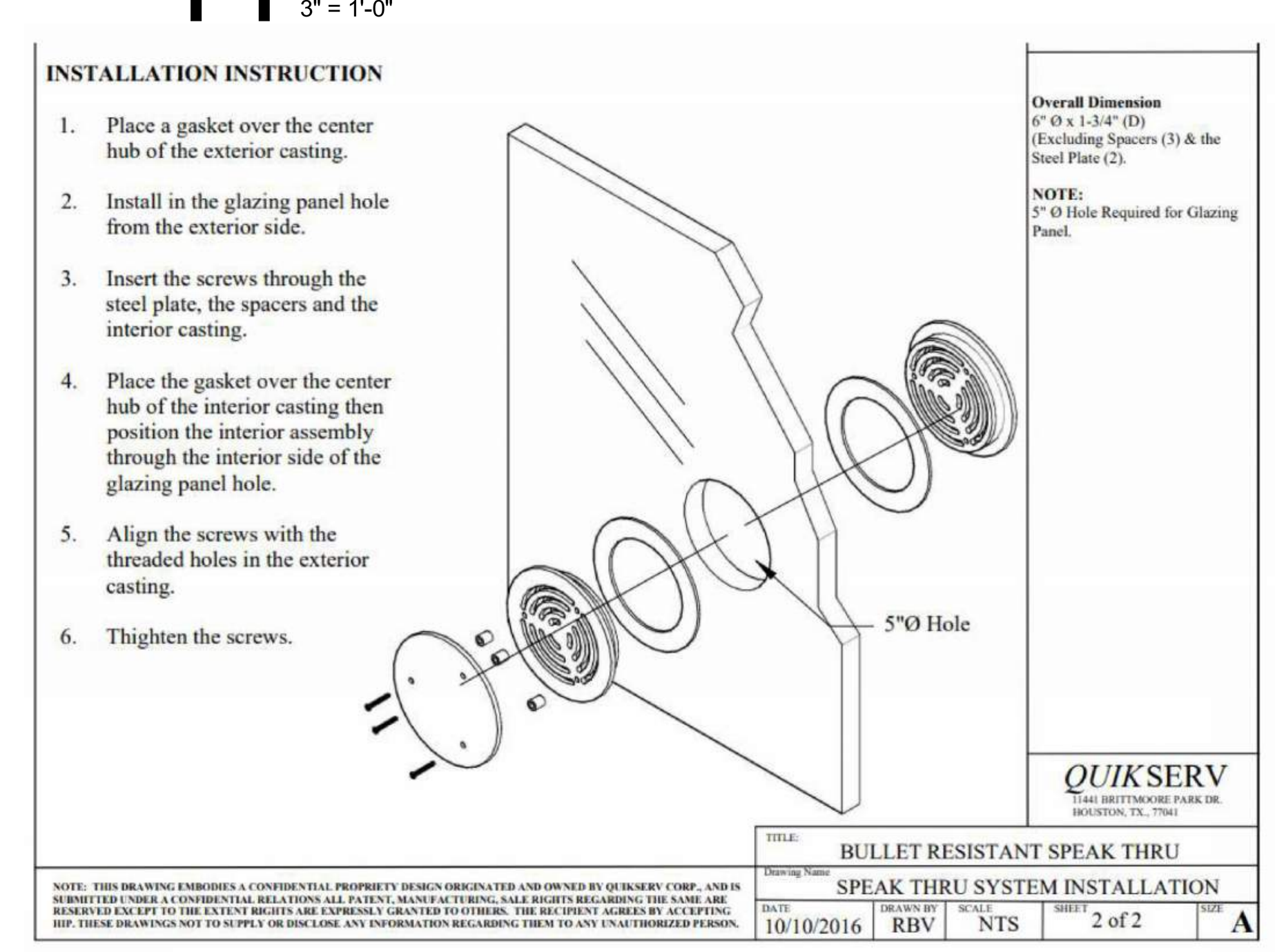
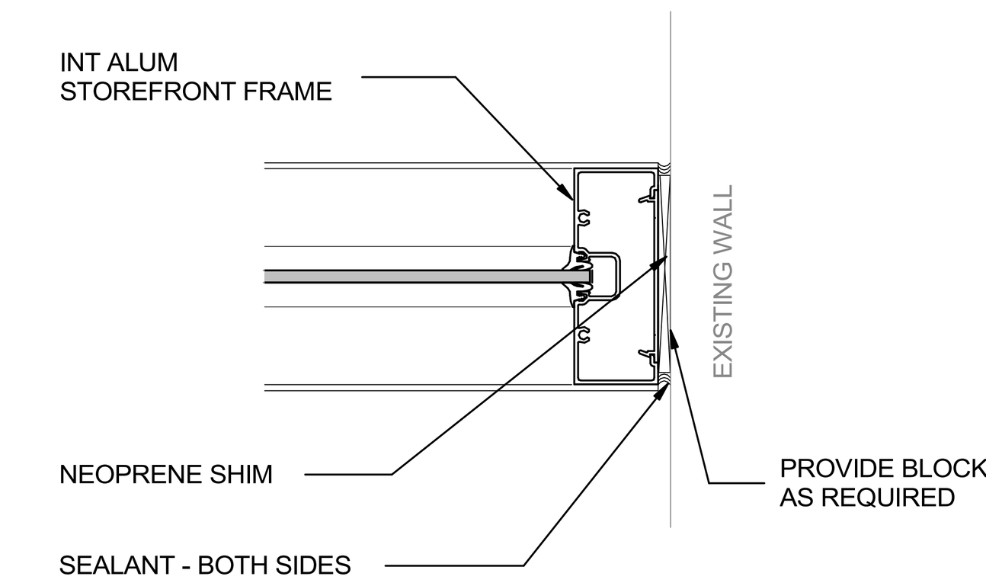


14 INT STOREFRONT - HEAD / TRANSOM
3" = 1'-0"



PROVIDE AND INSTALL QUICK SERV SPEAK THRU SYSTEM AT BOTH PASS-THRU WINDOWS. VERIFY HOLE SIZE IS ACCEPTABLE WITH IR-1 GLASS SYSTEM. ARMOTEX (SHERTZ, TX) IS AN ACCEPTABLE MANUFACTURER,

15 SPEAK THRU DETAIL
3" = 1'-0"



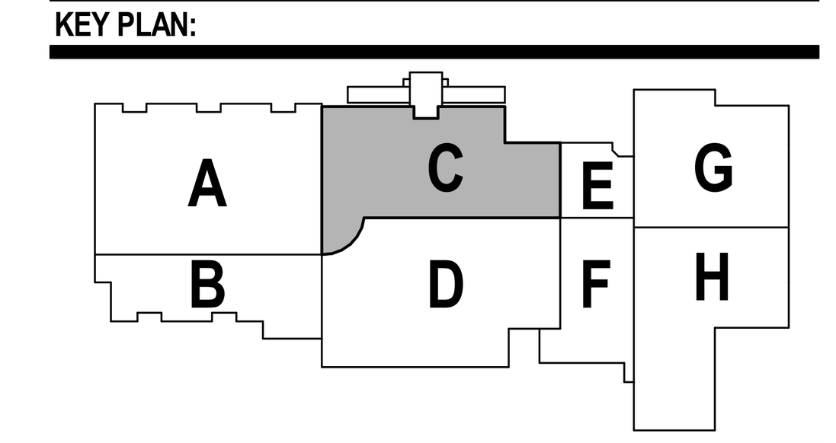
18 INT STOREFRONT - JAMB
3" = 1'-0"

2024 SMITH & SPILLANE MS RENOVATIONS
SMITH MIDDLE SCHOOL
10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	ADDENDUM 02	02-11-25

Revisions / Submission

KEY PLAN:

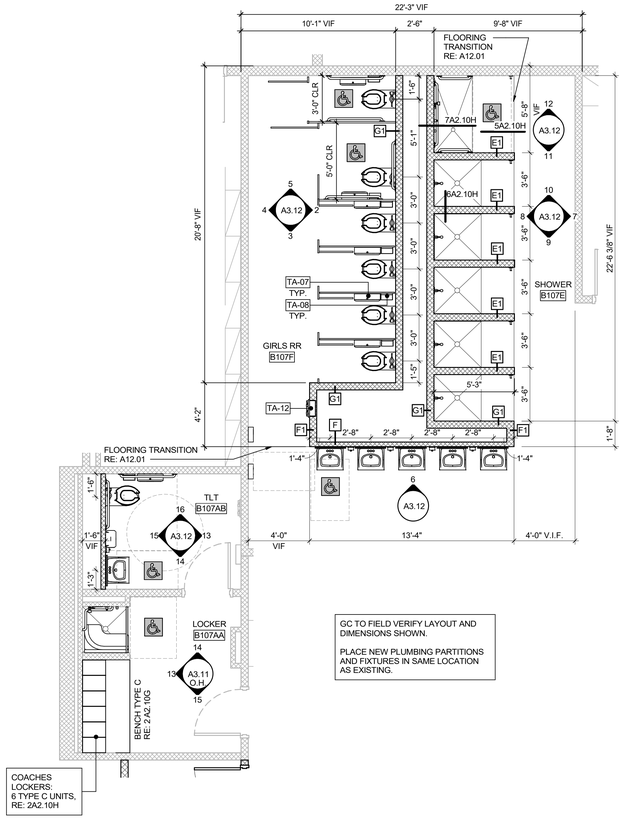


Project Number:	23073
Date:	26 JANUARY 2025
Drawn By:	WHL / KLO

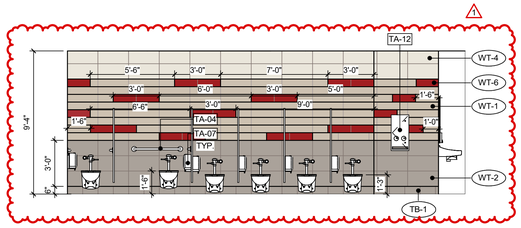
RECEPTION PLANS & DETAILS

A3.01

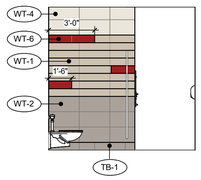
____ of ____



1 FLOOR PLAN - B107F TLT, C105I SHOWER
1/4" = 1'-0"



2 B107F GIRLS RR - E
1/4" = 1'-0"



3 B107F GIRLS RR - S
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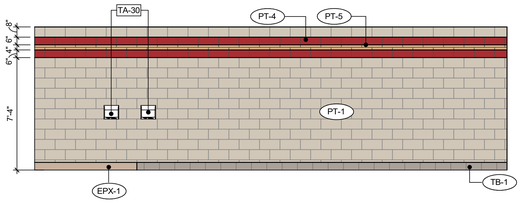

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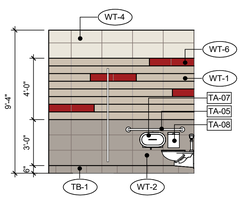

5 B107F GIRLS RR - N
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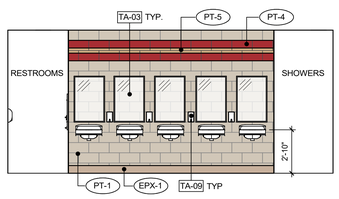

6 B107D GIRLS SINKS - N
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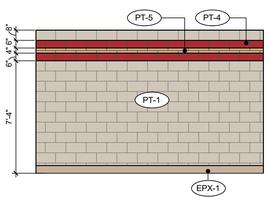
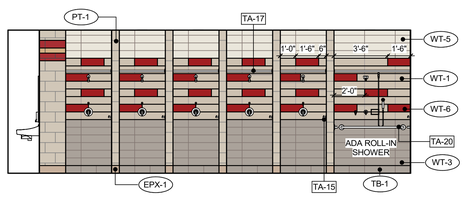


7 B107E SHOWER - E
1/4" = 1'-0"



8 B107E SHOWER - W
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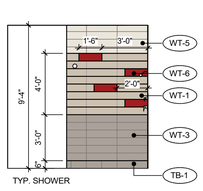
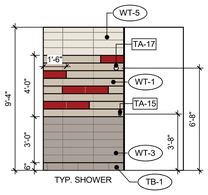


9 B107E SHOWER - S
1/4" = 1'-0"



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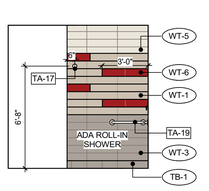

11 B107 ADA SHOWER - S
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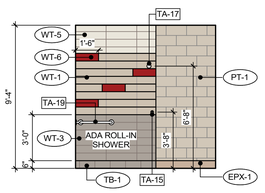

12 B107E ADA SHOWER - N
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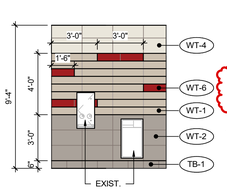
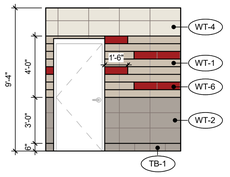


13 B107AB TLT - E
1/4" = 1'-0"



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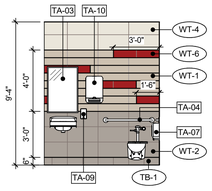
1/4" = 1'-0"



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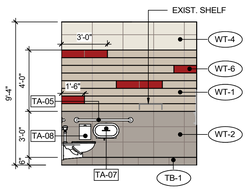

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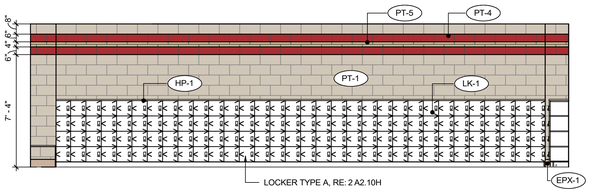
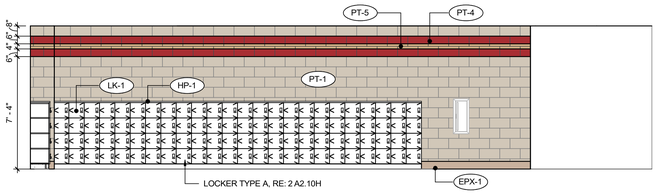


17 B107C - GIRLS PE - E
1/4" = 1'-0"



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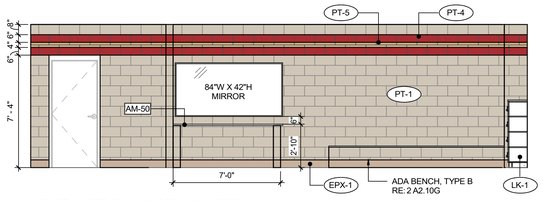

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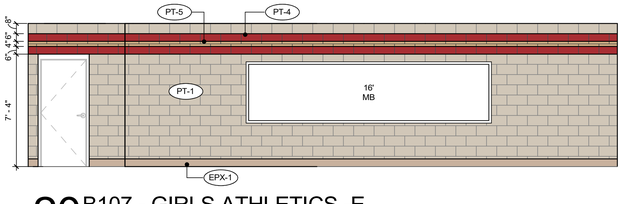
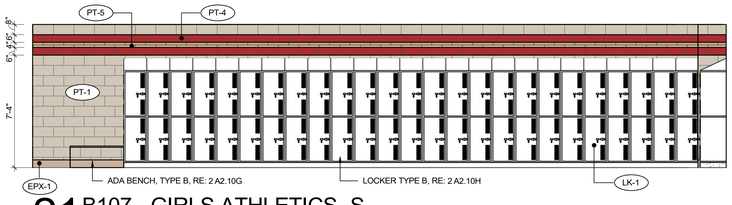


20 B107 - GIRLS ATHLETICS -E
1/4" = 1'-0"



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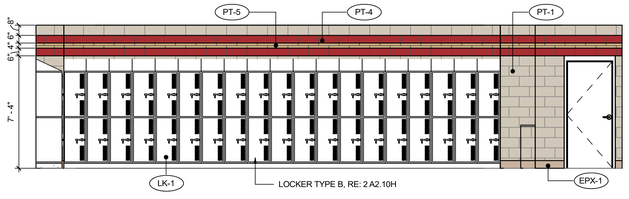

22 B107 - GIRLS ATHLETICS -W
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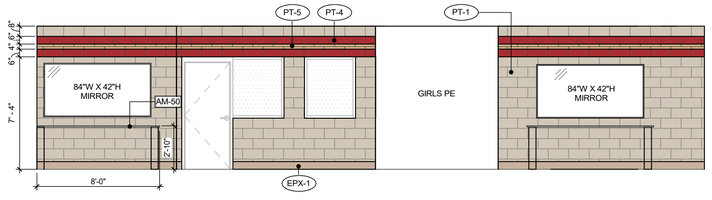


23 B107 - GIRLS ATHLETICS -N
1/4" = 1'-0"

KEYNOTES

AM-50	12" D VANITY COUNTER W/ MIRROR ABOVE. RE: INT ELEV AND DETAIL ON SHEET A2.10G
TA-03	24" W X 36" H MIRROR
TA-04	36" GRAB BAR (TYPICAL AT ALL ADA TOILETS)
TA-05	42" GRAB BAR (TYPICAL AT ALL ADA TOILETS)
TA-07	TOILET PAPER DISPENSER
TA-08	SANITARY NAPKIN DISPOSAL
TA-09	SOAP DISPENSER
TA-10	PAPER TOWEL DISPENSER
TA-12	SANITARY NAPKIN VENDOR - SEMI-RECESSED
TA-15	TOWEL HOOK - ON SAME WALL BUT OUTSIDE OF SHOWER CURTAIN TYPICAL
TA-17	SHOWER ROD AND CURTAIN TYPICAL AT ALL SHOWERS
TA-19	24" GRAB BAR (INSTALL ON BOTH ENDS OF ADA ROLL-IN SHOWER)
TA-20	48" GRAB BAR
TA-30	HAND DRYER

LOCKER ROOM GENERAL NOTES

1. REFER TO D SERIES SHEETS FOR EXTENT OF LOCKER ROOM DEMOLITION WORK.
2. CONSTRUCT NEW PLUMBING WALLS IN THE SAME LOCATION AS EXISTING. NEW RESTROOM AND SHOWER LAYOUT SHOULD MATCH EXISTING. CONNECT NEW PLUMBING FIXTURES TO EXISTING SANITARY LINES UNLESS OTHERWISE SHOWN. REFER TO PLUMBING DRAWINGS.
3. CONSTRUCT CONCRETE CURB BELOW ALL NEW PARTITIONS AROUND RESTROOMS, TOILET ROOMS, SHOWER AREA, SHOWER STALLS AND COACHES LOCKER ROOM. REFER TO A4.20 FOR DETAILS.
4. REMOVE ALL FINISHES FROM EXISTING WALLS TO REMAIN. PATCH, REPAIR AND FINISH WALL AS REQUIRED TO RECEIVE NEW FINISHES.
5. INSTALL SALVAGED METAL SHELVINGS FROM EXISTING PE STORAGE ROOMS TO NEW STORAGE ROOMS. SECURE AND STRAP TO WALL.
6. PROVIDE AND INSTALL LOCKERS AS SHOWN IN PLAN. PROVIDE 4" H CONTINUOUS CONCRETE CURB UNDER ALL LOCKERS. ADA LOCKER UNITS ARE SHOWN WITH "H" SYMBOL. REFER TO SPECIFICATIONS.
7. PROVIDE AND INSTALL THE FOLLOWING AT EACH SHOWER STALL:
   - SHOWER CURTAIN, ROD AND HOOK
   - TOWEL HOOKS OUTSIDE OF SHOWER
8. HAND DRYERS SHOWN TO BE INSTALLED ON EXISTING WALLS ARE REPLACING EXISTING. REMOVE EXISTING AND INSTALL NEW IN THE SAME LOCATION. CONNECT TO EXISTING POWER SOURCE. RE: ELEC.
9. RESTROOMS TO RECIEVE ALL NEW FINISHES INCLUDING BUT NOT LIMITED TO FLOOR TILES AND WALL TILES. INSTALL SAME WALL TILE IN SAME PATTERN ON ALL RESTROOM WALLS WHETHER SPECIFICALLY SHOWN OR NOT. REFER TO ELEVATIONS, FINISH PLANS AND FINISH LEGEND.
10. PROVIDE AND INSTALL THE FOLLOWING IN RESTROOMS AND TOILET ROOMS:
    - TOILET PARTITIONS AS SHOWN. RE: SPEC
    - 42" H PILASTER-MOUNTED URINAL SCREEN WHERE INDICATED (FLOOR MOUNTED TYPE)
    - COAT HOOK AT EACH TOILET PARTITION DOORS.
    - COAT HOOK BEHIND TOILET ROOM DOORS.
    - TOILET ACCESSORIES AS SHOWN AND LISTED. RE: SPEC
11. WHERE ACCESSIBLE SYMBOL IS SHOWN, PROVIDE AND INSTALL PLUMBING FIXTURES AND TOILET ACCESSORIES AS REQUIRED PER ADA / TAS. REFER TO G SERIES DRAWINGS.
12. REFER TO ELEVATIONS, FINISH PLANS AND FINISH LEGEND.
13. REFER TO CEILING PLANS FOR DEMOLITION AND NEW WORK.
14. REFER TO MEPT AND STRUCTURAL DRAWINGS FOR DEMOLITION AND NEW WORK.
15. GC TO FIELD VERIFY EXISTING OVERALL DIMENSIONS PRIOR TO LOCKER SHOP DRAWING SUBMITTAL TO VERIFY NUMBER OF LOCKERS SHOWN WILL FIT IN SPACE ALLOWED

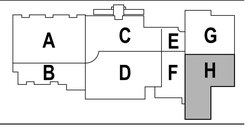
TILE INSTALLATION NOTES

1. WALL TILE PATTERN SHOWN FOR WT-1, WT-2 AND WT-3 IN RESTROOMS AND TOILET ROOMS ARE TYPICAL FOR ALL WALLS. REFER TO ELEVATIONS FOR ACCENT TILE (WT-4) PATTERNS.
2. INSTALL TILES PER MANUFACTURER'S STANDARDS AND RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO GROUT JOINT WIDTHS AND REQUIRED CONTROL JOINTS.
3. REFER TO A12.01 FOR INSTALLATION DETAILS.
4. ALIGN TILE BASE GROUT LINES WITH FLOOR TILE GROUT LINES. ALIGN WALL TILE GROUT LINES WITH TILE BASE GROUT LINES.
5. REFER TO FINISH PLANS FOR FLOOR TILE LAYOUT. SLOPE FLOOR TO DRAIN. COORDINATE FLOOR TILE LAYOUT AT AND AROUND FLOOR DRAIN.
6. PROVIDE 2" WIDE MARBLE THRESHOLD BETWEEN SHOWER MOSAIC TILE AND FLOOR TILE T-1. TYPICAL FOR ALL SHOWERS
7. PROVIDE 2" RECESSED SLAB BELOW ALL SHOWERS. INSTALL WALL AND FLOOR TILE AT SHOWER PER TILE COUNCIL OF AMERICA (TCA) GUIDELINES.
8. REFER TO SPECIFICATION SECTION 093000

TOILET ACCESSORIES

ACCESSORIES	RESPONSIBILITY MATRIX	BASIS OF DESIGN
MIRRORS	CFCI	BOBRICK B-290 2436
TOILET PARTITIONS	CFCI	ASI - BLACK CONFETTI
URINAL SCREEN	CFCI	ASI - BLACK CONFETTI
HAND DRYERS	CFCI	SANIFLOW M06AF-UL OR BRADLEY 2902-280000 120V
GRAB BARS	CFCI	BOBRICK B-6806 x 42 IN B-6806 x 36IN B-6806 x 24IN B-6806 x 48IN
SANITARY NAPKIN VENDOR	CFCI	BOBRICK B-2706 B3706
PLUMBING CHASE ACCESS DOOR	CFCI	@ ALL CHASE RE: PLUMBING
SOAP DISPENSER	OFCI	SYMMETRY 9902001
TOILET PAPER DISPENSER	OFCI	KIMBERLY CLARK 09507
SANITARY NAPKIN DISPOSALS	OFCI	CONTINENTAL 250C
PAPER TOWEL DISPENSERS	OFCI	BAYWEST 86500
SHOWER SEAT	CFCI	BRADLEY 9594 BRADMAR
SHOWER GRAB BAR ADA L-SHAPED	CFCI	BOBRICK B-6861
TOWEL HOOK	CFCI	BRADLEY 9394
COAT HOOK WITH BUMPER	CFCI	BRADLEY
SHOWER CURTAIN ROD HOOK CURTAIN	CFCI	BOBRICK B-6107 BOBRICK 204-1 BOBRICK 204-2

KEY PLAN:



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CONSTRUCTION DOCUMENT

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1 ADDENDUM 02 02-11-25 Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

GIRLS LOCKER ROOM PLAN & ELEVATIONS

A3.12

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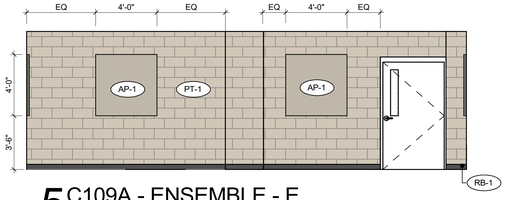
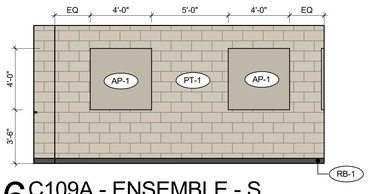


5 C109A - ENSEMBLE - E
1/4" = 1'-0"



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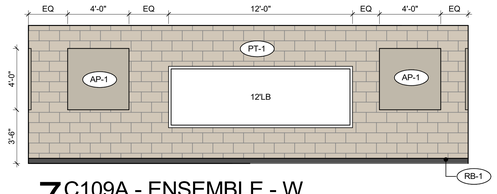

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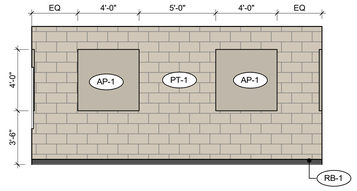

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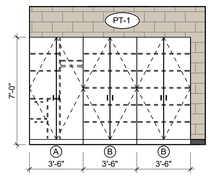

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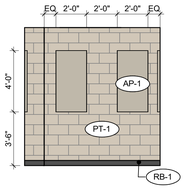

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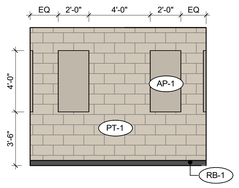

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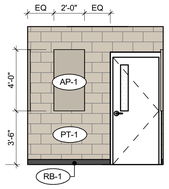

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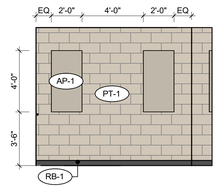

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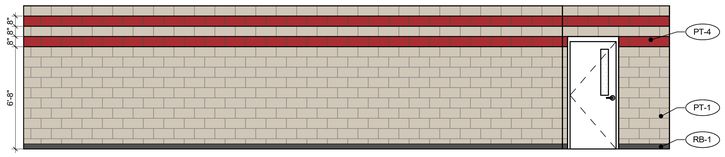

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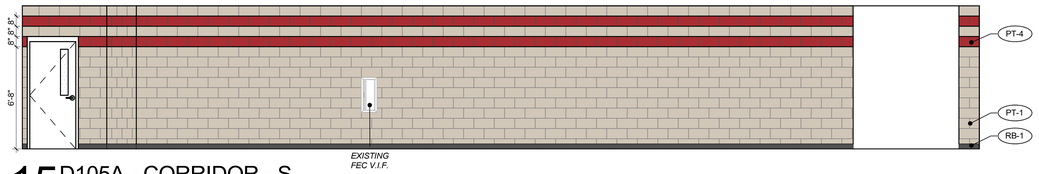

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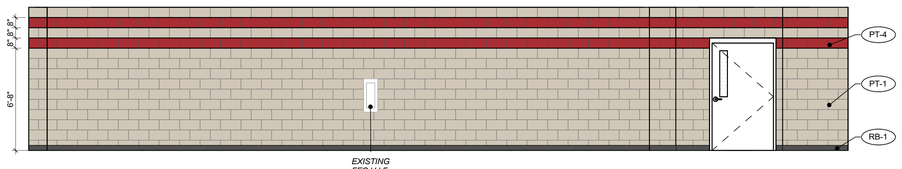

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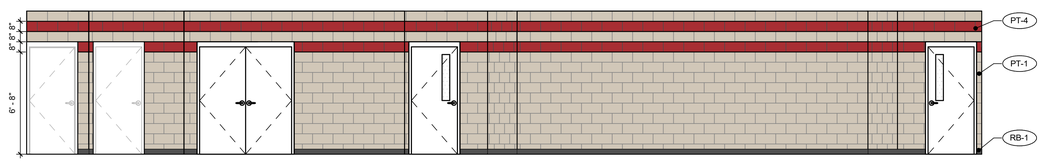

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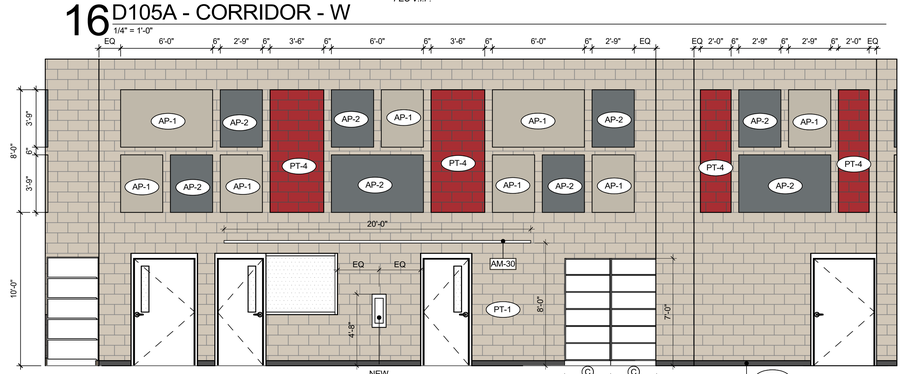

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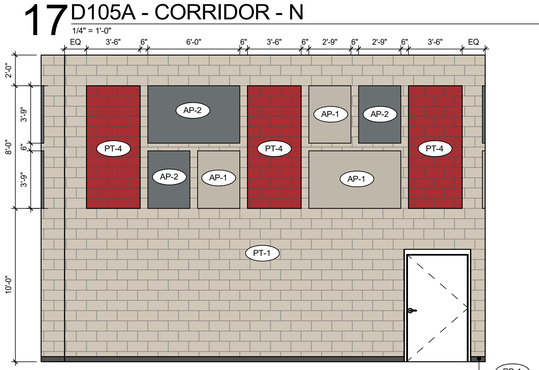

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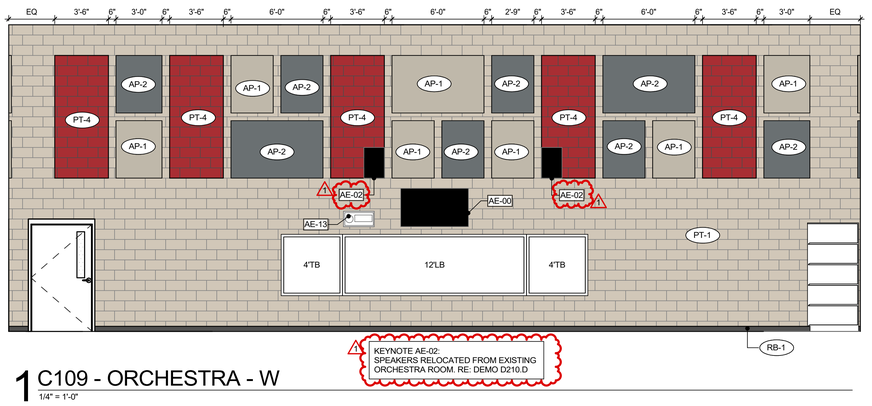

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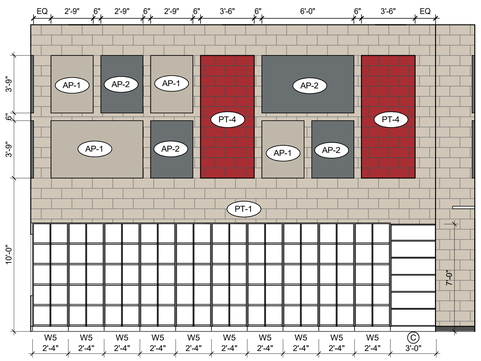

2 C109 - ORCHESTRA - N
1/4" = 1'-0"

INTERIOR LEGEND

XX-# — MATERIAL TAG
RE: FINISH LEGEND

PT-# — PAINT TYPE TAG
RE: FINISH LEGEND

1

CASEWORK LEGEND

SYMBOL	DESCRIPTION
A	TEACHER CABINET (T530) RE: 13 A10.03
B	STORAGE CABINET (T402) RE: 14 A10.03
C	OPEN SHELVING CABINET (T400) RE: 15 A10.03

REFER TO CASEWORK DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES

AE-00 INTERACTIVE MONITOR (N.I.C.) - INSTALL POWER & DATA BEHIND MONITOR. RE: ELEC/TECH

AE-02 CAREFULLY REMOVE AND RELOCATE EXISTING SOUND SYSTEM AND BRACKETS TO NEW LOCATION. CONTRACTOR TO ENSURE SPEAKERS ARE FUNCTIONING BEFORE AND AFTER RENOVATION. RE: ELEC

AE-13 TOPCAT SPEAKER. RE: TECH

AM-30 NEW TROPHY SHELF - 15"D X 1" THICK PLAM CLAD WOOD SHELVING SECURED TO WALL WITH METAL BRACKETS 24" O.C. MAX.

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CONSTRUCTION DOCUMENT

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02/11/2025
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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1 ADDENDUM 02 02-11-25
Revisions / Submission

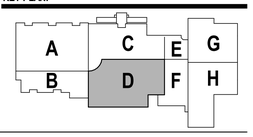
Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

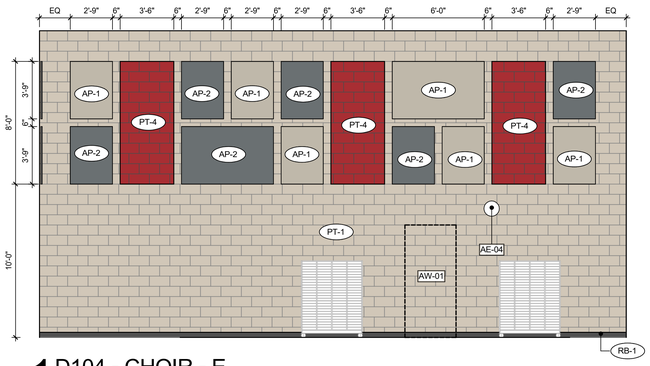
ELEVATIONS - FINE ARTS

A10.02

___ of ___

KEY PLAN:





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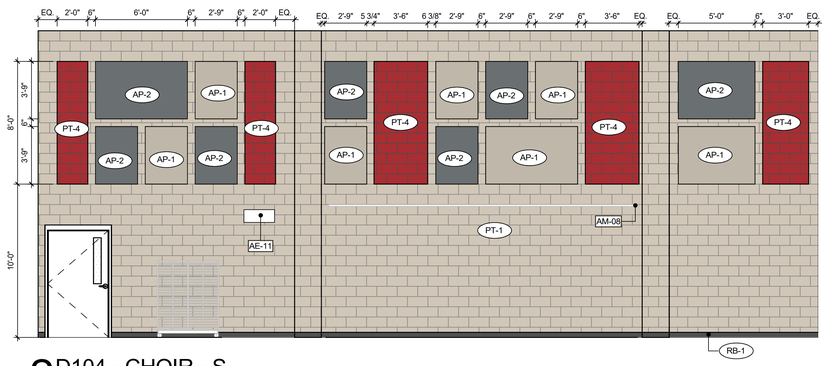

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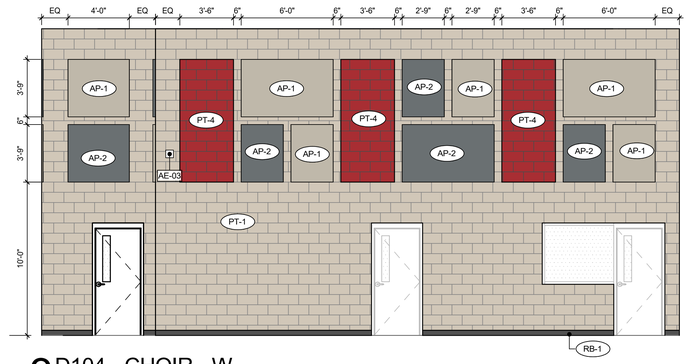

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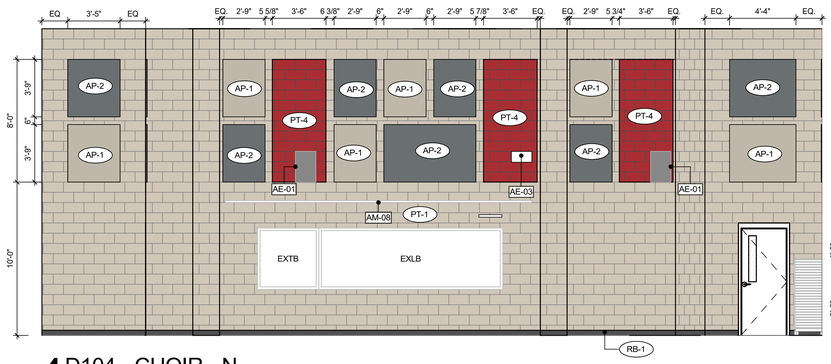
1/4" = 1'-0"



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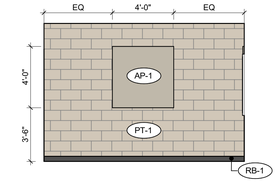

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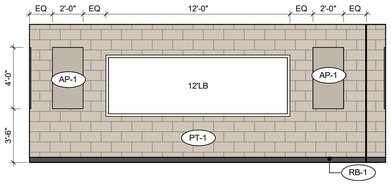

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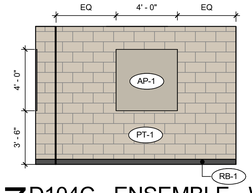

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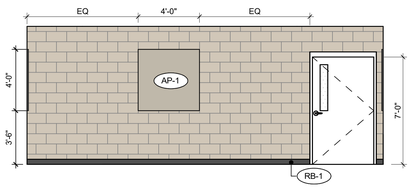
1/4" = 1'-0"



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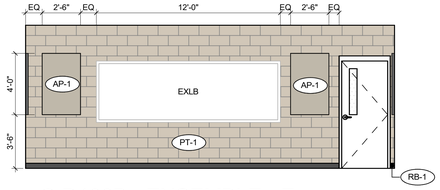
1/4" = 1'-0"



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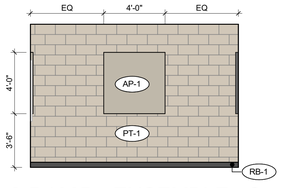

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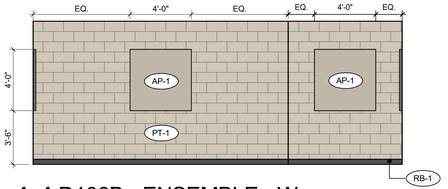

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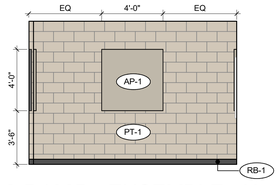

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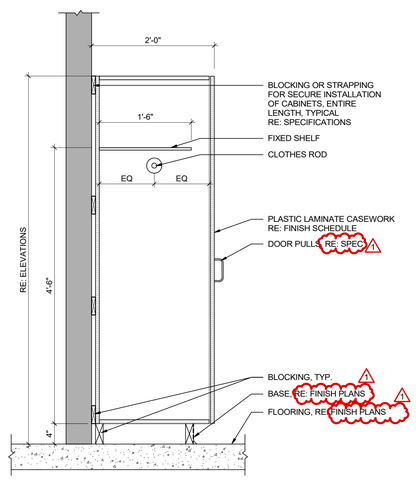
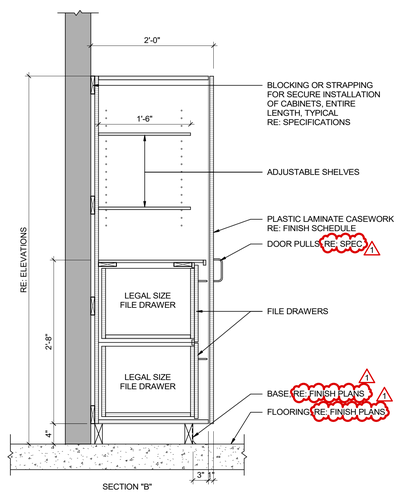
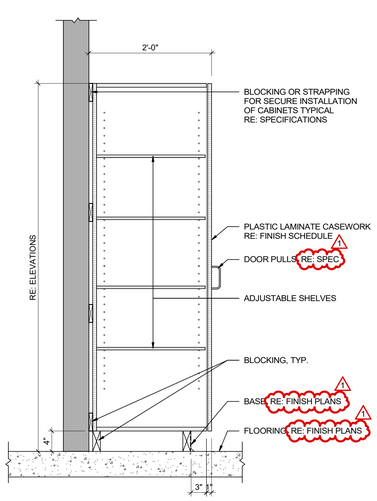
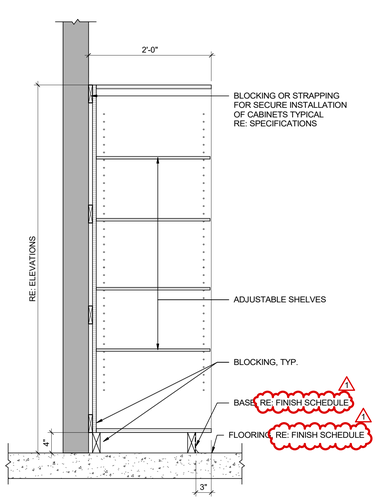


13 T530 & T531 - TEACHER CABINET
1" = 1'-0"





14 T402 - TALL SHELF CABINET W/ DOOR
1" = 1'-0"

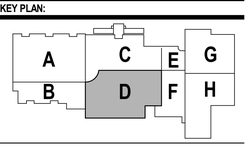


15 T400 - TALL OPEN SHELF CABINET
1" = 1'-0"

KEYNOTES

AE-01	EXISTING SOUND SYSTEM AND BRACKETS. CAREFULLY REMOVE AND REINSTALL IF NECESSARY TO ACCOMMODATE RENOVATION WORK. CONTRACTOR TO ENSURE SPEAKERS ARE FUNCTIONING BEFORE AND AFTER RENOVATION. RE: ELEC
AE-03	EXISTING WIRELESS ACCESS DEVICE. RE: TECH
AE-04	EXISTING CLOCK TO REMAIN
AE-11	EXISTING TOPCAT SPEAKER. RE: ELEC
AM-08	EXISTING TROPHY SHELF. REMOVE AND REINSTALL AS REQUIRED TO ACCOMMODATE SURROUNDING RENOVATION.
AW-01	INFILL CMU WALL OPENING AS REQUIRED TO MATCH AND BLEND IN WITH ADJACENT SURFACES IN SIZE AND LAYOUT. PREP WALL TO RECEIVE NEW SCHEDULED FINISHES.

KEY PLAN:



INTERIOR LEGEND

XX-# — MATERIAL TAG RE: FINISH LEGEND

PT-# — PAINT TYPE TAG RE: FINISH LEGEND

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1 ADDENDUM 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELEVATIONS - FINE ARTS

A10.03

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ELECTRICAL DEMOLITION NOTES

1. UNLESS NOTED OTHERWISE, DISCONNECT AND REMOVE ALL EXISTING INTERIOR AND EXTERIOR LIGHT FIXTURES AND EXIT SIGNS. UNLESS INDICATED OTHERWISE EXISTING NORMAL POWER 277V CIRCUITS TO REMAIN IN PLACE FOR RE-USE. REMOVE EXISTING 277V EMERGENCY CIRCUITS BACK TO SOURCE.
2. REMOVE ALL EXISTING LIGHTING CONTROLS EQUIPMENT AND DEVICES, INCLUDING BUT NOT LIMITED TO SWITCH-LEGS, RELAYS, LIGHTING CABINETS, H-LINK AND WEB LINK, CONTACTORS AND SENSORS. DO NOT RE-USE UNUSED LIGHTING CABINETS AS J-BOXES PART OF THE NEW LIGHTING SYSTEM CONTROLS.
3. DISCONNECT AND REMOVE ALL ELECTRICAL POWER DEVICES FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
4. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

WHERE ANY NEW WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

EXISTING RACEWAYS AND LOCATION OF ELECTRICAL OUTLETS ON EXISTING WALLS TO REMAIN SHALL BE RE-USED AS PRACTICAL FOR NEW DEVICES AS PART OF NEW WORK.

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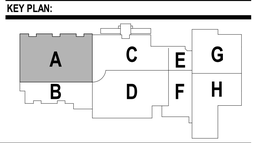
1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - AREA A**
Scale: 1/8" = 1'-0"

KEY PLAN:



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Project No: 2024-00209-00

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL DEMOLITION FIRST FLOOR PLAN - AREA 'A'

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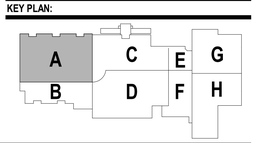
1 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA A**

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

KEY PLAN:



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Registration: F-4111
Project No: 2024-00209-00

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

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PROVIDE NEW POWER DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYMPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

TEMOPORARILY DISCONNECT AND REMOVE ALL CEILING / WALL MOUNTED ELECTRICAL AND FIRE ALARM DEVICES FOR AREAS THAT REQUIRE CEILING / WALL REMOVALS AND/OR REPLACEMENT, INCLUDING MECHANIAL, TECHNOLOGY, FIRE ALARM, SPRINKLERS AND PLUMBING SCOPE OF WORK. AFTER COMPLETION RELOCATE TO PREVIOUS LOCATION AS REQUIRED.

WHERE ANY EXISTING JUNCTION BOX AN/OR PULLBOX IS LOCATED AT A NEW NON-ACCESSIBLE CEILING AREA, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT ABOVE NEAREST ACCESSIBLE CEILING AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

EXISTING RACEWAYS AND LOCATION OF ELECTRICAL OUTLETS ON EXISTING WALLS TO REMAIN SHALL BE RE-USED AS PRACTICAL FOR NEW DEVICES AS PART OF NEW WORK.

POWER GENERAL NOTES

1. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER ADDITIONAL REQUIREMENTS TO BE PROVIDED AS SPECIFIED IN DIVISION 26.
2. WHERE ANY NEW WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.
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CONSTRUCTION DOCUMENT

02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'A'

E3.01

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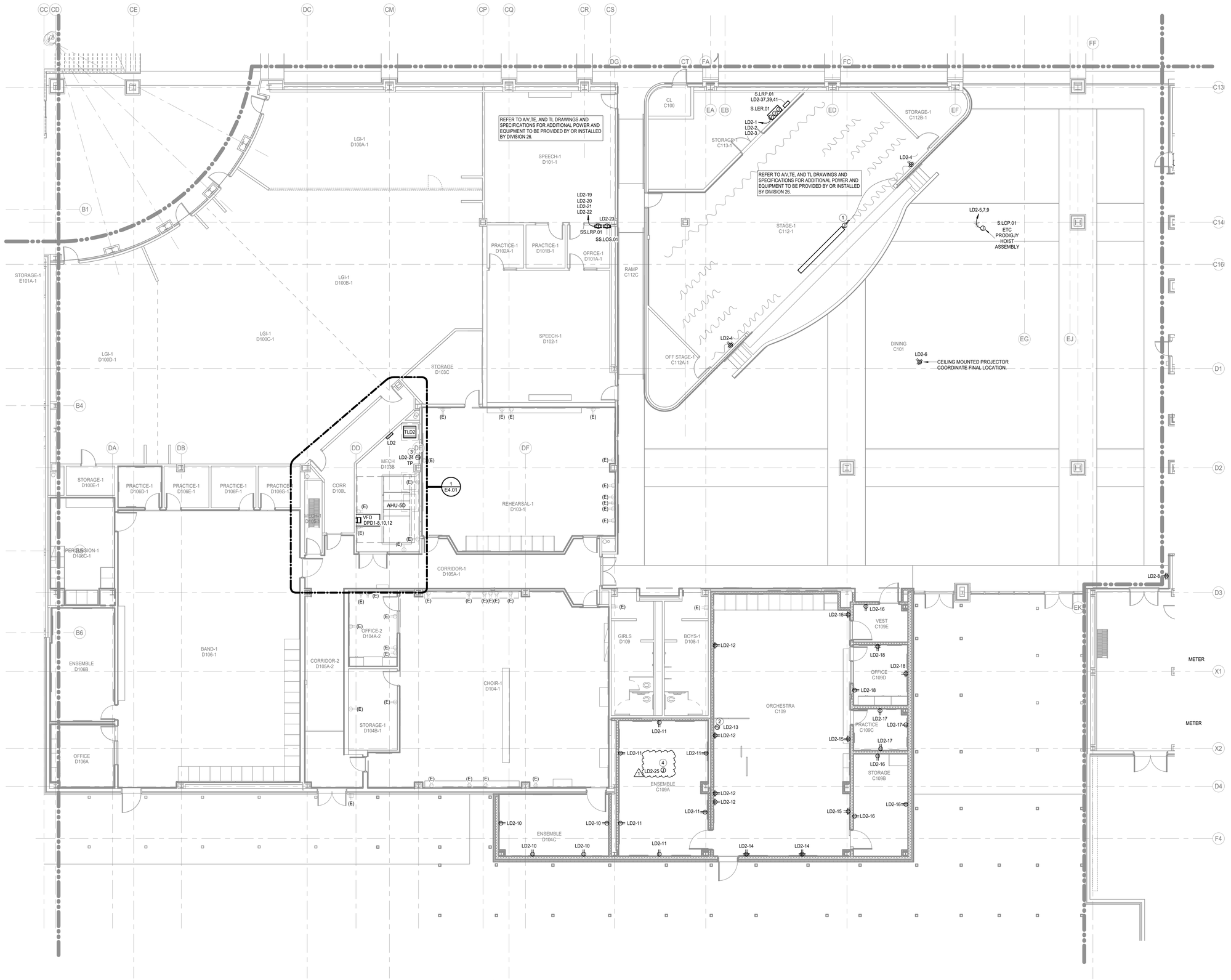

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1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA D

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

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Project No: 2024-00209-00

LINE TYPE LEGEND

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ELECTRICAL KEYED NOTES

1	REPLACEMENT MOTORIZED SCREEN. CONNECT TO EXISTING CIRCUIT LEFT IN PLACE AFTER DEMOLITION. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. COORDINATE CONTROL SWITCH FINAL LOCATION.
2	PROVIDE DUPLEX RECEPTACLE IN RECESSED OUTLET BOX, AT 12' AFF ABOVE TEACHING WALL FOR SOUND ENHANCEMENT. COORDINATE EXACT RECEPTACLE LOCATION WITH TECHNOLOGY DRAWINGS AND ARCHITECT PRIOR TO ELECTRICAL ROUGH-IN.
3	FLUSH MOUNTED TRAP PRIMER. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL MOUNTING HEIGHT AND LOCATION.
4	PROVIDE POWER TO LOCAL SPEAKER SYSTEM. COORDINATE FINAL LOCATION WITH DIVISION 27.

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Drawn By: WHL / KLO

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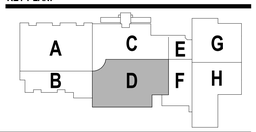

ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'D'

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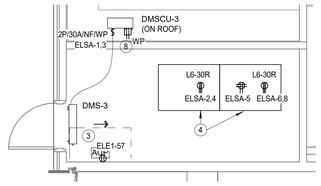

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2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA F - ENL. IDF C103

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

FOOD SERVICE ELECTRICAL SCHEDULE

FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E103	JB/DS	33.3A	208	3	REFRIGERATION SYSTEM	VERIFY	VERIFY	BTC; WEATHERPROOF DISCONNECT SWITCH
E103C	JB	13.7A	208	1	FREEZER COIL	CLG	DFA	BTC
E103D	JB	1.8A	120	1	COOLER COIL	CLG	DFA	BTC
E103E	JB	---	---	---	DATA CONNECTION	CLG	DFA	BTC; RUN TO NEAREST IDF / MDF ROOM
E103F	JB	16.0A	120	1	DRAIN LINE HEATER	CLG	DFA	BTC; DEDICATED CIRCUIT

FOOD ESTABLISHMENT GENERAL NOTES:

1. FOOD SERVICE EQUIPMENT INSTALLATION SHALL BE IN COMPLIANCE WITH APPLICABLE BUILDING AND HEALTH CODES.

2. ALL ELECTRICAL EQUIPMENTS AND DEVICES WITHIN FOOD PREPARATION AND WAREWASH AREAS SHALL BE WEATHERPROOF OR PROVIDED WITH STAINLESS STEEL COVERS/TOPS INCLUDING ELECTRICAL PANELBOARDS.

3. LIGHTING LEVELS SHALL BE A MINIMUM 10 FOOT CANDLES 30-INCHES ABOVE FLOOR, IN WALK-IN REFRIGERATION UNITS AND DRY FOOD STORAGE.

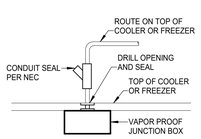
4. LIGHTING LEVELS SHALL BE A MINIMUM 20 FOOT CANDLES AT:
- A SURFACE WHERE FOOD IS PROVIDED FOR CONSUMER SELD-SERVICE OR WHERE FRESH PRODUCE OR PACKAGED FOODS ARE SOLD OR OFFERED FOR CONSUMPTION.
- INSIDE EQUIPMENT SUCH AS REACH-IN AND UNDER-COUNTER REFRIGERATOR.
- 30-INCHES ABOVE FLOOR IN AREAS USED FOR HANDWASHING, WAREWASHING, EQUIPMENT AND UTENSIL STORAGE AND IN TOILET ROOMS.

5. LIGHTING LEVELS SHALL BE A MINIMUM 50 FOOT CANDLES AT ALL SURFACES OF FOOD PREPARATION AND COOKING.

4. CONTRACTOR TO SEAL ALL PENETRATIONS THRU WALK-IN COOLER / FREEZER.

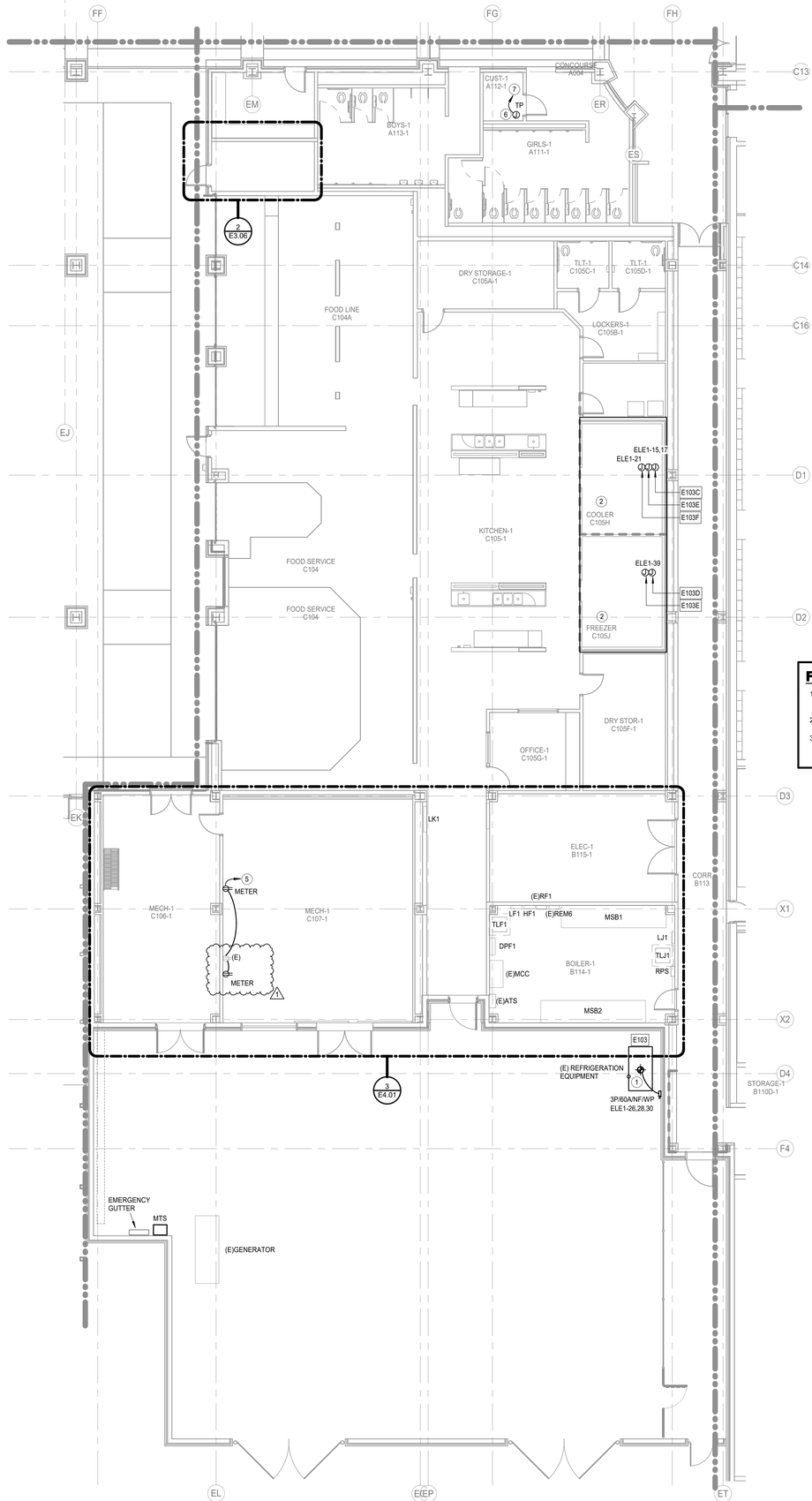
PROVIDE LISTED CLASS A GFCI PROTECTION FOR PERSONNEL FOR (A) ALL SINGLE-PHASE BRANCH RECEPTACLES RATED 150 V TO GROUND OR LESS, 50A OR LESS, AND (B) ALL THREE-PHASE BRANCH RECEPTACLES RATED 150 V TO GROUND OR LESS, 100 A OR LESS LOCATED IN KITCHEN AND ALL AREAS WITH PERMANENT PROVISIONS FOR FOOD PREPARATION, COOKING, AND FOOD SERVING.

DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND / OR FIELD CONDITIONS.



3 COOLER/FREEZER CONDUIT PENETRATION

Scale: NOT TO SCALE



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1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA F

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

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

WHERE ANY WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

PROVIDE NEW POWER DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYMPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

TEMOPORARILY DISCONNECT AND REMOVE ALL CEILING / WALL MOUNTED ELECTRICAL AND FIRE ALARM DEVICES FOR AREAS THAT REQUIRE CEILING / WALL REMOVALS AND/OR REPLACEMENT, INCLUDING MECHANIAL, TECHNOLOGY, FIRE ALARM, SPRINKLERS AND PLUMBING SCOPE OF WORK. AFTER COMPLETION RELOCATE TO PREVIOUS LOCATION AS REQUIRED.

WHERE ANY EXISTING JUNCTION BOX AN/OR PULLBOX IS LOCATED AT A NEW NON-ACCESSIBLE CEILING AREA, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT ABOVE NEAREST ACCESSIBLE CEILING AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

EXISTING RACEWAYS AND LOCATION OF ELECTRICAL OUTLETS ON EXISTING WALLS TO REMAIN SHALL BE RE-USED AS PRACTICAL FOR NEW DEVICES AS PART OF NEW WORK.

POWER GENERAL NOTES

1. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMUNICATION PATHWAYS AND OTHER ADDITIONAL REQUIREMENTS TO BE PROVIDED AS SPECIFIED IN DIVISION 26.
2. WHERE ANY NEW WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.
3. WHERE ANY EXISTING JUNCTION BOX AND/OR PULLBOX IS LOCATED AT A NEW NON-ACCESSIBLE CEILING AREA, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT ABOVE NEAREST ACCESSIBLE CEILING AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

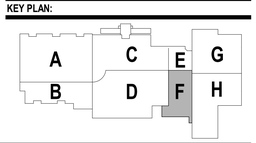
FOODSERVICE GENERAL NOTES

1. ACCESSORIES AND FITTINGS PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY SECTION 11 40 00. FIELD INSTALLED BY DIVISION 26.
2. STAINLESS STEEL DISCONNECT SWITCH PROVIDED AND INSTALLED BY DIVISION 26.
3. DOOR HEATER(S), LIGHT(S), COIL(S), AND PRESSURE RELIEF PORT(S) PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLY BY SECTION 11 40 00, FINAL CONNECTION BY DIVISION 26.

ELECTRICAL KEYED NOTES

1	PROVIDE 1"C. FROM REFRIGERATION SYSTEM TO TEMPERATURE MONITOR PANEL.
2	LIGHTING IN COOLER / FREEZER TO BE FURNISHED WITH EQUIPMENT. FINAL CONNECTION PROVIDED BY DIVISION 26. FIELD COORDINATE EXACT LOCATION WITH CASEWORK INSTALLATION.
3	ROUTE 3/4"C. TO ASSOCIATED OUTDOOR UNIT ON ROOF. ROUTE PARALLEL WITH REFRIGERATION LINES.
4	REFER TO DETAILS FOR RACK RECEPTACLES INSTALLATION. TYPICAL.
5	PROVIDE NEW RECEPTACLES AS SHOWN AND CONNECT TO EXISTING CIRCUITS LEFT IN PLACE AFTER DEMOLITION, EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V.
6	FLUSH MOUNTED TRAP PRIMER. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL MOUNTING HEIGHT AND LOCATION.
7	PROVIDE DEDICATED POWER TO NEW TRAP PRIMER FROM EXISTING PANEL LJ1. PROVIDE NEW 20A/1P/LF BREAKER WITH #12 WIRE.
8	PROVIDE POWER TO NEW ROOFTOP MAINTENANCE RECEPTACLE FROM NEAREST ACCEPTABLE 120V ROOFTOP MAINTENANCE CIRCUIT. EXTEND CONDUCTORS/CONDUIT MATCHING EXISTING SIZE TO NEW RECEPTACLE. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V OR CONTAIN MORE THAN 8 DEVICES. IF NO ACCEPTABLE CIRCUIT IS AVAILABLE AT ROOF. PROVIDE POWER FROM NEAREST ACCEPTABLE 120V PANEL. PROVIDE NEW 20A/1P BREAKER WITH #12 WIRE TO FEED NEW RECEPTACLE.

KEY PLAN:



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CONSTRUCTION DOCUMENT

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

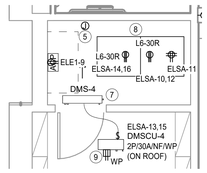
1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'F'

E3.06

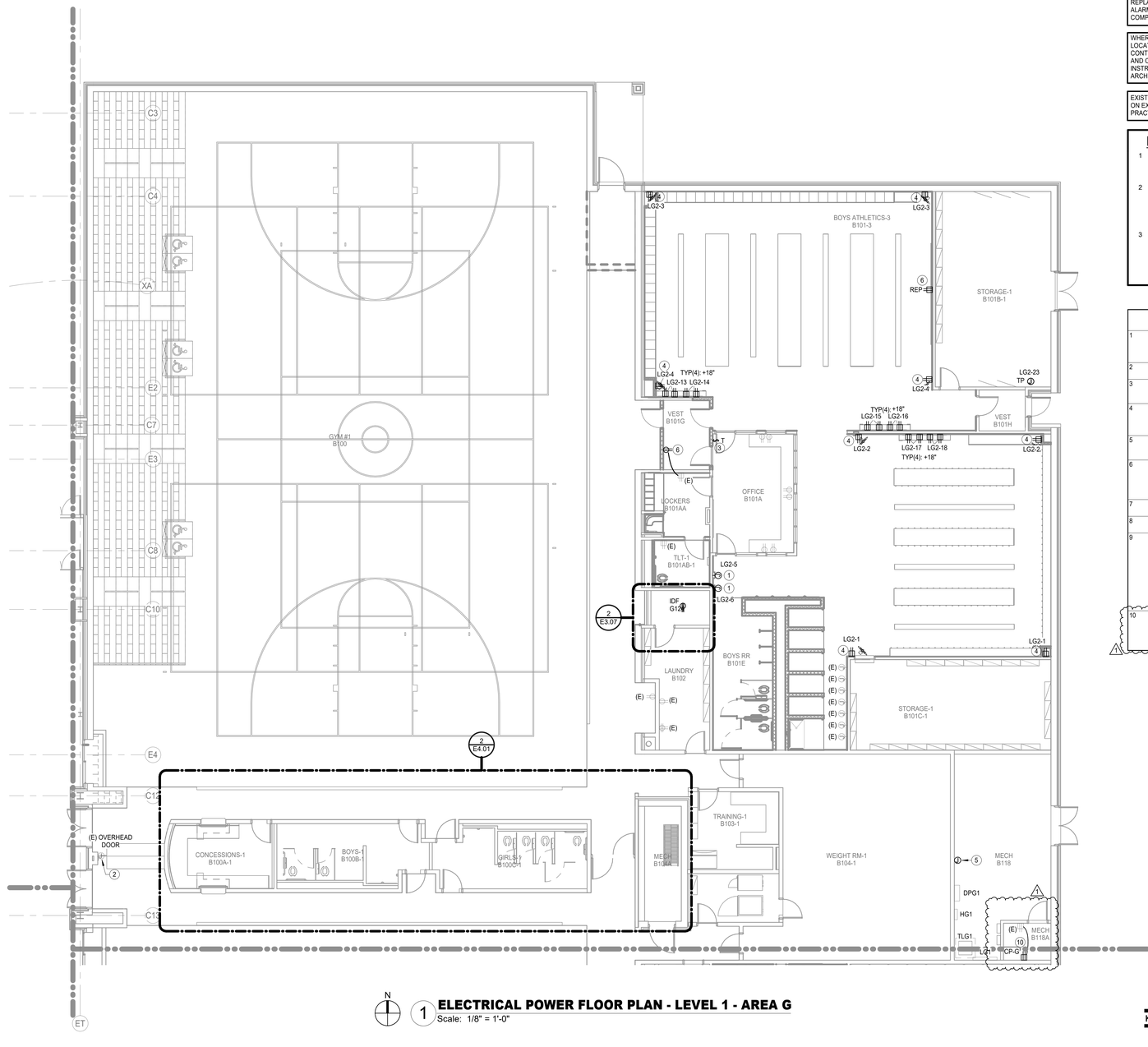
____ of ____



N

2 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA G - IDF G124**

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



N

1 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA G**

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

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

WHERE ANY WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

PROVIDE NEW POWER DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYMPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

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POWER GENERAL NOTES

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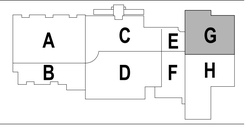
ELECTRICAL KEYED NOTES

1	PROVIDE FLUSH MOUNTED JUNCTION BOX FOR CONNECTION OF ELECTRIC HAND DRYER. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL MOUNTING HEIGHT AND LOCATION.
2	INTERLOCK WITH FIRE ALARM SYSTEM TO RAISE GRILLE UPON SYSTEM ACTIVATION.
3	OSCILLATING FANS LOCAL TIMER SWITCH. PROVIDE ON/OFF DIGITAL TIMER SWITCH, WATTSTOPPER TS-400 OR APPROVED EQUAL.
4	PROVIDE RECEPTACLE FOR OSCILLATING FANS CONTROLLED VIA LOCAL TIMER SWITCH, MOUNT AT +96" AFF. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
5	RECONNECT REPLACEMENT GYM LOCAL SOUND TO EXISTING CIRCUITS LEFT IN PLACE AFTER DEMOLITION. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE
6	PROVIDE NEW RECEPTACLES AS SHOWN AND CONNECT TO EXISTING CIRCUITS LEFT IN PLACE AFTER DEMOLITION. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V.
7	ROUTE 3/4"C. TO ASSOCIATED OUTDOOR UNIT ON ROOF. ROUTE PARALLEL WITH REFRIGERATION LINES.
8	REFER TO DETAILS FOR RACK RECEPTACLES INSTALLATION. TYPICAL.
9	PROVIDE POWER TO NEW ROOFTOP MAINTENANCE RECEPTACLE FROM NEAREST ACCEPTABLE 120V ROOFTOP MAINTENANCE CIRCUIT. EXTEND CONDUCTORS/CONDUIT MATCHING EXISTING SIZE TO NEW RECEPTACLE. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V OR CONTAIN MORE THAN 8 DEVICES. IF NO ACCEPTABLE CIRCUIT IS AVAILABLE AT ROOF. PROVIDE POWER FROM NEAREST ACCEPTABLE 120V PANEL. PROVIDE NEW 20A/1P BREAKER WITH #12 WIRE TO FEED NEW RECEPTACLE.
10	PROVIDE POWER TO NEW CIRCULATION PUMP FROM EXISTING CIRCUIT IN THIS SPACE. DISCONNECT EXISTING PUMP AND INSTALL NEW PUMP UTILIZING EXISTING CIRCUIT. EXTEND EXISTING CONDUCTORS/CONDUIT MATCHING EXISTING SIZE AS NECESSARY.

KEY PLAN:



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CONSTRUCTION DOCUMENT

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433

CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073

Date: 26 JANUARY 2025

Drawn By: WHL / KLO

ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'G'

E3.07

____ of ____

POWER GENERAL NOTES

1 REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER ADDITIONAL REQUIREMENTS TO BE PROVIDED AS SPECIFIED IN DIVISION 26.

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- - - -	DISCONNECT AND REMOVE
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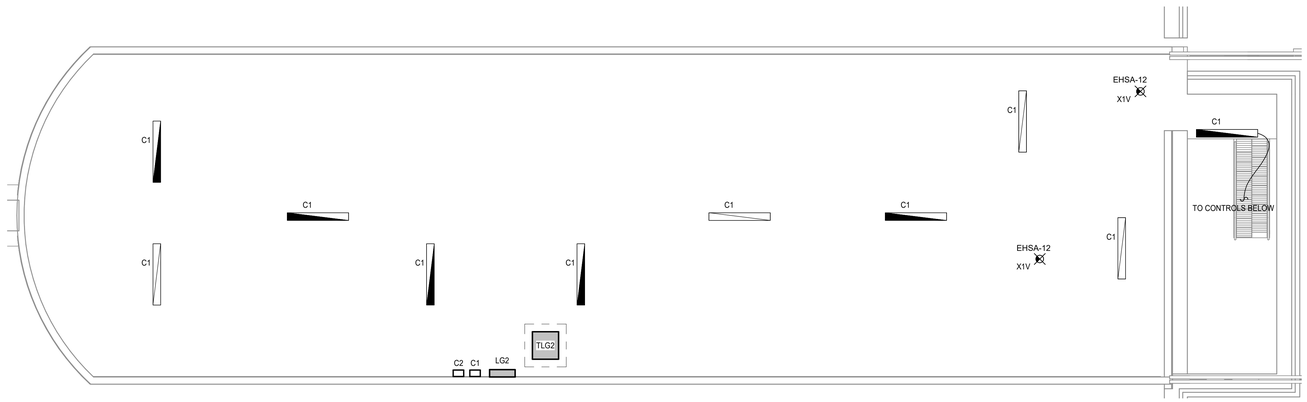

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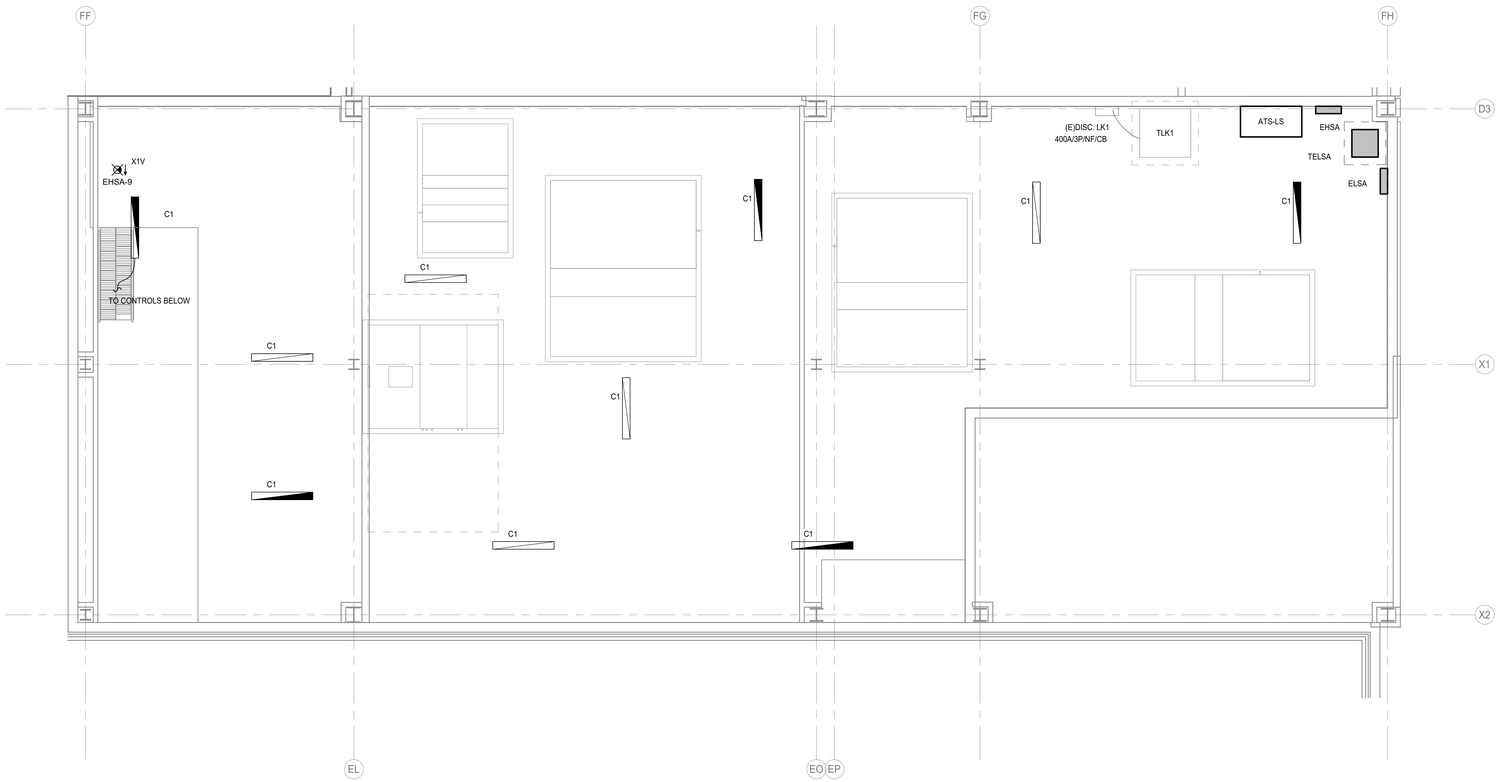
2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA G - MEZZ

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



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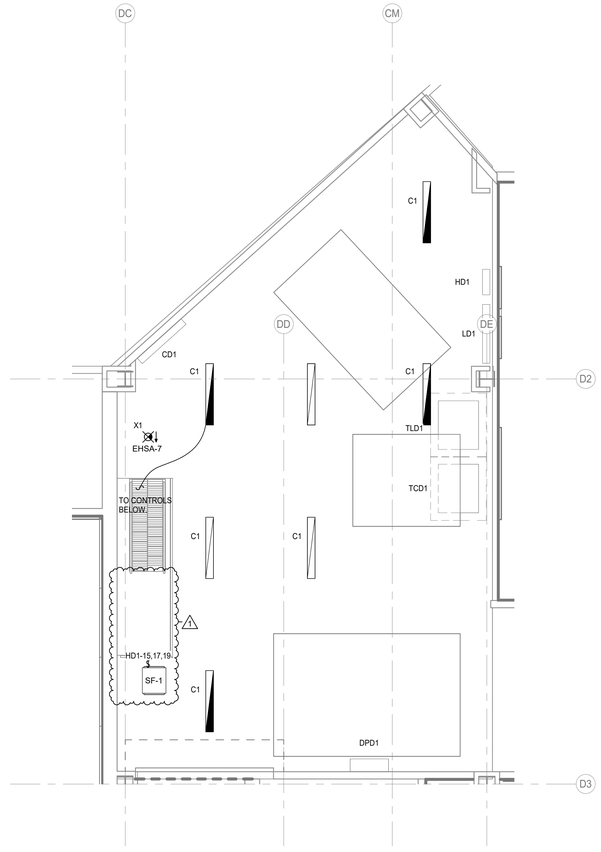
3 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA F MEZZANINE

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



N

1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA D MEZZANINE

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

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CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL ENLARGED FLOOR PLANS

E4.01

____ of ____

2/10/2025 5:18:51 PM

Branch Panel: DPD1 — EXISTING PANEL

Location: MECH. MEZZ-1 D300-1 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 65,000
Supply From: MSB1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 600A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1					16.4 / 9.6								2	
E	3	HD1	ONE LINE	150	3		8.8 / 11.6			3	125	ONE LINE	TLD2	4	
	5							12.7 / 12.0						6	
	7					32.2 / 2.1								8	
E	9	TLD1	ONE LINE	100	3		20.1 / 2.1			3	20	#10	AHU-5D	10	
	11							20.6 / 2.1						12	
	13					8.1 / 5.8								14	
E	15	TCD1	ONE LINE	45	3		8.1 / 5.8			3	20	--	AHU-2D	16	E
	17							8.1 / 5.8						18	
	19					1.0 / 1.0								20	
E	21	AHU 1-D		15	3		1.0 / 1.0			3	20	--	OAHU-1D	22	E
	23							1.0 / 1.0						24	
	25					2.1 / 2.1								26	
E	27	AHU-3D	--	15	3		2.1 / 2.1			3	15	--	AHU-4D	28	E
	29							2.1 / 2.1						30	
			Total Load:			80.4 kVA	62.8 kVA	67.5 kVA							
			Total Amps:			293 A	227 A	246 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	6.4 kVA	100.00%	6.4 kVA	
Lighting	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Load:** 210.7 kVA
Motor	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:** 205.3 kVA
Power	12.5 kVA	100.00%	12.5 kVA	**Total Conn. Current:** 253 A
Receptacles	20.7 kVA	74.13%	15.4 kVA	**Total Est. Demand Current:** 247 A
Kitchen Equipment	0.0 kVA	0.00%	0.0 kVA	

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	171.1 kVA	100.00%	171.1 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: DPF1 — EXISTING PANEL

Location: BOILER-2 B114-2 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 65,000
Supply From: MSB1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 800A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1					0.0 / 5.8								2	
E	3	SPACE	--	--	3		0.0 / 5.8			3	40	--	AHU-3F	4	E
	5							0.0 / 5.8						6	
	7					2.1 / 1.3								8	
E	9	AHU-1F	--	15	3		2.1 / 1.3			3	15	--	AHU-4F	10	E
	11							2.1 / 1.3						12	
	13					5.8 / 5.8								14	
E	15	AHU-2F	--	40	3		5.8 / 5.8			3	40	--	AHU-1J	16	E
	17							5.8 / 5.8						18	
	19					1.0 / 3.0								20	
E	21	OAHU-1J	--	15	3		1.0 / 3.0			3	20	--	OAHU-1F	22	E
	23							1.0 / 3.0						24	
	25					1.3 / 5.2								26	
E	27	OAHU-2F	--	15	3		1.3 / 5.0			3	45	--	TLJ1	28	E
	29							1.3 / 5.0						30	
	31					10.1 / 0.0								32	
E	33	TLF1	--	70	3		10.1 / 0.0			3	100	--	SPARE	34	E
	35							10.1 / 0.0						36	
	37					29.7 / 12.3								38	
LS	39	EHSA	ONE LINE	125	3		26.0 / 12.3			3	100	--	HS	40	E
	41							23.7 / 12.3						42	
	43					0.0 / 25.0								44	
E	45	SPACE	--	--	3		0.0 / 25.0			3	200	--	TLS1	46	E
	47							0.0 / 25.0						48	
	49					43.8 / 40.0								50	
E	51	HF1	--	225	3		43.8 / 40.0			3	225	--	TLK1	52	E
	53							43.8 / 40.0						54	
			Total Load:			192.2 kVA	188.3 kVA	186.0 kVA							
			Total Amps:			695 A	681 A	671 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	8.8 kVA	100.00%	8.8 kVA	
Lighting	33.1 kVA	125.00%	41.4 kVA	**Total Conn. Load:** 566.5 kVA
Motor	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:** 560.9 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:** 681 A
Receptacles	37.7 kVA	63.27%	23.8 kVA	**Total Est. Demand Current:** 675 A
Kitchen Equipment	0.0 kVA	0.00%	0.0 kVA	

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	486.9 kVA	100.00%	486.9 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: DPG1 — EXISTING PANEL

Location: MECH B113 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 65,000
Supply From: MSB2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 600A

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1					36.7 / 0.0								2	
E	3	TLG1	--	175	3		36.7 / 0.0			3	175	--	SPARE	4	E
	5							36.7 / 0.0						6	
	7					28.1 / 4.3								8	
E	9	HG1	--	150	3		28.1 / 4.3			3	70	ONE LINE	TLG2	10	
	11							28.1 / 8.7						12	
	13					0.0 / 3.2								14	
E	15	SPARE	--	100	3		0.0 / 2.5			3	25	ONE LINE	TLFS	16	
	17							0.0 / 2.1						18	
	19					0.0 / 2.1								20	
E	21	SPARE	--	100	3		0.0 / 2.1			3	20	--	AHU-3G	22	E
	23							0.0 / 2.1						24	
	25					2.1 / 1.4								26	
E	27	AHU-2G	--	20	3		2.1 / 1.4			3	20	--	OAHU-2H	28	E
	29							2.1 / 1.4						30	
	31					2.1 / 2.1								32	
E	33	AHU-2H	--	20	3		2.1 / 2.1			3	20	--	AHU-3H	34	E
	35							2.1 / 2.1						36	
	37					3.0 / 3.0								38	
E	39	OAHU-1G	--	20	3		3.0 / 3.0			3	20	--	AHU-1G	40	E
	41							3.0 / 3.0						42	
	43					3.0 / 3.0								44	
E	45	OAHU-1H	--	20	3		3.0 / 3.0			3	20	--	AHU-1H	46	E
	47							3.0 / 3.0						48	
			Total Load:			94.1 kVA	93.4 kVA	97.4 kVA							
			Total Amps:			340 A	337 A	352 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	0.0 kVA	0.00%	0.0 kVA	
Lighting	0.1 kVA	125.00%	0.1 kVA	**Total Conn. Load:** 284.9 kVA
Motor	0.5 kVA	100.00%	0.5 kVA	**Total Est. Demand:** 277.7 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:** 343 A
Receptacles	24.5 kVA	70.44%	17.2 kVA	**Total Est. Demand Current:** 334 A
Kitchen Equipment	0.0 kVA	0.00%	0.0 kVA	

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	259.8 kVA	100.00%	259.8 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: EHSA — NEW PANEL

Location: | **Volts:** 277/480 Wye | **A.I.C. Rating:** 35,000
Supply From: DPF1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 125A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1	Lighting	#12	20	1	1.2 / 0.5				1	20	#12	Lighting	2	
	3	Lighting	#12	20	1		1.1 / 0.9			1	20	#12	Lighting Room F102-1	4	
	5	Lighting	#12	20	1			1.7 / 0.9		1	20	#12	Lighting	6	
	7	Lighting	#12	20	1	2.7 / 0.9				1	20	#12	Lighting	8	
	9	Lighting	#12	20	1		1.6 / 2.6			1	20	#12	Lighting	10	
	11	Lighting	#12	20	1			0.6 / 2.1		1	20	#12	Lighting GYM #2-1 B108-1	12	
--	13	SPACE	--	--	1	0.0 / 1.2				1	20	#12	Lighting	14	
--	15	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	16	--
--	17	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	18	--
--	19	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	20	--
--	21	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	22	--
--	23	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	24	--
--	25	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	26	--
--	27	SPACE	--	20	1		0.0 / 0.0			1	--	--	SPACE	28	--
--	29	SPARE	--	20	1			0.0 / 0.0		1	--	--	SPACE	30	--
--	31	SPARE	--	20	1	0.0 / 17.7								32	
--	33	SPARE	--	20	1		0.0 / 14.3			3	125	ONE LINE	EHSB	34	
--	35	SPARE	--	20	1			0.0 / 14.1						36	
	37			5.6 / 0.0										38	
	39	TELSA	ONE LINE	50	3		5.6 / 0.0			3	30	--	SPDL	40	--
	41							4.3 / 0.0						42	
			Total Load:			29.7 kVA	26.0 kVA	23.7 kVA							
			Total Amps:			109 A	95 A	85 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	8.8 kVA	100.00%	8.8 kVA	
Lighting	33.1 kVA	125.00%	41.4 kVA	**Total Conn. Load:** 79.4 kVA
Receptacles	37.5 kVA	63.33%	23.8 kVA	**Total Est. Demand:** 74.0 kVA
				Total Conn. Current: 96 A
				Total Est. Demand Current: 89 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: EHSB — NEW PANEL

Location: MECH-1 E141-1 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: EHSA | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 125A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1	Lighting Room E134-1, E136-1, E145-1, E143-1,...	#12	20	1	0.8 / 0.5				1	20	#12	Lighting	2	
	3	Lighting Room E100B	#12	20	1		1.0 / 1.4			1	20	#12	Lighting Room E100G-1	4	
	5	Lighting	#12	20	1			0.7 / 1.6		1	20	#12	Lighting Room E133A, E131A-1, E131, E133-1,...	6	
	7	Lighting	#12	20	1	0.1 / 1.0				1	20	#12	Lighting Room E130-1, E129-1, E128-1, E126-1,...	8	
	9	Lighting	#12	20	1		1.2 / 0.8			1	20	#12	Lighting	10	
	11	Lighting	#12	20	1			1.3 / 1.3		1	20	#12	Lighting	12	
	13	Lighting	#12	20	1	2.7 / 0.8				1	20	#12	Lighting STOR.-1 E225A-1	14	
--	15	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	16	--
--	17	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	18	--
--	19	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	20	--
--	21	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	22	--
--	23	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	24	--
--	25	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	26	--
--	27	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	28	--
--	29	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	30	--
--	31	SPARE	--	20	1	0.0 / 0.0				1	20	--	SPARE	32	--
--	33	SPARE	--	20	1		0.0 / 0.0			1	20	--	SPARE	34	--
--	35	SPARE	--	20	1			0.0 / 0.0		1	20	--	SPARE	36	--
	37			11.9 / 0.0										38	
	39	TELSB	ONE LINE	50	3		9.9 / 0.0			3	30	--	SPDL	40	--
	41							9.2 / 0.0						42	
			Total Load:			17.7 kVA	14.3 kVA	14.1 kVA							
			Total Amps:			64 A	52 A	51 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	4.4 kVA	100.00%	4.4 kVA	
Lighting	15.2 kVA	125.00%	19.0 kVA	**Total Conn. Load:** 46.1 kVA
Receptacles	26.5 kVA	68.87%	18.3 kVA	**Total Est. Demand:** 41.7 kVA
				Total Conn. Current: 55 A
				Total Est. Demand Current: 50 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS.

CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS TO INDICATE EACH POWER SOURCE. REFER TO NEC-2023: 408.4(B) FOR DETAILS.

Branch Panel: ELSA — NEW PANEL

Location: | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TELSA | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
	1					1.1 / 1.0								2	
	3	DMSCU-3	#10	30	2		1.1 / 1.0			2	30	#10	IDF Rack - L6-30R	4	LO
LO	5	IDF Rack - L5-20R	#8	20	1			1.2 / 1.0						6	
LO	7	FACP - Red Bkr	#10	20	1	0.5 / 1.0				2	30	#10	IDF Rack - L6-30R	8	LO
LO	9	FAA	#8	20	1		0.5 / 1.0							10	
LO	11	IDF Rack - L5-20R	#6	20	1			1.2 / 1.0		2	30	#8	IDF Rack - L6-30R	12	LO
	13					1.1 / 1.0								14	
	15	DMSCU-4 B102	#10	30	2		1.1 / 1.0			2	20	#10	IDF Rack - L6-30R	16	LO
--	17	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	18	--
--	19	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	20	--
--	21	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	22	--
--	23	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	24	--
--	25	SPACE	--	--	1	0.0 / 0.0				1	--	--	SPACE	26	--
--	27	SPACE	--	--	1		0.0 / 0.0			1	--	--	SPACE	28	--
--	29	SPACE	--	--	1			0.0 / 0.0		1	--	--	SPACE	30	--
--	31	SPACE	--	--	1	0.0 / 0.0				1	20	--	SPARE	32	--
--	33	SPACE	--	--	1		0.0 / 0.0			1	20	--	SPARE	34	--
--	35	SPARE	--	20	1			0.0 / 0.0		1	20	--	SPARE	36	--
--	37	SPARE	--	20	1	0.0 / 0.0								38	
--	39	SPARE	--	20	1		0.0 / 0.0			3	30	--	SPDL	40	--
--	41	SPARE	--	20	1			0.0 / 0.0						42	
			Total Load:			5.6 kVA	5.6 kVA	4.3 kVA							
			Total Amps:			48 A	48 A	36 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	4.4 kVA	100.00%	4.4 kVA	
Receptacles	11.0 kVA	95.45%	10.5 kVA	**Total Conn. Load:** 15.4 kVA
				Total Est. Demand: 14.9 kVA
				Total Conn. Current: 43 A
				Total Est. Demand Current: 41 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: ELSB — NEW PANEL

Location: MECH-1 E141-1 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TELSB | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker		Wire	Circuit Description	CKT	Note
LO	1	IDF Rack - L6-30R	#10	30	2	1.0 / 1.2				1	20	#8	IDF Rack - L5-20R	2	LO
	3						1.0 / 1.0							4	
LO	5	IDF Rack - L6-30R	#10	30	2			1.0 / 1.0		2	30	#10	IDF Rack - L6-30R	6	LO
	7					1.0 / 1.2				1	20	#8	IDF Rack - L5-20R	8	LO
LO	9	IDF Rack - L6-30R	#10	30	2		1.0 / 0.5			1	20	#12	ACP	10	LO
	11							1.0 / 0.5		1	20	#12	Security Panel	12	
	13	DMSCU-1	#10	30	2	1.1 / 1.2				1	20	#8	IDF Rack - L5-20R	14	LO
	15						1.1 / 1.0							16	LO
LO	17	IDF Rack - L6-30R	#10	30	2			1.0 / 1.0		2	30	#10	IDF Rack - L6-30R	18	
	19					1.0 / 1.2				1	20	#8	IDF Rack - L5-20R	20	LO
LO	21	IDF Rack - L6-30R	#10	30	2		1.0 / 1.1							22	
	23							1.0 / 1.1		2	30	#10	DMSCU-2	24	
LO	25	IDF Rack - L6-30R E229A-1	#12	20	2	1.0 / 1.2				1	20	#10	IDF Rack - L5-20R E229A-1	26	LO
	27						1.0 / 1.0							28	LO
LO	29	IDF Rack - L6-30R	#10	30	2			1.0 / 1.0		2	20	#12	IDF Rack - L6-30R E229A-1	30	
	31					1.0 / 0.0				1	20	--	SPARE	32	--
LO	33	ACP	#12	20	1		0.5 / 0.0			1	20	--	SPARE	34	--
--	35	SPARE	--	20	1			0.0 / 0.0		1	20	--	SPARE	36	--
--	37	SPARE	--	20	1	0.0 / 0.0								38	
--	39	SPARE	--	20	1		0.0 / 0.0			3	30	--	SPDL	40	--
--	41	SPARE	--	20	1			0.0 / 0.0						42	
			Total Load:			11.9 kVA	9.9 kVA	9.2 kVA							
			Total Amps:			100 A	83 A	77 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	4.4 kVA	100.00%	4.4 kVA	
Receptacles	26.5 kVA	68.87%	18.3 kVA	**Total Conn. Load:** 30.9 kVA
				Total Est. Demand: 22.7 kVA
				Total Conn. Current: 86 A
				Total Est. Demand Current: 63 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

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Project No: 2024-00209-00

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CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED ARCHITECT

02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL PANEL SCHEDULES

E5.01

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Autodesk Docs://23072_CFISD_Phase_6_r22/CFISD-SMITH MS_MEPT_R22.rvt

Branch Panel: HD1 — EXISTING PANEL

Location: MECH. MEZZ-1 D300-1 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 42,000
Supply From: DPD1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 150A
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
E	1	LTS. E200, E202, E203	--	20 1	3.7 / 3.4			1	20 --	LTS. E100, E101, E1001A, E102	2	E
E	3	SPARE	--	20 1		0.0 / 3.7		1	20 --	LTS. D106, A/B/C/D/E/F/G	4	E
E	5	SPARE	--	20 1			0.0 / 3.7	1	20 --	LTS. D106 BAND ROOM	6	E
E	7	SPARE	--	20 1	0.0 / 2.1			1	20 --	LTS. D104	8	E
E	9	SPARE	--	20 1		0.0 / 2.1		1	20 --	LTS. CORR., D105 MECH, RM.	10	E
E	11	SPARE	--	20 1			0.0 / 2.4	1	20 --	LTS.	12	E
E	13	SPARE	--	20 1	0.0 / 4.2			1	20 --	LTS. D101, D101A/B, D102, D102A	14	E
	15	SF-1	#12	20 3		0.0 / 0.0		1	20 --	SPARE	16	E
	17						0.0 / 3.0				18	
	19				0.0 / 3.0			3	20 --	EWH-1D	20	E
	21	SPACE	--	-- 1		0.0 / 3.0					22	
	23	SPACE	--	-- 1			0.0 / 3.6	1	20 --	LTS. D100C/D/E, D104 A/B/C	24	E
	25	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	26	
	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	
	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	
	31	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	32	
	33	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	34	
	35	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	36	
	37	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	38	
	39	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	40	
	41	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	42	
			Total Load:		16.4 kVA	8.8 kVA	12.7 kVA					
			Total Amps:		61 A	32 A	48 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.0 kVA	0.00%	0.0 kVA		
Lighting	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Load:**	37.9 kVA
Motor	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:**	37.9 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:**	46 A
Receptacles	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand Current:**	46 A
Kitchen Equipment	0.0 kVA	0.00%	0.0 kVA		

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	37.9 kVA	100.00%	37.9 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: LD2 — NEW PANEL

Location: MECH D103B | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLD2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 250A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	A.AVR.01 C113-1	#12	20 1	0.5 / 0.5			1	20 #12	A.AVR.01 C113-1	2	
	3	A.AVR.01 C113-1	#12	20 1		0.5 / 0.7		1	20 #10	Receptacles C112-1	4	
	5						2.0 / 1.2	1	20 #10	Projector C101	6	
	7	HOIST ASSEMBLY	#10	30 3	2.0 / 0.4			1	20 #12	Receptacles C101	8	
	9					2.0 / 0.7		1	20 #12	Receptacles	10	
	11	Receptacles C109A	#10	30			1.1 / 1.4	1	20 #8	Receptacles	12	
	13	Sound System	#12	20 1	0.2 / 0.7			1	20 #10	Receptacles	14	
	15	Receptacles	#8	20 1		1.1 / 0.7		1	20 #10	Receptacles	16	
	17	Receptacles	#12	20 1			0.5 / 0.9	1	20 #10	Receptacles	18	
	19	A.AVR.01 D101A-1	#12	20 1	0.5 / 0.5			1	20 #12	A.AVR.01 D101A-1	20	
	21	A.AVR.01 D101A-1	#12	20 1		0.5 / 1.2		1	20 #10	SS.LRP.01 D101A-1	22	
	23	A.AVR.01 D101A-1	#12	20 1			0.5 / 0.2	1	20 #12	Trap Primer MECH D103B	24	
	25	Local Speaker ENSEMBLE C109A		20 1	0.2 / 0.0			1	-- --	SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	--
--	31	SPARE	--	20 1	0.0 / 0.0			1	20 --	SPARE	32	--
--	33	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	--
	37				4.2 / 0.0						38	
	39	S.LRP.01	ONE LINE	100 3		4.2 / 0.0		3	30 --	SPDL	40	--
	41						4.2 / 0.0				42	
			Total Load:		9.6 kVA	11.6 kVA	12.0 kVA					
			Total Amps:		80 A	99 A	103 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	12.5 kVA	100.00%	12.5 kVA		
Receptacles	20.7 kVA	74.13%	15.4 kVA	**Total Conn. Load:**	33.2 kVA
				Total Est. Demand:	27.9 kVA
				Total Conn. Current:	92 A
				Total Est. Demand Current:	77 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: LFS — NEW PANEL

Location: ATHLETICS STORAGE... | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLFS | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 60A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
PH	1	Exterior Lighting	#12	20 1	0.1 / 1.6			2	30 #10	Receptacles	2	
	3	Receptacles	#12	20 1		0.4 / 1.6					4	
	5	Receptacles	#10	30 2			1.6 / 0.5	1	20 #12	Receptacles	6	
	7				1.6 / 0.0			1	20 #12	EF-SB-1	8	
	9	Receptacles	#12	20 1		0.5 / 0.0		1	-- --	SPACE	10	--
--	11	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	12	--
--	13	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	14	--
--	15	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	16	--
--	17	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	20	--
--	21	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	--
--	31	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	32	--
--	33	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	--
--	37	SPARE	--	20 1	0.0 / 0.0						38	
--	39	SPARE	--	20 1		0.0 / 0.0		3	30 --	SPDL	40	--
--	41	SPARE	--	20 1			0.0 / 0.0				42	
			Total Load:		3.2 kVA	2.5 kVA	2.1 kVA					
			Total Amps:		27 A	21 A	18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	0.1 kVA	125.00%	0.1 kVA		
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Load:**	7.8 kVA
Motor	0.5 kVA	100.00%	0.5 kVA	**Total Est. Demand:**	7.8 kVA
Receptacles	7.1 kVA	100.00%	7.1 kVA	**Total Conn. Current:**	22 A
				Total Est. Demand Current:	22 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
PH - CONTROLLED VIA PHOTOCELL

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS.

CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS TO INDICATE EACH POWER SOURCE. REFER TO NEC-2023: 408.4(B) FOR DETAILS.

Branch Panel: LG2 — NEW PANEL

Location: MECH. MEZZ-1 G200-1 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 14,000
Supply From: TLG2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 150A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
C	1	Circulating Fan	#10	20 1	0.7 / 0.7			1	20 #10	Circulating Fan	2	C
C	3	Circulating Fan B101-1	#10	20 1		0.7 / 0.7		1	20 #10	Circulating Fan	4	C
LF	5	Hand Dryer	#8	30 1			1.9 / 1.9	1	30 #8	Hand Dryer	6	LF
C	7	Circulating Fan	#10	20 1	0.7 / 0.7			1	20 #10	Circulating Fan	8	C
C	9	Circulating Fan B107D	#10	20 1		0.7 / 0.7		1	20 #12	Circulating Fan	10	C
LF	11	Hand Dryer	#8	30 1			1.9 / 1.9	1	30 #8	Hand Dryer	12	LF
	13	Receptacles B101-1	#12	20 1	0.4 / 0.4			1	20 #12	Receptacles B101-1	14	
	15	Receptacles B101-1	#12	20 1		0.4 / 0.4		1	20 #12	Receptacles B101-1	16	
	17	Receptacles	#12	20 1			0.4 / 0.4	1	20 #12	Receptacles	18	
	19	Receptacles B107-1	#12	20 1	0.4 / 0.4			1	20 #12	Receptacles B107-1	20	
	21	Receptacles	#12	20 1		0.4 / 0.4		1	20 #12	Receptacles	22	
LF	23	Trap Primers B101B-1, B107B-1	#12	20 1			0.4 / 0.0	1	-- --	SPACE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	--
--	31	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	32	--
--	33	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	--
--	37	SPARE	--	20 1	0.0 / 0.0						38	
--	39	SPARE	--	20 1		0.0 / 0.0		3	30 --	SPDL	40	--
--	41	SPARE	--	20 1			0.0 / 0.0				42	
			Total Load:		4.3 kVA	4.3 kVA	8.7 kVA					
			Total Amps:		36 A	36 A	72 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacles	17.3 kVA	78.87%	13.7 kVA		
				Total Conn. Load:	17.3 kVA
				Total Est. Demand:	13.7 kVA
				Total Conn. Current:	48 A
				Total Est. Demand Current:	38 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
C - CONTROLLED VIA CONTACTOR

Branch Panel: ELE1 — EXISTING PANEL

Location: ELEC-2 A108-2 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: ETELE1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 150A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
E	1	FACP	--	20 1	0.5 / 0.0			1	20 --	SPARE	2	E
E	3	EQUIPMENT-E100	--	20 1		1.0 / 60.0		1	20 --	IDF EQUIPMENT-E100	4	E
E	5	REACH-IN REFERIGERATOR	--	20 1			1.1 / 0.6	1	20 --	IDF EQUIPMENT-E100	6	E
E	7	PASS-THRU REFRIGERATOR	--	20 1	1.0 / 0.6			1	20 --	IDF EQUIPMENT-C103	8	E
LO	9	ACP	#12	20 1		0.5 / 1.0		1	20 --	PASS-THRU REFRIGERATOR	10	E
E	11	EM RCPT	--	20 1			0.5 / 1.0	1	20 --	PASS-THRU REFRIGERATOR	12	E
E	13	EM RCPT	--	20 1	0.9 / 0.5			1	20 --	FPS	14	E
	15	FREEZER COIL	#10	20 2		1.5 / 0.3		1	20 --	RPS	16	E
	17						1.5 / 0.3	1	20 --	RPS	18	E
	19	SPACE	--	-- 1	0.0 / 0.5			1	20 --	F/A	20	E
	21	DRAIN LINE HEATER	#12	20 1		1.5 / 1.0		1	20 --	PASS-THRU REFRIGERATOR	22	E
	23	SPACE	--	-- 1			0.0 / 1.2	1	20 --	COOLER MONITOR	24	E
E	25	EMS	--	20 1	0.5 / 4.0						26	
E	27	IDF EQUIPMENT-E200	--	20 1		0.6 / 4.0		3	40 #8	REFRIGERATION RACK	28	
E	29	IDF EQUIPMENT-E200	--	20 1			0.6 / 4.0				30	
E	31	IDF EQUIPMENT-E100	--	20 1	0.6 / 0.0			1	20 --	SPARE	32	E
E	33	DOOR HEATER/LTS	--	20 1		1.2 / 0.4		1	20 --	FACP REM. ANN. PANEL	34	E
E	35	FREEZER MONITOR	--	20 1			0.6 / 0.5	1	20 --	CCTV EQUIPMENT	36	E
E	37	TEMP. MONITOR	--	20 1	1.4 / 0.5			1	20 --	CCTV EQUIPMENT	38	E
	39	COOLER COIL	#12	20 1		0.4 / 0.6		1	20 --	IDF EQUIPMENT	40	E
E	41	IDF EQUIPMENT-E100	--	20 1			0.6 / 0.5	1	20 --	EM. RECPT.	42	E
E	43	IDF EQUIPMENT-E200	--	20 1	0.6 / 0.2			1	20 --	EM. RECPT.	44	E
E	45	DEDICATED-E200	--	20 2			1.4 / 0.0	1	20 --	SPARE	46	E
E	47							1	20 --	EQUIPMENT E200	48	E
E	49	DEDICATED-E200	--	20 2	1.4 / 1.0			1	20 --	IDF EQUIPMENT-C103	50	E
	51						1.4 / 0.5	1	20 --	RELAYS/DATA COM.-C103	52	E
E	53	SPARE	--	20 1			0.0 / 0.6	1	20 --	IDF EQUIPMENT-C103	54	E
E	55	SPARE	--	20 1	0.0 / 0.0						56	
LO	57	ACP	#12	20 1		0.5 / 0.0		3	40 --	TVSS	58	E
	59	SPACE	--	-- 1			0.0 / 0.0				60	
			Total Load:		14.2 kVA	77.7 kVA	16.0 kVA					
			Total Amps:		119 A	650 A	136 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	12.0 kVA	100.00%	12.0 kVA		
Lighting	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Load:**	107.9 kVA
Motor	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:**	107.9 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:**	300 A
Receptacles	5.8 kVA	100.00%	5.8 kVA	**Total Est. Demand Current:**	300 A
Kitchen Equipment	0.0 kVA	0.00%	0.0 kVA		

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	90.2 kVA	100.00%	90.2 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: ELA1 — REPLACEMENT

Location: ELEC E144A | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: ETELA1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 60A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
--	1	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	2	--
--	3	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	4	--
--	5	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	6	--
--	7	Existing Load	--	20 1	0.2 / 0.4			1	20 --	Existing Load	8	--
--	9	Existing Load	--	20 1		0.4 / 0.6		1	20 --	Existing Load	10	--
--	11	Existing Load	--	20 1			0.2 / 0.8	1	20 --	Existing Load	12	--
--	13	Existing Load	--	20 1	0.4 / 1.2			1	20 --	Existing Load	14	--
--	15	Existing Load	--	20 1		0.4 / 0.2		1	20 --	Existing Load	16	--
--	17	Existing FACP	--	20 1			0.5 / 0.2	1	20 --	Existing Load	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	20	--
--	21	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0						26	
--	27	SPACE	--	-- 1		0.0 / 0.0		3	40 --	TVSS	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0				30	
			Total Load:		2.1 kVA	1.5 kVA	1.7 kVA					
			Total Amps:		18 A	13 A	14 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Existing Load	5.3 kVA	100.00%	5.3 kVA		
				Total Conn. Load:	5.3 kVA
				Total Est. Demand:	5.3 kVA
				Total Conn. Current:	15 A
				Total Est. Demand Current:	15 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

1

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2024-00209-00

NATEX CORPORATION ARCHITECTS
www.natexarchitects.com
447 Heights Boulevard
Houston, TX 77007
Phone: 713-975-9525
Fax: 713-780-7824

Coleman Partners ARCHITECTS epcnh.com
3701 Kirby Drive, Suite 830
Houston,TX 77098
tel 832.947.1038 fax 225.214.5365

CONSTRUCTION DOCUMENT

BRADLEY KALMANS 90219 LICENSED ARCHITECT
02-11-2025

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
tel: 281.578.9595

STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
9800 RICHMOND AVE.
SUITE 460
HOUSTON, TX 77042
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MEPT ENGINEER
SALAS O'BRIEN
10930 W. SAM HOUSTON PKWY. N.
SUITE 900
HOUSTON, TX 77064
tel: 281.664.1900

FOOD SERVICE EQUIPMENT
FDP
25317 INTERSTATE 45
THE WOODLANDS, TX 77380
tel: 281.350.2323

LANDSCAPE ARCHITECT
LANDESIGN GROUP
17041 EL CAMINO REAL
SUITE 204
HOUSTON, TX 77058
tel: 281.486.4040

2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

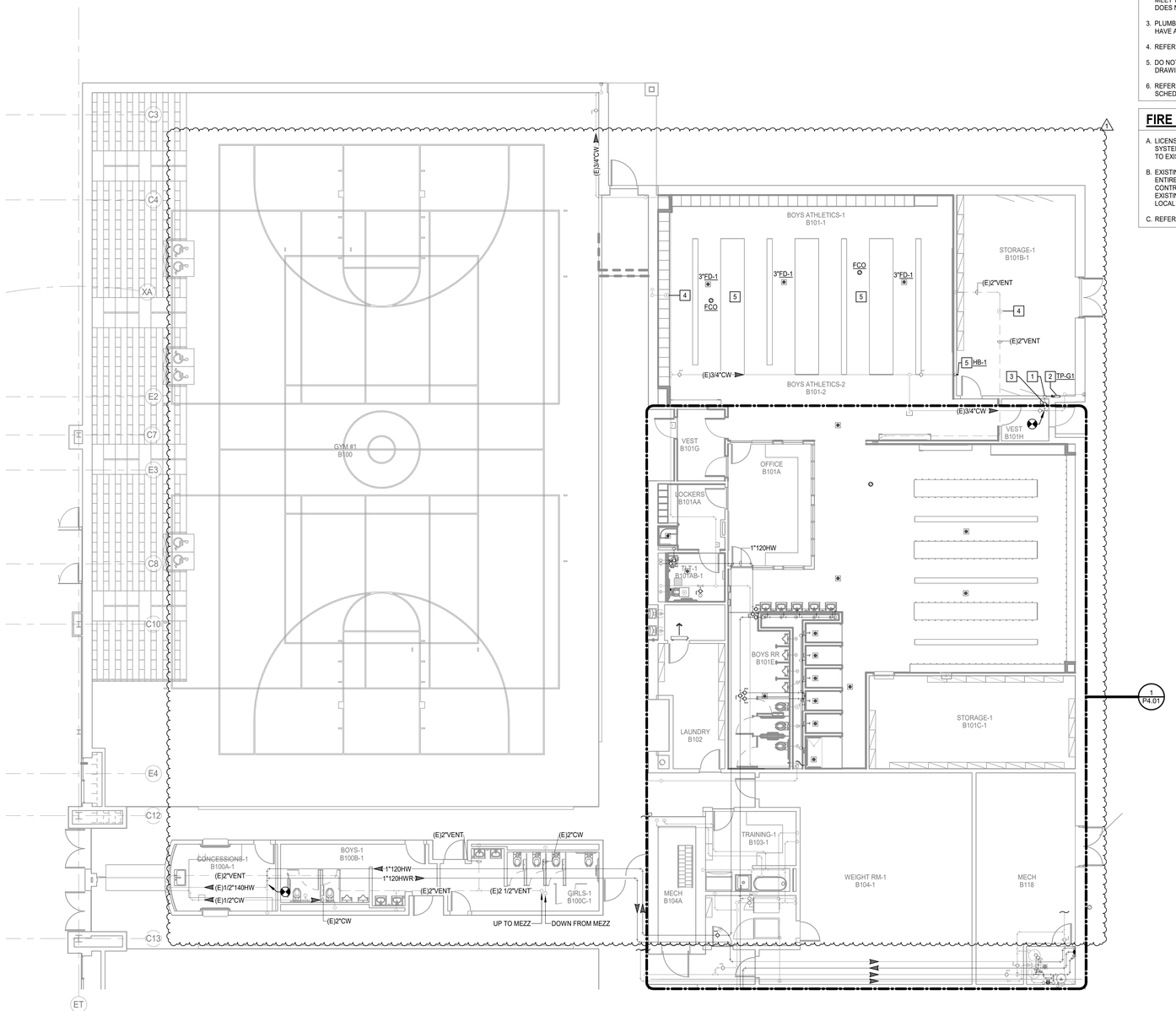
1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL PANEL SCHEDULES

E5.02

____ of ____



N

1 PLUMBING FLOOR PLAN - LEVEL 1 - AREA G

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

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. 3/4" CW DOWN TO SERVE PLUMBING FIXTURE(S).
2. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'.0" ABOVE GRADE. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.
3. PROVIDE ACCESS DOOR FOR VALVE(S).
4. EXISTING 2" VTR.
5. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

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C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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CONSTRUCTION DOCUMENT

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STATE OF TEXAS

02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

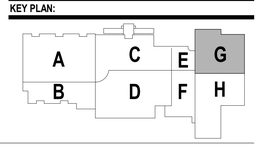
SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



PLUMBING FIRST FLOOR PLAN - AREA 'G'

P3.07

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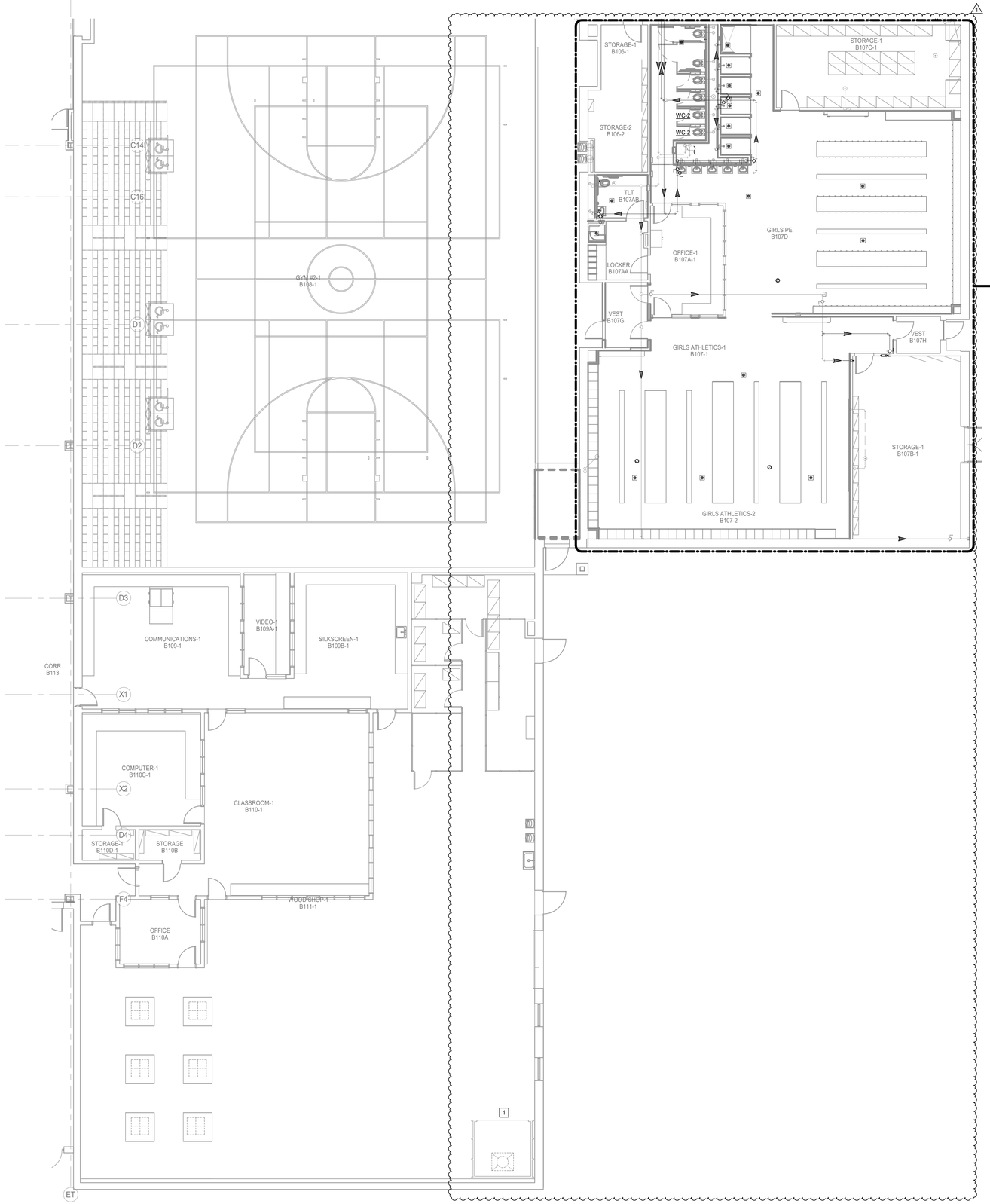

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1 **PLUMBING FLOOR PLAN - LEVEL 1 - AREA H**
Scale: 1/8" = 1'-0"

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Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1 EXTEND SPRINKLER HEAD INTO EXISTING PAINT BOOTH. FIELD VERIFY BOOTH LOCATION.

FIRE SPRINKLER SYSTM NOTES

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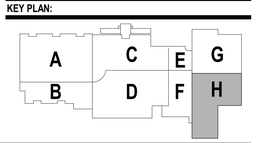

PLUMBING FIRST FLOOR PLAN - AREA 'H'

P3.08

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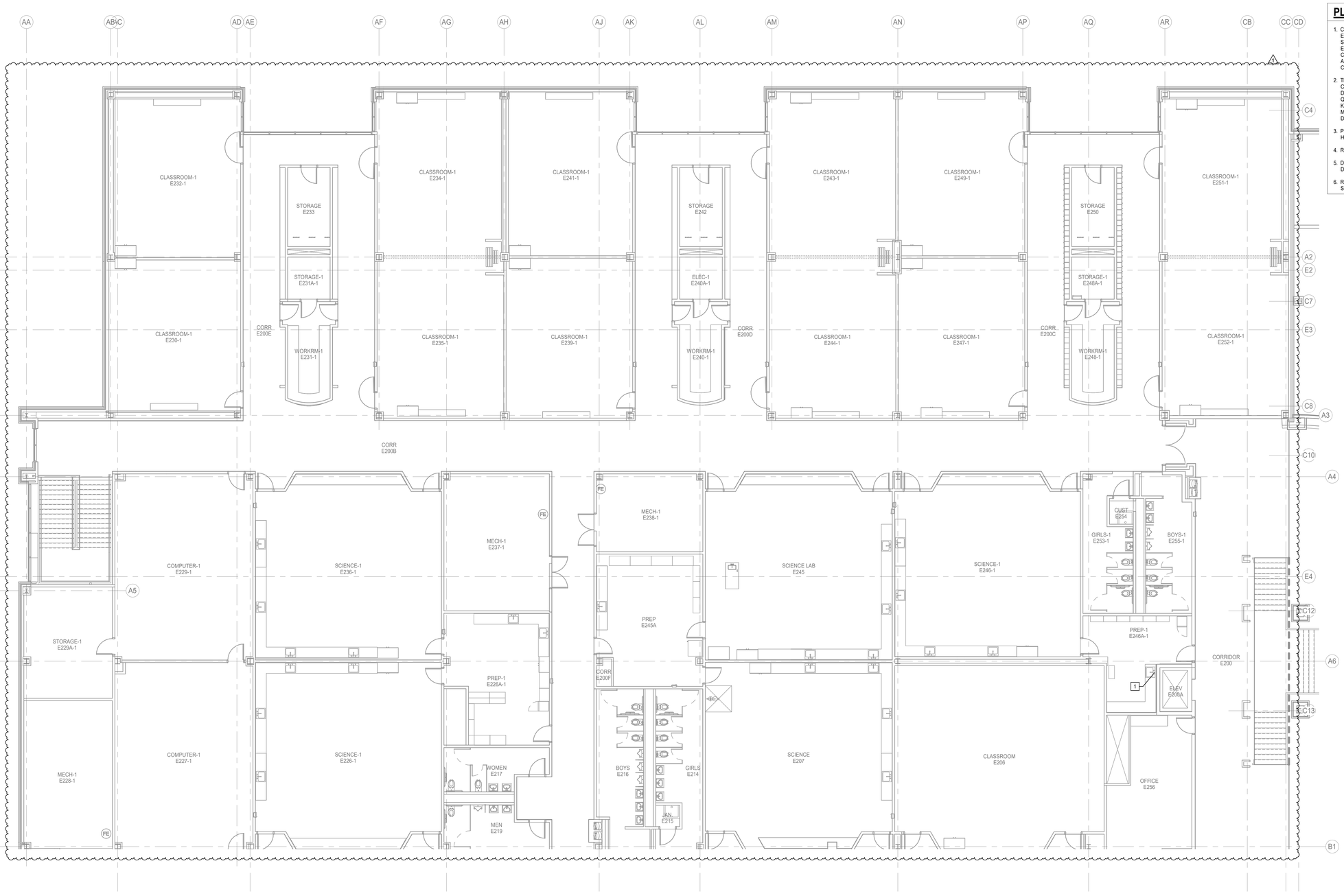

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1 **PLUMBING FLOOR PLAN - LEVEL 2 - AREA A**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1 PROVIDE WYE-TAILPIECE FOR DMS-2 CONDENSATE DRAIN. RE: P3.10 & M2.10 FOR ADDITIONAL INFORAMTION.

FIRE SPRINKLER SYSTM NOTES

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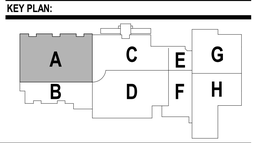

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CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED 02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SECOND FLOOR PLAN - AREA 'A'

P3.09

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Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. 3/4" CW UP TO ROOF. PROVIDE ACCESS DOOR FOR VALVE(S)
2. ROUTE DMS-2 CONDENSATE DRAIN TO EXISTING SINK LOCATED INSIDE PREP-1 E246A-1, AREA A. RE:P3.09 & M2.10 FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

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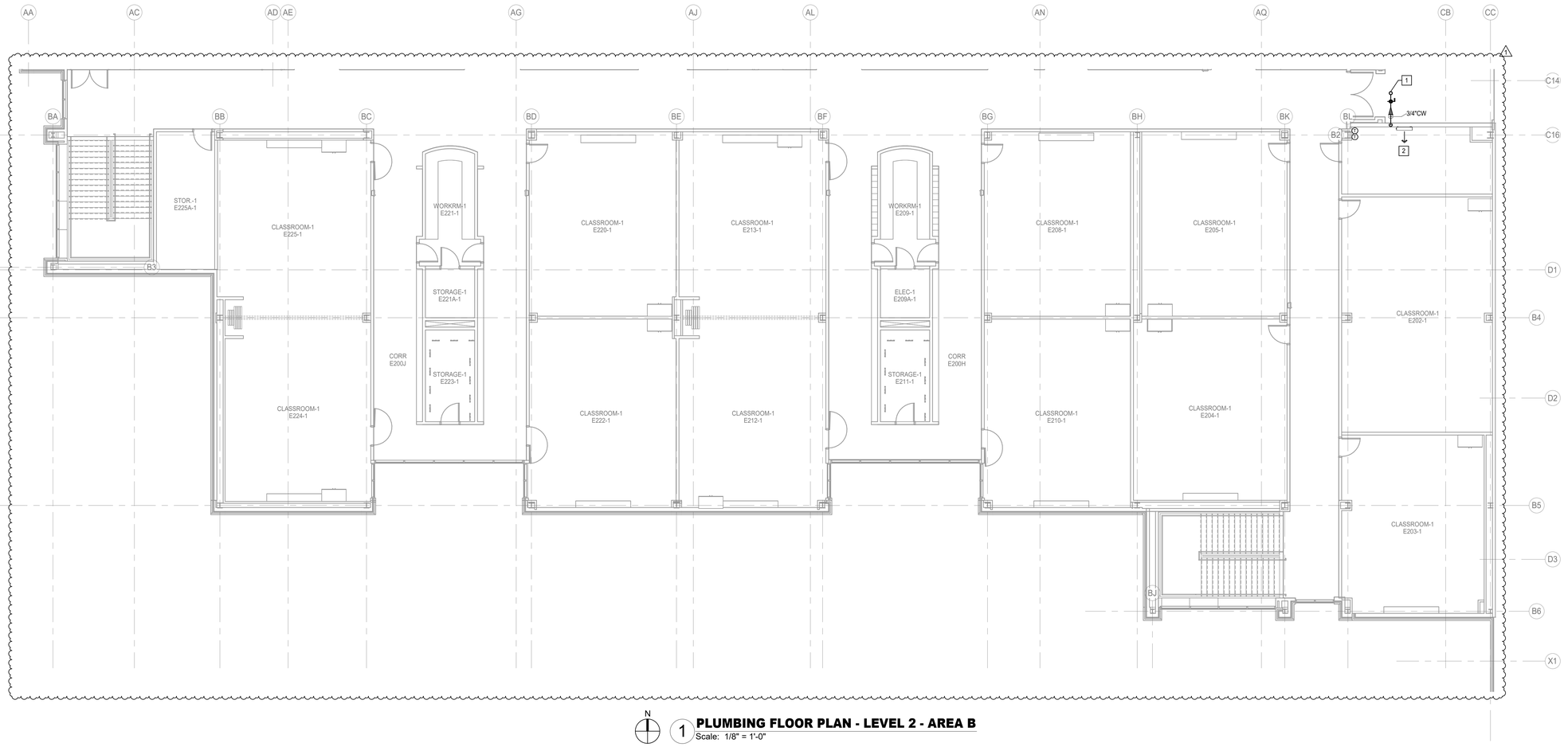

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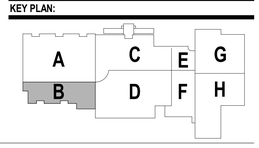
1 **PLUMBING FLOOR PLAN - LEVEL 2 - AREA B**
Scale: 1/8" = 1'-0"

KEY PLAN:



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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SECOND FLOOR PLAN - AREA 'B'

P3.10

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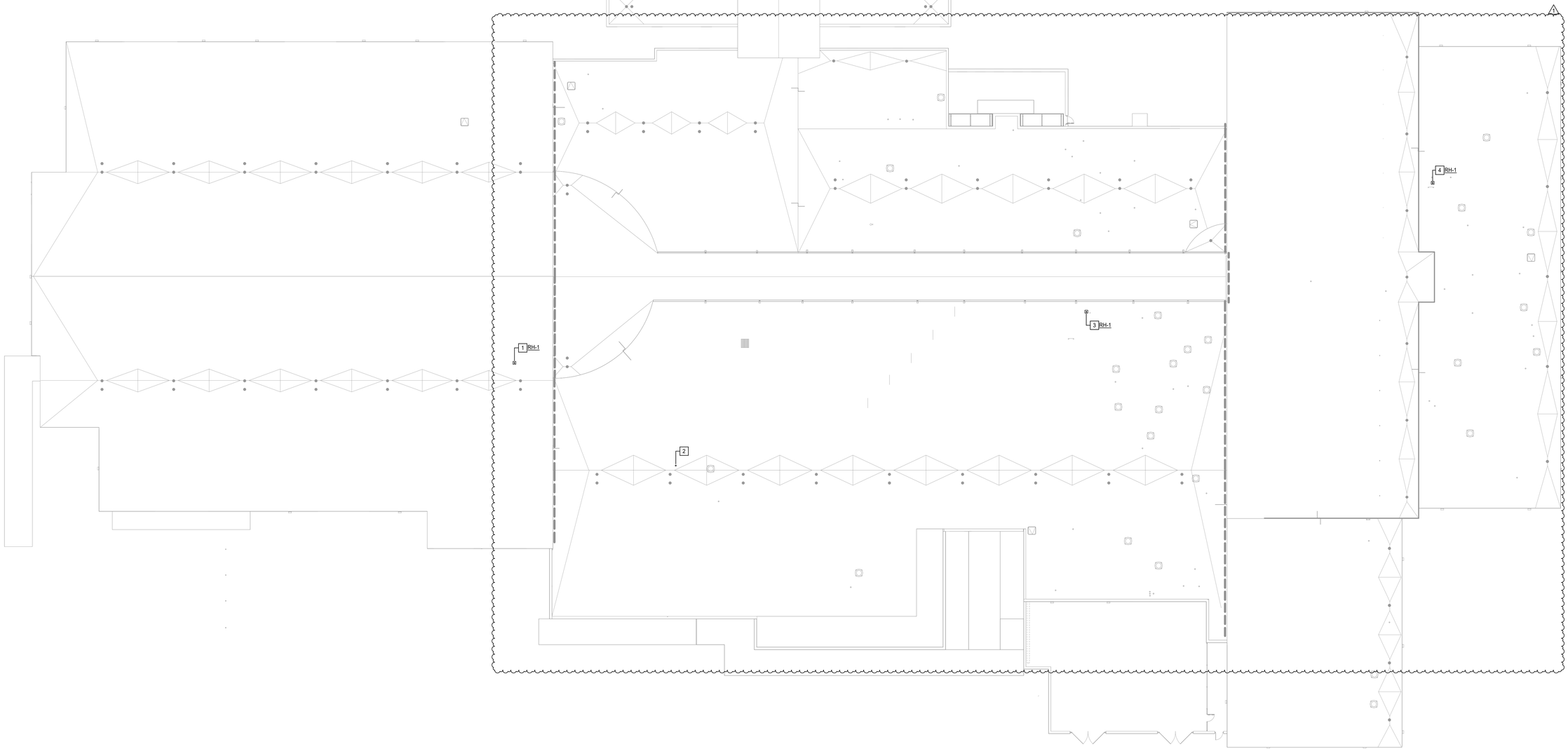
PLUMBING KEYED NOTES

1. PROVIDE AND INSTALL ROOF HYDRANT RH-1 TO SERVE DMSCU-1 AND DMSCU-2.
2. 2" VTR.
3. PROVIDE AND INSTALL ROOF HYDRANT RH-1 TO SERVE DMSCU-3.
4. PROVIDE AND INSTALL ROOF HYDRANT RH-1 TO SERVE DMSCU-4.

NOTE:-

ANY NEW ROOF HYDRANT (RH-1) SHALL BE WITHIN 50'-0" MAX FROM THE SERVED CONDENSING UNIT.



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1 **PLUMBING ROOF PLAN**
Scale: 1" = 20'-0"

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PLUMBING ROOF PLAN

P3.13

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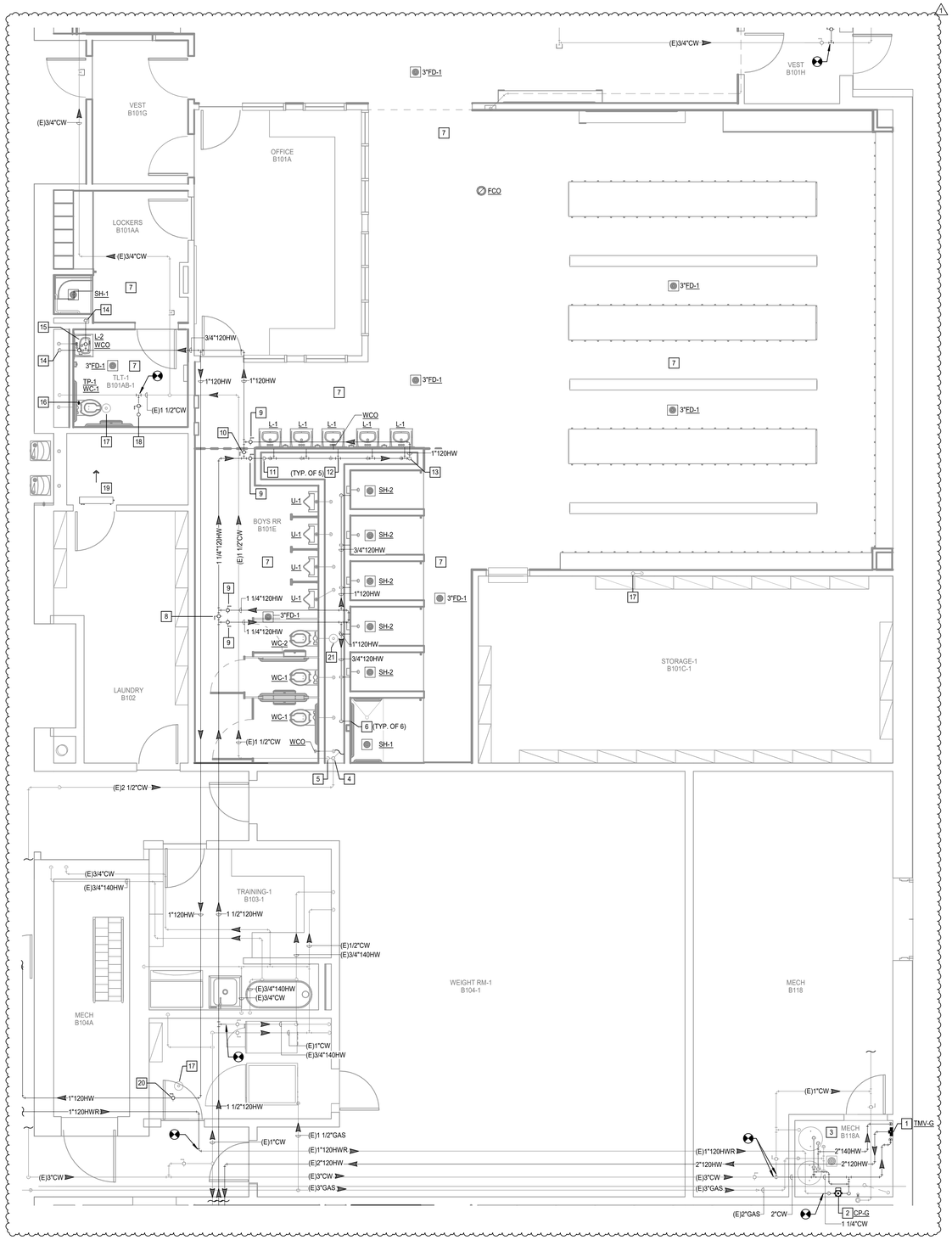
Autodesk Docs://23072_CFISD_Phase_6_r22/CFISD-SMITH MS_MEPT_R22.rvt



N

1 **PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - AREA G**
Scale: 1/4" = 1'-0"

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. PROVIDE AND INSTALL THERMOSTATIC MIXING VALVE (TMV-G). MOUNT ON WALL NO MORE THAN 60" AFF. DROP VALVED 2" HW (140°) AND 1-1/4" CW DOWN TO TMV-G AND RISE 2" HW (120°) TO SERVE ZONE G AND H FIXTURES. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.
2. PROVIDE AND INSTALL CIRCULATION PUMP (CP-G). MOUNT ON WALL NO MORE THAN 60" AFF. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION. FOR CIRCULATOR PUMP MODEL AND PIPING.
3. RE: PLUMBING DETAILS SHEET FOR CW, HW140°, HW120°, HWR120° NEW PIPPING AND VALVING.
4. EXISTING 2-1/2" CW DOWN IN CHASE.
5. EXISTING 1-1/2" CW UP FROM CHASE.
6. DROP 3/4" HW120° PIPE IN CHASE AND EXTEND TO SERVE PLUMBING FIXTURE(S).
7. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.
8. 1-1/4" HW120° BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
9. SHUT-OFF VALVE(S) NORMALLY OPEN. PROVIDE ACCESS DOOR FOR VALVE(S).
10. 1" HW120° BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
11. 1-1/4" HW120° DOWN IN CHASE.
12. EXTEND 3/4" HW120° TO SERVE FIXTURE(S).
13. 1" HW120° UP TO CEILING SPACE.
14. 3/4" HW120° DOWN TO SERVE PLUMBING FIXTURE(S). PROVIDE ACCESS DOOR FOR VALVE(S).
15. PROVIDE WYE-TAILPIECE FOR DMS-4 CONDENSATE DRAIN. RE: M2.07 FOR ADDITIONAL INFORAMTION.
16. PROVIDE AND INSTALL FLUSH VALVE TRAP PRIMER. CONNECT TO EXISTING PRIMING LINE. RE: PLUMBING DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
17. EXISTING 2" VTR.
18. 3/4" CW UP TO ROOF FLOOR. PROVIDE ACCESS DOOR FOR VALVE(S).
19. ROUTE DMS-4 CONDENSATE DRAIN TO EXISTING LAVATORY LOCATED INSIDE TLT-1. RE:M2.07 FOR MORE INFORMATION.
20. PROVIDE ACCESS DOOR FOR VALVE(S).
21. EXISTING 3" VTR.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

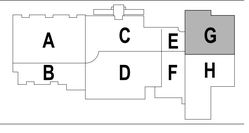
B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT. NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

KEY PLAN:



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CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED
02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

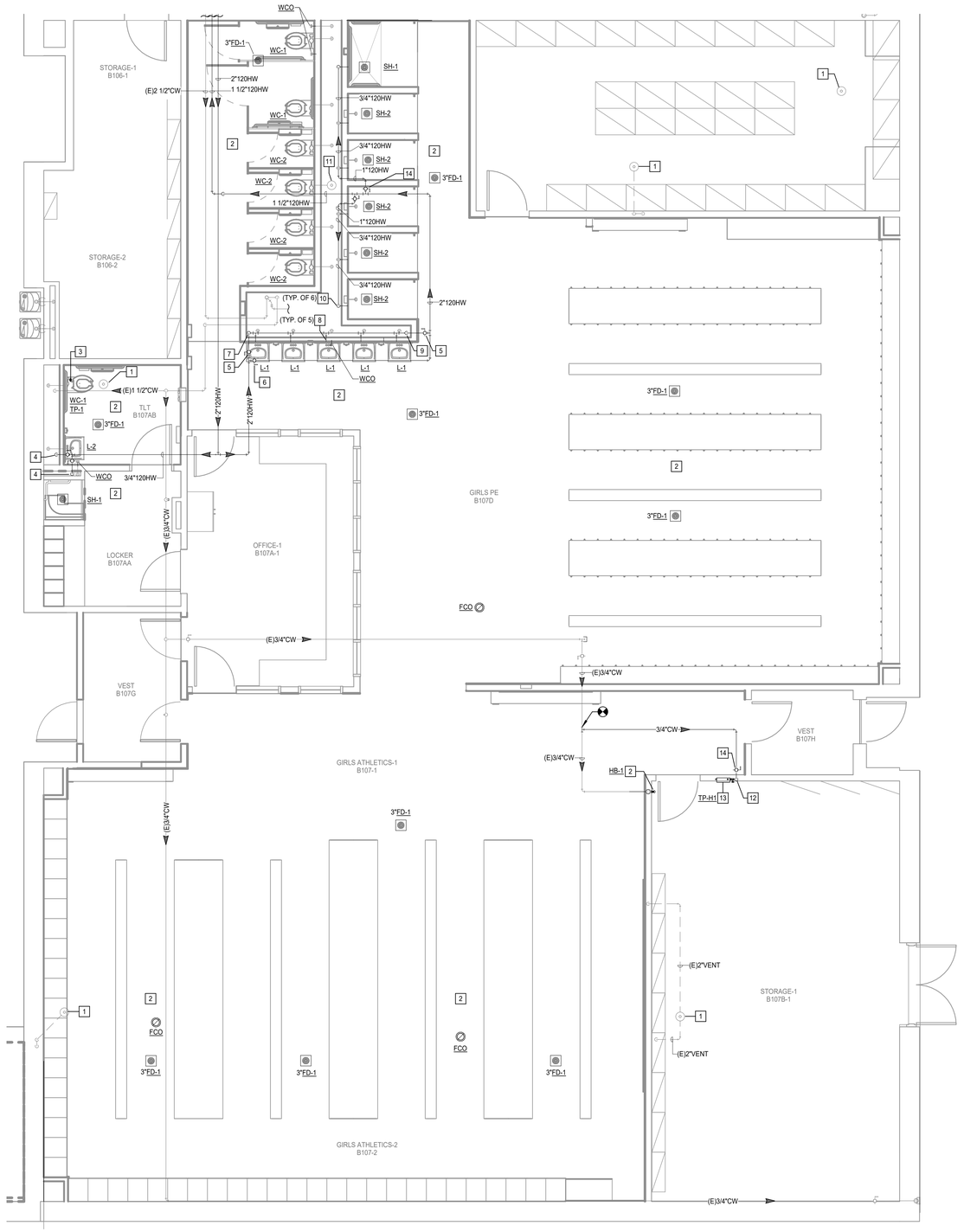
1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING ENLARGED FIRST FLOOR PLAN - AREA 'G'

P4.01

____ of ____



N

1 **PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - AREA H**
Scale: 1/4" = 1'-0"

PLUMBING KEYED NOTES

1. EXISTING 2" VTR.
2. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.
3. PROVIDE AND INSTALL FLUSH VALVE TRAP PRIMER. CONNECT TO EXISTING PRIMING LINE. RE: PLUMBING DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
4. 3/4" HW120° DOWN TO SERVE PLUMBING FIXTURE(S). PROVIDE ACCESS DOOR FOR VALVE(S).
5. SHUT-OFF VALVE(S) NORMALLY OPEN. PROVIDE ACCESS DOOR FOR VALVE(S).
6. 2" HW120° BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
7. 2" HW120° DOWN IN CHASE.
8. EXTEND 3/4" HW120° TO SERVE FIXTURE(S).
9. 2" HW120° UP TO CEILING SPACE.
10. DROP 3/4" HW120° PIPE IN CHASE AND EXTEND TO SERVE PLUMBING FIXTURE(S).
11. EXISTING 3" VTR.
12. 3/4" CW DOWN TO SERVE PLUMBING FIXTURE(S).
13. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'.0" ABOVE GRADE. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.
14. PROVIDE ACCESS DOOR FOR VALVE(S).

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

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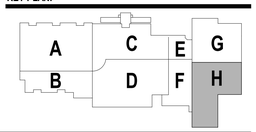

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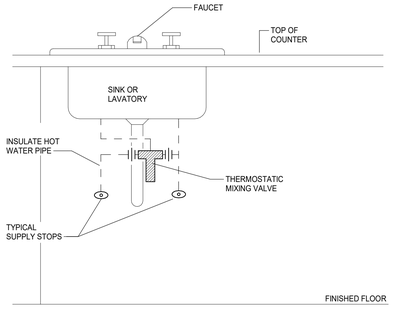
1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING ENLARGED FIRST FLOOR PLAN - AREA 'H'

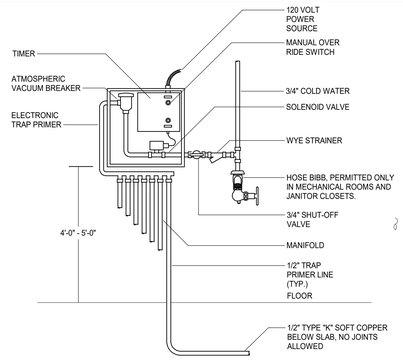
P4.02

____ of ____



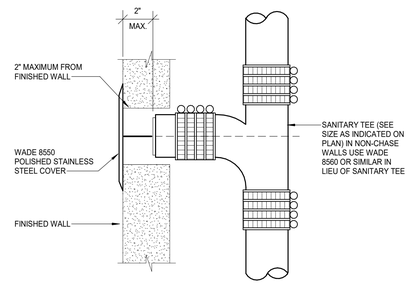
16 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY DUAL TEMPERATURE

SCALE: NONE



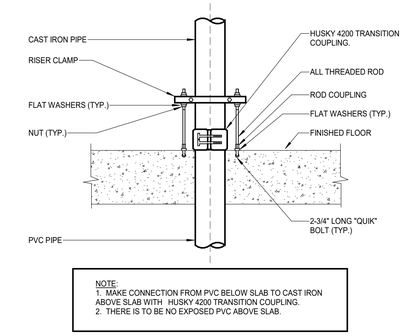
12 ELECTRONIC TRAP PRIMER

SCALE: NONE



8 WALL CLEANOUT - TYPICAL

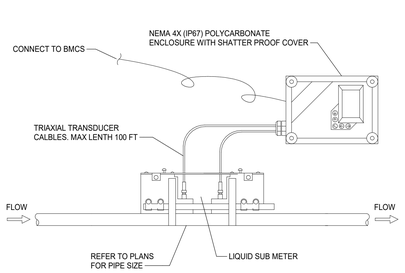
SCALE: NONE



NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

4 CAST IRON TO PVC TRANSITION

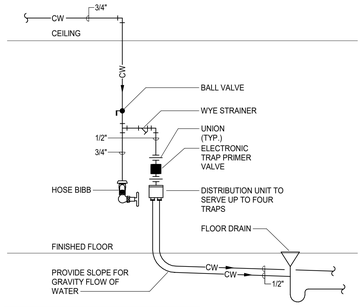
SCALE: NONE



NOTES:
1. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS.
2. CONNECT TO BMCS.

15 DOMESTIC COLD WATER SUB-METER

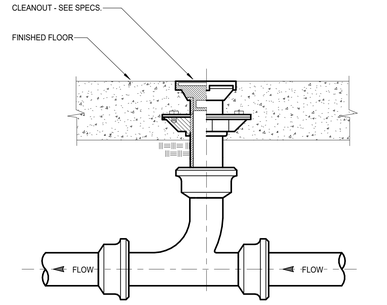
SCALE: NONE



NOTE: OMIT HOSE BIBB WHEN IN JANITOR'S CLOSET

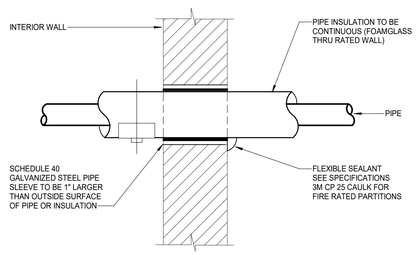
11 ELECTRONIC TRAP PRIMER IN MECHNICAL ROOM /JANITOR CLOSET

SCALE: NONE



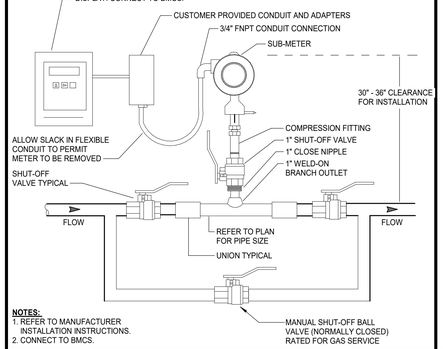
7 FLOOR CLEANOUT - TYPICAL

SCALE: NONE



3 INTERIOR WALL PENETRATION

SCALE: NONE

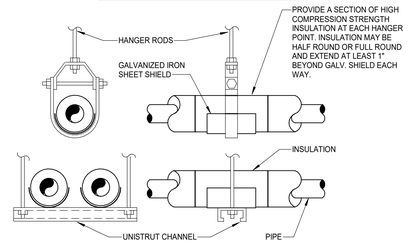


NOTES:
1. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS.
2. CONNECT TO BMCS.

14 NATURAL GAS SUB-METER

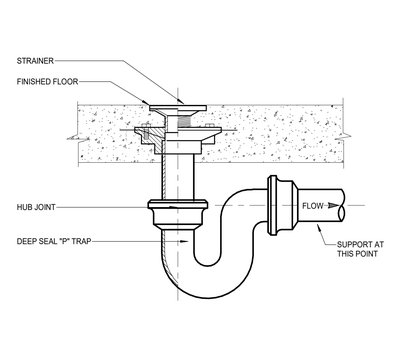
SCALE: NONE

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



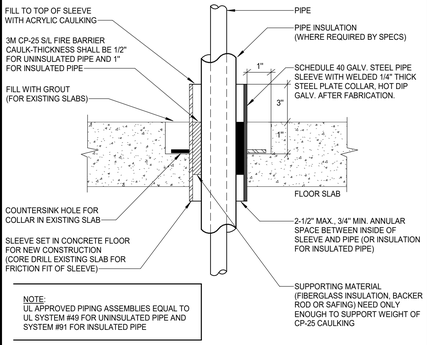
10 PIPE SHIELDS FOR INSULATED PIPING

SCALE: NONE



6 FLOOR DRAIN - TYPICAL

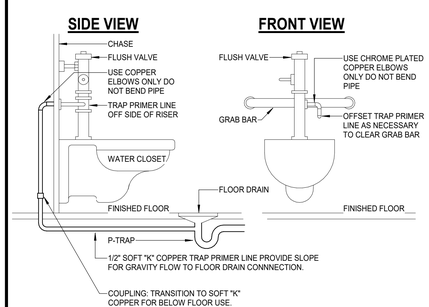
SCALE: NONE



NOTE:
UL APPROVED PIPING ASSEMBLIES EQUAL TO UL SYSTEM #49 FOR UNINSULATED PIPE AND SYSTEM #91 FOR INSULATED PIPE

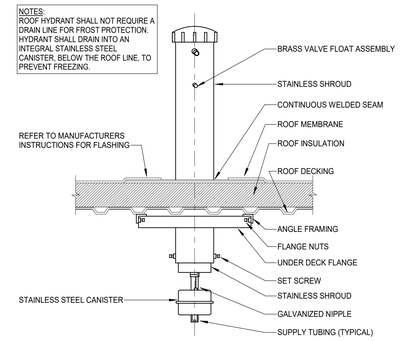
2 INTERIOR FLOOR PENETRATION

SCALE: NONE



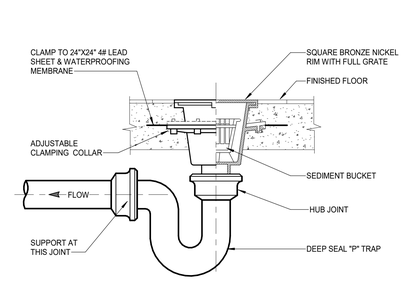
13 MECHANICAL FLUSH VALVE TRAP PRIMER

SCALE: NONE



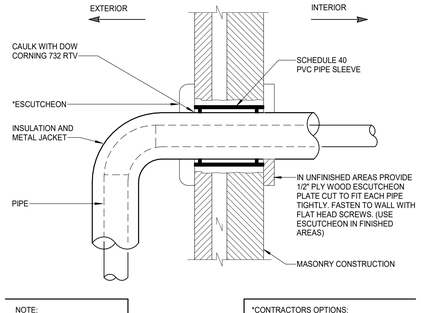
9 ROOF HYDRANT DETAIL

SCALE: NONE



5 FLOOR SINK -TYPICAL

SCALE: NONE



NOTE:
TYPICAL FOR UNINSULATED PIPE AND CONDUIT

*CONTRACTORS OPTIONS:
USE FIELD FABRICATED 302/304 STAINLESS STEEL PLATE WITH CRIMPED EDGES

1 EXTERIOR WALL PENETRATION

SCALE: NONE

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Revisions / Submission

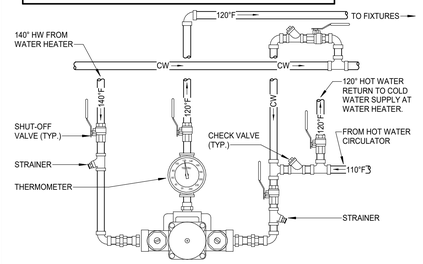
Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING DETAILS-1

P5.01

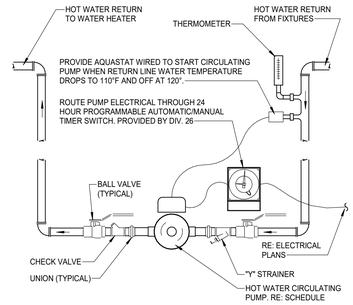
____ of ____

GENERAL NOTES:
1. MOUNT MIXING VALVE AT 48"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.
2. REFER TO PLANS FOR ALL PIPE SIZES. PROVIDE PIPE INCREASERS/DECREASERS AS REQUIRED.
3. REFER TO PLANS FOR ALL EQUIPMENT LOCATIONS.4. 4.MAKE ALL WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. ALL THERMOSTATIC MIXING VALVES MUST BE LEAD FREE.



20 MASTER THERMOSTATIC MIXING VALVE

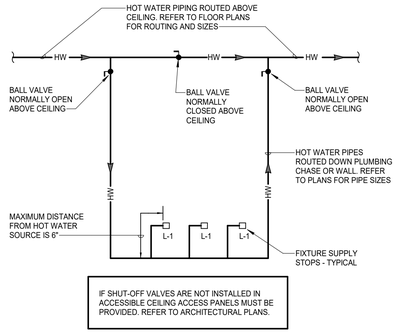
SCALE: NONE



NOTE: MOUNT AT 54"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.

19 DOMESTIC HOT WATER CIRCULATING PUMP

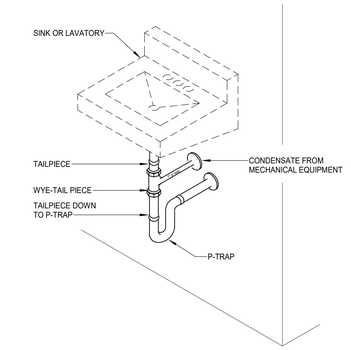
SCALE: NONE



IF SHUT-OFF VALVES ARE NOT INSTALLED IN ACCESSIBLE CEILING ACCESS PANELS MUST BE PROVIDED. REFER TO ARCHITECTURAL PLANS.

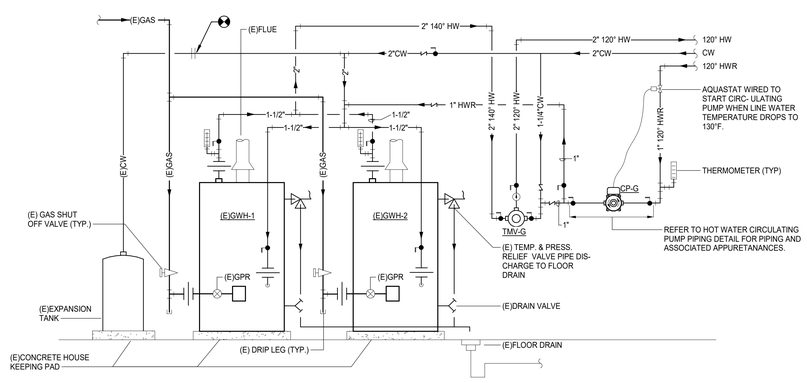
22 HW CIRCULATION FOR PUBLIC LAVATORIES

SCALE: NONE



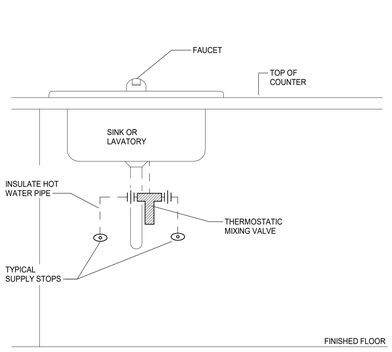
18 WYE-TAILPIECE CONDENSATE CONNECTION

SCALE: NONE



21 NEW COLD AND HOT WATER PIPING TO EXISTING GAS WATER HEATERS

SCALE: NONE



17 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY SINGLE TEMPERATURE

SCALE: NONE

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CONSTRUCTION DOCUMENT

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING DETAILS-2

P5.02

____ of ____

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSTATE DRAIN PIPING (CD)
D	CONDENSTATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
SV	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1 4" VTR	RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (T.A.S. COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD "AFWALL" #2257.101.
SEAT: ELONGATED OPEN FRONT BLACK PLASTIC SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL #111-1.28.
CARRIER: WADE #311 AND #330 SERIES -AM1.
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: WC-2 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD "AFWALL" #2257.101.
SEAT: ELONGATED OPEN FRONT BLACK PLASTIC SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL #111-1.28.
CARRIER: WADE #311 AND #330 SERIES -AM1.
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER. AMERICAN STANDARD "ALLBROOOK" #6550.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL #186-0.5-H-573-CP.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE #401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT) METERED - STUDENT - TEMPERED.
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET SPREAD. AMERICAN STANDARD "LUCERNE" #0356.012.
FAUCET: CHROME PLATED BRASS DECK MOUNTED LAVATORY FAUCET WITH COVER PLATE, 4-1/8" SPOUT, AND PUSH BUTTON HANDLE INDEXED. "PUSH". SELF CLOSING METERING CARTRIDGE, VANDAL RESISTANT 0.5 GPM AERATOR. CHICAGO MODEL #857-E66VP-665PSHAB.
MIX VALVE: PROVIDE POINT OF USE MIXING VALVE, FACTORY SET EACH LAVATORY TO TEMPER THE OUTLET WATER SUPPLY TO 105°F, 0.5 GPM FLOW RATE. LEONARD MODEL #170-LF-BRKT.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE. THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE #520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER - TEMPERED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-2 (T.A.S. COMPLIANT) ADULT - COLD AND HOT WATER.
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" FAUCET SPREAD. AMERICAN STANDARD "LUCERNE" #0356.015.
FAUCET: CHROME PLATED BRASS, DECK MOUNTED, LAVATORY FITTING WITH VANDAL RESISTANT 4" WRISTBLADE HANDLES ON 4" CENTERS, 4" SPOUT AND VANDAL RESISTANT 0.5 GPM LAMINAR FLOW OUTLET. CERAMIC DISC QUARTER TURN OPERATING CARTRIDGES. CHICAGO FAUCETS 802-E70-317XKABCP
MIX VALVE: PROVIDE POINT OF USE MIXING VALVE, FACTORY SET EACH LAVATORY TO TEMPER THE OUTLET WATER SUPPLY TO 105°F, 0.5 GPM FLOW RATE. LEONARD MODEL #170-LF-BRKT.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE #520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER - TEMPERED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-1 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE AND TILED ENCLOSURE INSTALLED PER ARCHITECTURAL DRAWINGS. CONFIRM CONFIGURATION AND ORIENTATION WITH ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH VANDAL RESISTANT LEVER HANDLE, INTEGRAL CHECKSTOPS, AND ADJUSTABLE TEMPERATURE LIMIT SCREW. CAST BRASS VALVE BODY. ALL EXPOSED MATERIALS STAINLESS STEEL OR CHROME PLATED BRASS. 1.5 GPM HAND HELD SHOWER WITH 60" METAL CLAD FLEXIBLE HOSE, CHROME PLATED BRASS SUPPLY ARM, VACUUM BREAKER, MOUNTING BRACKET AND 24" METAL SLIDE BAR. BRADLEY #1C-HD-A24.
DRAIN: FLOOR DRAIN, BOTTOM OUTLET CAST IRON BODY, ADJUSTABLE 5" DIAMETER NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREWS, CLAMPING DEVICE, AND 1/2" TRAP PRIMER TAP. WADE #1100-MR5
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-2 (NON-T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE AND TILED ENCLOSURE INSTALLED PER ARCHITECTURAL DRAWINGS. CONFIRM CONFIGURATION AND ORIENTATION WITH ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH VANDAL RESISTANT LEVER HANDLE, INTEGRAL CHECKSTOPS, AND ADJUSTABLE TEMPERATURE LIMIT SCREW. CAST BRASS VALVE BODY. ALL EXPOSED MATERIALS STAINLESS STEEL OR CHROME PLATED BRASS. VANDAL RESISTANT 1.5 GPM SHOWERHEAD. BRADLEY #1C-HD-S15-LBJ
DRAIN: FLOOR DRAIN, BOTTOM OUTLET CAST IRON BODY, ADJUSTABLE 5" DIAMETER NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREWS, CLAMPING DEVICE, AND 1/2" TRAP PRIMER TAP. WADE #1100-MR5
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: FS-1
SERVICE: MECHANICAL ROOM EQUIPMENT CONDENSATE AND MINI-SPLIT CONDENSATE
DESCRIPTION: A.R.E. COATED CAST IRON BODY 12" SQUARE FLOOR SINK WITH 8" DEEP SUMP, BOTTOM OUTLET, LOOSE SET CAST IRON SECONDARY STRAINER, CLAMPING DEVICE, STAINLESS STEEL HALF TOP GRATE, BOTTOM OUTLET WITH 1/2" TRAP PRIMER CONNECTION. WADE #9140-6-15-26-85.
TRAP PRIMER: SERVED BY ELECTRONIC TRAP PRIMER, REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION AND EQUIPMENT PLACEMENT.

TYPE: FD-1
SERVICE: TOILET ROOMS AND GENERAL USE
DESCRIPTION: FLOOR DRAIN, PAINTED CAST IRON BODY WITH ANCHOR FLANGE, SEEPAGE OPENINGS, CAST IRON ADJUSTABLE 6" DIAMETER TOP, STAINLESS STEEL FRAME WITH SECURED SLOTTED GRATE, 1/2" NPT TRAP PRIMER TAP (PLUGGED), REVERSIBLE CLAMPING COLLAR, BOTTOM OUTLET, LOAD RATING - LIGHT DUTY. WADE #1100-MR6-8-85.
TRAP SEAL: TRAP SERVED BY TRAP PRIMING DEVICE, REFER TO PLANS FOR SPECIFIC TYPE.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: HB-1 - COLD WATER
DESCRIPTION: HOSE BIBB. EXPOSED TYPE, MILD CLIMATE, WALL-MOUNTED FAUCET WITH 3/4" F.P.T. INLET, 3/4" MALE HOSE THREAD OUTLET AND SELF-DRAINING ANTI SIPHON VACUUM BREAKER. CHROME PLATED BRASS FINISH WITH REMOVABLE TEE HANDLE. CHICAGO #952-CP
ROUGH-IN: 3/4" COLD WATER. INSTALL WITH OUTLET AT 18" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.

TYPE: RH-1 - COLD WATER
DESCRIPTION: ROOF HYDRANT, DRAIN CANISTER BELOW ROOF LINE , 3/4" F.P.T. INLET, 3/4" MALE HOSE THREAD OUTLET AND SELF-DRAINING ANTI SIPHON VACUUM BREAKER, 1" SCHEDULE 40 GALVANIZED RISER AND SELF ADJUSTING SOLID BRASS OPERATING ROD. MAPA PRODUCTS #MPH-24-FP (NO SUBSTITUTIONS).
ROUGH-IN: 3/4" COLD WATER. INSTALL WITH OUTLET AT 18" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH COUNTERSUNK BRONZE PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE #6550-75 WITH #8304. PROVIDE WADE #6560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, PAINTED CAST IRON BODY WITH ANCHOR FLANGE, ADJUSTABLE TOP, SECURED SCORIATED ADJUSTABLE ABS PLASTIC HOUSINGS, ABS PLASTIC GASKETED PLUG AND BOTTOM OUTLET. WADE #6000-102. FOR CARPETED FLOORS PROVIDE WADE #6000-102-CM. FOR TERRAZO TILES #6000-102-U, FOR RECESSED TILE #6000-102-T. FOR VCT TILES COORDINATE WITH MANUFACTURER FOR INSTALLATION INSTRUCTIONS.

TYPE: TP-D1 (SURFACE MOUNT)
SERVICE: NEW FS-1, MECH(D103B).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VALVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120V. PRECISION PLUMBING PRODUCTS MINI-PRIME MPB-500-120V WITH NEMA TYPE 1, UL50 BOX, AND COVER.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-F1 (SURFACE MOUNT)
SERVICE: NEW FS-1, CUST-1 (A112-1).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VALVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120V. PRECISION PLUMBING PRODUCTS MINI-PRIME MPB-500-120V WITH NEMA TYPE 1, UL50 BOX AND COVER.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-G1 (FLUSH MOUNT)
SERVICE: TOTAL OF SIXTEEN FLOOR DRAINS. BOYS ATHLETICS, PE, RR, SHOWERS, AND LOCKERS (B101AA).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH FLUSH MOUNT CABINET AND STAINLESS STEEL ACCESS DOOR, SOLENOID VALVE, ATMOSPHERIC VACUUM BREAKER, CIRCUIT BREAKER, AND TIMER. 120V. PRECISION PLUMBING PRODUCTS "PRIME TIME" #PT-1320.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-H1 (FLUSH MOUNT)
SERVICE: TOTAL OF SIXTEEN FLOOR DRAINS. GIRLS ATHLETICS, PE, RR, SHOWERS, AND LOCKERS (B107AA)
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH FLUSH MOUNT CABINET AND STAINLESS STEEL ACCESS DOOR, SOLENOID VALVE, ATMOSPHERIC VACUUM BREAKER, CIRCUIT BREAKER, AND TIMER. 120V. PRECISION PLUMBING PRODUCTS "PRIME TIME" #PT-1320.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-1
SERVICE: SERVES SINGLE FLOOR DRAIN TRAP.
DESCRIPTION: FLUSH VALVE TRAP PRIMER, 1-1/2" O.D. X 12" 17 GAUGE PRIMING TUBE WITH VACUUM BREAKER. PRECISION PLUMBING PRODUCTS PVP-1VB.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO), ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

CIRCULATING PUMP SCHEDULE

ITEM NO.	DESCRIPTION	TYPE	GPM	HEAD FEET	H.P. MIN.	ELECTRICAL CHAR. V/P/F	MAX RPM	MANUFACTURER AND MODEL
CP-G	CIRCULATION PUMP (120) F HOT WATER	IN-LINE STAINLESS STEEL	1.5	2.54	1/12	115/1/60	-	GRUNDFOS #ALPHA HWR-15-29 SF/T 115V

NOTES:
1. CONTRACTOR TO SPECIFY CONTROL BOX POSITION BASED ON FIELD CONDITIONS.
2. CONTRACTOR TO START PUMP IN LOW CONSTANT SPEED.

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

THERMOSTATIC MIXING VALVE SCHEDULE

ITEM NO.	TEMP. IN DEG. F	TEMP. OUT DEG. F	MIN. FLOW GPM	DES. FLOW GPM	VALVE FINISH	THERMO METER	UNION CONN.	PRESS. DIFF.	MANUFACTURER / MODEL
TMV-G	140	120	0.5	37	RB	YES	YES	5	LEONARD XL-150-LF-BDT

NOTES: PROVIDE WITH WALL MOUNTING BRACKET.

SUB-METER SCHEDULE

ITEM NO.	SYSTEM SERVING	ELECTRICAL REQUIREMENTS	MANUFACTURER / MODEL
WSM-1	KITCHEN COLD WATER	110-240 VAC, 50/60 Hz, 10 VA MAX	ONICON: F-4300
GSM-1	KITCHEN NATURAL GAS	12- 28 VDC, 6W MIN. POWER	ONICON: F-5400

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

NATEX CORPORATION ARCHITECTS
www.natexarchitects.com
447 Heights Boulevard
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Fax: 713-780-7824

Coleman Partners ARCHITECTS
cparch.com
3701 Kirby Drive, Suite 830
Houston,TX 77098
tel 832.947.1036 fax 225.214.5365

CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
02-11-2025

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
tel: 281.578.9595

STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
9800 RICHMOND AVE.
SUITE 460
HOUSTON, TX 77042
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MEPT ENGINEER
SALAS O'BRIEN
10930 W. SAM HOUSTON PKWY. N.
SUITE 900
HOUSTON, TX 77064
tel: 281.664.1900

FOOD SERVICE EQUIPMENT
FDP
25317 INTERSTATE 45
THE WOODLANDS, TX 77380
tel: 281.350.2323

LANDSCAPE ARCHITECT
LANDESIGN GROUP
17041 EL CAMINO REAL
SUITE 204
HOUSTON, TX 77058
tel: 281.486.4040

2024 SMITH & SPILLANE MS RENOVATIONS

SMITH MIDDLE SCHOOL

10300 WARNER SMITH BLVD., CYPRESS, TEXAS 77433
CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SCHEDULES

P6.01

____ of ____

TECHNOLOGY LEGEND - 27 10 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
*# ▼	WALL MOUNTED NETWORK OUTLET D#: NUMBER OF DATA DROPS IN OUTLET AP: WIRELESS ACCESS POINT	+18" AFF, UNLESS OTHERWISE NOTED	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
V# ▽	COMMUNICATIONS OUTLET	FIELD COORDINATE	FIELD COORDINATE	
W ▼	WALL MOUNTED NETWORK OUTLET	+44" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
B ▽	WALL MOUNTED BOX FOR FUTURE USE.	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
D# ▼	FLOOR MOUNTED NETWORK OUTLET	N/A	COORDINATE WITH ELECTRICAL CONTRACTOR	FINISHED HARDWARE PROVIDED BY DIV 27
*#	CEILING MOUNTED NETWORK OUTLET AP: WIRELESS ACCESS POINT D#: NETWORK OUTLET	ABOVE CEILING	CEILING BRACKET WITH BISCUIT BLOCK	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. CONDUIT STUB UP AND SLEEVES SHALL HAVE A SOLID UNCUT PLASTIC PROTECTIVE BUSHING.
5. NO CONDUITS SHALL EXCEED FOR 40% MAXIMUM FILL RATIO. CONTRACTOR TO PROVIDE ADDITIONAL CONDUITS REQUIRED.

AUDIO/VIDEO LEGEND - 27 41 16.10

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
WMP ▽	WALL MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLANS.	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CMP ◁	CEILING MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	CEILING MOUNTED	N/A	NOTE #5
AV-1 ▽	WALL MOUNTED AUDIO/VIDEO INPUT OUTLET	+18" AFF UNO	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	
FSD-1 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
FSD-2 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET ASSOCIATED WITH AV-1 INPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
IVD ▽	INTERACTIVE VIDEO DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CP ▽	AV CONTROL PANEL	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
PS	LOCAL INSTRUCTIONAL SPACE PRESENTATION SPEAKER	CEILING	CONTRACTOR PROVIDED CEILING BOX	COORDINATE POWER WITH EC
◯	STREAMING CAMERA	CEILING UNO	N/A	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

LOCAL SOUND SYSTEM LEGEND - 27 41 16.20

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
LS	LOCAL SOUND SYSTEM SPEAKER P: POLE MOUNTED SPEAKER	CEILING MOUNT UNO	CONTRACTOR PROVIDED BACK BOX OR 4"X4"X2 1/8" J BOX WITH COVER. 1"C	
LSC	LOCAL SOUND SYSTEM CONTROL PLATE	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MI	MICROPHONE INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MA	COMBINATION OUTLET CONSISTING OF ONE (1) MICROPHONE INPUT AND ONE (1) AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
AI	3.5MM STEREO AUDIO AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
H	HANGING MICROPHONE	CEILING MOUNT	N/A	
ABM	AUXILIARY INPUT AND BLUETOOTH MIXER	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RACK	VENUE SPECIFIC LOCAL SOUND SYSTEM HEAD END RACK	WALL MOUNT UNO	N/A	
WA	WIRELESS ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
ALA	ASSISTED LISTENING ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
SUB	SUBWOOFER	CEILING MOUNT UNO		

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTERCOM LEGEND - 27 50 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ICS	INTERCOM COMMUNICATIONS SYSTEM HEAD END UNIT.	FLOOR MOUNTED	COORDINATE WITH EC	COORDINATE POWER WITH EC
S	CEILING MOUNT INTERCOM SPEAKER, LAY-IN CEILING	CEILING	CONTRACTOR PROVIDED	
S2	CEILING MOUNT INTERCOM SPEAKER, HARD CEILING.	CEILING	CONTRACTOR PROVIDED	
S3	WALL MOUNT INTERIOR INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
S4	WALL MOUNT EXTERIOR INTERCOM SPEAKER.	+10' AFF UNO	CONTRACTOR PROVIDED	
S5	PENDANT MOUNT INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
S6	SURFACE MOUNT INTERCOM SPEAKER, MOUNT TO STRUCTURE.	CEILING	CONTRACTOR PROVIDED	
S7	CEILING MOUNTED EXTERIOR INTERCOM SPEAKER	CEILING	CONTRACTOR PROVIDED	
# IP	IP BASED SPEAKER, '#' TO BE REPLACED WITH S, S2, S3, S4 INDICATING THE SPECIFIC TYPE OF SPEAKER.	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	NOTE #5
VC	WALL MOUNTED VOLUME CONTROL	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
CB	INTERCOM CALL BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
C	SINGLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
C2	DOUBLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RPS	REMOTE PROGRAM SOURCE	DESK TOP	COORDINATE WITH EC	NOTE #5
ACS	ADMINISTRATIVE CALL STATION.	DESK TOP	N/A	NOTE #5
LD	LOCKDOWN BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
LMB ▼	LARGE MESSAGE BOARD, POE+ POWERED	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

ACCESS CONTROL LEGEND - 28 10 00 & 28 10 00.05

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ACP	ACCESS CONTROL SYSTEM, CONTROL PANEL.	+60" AFF TO CENTER	AS REQUIRED	COORDINATE POWER. NOTE #4.
CR *#	ACCESS CONTROL PROXIMITY CARD READER. DEFAULT SYMBOL INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED READER	+42" A.F.F.	1-G, 3/4" C	
CR	DOOR MOUNTED ACCESS CONTROL PROXIMITY CARD READER THAT IS INTEGRATED INTO THE DOOR HARDWARE.	+42" AFF	N/A	
DS *#	2-WAY AUDIO/VIDEO INTERCOM DOOR STATION. *DEFAULT INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED DEVICE	+42" AFF	*W: 1-G, 3/4" C *M: 3/4"C	COORDINATE POWER. NOTE #4.
DS	DOOR MOUNTED, 2-WAY AUDIO/VIDEO INTERCOM. DOOR STATION.	+42" AFF, FIELD COORDINATE		COORDINATE POWER. NOTE #4
MS	2-WAY AUDIO/VIDEO INTERCOM MASTER STATION.	DESK MOUNTED UNO		COORDINATE POWER. NOTE #4
DR	DOOR RELEASE BUTTON	COORDINATE WITH GC	1-G, 3/4" C	
REX	PIR MOTION REQUEST TO EXIT DEVICE			
DP	DOOR PROP ALARM	CEILING MOUNTED UNO	N/A	N/A
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	PROVIDED BY ACS CONTRACTOR.
SS	NETWORK SIREN STROBE	CEILING MOUNTED UNO		NOTE #4

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK.

VIDEO SURVEILLANCE LEGEND - 28 20 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
	WALL/CORNER MOUNT 4-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	CEILING MOUNTED 4-SENSOR CAMERA	CEILING		NOTE #5
	2-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	1-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
VRS	VIDEO RECORDING SERVER			
#MU	VIDEO SURVEILLANCE MAIN UNIT	ABOVE CEILING		NOTE #5
	SYMBOL INDICATED THAT A VIDEO SURVEILLANCE DEVICE IS WALL MOUNTED			

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTRUSION LEGEND - 28 31 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
IDP	INTRUSION DETECTION SYSTEM CONTROL PANEL	+60" AFF	TWO(2) - 1"C TO CONTRACTOR PROVIDED BACK BOX	COORDINATE POWER WITH EC. NOTE #5
KP	INTRUSION DETECTION SYSTEM KEYPAD.	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MC	CEILING MOUNTED MOTION DETECTOR	CEILING		
MC	WALL MOUNTED MOTION DETECTOR LR: LONG RANGE	REFERENCE FLOOR PLAN	N/A	
GB	CEILING MOUNTED GLASS BREAK DETECTOR	CEILING	N/A	
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	DEVICE PROVIDED BY ACS CONTRACTOR.
SDC	SURFACE MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
ODC	OVERHEAD DOOR MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
DB	DURESS PANIC BUTTON	UNDER DESK UNO	N/A	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. REFERENCE DIVISION 28 SPECIFICATION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK.

FIRE ALARM - 28 46 00

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL
FAA	FIRE ALARM ANNUNCIATOR PANEL

NOTES:
1. FIRE ALARM SYSTEM IS PERFORMANCE BASED PER SPECIFICATIONS. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

SUBSCRIPTS AND ABBREVIATIONS

TEXT	DESCRIPTION
'WP'	DEVICE SHALL BE WEATHER PROOF AND RATED FOR EXTERIOR CONDITIONS
•	FIELD COORDINATE ELEVATION.
AFF	ABOVE FINISHED FLOOR
'UC'	DEVICE IS TO BE MOUNTED ON THE UNDERSIDE OF THE ELEVATED CANOPY.
'WM'	DEVICE IS TO BE WALL MOUNTED.
'WG'	WIRE GUARD TO BE PROVIDED AND INSTALLED TO PROTECT ASSOCIATED DEVICE.

SUBSCRIPTS LEGEND - EXISTING DEVICES

TEXT	DESCRIPTION
'E'	EXISTING TO REMAIN.
'D'	DEVICE IS EXISTING AND IS TO BE REMOVED. CONTRACTOR TO REMOVE THE DEVICE AND RETURN TO OWNER.
'R'	REMOVE EXISTING DEVICE AND RELOCATE TO A LOCATION INDICATED ON THE DRAWINGS.

NOTES TO CONTRACTOR

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS.
2. SYSTEM INSTALLERS SHALL COORDINATE LOCATIONS AND CONNECTIONS WITH THE PROJECT'S ELECTRICAL CONTRACTOR.
3. CONTRACTOR TO PROVIDE PROPERLY GROUNDED LIGHTING PROTECTION ON ALL CABLING ENTERING AND EXITING THE BUILDING.

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

B CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO
1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE
TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

C CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE:
1) FIRE ALARM DEVICES
2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES
ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.

F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.

G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY.

TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM ANMEAND NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM.

K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

L CONTRACTOR SHALL FIELD VERIFY ALL SECONDARY CLOCK LOCATIONS. REMOVE ALL SECONDARY CLOCKS. PROVIDE NEW CLOCKS IN RECEPTION, CAFETERIA, LIBRARY, GYMS AND CLINIC IN THE SAME LOCATIONS. RETURN ALL OTHER SECONDARY CLOCKS TO OWNER. HEAD END MASTER CLOCK IS TO BE REPLACED. CONTRACTOR TO REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PATCH AND PAINT INSTRUCTIONS.

M ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.

N DEMOLISHED WORKSTATION OUTLETS THAT ONLY CONTAIN VOICE SHALL HAVE CABLING DEMOLISHED AND RECIEVE A NEW CONTRACTOR PROVIDED BLANK FACEPLATE UNLESS NOTED OTHERWISE. THIS SHALL EXCLUDE VOICE OUTLETS BEING USED FOR LIFE SAFTEY PURPOSES.

RESPONSIBILITY MATRIX

SCOPE ITEM	RESPONSIBILITY			NOTES
COMMUNICATIONS - DIVISION 27	OFOI	CFCI	OFCI	
CATEGORY 6/6A STRUCTURED CABLING SYSTEM (SCS)	✓			
AUDIO DISTRIBUTION SYSTEM - SPECIAL SPACE		✓		SEE NOTE 4.
AUDIO DISTRIBUTION SYSTEM - INSTRUCTIONAL SPACE	✓			
FLAT PANEL DISPLAYS	✓			
FLAT PANEL DISPLAY MOUNTS	✓			
INTERACTIVE DISPLAYS	✓			
INTERACTIVE DISPLAY MOUNTS	✓			
BUILDING INTERCOM/PA, BELL, AND CLOCK SYSTEM		✓		
→NETWORK SWITCHES	✓			
NETWORK EQUIPMENT				
→ MDF/IDF NETWORK EQUIPMENT	✓			
→ VOIP TELEPHONES	✓			
→ WIRELESS ACCESS POINTS	✓			
→ UNINTERRUPTIBLE POWER SUPPLIES (UPS)	✓			
RACEWAY: CONDUIT, BACK BOXES, ETC.		✓		SEE NOTE 1.
LOW VOLTAGE: RACEWAY, SLEEVES		✓		SEE NOTE 1.
STRUCTURED CABLING: RACEWAY, SLEEVES	✓			SEE NOTE 5.
ELECTRICAL POWER		✓		SEE NOTE 1.
LIFE SAFETY AND SECURITY - DIVISION 28	OFOI	CFCI	OFCI	
ACCESS CONTROL SYSTEM(ACS)		✓		
INTRUSION DETECTION SYSTEM		✓		
DOOR ACCESS VIDEO INTERCOM SYSTEM		✓		
VIDEO SURVEILLANCE SYSTEM (VSS)				
→VSS SERVERS		✓		
→VSS CAMERAS		✓		
→VSS PROGRAMMING		✓		
→VSS CABLING	✓			SEE NOTE 2.
FIRE ALARM SMOKE DETECTION WITH VOICE EVACUATION		✓		
RACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		✓		SEE NOTE 1.
ELECTRICAL POWER		✓		SEE NOTE 1.

OFOI - OWNER FURNISHED AND OWNER INSTALLED
CFCI - CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED
OFCI - OWNER FURNISHED AND CONTRACTOR INSTALLED

RESPONSIBILITY MATRIX NOTES:
1. BY DIVISION 26.
2. BY DIVISION 27.
3. BY DIVISION 11.
4. IF SYSTEM REQUIRES NETWORK SWITCH IT SHALL BE OFOI. CONTRACTOR TO COORDINATE WITH OWNER.
5. CORES AND SLEEVES FOR STRUCTURED CABLING WILL BE OWNER FURNISHED, OWNER INSTALLED. NOT TO BE USED BY ANY OTHER TRADE.

1

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1 Addendum 02 02-11-25 — Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

TECHNOLOGY NOTES & LEGENDS

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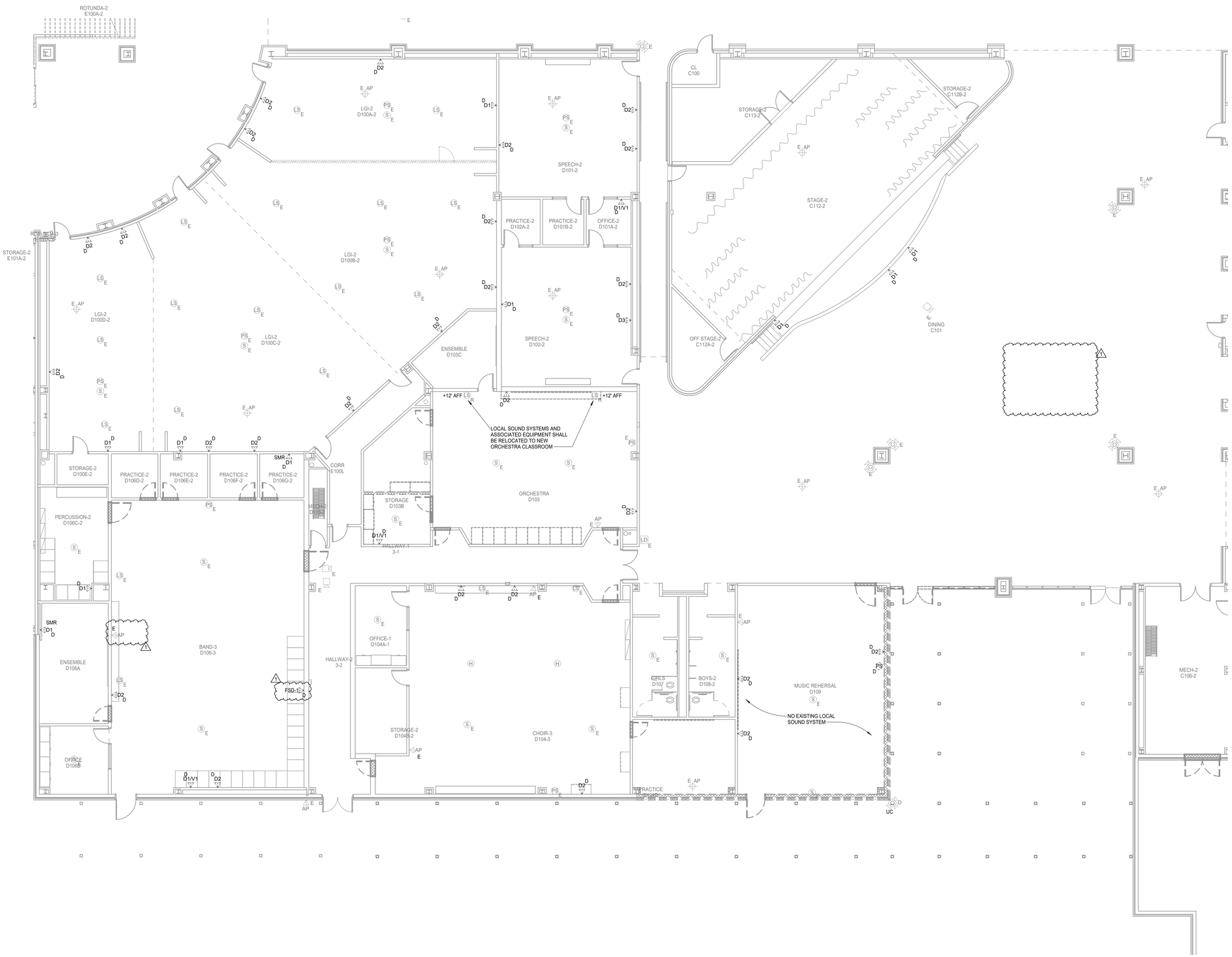

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1 **TECHNOLOGY DEMOLITION FLOOR PLAN - LEVEL 1 - AREA D**
Scale: 1/8" = 1'-0"

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

B CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO;
1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE
TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

C CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE:
1) FIRE ALARM DEVICES
2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES
ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES, SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.

F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.

G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY.

TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM ANMEAND NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM.

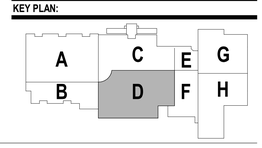
K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

L CONTRACTOR SHALL FIELD VERIFY ALL SECONDARY CLOCK LOCATIONS. REMOVE ALL SECONDARY CLOCKS. PROVIDE NEW CLOCKS IN RECEPTION, CAFETERIA, LIBRARY, GYMS AND CLINIC IN THE SAME LOCATIONS. RETURN ALL OTHER SECONDARY CLOCKS TO OWNER. HEAD END MASTER CLOCK IS TO BE REPLACED. CONTRACTOR TO REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PATCH AND PAINT INSTRUCTIONS.

M ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.

N DEMOLISHED WORKSTATION OUTLETS THAT ONLY CONTAIN VOICE SHALL HAVE CABLING DEMOLISHED AND RECIEVE A NEW CONTRACTOR PROVIDED BLANK FACEPLATE UNLESS NOTED OTHERWISE. THIS SHALL EXCLUDE VOICE OUTLETS BEING USED FOR LIFE SAFTEY PURPOSES.

KEY PLAN:



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TECHNOLOGY DEMOLITION FIRST FLOOR PLAN - AREA 'D'

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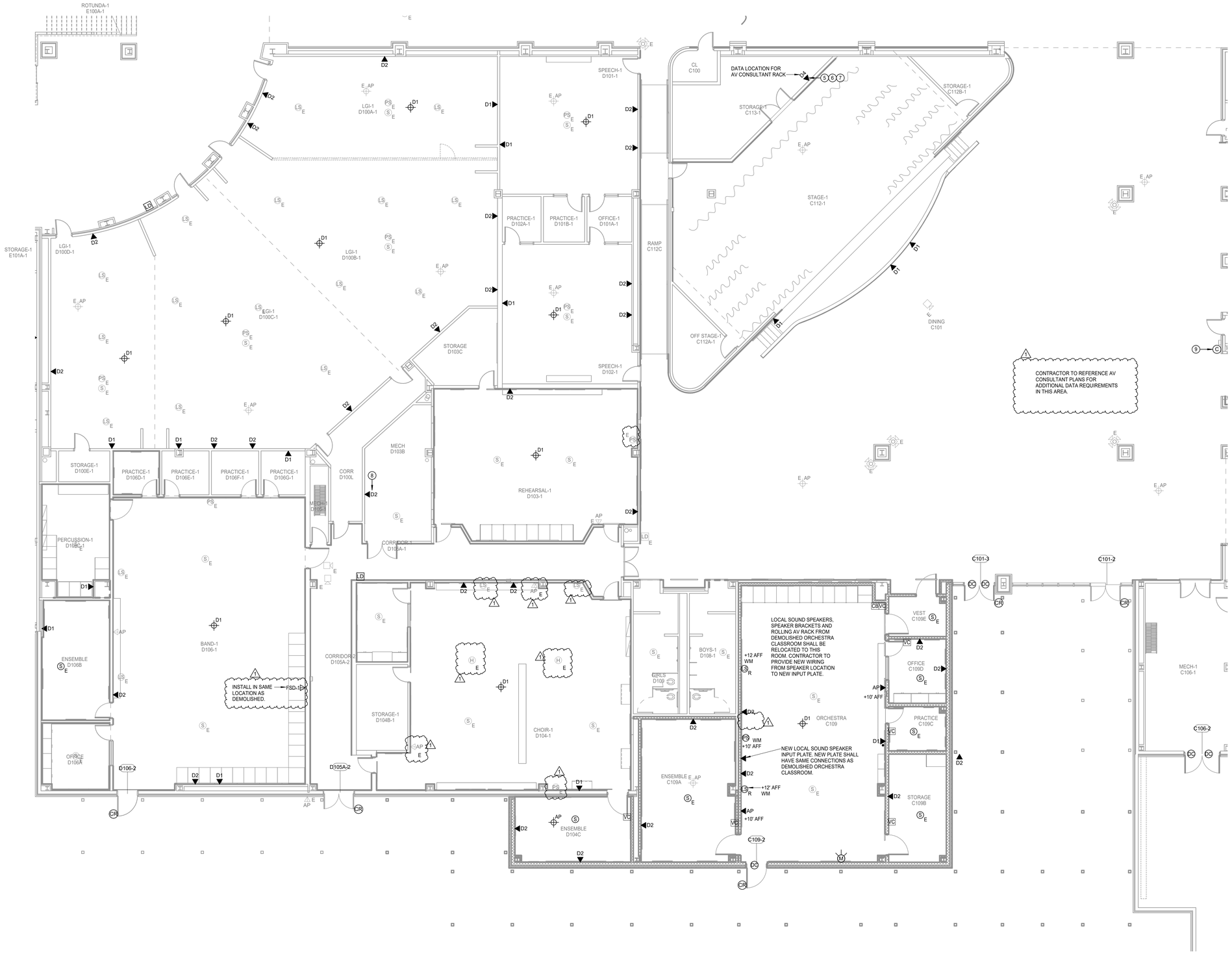

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1 TECHNOLOGY FLOOR PLAN - LEVEL 1 - AREA D

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

TECHNOLOGY PLAN GENERAL NOTES

A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
C	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
D	CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES.
E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.
F	ALL EXISTING LOCKDOWN BUTTONS THAT ARE BEING REUSED SHALL HAVE EXISTING WIRING DEMOLISHED AND REPLACED BY CONTRACTOR. NEW WIRING SHALL BE HOME RUN.
G	NEW DATA CABLING IN EXISTING CLASSROOMS SHALL REUSE EXISTING DATA CABLING RACEWAY AND BACKBOXES. CONTRACTOR TO PROVIDE AND INSTALL NEW FACEPLATES.
H	DATA CABLING TO MECHANICAL ROOMS SHALL BE REPLACED ONE TO ONE. CONTRACTOR TO REUSE EXISTING RACEWAY AND BACKBOXES. PROVIDE AND INSTALL NEW FACEPLATES.

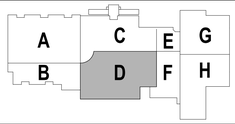
FIRE ALARM

A	FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER SPECIFICATIONS 28 46 00. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
B	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.
C	REFERENCE TECHNOLOGY COMPOSITE PLANS FOR EXISTING AHU LOCATIONS. REFERENCE MECHANICAL PLANS FOR ANY NEW AHU LOCATIONS.

TECHNOLOGY PLAN KEYED NOTES

1	INTERCOM SYSTEM DEVICE CABLING SHALL BE HOME RUN TO INTERCOM SYSTEM HEAD END LOCATED IN ELEC A100J.
2	THE DESIGNATED TELEPHONE OUTLET SHALL BE RESERVED FOR THE ELEVATOR EMERGENCY CALL. CONTRACTOR TO ROUTE A CABLE FROM THE NEAREST MDF/IDF, TO THE ELEVATOR CONTROL EQUIPMENT. TERMINATE THE CABLE AT THE ELEVATOR CONTROL EQUIPMENT AND CROSS-CONNECT TO THE ELEVATOR TELEPHONE TRAVEL CABLE. COORDINATE EXACT LOCATION, TERMINATION, AND CROSS-CONNECT WITH THE ELEVATOR INSTALLER.
3	COORDINATE ALL REQUIREMENTS AND FINAL LOCATION WITH ELEVATOR INTEGRATOR PRIOR TO INSTALLATION.
4	DATA OUTLET DEDICATED FOR EMPLOYEE TIME-IN/TIME-OUT TO BE MOUNTED 48"-A.F.F. COORDINATE LOG ACCESS RIGHTS WITH OWNER PRIOR TO PROGRAMMING.
5	NETWORK OUTLET RESERVED FOR AV SYSTEM HEAD END RACK. COORDINATE WITH AV CONSULTANT DRAWINGS ON FINAL AV RACK LOCATION.
6	FIRE ALARM CONTRACTOR TO PROVIDE A CONTACT CLOSURE TO THE AUDIO-VIDEO RACK FOR EMERGENCY MUTING OF AUDIO SYSTEM WHEN SYSTEM IS IN ALARM.
7	INTERCOM CONTRACTOR TO PROVIDE A CONTACT CLOSURE TO THE AUDIO-VIDEO RACK FOR LOCKDOWN EMERGENCY MUTING OF AUDIO SYSTEM WHEN SYSTEM IS IN ALARM.
8	COORDINATE FINAL OUTLET LOCATION WITH BMCS CONTROLLER LOCATION.
9	LOCATE NEW INTERCOM SYSTEM SECONDARY CLOCK IN THIS ROOM IN THE SAME LOCATION AS DEMOLISHED CLOCK.
10	NETWORK OUTLET RESERVED FOR FREEZER AND COOLOR MONITORING.

KEY PLAN:



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TECHNOLOGY FIRST FLOOR PLAN - AREA 'D'

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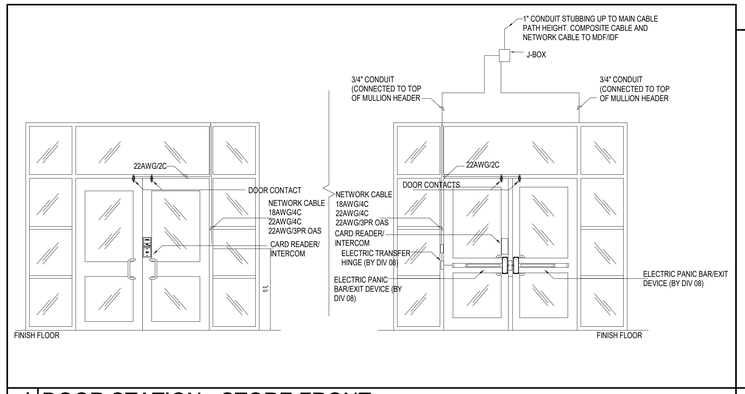
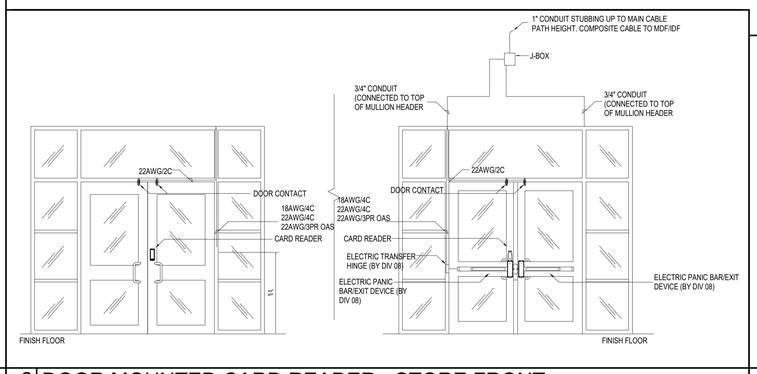
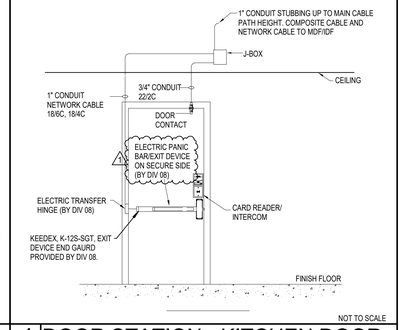
Autodesk Docs://23072_CFSID_Phase_6_r22/CFISD-SMITH MS_MEPT_R22.rvt



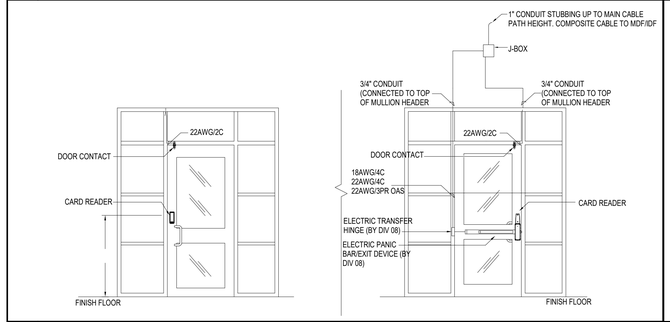
1 DOOR STATION - STORE FRONT — NOT TO SCALE



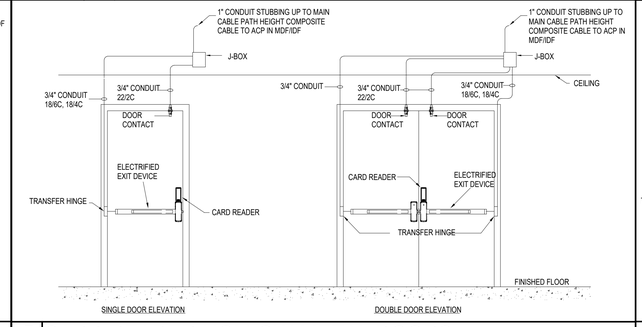
2 DOOR MOUNTED CARD READER - STORE FRONT — NOT TO SCALE



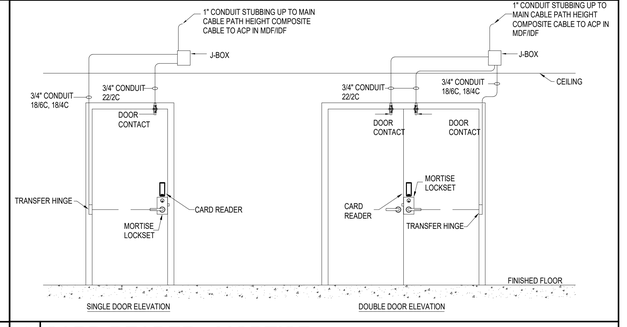
4 DOOR STATION - KITCHEN DOOR — NOT TO SCALE



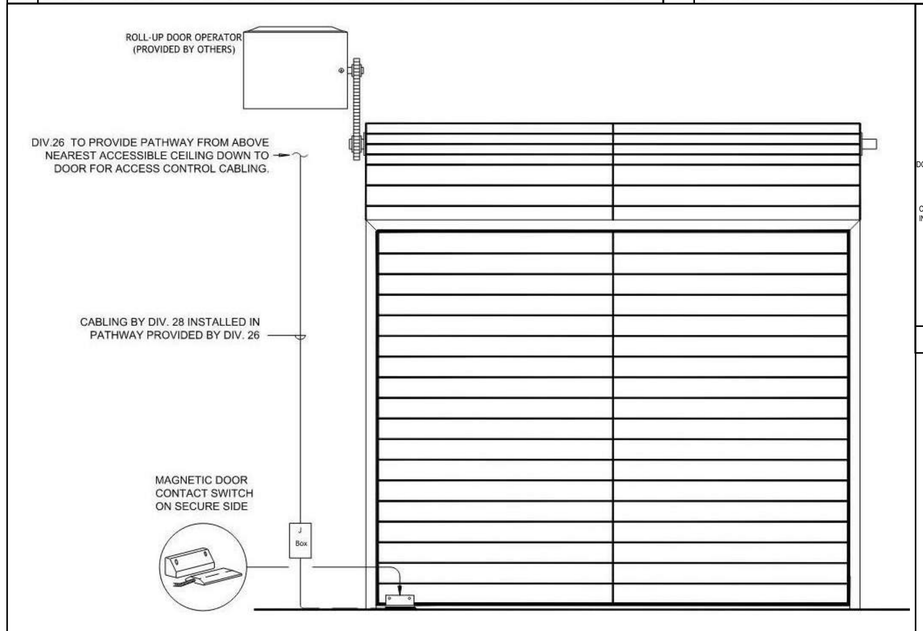
3 DOOR MOUNTED CARD READER - STORE FRONT - SINGLE — NOT TO SCALE



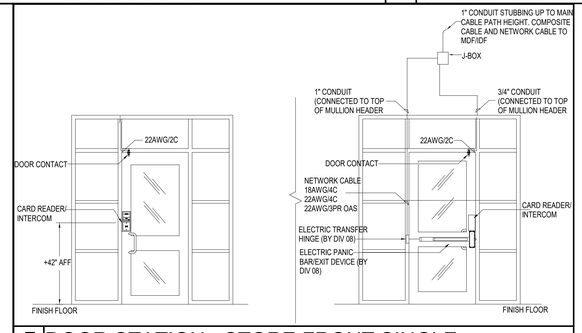
5 CARD READER HOLLOW METAL DOORS — NOT TO SCALE



6 CARD READER - MORTISE — NOT TO SCALE



8 ROLLING DOOR DETAIL — NOT TO SCALE



7 DOOR STATION - STORE FRONT SINGLE — NOT TO SCALE

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TECHNOLOGY DETAILS

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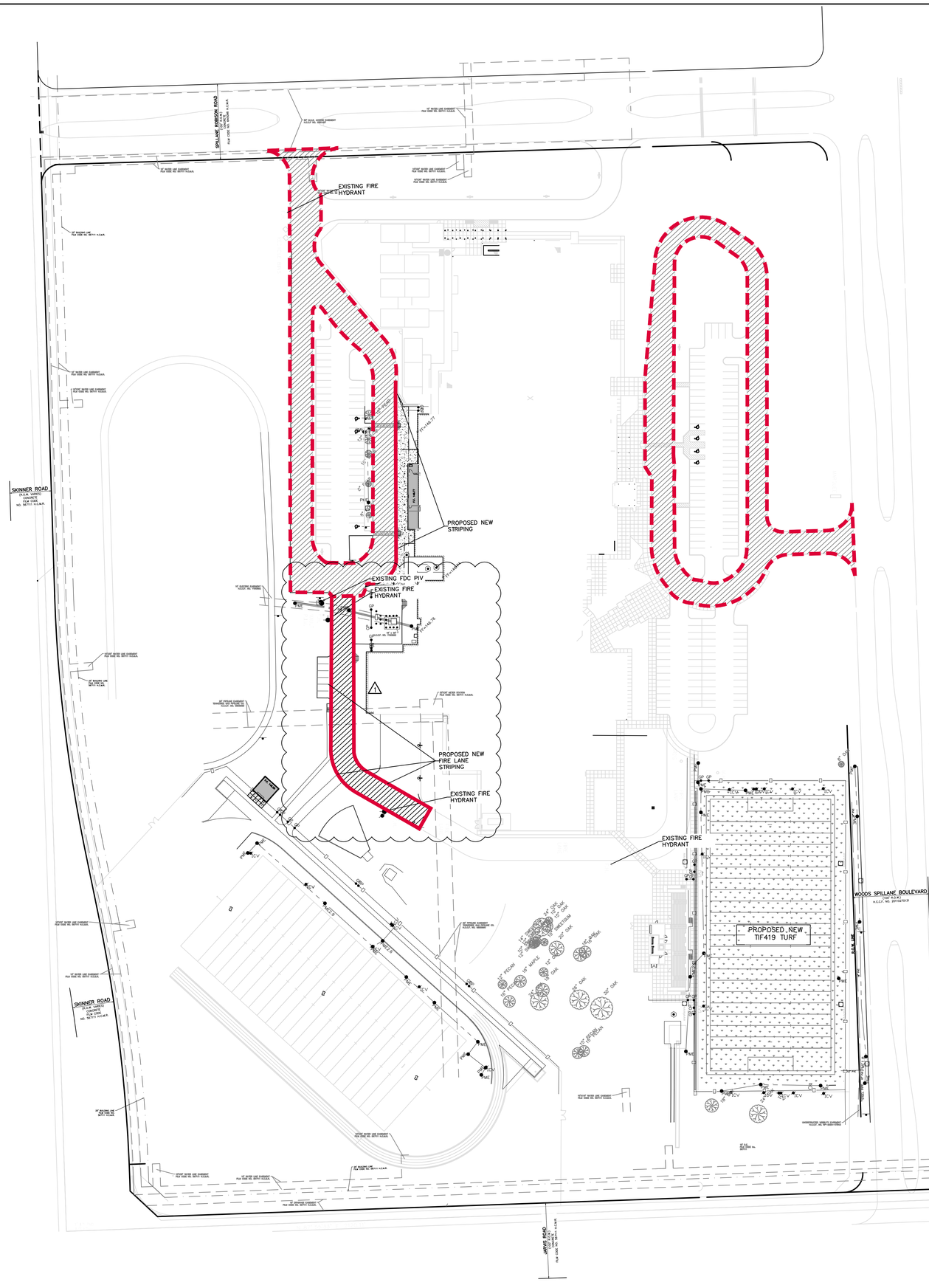
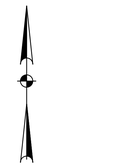




FLOODPLAIN INFORMATION:

ACCORDING TO F.I.R.M. MAP NO. 48201C0410M (COMMUNITY–PANEL NO. 4802870410M), MAP REVISED DATE: OCTOBER 16, 2013. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

REFERENCE BENCHMARK:

RM110148 – HARRIS COUNTY FLOODPLAIN REFERENCE MARKER 110148 IS A BRASS DISC STAMPED "WEISSER BM–29" LOCATED ON THE WEST SIDE OF THE BARKER CYPRESS ROAD BRIDGE OVER CYPRESS CREEK.
ELEVATION=144.00' (NAVD 88, 2001 ADJ.)

TEMPORARY BENCHMARKS:

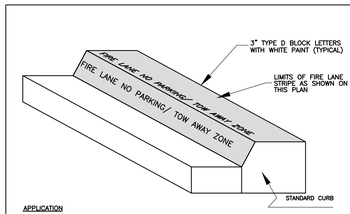
TBM "BB" – BOX CUT ON NORTHWEST CORNER OF CONCRETE SURROUNDING A GRATE INLET LOCATED ±66' SOUTHWEST FROM THE NORTHWEST CORNER OF CHAIN LINK FENCE AROUND FOOTBALL FIELD.
ELEVATION = 143.67'

TBM "CC" – BOX CUT ON "C" INLET LOCATED ±139' SOUTHEAST FROM THE MOST WESTERLY SOUTHWEST BUILDING CORNER.
ELEVATION = 145.25'

TBM "DD" – BOX CUT ON "C" INLET LOCATED ±140' EAST FROM THE MOST NORTHERLY CORNER OF TRACK.
ELEVATION = 145.38'

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED ACCESS ROAD/FIRE LANE
	EXIST. PAINT RED LANE STRIPE
	EXISTING ACCESS ROAD/FIRE LANE
	PROPOSED PAINT RED LANE STRIPE
	EXISTING FIRE HYDRANT
A	CURBS LOCATED ON EITHER SIDE OF A FIRE LANE SHALL BE PAINTED RED OR A RED STRIPE SHALL BE PLACED ALONG THE PAVEMENT WHERE THERE IS NO CURB. WHERE A FIRE LANE PASSES BETWEEN HEAD IN PARKING SPACES, THE RED STRIPE SHOULD BE PLACED ALONG THE REAR OF THESE SPACES CLEARLY DEFINING THE FIRE LANE. PAINTED CURBS AND FIRE LANE STRIPES SHALL ALSO BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE NO PARKING/TOW AWAY ZONE" OR "FIRE LANE – NO PARKING" IN WHITE LETTERS AT LEAST THREE (3) INCHES IN HEIGHT, AT INTERVALS NOT EXCEEDING (50) FEET. WHERE FIRE LANES ARE NOT CLEARLY DEFINED BY CURB/PAVEMENT STRIPING, FIRE LANE SIGNS ARE REQUIRED. FIRE LANE SIGNS SHOULD BE PLACED EVERY (75) FEET, ALTERNATING PLACEMENT OF SIGNS ON EACH SIDE OF FIRE ACCESS LANE.
B	ANY COLOR OTHER THAN RED MAY BE USED IN "NO PARKING" AREAS THAT ARE NOT APPROVED FIRE LANES. RED COLORED CURBS; PAVEMENT STRIPING OR WHEEL STOPS SHALL BE USED ONLY TO DESIGNATE APPROVED FIRE LANES. THE PLANS WILL BE APPROVED WITH THE CIVIL SITE–PLAN REVIEW BUT MAY BE REVISED AT FIRE CODE REVIEW, BY THE BUILDING OFFICIAL.



APPLICATION

1. STANDARD 6" CURB:
   PAINT RED LANE STRIPE ON BOTH FACE AND TOP OF CURB PAINT WHITE LETTERS ON FACE AND TOP OF CURB ONLY.
2. LOW CURB (HEADER CURB OR NO CURB):
   PAINT RED LANE STRIPE AND WHITE LETTERS ON TOP OF HEADER CURB OR PAVEMENT.
3. DESIGNATED CURBS SHALL BE PAINTED "RED" CURBS SHALL BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE NO PARKING/TOW–AWAY ZONE" OR "FIRE LANE – NO PARKING" IN WHITE LETTERS AT LEAST 3" IN HEIGHT, AT INTERVALS NOT EXCEEDING 50'.
4. DESIGNATED STRIPE ON PAVEMENT SHALL BE PAINTED "RED", STRIPES SHALL BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE NO PARKING/ TOW–AWAY ZONE" OR "FIRE LANE – NO PARKING" IN WHITE LETTERS AT LEAST 3" IN HEIGHT, AT INTERVALS NOT EXCEEDING 50'.

FIRE LANE DETAIL
N.T.S.

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Fax: 713-780-7824

Coleman Partners ARCHITECTS
cparch.com
3701 Kirby Drive, Suite 830
Houston TX 77098
tel 832.947.1038 fax 225.214.5365

BID SET

BROOKS & SPARKS, INC.
F–880

STATE OF TEXAS
FRANK E. BROOKS
49223
REGISTERED
PROFESSIONAL ENGINEER
02–11–25

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LANDESIGN GROUP
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HOUSTON, TX 77058
tel: 281.486.4040

2024 SMITH AND SPILLANE RENOVATIONS

SPILLANE MIDDLE SCHOOL

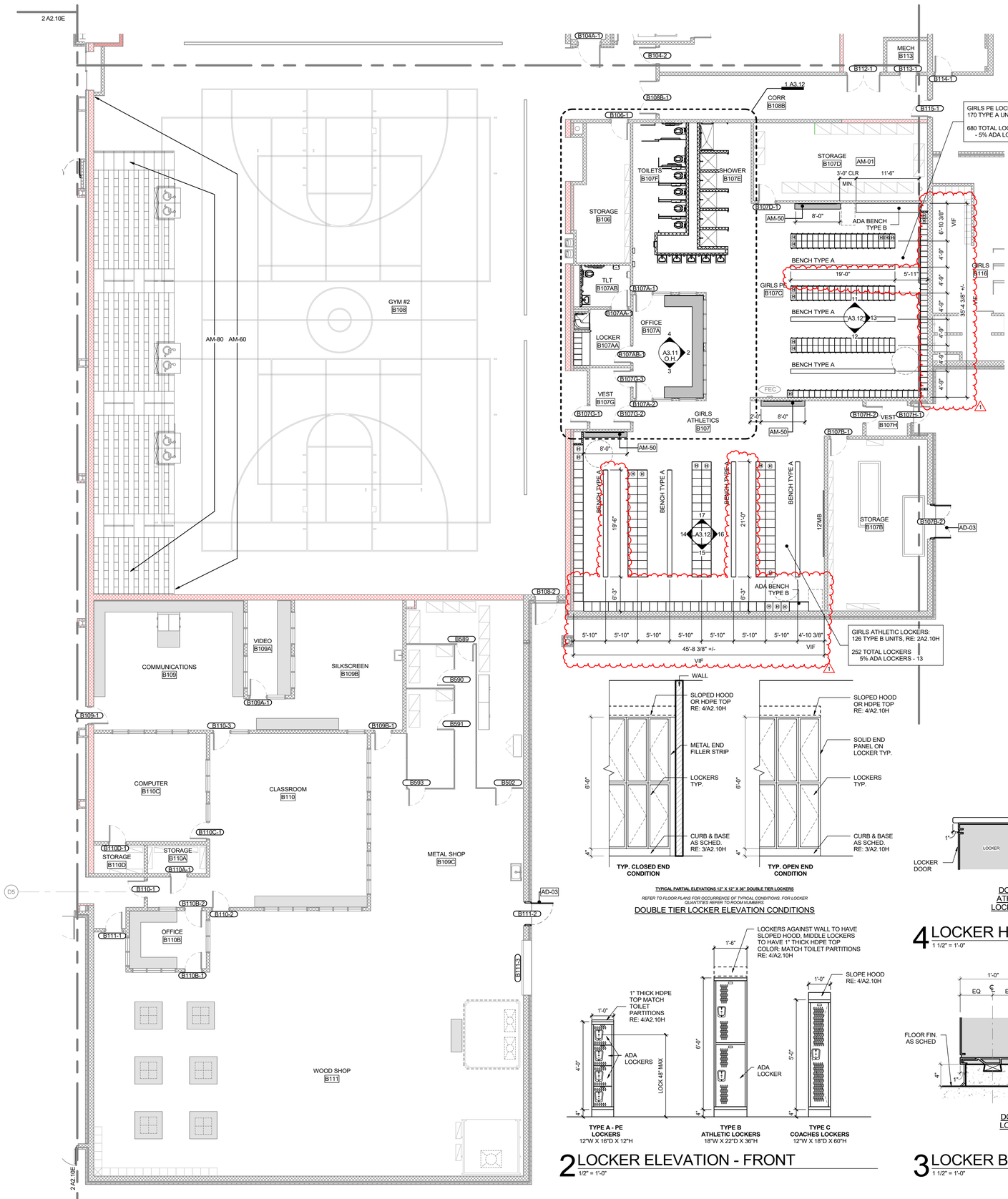
13403 WOODS SPILLANE BOULEVARD,
CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-XXX-R-RFP

1 ADDENDUM #2 02-11-25

Project Number: 24-10
Date: 01-26-25
Drawn By: JDB

FIRE ACCESS PLAN

C1.01



1 1ST FLOOR PLAN - AREA 'H'
1/8" = 1'-0"

TRUE NORTH / PROJECT NORTH

SCALE: 1/8" = 1'-0"
0' 4'-0" 8'-0" 16'-0"

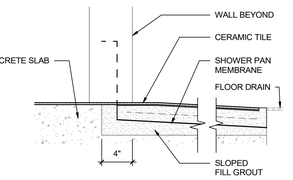
TYPICAL PARTIAL ELEVATIONS 12" X 12" X 36" DOUBLE TIER LOCKERS

REFER TO FLOOR PLANS FOR OCCURRENCE OF TYPICAL CONDITIONS. FOR LOCKER QUANTITIES REFER TO ROOM NUMBERS.

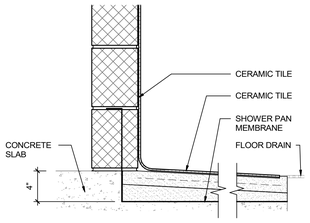
DOUBLE TIER LOCKER ELEVATION CONDITIONS

2 LOCKER ELEVATION - FRONT
1/2" = 1'-0"

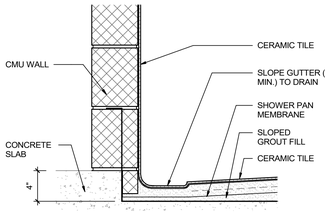
NOTE: EXISTING SHOWER DETAILS ARE FOR INFORMATION & REFERENCE ONLY. INSTALL NEW SHOWER IN SAME LOCATION AS EXISTING. SLOPE SHOWER FLOOR IN SAME MANNER AS EXISTING. INSTALL NEW SHOWER PER DRAWINGS.



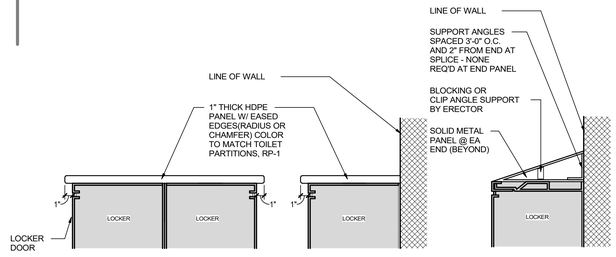
5 EXIST. SHOWER DETAIL
1 1/2" = 1'-0"



6 EXIST. SHOWER SIDE WALL DETAIL
1 1/2" = 1'-0"



7 EXIST. SHOWER BACK WALL DETAIL
1 1/2" = 1'-0"

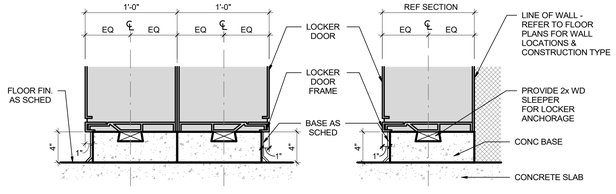


DOUBLE ROW ATHLETIC & PE LOCKER SECTION

SINGLE ROW PE LOCKER SECTION

SINGLE ROW ATHLETIC & COACHES LOCKER SECTION

4 LOCKER HOOD - SLOPED METAL
1 1/2" = 1'-0"



DOUBLE ROW LOCKER BASE SECTION

SINGLE ROW LOCKER BASE SECTION

3 LOCKER BASE - 4" HIGH
1 1/2" = 1'-0"

FLOOR PLAN RENOVATION NOTES

1. REFER TO SHEET A2.01 FOR FLOOR PLAN RENOVATION NOTES

LOCKER ROOM GENERAL NOTES

1. REFER TO D SERIES SHEETS FOR EXTENT OF LOCKER ROOM DEMOLITION WORK.
2. CONSTRUCT NEW PLUMBING WALLS IN THE SAME LOCATION AS EXISTING. NEW RESTROOM AND SHOWER LAYOUT SHOULD MATCH EXISTING. CONNECT NEW PLUMBING FIXTURES TO EXISTING SANITARY LINES UNLESS OTHERWISE SHOWN. REFER TO PLUMBING DRAWINGS.
3. CONSTRUCT CONCRETE CURB BELOW ALL NEW PARTITIONS AROUND RESTROOMS, TOILET ROOMS, SHOWER AREA, SHOWER STALLS AND COACHES LOCKER ROOM. REFER TO A4.20 FOR DETAILS.
4. REMOVE ALL FINISHES FROM EXISTING WALLS TO REMAIN. PATCH, REPAIR AND FINISH WALL AS REQUIRED TO RECEIVE NEW FINISHES.
5. INSTALL SALVAGED METAL SHELVINGS FROM EXISTING PE STORAGE ROOMS TO NEW STORAGE ROOMS. SECURE AND STRAP TO WALL.
6. PROVIDE AND INSTALL LOCKERS AS SHOWN IN PLAN. PROVIDE 4" H CONTINUOUS CONCRETE CURB UNDER ALL LOCKERS. ADA LOCKER UNITS ARE SHOWN WITH "H" SYMBOL. REFER TO SPECIFICATIONS.
7. PROVIDE AND INSTALL THE FOLLOWING AT EACH SHOWER STALL:
   - SHOWER CURTAIN, ROD AND HOOK
   - TOWEL HOOKS OUTSIDE OF SHOWER
8. HAND DRYERS SHOWN TO BE INSTALLED ON EXISTING WALLS ARE REPLACING EXISTING. REMOVE EXISTING AND INSTALL NEW IN THE SAME LOCATION.
9. RESTROOMS TO RECIEVE ALL NEW FINISHES INCLUDING BUT NOT LIMITED TO FLOOR TILES AND WALL TILES. INSTALL SAME WALL TILE IN SAME PATTERN ON ALL RESTROOM WALLS WHETHER SPECIFICALLY SHOWN OR NOT. REFER TO ELEVATIONS, FINISH PLANS AND FINISH LEGEND.
10. PROVIDE AND INSTALL THE FOLLOWING IN RESTROOMS AND TOILET ROOMS:
    - TOILET PARTITIONS AS SHOWN. RE: SPEC
    - 42" H PILASTER-MOUNTED URINAL SCREEN WHERE INDICATED (FLOOR MOUNTED TYPE)
    - COAT HOOK AT EACH TOILET PARTITION DOORS.
    - COAT HOOK BEHIND TOILET ROOM DOORS.
    - TOILET ACCESSORIES AS SHOWN AND LISTED. RE: SPEC
11. WHERE ACCESSIBLE SYMBOL IS SHOWN, PROVIDE AND INSTALL PLUMBING FIXTURES AND TOILET ACCESSORIES AS REQUIRED PER ADA / TAS. REFER TO G SERIES DRAWINGS.
12. REFER TO ELEVATIONS, FINISH PLANS AND FINISH LEGEND.
13. REFER TO CEILING PLANS FOR DEMOLITION AND NEW WORK.
14. REFER TO MEPT AND STRUCTURAL DRAWINGS FOR DEMOLITION AND NEW WORK.
15. ⚠1 GC TO FIELD VERIFY EXISTING OVERALL DIMENSIONS PRIOR TO LOCKER SHOP DRAWING SUBMITTAL TO VERIFY NUMBER OF LOCKERS SHOWN WILL FIT IN SPACE ALLOWED.

TILE INSTALLATION NOTES

1. WALL TILE PATTERN SHOWN FOR WT-1, WT-2 AND WT-3 IN RESTROOMS AND TOILET ROOMS ARE TYPICAL FOR ALL WALLS. REFER TO ELEVATIONS FOR ACCENT TILE (WT-4) PATTERNS.
2. INSTALL TILES PER MANUFACTURER'S STANDARDS AND RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO GROUT JOINT WIDTHS AND REQUIRED CONTROL JOINTS.
3. REFER TO A12.01 FOR INSTALLATION DETAILS.
4. ALIGN TILE BASE GROUT LINES WITH FLOOR TILE GROUT LINES. ALIGN WALL TILE GROUT LINES WITH TILE BASE GROUT LINES.
5. REFER TO FINISH PLANS FOR FLOOR TILE LAYOUT. SLOPE FLOOR TO DRAIN. COORDINATE FLOOR TILE LAYOUT AT AND AROUND FLOOR DRAIN.
6. PROVIDE 2" WIDE MARBLE THRESHOLD BETWEEN SHOWER MOSAIC TILE AND FLOOR TILE T-1. TYPICAL FOR ALL SHOWERS
7. PROVIDE 2" RECESSED SLAB BELOW ALL SHOWERS. INSTALL WALL AND FLOOR TILE AT SHOWER PER TILE COUNCIL OF AMERICA (TCA) GUIDELINES.
8. REFER TO SPECIFICATION SECTION 093000

KEYNOTES

AD-03	INSTALL NEW DOOR IN EXISTING FRAME. RE: DOOR SCHEDULE
AM-01	RE-INSTALL EXIST. METAL SHELVING UNITS SALVAGED DURING DEMO. FASTEN AND SECURE TO WALL.
AM-50	12" D VANITY COUNTER W/ MIRROR ABOVE. RE: INT ELEV AND DETAIL ON SHEET A2.10G
AM-60	PATCH/ REPAIR AND FINISH SURROUNDING SURFACES TO MATCH EXISTING WHERE EXISTING BLEACHER WAS REMOVED. INSTALL NEW BLEACHERS.
AM-80	INSTALL NEW BLEACHERS - REFER TO SPECIFICATIONS

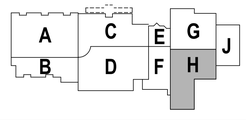
PLAN LEGEND

SYMBOL	DESCRIPTION
FE	FIRE EXTINGUISHER MOUNTED ON WALL BRACKETS
FEC	SEMI- RECESSED FIRE EXTINGUISHER AND CABINET MOUNTED ON WALL
KB	KNOX BOX LOCATION
MB / TB	MARKER BOARD / TACKBOARD RE: SPECS
D20 →	KEYNOTE - REFER TO KEYNOTE LEGEND
D20	KEYNOTE - APPLIES TO ENTIRE ROOM
A	ALIGN PARTITIONS

EXISTING PARTITIONS AND DOORS ARE SHOWN IN HALF-TONE / LIGHT GRAY LINES

NEW INTERIOR PARTITIONS WITHOUT WALL TAGS ARE TYPE "E1" UNLESS OTHERWISE NOTED.

KEY PLAN:



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CONSTRUCTION DOCUMENT

REGISTERED ARCHITECT — BRIAN COLEMAN — 02/11/2025 — STATE OF TEXAS

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1 ADDENDUM 02 02-11-25
Revisions / Submission

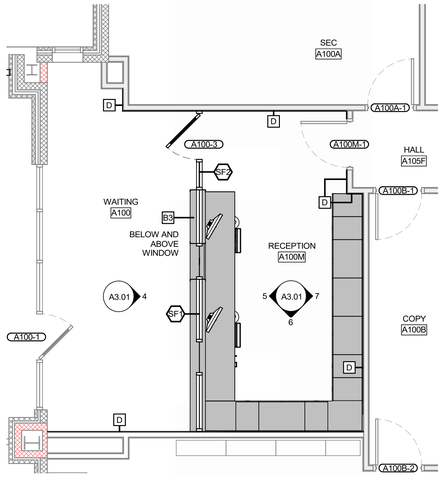
Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

1ST FLOOR PLAN AREA 'H'

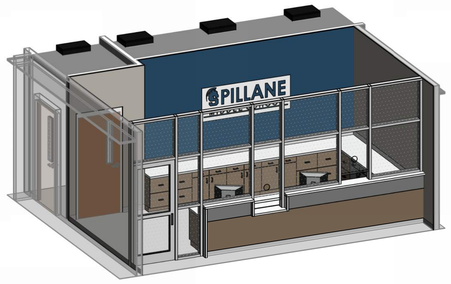
A2.10H

____ of ____

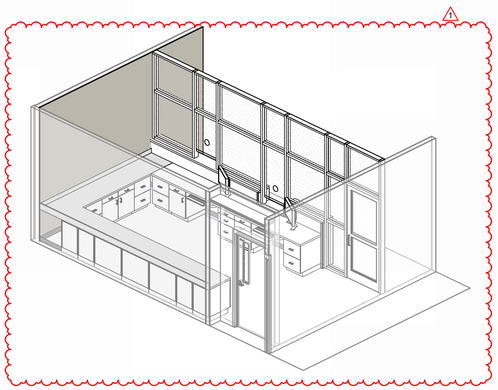
2/11/2025 3:45:47 PM



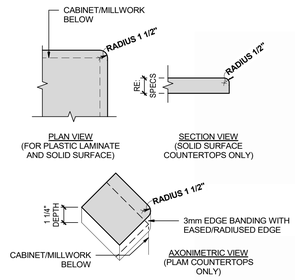
1 ENLG FLR PLAN - RECEPTION RENOVATION
1/4" = 1'-0"



2 RECEPTION - 3D VIEW



3 RECEPTION - CASEWORK

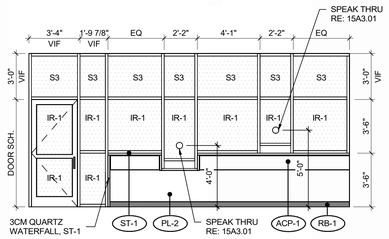


16 COUNTERTOP DETAIL
1" = 1'-0"

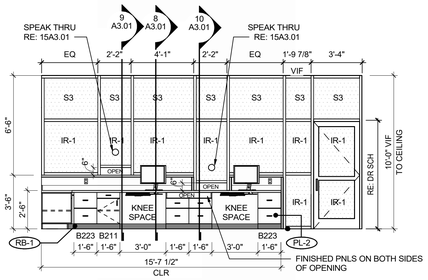
CASEWORK GENERAL NOTES

1. PROVIDE GROMMET AT COUNTERTOP ABOVE ALL WORKSTATION KNEE SPACE. CENTER GROMMET WITH KNEE SPACE AND AS CLOSE TO BACK WALL AS POSSIBLE.
2. PROVIDE LOCKS AT ALL CABINETS AND DRAWERS. RE: SPECIFICATIONS.
3. PROVIDE ACCESSORIES PER SPECIFICATION FOR ALL FILE DRAWERS.
4. ALL SHELVINGS SHOULD BE ADJUSTIBLE.
5. PROVIDE AND INSTALL PLAM CLAD PLYWD INFILL PANELS BETWEEN CABINETS AND WALLS TO COVER ALL GAPS.
6. ALL EXPOSED PANELS SHALL HAVE PLAM FINISH
7. ALL ACCESSORIES SHALL BE INSTALLED PER TYPICAL ADA GUIDELINES SHOWN ON G SHEETS

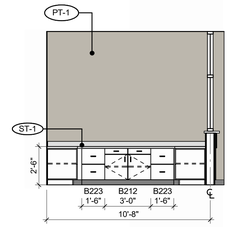
KEYNOTES



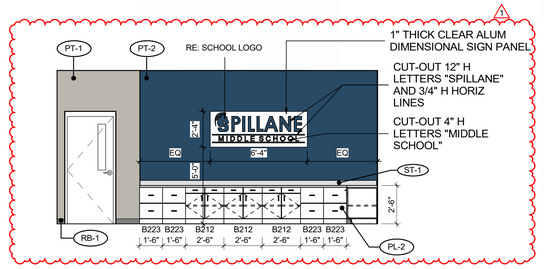
4 A100- WAITING - E
1/4" = 1'-0"



5 1126 - RECEPTION - W
1/4" = 1'-0"

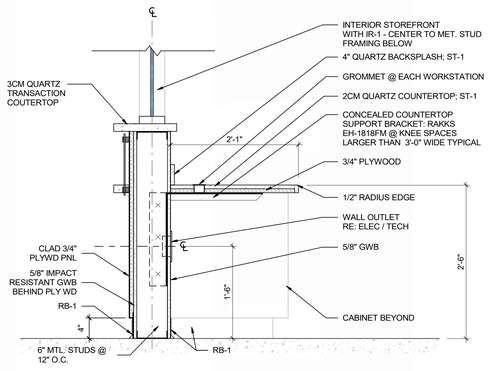


6 1126 - RECEPTION - S
1/4" = 1'-0"

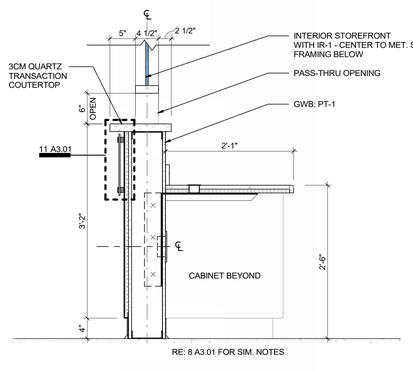


7 1126 - RECEPTION - E
1/4" = 1'-0"

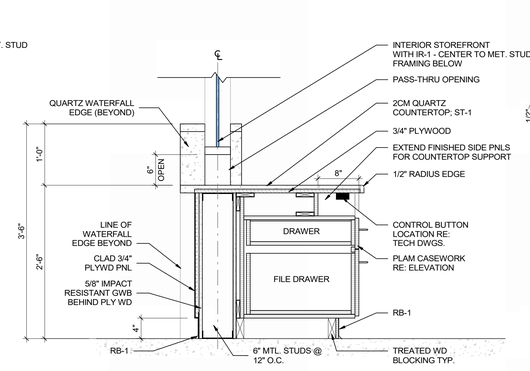
19 SCHOOL LOGO
1 1/2" = 1'-0"



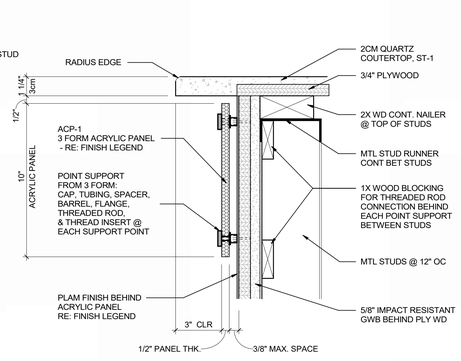
8 RECEPTION - KNEE SPACE
1" = 1'-0"



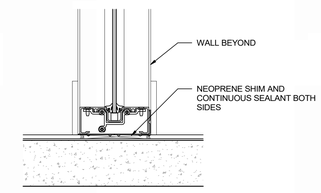
9 RECEPTION - HIGH TRANSACTION
1" = 1'-0"



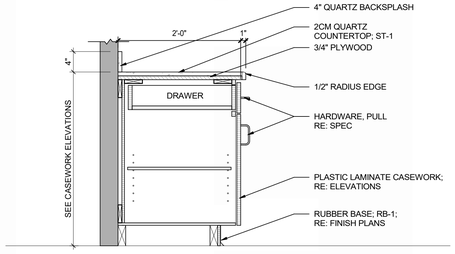
10 RECEPTION - ADA TRANSACTION
1" = 1'-0"



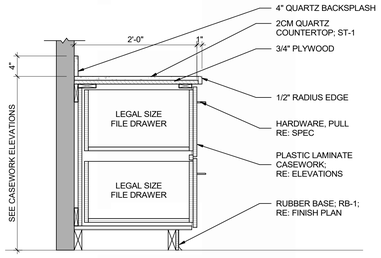
11 DETAIL - ACRYLIC PANEL
3" = 1'-0"



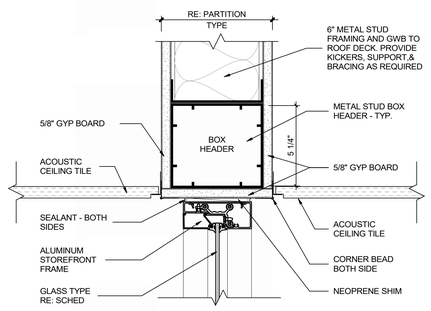
17 INT STOREFRONT - SILL
3" = 1'-0"



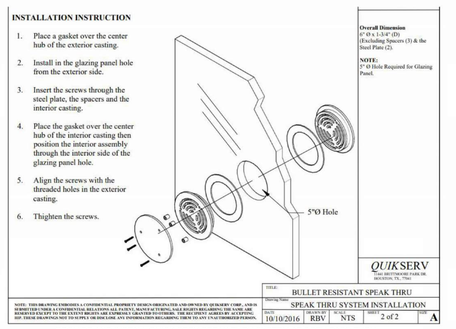
12 RECEPTION - CABINET B212
1" = 1'-0"



13 RECEPTION - FILES B223
1" = 1'-0"

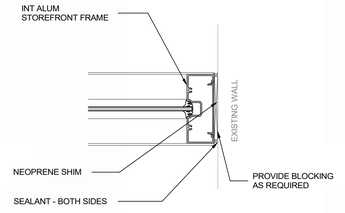


14 INT STOREFRONT - HEAD / TRANSOM
3" = 1'-0"



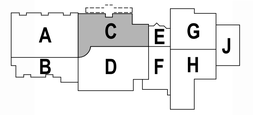
PROVIDE AND INSTALL QUICK SERV SPEAK THRU SYSTEM AT BOTH PASS-THRU WINDOWS. VERIFY HOLE SIZE IS ACCEPTABLE WITH IR-1 GLASS SYSTEM. ARMOTEX (SHERTZ, TX) IS AN ACCEPTABLE MANUFACTURER.

15 SPEAK THRU DETAIL
3" = 1'-0"



18 INT STOREFRONT - JAMB
3" = 1'-0"

KEY PLAN:



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CONSTRUCTION DOCUMENT

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02/11/2025
STATE OF TEXAS

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tel: 281.664.1900

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tel: 281.350.2323

LANDSCAPE ARCHITECT
LANDESIGN GROUP
17041 EL CAMINO REAL
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tel: 281.486.4040

2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	ADDENDUM 02	02-11-25

Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

RECEPTION PLANS & DETAILS

A3.01

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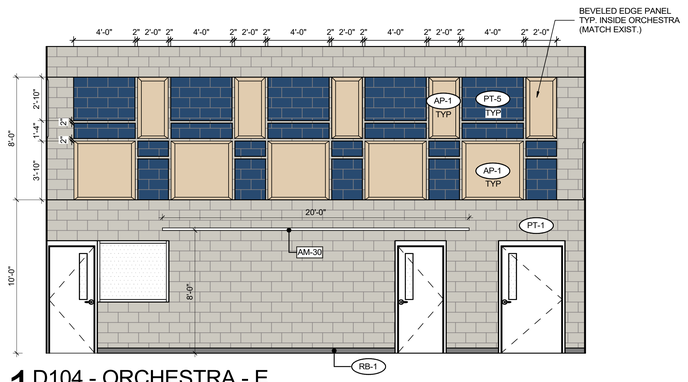
Autodesk Docs://23072_CFISD_Phase_6_r22/23073_Spillane_MS_r22.rvt



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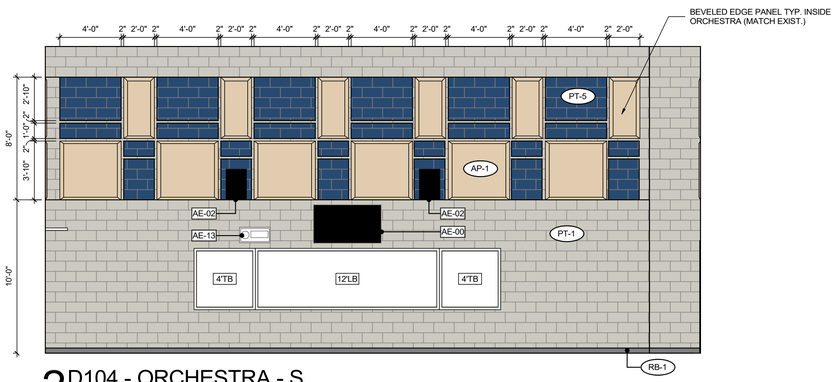

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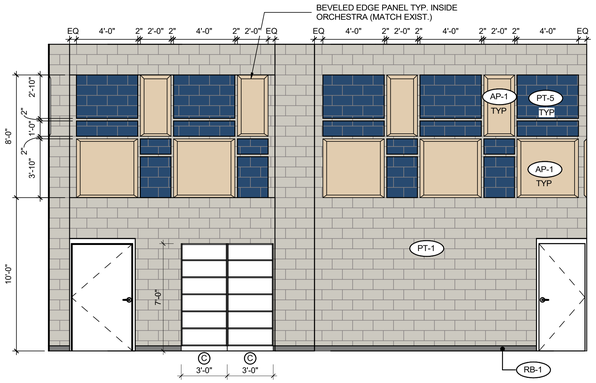

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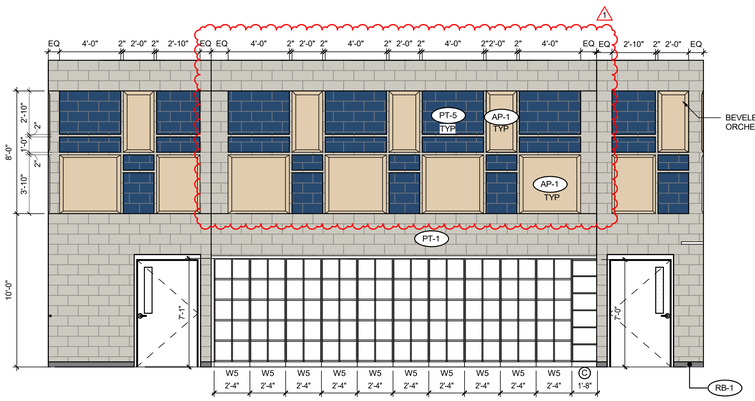

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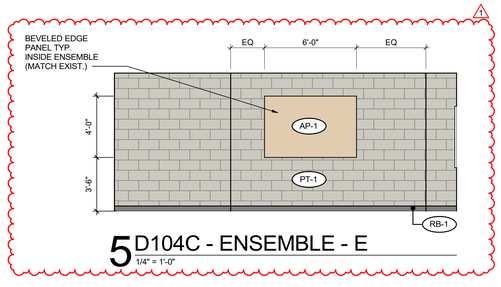

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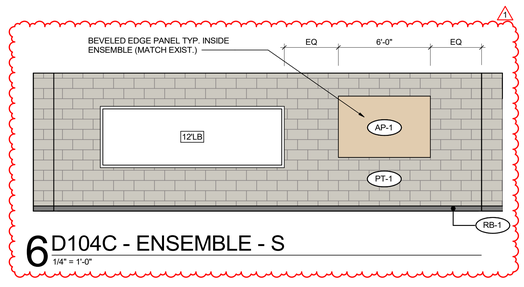

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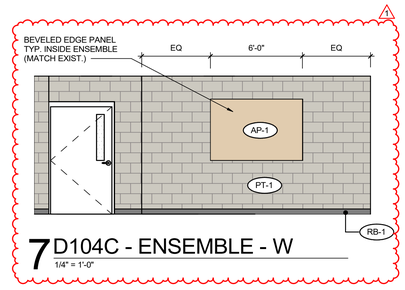

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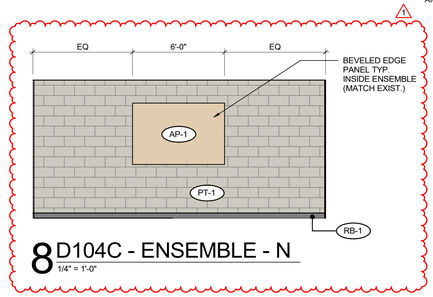

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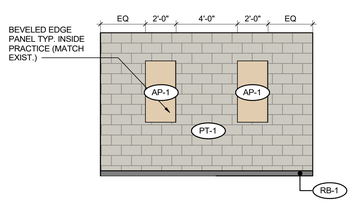

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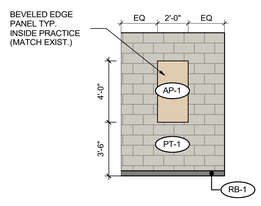

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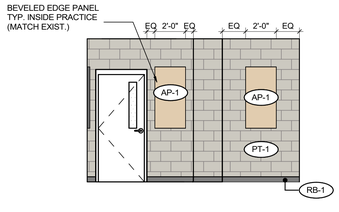

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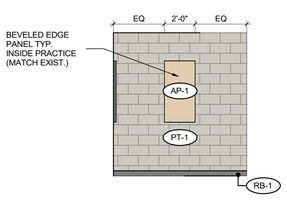

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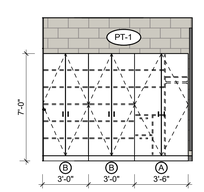


13 D104A - OFFICE - N
1/4" = 1'-0"

INTERIOR LEGEND

XX-# — MATERIAL TAG
RE: FINISH LEGEND

PT-# — PAINT TYPE TAG
RE: FINISH LEGEND

CASEWORK LEGEND

SYMBOL	DESCRIPTION
A	TEACHER CABINET (T530) RE: 4 A10.20
B	STORAGE CABINET (T402) RE: 5 A10.20
C	OPEN SHELVING CABINET (T400) RE: 6 A10.20

REFER TO CASEWORK DRAWINGS FOR ADDITIONAL INFORMATION.

INSTRUMENT CASEWORK SCHEDULE

ORCHESTRA

W5 - (10) 28"W X 85"H X 40"D INSTRUMENT STORAGE CABINET. CABINETS TO HAVE ACOUSTICAL BACKING (BASIS OF DESIGN IS WENGER #5, 5 PAIRS OF SLOTS VERTICALLY OR SIMILAR)

W15 - (1) 48"W X 85"H X 30"D STORAGE CABINET. CABINETS TO HAVE ACOUSTICAL BACKING (BASIS OF DESIGN IS WENGER #15, 2 SLOTS VERTICALLY OR SIMILAR) PROVIDE HANGING ROD IN TOP SECTION OF ONE UNIT

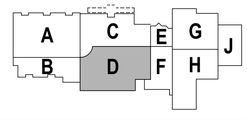
CHOIR LIBRAY/STORAGE

WML - 3 SECTION MUSIC LIBRARY STORAGE WITH ABILITY FOR FUTURE LIBRARY EXPANSION (BASIS OF DESIGN IS WENGER #173E600 OR SIMILAR)

KEYNOTES

AE-00	INTERACTIVE MONITOR (N.I.C.) - INSTALL POWER & DATA BEHIND MONITOR. RE: ELEC/TECH
AE-02	CAREFULLY REMOVE AND RELOCATE EXISTING SOUND SYSTEM AND BRACKETS TO NEW LOCATION. CONTRACTOR TO ENSURE SPEAKERS ARE FUNCTIONING BEFORE AND AFTER RENOVATION. RE: ELEC
AE-13	TOPCAT SPEAKER. RE: TECH
AM-30	NEW TROPHY SHELF - 18"D X 1" THICK PLAM CLAD WOOD SHELVING SECURED TO WALL WITH METAL BRACKETS 24" O.C. MAX.

KEY PLAN:



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tel 832.947.1036 fax 225.214.5365

CONSTRUCTION DOCUMENT

REGISTERED ARCHITECT — BRIAN CLINTON MARKS — 02/11/2025 — 24620 — STATE OF TEXAS

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

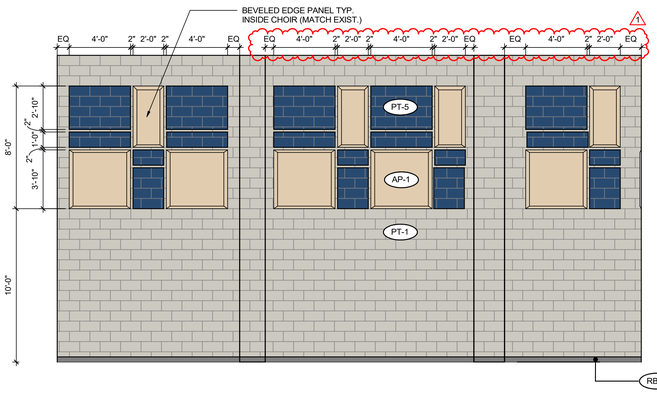
1	ADDENDUM 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELEVATIONS - FINE ARTS

A10.02

____ of ____



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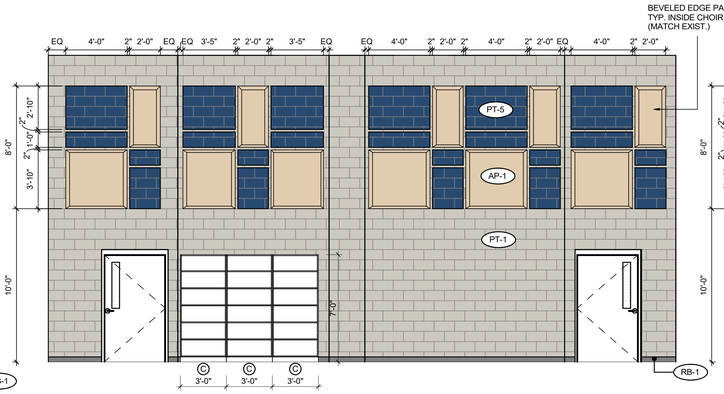

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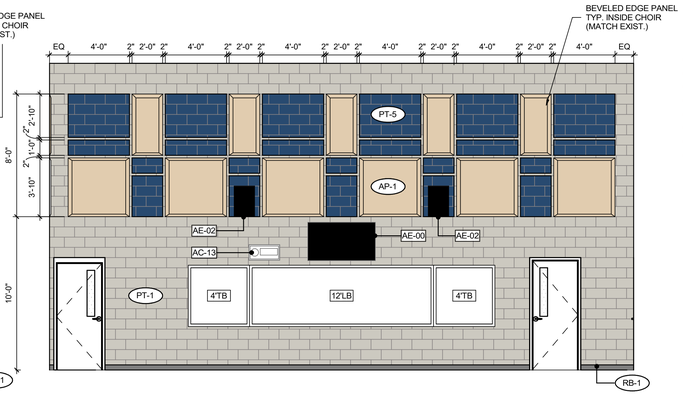

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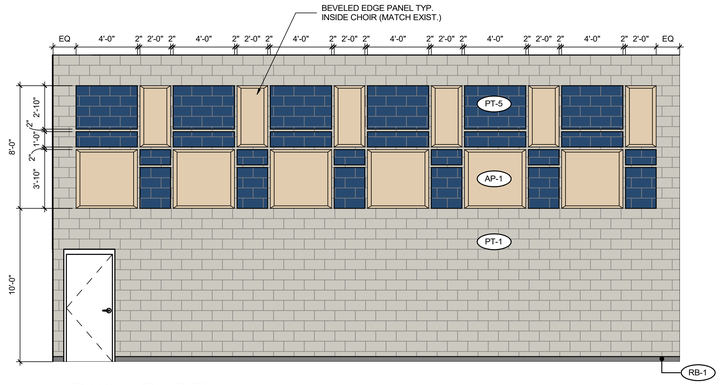

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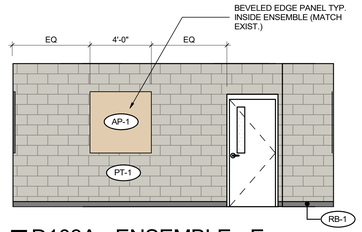

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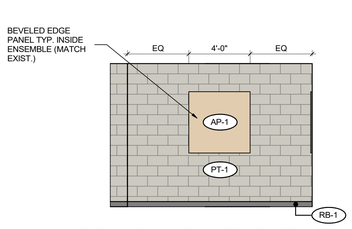
1/4" = 1'-0"



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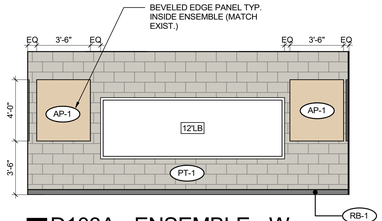
1/4" = 1'-0"



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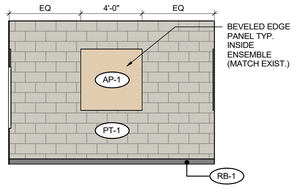

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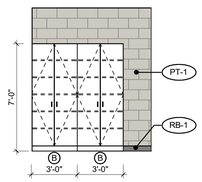

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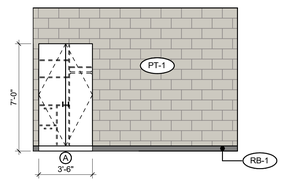


10 D103B - OFFICE - N
1/4" = 1'-0"

INTERIOR LEGEND

XX-# — MATERIAL TAG
RE: FINISH LEGEND

PT-# — PAINT TYPE TAG
RE: FINISH LEGEND

1

CASEWORK LEGEND

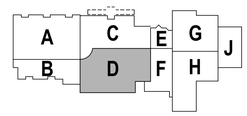
SYMBOL	DESCRIPTION
A	TEACHER CABINET (T530) RE: 4 A10.20
B	STORAGE CABINET (T402) RE: 5 A10.20
C	OPEN SHELVING CABINET (T400) RE: 6 A10.20

REFER TO CASEWORK DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES

AC-13	PATCH, REPAIR AND FINISH EXISTING GYPSUM BOARD FURR-DOWN WHERE EXISTING PROJECTION SCREEN IS REMOVED.
AE-00	INTERACTIVE MONITOR (N.I.C.) - INSTALL POWER & DATA BEHIND MONITOR. RE: ELEC/TECH
AE-02	CAREFULLY REMOVE AND RELOCATE EXISTING SOUND SYSTEM AND BRACKETS TO NEW LOCATION. CONTRACTOR TO ENSURE SPEAKERS ARE FUNCTIONING BEFORE AND AFTER RENOVATION. RE: ELEC

KEY PLAN:



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tel 832.947.1036 fax 225.214.5365

CONSTRUCTION DOCUMENT

REGISTERED ARCHITECT
BRIAN MICHAEL NATEX
02/11/2025
STATE OF TEXAS

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

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CFISD PROJECT NO: 24-02-5751-R-RFP

1 ADDENDUM 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELEVATIONS - FINE ARTS

A10.03

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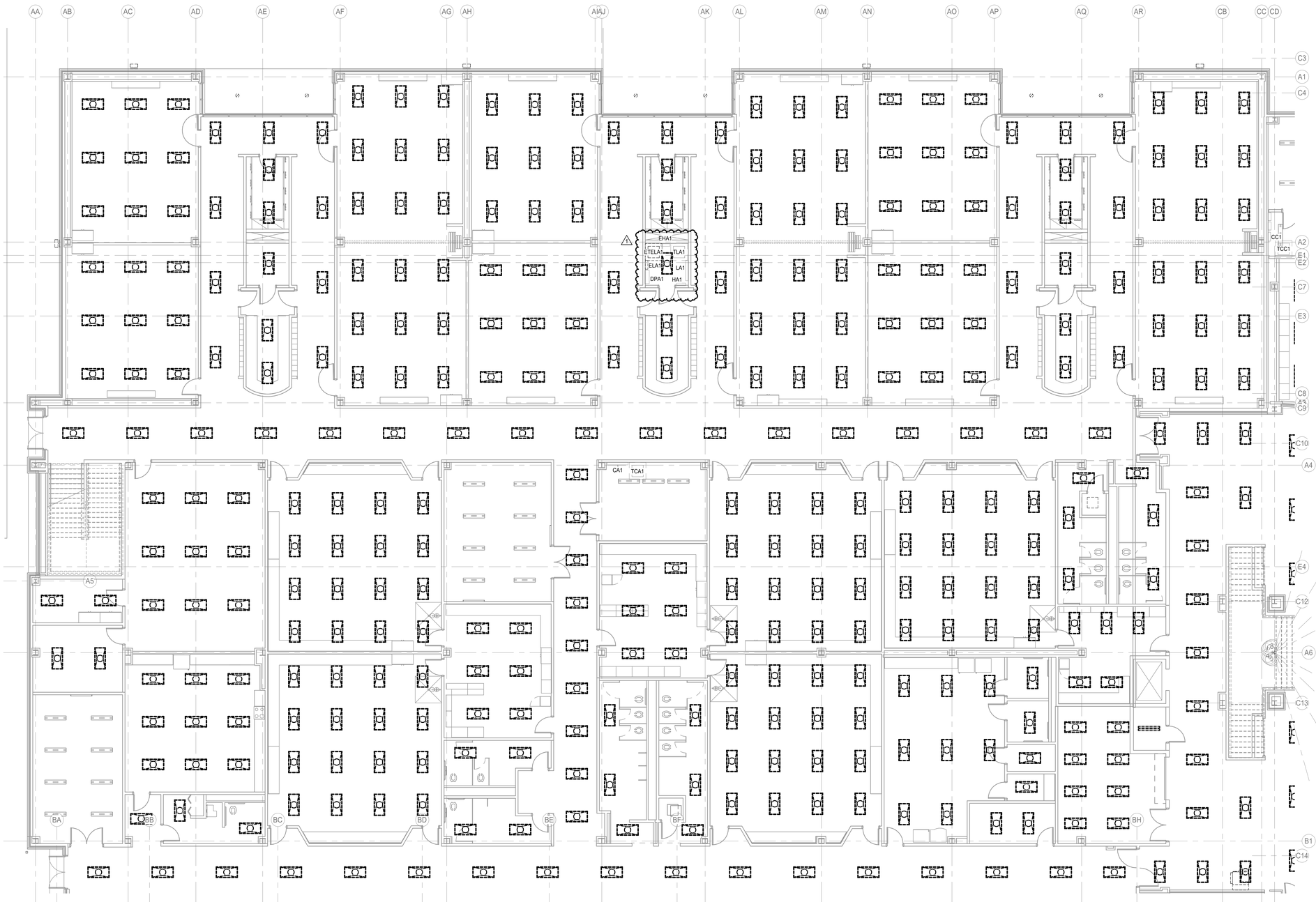

N

1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - AREA A**
Scale: 1/8" = 1'-0"

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Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

WHERE ANY NEW WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

EXISTING RACEWAYS AND LOCATION OF ELECTRICAL OUTLETS ON EXISTING WALLS TO REMAIN SHALL BE RE-USED AS PRACTICAL FOR NEW DEVICES AS PART OF NEW WORK.

ELECTRICAL DEMOLITION NOTES

1. UNLESS NOTED OTHERWISE, DISCONNECT AND REMOVE ALL EXISTING INTERIOR AND EXTERIOR LIGHTING FIXTURES AND EXIT SIGNS. UNLESS INDICATED OTHERWISE EXISTING NORMAL POWER 277V CIRCUITS TO REMAIN IN PLACE FOR RE-USE. REMOVE EXISTING 277V EMERGENCY CIRCUITS BACK TO SOURCE.
2. REMOVE ALL EXISTING LIGHTING CONTROLS EQUIPMENT AND DEVICES. INCLUDING BUT NOT LIMITED TO SWITCH-LEGS, RELAYS, LIGHTING CABINETS, H-LINK AND WEB LINK, CONTACTORS AND SENSORS. DO NOT RE-USE UNUSED LIGHTING CABINETS AS J-BOXES PART OF THE NEW LIGHTING CONTROLS SYSTEM.
3. DISCONNECT AND REMOVE ALL ELECTRICAL POWER DEVICES FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
4. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.

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CONSTRUCTION DOCUMENT

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PROFESSIONAL ENGINEER
02-11-2025

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SPILLANE MIDDLE SCHOOL

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CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02.11.25
	Revisions / Submission	

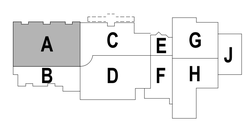
Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL DEMOLITION FIRST FLOOR PLAN - AREA 'A'

E0.01

____ of ____

KEY PLAN:



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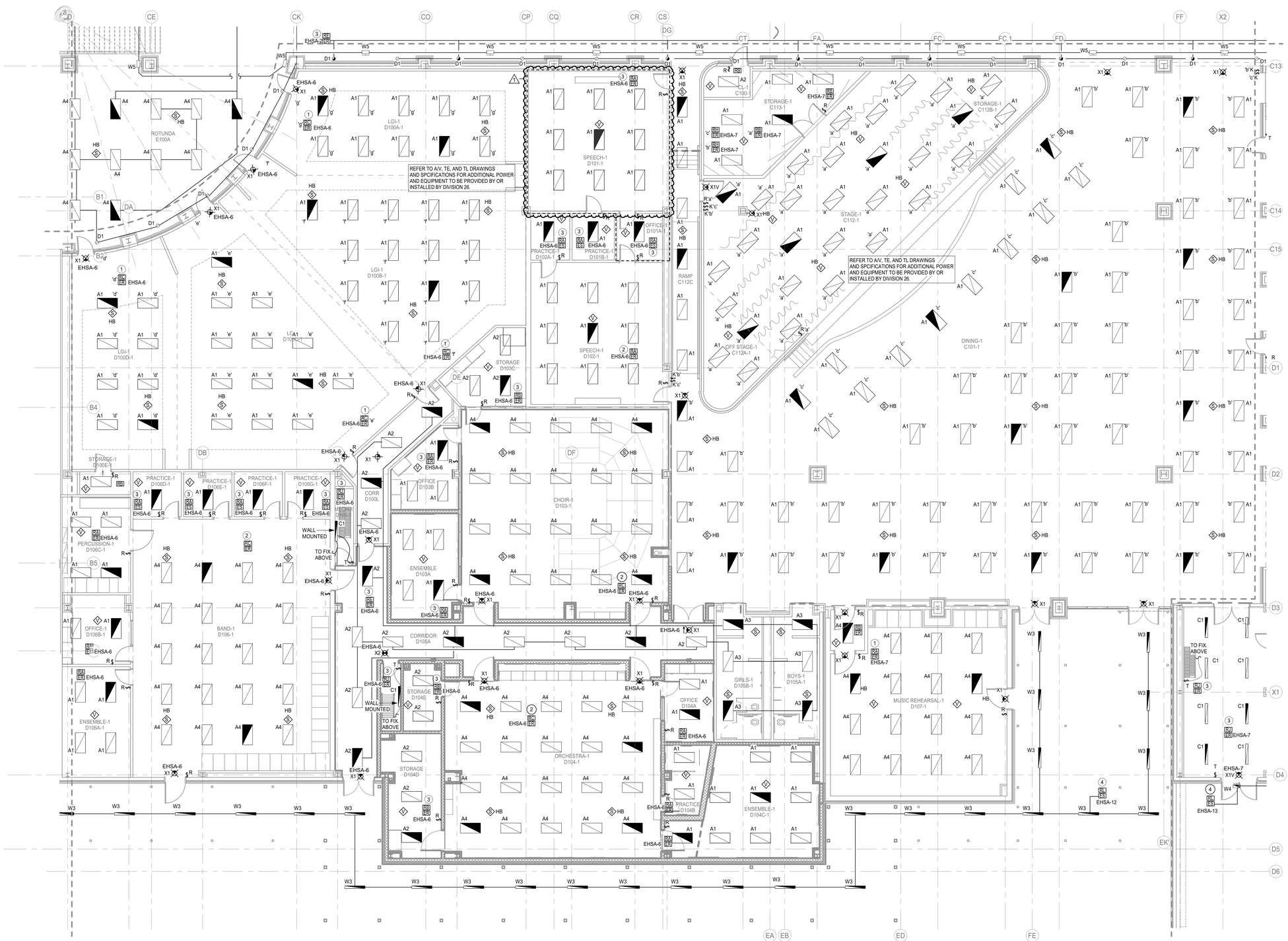

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1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA D

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

Autodesk Docs://23072_CFISD_Phase_6_/22/CFISD-SPILLANE MS_MEPT_R22.rvt

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Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2024-00209-00

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

CONTRACTOR TO FIELD COORDINATE FINAL LOCATION OF ALL REPLACEMENT AND NEW LIGHTING FIXTURES WITH EXISTING CEILING MOUNTED DEVICES, AND TO NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE NEW LIGHTING LAYOUT PRIOR TO COMMENCEMENT OF WORK.

PROVIDE NEW LIGHTING DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

PROVIDE (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR BUILDING OCCUPIED/UNOCCUPIED ADJACENT TO OR IN THE BMCS MASTER PANEL (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR EXTERIOR FACADE LIGHTING ON/OFF AND (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR PARKING LOT LIGHTING ON/OFF IN MAIN ELECTRICAL

LIGHTING GENERAL NOTES

1. CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL POWER CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 3500 W @ 277V. TYPICAL.
2. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO 26 05 33 CONDUIT SYSTEMS.
3. PROVIDE NEW LIGHTING CONTROLS, SENSORS AND ASSOCIATED DEVICES, 20A EMERGENCY LOAD CONTROL RELAYS AND/OR TRANSFER SWITCHES. REFER TO SPECIFICATIONS AND DETAIL SHEETS.
4. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
5. LOCATE DIGITAL LIGHTING CONTROLLER FOR CORRIDORS, GYM AND HIGH CEILING AREAS WITH NO ADJACENT ANCILLARY AREA ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD. PROVIDE LABEL, GRID MARKERS WITH WORDING PER SPECIFICATIONS.
6. LOCATE DIGITAL LIGHTING CONTROLLER FOR INSTRUCTIONAL SPACES AND OFFICES ABOVE ACCESSIBLE CEILING IN CORRIDOR DIRECTLY OUTSIDE OF ENTRY DOOR. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS.
7. OCCUPANCY/VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER AND IECC-2015 C405.
8. SPACES WITH MULTIPLE OCCUPANCY/VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
9. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED CIRCUITS FROM EXISTING SOURCE AND/OR NEW AS SHOWN FOR EMERGENCY FIXTURES, EMERGENCY LOAD RELAYS, TRANSFER SWITCHES AND EXIT SIGNS.
10. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MECHANICAL AND ELECTRICAL ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES.
11. PROVIDE SEPARATE RACEWAY SYSTEMS FOR LIGHTING CONTROL SYSTEM, CONTROLS WIRING (DIMMERS OR OTHERWISE) SHALL NOT BE INSTALLED IN THE SAME RACEWAY AS LINE VOLTAGE. REFER TO 26 05 33.

ELECTRICAL KEYED NOTES

1	LOCATE DIGITAL LIGHTING CONTROLLER AND IF SHOWN, PLENUM RATED, EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING IN CORRIDOR E100L. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS. REFER TO DETAILS.
2	LOCATE DIGITAL LIGHTING CONTROLLER AND IF SHOWN, PLENUM RATED, EMERGENCY LOAD CONTROL RELAY / TRANSFER SWITCH ABOVE ACCESSIBLE CEILING IN CORRIDOR / ANCILLARY SPACE DIRECTLY OUTSIDE OF ENTRY DOOR. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS. REFER TO DETAILS.
3	LOCATE DIGITAL LIGHTING CONTROLLER AND AND IF SHOWN, PLENUM RATED, EMERGENCY LOAD CONTROL RELAY / TRANSFER SWITCH WALL MOUNTED ADJACENT TO NORMAL POWER PANEL. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE WITH WORDING PER SPECIFICATIONS. REFER TO DETAILS.
4	INTERCEPT EXISTING NORMAL POWER CIRCUIT HOME RUN AND PROVIDE PER CIRCUIT (1) LISTED UL1008 TRANSFER SWITCH,(1) CONTACTOR WITH POLE QUANTITY AS REQUIRED CONTROLLED WITH BMCS. LOCATE ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD, RE-USE EXISTING NORMAL POWER CIRCUIT AND NEW EMERGENCY POWER CIRCUIT AS SHOWN. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE. REFER TO SPECIFICATIONS AND DETAIL SHEETS.

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CONSTRUCTION DOCUMENT

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

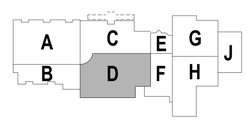
SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



ELECTRICAL LIGHTING FIRST FLOOR PLAN - AREA 'D'

E2.04

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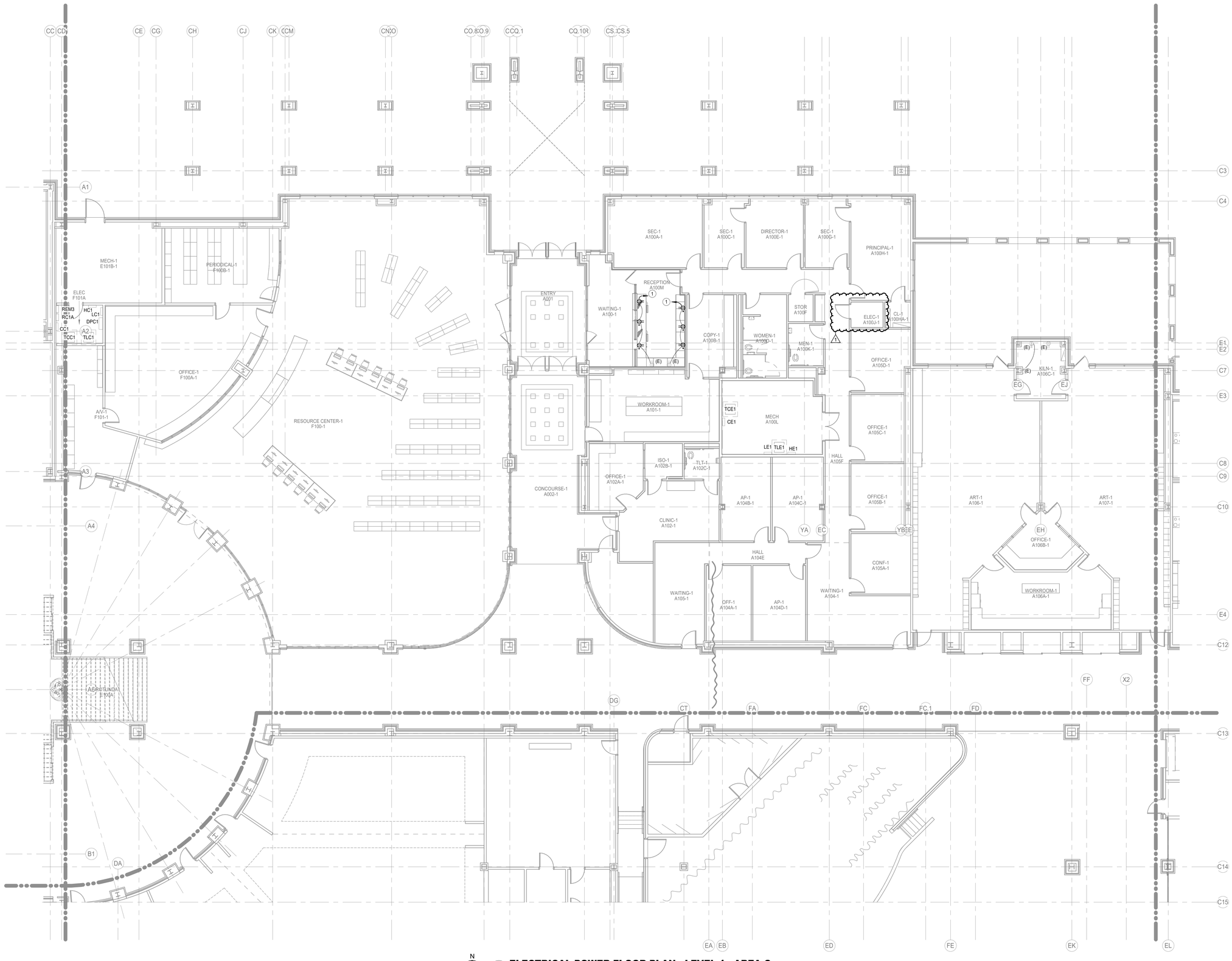

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1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA C
Scale: 1/8" = 1'-0"

Salas O'Brien
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10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

WHERE ANY WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

PROVIDE NEW POWER DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYMPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

TEMOPORARILY DISCONNECT AND REMOVE ALL CEILING / WALL MOUNTED ELECTRICAL AND FIRE ALARM DEVICES FOR AREAS THAT REQUIRE CEILING / WALL REMOVALS AND/OR REPLACEMENT, INCLUDING MECHANIAL, TECHNOLOGY, FIRE ALARM, SPRINKLERS AND PLUMBING SCOPE OF WORK. AFTER COMPLETION RELOCATE TO PREVIOUS LOCATION AS REQUIRED.

WHERE ANY EXISTING JUNCTION BOX AN/OR PULLBOX IS LOCATED AT A NEW NON-ACCESSIBLE CEILING AREA, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT ABOVE NEAREST ACCESSIBLE CEILING AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

EXISTING RACEWAYS AND LOCATION OF ELECTRICAL OUTLETS ON EXISTING WALLS TO REMAIN SHALL BE RE-USED AS PRACTICAL FOR NEW DEVICES AS PART OF NEW WORK.

POWER GENERAL NOTES

1. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMUNICATION PATHWAYS AND OTHER ADDITIONAL REQUIREMENTS TO BE PROVIDED AS SPECIFIED IN DIVISION 26.
2. WHERE ANY NEW WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.
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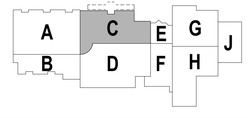
ELECTRICAL KEYED NOTES

1. PROVIDE NEW RECEPTACLES AS SHOWN AND CONNECT TO EXISTING CIRCUITS LEFT IN PLACE AFTER DEMOLITION. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V.

KEY PLAN:



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CONSTRUCTION DOCUMENT

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80219
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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

No.	Revisions / Submission	Date
1	Addendum 02	02-11-25

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'C'

E3.03

____ of ____

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Registration: F-4111
Project No: 2024-00209-00

LINE TYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

WHERE ANY WALL TERMINATES AT THE SAME LOCATION AS AN EXISTING WALL MOUNTED ELECTRICAL AND TECHNOLOGY DEVICE, CONTRACTOR SHALL RELOCATE DEVICE AND EXTEND WIRING AND CONDUIT AS INSTRUCTED BY OWNER OR ITS REPRESENTATIVE.

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ELECTRICAL KEYED NOTES

1	PROVIDE NEW RECEPTACLES AS SHOWN AND CONNECT TO EXISTING CIRCUITS LEFT IN PLACE AFTER DEMOLITION, EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 1500 W @ 120 V.
2	REPLACEMENT MOTORIZED SCREEN. CONNECT TO EXISTING CIRCUIT LEFT IN PLACE AFTER DEMOLITION. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE TO NEW LOCATION. COORDINATE CONTROL SWITCH FINAL LOCATION.
3	PROVIDE DUPLEX RECEPTACLE IN RECESSED OUTLET BOX AT 12' AFF ABOVE TEACHING WALL FOR SOUND ENHANCEMENT. COORDINATE EXACT RECEPTACLE LOCATION WITH TECHNOLOGY DRAWINGS AND ARCHITECT PRIOR TO ELECTRICAL ROUGH-IN.
4	PROVIDE POWER TO LOCAL SPEAKER SYSTEM. COORDINATE FINAL LOCATION WITH DIVISION 27.

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2024 SMITH & SPILLANE MS RENOVATIONS

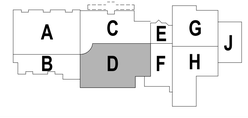
SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'D'

E3.04

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1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA D

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

2/10/2025 5:37:52 PM

Branch Panel: DPD1 — EXISTING PANEL

Location: MECH. MEZZ D202 **Supply From:** MSB1 **Mounting:** Surface
Volts: 277/480 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 65,000 **Enclosure:** Type 1 **Mains:** 600A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
	1					9.3 / 2.1							2	
	3	TLD2	ONE LINE	125	3		8.8 / 2.1		3	20	#10	AHU-3D(A)	4	
	5							9.1 / 2.1					6	
	7	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	8	
	9	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	10	
	11	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	12	
	13					0.0 / 0.0							14	
	15	AHU-1D	--	20	3		0.0 / 0.0		3	15	--	OAHU-1D	16	
	17							0.0 / 0.0					18	
	19					0.0 / 0.0							20	
	21	TCD-1	--	45	3		0.0 / 0.0		3	40	--	AHU-2D	22	
	23							0.0 / 0.0					24	
	25					0.0 / 39.0							26	
	27	HD-1	--	150	3		0.0 / 41.7		3	100	--	TLD1	28	
	29							0.0 / 40.2					30	
				Total Load:		50.4 kVA	52.7 kVA	51.4 kVA						
				Total Amps:		182 A	191 A	186 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	7.6 kVA	100.00%	7.6 kVA		
Receptacles	26.1 kVA	69.19%	18.0 kVA	Total Conn. Load:	154.5 kVA
Power	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand:	146.5 kVA
Lighting	0.0 kVA	0.00%	0.0 kVA	Total Conn. Current:	186 A
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand Current:	176 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	120.9 kVA	100.00%	120.9 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.
S - EXISTING CIRCUIT RELOCATED TO LS PANEL. RELABLE CIRCUIT AS 'SPARE' IN PANEL DIRECTORY.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

1

Branch Panel: DPG1 — EXISTING PANEL

Location: MECH-2 B112-2 **Supply From:** MSB2 **Mounting:** Surface
Volts: 277/480 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 65,000 **Enclosure:** Type 1 **Mains:** 600A

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
	1					36.6 / 0.0							2	
E	3	TLG1	--	175	3		36.6 / 0.0		3	175	--	SPARE	4	E
	5							36.6 / 0.0					6	
	7					28.1 / 4.7							8	
E	9	HG1	--	150	3		28.1 / 5.9		3	50	ONE LINE	TLG2	10	
	11							28.1 / 6.2					12	
	13					0.8 / 20.7							14	
	15	TLFS	ONE LINE	25	3		1.1 / 21.7		3	125	ONE LINE	EHSA	16	LS
	17							1.2 / 17.9					18	
	19					0.0 / 2.1							20	
E	21	SPARE	--	100	3		0.0 / 2.1		3	15	--	AHU-3G	22	E
	23							0.0 / 2.1					24	
	25					2.1 / 1.4							26	
E	27	AHU-2G	--	15	3		2.1 / 1.4		3	15	--	OAHU-2H	28	E
	29							2.1 / 1.4					30	
	31					2.1 / 2.1							32	
E	33	AHU-2H	--	15	3		2.1 / 2.1		3	15	--	AHU-3H	34	E
	35							2.1 / 2.1					36	
	37					3.0 / 3.0							38	
E	39	OAHU-1G	--	20	3		3.0 / 3.0		3	20	--	AHU-1G	40	E
	41							3.0 / 3.0					42	
	43					3.0 / 3.0							44	
E	45	OAHU-1H	--	20	3		3.0 / 3.0		3	20	--	AHU-1H	46	E
	47							3.0 / 3.0					48	
				Total Load:		112.9 kVA	115.4 kVA	112.0 kVA						
				Total Amps:		408 A	417 A	404 A						

1

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	7.5 kVA	100.00%	7.5 kVA		
Receptacles	38.6 kVA	62.96%	24.3 kVA	Total Conn. Load:	340.3 kVA
Power	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand:	334.3 kVA
Lighting	33.1 kVA	125.00%	41.3 kVA	Total Conn. Current:	409 A
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand Current:	402 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	260.2 kVA	100.00%	260.2 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.
S - EXISTING CIRCUIT RELOCATED TO LS PANEL. RELABLE CIRCUIT AS 'SPARE' IN PANEL DIRECTORY.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN
LS - PROVIDE LSI BREAKER

Branch Panel: DPM — NEW PANEL

Location: ELEC C107 **Supply From:** MSB1 **Mounting:** Surface
Volts: 277/480 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 65,000 **Enclosure:** Type 1 **Mains:** 400A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
	1					0.4 / 0.4							2	
	3	B-2 C109	#12	20	3		0.4 / 0.4		3	20	#12	B-1 C109	4	
	5							0.4 / 0.4					6	
	7					0.4 / 0.4							8	
	9	PHWP-2 C109	#12	20	3		0.4 / 0.4		3	20	#12	PHWP-1 C109	10	
	11							0.4 / 0.4					12	
	13					5.8 / 5.8							14	
	15	SHWP-2 C109	#8	40	3		5.8 / 5.8		3	40	#8	SHWP-1 C109	16	
	17							5.8 / 5.8					18	
	19					0.0 / 0.0							20	
	21	SPARE	--	20	3		0.0 / 0.0		3	40	--	SPARE	22	
	23							0.0 / 0.0					24	
	25	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	26	
	27	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	28	
	29	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	30	
				Total Load:		13.3 kVA	13.3 kVA	13.3 kVA						
				Total Amps:		48 A	48 A	48 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	39.8 kVA	100.00%	39.8 kVA		
				Total Conn. Load:	39.8 kVA
				Total Est. Demand:	39.8 kVA
				Total Conn. Current:	48 A
				Total Est. Demand Current:	48 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: EHSA — NEW PANEL

Location: MECH. MEZZ-1 G200-1 **Supply From:** DPG1 **Mounting:** Surface
Volts: 277/480 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 22,000 **Enclosure:** Type 1 **Mains:** 125A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
	1	Lighting	#12	20	1	1.7 / 0.7			1	20	#12	Lighting	2	
	3	Lighting Room F101-1, E101B-1, F100B-1,...	#12	20	1		0.8 / 1.5		1	20	#12	Lighting Room A100A-1, A100C-1, A100E-1,...	4	
	5	Lighting Room A106-1, A107-1, A106A-1, A106B-...	#12	20	1			0.8 / 2.4	1	20	#12	Lighting Room D101-1, D101A-1, D101B-1,...	6	
	7	Lighting Room C106, C109, C113-1, D107-1, C107	#12	20	1	2.0 / 2.5			1	20	#12	Lighting Room A005, C105E-1, C105F, C105D-1,...	8	
	9	Lighting Room B107G, B107A, B107AA, B107AB,...	#12	20	1		2.4 / 2.6		1	20	#12	Lighting Room B113, B112-1, B104, B102, B101C,...	10	
	11	Lighting Room B115	#12	20	1			1.6 / 0.8	1	20	#12	Lighting	12	
	13	Lighting	#12	20	1	0.4 / 0.4			1	20	#12	Lighting	14	
	15	Lighting	#12	20	1		0.2 / 0.0		1	--	--	SPACE	16	
	17	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	18	
	19	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	20	
	21	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	22	
	23	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	24	
	25	SPACE	--	--	1	0.0 / 0.0			1	20	--	SPARE	26	
	27	SPACE	--	--	1		0.0 / 0.0		1	20	--	SPARE	28	
	29	SPARE	--	20	1			0.0 / 0.0	1	20	--	SPARE	30	
	31	SPARE	--	20	1	0.0 / 1.5							32	
	33	SPARE	--	20	1		0.0 / 2.6		3	50	ONE LINE	TELSA	34	
	35	SPARE	--	20	1			0.0 / 2.4					36	
	37					11.4 / 0.0							38	
	39	EHSB	ONE LINE	125	3		11.7 / 0.0		3	30	--	SPDL	40	
	41							9.9 / 0.0					42	
				Total Load:		20.7 kVA	21.7 kVA	17.9 kVA						
				Total Amps:		76 A	80 A	65 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	6.3 kVA	100.00%	6.3 kVA		
Lighting	32.8 kVA	125.00%	41.0 kVA	Total Conn. Load:	60.3 kVA
Receptacles	21.2 kVA	73.54%	15.6 kVA	Total Est. Demand:	62.9 kVA
				Total Conn. Current:	73 A
				Total Est. Demand Current:	76 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: EHSB — NEW PANEL

Location: PREP E124A **Supply From:** EHSA **Mounting:** Surface
Volts: 277/480 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 14,000 **Enclosure:** Type 1 **Mains:** 100A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
	1	Lighting Room E134-1, E136-1, E145-1, E143-1,...	#12	20	1	0.8 / 0.9			1	20	#12	Lighting	2	
	3	Lighting	#12	20	1		0.5 / 1.2		1	20	#12	Lighting Room E133A, E133B, E132-1, E131-1,...	4	
	5	Lighting Room E100G	#12	20	1			1.2 / 0.8	1	20	#12	Lighting Room E130-1, E129-1, E128-1, E126-1,...	6	
	7	Lighting	#12	20	1	0.5 / 0.1			1	20	#12	Lighting	8	
	9	Lighting Room E235-1, E234-1, E243-1, E244-1,...	#12	20	1		0.8 / 1.0		1	20	#12	Lighting Room E200B, E200E, E200D-1, E200C	10	
	11	Lighting Room E207A-1, E245, E246-1, E236-1,...	#12	20	1			0.9 / 1.2	1	20	#12	Lighting Room E200D-2, E200H, E200F, E200G	12	
	13	Lighting Room E225-1, E224-1, E221-1, E223-1,...	#12	20	1	0.7 / 1.3			1	20	#12	Lighting	14	
	15	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	16	
	17	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	18	
	19	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	20	
	21	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	22	
	23	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	24	
	25	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	26	
	27	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	28	
	29	SPARE	--	20	1			0.0 / 0.0	1	20	--	SPARE	30	
	31	SPARE	--	20	1	0.0 / 0.0			1	20	--	SPARE	32	
	33	SPARE	--	20	1		0.0 / 0.0		1	20	--	SPARE	34	
	35	SPARE	--	20	1			0.0 / 0.0	1	20	--	SPARE	36	
	37					7.1 / 0.0							38	
	39	TELSB	ONE LINE	50	3		8.2 / 0.0		3	30	--	SPDL	40	
	41							5.8 / 0.0					42	
				Total Load:		11.4 kVA	11.7 kVA	9.9 kVA						
				Total Amps:		42 A	43 A	36 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	4.2 kVA	100.00%	4.2 kVA		
Lighting	12.0 kVA	125.00%	15.0 kVA	Total Conn. Load:	33.1 kVA
Receptacles	16.8 kVA	79.69%	13.4 kVA	Total Est. Demand:	32.7 kVA
				Total Conn. Current:	40 A
				Total Est. Demand Current:	39 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: ELA1 — REPLACEMENT

1

Location: ELEC-1 E144A-1 **Supply From:** ETELA1 **Mounting:** Surface
Volts: 120/208 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 10,000 **Enclosure:** Type 1 **Mains:** 60A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
E	1	Existing Receptacles	--	20	1	0.0 / 0.0			1	20	--	Existing Receptacles	2	E
E	3	Existing Elev. Pit Ltg\SP-1	--	20	1		0.0 / 0.0		1	20	--	Existing Elevator Cab ltg.	4	E
E	5	Existing Door Holder	--	20	1			0.0 / 0.0	1	20	--	Existing REM. Pwr Supply	6	E
E	7	Existing Door Holder	--	20	1	0.0 / 0.0			1	20	--	Existing IDF Equipment	8	E
E	9	Existing Sump Pump SP-1	--	20	1		0.0 / 0.0		1	20	--	Existing Spare	10	E
	11	ACP E100-1	#12	20	1			0.2 / 0.0	1	20	--	Existing Spare	12	E
	13	SPACE	--	--	1	0.0 / 0.0			1	20	--	Existing Spare	14	E
	15	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	16	
	17	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	18	
	19	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	20	
	21	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	22	
	23	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	24	
	25	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	26	
	27	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	28	
	29	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	30	
				Total Load:		2.4 kVA	2.4 kVA	2.5 kVA						
				Total Amps:		20 A	20 A	21 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.0 kVA	0.00%	0.0 kVA		
Receptacles	0.2 kVA	100.00%	0.2 kVA	Total Conn. Load:	7.2 kVA
Power	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand:	7.2 kVA
Lighting	0.0 kVA	0.00%	0.0 kVA	Total Conn. Current:	20 A
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	Total Est. Demand Current:	20 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	7.1 kVA		7.1 kVA

Notes:

1

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS.

CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS TO INDICATE EACH POWER SOURCE. REFER TO NEC-2023: 408.4(B) FOR DETAILS.

Branch Panel: ELE1 — EXISTING PANEL

Location: ELEC-2 A108-2 **Supply From:** ETELE1 **Mounting:** Surface
Volts: 120/208 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 10,000 **Enclosure:** Type 1 **Mains:** 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
E	1	Existing FACP	--	20	1	0.0 / 0.0			1	20	--	Existing IDF Equipment	2	E
E	3	Existing Equipment	--	20	1		0.0 / 0.0		1	20	--	Existing IDF Equipment	4	E
E	5	Existing Reach-In Refrigerator	--	20	1			0.0 / 0.0	1	20	--	Existing IDF Equipment	6	E
E	7	Existing Pass Thru Refrigerator	--	20	1	0.0 / 0.0			1	20	--	Existing Security Panel	8	E
E	9	Existing EM Receptacles	--	20	1		0.0 / 0.0		1	20	--	Existing Pass Thru Refrigerator	10	E
E	11	Existing EM Receptacles	--	20	1			0.0 / 0.0	1	20	--	Existing Pass Thru Refrigerator	12	E
E	13	Existing EM Receptacles	--	20	1	0.0 / 0.0			1	20	--	Existing Fire Protection System	14	E
E	15	Existing EM Receptacles	--	20	1		0.0 / 0.0		1	20	--	Existing REM Pwr Supply	16	E
E	17	Existing Mag. Door Holders	--	20	1			0.0 / 0.0	1	20	--	Existing REM Pwr Supply	18	E
E	19	Existing IDF Equipment	--	20	1	0.0 / 0.0			1	20	--	Existing Base Emergency	20	E
E	21	Existing IDF Equipment	--	20	1		0.0 / 0.0		1	20	--	Existing Pass Thru Refrigerator	22	E
E	23	Existing CCTV Equipment	--	20	1			0.0 / 0.4	1	20	#12	Cooler Coil C105H	24	
E	25	Existing EMS	--	20	1	0.0 / 2.7							26	
E	27	Existing MDF Equipment	--	20	1		0.0 / 2.7		3	60	#4	Refrigeration Rack	28	
E	29	Existing MDF Equipment	--	20	1			0.0 / 2.7					30	
E	31	Existing IDF Equipment	--	20	1	0.0 / 0.0			1	20	--	Existing Relays/Com	32	E
	33	Freezer Coil	#10	30	2		1.9 / 0.0		1	20	--	Existing FACP. REM. Ann. PNL	34	E
	35							1.9 / 0.0	1	20	--	Existing CCTV Equipment	36	E
	37	Drain Line Heater C105G	#10	20	1	1.9 / 0.0			1	20	--	Existing CCTV Equipment	38	E
E	39	SPARE	--	20	1		0.0 / 0.0		1	20	--	Existing IDF Equipment	40	E
E	41	Existing IDF Equipment	--	20	1			0.0 / 0.0	1	20	--	Existing Device	42	E
E	43	Existing IDF Equipment	--	20	1	0.0 / 0.0			1	20	--	Existing Device	44	E
	45	ACP C103-1	#12	20	1		0.2 / 0.0		1	20	--	Existing Device	46	E
	47	Security Panel C103-1	#12	20	1			0.2 / 0.0	1	--	--	SPACE	48	
	49	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	50	
	51	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	52	
	53	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	54	
	55	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	56	
	57	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	58	
	59	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	60	
				Total Load:		12.9 kVA	13.1 kVA	13.4 kVA						
				Total Amps:		108 A	109 A	112 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	11.9 kVA	100.00%	11.9 kVA		
Receptacles	2.6 kVA	100.00%	2.6 kVA	Total Conn. Load:	39.5 kVA
				Total Est. Demand:	39.5 kVA
				Total Conn. Current:	110 A
				Total Est. Demand Current:	110 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	25.0 kVA		25.0 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: ELSA — NEW PANEL

Location: MECH. MEZZ-1 G200-1 **Supply From:** TELSA **Mounting:** Surface
Volts: 120/208 Wye **Phases:** 3 **Wires:** 4
A.I.C. Rating: 10,000 **Enclosure:** Type 1 **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker		Wire	Circuit Description	CKT	Note
LO	1	IDF Rack - L6-30R	#10	30	2	0.5 / 0.4			1	20	#12	Receptacle	2	LO
	3						0.5 / 0.5		1	20	#12	F/A C112B-1	4	LO
LO	5	IDF Rack - L6-30R B101E	#10	30	2			0.5 / 0.4	1	20	#12	Receptacles	6	LO
	7					0.5 / 0.2			1	20	#12	ACP B101E	8	LO
	9	DMSCU-3	#10	30	2		1.1 / 0.5		2	30	#10	IDF Rack - L6-30R IDF-1 C103-1	10	LO
	11							1.1 / 0.5					12	
	13	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	14	
	15	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	16	
	17	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	18	
	19	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	20	
	21	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	22	
	23	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	24	
	25	SPACE	--	--	1	0.0 / 0.0			1	--	--	SPACE	26	
	27	SPACE	--	--	1		0.0 / 0.0		1	--	--	SPACE	28	
	29	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	30	
	31	SPACE	--	--	1	0.0 / 0.0			1	20	--	SPARE	32	
	33	SPACE	--	--	1		0.0 / 0.0		1	20	--	SPARE	34	
	35	SPARE	--	20	1			0.0 / 0.0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0.0 / 0.0							38	
	39	SPARE	--	20	1		0.0 / 0.0		3	30	--	SPDL	40	
	41	SPARE	--	20	1			0.0 / 0.0					42	
				Total Load:		1.5 kVA	2.6 kVA	2.4 kVA						
				Total Amps:		13 A	22 A	21 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	2.1 kVA	100.00%	2.1 kVA		
Receptacles	4.4 kVA	100.00%	4.4 kVA	Total Conn. Load:	6.5 kVA
				Total Est. Demand:	6.5 kVA
				Total Conn. Current:	18 A
				Total Est. Demand Current:	18 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

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CONSTRUCTION DOCUMENT

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SPILLANE MIDDLE SCHOOL
13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25

Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL PANEL SCHEDULES

E5.01

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Autodesk Docs://23072_CFSID_Phase_6_r22/CFISD-SPILLANE MS_MEPT_R22.rvt

2/10/2025 5:37:52 PM

Branch Panel: LJ1 — EXISTING PANEL

Location: CORR B113 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXIST.
Supply From: | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 50A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
E	1	Receptacles	--	20 1	0.7 / 0.9			1	20 --	Receptacles	2	E
E	3	Receptacles - 110B	--	20 1		0.5 / 0.7		1	20 --	Receptacles	4	E
E	5	Receptacles	--	20 1			0.7 / 0.7	1	20 --	Receptacles	6	E
E	7	Receptacles	--	20 1	0.5 / 0.5			1	20 --	Receptacles	8	E
E	9	Receptacles	--	20 1		0.5 / 1.0		1	20 --	Receptacles - Cord Reel 110B	10	E
E	11	Receptacles	--	20 1			0.5 / 0.5	1	20 --	Receptacles	12	E
E	13	Drop Receptacles	--	20 1	1.0 / 0.9			1	20 --	Receptacles	14	E
E	15	Drop Receptacles	--	20 1		1.0 / 0.5		1	20 --	Receptacles	16	E
E	17	GUH-1	--	20 1			0.7 / 0.0	1	20 --	SPARE	18	E
	19	Boiler Controls C109	#12	20 1	0.4 / 0.4			1	20 #12	Boiler Controls C109	20	
	21	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	22	
	23	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	24	
	25	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	26	
	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	
	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	
		Total Load:			5.3 kVA	4.3 kVA	3.2 kVA					
		Total Amps:			46 A	37 A	27 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.0 kVA	0.00%	0.0 kVA		
Receptacles	0.7 kVA	100.00%	0.7 kVA	**Total Conn. Load:**	12.8 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:**	12.8 kVA
Lighting	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:**	36 A
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand Current:**	36 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	12.1 kVA	100.00%	12.1 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

S - EXISTING CIRCUIT RELOCATED TO LS PANEL. RELABLE CIRCUIT AS 'SPARE' IN PANEL DIRECTORY.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

Branch Panel: ELSB — NEW PANEL

Location: PREP E124A | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TELSB | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	DMSCU-1 E100H	#10	30 2	1.1 / 0.5			2	30 #10	IDF Rack - L6-30R	2	
	3					1.1 / 0.5					4	LO
	5	Receptacle	#12	20 1			0.4 / 0.5	2	30 #10	IDF Rack - L6-30R	6	
LO	7	IDF Rack - L6-30R	#10	30 2	0.5 / 0.5						8	LO
	9					0.5 / 1.2		1	20 #10	IDF Rack - L6-20R E229A	10	LO
	11	DMSCU-2 E200G	#10	30 2			1.1 / 0.2	1	20 #12	Door Access Controls D105A	12	LO
	13				1.1 / 0.5						14	
LO	15	FACP - Red Bkr E100-1	#12	20 1		0.5 / 0.5		2	30 #10	IDF Rack - L6-30R E201-1	16	LO
LO	17	IDF Rack - L6-30R E201-1	#10	30 2			0.5 / 1.2	1	20 #8	IDF Rack - L6-20R E201-1	18	LO
	19				0.5 / 0.5			2	30 #10	IDF Rack - L6-30R E201-1	20	LO
LO	21	IDF Rack - L6-20R E201-1	#8	20 1		1.2 / 0.5					22	
	23						0.5 / 0.5	1	20 #10	SP.LER.01 D101A-1	24	
LO	25	IDF Rack - L6-30R E201-1	#10	30 2	0.5 / 0.5			1	20 #10	SP.LER.01 D101A-1	26	
	27	SP.LER.01 D101A-1	#10	20 1		0.5 / 1.2		1	20 #6	SS.LRP.01 D101A-1	28	
	29	SP.LER.01 D101A-1	#10	20 1			0.5 / 0.5	2	30 #10	IDF Rack - L6-30R E229A	30	LO
LO	31	IDF Rack - L6-30R E229A	#10	30 2	0.5 / 0.5						32	
	33					0.5 / 0.0		1	-- --	SPACE	34	
	35	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	36	
	37	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	38	
	39	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	40	
	41	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	42	
	43	SPACE	--	-- 1	0.0 / 0.0			1	20 --	SPARE	44	
	45	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	46	
	47	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	48	
	49	SPARE	--	20 1	0.0 / 0.0						50	
	51	SPARE	--	20 1		0.0 / 0.0		3	30 --	SPDL	52	
	53	SPARE	--	20 1			0.0 / 0.0				54	
		Total Load:			7.1 kVA	8.2 kVA	5.8 kVA					
		Total Amps:			61 A	70 A	48 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	4.2 kVA	100.00%	4.2 kVA		
Receptacles	16.8 kVA	79.69%	13.4 kVA	**Total Conn. Load:**	21.0 kVA
				Total Est. Demand:	17.6 kVA
				Total Conn. Current:	58 A
				Total Est. Demand Current:	49 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: LB1 — EXISTING PANEL

Location: | **Volts:** 120/208 Wye | **A.I.C. Rating:** Exist.
Supply From: | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 225A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
E	1	Existing Receptacles	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	2	E
E	3	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	4	E
E	5	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Receptacles	6	E
E	7	Existing Receptacles	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	8	E
E	9	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	10	E
E	11	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Receptacles\EF-1C	12	E
E	13	Existing Receptacles	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	14	E
E	15	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	16	E
E	17	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing EDFs	18	E
E	19	Existing Vending Machine	--	20 1	0.0 / 0.0			1	20 --	Existing Vending Machine	20	E
E	21	Existing Vending Machine	--	20 1		0.0 / 0.0		1	20 --	Existing Vending Machine	22	E
E	23	Existing Refrigerator	--	20 1			0.0 / 0.0	1	20 --	Existing Refrigerator	24	E
E	25	Existing Microwave	--	20 1	0.0 / 0.0			1	20 --	Existing EF-6B\EF-7B	26	E
E	27	Existing Appliance	--	20 1		0.0 / 0.0		1	20 --	Existing Disposer	28	E
E	29	Existing Appliance	--	20 1			0.0 / 0.0	1	20 --	Existing EF-8B	30	E
E	31	Existing Appliance	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	32	E
E	33	Existing Hand Dryer	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	34	E
E	35	Existing Hand Dryer	--	20 1			0.0 / 0.0	1	20 --	Existing Receptacles	36	E
E	37	Existing Hand Dryer	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	38	E
E	39	Existing Hand Dryer	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	40	E
E	41	Existing Microwave	--	20 1			0.0 / 0.0	1	20 --	Existing Receptacles	42	E
E	43	Existing Receptacles\BF-1	--	20 1	0.0 / 0.0			1	20 --	Existing Refrigerator	44	E
E	45	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	46	E
E	47	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Receptacles	48	E
E	49	Existing Receptacles	--	20 1	0.0 / 0.0			1	20 --	Existing Appliance	50	E
E	51	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	52	E
E	53	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Appliance	54	E
E	55	Existing Appliance	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	56	E
E	57	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Projector	58	E
E	59	Existing Appliance	--	20 1			0.0 / 0.4	1	20 #12	Maint. Receptacle E100H, E200G	60	
E	61	Existing Receptacles	--	20 1	0.0 / 0.0			1	20 --	Existing Projector	62	E
E	63	Existing Receptacles	--	20 1		0.0 / 0.0		1	20 --	Existing Refrigerator	64	E
E	65	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Hand Dryer	66	E
E	67	Existing Dishwasher	--	20 1	0.0 / 0.0			1	20 --	Existing Hand Dryer	68	E
E	69	Existing Proj. Screen	--	20 1		0.0 / 0.0		1	20 --	Existing Hand Dryer	70	E
E	71	Existing Receptacles	--	20 1			0.0 / 0.0	1	20 --	Existing Hand Dryer	72	E
	73				0.0 / 0.0						74	
E	75	Existing Range	--	60 2		0.0 / 0.0		2	20 --	Existing Dryer	76	E
E	77	Existing Proj. Screen	--	20 1			0.0 / 0.0	1	20 --	Existing Washer	78	E
E	79	Existing Dryer	--	20 1	0.0 / 0.0			1	20 --	Existing Receptacles	80	E
E	81	Existing Projector	--	20 1		0.0 / 0.0		1	20 --	Existing Receptacles	82	E
	83	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	84	
		Total Load:			24.6 kVA	24.6 kVA	24.9 kVA					
		Total Amps:			205 A	205 A	208 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.0 kVA	0.00%	0.0 kVA		
Receptacles	0.4 kVA	100.00%	0.4 kVA	**Total Conn. Load:**	74.1 kVA
Power	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:**	74.1 kVA
Lighting	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Current:**	206 A
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand Current:**	206 A

Existing Loads	Connected Load	Demand Factor	Estimated Demand
Existing	73.7 kVA		73.7 kVA

Notes:
EXISTING PANEL - Total Calculated Existing Load shown in calculations.

S - EXISTING CIRCUIT RELOCATED TO LS PANEL. RELABLE CIRCUIT AS 'SPARE' IN PANEL DIRECTORY.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF...
LO - PROVIDE PERMANENT LOCK-ON...
E - EXISTING LOAD TO REMAIN

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS.

CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS TO INDICATE EACH POWER SOURCE. REFER TO NEC-2023: 408.4(B) FOR DETAILS.

Branch Panel: LD2 — NEW PANEL

Location: MECH. MEZZ D202 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 18,000
Supply From: TLD2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 250A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Receptacle C112-1	#10	20 1	0.7 / 0.5			1	20 #12	SP.LER.01 C113-1	2	
	3	SP.LER.01 C113-1	#12	20 1		0.5 / 0.5		1	20 #12	SP.LER.01 C113-1	4	
	5						3.0 / 1.7				6	
	7	SP.LRP.01 C113-1	ONE LINE	100 3	3.0 / 1.7			3	20 #10	ETC Prodigy Hoist Assembly	8	
	9					3.0 / 1.7					10	
	11	Projector C101-1	#8	20 1			1.2 / 0.5	1	20 #12	Receptacles	12	
	13	Receptacles	#10	20 1	0.7 / 0.7			1	20 #12	Receptacle	14	
	15	Receptacle	#10	20 1		1.1 / 0.7		1	20 #12	Receptacle	16	
	17	Receptacles D104D	#12	20 1			0.5 / 0.7	1	20 #12	Receptacles D104E	18	
	19	Receptacles, GFCI Receptacle	#12	20 1	0.7 / 0.2			1	20 #12	Receptacles	20	
	21	Receptacles D103-1	#12	20 1		0.2 / 1.2		1	20 #10	SF-4D	22	
	23	Receptacle C101-1	#12	20 1			0.4 / 1.1	1	20 #12	Receptacle, Receptacle D103B	24	
	25	Receptacle, Receptacles , D103-1	#12	20 1	0.9 / 0.2			1	20 #12	Local Speakers ORCHESTRA-1 D104-1	26	
	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	
	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	
	31	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	32	
	33	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPACE	34	
	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	
	37	SPARE	--	20 1	0.0 / 0.0						38	
	39	SPARE	--	20 1		0.0 / 0.0		3	30 --	SPDL	40	
	41	SPARE	--	20 1			0.0 / 0.0				42	
		Total Load:			9.3 kVA	8.8 kVA	9.1 kVA					
		Total Amps:			78 A	74 A	76 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	1.2 kVA	100.00%	1.2 kVA		
Receptacles	26.1 kVA	69.19%	18.0 kVA	**Total Conn. Load:**	27.3 kVA
				Total Est. Demand:	19.2 kVA
				Total Conn. Current:	76 A
				Total Est. Demand Current:	53 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: LFS — NEW PANEL

Location: ATHLETICS STORAGE... | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLFS | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 60A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
PH	1	Exterior Lighting	#12	20 1	0.0 / 0.3			1	20 #12	Lighting	2	
	3	Receptacles ATHLETICS STORAGE BUILDING...	#12	20 1		0.5 / 0.5		1	20 #12	Receptacles , GFCI Receptacle S1000,	4	
	5	EF-SB-1 S1000	#12	20 1			1.2 / 0.0	1	-- --	SPACE	6	
	7	Receptacles S1000	#12	20 1	0.5 / 0.0			1	-- --	SPACE	8	
	9	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	10	
	11	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	12	
	13	SPARE	--	20 1	0.0 / 0.0			1	20 --	SPARE	14	
	15	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	16	
	17	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	18	
		Total Load:			0.8 kVA	1.1 kVA	1.2 kVA					
		Total Amps:			7 A	9 A	10 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	1.2 kVA	100.00%	1.2 kVA		
Lighting	0.3 kVA	125.00%	0.4 kVA	**Total Conn. Load:**	3.1 kVA
Receptacles	1.6 kVA	100.00%	1.6 kVA	**Total Est. Demand:**	3.2 kVA
				Total Conn. Current:	9 A
				Total Est. Demand Current:	9 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
PH - CONTROLLED VIA PHOTOCELL

Branch Panel: LG2 — NEW PANEL

Location: MECH. MEZZ-1 G200-1 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLG2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
C	1	Circulating Fan	#10	20 1	0.7 / 0.7			1	20 #10	Circulating Fan	2	C
C	3	Circulating Fan	#10	20 1		0.7 / 0.7		1	20 #10	Circulating Fan	4	C
C	5	Circulating Fan B107-1	#10	20 1			0.7 / 0.7	1	20 #10	Circulating Fan	6	C
C	7	Circulating Fan	#10	20 1	0.7 / 0.7			1	20 #10	Circulating Fan	8	C
LF	9	Hand Dryer	#10	30 1		1.5 / 1.5		1	30 #10	Hand Dryer	10	LF
LF	11	Hand Dryer	#8	30 1			1.5 / 1.5	1	30 #8	Hand Dryer	12	LF
	13	Receptacle	#12	20 1	0.4 / 0.4			1	20 #12	Receptacle	14	
	15	Receptacle	#12	20 1		0.4 / 0.4		1	20 #12	Receptacle	16	
	17	Receptacle	#12	20 1			0.4 / 0.4	1	20 #12	Receptacle	18	
	19	Receptacle B107-1	#12	20 1	0.4 / 0.4			1	20 #12	Receptacle B107-1	20	
	21	Receptacle B107-1	#12	20 1		0.4 / 0.4		1	20 #12	Receptacle B107-1	22	
	23	EF-2G B101E	#12	20 1			0.5 / 0.5	1	20 #12	EF-2H B107F	24	
LF	25	Trap Primer B101B-1	#12	20 1	0.2 / 0.2			1	20 #12	Trap Primer B107B-1	26	LF
	27	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	28	
	29	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	30	
	31	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	32	
	33	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	34	
	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	
	37	SPARE	--	20 1	0.0 / 0.0						38	
	39	SPARE	--	20 1		0.0 / 0.0		3	30 --	SPDL	40	
	41	SPARE	--	20 1			0.0 / 0.0				42	
		Total Load:			4.7 kVA	5.9 kVA	6.2 kVA					
		Total Amps:			39 A	51 A	53 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	1.0 kVA	100.00%	1.0 kVA		
Receptacles	15.7 kVA	81.81%	12.9 kVA	**Total Conn. Load:**	16.7 kVA
				Total Est. Demand:	13.9 kVA
				Total Conn. Current:	46 A
				Total Est. Demand Current:	38 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
C - CONTROLLED VIA CONTACTOR

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Project No: 2024-00209-00

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CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
02-11-2025

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
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SUITE 460
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MEPT ENGINEER
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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL PANEL SCHEDULES

E5.02

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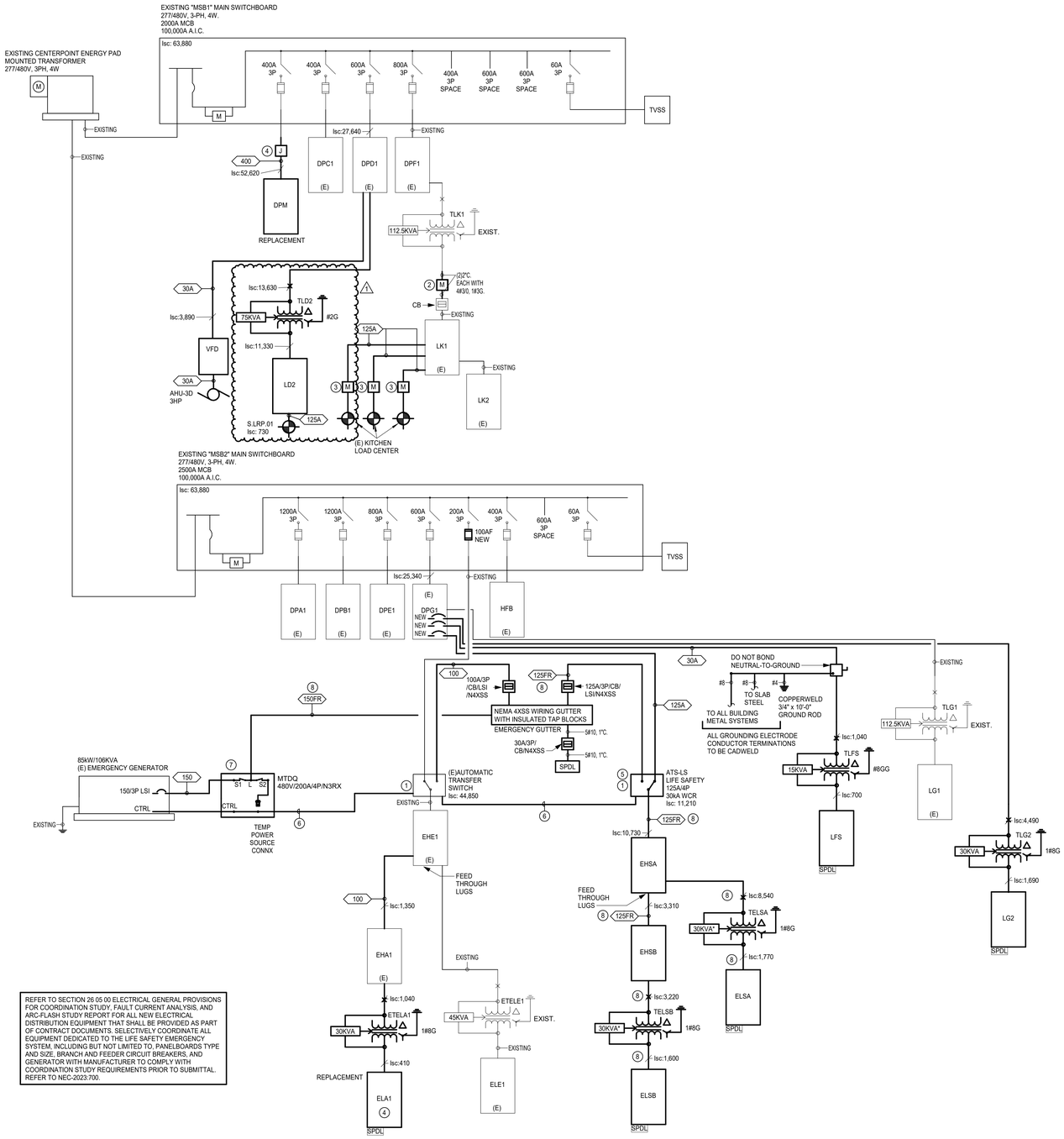

N

1 PARTIAL ONE LINE DIAGRAM

Scale: N.T.S.

(E)ATS AVAILABLE FAULT CURRENT

PROVIDE LABEL WITH LETTERING ON CONTRASTING BACKGROUND PERMANENTLY AFFIXED TO THE SERVICE DISCONNECT / EQUIPMENT PRIOR TO ENERGIZING THE SERVICE EQUIPMENT. THE LABEL SHALL INCLUDE THE DATE OF INSTALLATION AND THE DATE OF CALCULATION. THE DATE OF CALCULATION SHALL BE THE DATE INDICATED BY THE ENGINEER OF RECORD'S SEAL ON THE CONSTRUCTION DOCUMENT ELECTRICAL ONE-LINE DIAGRAM / RISER DRAWING. REFER TO SPECIFICATIONS.

SERVICE EQUIPMENT AVAILABLE FAULT CURRENT: 44,850 A
DATE OF INSTALLATION: MM/DD/YYYY
DATE OF CALCULATION: 11/12/2024

ATS-LS AVAILABLE FAULT CURRENT

PROVIDE LABEL WITH LETTERING ON CONTRASTING BACKGROUND PERMANENTLY AFFIXED TO THE SERVICE DISCONNECT / EQUIPMENT PRIOR TO ENERGIZING THE SERVICE EQUIPMENT. THE LABEL SHALL INCLUDE THE DATE OF INSTALLATION AND THE DATE OF CALCULATION. THE DATE OF CALCULATION SHALL BE THE DATE INDICATED BY THE ENGINEER OF RECORD'S SEAL ON THE CONSTRUCTION DOCUMENT ELECTRICAL ONE-LINE DIAGRAM / RISER DRAWING. REFER TO SPECIFICATIONS.

SERVICE EQUIPMENT AVAILABLE FAULT CURRENT: 11,630 A
DATE OF INSTALLATION: MM/DD/YYYY
DATE OF CALCULATION: 11/12/2024

SINCE EXACT FAULT CURRENT INFORMATION IS CURRENTLY NOT AVAILABLE FROM CENTERPOINT ENERGY, CENTERPOINT ENERGY'S TRANSFORMER SECONDARY FAULT CURRENT TABLES HAVE BEEN USED TO PERFORM THE SHORT CIRCUIT CURRENT CALCULATIONS USING POINT-TO-POINT METHOD.

ELECTRICAL LOAD ANALYSIS

MSB1

480 / 277, 3PH, 4W

LOAD DESCRIPTION	NEC-2023 CRITERIA	LOAD KVA
PEAK DEMAND 603 @125%	220.87	754
LIGHTING (CONNECTED) x 1.25	215.2	0*
RECEPTACLES (CONNECTED)	220.47	25.9
1st 10KVA @100%	220.47	10
REMAINDER @50%	220.47	7.9
HVAC - FANS, PUMPS, AHUs	220	47.4
TOTAL		819.3

819.3 / 480 V / sqrt3 = 986 A
2500 A SERVICE PROVIDED

*OVERALL LIGHTING LOAD REDUCED BY LED LIGHTING UPGRADES. REPRESENTED AS ZERO TO SHOW THAT NO ADDITIONAL LIGHTING LOAD WILL BE BE ADDED TO THIS SERVICE.

ELECTRICAL LOAD ANALYSIS

MSB2

480 / 277, 3PH, 4W

LOAD DESCRIPTION	NEC-2023 CRITERIA	LOAD KVA
PEAK DEMAND 603 @125%	220.87	754
LIGHTING (CONNECTED) x 1.25	215.2	0*
RECEPTACLES (CONNECTED)	220.47	53
1st 10KVA @100%	220.47	10
REMAINDER @50%	220.47	21.5
HVAC - FANS, PUMPS, AHUs	220	20.4
TOTAL		805.9

805.9 / 480 V / sqrt3 = 970 A
2000 A SERVICE PROVIDED

*OVERALL LIGHTING LOAD REDUCED BY LED LIGHTING UPGRADES. REPRESENTED AS ZERO TO SHOW THAT NO ADDITIONAL LIGHTING LOAD WILL BE BE ADDED TO THIS SERVICE.

UNLESS NOTED OTHERWISE, RETAIN IN PLACE ALL EXISTING CIRCUITS AND FEEDER FROM SOURCE FOR ALL EXISTING PANELS LABELED TO BE REPLACED AND / OR RELOCATED. EXTEND / RE-ROUTE EXISTING BRANCH CIRCUITS AND FEEDER LEFT IN PLACE AFTER DEMOLITION FROM EXISTING PANELS TO BE RELOCATED AND / OR REPLACED.

CONTRACTOR TO FIELD VERIFY INTERRUPTING FAULT CURRENT CAPACITY OF EXISTING PANELS AND / OR SWITCHBOARDS AND TO PROVIDE NEW BREAKERS/FUSES TO MATCH EXISTING.

TWO-HOUR FIRE RATED CABLE:

1. TWO-HOUR FIRE RATED POWER CABLE SHALL BE APPROVED BY THE LOCAL AHJ AND INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS IN COMPLIANCE WITH UL FIRE RESISTANCE DIRECTORY, ELECTRICAL CIRCUIT PROTECTIVE SYSTEMS (FHIT), AND SYSTEM 27.

2. TWO-HOUR FIRE RATED POWER CABLE SHALL HAVE FIRST RIGHT OF REFUSAL AS APPROVED BY THE LOCAL AHJ IN STEEL EMT OR STEEL RIGID CONDUIT WITH STEEL SET SCREW OR THREADED FITTINGS. UL LISTED FLEXIBLE METALLIC STEEL CONDUIT MAY BE USED IN LENGTHS NOT TO EXCEED 6-FEET. SUPPORT CONDUIT EVERY 5-FEET ON CONCRETE OR MASONRY WALLS OR A CONCRETE FLOOR-CEILING ASSEMBLY. THE FIRE RATING OF THE WALL OR FLOOR-CEILING ASSEMBLY MUST BE EQUAL TO OR GREATER THAN THE RATING OF THE ELECTRICAL CIRCUIT PROTECTIVE SYSTEM. PROVIDE J-BOX AT EACH END OF THE FIRE RATED CABLES IN THE FIRE RATED ROOM TO ALLOW SPLICE TO STANDARD BUILDING CABLE TO THE EQUIPMENT. PROVIDE SEALANT TO THE END OF THE RACEWAY TO PREVENT GASES FROM MIGRATING FROM THE FIRE RATED CABLE DOWN INTO THE EQUIPMENT.

INSULATION FOR TWO-HOUR FIRE RATED POWER CABLE:

1. INSULATION SHALL MEET OR EXCEED THE REQUIREMENTS OF UL 2196 FIRE TEST FOR CIRCUIT INTEGRITY OF FIRE-RESISTIVE POWER, INSTRUMENTATION, CONTROL AND DATA CABLES, AND UL 44, THERMOSET INSULATED WIRES AND CABLES.

a. INSULATION FOR CONDUCTORS SHALL BE UL TYPE RHW-2 OR RW90, 90 DEGREES C FOR WET LOCATIONS AND 90 DEGREES C FOR DRY LOCATIONS
b. ELECTRICAL CIRCUIT PROTECTIVE SYSTEMS (FHIT) – SYSTEM 27 OF THE UL FIRE RESISTANCE DIRECTORY.

GENERATOR LOAD ANALYSIS

277 / 480, 3PH, 4W

LOAD DESCRIPTION	LOAD KVA
LIGHTING x 1.25	41
RECEPTACLES	15.6
HVAC - FAN's, AHU's	6.3
EXISTING LOAD	41
TOTAL	103.9

GENERATOR CAPACITY - 85 kW / 106 kVA

LINETYPE LEGEND

———	EXISTING TO REMAIN
- - - -	DISCONNECT AND REMOVE
———	NEW WORK

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS.

CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS TO INDICATE EACH POWER SOURCE. REFER TO NEC-2023: 408.4(B) FOR DETAILS.

ELECTRICAL RISER KEYED NOTES

1. PROVIDE DRY CONTACT FOR INDIVIDUAL MONITORING INTERFACE WITH SECURITY PANEL FOR EACH ATS.
2. 3PH, 4W, 120/208V, 800A RATED REVENUE GRADE SUBMETER FOR LOAD AT FEEDERS AS SHOWN ON DIAGRAM. E-MON D-MON 3400 SERIES DEMAND METER. SUBMETER SHALL MEASURE KWH AND DEMAND AND WITH BACK-NET COMPATIBILITY.
3. 3PH, 4W, 120/208V, 100A RATED REVENUE GRADE SUBMETER FOR LOAD AT FEEDERS AS SHOWN ON DIAGRAM. E-MON D-MON 3400 SERIES DEMAND METER. SUBMETER SHALL MEASURE KWH AND DEMAND AND WITH BACK-NET COMPATIBILITY.
4. EXTEND/RE-ROUTE ALL EXISTING BRANCH CIRCUIT AND FEEDER CONDUCTORS/ CONDUIT FROM EXISTING PANEL WITH MATCHING SIZE TO REPLACEMENT/ RELOCATED PANEL.
5. PROVIDE PHASE SEQUENCE MONITOR/BALANCE MODULE TO PROTECT AGAINST INADVERTENT PHASE ROTATION HOOKUP AND MONITOR FOR VOLTAGE PHASE IMBALANCE BETWEEN PHASES.
6. 1"C. TO ATS FOR CONTROL WIRING REFER TO SPECIFICATIONS AND COORDINATE WITH MANUFACTURER. TYPICAL.
7. DOUBLE-THROW MANUAL TRANSFER SWITCH WITH INTEGRATED QUICK-CONNECTS IN SINGLE PACKAGE. REFER TO SPECIFICATIONS.
8. PROVIDE TWO-HOUR FIRE RATED CABLE.

FEEDER SCHEDULE

TAG	AMPERAGE	# SETS	CONDUCTOR (QTY.)/SIZE	GROUND (QTY.)/SIZE	CONDUIT
30A	30A	1	(4) #10	#10	3/4"C
100	100A	1	(4) #1	#8	1-1/4"C
125A	125A	1	(4) #1/0	#6	2"C
125FR	125A	1	(4) #1/0	#6	2-1/2"C
150	150A	1	(4) #1/0	#6	2"C
150FR	150A	1	(4) #1/0	#6	2-1/2"C
400	400A	2	(4) #3/0	#3	2-1/2"C

1 CONDUIT QUANTITIES BASED ON 3-PHASE, 4-WIRE SYSTEM; FOR EQUIPMENT THAT DOES NOT REQUIRE A NEUTRAL OR IS SINGLE PHASE, DEDUCT
2 CONDUCTOR SIZES BASED ON NEC TABLE 310.16 - COPPER 75°.
3 GROUND SIZES BASED ON NEC TABLE 250.122 - COPPER.
4 CONDUIT FILL BASED ON NEC ANNEX C - THW CONDUCTOR INSULATION.

TRANSFORMER FEEDER SCHEDULE

PRIMARY (480V 3PH 3W + GND)			SECONDARY (208V 3PH 4W + GND)			
KVA	WIRE & CONDUIT	PRIMARY BREAKER	WIRE & CONDUIT	XFMR GRND	SECONDARY BREAKER	NOTES
15KVA	3#8,1"C,1#10G	3P-25A	4#6,1-1/4",1#8G	#8G	3P-60A	
30KVA	3#6,1"C,1#10G	3P-50A	4#1,2"C,1#8G	1#8	3P-100A	
30KVA*	3#6,1-1/4"C,1#10G	3P-50A	4#1,2-1/2"C,1#8G	1#8	3P-100A	*FIRE RATED
75KVA	3#1,1-1/4"C,1#6G	3P-125A	4#250KCMIL,3"C,1#4G	#2	3P-250A	

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Registration: F-4111
Project No: 2024-00209-00

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cparch.com
3701 Kirby Drive, Suite 830
Houston, TX 77098
tel 832.947.1036 fax 225.214.5365

CONSTRUCTION DOCUMENT

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
02-11-2025

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
tel: 281.578.9595

STRUCTURAL ENGINEER
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9800 RICHMOND AVE.
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tel: 281.350.2323

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LANDESIGN GROUP
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SUITE 204
HOUSTON, TX 77058
tel: 281.486.4040

2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

ELECTRICAL ONE-LINE DIAGRAM

E6.02

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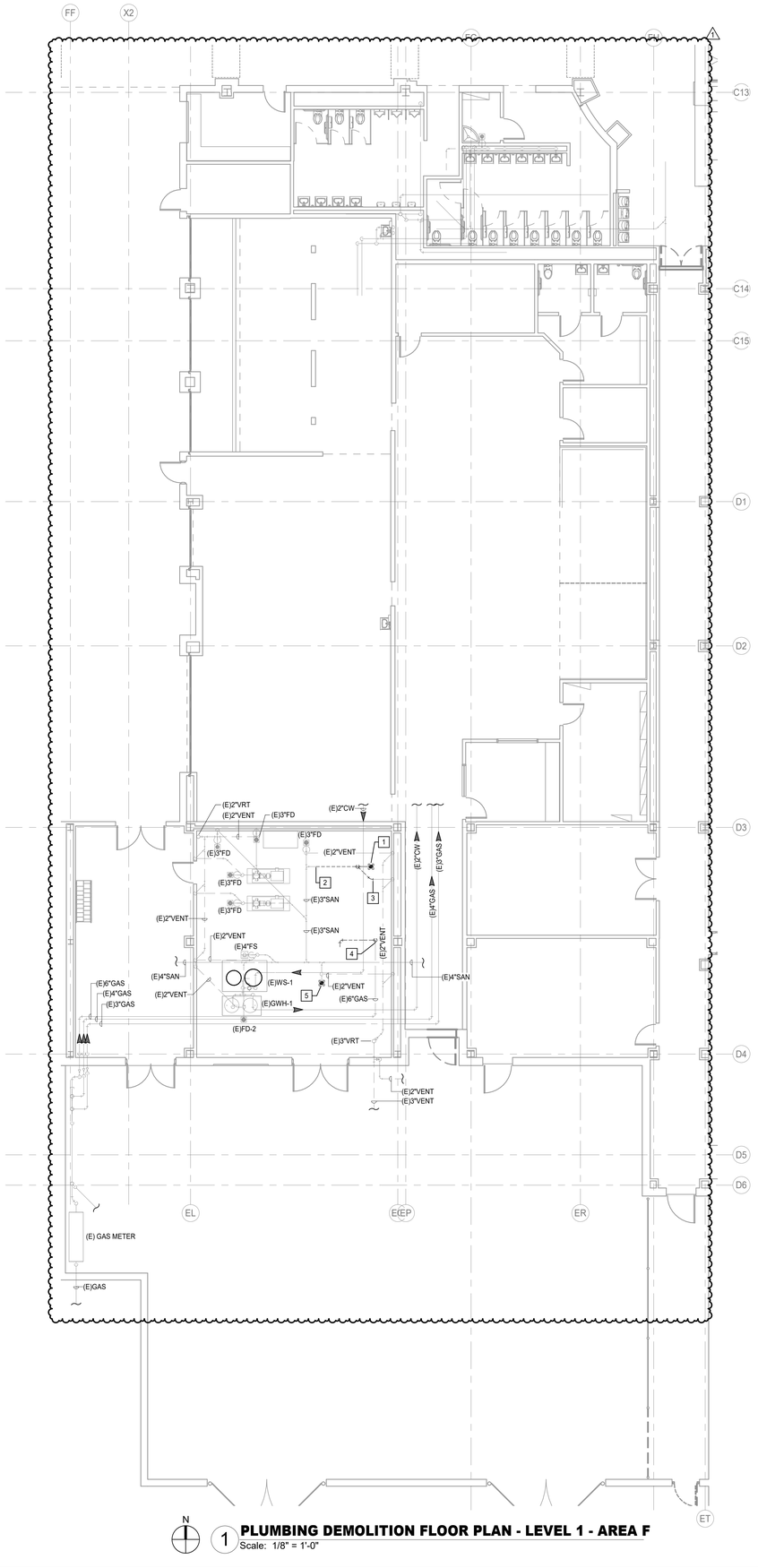

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1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - AREA F**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1. EXISTING FLOOR DRAIN TO BE REMOVED. REMOVE SANITARY WASTE AND VENT BACK TO POINT INDICATED AND CAP BELOW GRADE.
2. REMOVE EXISTING SANITARY BACK TO THIS POINT.
3. REMOVE EXISTING VENT BACK TO THIS POINT.
4. REMOVE EXISTING 6" GAS PIPE BACK FROM THE OLD BOILER TO THIS POINT AND CAP.
5. EXISTING FLOOR DRAIN TO BE REMOVED. REMOVE SANITARY WVASTE BACK TO MAIN AND CAP BELOW GRADE.

PLUMBING GENERAL NOTES

1. DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. ANY OTHER ITEMS NOT REFERENCED WHICH ARE LOCATED IN THE DEMOLISHED SPACE (VENT, WASTE, WATER HEATER, PLUMBING FIXTURE, ETC.) THAT ARE IDENTIFIED OR DISCOVERED DURING DEMOLITION WHICH WILL NOT BE USED FOR THIS PROJECT, SHALL BE DEMOLISHED BACK TO THE MAIN SOURCE OR RISER, AND DEVICES SHALL BE RETAINED TO THE OWNER STORAGE AS DIRECTED BY THE ARCHITECT/OWNER.
5. OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL PLUMBING FIXTURES/ EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO PUMPS, HEATERS, AND STAINLESS STEEL SINKS. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

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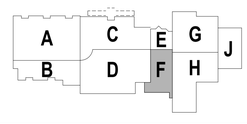
1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING
DEMOLITION FIRST
FLOOR PLAN - AREA 'F'

KEY PLAN:



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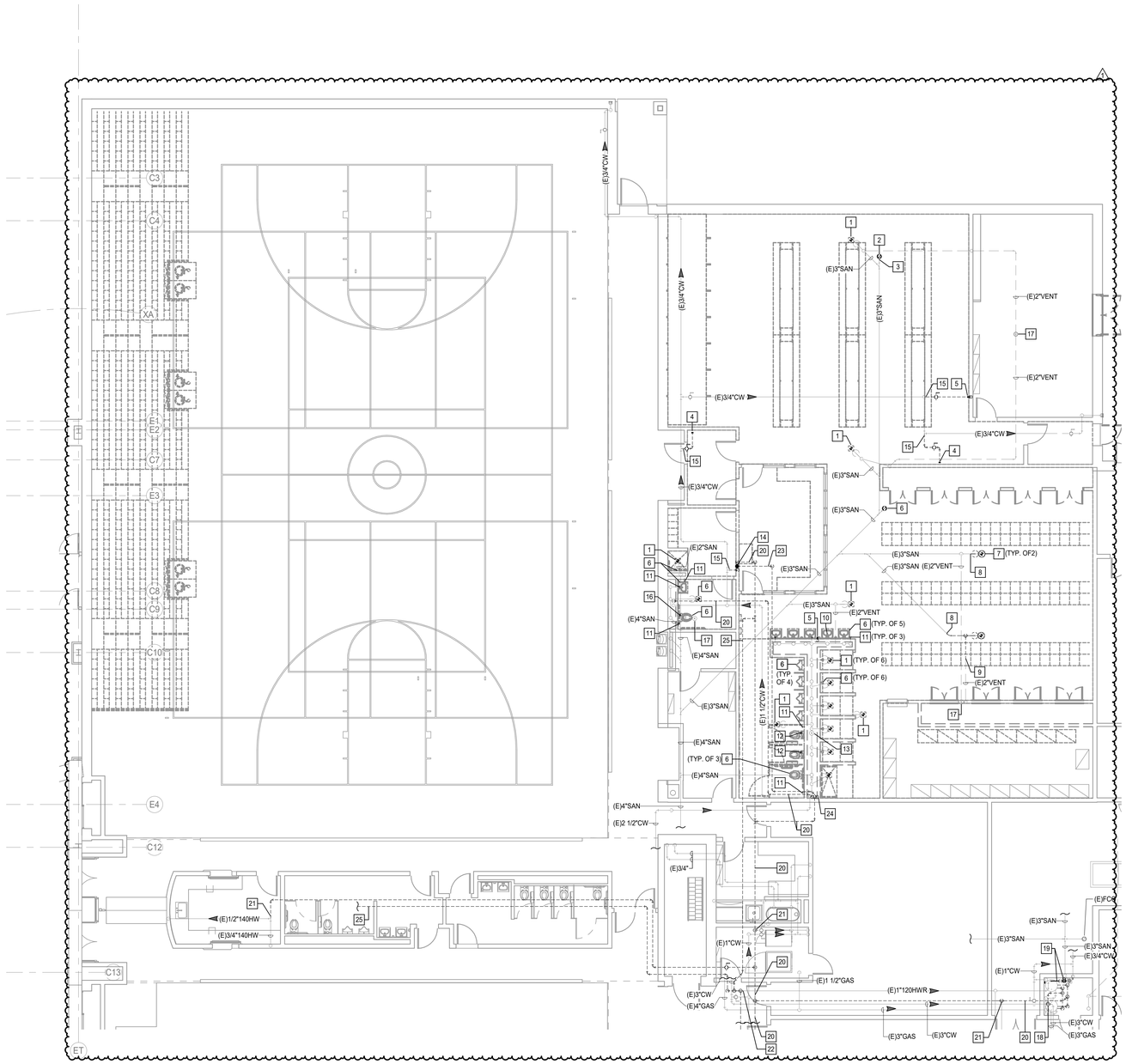

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1 PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - AREA G

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

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Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

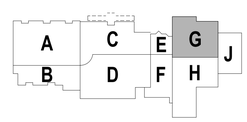
PLUMBING KEYED NOTES

1. EXISTING FLOOR DRAIN TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S) EXCEPT FOR PRIMING LINE. DISCONNECT EXISTING PRIMING PIPE (IF APPLICABLE) AND CAP BELOW GRADE. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
2. EXISTING FCO TO BE REMOVED. REMOVE SANITARY BACK TO POINT INDICATED. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
3. REMOVE EXISTING SANITARY BACK TO THIS POINT.
4. EXISTING MECHANICAL TRAP PRIMER (TP-3) IN CEILING SPACE TO BE REMOVED. REMOVE CW PIPE BACK TO MAIN AND CAP. REMOVE PRIMING PIPES BACK TO BELOW GRADE AND CAP.
5. EXISTING HOSE BIBB TO BE REMOVED. REMOVE CW PIPE BACK TO MAIN AND CAP. PATCH WALL TO MATCH EXISTING.
6. EXISTING PLUMBING FIXTURE(S) TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
7. EXISTING FLOOR DRAIN TO BE REMOVED. DISCONNECT EXISTING PRIMING PIPE (IF APPLICABLE) AND CAP BELOW GRADE. REMOVE SANITARY PIPE BACK TO POINT INDICATED, REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
8. REMOVE EXISTING SANITARY BACK TO THIS POINT.
9. REMOVE EXISTING 2" VENT PIPE BELOW GRADE BACK TO THIS POINT. REPAIRE EXISTING PIPING IF NEEDED AND PREPAR FOR NEW CONNECTION.
10. EXISTING P-TRAP TRAP PRIMER (TP-2) TO BE REMOVED. REMOVE EXISTING PRIMING PIPES BACK TO BELOW GRADE AND CAP.
11. EXISTING WCO TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
12. EXISTING VACUUM BREAKER TRAP PRIMER (TP-1) TO BE REMOVED. REMOVE PRIMING PIPES BACK TO BELOW GRADE AND CAP.
13. EXISTING 3" VTR TO REMIAN.
14. EXISTING THERMOSTATIC MIXING VALVE (TMV-1) TO BE REMOVED. REMOVE CW, HW, AND TEMPERED WATER PIPES BACK TO INDICATED POINTS. PATCH WALL TO MATCH EXISTING.
15. REMOVE EXISTING CW TO BACK THIS POINT AND CAP.
16. EXISTING VACUUM BREAKER TRAP PRIMER (TP-1) TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
17. EXISTING 2" VTR TO REMIAN.
18. REMOVE EXISTING 1-1/2" CW PIPING BACK FROM EXITING GAS WATER HEATERS (GWH-2) AND UP TO THIS POINT. REPAIRE EXISTING MAIN CW PIPE IF NEEDED AND PREPARE FOR NEW CONNECTION..
19. EXISTING CIRCULATION PUMP (CP-1) TO BE REMOVED AND REPLACED WITH NEW ONE. REMOVE EXISTING 1" HWR PIPING BACK FROM EXISTING GAS WATER HEATERS AND UP TO THIS POINT. REPAIRE EXISTING 1" 120F HWR PIPE IF NEEDED AND PREPARE FOR NEW CONNECTION.
20. REMOVE EXISTING HW PIPING BACK FROM EXISTING GAS WATER HEATERS (GWH-2) AND UP TO POINT INDICATED.
21. REMOVE EXISTING HW PIPE TO THIS POINT. PREPARE FOR NEW CONNECTION.
22. REMOVE EXISTING HWR PIPE TO THIS POINT AND PREPARE FOR NEW CONNECTION.
23. EXISTING TEMPERED WATER PIPING TO BE REMOVED.
24. EXISTING TEMPERED WATER PIPING IN CHASE TO BE REMOVED.
25. REMOVE EXISTING 3/4" HWR PIPE TO POINT INDICATED.
26. REMOVE EXISTING 3/4" HWR PIPE TO POINT INDICATED.

PLUMBING GENERAL NOTES

1. DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. ANY OTHER ITEMS NOT REFERENCED WHICH ARE LOCATED IN THE DEMOLISHED SPACE (VENT, WASTE, WATER HEATER, PLUMBING FIXTURE, ETC.) THAT ARE IDENTIFIED OR DISCOVERED DURING DEMOLITION WHICH WILL NOT BE USED FOR THIS PROJECT, SHALL BE DEMOLISHED BACK TO THE MAIN SOURCE OR RISER, AND DEVICES SHALL BE RETAINED TO THE OWNER STORAGE AS DIRECTED BY THE ARCHITECT/OWNER.
5. OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL PLUMBING FIXTURES/ EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO PUMPS, HEATERS, AND STAINLESS STEEL SINKS. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

KEY PLAN:



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CONSTRUCTION DOCUMENT

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

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CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING DEMOLITION FIRST FLOOR PLAN - AREA 'G'

P0.07

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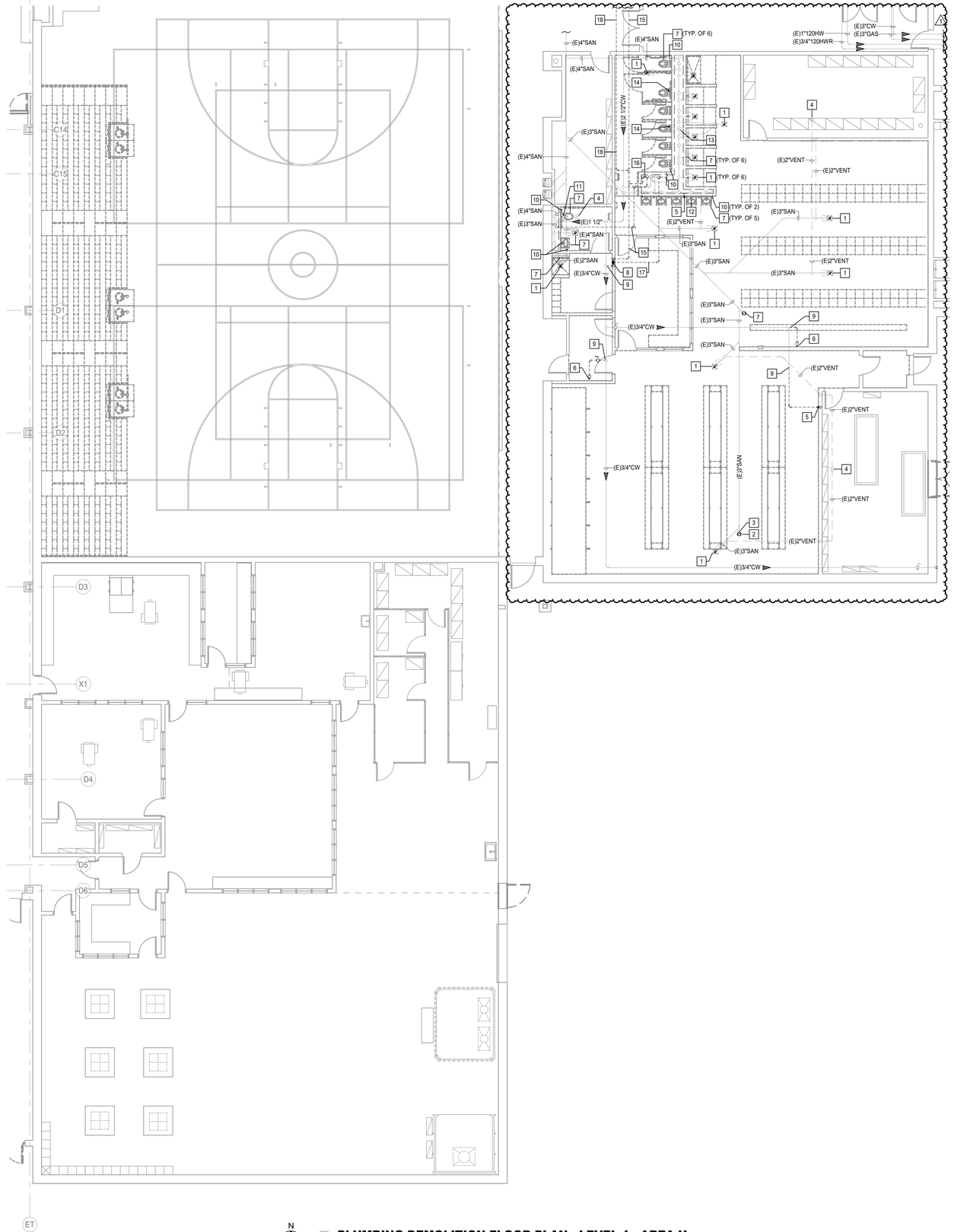

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1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - AREA H**
Scale: 1/8" = 1'-0"

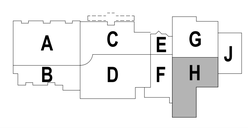
PLUMBING KEYED NOTES

1. EXISTING FLOOR DRAIN TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S) EXCEPT FOR PRIMING LINE. DISCONNECT EXISTING PRIMING PIPE (IF APPLICABLE) AND CAP BELOW GRADE. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
2. EXISTING FCO TO BE REMOVED. REMOVE SANITARY BACK TO POINT INDICATED. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
3. REMOVE EXISTING SANITARY BACK TO THIS POINT.
4. EXISTING 2" VTR TO REMIAN.
5. EXISTING HOSE BIBB TO BE REMOVED. REMOVE CW PIPE BACK TO MAIN AND CAP. PATCH WALL TO MATCH EXISTING.
6. EXISTING MECHANICAL TRAP PRIMER (TP-3) IN CEILING SPACE TO BE REMOVED. REMOVE CW PIPE BACK TO MAIN AND CAP. REMOVE PRIMING PIPES BACK TO BELOW GRADE AND CAP.
7. EXISTING PLUMBING FIXTURE(S) TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
8. EXISTING THERMOSTATIC MIXING VALVE (TMV-1) TO BE REMOVED. REMOVE CW, HW, AND TEMPERED WATER PIPES BACK TO INDICATED POINTS. PATCH WALL TO MATCH EXISTING.
9. REMOVE EXISTING CW TO BACK THIS POINT AND CAP.
10. EXISTING WCO TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
11. EXISTING VACUUM BREAKER TRAP PRIMER (TP-1) TO BE REMOVED AND REPLACED WITH NEW ONE. MAINTAIN EXISTING UTILITIES/ROUGH-IN TO SERVE NEW FIXTURE(S). FIELD VERFY THE EXACT LOCATION, SIZE, AND CONDITION OF EXISTING PIPPING. REPAIR EXISTING PIPING IF NEEDED AND PREPARE FOR NEW CONNECTION.
12. EXISTING P-TRAP TRAP PRIMER (TP-2) TO BE REMOVED. REMOVE EXISTING PRIMING PIPES BACK TO BELOW GRADE AND CAP.
13. EXISTING 3" VTR TO REMIAN.
14. EXISTING VACUUM BREAKER TRAP PRIMER (TP-1) TO BE REMOVED. REMOVE PRIMING PIPES BACK TO BELOW GRADE AND CAP.
15. EXISTING HW PIPING TO BE REMOVED.
16. REMOVE EXISTING HW PIPING IN CHASE.
17. EXISTING TEMPERED WATER PIPING TO BE REMOVED. REMOVE ALL PIPING INSIDE CHASE
18. EXISTING HWR TO BE REMOVED. REMOVE UP TO POINT INDICATED. RE:P0.07 FOR CONTINUATION.

PLUMBING GENERAL NOTES

1. DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION. AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISITNG WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. ANY OTHER ITEMS NOT REFERENCED WHICH ARE LOCATED IN THE DEMOLISHED SPACE (VENT, WASTE, WATER HEATER, PLUMBING FIXTURE, ETC.) THAT ARE IDENTIFIED OR DISCOVERED DURING DEMOLITION WHICH WILL NOT BE USED FOR THIS PROJECT, SHALL BE DEMOLISHED BACK TO THE MAIN SOURCE OR RISER, AND DEVICES SHALL BE RETAINED TO THE OWNER STORAGE AS DIRECTED BY THE ARCHITECT/OWNER.
5. OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL PLUMBING FIXTURES/ EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO PUMPS, HEATERS, AND STAINLESS STEEL SINKS. CONTRACTOR TO NOTIFY CAREY RAMSEY WITH DISTRICT PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

KEY PLAN:



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13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING DEMOLITION FIRST FLOOR PLAN - AREA 'H'

P0.08

____ of ____

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PLUMBING GENERAL NOTES

1. IT IS IMPRACTICAL DUE TO THE STREET SEWER, STRUCTURAL FEATURES AND ARRANGEMENT OF BUILDING TO OBTAIN A SLOPE OF 1/4" PER FOOT PIPING 4" THRU 6" SHALL HAVE A SLOPE OF 1/8" PER FOOT BELOW BUILDING TO 5'-0" OUTSIDE OF BUILDING.
2. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
3. REFER TO CIVIL DRAWINGS FOR UTILITY STUB CONTINUATIONS. THIS CONTRACTOR TO MAKE CONNECTIONS AS REQUIRED FROM STUB LOCATIONS TO SITE UTILITIES.
4. INVERT ELEVATIONS LISTED ARE APPROXIMATE. PRIOR TO CONSTRUCTION, COORDINATE FINAL INVERT ELEVATIONS OF BUILDING SANITARY AND STORM OUTFALLS WITH SITE UTILITY CONTRACTOR. MAKE ADJUSTMENTS AS REQUIRED TO ENSURE PROPER CONNECTIONS TO SITE UTILITIES.
5. REFER TO LATEST CIVIL DRAWINGS FOR BUILDING FINISHED FLOOR ELEVATIONS.
6. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFYAT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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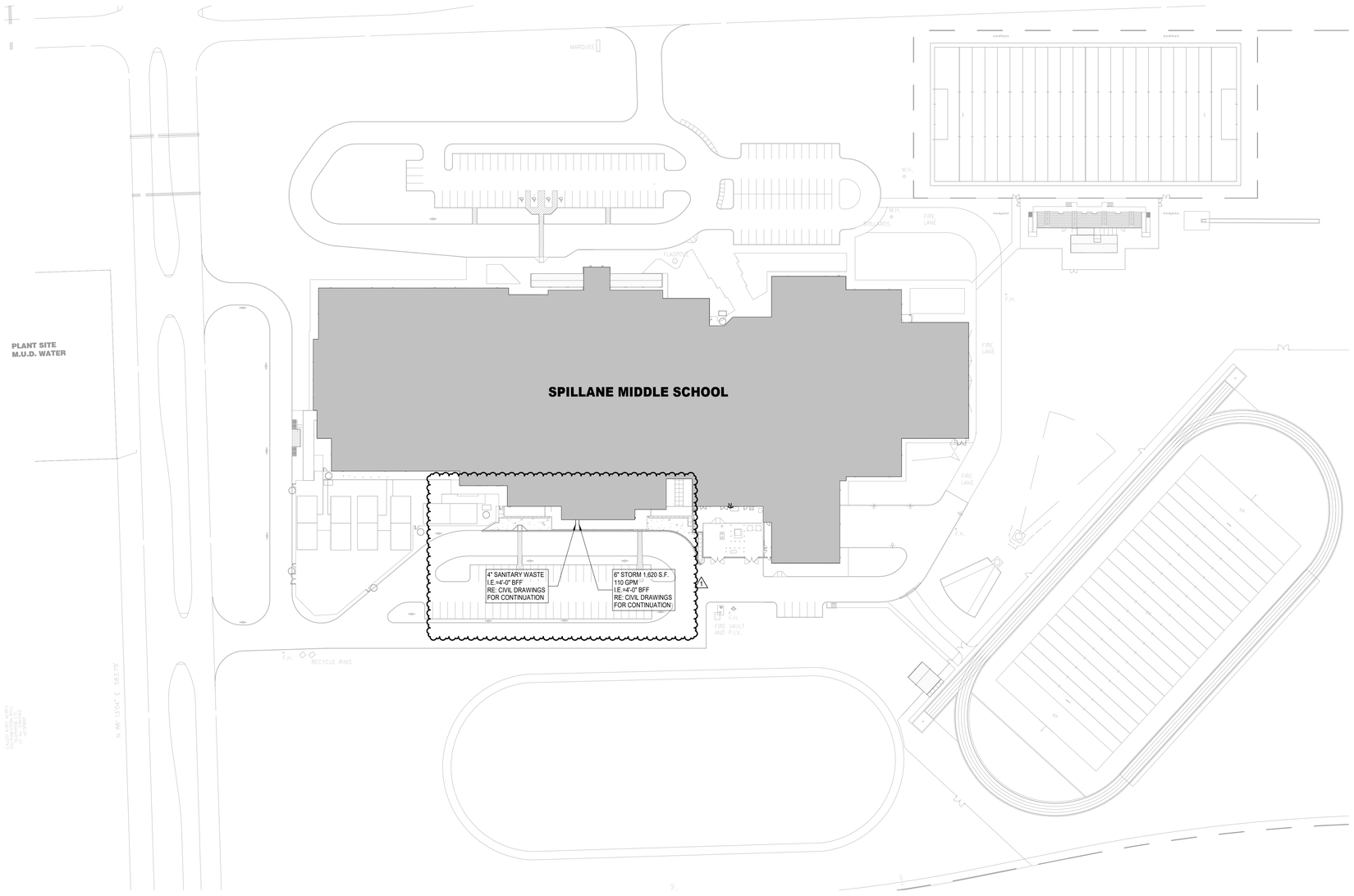

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1 **PLUMBING SITE PLAN**
Scale: 1" = 60'-0"

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CFISD PROJECT NO: 24-02-5751-R-RFP

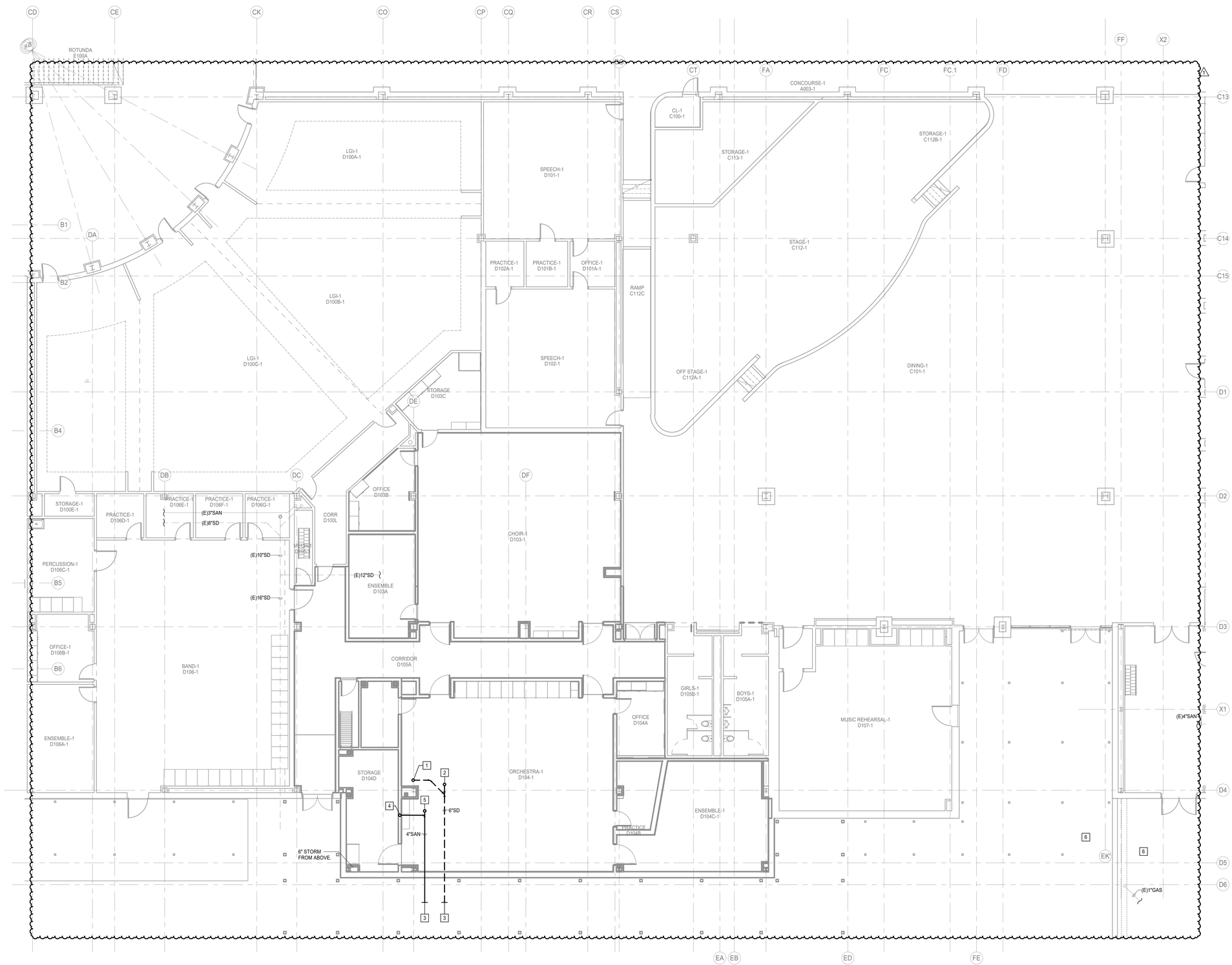
1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SITE PLAN

P1.01

____ of ____



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1 PLUMBING UNDERFLOOR PLAN - LEVEL 0 - AREA D

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

PLUMBING KEYED NOTES

1. 6" STORM FROM ABOVE.
2. 6" STORM FROM FCO ABOVE.
3. RE: SHEET P1.01 FOR CONTINUATION.
4. 4" SAN FROM ABOVE.
5. 4" SAN FROM FCO ABOVE.
6. THERE IS AN EXISTING GAS LINE FROM THE METER THAT ROUTES UNDERGROUND TO THE WEST. CFISD TO LOCATE AND MARK FOR POTENTIAL CONFLICT WITH BUILDING ADDITION.

PLUMBING GENERAL NOTES

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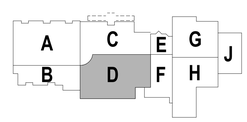
5. SAWCUT EXISTING SLAB AS REQUIRED TO INSTALL NEW PIPING BELOW FLOOR, CONTRACTOR TO SEAL AND PATCH FLOOR TO MATCH EXISTING UPON COMPLETION, CONTRACTOR TO JET AND CAMERA FROM POINT OF CONNECTION TO EXIT POINT OUTSIDE OF BUILDING.

KEY PLAN:



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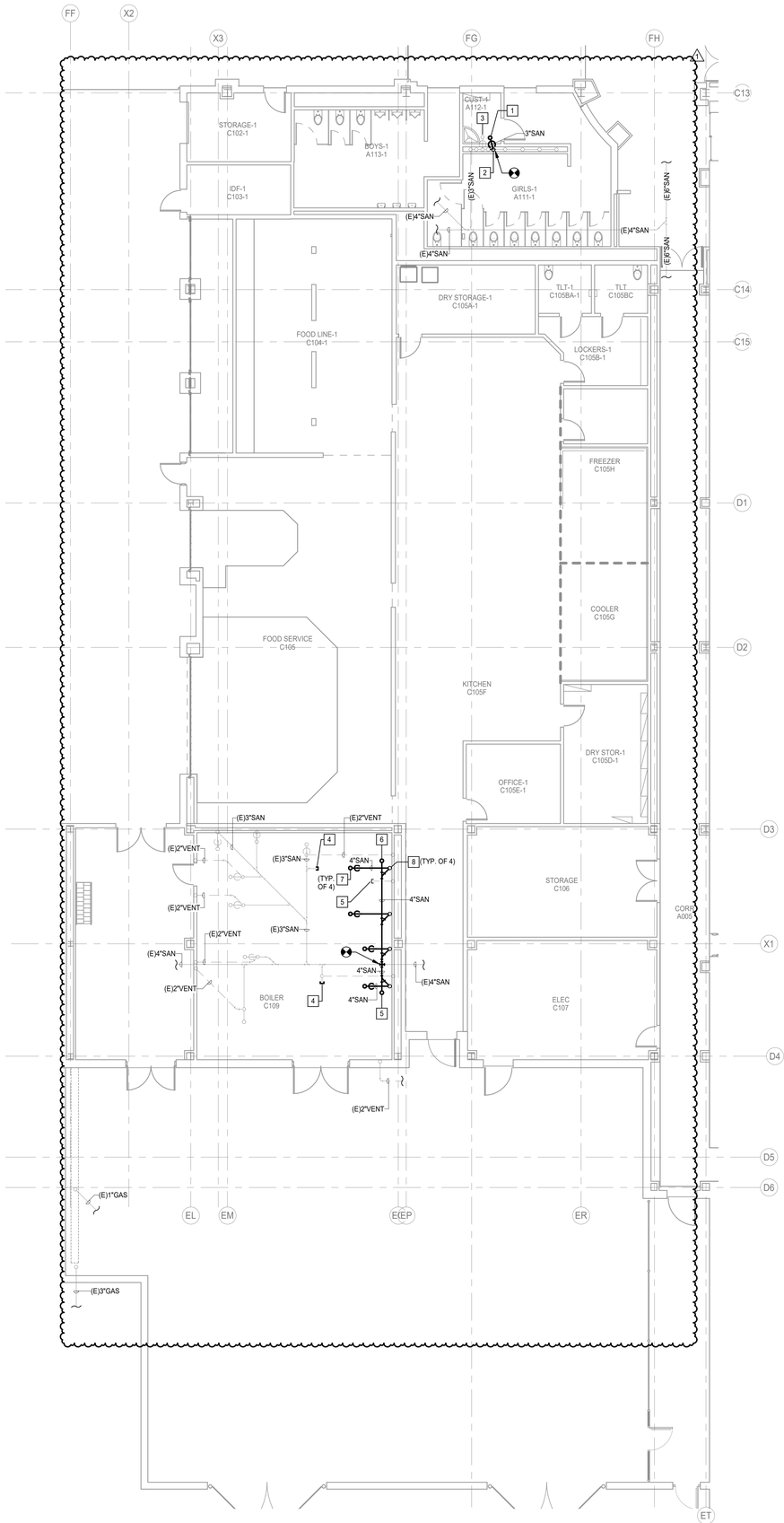
PLUMBING UNDERFLOOR PLAN - AREA 'D'

P2.04

____ of ____



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1 **PLUMBING UNDERFLOOR PLAN - LEVEL 0 - AREA F**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1. 3" SAN FROM FLOOR SINK ABOVE.
2. 3" SAN DOWN.2" VENT UP.
3. EXISTING 3" SAN FROM EXISTING FLOOR DRAIN ABOVE.
4. EXISTING 3" SAN CAPPED BELOW GRADE.
5. EXISTING 2" VENT CAPPED BELOW GRADE.
6. 4" SAN FROM FCO ABOVE.
7. 4" SAN FROM FLOOR SINK ABOVE.
8. 4" SAN DOWN, 2" VENT UP.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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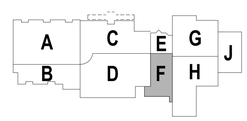
5. SAWCUT EXISTING SLAB AS REQUIRED TO INSTALL NEW PIPING BELOW FLOOR, CONTRACTOR TO SEAL AND PATCH FLOOR TO MATCH EXISTING UPON COMPLETION, CONTRACTOR TO JET AND CAMERA FROM POINT OF CONNECTION TO EXIT POINT OUTSIDE OF BUILDING.

KEY PLAN:



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Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING UNDERFLOOR PLAN - AREA 'F'

P2.06

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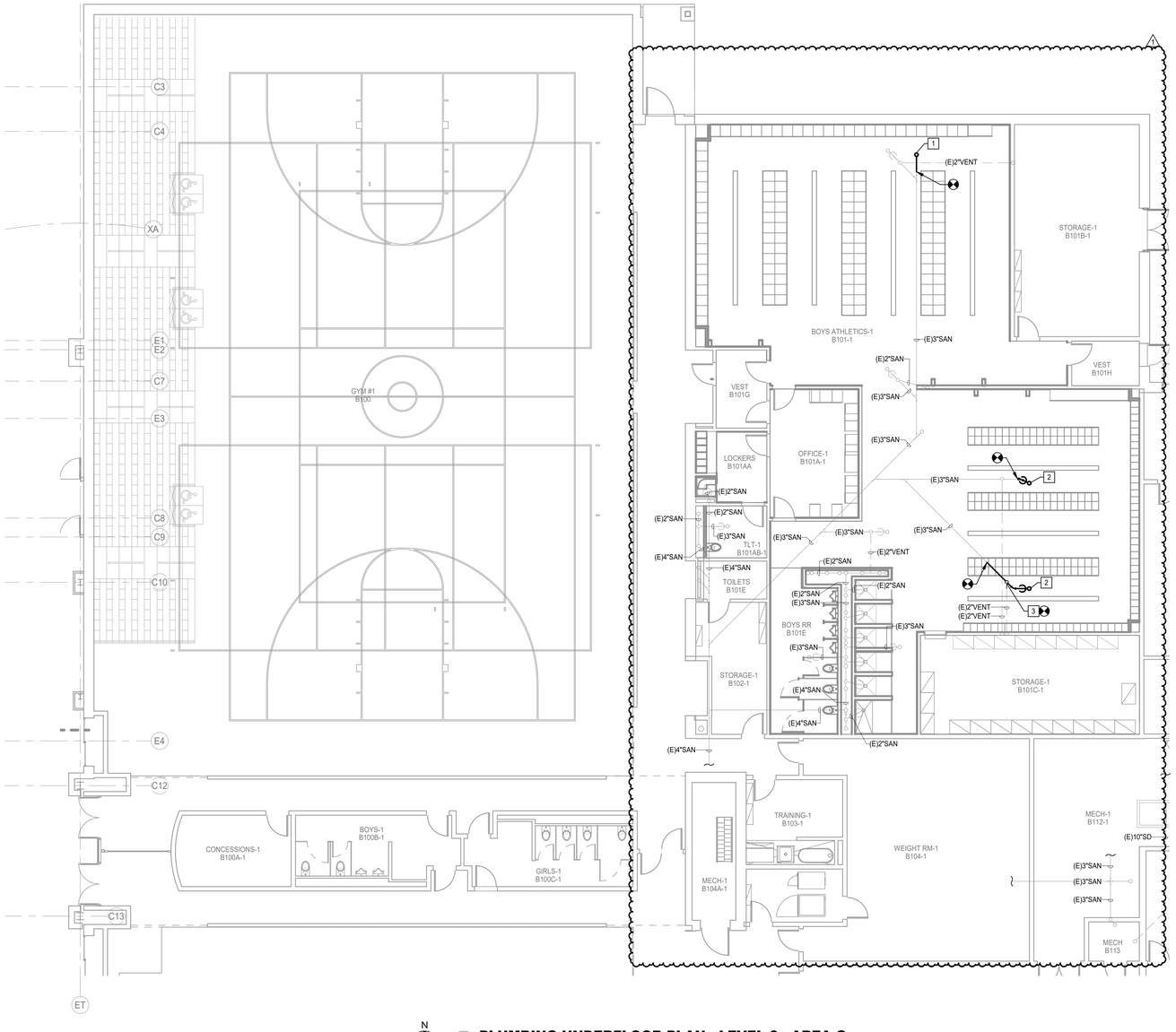

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1 PLUMBING UNDERFLOOR PLAN - LEVEL 0 - AREA G

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

PLUMBING KEYED NOTES

1. 3" SANITARY FROM FCO ABOVE.
2. 3" SANITARY FROM FLOOR DRAIN ABOVE.
3. 2" VENT UP. CONNECT TO EXISTING 2" VENT BELOW GRADE.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED, CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. ANY OTHER ITEMS NOT REFERENCED WHICH ARE LOCATED IN THE DEMOLISHED SPACE (VENT, WASTE, WATER HEATER, PLUMBING FIXTURE, ETC.) THAT ARE IDENTIFIED OR DISCOVERED DURING DEMOLITION WHICH WILL NOT BE USED FOR THIS PROJECT, SHALL BE DEMOLISHED BACK TO THE MAIN SOURCE OR RISER, AND DEVICES SHALL BE RETAINED TO THE OWNER STORAGE AS DIRECTED BY THE ARCHITECT/OWNER.
5. SAWCUT EXISTING SLAB AS REQUIRED TO INSTALL NEW PIPING BELOW FLOOR. CONTRACTOR TO SEAL AND PATCH FLOOR TO MATCH EXISTING UPON COMPLETION. CONTRACTOR TO JET AND CAMERA FROM POINT OF CONNECTION TO EXIT POINT OUTSIDE OF BUILDING.

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CONSTRUCTION DOCUMENT

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2024 SMITH & SPILLANE MS RENOVATIONS

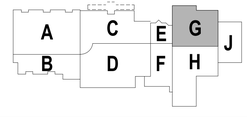
SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



PLUMBING UNDERFLOOR PLAN - AREA 'G'

P2.07

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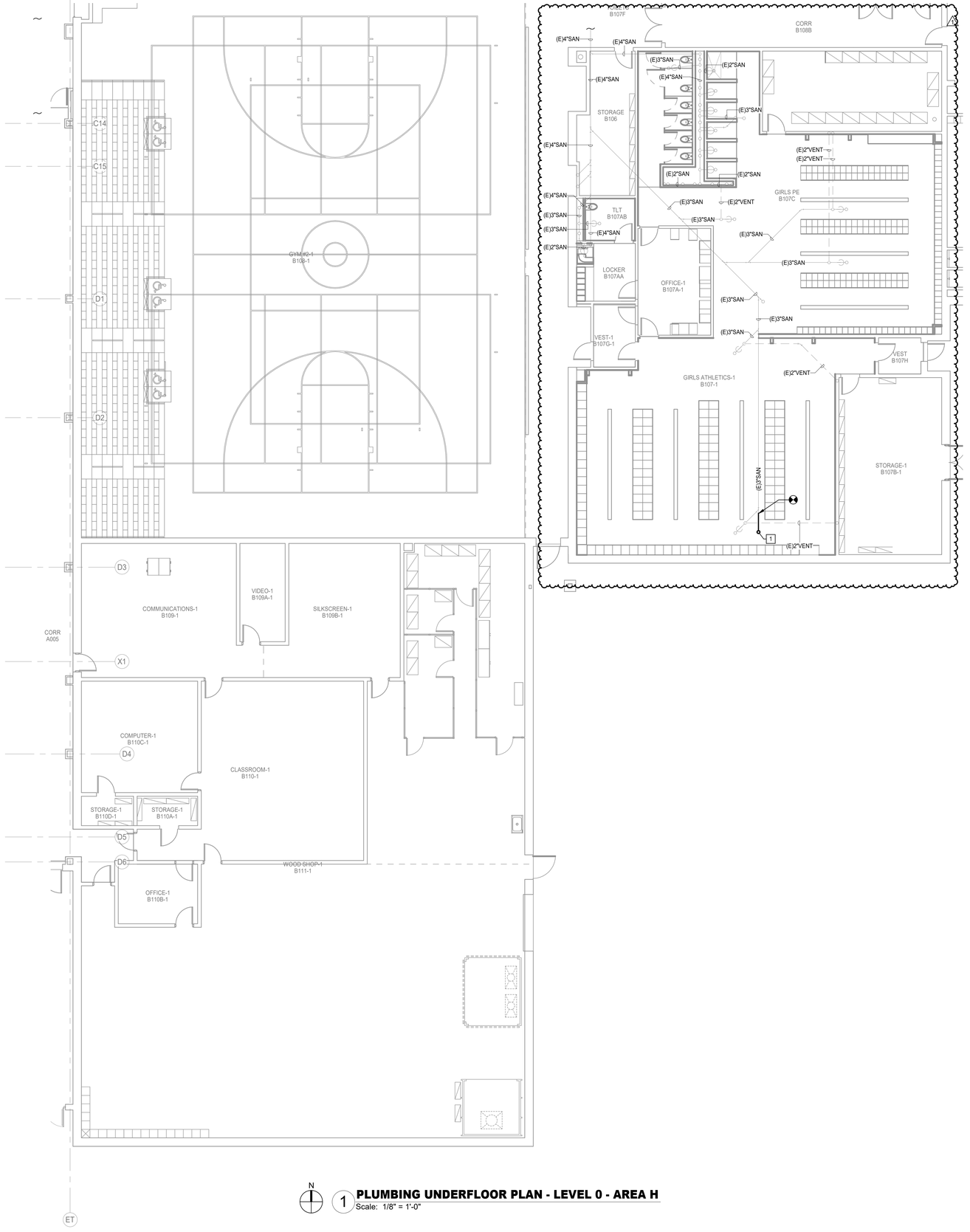

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1 **PLUMBING UNDERFLOOR PLAN - LEVEL 0 - AREA H**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1 3" SANITARY FROM FCO ABOVE.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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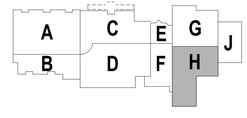
1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



PLUMBING UNDERFLOOR PLAN - AREA 'H'

P2.08

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PLUMBING KEYED NOTES

1. 3/4" CW UP TO SECOND FLOOR.
2. ROUTE DMS-1 CONDENSATE DRAIN TO EXISTING SINK LOCATED INSIDE PERCUSSION-1 D106C-1, AREA D. RE:P3.04 & M1.02 FOR ADDITIONAL INFORMATION.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT. NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

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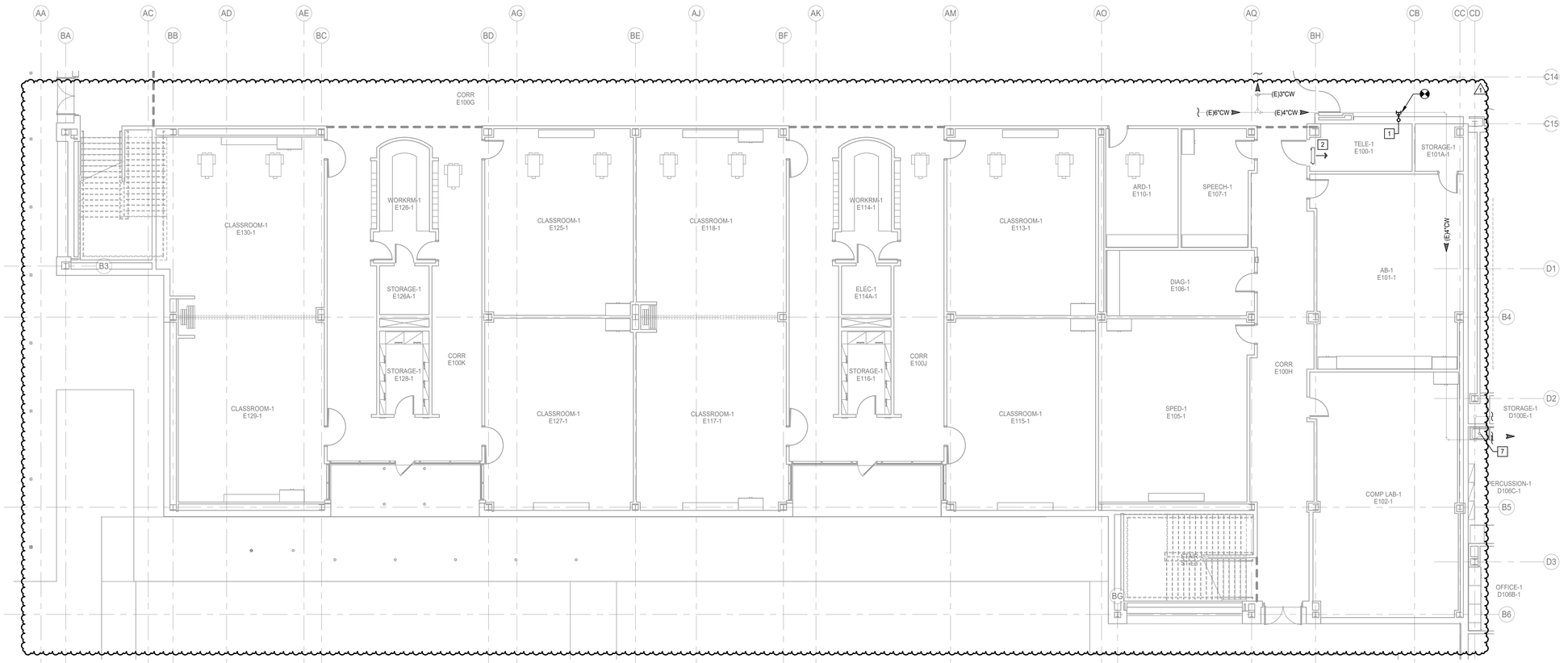
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.



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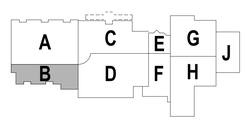
1 PLUMBING FLOOR PLAN - LEVEL 1 - AREA B
Scale: 1/8" = 1'-0"

KEY PLAN:



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1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING FIRST FLOOR PLAN - AREA 'B'

P3.02

____ of ____

N

1 **PLUMBING FLOOR PLAN - LEVEL 1 - AREA C**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1 PROVIDE HIGH TEMP SPRINKLER HEAD IN KILN ROOM.

FIRE SPRINKLER SYSTM NOTES

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B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT, NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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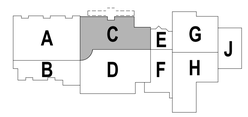

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CONSTRUCTION DOCUMENT

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SPILLANE MIDDLE SCHOOL

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CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

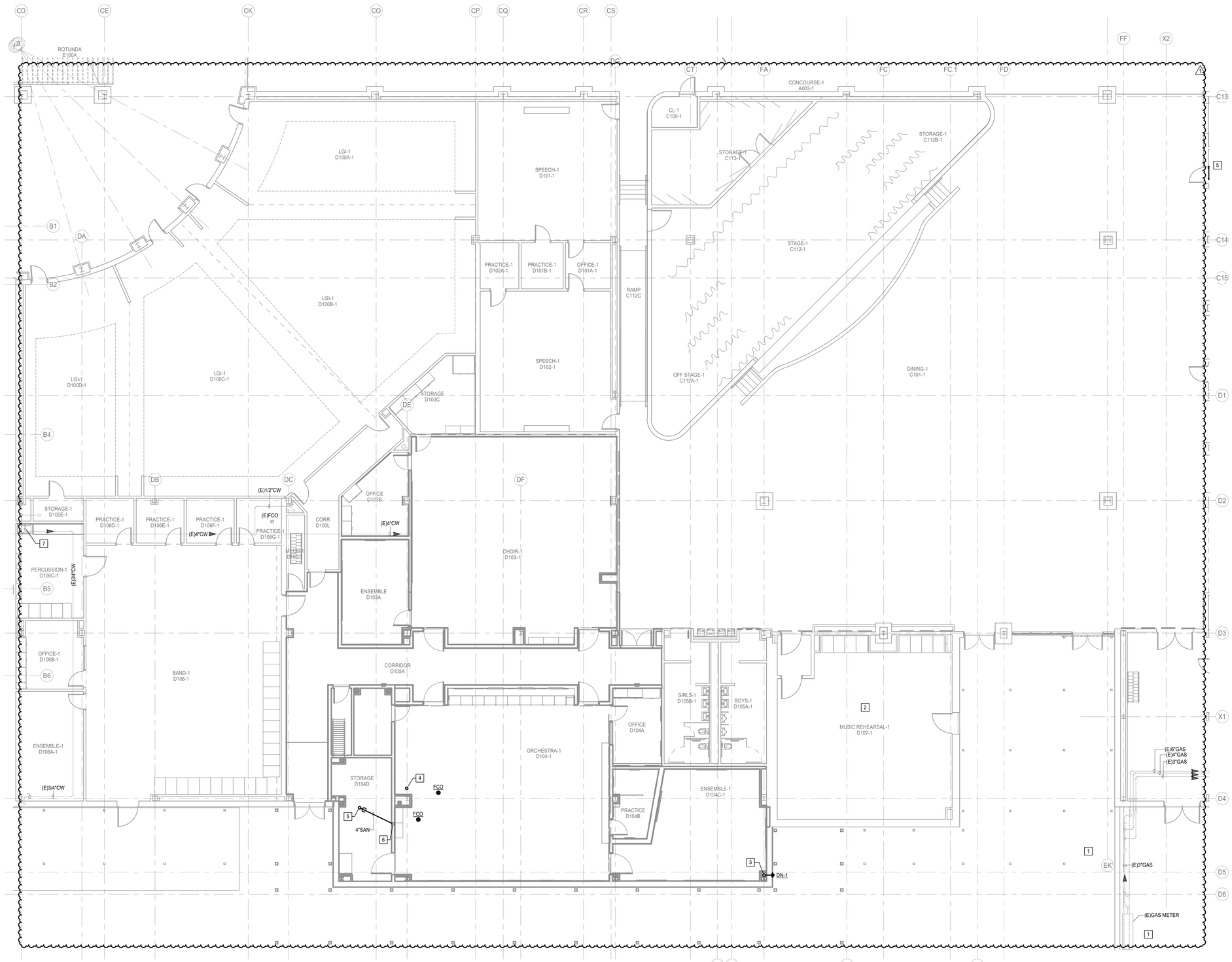
Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING FIRST FLOOR PLAN - AREA 'C'

P3.03

____ of ____

2/10/2025 8:55:20 PM



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1 PLUMBING FLOOR PLAN - LEVEL 1 - AREA D

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

PLUMBING KEYED NOTES

1. THERE IS AN EXISTING GAS LINE FROM THE METER THAT ROUTES UNDERGROUND TO THE WEST. CFISD TO LOCATE AND MARK FOR POTENTIAL CONFLICT WITH BUILDING ADDITION.
2. EXTEND EXISTING FIRE SPRINKLER SYSTEM TO PROVIDE COVERAGE IN EXISTING REHEARSAL ROOM.
3. 6" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
4. 6" STORM FROM ROOF, DOWN TO BELOW GRADE.
5. 4" SANITARY DOWN FROM FLOOR SINK ABOVE.
6. 4" SANITARY DOWN, 2" VENT UP.
7. PROVIDE WYE-TAILPIECE FOR DMS-1 CONDENSATE DRAIN. RE: P3.02 & M1.02 FOR ADDITIONAL INFORAMTION.

FIRE SPRINKLER SYSTM NOTES

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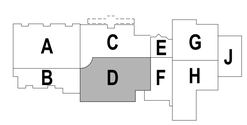

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1	Addendum 02 02-11-25
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PLUMBING FIRST FLOOR PLAN - AREA 'D'

P3.04

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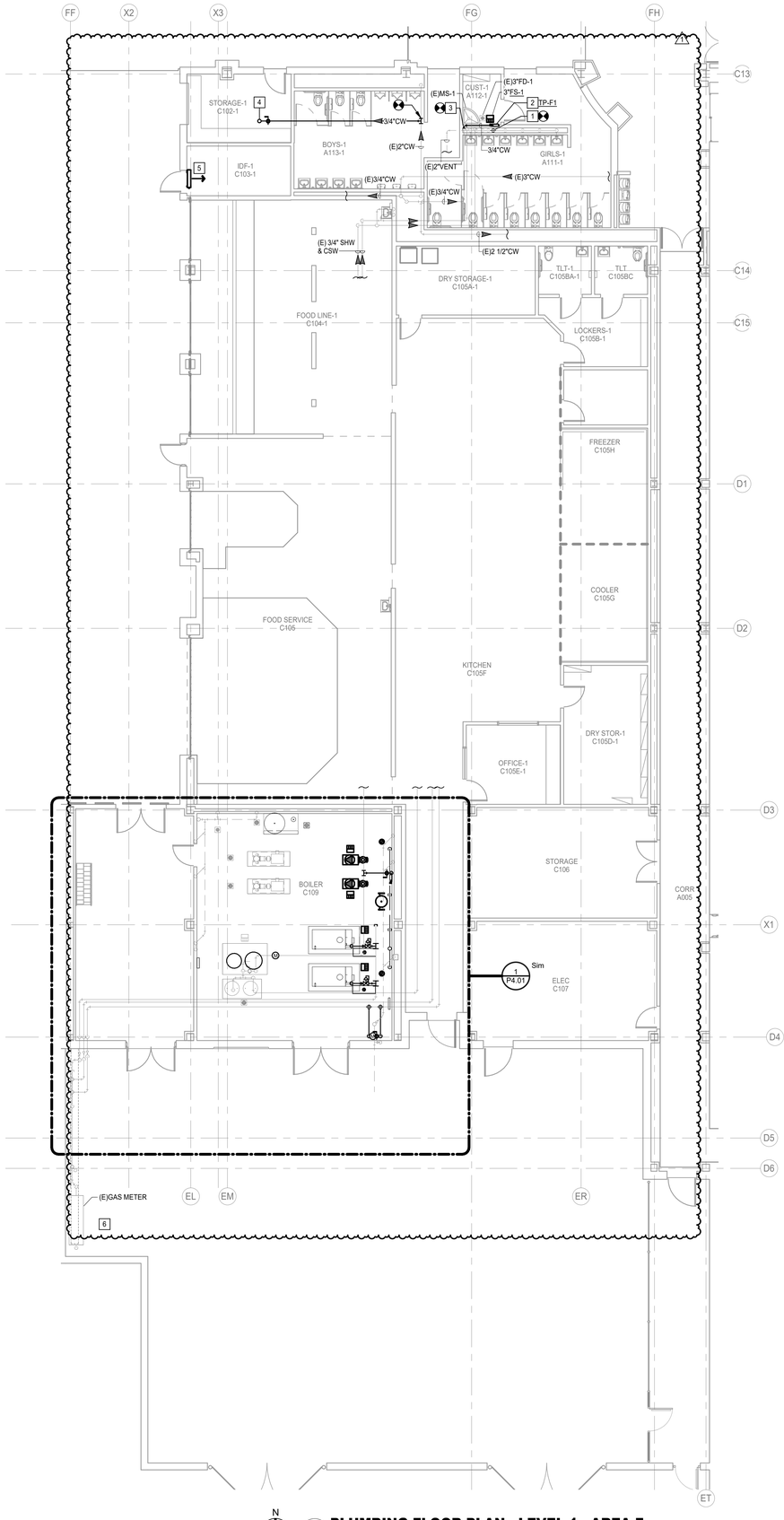
Autodesk Docs://23072_CFISD_Phase_6_r22/CFISD-SPILLANE MS_MEPT_R22.rvt



1 **PLUMBING FLOOR PLAN - LEVEL 1 - AREA F**
Scale: 1/8" = 1'-0"

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Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. 2" VENT FROM BELOW. EXTEND AND CONNECT TO EXISTING 2" VENT PIPE IN CHASE.
2. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'-0" ABOVE GRADE. RE: PLUMBING DETAILS SHEET FOR ADDITIONAL INFORMATION.
3. EXISTING 3/4" CW DOWN IN CHASE TO SERVE EXISTING PLUMBING FIXTURE(S). EXTEND NEW 3/4" CW PIPE TO SERVE NEW TP-F1.
4. 3/4" CW UP TO ROOF. PROVIDE ACCESS DOOR FOR VALVE(S).
5. ROUTE DMS-3 CONDENSATE DRAIN TO 3"FS-1 LOCATED INSIDE CUST-1 A112-1. RE:M1.06 FOR ADDITIONAL INFORMATION.
6. THERE IS AN EXISTING GAS LINE FROM THE METER THAT ROUTES UNDERGROUND TO THE WEST. CFISD TO LOCATE AND MARK FOR POTENTIAL CONFLICT WITH BUILDING ADDITION.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT, NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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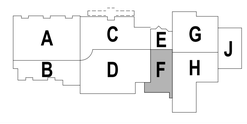
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

KEY PLAN:



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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25

Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING FIRST FLOOR PLAN - AREA 'F'

P3.06

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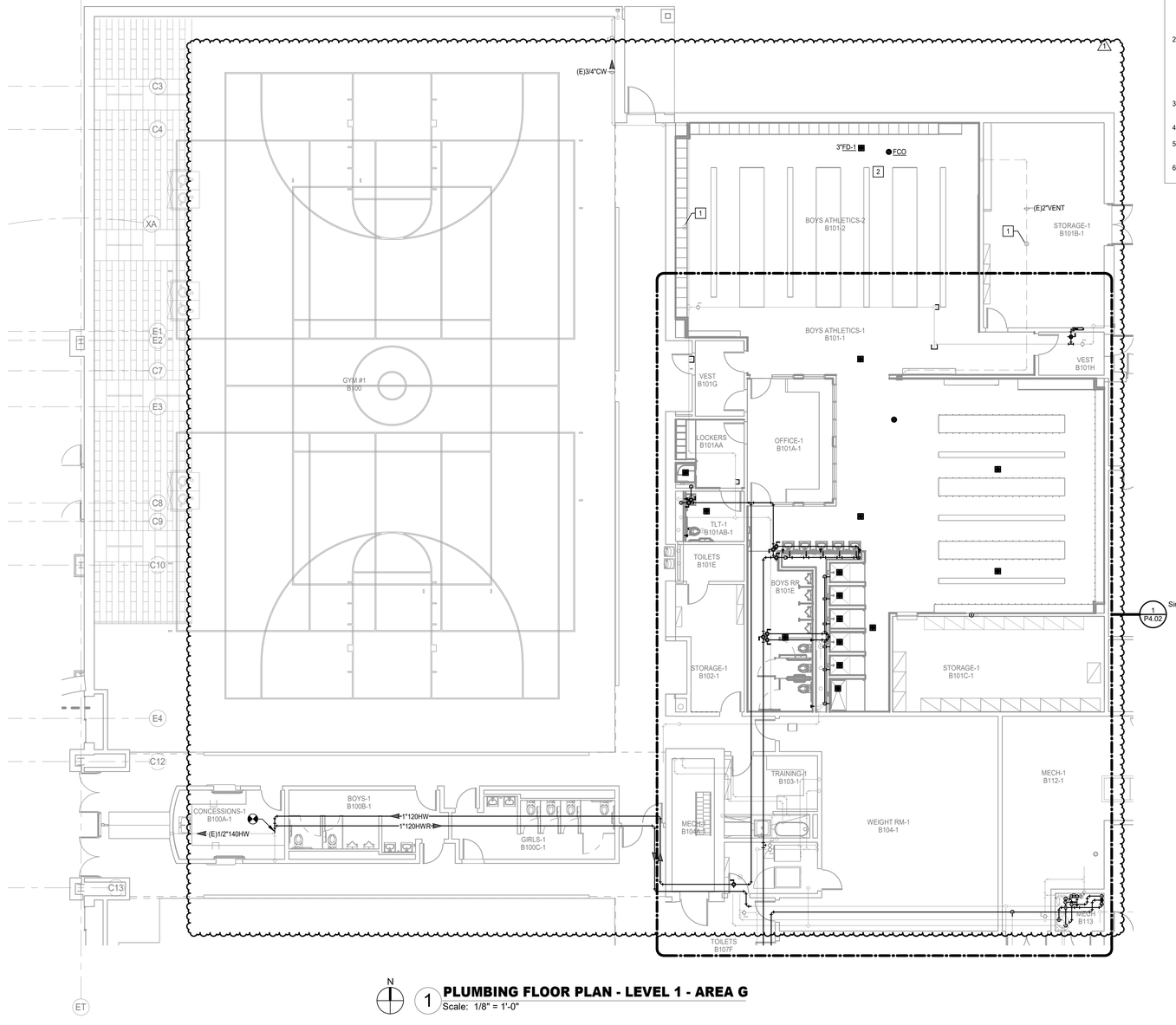

N

1 **PLUMBING FLOOR PLAN - LEVEL 1 - AREA G**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1. EXISTING 2" VTR.
2. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

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C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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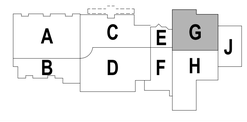
KEY PLAN:



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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING FIRST FLOOR PLAN - AREA 'G'

P3.07

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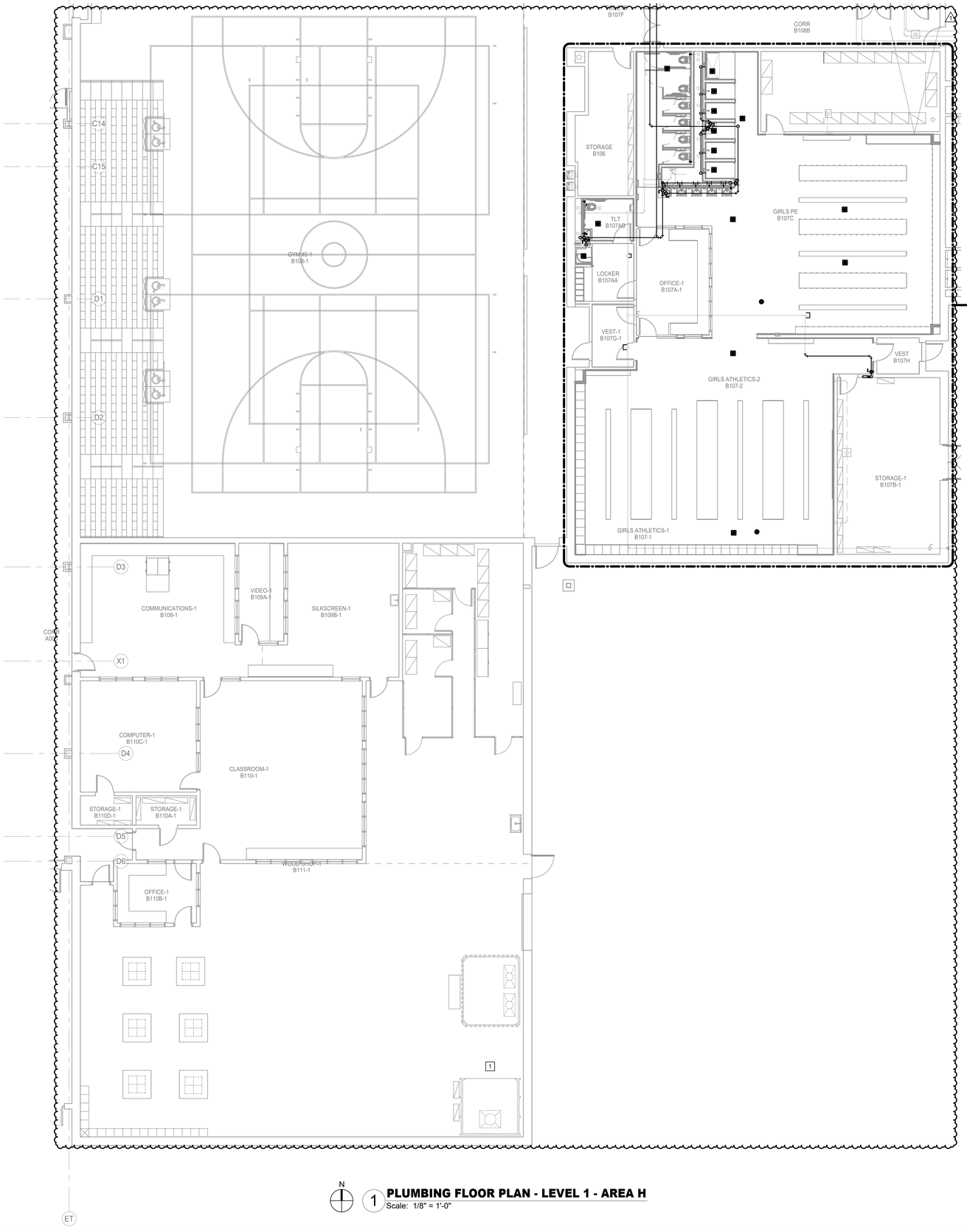

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1 **PLUMBING FLOOR PLAN - LEVEL 1 - AREA H**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1 EXTEND SPRINKLER HEAD INTO EXISTING PAINT BOOTH. FIELD VERIFY BOOTH LOCATION.

FIRE SPRINKLER SYSTM NOTES

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CONSTRUCTION DOCUMENT

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

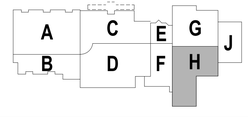
13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25

Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

KEY PLAN:



PLUMBING FIRST FLOOR PLAN - AREA 'H'

P3.08

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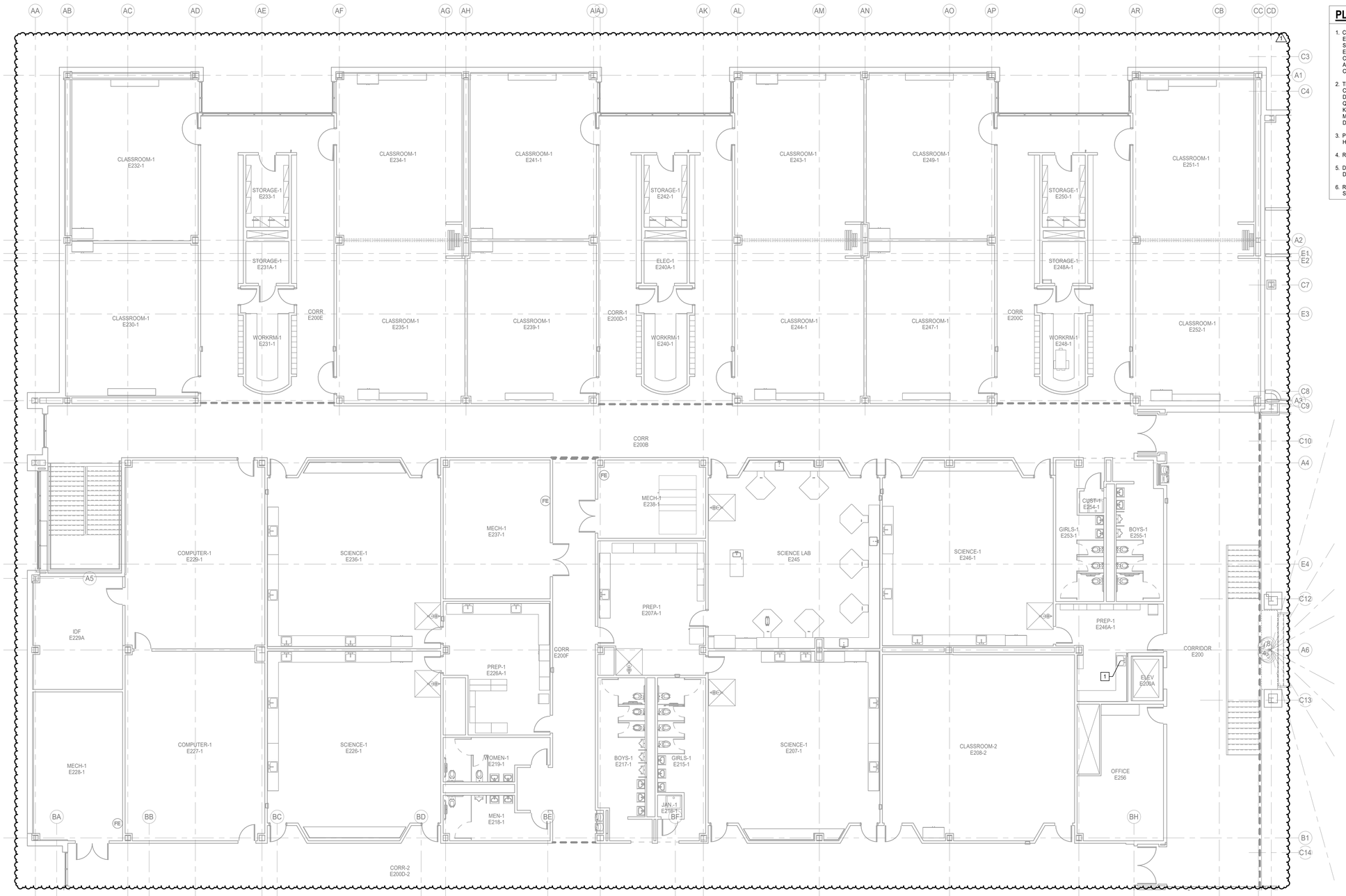

N

1 **PLUMBING FLOOR PLAN - LEVEL 2 - AREA A**
Scale: 1/8" = 1'-0"

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Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1 PROVIDE WYE-TAILPIECE FOR DMS-2 CONDENSATE DRAIN. RE: P3.11 & M1.11 FOR ADDITIONAL INFORAMTION.

FIRE SPRINKLER SYSTM NOTES

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CONSTRUCTION DOCUMENT

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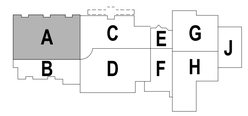

PLUMBING SECOND FLOOR PLAN - AREA 'A'

P3.10

____ of ____

Autodesk Docs://23072_CFISD_Phase_6_/22/CFISD-SPILLANE MS_MEPT_R22.rvt

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Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1 3/4" CW UP TO ROOF. PROVIDE ACCESS DOOR FOR VALVE(S)

2 ROUTE DMS-2 CONDENSATE DRAIN TO EXISTING SINK LOCATED INSIDE PREP-1 E246A-1, AREA A. RE:P3.10 & M1.11 FOR ADDITIONAL INFORMATION.

FIRE SPRINKLER SYSTM NOTES

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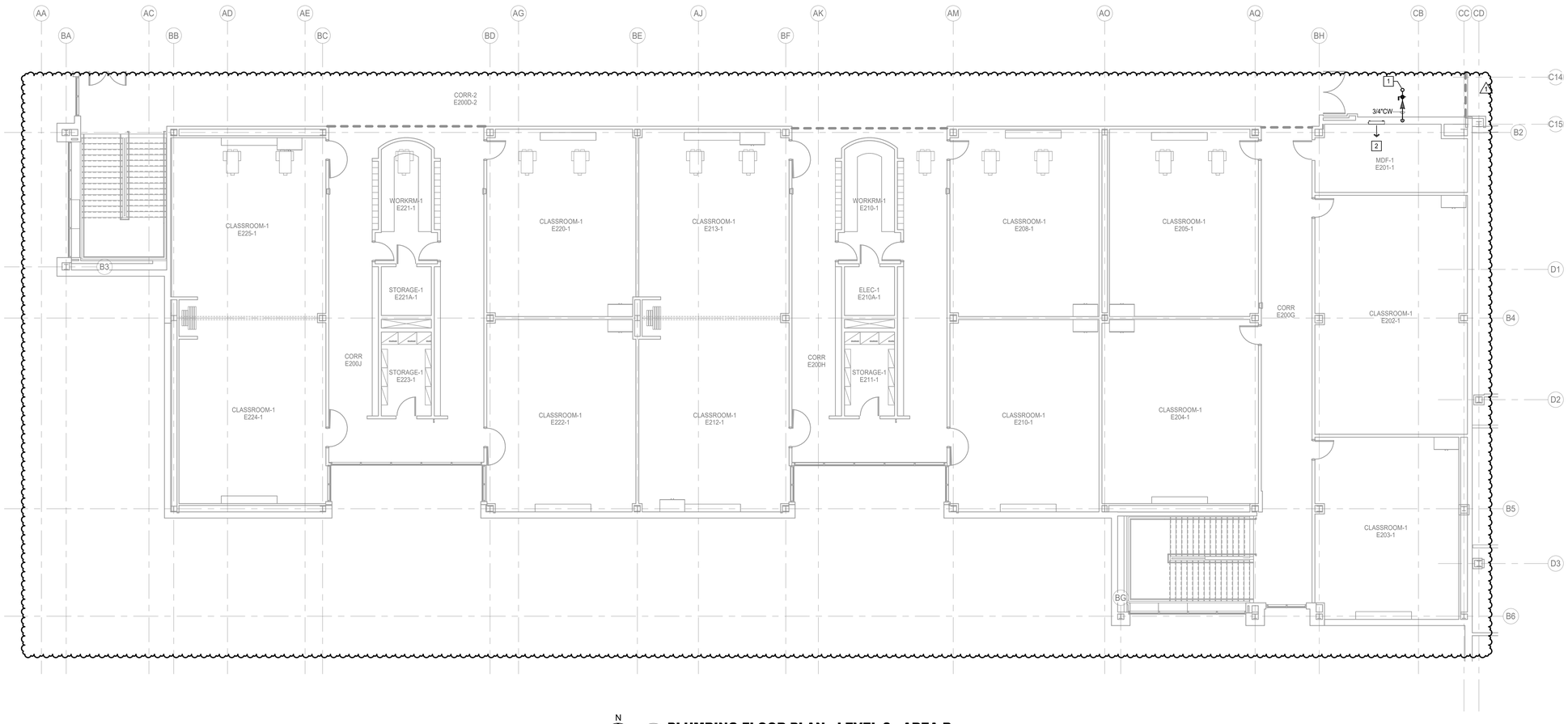

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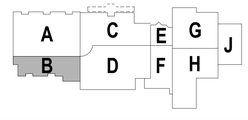
1 **PLUMBING FLOOR PLAN - LEVEL 2 - AREA B**
Scale: 1/8" = 1'-0"

KEY PLAN:



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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SECOND FLOOR PLAN - AREA 'B'

P3.11

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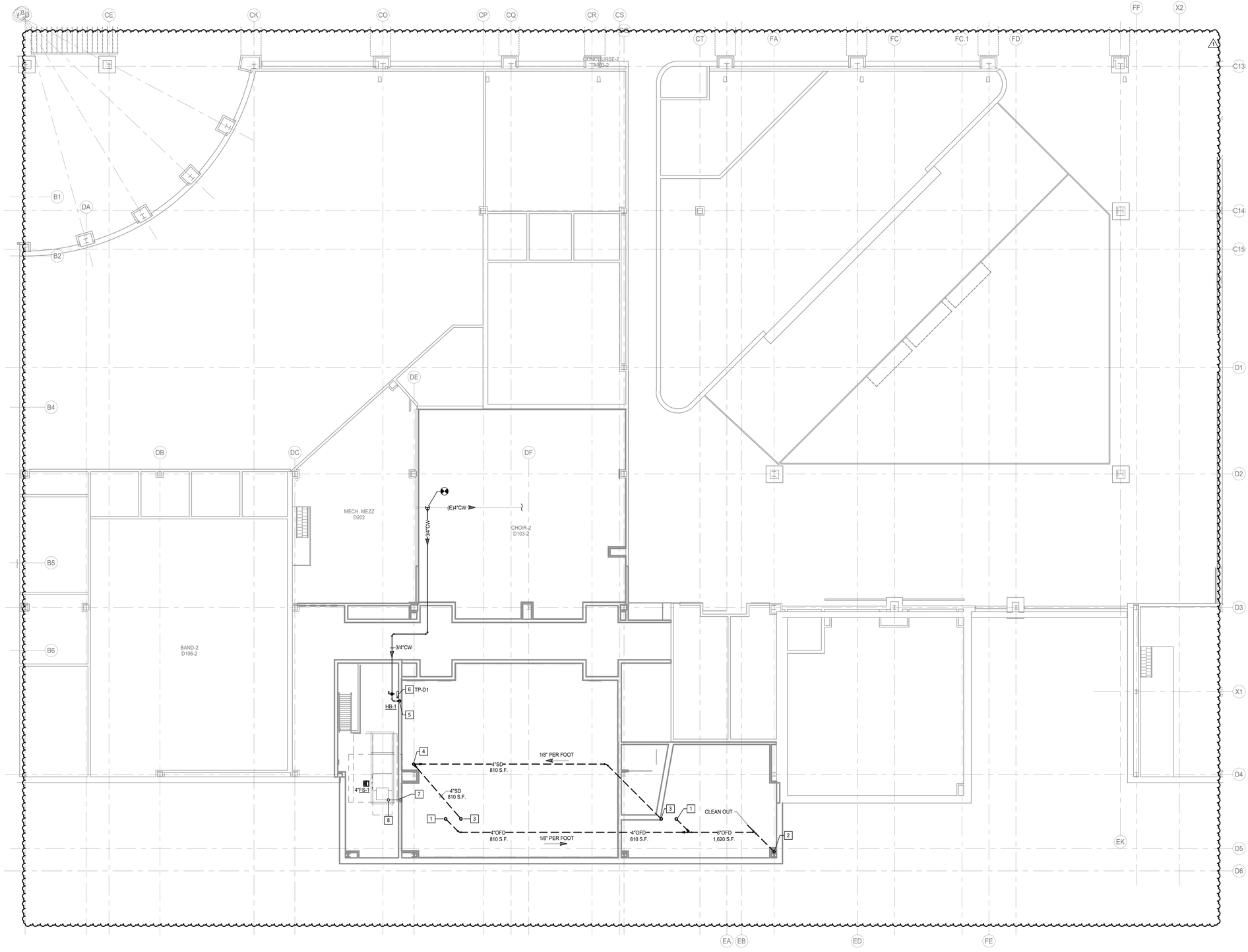

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1 **PLUMBING FLOOR PLAN - LEVEL 2 - AREA D**
Scale: 1/8" = 1'-0"

PLUMBING KEYED NOTES

1. 4" STORM OVERFLOW FROM OVERFLOW DRAIN ABOVE.
2. 6" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
3. 4" STORM FROM ROOF DRAIN ABOVE.
4. 6" STORM DOWN.
5. 3/4" CW DOWN TO SERVE HB-1& TP-D1. RE: PLUMBING DETAILS SHEET FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'.0" ABOVE GRADE. RE: PLUMBING DETAILS SHEET FOR ADDITIONAL INFORMATION.
7. 2" VENT FROM BELOW.
8. 2" VENT UP, 2" VTR.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

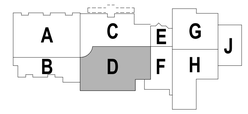
B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT. NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

KEY PLAN:



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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SECOND FLOOR PLAN - AREA 'D'

P3.13

____ of ____

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PLUMBING KEYED NOTES

1. PROVIDE AND INSTALL ROOF HYDRANT RH-1 TO SERVE DMSCU-1 AND DMSCU-2.
2. 2" VTR.
3. PROVIDE AND INSTALL ROOF HYDRANT RH-1 TO SERVE DMSCU-3.
4. 3" VTR.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
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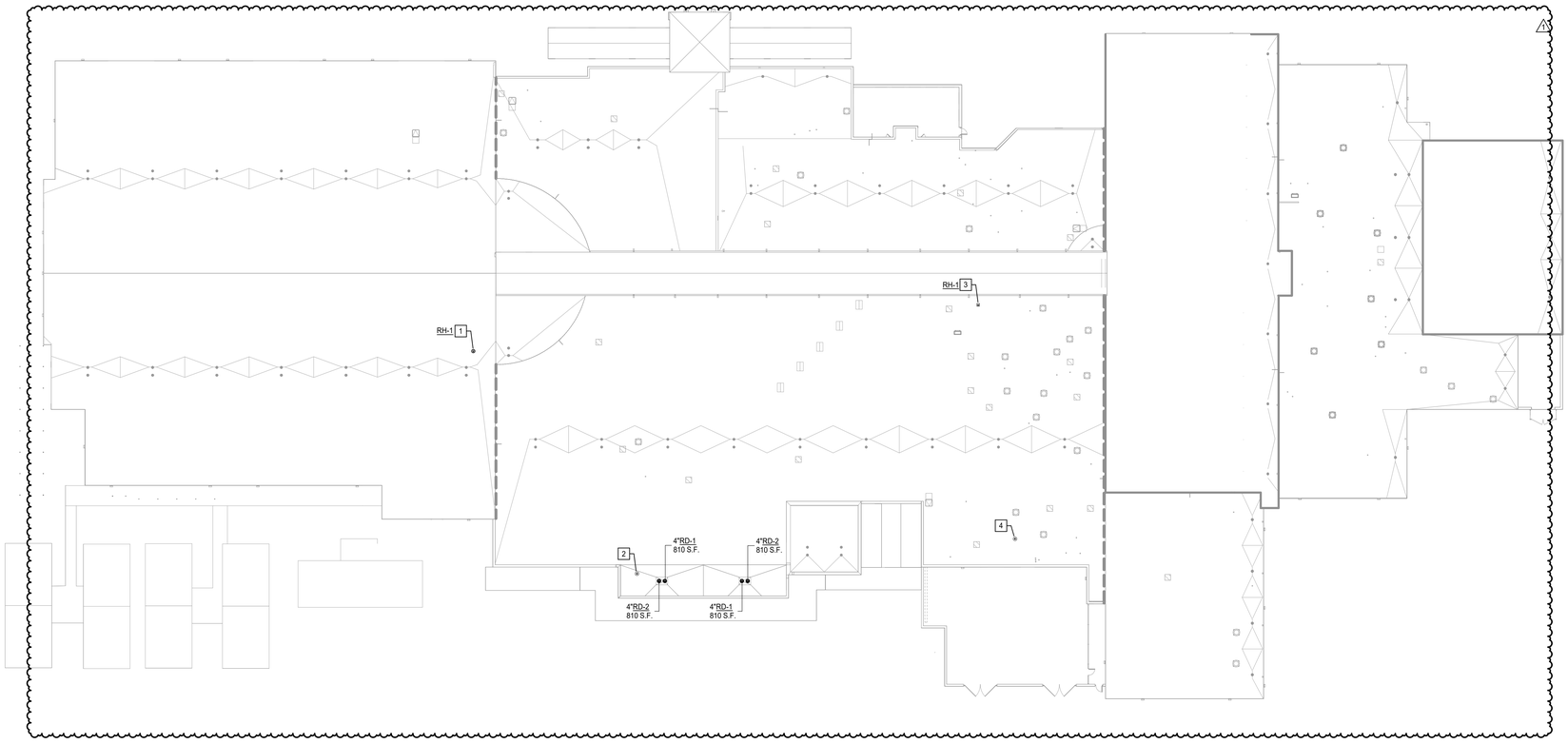
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

NOTE:-

ANY NEW ROOF HYDRANT (RH-1) SHALL BE WITHIN 50'-0" MAX FROM THE SERVED CONDENSING UNIT.



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1 **PLUMBING ROOF PLAN**
Scale: 1" = 30'-0"

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Project Number: 23073
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Drawn By: WHL / KLO

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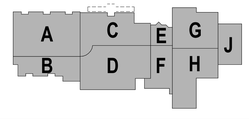

PLUMBING ROOF PLAN

P3.14

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PLUMBING KEYED NOTES

1. 2" VENT FROM BELOW.
2. 3" VENT UP, 3" VTR.
3. CAP EXISTING 6" GAS PIPE AT THIS POINT.
4. 3" NATURAL GAS PIPE DOWN TO BOILER.
5. PROVIDE AND INSTALL HORIZONTALLY DOMESTIC COLD WATER SUB-METER, RE: PLUMBING DETAILS SHEET FOR ADDITIONAL INFORMATION.
6. DOMESTIC COLD WATER SUB-METER CONTROL PANEL ON WALL. CONNECT TO BMCS. COORDINATE FINAL HEIGHT AND LOCATION WITH ARCHITECT/OWNER BEFORE INSTALLATION.
7. 3" NATURAL GAS PIPE DOWN.
8. PROVIDE NATURAL GAS SUB-METER AT 5'.00" A.F.F. WITH FULL SIZE BYPASS LINE AND NORMALLY CLOSED VALVE. COORDINATE FINAL HEIGHT AND LOCATION WITH ARCHITECT/OWNER BEFORE INSTALLATION, CONNECT TO BMCS. RE: PLUMBING DETAILS SHEET FOR ADDITIONAL INFORMATION.
9. 3" NATURAL GAS PIPE UP.
10. 3/4" CW DOWN TO SERVE PLUMBING FIXTURE(S).
11. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'.0" ABOVE GRADE. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

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C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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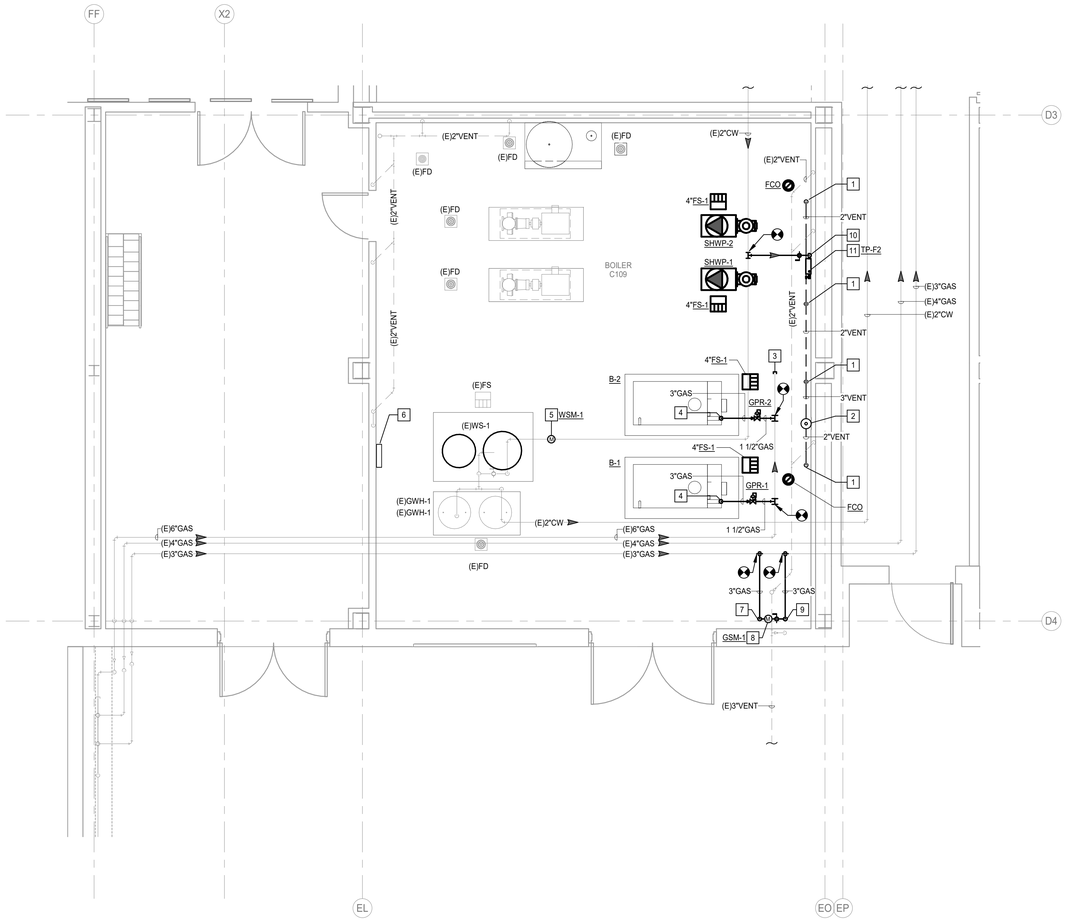

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1 **PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - AREA F**
Scale: 1/4" = 1'-0"

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1 Addendum 02 02-11-25
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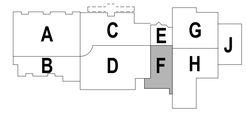

PLUMBING ENLARGED PLANS - AREA F

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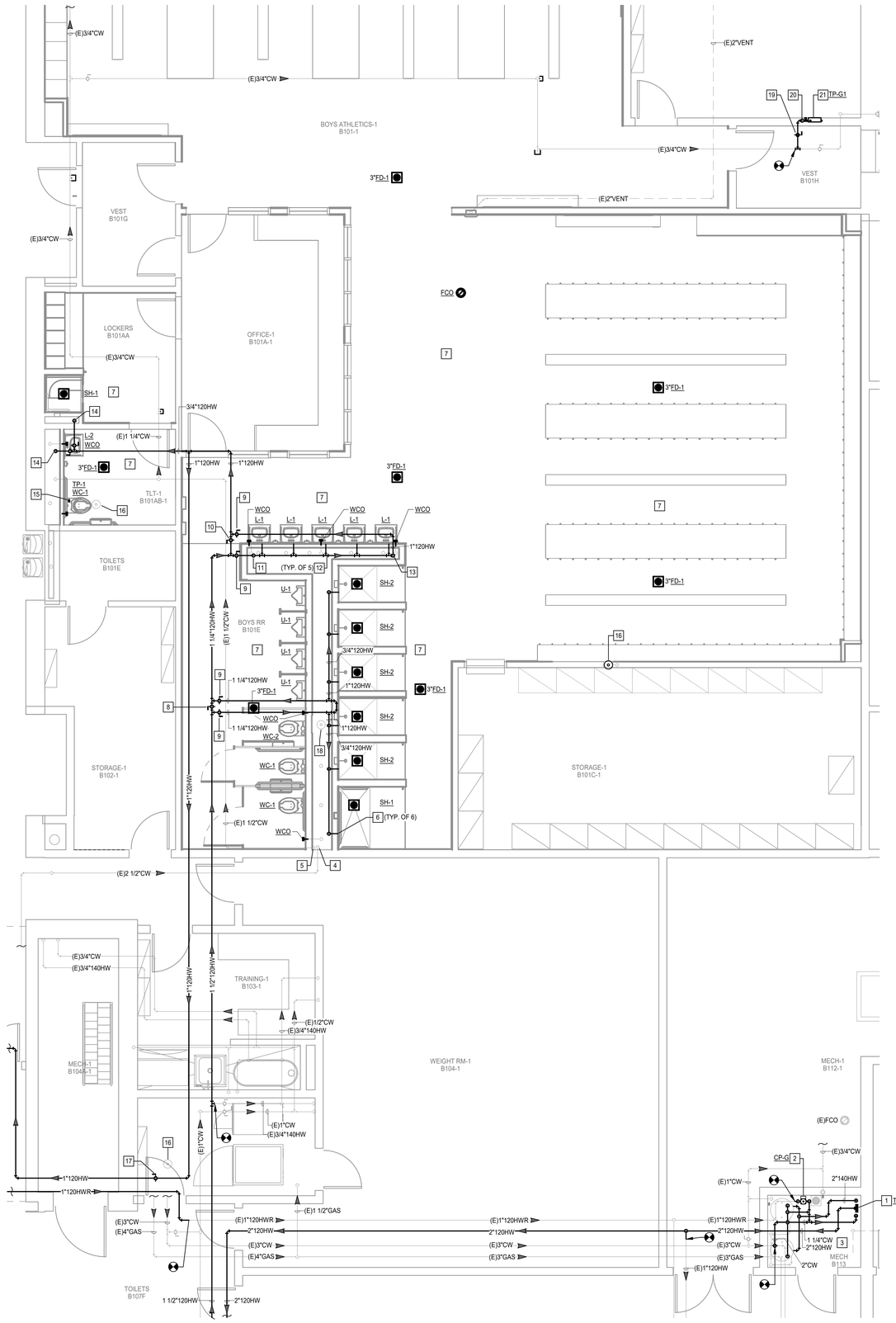

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1 PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - AREA G
Scale: 1/4" = 1'-0"

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Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. PROVIDE AND INSTALL THERMOSTATIC MIXING VALVE (TMV-G), MOUNT ON WALL NO MORE THAN 60" AFF. DROP VALVED 2" HW (140°) AND 1-1/4" CW DOWN TO TMV-G AND RISE 2" HW (120°) TO SERVE ZONE G AND H FIXTURES. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.
2. PROVIDE AND INSTALL CIRCULATION PUMP (CP-G). MOUNT ON WALL NO MORE THAN 60" AFF. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION. FOR CIRCULATOR PUMP MODEL AND PIPING.
3. RE: PLUMBING DETAILS SHEET FOR CW, HW140°, HW120°, HWR120° NEW PIPPING AND VALVING.
4. EXISTING 2-1/2" CW DOWN IN CHASE.
5. EXISTING 1-1/2" CW UP FROM CHASE.
6. DROP 3/4" HW120° PIPE IN CHASE AND EXTEND TO SERVE PLUMBING FIXTURE(S).
7. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.
8. 1-1/4" HW120° BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
9. SHUT-OFF VALVE(S) NORMALLY OPEN. PROVIDE ACCESS DOOR FOR VALVE(S).
10. 1" HW120° BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
11. 1-1/4" HW120° DOWN IN CHASE.
12. EXTEND 3/4" HW120° TO SERVE FIXTURE(S).
13. 1" HW120° UP TO CEILING SPACE.
14. 3/4" HW120° DOWN TO SERVE PLUMBING FIXTURE(S). PROVIDE ACCESS DOOR FOR VALVE(S).
15. PROVIDE AND INSTALL FLUSH VALVE TRAP PRIMER. CONNECT TO EXISTING PRIMING LINE. RE: PLUMBING DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
16. EXISTING 2" VTR.
17. PROVIDE ACCESS DOOR FOR VALVE(S).
18. EXISTING 3" VTR.
19. PROVIDE ACCESS DOOR FOR VALVE(S).
20. 3/4" CW DOWN TO SERVE PLUMBING FIXTURE(S).
21. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'-0" ABOVE GRADE. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.

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2024 SMITH & SPILLANE MS RENOVATIONS

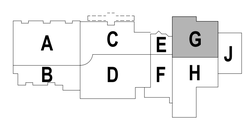
SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

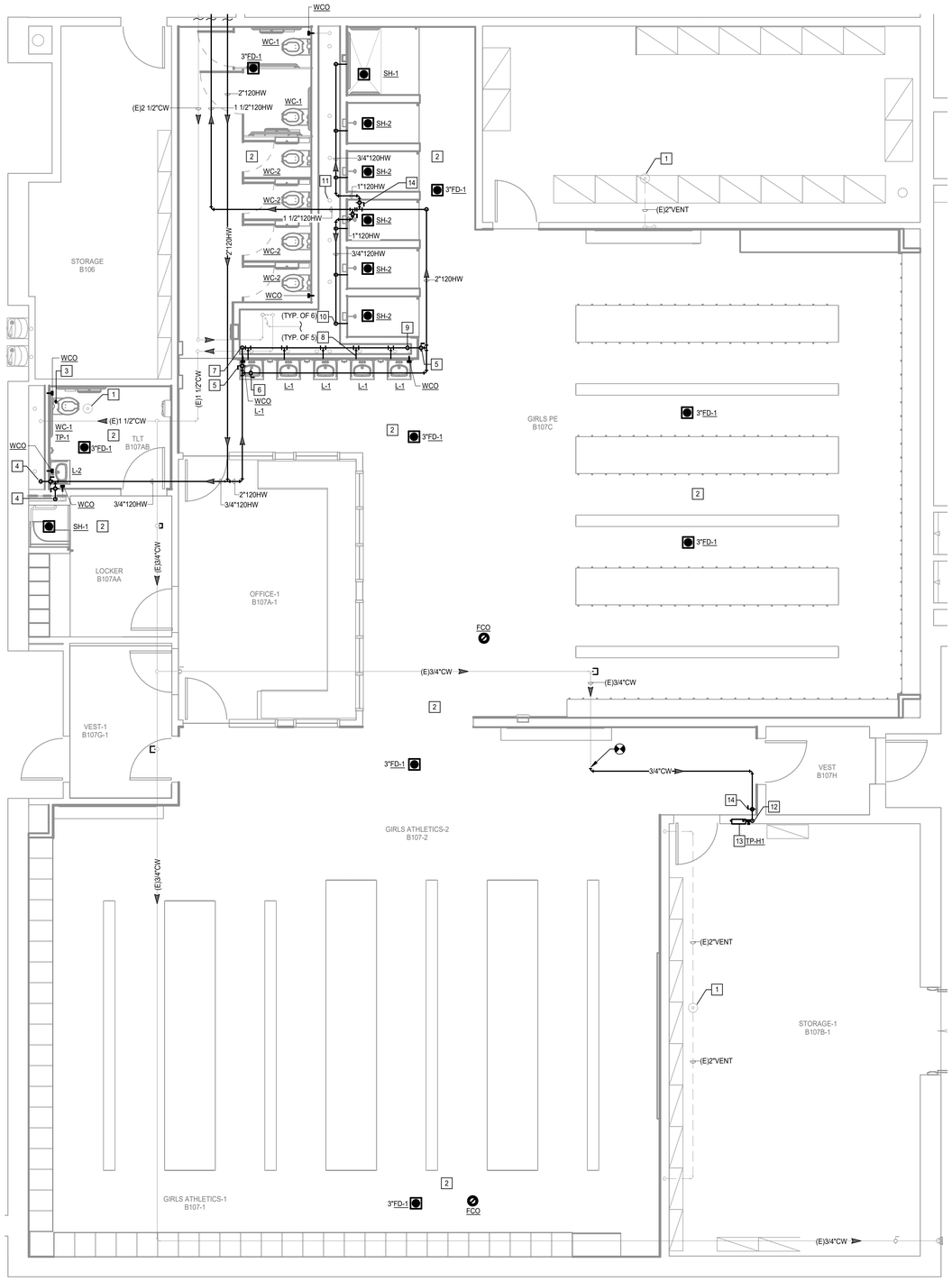
KEY PLAN:



PLUMBING ENLARGED PLANS - AREA G

P4.02

____ of ____



N

1 **PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - AREA H**
Scale: 1/4" = 1'-0"

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2024-00209-00

PLUMBING KEYED NOTES

1. EXISTING 2" VTR.
2. PROVIDE NEW PLUMBING FIXURE(S) AS INDICATED. CONNECT TO EXISTING UTILITIES, CW, HW (IF APPLICABLE), SANITARY AND VENT.
3. PROVIDE AND INSTALL FLUSH VALVE TRAP PRIMER. CONNECT TO EXISTING PRIMING LINE. RE: PLUMBING DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
4. 3/4" HW120" DOWN TO SERVE PLUMBING FIXTURE(S). PROVIDE ACCESS DOOR FOR VALVE(S).
5. SHUT-OFF VALVE(S) NORMALLY OPEN. PROVIDE ACCESS DOOR FOR VALVE(S).
6. 2" HW120" BY-PASS PIPE WITH SHUT-OFF VALVE NORMALLY CLOSED. PROVIDE ACCESS DOOR FOR VALVE(S).
7. 2" HW120" DOWN IN CHASE.
8. EXTEND 3/4" HW120" TO SERVE FIXTURE(S).
9. 2" HW120" UP TO CEILING SPACE.
10. DROP 3/4" HW120" PIPE IN CHASE AND EXTEND TO SERVE PLUMBING FIXTURE(S).
11. EXISTING 3" VTR.
12. 3/4" CW DOWN TO SERVE PLUMBING FIXTURE(S).
13. PROVIDE AND INSTALL NEW TRAP PRIMER AT 5'-0" ABOVE GRADE. RE: PLUMBING DETAILS AND SCHEDULES SHEETS FOR ADDITIONAL INFORMATION.
14. PROVIDE ACCESS DOOR FOR VALVE(S).

FIRE SPRINKLER SYSTM NOTES

A. LICENSED SPRINKLER CONTRACTOR SHALL EXTEND THE AUTOMATIC FIRE SPRINKLER SYSTEM TO INCLUDE NEW ADDITION, AND MATCH NEW MATERIALS AND SPRINKLER HEADS TO EXISTING.

B. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND CALCULATIONS FOR UP DATE CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT, NFPA 13, ALL STATE AND LOCAL CODE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING GENERAL NOTES

1. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFY AT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3. PLUMBING FIXTURES/EQUIPMENT SHOWN ON PLAN THAT ARE NOT IDENTIFIED AND DO NOT HAVE A FIXTURE DESIGNATION ARE EXISTING AND ARE TO REMAIN.
4. REFER TO ARCHITECTS DRAWING FOR EXACT LOCATION OF FLOOR DRAINS.
5. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
6. REFER TO SHEET P5.01 & P5.02 FOR PLUMBING DETAILS AND SHEET P6.01 FOR PLUMBING SCHEDULES.

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CONSTRUCTION DOCUMENT

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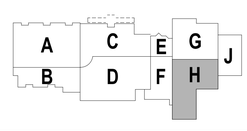
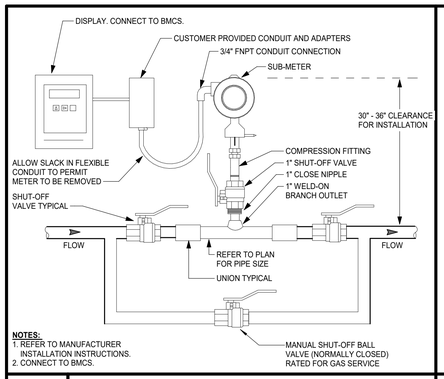


PLUMBING ENLARGED PLANS - AREA H

P4.03

____ of ____

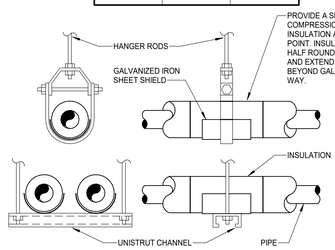


NOTES:
1. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS.
2. CONNECT TO BMCS.

16 NATURAL GAS SUB-METER

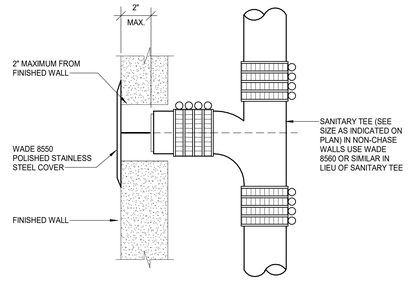
SCALE: NONE

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



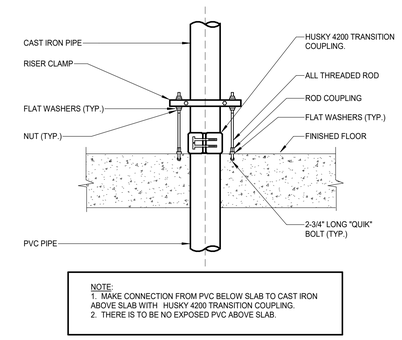
12 PIPE SHIELDS FOR INSULATED PIPING

SCALE: NONE



8 WALL CLEANOUT - TYPICAL

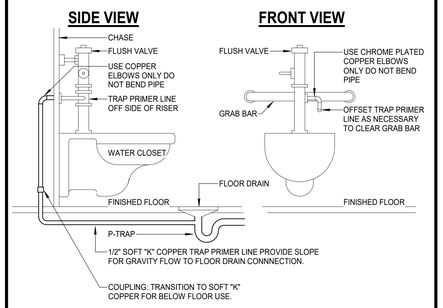
SCALE: NONE



NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

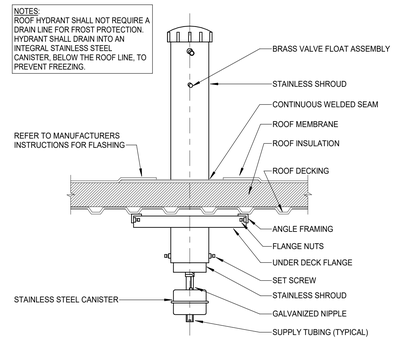
4 CAST IRON TO PVC TRANSITION

SCALE: NONE



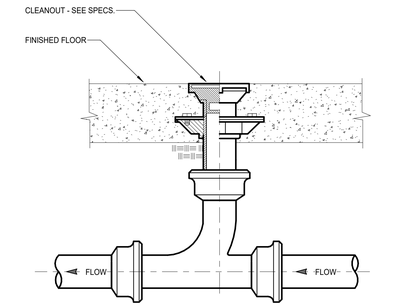
15 MECHANICAL FLUSH VALVE TRAP PRIMER

SCALE: NONE



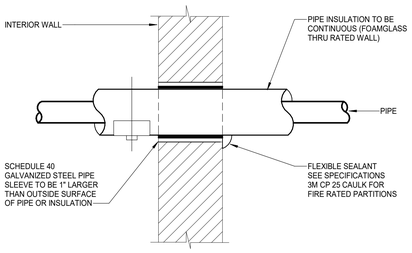
11 ROOF HYDRANT DETAIL

SCALE: NONE



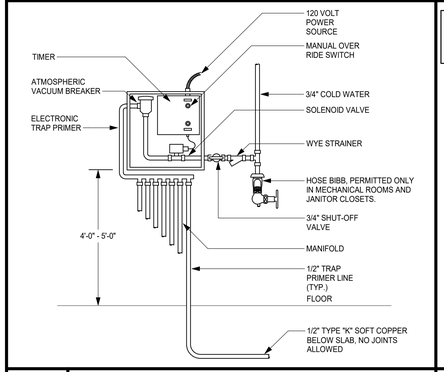
7 FLOOR CLEANOUT - TYPICAL

SCALE: NONE



3 INTERIOR WALL PENETRATION

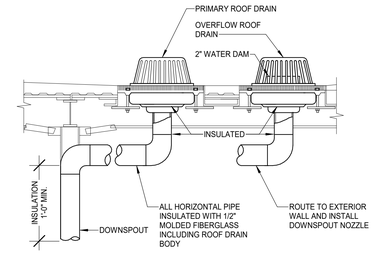
SCALE: NONE



14 ELECTRONIC TRAP PRIMER

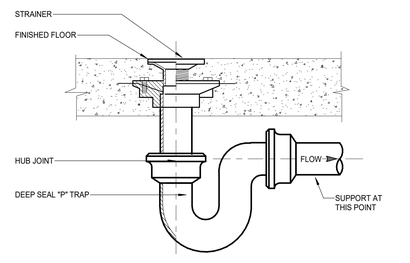
SCALE: NONE

NOTES:
1. SEE ARCH. DETAIL FOR ROOF CONSTRUCTION AND FLASHING..
2. LEAVE 6" CLEARANCE BELOW THE ROOF DRAIN FOR EASY ACCESS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INSTALLATION REQUIREMENTS.



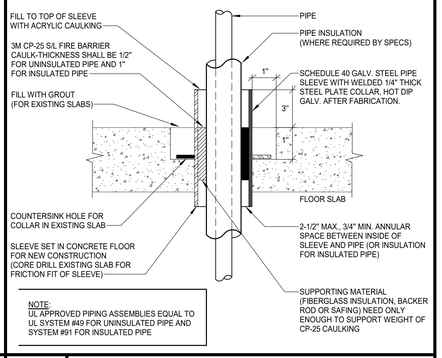
10 ROOF AND OVERFLOW DRAIN INSULATION

SCALE: NONE



6 FLOOR DRAIN - TYPICAL

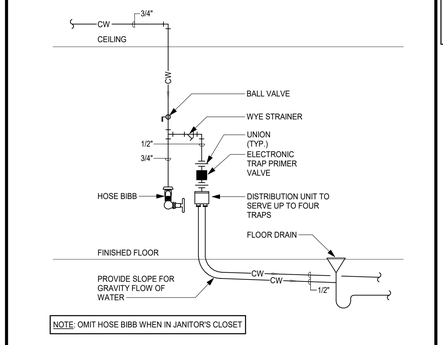
SCALE: NONE



NOTE:
UL APPROVED PIPING ASSEMBLIES EQUAL TO UL SYSTEM #49 FOR UNINSULATED PIPE AND SYSTEM #91 FOR INSULATED PIPE

2 INTERIOR FLOOR PENETRATION

SCALE: NONE

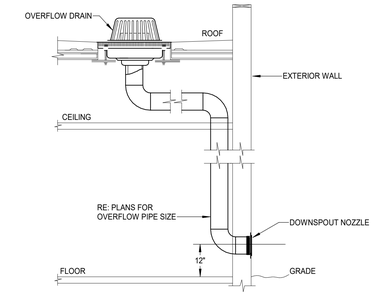


NOTE: OMIT HOSE BIBB WHEN IN JANITOR'S CLOSET

13 ELECTRONIC TRAP PRIMER IN MECHNICAL ROOM /JANITOR CLOSET

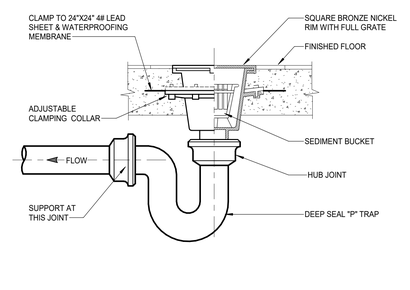
SCALE: NONE

NOTES:
1. SEE ARCH. DETAIL FOR ROOF CONSTRUCTION AND FLASHING..
2. LEAVE 6" CLEARANCE BELOW THE ROOF DRAIN FOR EASY ACCESS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INSTALLATION REQUIREMENTS.



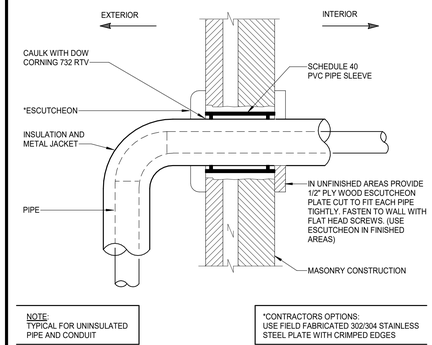
9 EXTERIOR DOWNSPOUT NOZZLE - TYPICAL

SCALE: NONE



5 FLOOR SINK -TYPICAL

SCALE: NONE



NOTE:
TYPICAL FOR UNINSULATED PIPE AND CONDUIT

*CONTRACTORS OPTIONS:
USE FIELD FABRICATED 302/304 STAINLESS STEEL PLATE WITH CRIMPED EDGES

1 EXTERIOR WALL PENETRATION

SCALE: NONE

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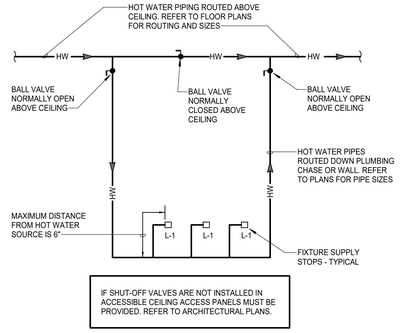
PLUMBING DETAILS

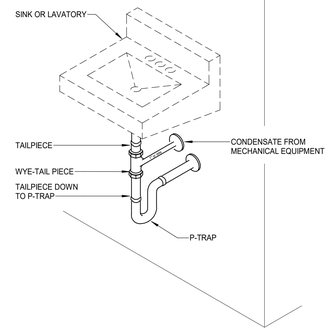
P5.01

____ of ____



24 HW CIRCULATION FOR PUBLIC LAVATORIES

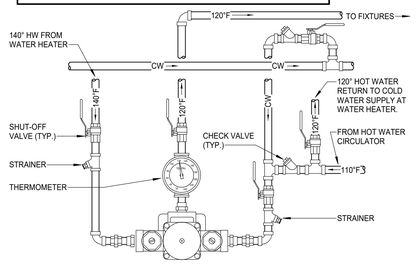
SCALE: NONE



20 WYE-TAILPIECE CONDENSATE CONNECTION

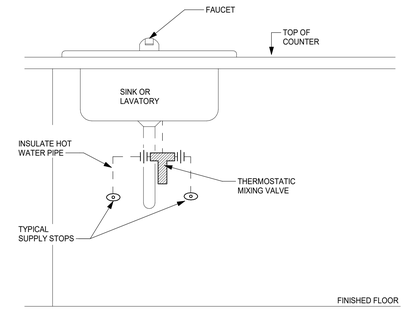
SCALE: NONE

GENERAL NOTES:
1. MOUNT MIXING VALVE AT 48"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.
2. REFER TO PLANS FOR ALL PIPE SIZES. PROVIDE PIPE INCREASERS/DECREASERS AS REQUIRED.
3. REFER TO PLANS FOR ALL EQUIPMENT LOCATIONS.4. 4.MAKE ALL WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. ALL THERMOSTATIC MIXING VALVES MUST BE LEAD FREE.



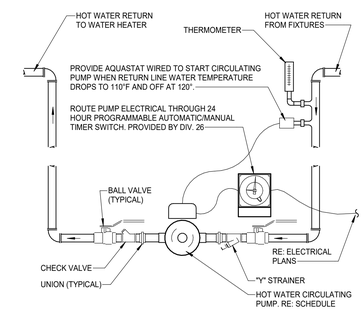
23 MASTER THERMOSTATIC MIXING VALVE

SCALE: NONE



19 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY SINGLE TEMPERATURE

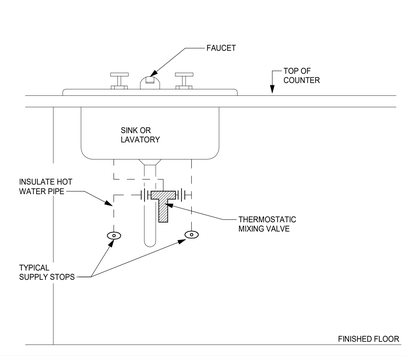
SCALE: NONE



NOTE: MOUNT AT 54"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.

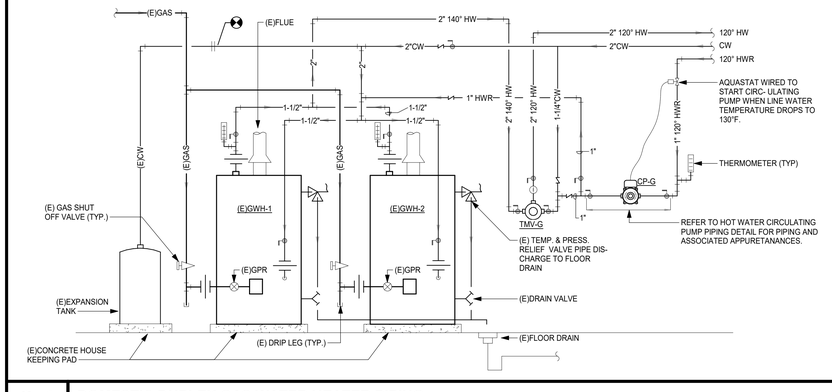
22 DOMESTIC HOT WATER CIRCULATING PUMP

SCALE: NONE



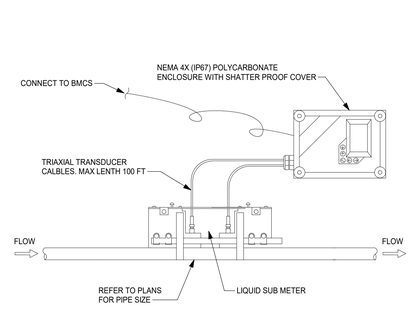
18 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY DUAL TEMPERATURE

SCALE: NONE



21 DOMESTIC DUPLEX GAS WATER HEATER PIPING

SCALE: NONE



NOTES:
1. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS.
2. CONNECT TO BMCS.

17 DOMESTIC COLD WATER SUB-METER

SCALE: NONE

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PLUMBING DETAILS

P5.02

____ of ____

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSTATE DRAIN PIPING (CD)
D	CONDENSTATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P / 1 4" VTR	RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (T.A.S. COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD "AFWALL" #2257.101.
SEAT: ELONGATED OPEN FRONT BLACK PLASTIC SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL #111-1.28.
CARRIER: WADE #311 AND #330 SERIES -AM1.
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: WC-2 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD "AFWALL" #2257.101.
SEAT: ELONGATED OPEN FRONT BLACK PLASTIC SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL #111-1.28.
CARRIER: WADE #311 AND #330 SERIES -AM1.
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER. AMERICAN STANDARD "ALLBROOOK" #6550.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL #186-0.5-H-573-CP.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE #401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT) METERED - STUDENT - TEMPERED.
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET SPREAD. AMERICAN STANDARD "LUCERNE" #0356.012.
FAUCET: CHROME PLATED BRASS DECK MOUNTED LAVATORY FAUCET WITH COVER PLATE, 4-1/8" SPOUT, AND PUSH BUTTON HANDLE INDEXED "PUSH". SELF CLOSING METERING CARTRIDGE, VANDAL RESISTANT 0.5 GPM AERATOR. CHICAGO MODEL #857-E66VP-665PSHAB.
MIX VALVE: PROVIDE POINT OF USE MIXING VALVE, FACTORY SET EACH LAVATORY TO TEMPER THE OUTLET WATER SUPPLY TO 105°F, 0.5 GPM FLOW RATE. LEONARD MODEL #170-LF-BRKT.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE #520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER - TEMPERED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-2 (T.A.S. COMPLIANT) ADULT - COLD AND HOT WATER.
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" FAUCET SPREAD. AMERICAN STANDARD "LUCERNE" #0356.015.
FAUCET: CHROME PLATED BRASS, DECK MOUNTED, LAVATORY FITTING WITH VANDAL RESISTANT 4" WRISTBLADE HANDLES ON 4" CENTERS, 4" SPOUT AND VANDAL RESISTANT 0.5 GPM LAMINAR FLOW OUTLET. CERAMIC DISC QUARTER TURN OPERATING CARTRIDGES. CHICAGO FAUCETS 802-E70-317XKABCP
MIX VALVE: PROVIDE POINT OF USE MIXING VALVE, FACTORY SET EACH LAVATORY TO TEMPER THE OUTLET WATER SUPPLY TO 105°F, 0.5 GPM FLOW RATE. LEONARD MODEL #170-LF-BRKT.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE #520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER - TEMPERED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-1 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE AND TILED ENCLOSURE INSTALLED PER ARCHITECTURAL DRAWINGS. CONFIRM CONFIGURATION AND ORIENTATION WITH ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH VANDAL RESISTANT LEVER HANDLE, INTEGRAL CHECKSTOPS, AND ADJUSTABLE TEMPERATURE LIMIT SCREW. CAST BRASS VALVE BODY. ALL EXPOSED MATERIALS STAINLESS STEEL OR CHROME PLATED BRASS. 1.5 GPM HAND HELD SHOWER WITH 60" METAL CLAD FLEXIBLE HOSE, CHROME PLATED BRASS SUPPLY ARM, VACUUM BREAKER, MOUNTING BRACKET AND 24" METAL SLIDE BAR. BRADLEY #1C-HD-A24.
DRAIN: FLOOR DRAIN, BOTTOM OUTLET CAST IRON BODY, ADJUSTABLE 5" DIAMETER NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREWS, CLAMPING DEVICE, AND 1/2" TRAP PRIMER TAP. WADE #1100-MR5
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-2 (NON-T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE AND TILED ENCLOSURE INSTALLED PER ARCHITECTURAL DRAWINGS. CONFIRM CONFIGURATION AND ORIENTATION WITH ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH VANDAL RESISTANT LEVER HANDLE, INTEGRAL CHECKSTOPS, AND ADJUSTABLE TEMPERATURE LIMIT SCREW. CAST BRASS VALVE BODY. ALL EXPOSED MATERIALS STAINLESS STEEL OR CHROME PLATED BRASS. VANDAL RESISTANT 1.5 GPM SHOWERHEAD. BRADLEY #1C-HD-S15-LBJ
DRAIN: FLOOR DRAIN, BOTTOM OUTLET CAST IRON BODY, ADJUSTABLE 5" DIAMETER NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREWS, CLAMPING DEVICE, AND 1/2" TRAP PRIMER TAP. WADE #1100-MR5
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: FS-1
SERVICE: MECHANICAL ROOM EQUIPMENT CONDENSATE AND MINI-SPLIT CONDENSATE
DESCRIPTION: A.R.E. COATED CAST IRON BODY 12" SQUARE FLOOR SINK WITH 8" DEEP SUMP, BOTTOM OUTLET, LOOSE SET CAST IRON SECONDARY STRAINER, CLAMPING DEVICE, STAINLESS STEEL HALF TOP GRATE, BOTTOM OUTLET WITH 1/2" TRAP PRIMER CONNECTION. WADE #9140-6-15-26-85.
TRAP PRIMER: SERVED BY ELECTRONIC TRAP PRIMER, REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION AND EQUIPMENT PLACEMENT.

TYPE: FD-1
SERVICE: TOILET ROOMS AND GENERAL USE
DESCRIPTION: FLOOR DRAIN, PAINTED CAST IRON BODY WITH ANCHOR FLANGE, SEEPAGE OPENINGS, CAST IRON ADJUSTABLE 6" DIAMETER TOP, STAINLESS STEEL FRAME WITH SECURED SLOTTED GRATE, 1/2" NPT TRAP PRIMER TAP (PLUGGED), REVERSIBLE CLAMPING COLLAR, BOTTOM OUTLET, LOAD RATING - LIGHT DUTY. WADE #1100-MR6-8-85.
TRAP SEAL: TRAP SERVED BY TRAP PRIMING DEVICE, REFER TO PLANS FOR SPECIFIC TYPE.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: HB-1 - COLD WATER
DESCRIPTION: HOSE BIBB. EXPOSED TYPE, MILD CLIMATE, WALL-MOUNTED FAUCET WITH 3/4" F.P.T. INLET, 3/4" MALE HOSE THREAD OUTLET AND SELF-DRAINING ANTI SIPHON VACUUM BREAKER. CHROME PLATED BRASS FINISH WITH REMOVABLE TEE HANDLE. CHICAGO #952-CP
ROUGH-IN: 3/4" COLD WATER. INSTALL WITH OUTLET AT 18" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.

TYPE: RH-1 - COLD WATER
DESCRIPTION: ROOF HYDRANT, DRAIN CANISTER BELOW ROOF LINE , 3/4" F.P.T. INLET, 3/4" MALE HOSE THREAD OUTLET AND SELF-DRAINING ANTI SIPHON VACUUM BREAKER. 1" SCHEDULE 40 GALVANIZED RISER AND SELF ADJUSTING SOLID BRASS OPERATING ROD. MAPA PRODUCTS #MPH-24-FP (NO SUBSTITUTIONS).
ROUGH-IN: 3/4" COLD WATER. INSTALL WITH OUTLET AT 18" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH COUNTERSUNK BRONZE PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE #8550-75 WITH #8304. PROVIDE WADE #8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, PAINTED CAST IRON BODY WITH ANCHOR FLANGE, ADJUSTABLE TOP, SECURED SCORIATED ADJUSTABLE ABS PLASTIC HOUSINGS, ABS PLASTIC GASKETED PLUG AND BOTTOM OUTLET. WADE #6000-102. FOR CARPETED FLOORS PROVIDE WADE #6000-102-CM. FOR TERRAZO TILES #6000-102-U, FOR RECESSED TILE #6000-102-T. FOR VCT TILES COORDINATE WITH MANUFACTURER FOR INSTALLATION INSTRUCTIONS.

TYPE: RD-1
DESCRIPTION: ROOF DRAIN. CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ALUMINUM DOME, UNDERDECK CLAMP AND ADJUSTABLE EXTENSION AS REQUIRED FOR ROOF CONSTRUCTION. WADE 3000-46-52-53 FOR 6" AND SMALLER, WADE 3001-46-52-53 FOR 8" AND LARGER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: RD-2
DESCRIPTION: OVERFLOW ROOF DRAIN. CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ALUMINUM DOME, 2" HIGH WATER DAM, BEARING PAN, UNDERDECK CLAMP AND ADJUSTABLE EXTENSION AS REQUIRED FOR ROOF CONSTRUCTION. WADE 3000-D-46-52-53 FOR 6" AND SMALLER, WADE 3001-D-46-52-53 FOR 8" AND LARGER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: DN-1
DESCRIPTION: OVERFLOW DOWNSPOUT NOZZLE. CAST BRONZE WITH THREADED OR NO HUB OUTLET AND FLANGE TO SECURE NOZZLE TO WALL. INSTALL AT 12" ABOVE FINISHED SLAB OR AS DIRECTED BY ARCHITECT. WADE 3941-VP.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: TP-D1 (SURFACE MOUNT)
SERVICE: NEW FS-1. MECH. MEZZ (D201).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VALVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120V. PRECISION PLUMBING PRODUCTS MINI-PRIME MPB-500-120V WITH NEMA TYPE 1, UL50 BOX, AND COVER.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-F1 (SURFACE MOUNT)
SERVICE: NEW FS-1. CUST-1 (A112-1).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VALVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120V. PRECISION PLUMBING PRODUCTS MINI-PRIME MPB-500-120V WITH NEMA TYPE 1, UL50 BOX AND COVER.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-F2 (SURFACE MOUNT)
SERVICE: TOTAL OF FOUR FLOOR SINKS SERVING NEW BOILERS, SHWP-1, AND SHWP-2.
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VALVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120V. PRECISION PLUMBING PRODUCTS MINI-PRIME MPB-500-120V WITH NEMA TYPE 1, UL50 BOX, DISTRIBUTION UNIT AND COVER.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-G1 (FLUSH MOUNT)
SERVICE: TOTAL OF FIFTEEN FLOOR DRAINS. BOYS ATHLETICS, PE, RR, SHOWERS, AND LOCKERS (B101-1).
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH FLUSH MOUNT CABINET AND STAINLESS STEEL ACCESS DOOR, SOLENOID VALVE, ATMOSPHERIC VACUUM BREAKER, CIRCUIT BREAKER, AND TIMER. 120V. PRECISION PLUMBING PRODUCTS "PRIME TIME" #PT-1320.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-H1 (FLUSH MOUNT)
SERVICE: TOTAL OF FIFTEEN FLOOR DRAINS. GIRLS ATHLETICS, PE, RR, SHOWERS, AND LOCKERS (B107-1)
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH FLUSH MOUNT CABINET AND STAINLESS STEEL ACCESS DOOR, SOLENOID VALVE, ATMOSPHERIC VACUUM BREAKER, CIRCUIT BREAKER, AND TIMER. 120V. PRECISION PLUMBING PRODUCTS "PRIME TIME" #PT-1320.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

TYPE: TP-1
SERVICE: SERVES SINGLE FLOOR DRAIN TRAP.
DESCRIPTION: FLUSH VALVE TRAP PRIMER, 1-1/2" O.D. X 12" 17 GAUGE PRIMING TUBE WITH VACUUM BREAKER. PRECISION PLUMBING PRODUCTS FVP-1VB.
ROUGH-IN: 3/4" COLD WATER. **NOT TO BE INSTALLED ABOVE CEILING**.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

CIRCULATING PUMP SCHEDULE

ITEM NO.	DESCRIPTION	TYPE	GPM	HEAD FEET	H.P. MIN.	ELECTRICAL CHAR. V/P/F	MAX RPM	MANUFACTURER AND MODEL
CP-G	CIRCULATION PUMP (120) F HOT WATER	IN-LINE STAINLESS STEEL	1.5	2.54	1/12	115/1/60	-	GRUNDFOS #ALPHA HWR-15-29 SF/T 115V

NOTES:
1. CONTRACTOR TO SPECIFY CONTROL BOX POSITION BASED ON FIELD CONDITIONS.
2. CONTRACTOR TO START PUMP IN LOW CONSTANT SPEED.

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

THERMOSTATIC MIXING VALVE SCHEDULE

ITEM NO.	TEMP. IN DEG. F	TEMP. OUT DEG. F	MIN. FLOW GPM	DES. FLOW GPM	VALVE FINISH	THERMO METER	UNION CONN.	PRESS. DIFF.	MANUFACTURER / MODEL
TMV-G	140	120	0.5	37	RB	YES	YES	5	LEONARD XL-150-LF-BDT

NOTES: PROVIDE WITH WALL MOUNTING BRACKET.

SUB-METER SCHEDULE

ITEM NO.	SYSTEM SERVING	ELECTRICAL REQUIREMENTS	MANUFACTURER / MODEL
WSM-1	KITCHEN COLD WATER	110-240 VAC, 50/60 Hz, 10 VA MAX	ONICON: F-4300
GSM-1	KITCHEN NATURAL GAS	12- 28 VDC, 6W MIN. POWER	ONICON: F-5400

GAS EQUIPMENT DEMOLITION SCHEDULE

EQUIPMENT NUMBER	DESCRIPTION	LOAD (BTUH)	TOTAL LOAD (BTUH)	TOTAL GAS FLOW (CFH)
(E)B-1	MECHANICAL BOILER	7,323,000	7,323,000	7,323
TOTALS			7,323,000	7,323

GAS EQUIPMENT SCHEDULE

EQUIPMENT NUMBER	DESCRIPTION	LOAD (BTUH)	TOTAL LOAD (BTUH)	TOTAL GAS FLOW (CFH)
B-1	MECHANICAL BOILER	3,000,000	3,000,000	3,000
B-2	MECHANICAL BOILER	3,000,000	3,000,000	3,000
TOTALS			6,000,000	6,000

GAS PRESSURE REGULATORS

ITEM NUMBER	DESCRIPTION	LOCATION	SERVING	CFH	INLET PRESSURE/ OUTLET PRESSURE
GPR-1	GAS PRESSURE REGULATOR	BOILER C109	B-1	3,000	5 PSI - INLET 8 OZ - OUTLET
GPR-2	GAS PRESSURE REGULATOR	BOILER C109	B-2	3,000	5 PSI - INLET 8 OZ - OUTLET

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CONSTRUCTION DOCUMENT

STATE OF TEXAS
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2024 SMITH & SPILLANE MS RENOVATIONS
SPILLANE MIDDLE SCHOOL
13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

Revisions / Submission		
1	Addendum 02	02-11-25

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

PLUMBING SCHEDULES

P6.01

TECHNOLOGY LEGEND - 27 10 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
*# ▼	WALL MOUNTED NETWORK OUTLET D#: NUMBER OF DATA DROPS IN OUTLET AP: WIRELESS ACCESS POINT	+18" AFF, UNLESS OTHERWISE NOTED	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
V# ▽	COMMUNICATIONS OUTLET	FIELD COORDINATE	FIELD COORDINATE	
W ▼	WALL MOUNTED NETWORK OUTLET	+44" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
B ▽	WALL MOUNTED BOX FOR FUTURE USE.	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
D# ▼	FLOOR MOUNTED NETWORK OUTLET	N/A	COORDINATE WITH ELECTRICAL CONTRACTOR	FINISHED HARDWARE PROVIDED BY DIV 27
*#	CEILING MOUNTED NETWORK OUTLET AP: WIRELESS ACCESS POINT D#: NETWORK OUTLET	ABOVE CEILING	CEILING BRACKET WITH BISCUIT BLOCK	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. CONDUIT STUB UP AND SLEEVES SHALL HAVE A SOLID UNCUT PLASTIC PROTECTIVE BUSHING.
5. NO CONDUITS SHALL EXCEED FOR 40% MAXIMUM FILL RATIO. CONTRACTOR TO PROVIDE ADDITIONAL CONDUITS REQUIRED.

AUDIO/VIDEO LEGEND - 27 41 16.10

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
WMP ▽	WALL MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLANS.	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CMP	CEILING MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	CEILING MOUNTED	N/A	NOTE #5
AV-1 ▽	WALL MOUNTED AUDIO/VIDEO INPUT OUTLET	+18" AFF UNO	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	
FSD-1 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
FSD-2 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET ASSOCIATED WITH AV-1 INPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
IVD ▽	INTERACTIVE VIDEO DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CP ▽	AV CONTROL PANEL	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
(RS)	LOCAL INSTRUCTIONAL SPACE PRESENTATION SPEAKER	CEILING	CONTRACTOR PROVIDED CEILING BOX	COORDINATE POWER WITH EC
	STREAMING CAMERA	CEILING UNO	N/A	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

LOCAL SOUND SYSTEM LEGEND - 27 41 16.20

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
LS	LOCAL SOUND SYSTEM SPEAKER P: POLE MOUNTED SPEAKER	CEILING MOUNT UNO	CONTRACTOR PROVIDED BACK BOX OR 4"X4"X2 1/8" J BOX WITH COVER, 1"C	
LSC	LOCAL SOUND SYSTEM CONTROL PLATE	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MI	MICROPHONE INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MA	COMBINATION OUTLET CONSISTING OF ONE (1) MICROPHONE INPUT AND ONE (1) AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
AI	3.5MM STEREO AUDIO AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
(H)	HANGING MICROPHONE	CEILING MOUNT	N/A	
ABM	AUXILIARY INPUT AND BLUETOOTH MIXER	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RACK	VENUE SPECIFIC LOCAL SOUND SYSTEM HEAD END RACK	WALL MOUNT UNO	N/A	
WA	WIRELESS ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
ALA	ASSISTED LISTENING ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
SUB	SUBWOOFER	CEILING MOUNT UNO		

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTERCOM LEGEND - 27 50 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ICS	INTERCOM COMMUNICATIONS SYSTEM HEAD END UNIT.	FLOOR MOUNTED	COORDINATE WITH EC	COORDINATE POWER WITH EC
(S)	CEILING MOUNT INTERCOM SPEAKER, LAY-IN CEILING	CEILING	CONTRACTOR PROVIDED	
(S2)	CEILING MOUNT INTERCOM SPEAKER, HARD CEILING.	CEILING	CONTRACTOR PROVIDED	
(S3)	WALL MOUNT INTERIOR INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
(S4)	WALL MOUNT EXTERIOR INTERCOM SPEAKER	+10' AFF UNO	CONTRACTOR PROVIDED	
(S5)	PENDANT MOUNT INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
(S6)	SURFACE MOUNT INTERCOM SPEAKER, MOUNT TO STRUCTURE	CEILING	CONTRACTOR PROVIDED	
(S7)	CEILING MOUNTED EXTERIOR INTERCOM SPEAKER	CEILING	CONTRACTOR PROVIDED	
#IP	IP BASED SPEAKER '#' TO BE REPLACED WITH S, S2, S3, S4 INDICATING THE SPECIFIC TYPE OF SPEAKER.	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	NOTE #5
VC	WALL MOUNTED VOLUME CONTROL	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
CB	INTERCOM CALL BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
(C)	SINGLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
(C2)	DOUBLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RPS	REMOTE PROGRAM SOURCE	DESK TOP	COORDINATE WITH EC	NOTE #5
ACS	ADMINISTRATIVE CALL STATION.	DESK TOP	N/A	NOTE #5
LD	LOCKDOWN BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
LMB ▼	LARGE MESSAGE BOARD, POE+ POWERED	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

ACCESS CONTROL LEGEND - 28 10 00 & 28 10 00.05

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ACP	ACCESS CONTROL SYSTEM. CONTROL PANEL	+60" AFF TO CENTER	AS REQUIRED	COORDINATE POWER. NOTE #4.
CR *#	ACCESS CONTROL PROXIMITY CARD READER. DEFAULT SYMBOL INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED READER	+42" A.F.F.	1-G, 3/4" C	
CR	DOOR MOUNTED ACCESS CONTROL PROXIMITY CARD READER THAT IS INTEGRATED INTO THE DOOR HARDWARE.	+42" AFF	N/A	
DS *#	2-WAY AUDIO/VIDEO INTERCOM DOOR STATION. *DEFAULT INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED DEVICE	+42" AFF	*W: 1-G, 3/4" C *M: 3/4"C	COORDINATE POWER. NOTE #4.
DS	DOOR MOUNTED, 2-WAY AUDIO/VIDEO INTERCOM DOOR STATION.	+42" AFF. FIELD COORDINATE		COORDINATE POWER. NOTE #4
MS	2-WAY AUDIO/VIDEO INTERCOM MASTER STATION.	DESK MOUNTED UNO		COORDINATE POWER. NOTE #4
DR	DOOR RELEASE BUTTON	COORDINATE WITH GC	1-G, 3/4" C	
REX	PIR MOTION REQUEST TO EXIT DEVICE			
DP	DOOR PROP ALARM	CEILING MOUNTED UNO	N/A	N/A
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	PROVIDED BY ACS CONTRACTOR.
SS	NETWORK SIREN STROBE	CEILING MOUNTED UNO		NOTE #4

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

VIDEO SURVEILLANCE LEGEND - 28 20 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
	WALL/CORNER MOUNT 4-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	CEILING MOUNTED 4-SENSOR CAMERA	CEILING		NOTE #5
	2-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	1-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
VRS	VIDEO RECORDING SERVER			
#MU	VIDEO SURVEILLANCE MAIN UNIT	ABOVE CEILING		NOTE #5
	SYMBOL INDICATED THAT A VIDEO SURVEILLANCE DEVICE IS WALL MOUNTED			

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTRUSION LEGEND - 28 31 00

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
IDP	INTRUSION DETECTION SYSTEM CONTROL PANEL	+60" AFF	TWO(2) - 1"C TO CONTRACTOR PROVIDED BACK BOX	COORDINATE POWER WITH EC. NOTE #5
KP	INTRUSION DETECTION SYSTEM KEYPAD.	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
	CEILING MOUNTED MOTION DETECTOR	CEILING		
	WALL MOUNTED MOTION DETECTOR LR: LONG RANGE	REFERENCE FLOOR PLAN	N/A	
GB	CEILING MOUNTED GLASS BREAK DETECTOR	CEILING	N/A	
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	DEVICE PROVIDED BY ACS CONTRACTOR.
SDC	SURFACE MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
ODC	OVERHEAD DOOR MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
DB	DURESS PANIC BUTTON	UNDER DESK UNO	N/A	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. REFERENCE DIVISION 28 SPECIFICATION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

FIRE ALARM - 28 46 00

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL
FAA	FIRE ALARM ANNUNCIATOR PANEL

NOTES:
1. FIRE ALARM SYSTEM IS PERFORMANCE BASED PER SPECIFICATIONS. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

SUBSCRIPTS AND ABBREVIATIONS

TEXT	DESCRIPTION
'WP'	DEVICE SHALL BE WEATHER PROOF AND RATED FOR EXTERIOR CONDITIONS
●	FIELD COORDINATE ELEVATION.
AFF	ABOVE FINISHED FLOOR
'UC'	DEVICE IS TO BE MOUNTED ON THE UNDERSIDE OF THE ELEVATED CANOPY.
'WM'	DEVICE IS TO BE WALL MOUNTED.
'WG'	WIRE GUARD TO BE PROVIDED AND INSTALLED TO PROTECT ASSOCIATED DEVICE.

SUBSCRIPTS LEGEND - EXISTING DEVICES

TEXT	DESCRIPTION
'E'	EXISTING TO REMAIN.
'D'	DEVICE IS EXISTING AND IS TO BE REMOVED. CONTRACTOR TO REMOVE THE DEVICE AND RETURN TO OWNER.
'R'	REMOVE EXISTING DEVICE AND RELOCATE TO A LOCATION INDICATED ON THE DRAWINGS.

NOTES TO CONTRACTOR

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS.
2. SYSTEM INSTALLERS SHALL COORDINATE LOCATIONS AND CONNECTIONS WITH THE PROJECT'S ELECTRICAL CONTRACTOR.
3. CONTRACTOR TO PROVIDE PROPERLY GROUNDED LIGHTING PROTECTION ON ALL CABLING ENTERING AND EXITING THE BUILDING.

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

B CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO:
1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE
TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

C CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE:
1) FIRE ALARM DEVICES
2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES
ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.

F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.

G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

J **TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY.**

TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NAME AND NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM

K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.

RESPONSIBILITY MATRIX

SCOPE ITEM	RESPONSIBILITY OFOI	RESPONSIBILITY CFCI	RESPONSIBILITY OFCI	NOTES
COMMUNICATIONS - DIVISION 27	OFOI	CFCI	OFCI	
CATEGORY 6/6A STRUCTURED CABLING SYSTEM (SCS)	✓			
AUDIO DISTRIBUTION SYSTEM - SPECIAL SPACE		✓		SEE NOTE 4.
AUDIO DISTRIBUTION SYSTEM - INSTRUCTIONAL SPACE	✓			
FLAT PANEL DISPLAYS	✓			
FLAT PANEL DISPLAY MOUNTS	✓			
INTERACTIVE DISPLAYS	✓			
INTERACTIVE DISPLAY MOUNTS	✓			
BUILDING INTERCOM/PA, BELL, AND CLOCK SYSTEM		✓		
→NETWORK SWITCHES	✓			
NETWORK EQUIPMENT				
→ MDF/IDF NETWORK EQUIPMENT	✓			
→ VOIP TELEPHONES	✓			
→ WIRELESS ACCESS POINTS	✓			
→ UNINTERRUPTIBLE POWER SUPPLIES (UPS)	✓			
RACEWAY: CONDUIT, BACK BOXES, ETC.		✓		SEE NOTE 1.
LOW VOLTAGE: RACEWAY, SLEEVES		✓		SEE NOTE 1.
STRUCTURED CABLING: RACEWAY, SLEEVES	✓			SEE NOTE 5.
ELECTRICAL POWER		✓		SEE NOTE 1.
LIFE SAFETY AND SECURITY - DIVISION 28	OFOI	CFCI	OFCI	
ACCESS CONTROL SYSTEM(ACS)		✓		
INTRUSION DETECTION SYSTEM		✓		
DOOR ACCESS VIDEO INTERCOM SYSTEM		✓		
VIDEO SURVEILLANCE SYSTEM (VSS)				
→VSS SERVERS		✓		
→VSS CAMERAS		✓		
→VSS PROGRAMMING		✓		
→VSS CABLING	✓			SEE NOTE 2.
FIRE ALARM SMOKE DETECTION WITH VOICE EVACUATION		✓		
RACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		✓		SEE NOTE 1.
ELECTRICAL POWER		✓		SEE NOTE 1.

OFOI - OWNER FURNISHED AND OWNER INSTALLED
CFCI - CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED
OFCI - OWNER FURNISHED AND CONTRACTOR INSTALLED

RESPONSIBILITY MATRIX NOTES:
1. BY DIVISION 26.
2. BY DIVISION 27.
3. BY DIVISION 11.
4. IF SYSTEM REQUIRES NETWORK SWITCH IT SHALL BE OFOI. CONTRACTOR TO COORDINATE WITH OWNER.
5. CORES AND SLEEVES FOR STRUCTURED CABLING WILL BE OWNER FURNISHED, OWNER INSTALLED. NOT TO BE USED BY ANY OTHER TRADE.

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CONSTRUCTION DOCUMENT

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02-11-2025

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2024 SMITH & SPILLANE MS RENOVATIONS

SPILLANE MIDDLE SCHOOL

13403 WOODS-SPILLANE BLVD, CYPRESS, TX 77429
CFISD PROJECT NO: 24-02-5751-R-RFP

1 Addendum 02 02-11-25
Revisions / Submission

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

TECHNOLOGY NOTES & LEGENDS

T0.00

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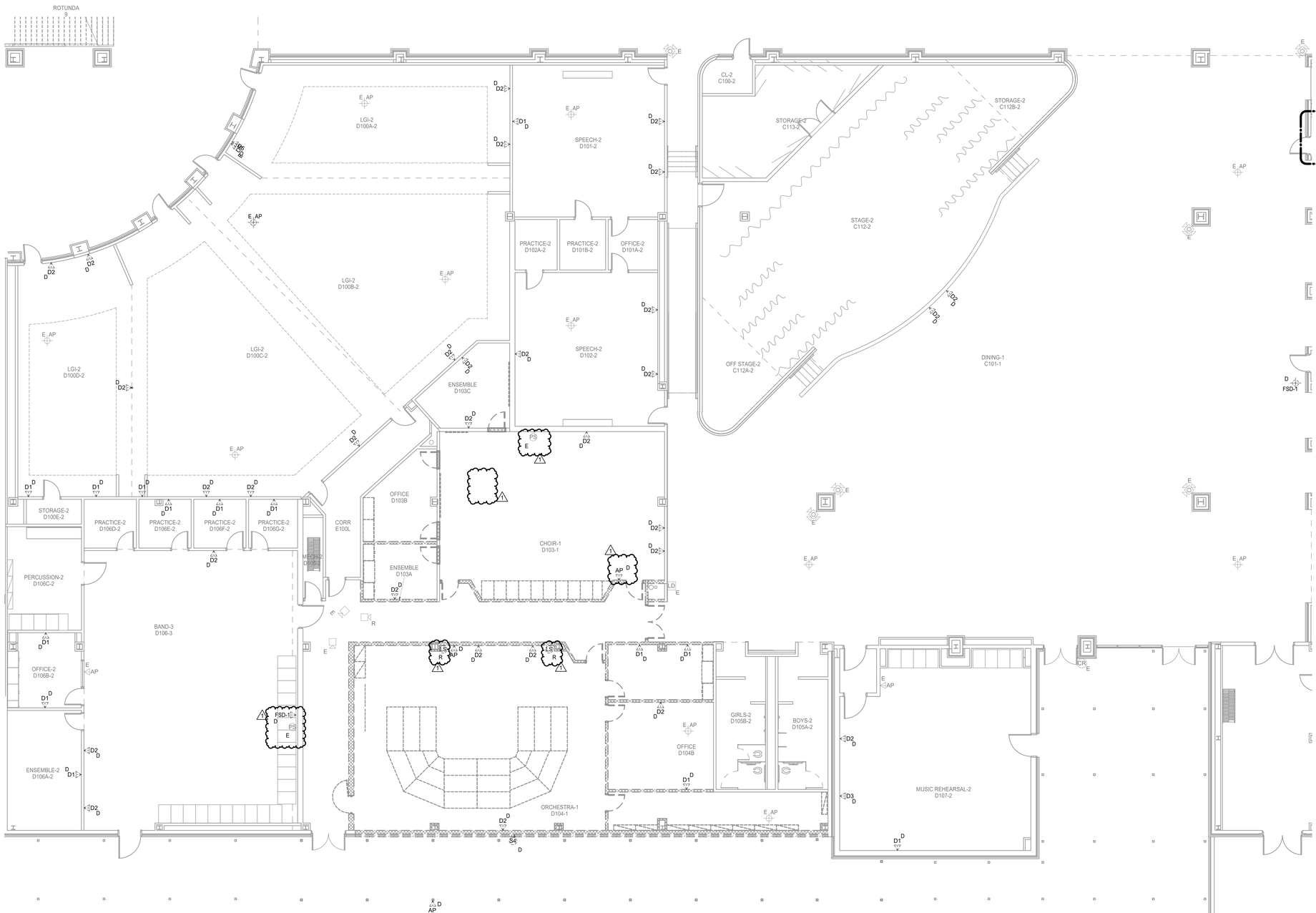

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1 **TECHNOLOGY DEMOLITION FLOOR PLAN - LEVEL 1 - AREA D**

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

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

B CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO:
1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO/VIDEO
7) VIDEO SURVEILLANCE
TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

C CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE:
1) FIRE ALARM DEVICES
2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES
ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.

F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.

G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY.

TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NAME AND NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM

K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.

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1	Addendum 02	02-11-25
	Revisions / Submission	

Project Number: 23073
Date: 26 JANUARY 2025
Drawn By: WHL / KLO

TECHNOLOGY DEMOLITION FIRST FLOOR PLAN - AREA 'D'

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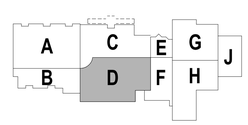
KEY PLAN:



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TECHNOLOGY PLAN KEYED NOTES

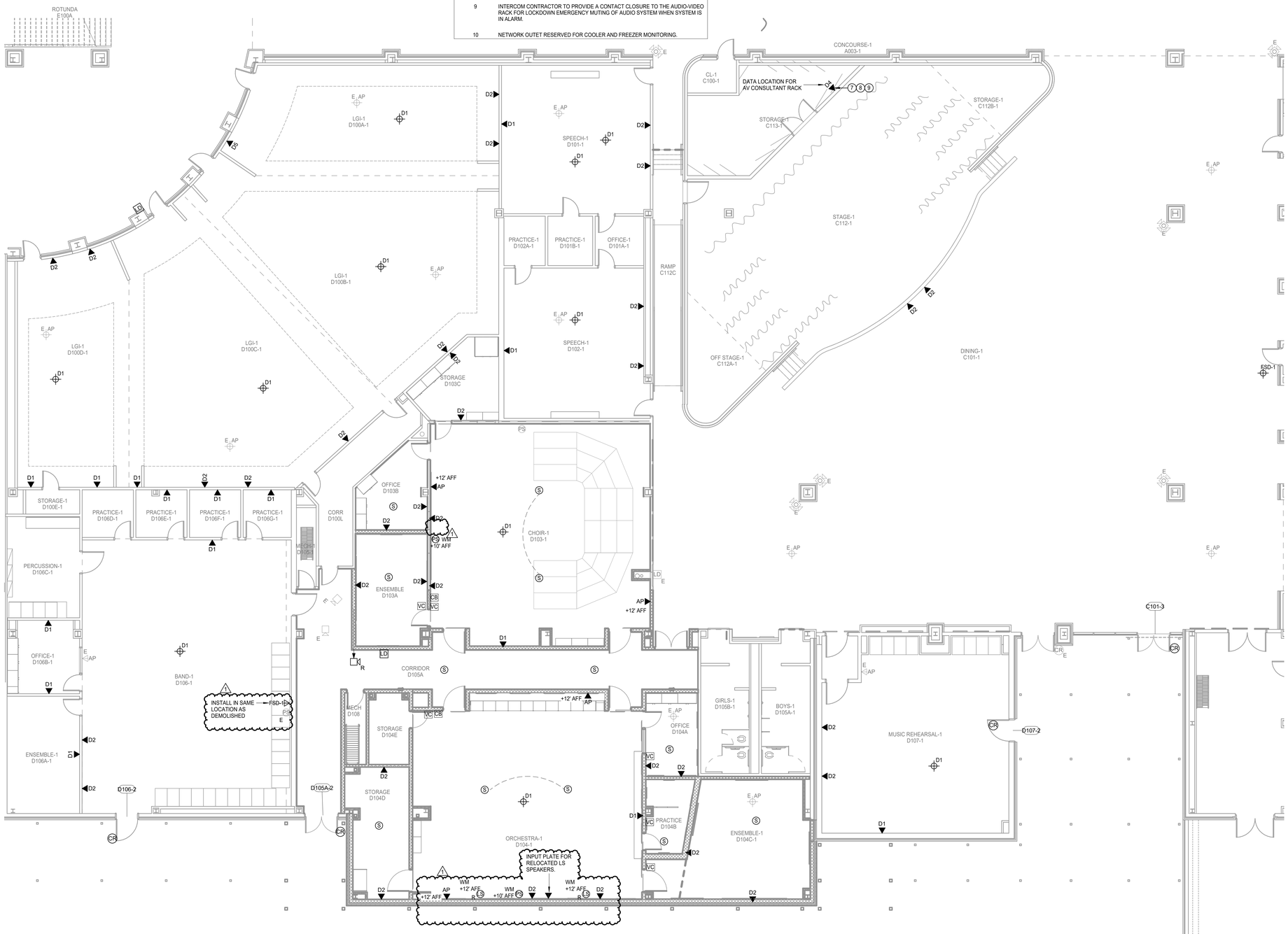
1	INDICATED NETWORK CONNECTION IS RESERVED FOR DEAF EDUCATION PROGRAM LED INDICATOR. CONTRACTOR TO COORDINATE EXISTING LOCATION.
2	EXISTING DEAF EDUCATION PROGRAM DEVICES AND WIRING ARE EXISTING TO REMAIN AND SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
3	INTERCOM SYSTEM DEVICE CABLING SHALL BE HOME RUN TO INTERCOM SYSTEM HEAD END LOCATED IN ELEC A100J.
4	THE DESIGNATED TELEPHONE OUTLET SHALL BE RESERVED FOR THE ELEVATOR EMERGENCY CALL. CONTRACTOR TO ROUTE A CABLE FROM THE NEAREST MDF/IDF, TO THE ELEVATOR CONTROL EQUIPMENT. TERMINATE THE CABLE AT THE ELEVATOR CONTROL EQUIPMENT AND CROSS-CONNECT TO THE ELEVATOR TELEPHONE TRAVEL CABLE. COORDINATE EXACT LOCATION, TERMINATION, AND CROSS-CONNECT WITH THE ELEVATOR INSTALLER.
5	COORDINATE ALL REQUIREMENTS AND FINAL LOCATION WITH ELEVATOR INTEGRATOR PRIOR TO INSTALLATION.
6	DATA OUTLET DEDICATED FOR EMPLOYEE TIME-IN/TIME-OUT TO BE MOUNTED 48"-A.F.F. COORDINATE LOG ACCESS RIGHTS WITH OWNER PRIOR TO PROGRAMMING.
7	NETWORK OUTLET RESERVED FOR AV SYSTEM HEAD END RACK. COORDINATE WITH AV CONSULTANT DRAWINGS ON FINAL AV RACK LOCATION.
8	FIRE ALARM CONTRACTOR TO PROVIDE A CONTACT CLOSURE TO THE AUDIO-VIDEO RACK FOR EMERGENCY MUTING OF AUDIO SYSTEM WHEN SYSTEM IS IN ALARM.
9	INTERCOM CONTRACTOR TO PROVIDE A CONTACT CLOSURE TO THE AUDIO-VIDEO RACK FOR LOCKDOWN EMERGENCY MUTING OF AUDIO SYSTEM WHEN SYSTEM IS IN ALARM.
10	NETWORK OUTET RESERVED FOR COOLER AND FREEZER MONITORING.

FIRE ALARM

A	FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER SPECIFICATIONS 28 46 00. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
B	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.
C	REFERENCE MECHANICAL PLANS FOR AHU LOCATIONS.

TECHNOLOGY PLAN GENERAL NOTES

A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
C	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE PLANS, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
D	CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES.
E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.
F	ALL EXISTING LOCKDOWN BUTTONS THAT ARE BEING REUSED SHALL HAVE EXISTING WIRING DEMOLISHED AND REPLACED BY CONTRACTOR.
G	NEW DATA CABLING IN EXISTING CLASSROOMS SHALL REUSE EXISTING DATA CABLING RACEWAY AND BACKBOXES. CONTRACTOR TO PROVIDE AND INSTALL NEW FACEPLATES.
H	DATA CABLING TO MECHANICAL ROOMS SHALL BE REPLACED ONE TO ONE. CONTRACTOR TO REUSE EXISTING RACEWAY AND BACKBOXES. PROVIDE AND INSTALL NEW FACEPLATES.



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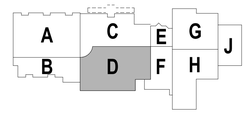

TECHNOLOGY FIRST FLOOR PLAN - AREA 'D'

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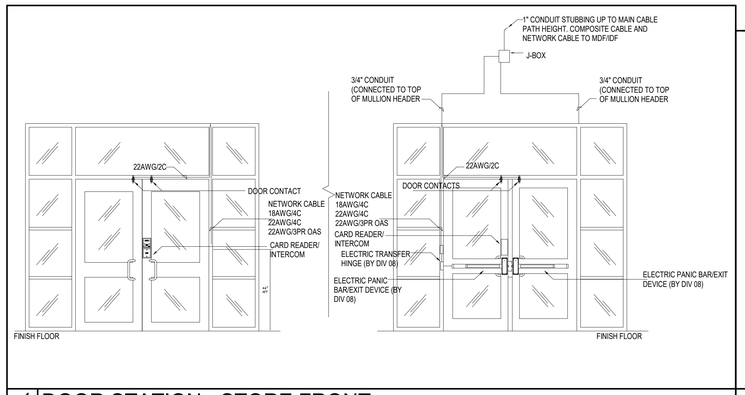

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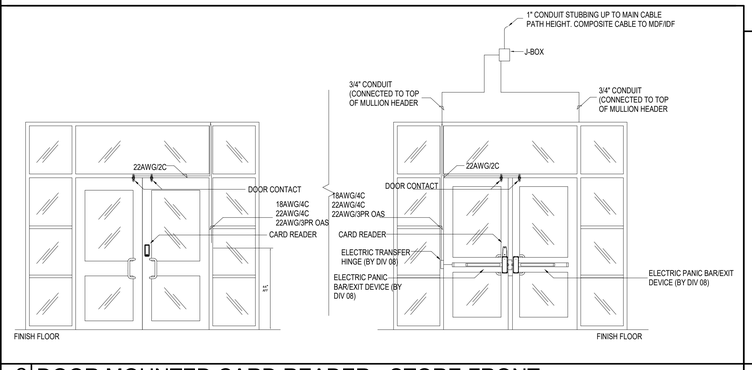
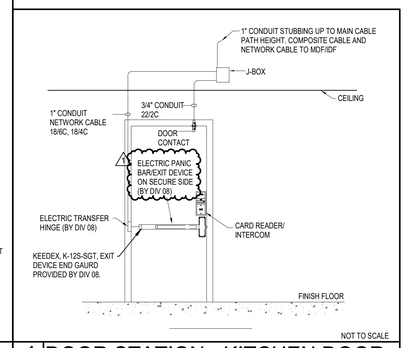
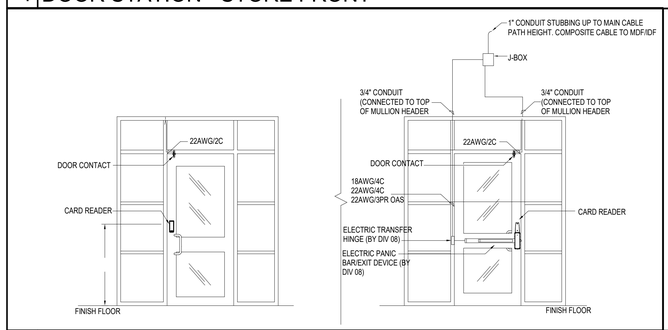


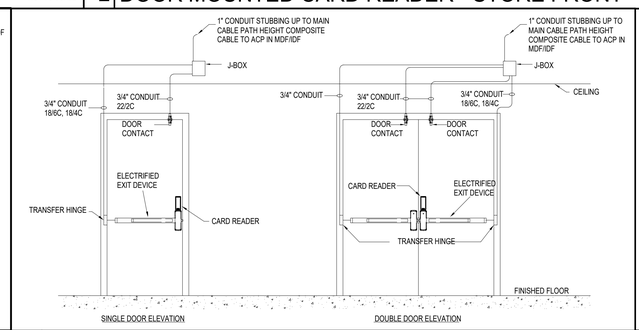
2 DOOR MOUNTED CARD READER - STORE FRONT — NOT TO SCALE



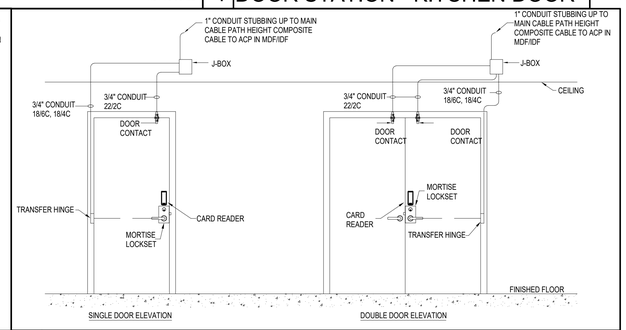
4 DOOR STATION - KITCHEN DOOR — NOT TO SCALE



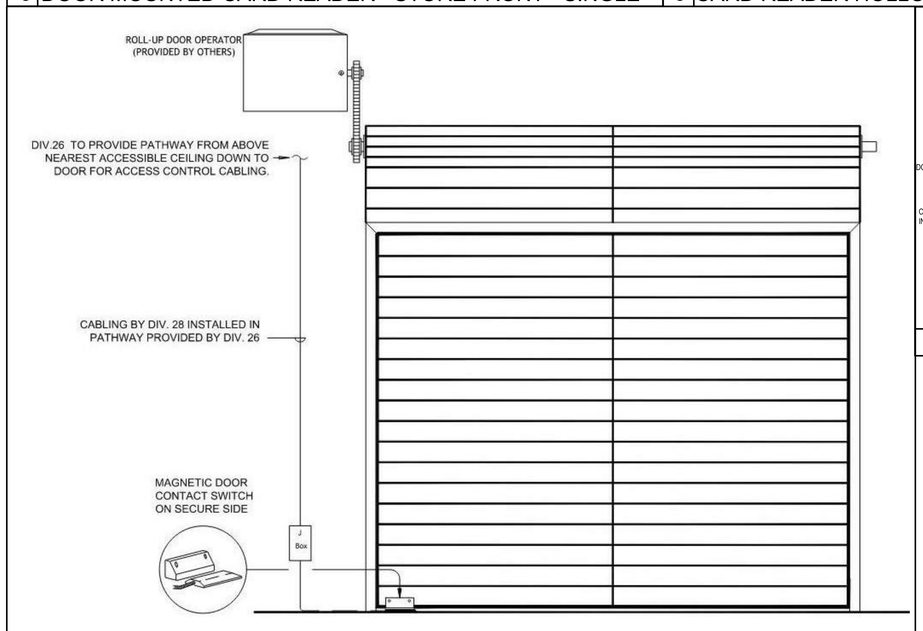
3 DOOR MOUNTED CARD READER - STORE FRONT - SINGLE — NOT TO SCALE



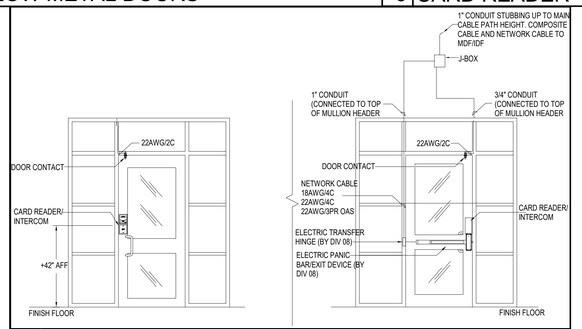
5 CARD READER HOLLOW METAL DOORS — NOT TO SCALE



6 CARD READER - MORTISE — NOT TO SCALE



8 ROLLING DOOR DETAIL — NOT TO SCALE



7 DOOR STATION - STORE FRONT SINGLE — NOT TO SCALE

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TECHNOLOGY DETAILS

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