

April 14, 2021

SOLICITATION ADDENDUM NO. 4

ITB 20-0028

Westview High School Culinary Classroom Renovation

THE FOLLOWING CHANGES/ADDITIONS TO THE ABOVE CITED SOLICITATION ARE ANNOUNCED:

This Addendum modifies the Invitation to Bid (ITB) document(s) only to the extent indicated herein. All other areas not changed or otherwise modified by this Addendum shall remain in full force and effect. This Addendum is hereby made an integral part of the ITB document. Bidder must be responsive to any requirements of this Addendum as if the requirements were set forth in the ITB. Failure to do so may result in Bid rejection. See the ITB regarding requests for clarification or change and protests of this Addendum, and the deadlines for the foregoing.

This addendum is to be acknowledged in the space provided on the Bidder Certification form supplied in the solicitation document. Failure to acknowledge receipt of this addendum may be cause to reject your offer.

The closing date **IS UNCHANGED:**
April 20, 2021 at 2:00 PM Pacific Time

CHANGES:

- 1) **The Revised Drawings attached to this Addendum 4 hereby replace any corresponding pages in ATTACHMENT J Drawings. If any pages in the Revised Drawings do not have a corresponding page in ATTACHMENT J Drawings, such pages are hereby added to ATTACHMENT J Drawings. Refer to the attached Architect's Summary for a summary of any changes/additions to the Drawings.**
- 2) **The Revised Specifications attached to this Addendum 4 hereby replace any corresponding pages in ATTACHMENT K Specifications. If any pages in the Revised Specifications do not have a corresponding page in ATTACHMENT K Specifications, such pages are hereby added to ATTACHMENT K Specifications. Refer to the attached Engineer's Summary for a summary of any changes/additions Specifications.**
- 3) **ATTACHMENT B Bid Schedule is hereby replaced with the version of ATTACHMENT B Bid Schedule attached to this Addendum 4.**

CLARIFICATIONS:

- Only return the Bid Schedule attached to this Addendum with Bids. It includes an additive alternate that was added by this Addendum 4.
- See the Architect's Summary for a detailed summary of the changes made to the Drawings and Specifications.
 - Replaces 4 specification sections.
 - Replaces 8 drawings.

BID SCHEDULE

(Contractor)

TOTAL BASE BID: including the Work as defined in the Specifications (including any attachments/appendices), Drawings, and Addenda (if any), is the TOTAL SUM OF:

_____ DOLLARS (\$_____)

MANDATORY Alternate No. 1:

Coat and finish existing plastic laminate clad architectural cabinets as described in the Drawings and Specifications (as amended by Addendum 4) for TOTAL SUM OF:

_____ DOLLARS (\$_____)

NOTES:

- Contractor will be required to develop a schedule of values for payment and accounting purposes prior to the initial request for payment in a form acceptable to the District.
- If any information submitted on this form is contradictory, words prevail over numbers.
- The Contract is intended to be awarded to a single Contractor.

Architect's Summary

WESTVIEW HIGH SCHOOL CULINARY CLASSROOM
BEAVERTON SCHOOL DISTRICT
PORTLAND, OREGON

ADD-04 4/14/21

74-21106-00

ADDENDUM 04 - SUMMARY OF CHANGES

DLR GROUP
110 SW Yamhill St., Suite 105
Portland, OR 97204
Tel (503) 274-2675

April 9, 2021

NOTICE: Amend the Drawings and/or Project Manual to the above referenced project as follows:

PROJECT MANUAL

- ITEM NO. 1 SECTION 000001 – TABLE OF CONTENTS
A. Add 012300 – Alternates
- ITEM NO. 2 SECTION 012300 – ALTERNATES
A. Add section in its entirety.
- ITEM NO. 3 SECTION 099123 – INTERIOR PAINTING
A. Add 1.1, B Related Requirements regarding 012300 Alternates section.
B. Add 1.5, D for Sample for Quality Assurance
C. Clarify 3.6, C regarding painting schedule for existing plastic laminate clad architectural cabinets.
- ITEM NO. 4 SECTION 114000 – FOOD SERVICE EQUIPMENT
A. Item 5 - POTWASHING SINK TABLE WITH REMOVABLE SINK COVERS:
1) Delete A5.
b. Item 7 – Delete; Change to NOT USED
c. Item 18 – ADA PREP WORK TABLE
1) Change A5 to: Fisher, model 4730 wall mount double-jointed fill faucet.

DRAWINGS

- ITEM NO. 5 DRAWING CS1.1 – CODE SUMMARY
A. Extend Student Work Station counter top to match FS1.1 Food Service Equipment Plan
- ITEM NO. 6 DRAWING A1.1 – FLOOR PLANS
A. Extend Student Work Station counter top to match FS1.1 Food Service Equipment Plan
B. Add clarification to Keynote 11 regarding Alternate #1.

ADDENDUM 04 - SUMMARY OF CHANGES

- ITEM NO. 7 DRAWING A7.1 – INTERIOR ELEVATIONS & SECTIONS
- A. Elevations 1A & 1C: Add clarification to elevations notes regarding Alternate #1.
 - B. Elevation 2C: Add clarification to notes regarding Alternate #1
 - C. Elevation 2C: Add clarification dimension to coordinate FRP height with pot filler faucet.
- ITEM NO. 8 DRAWING P1.1 – OVERALL FIRST FLOOR PLUMBING PLAN
- A. FIRST LEVEL PLUMBING PLAN.
 - 1) Modify Drawing as shown to add to note 5 on sheet to read “RECONNECT EXISTING PLUMBING (CW, HW, V) TO NEW SINK. BRANCH 1/2" CW TO SERVE NEW ICE MACHINE ON THE OTHER SIDE OF THE WALL. ADD NEW 1/2" CW BRANCH FOR POT FILLING STATION PER 3/FS3.1”
- ITEM NO. 9 DRAWING FS1.1 – FOOD SERVICE EQUIPMENT PLAN
- 1) Equipment Schedule: Change Item 7 to NOT USED.
 - 2) Equipment Plan: Remove Item 7 from plan.
 - 3) Equipment Plan: Extend Item 34 Student Work Station counter top over Item 37 Ingredient Bins.
 - 4) Equipment Plan: Item 18 ADA Prep Work Table – added wall mount double-jointed fill faucet.
- ITEM NO. 10 DRAWING FS1.2 – FOOD SERVICE PLUMBING PLAN
- 1) Plumbing Schedule: Change P7 from NOT USED to ½” hot and cold for deck mount faucet (note this P7 replaced P15 at that location).
 - 2) Plumbing Plan: P7 replaced P15 at location shown.
- ITEM NO. 11 DRAWING FS3.1 – FOOD SERVICE ELEVATIONS & FABRICATION DETAILS
- 1) Elevation 1: Deleted Item 7 and deleted left overshelf over Item 5 Potwashing Sink Table.
 - 2) Elevation 3: Added double-jointed wall mount fill faucet and deleted existing wall cabinet.
- ITEM NO. 12 DRAWING FS3.6 – FOOD SERVICE ELEVATIONS & FABRICATION DETAILS
- 1) Elevation 19: Extended Item 34 Student Work Station counter top over Item 37 Ingredient Bins and mitered end of counter 6”.

ADD-04 4/14/21

**ADDENDUM 04 - SUMMARY OF CHANGES
ATTACHMENTS**

PROJECT MANUAL ATTACHMENTS

SECTION 000001 – TABLE OF CONTENTS
SECTION 012300 – ALTERNATES
SECTION 099123 – INTERIOR PAINTING
SECTION 114000 – FOOD SERVICE EQUIPMENT

DRAWING ATTACHMENTS

SHEET CS1.1 – CODE SUMMARY
SHEET A1.1 – FLOOR PLANS
SHEET A7.1 – INTERIOR ELEVATIONS & SECTIONS
SHEET P1.1 – OVERALL FIRST FLOOR PLUMBING PLAN
SHEET FS1.1 – FOOD SERVICE EQUIPMENT PLAN
SHEET FS1.2 – FOOD SERVICE PLUMBING PLAN
SHEET FS3.1 – FOOD SERVICE ELEVATIONS & FABRICATION DETAIL
SHEET FS3.6 – FOOD SERVICE ELEVATIONS & FABRICATION DETAILS

END OF ADDENDUM 04 - SUMMARY OF CHANGES

Revised Specifications

WESTVIEW HIGH SCHOOL CULINARY CLASSROOM
BEAVERTON SCHOOL DISTRICT
PORTLAND, OREGON

74-21106-00

ADD-04 4/14/21

SECTION 000001 - TABLE OF CONTENTS

DIVISION 00 - CONDITIONS OF THE CONTRACT

PROVIDED IN INVITATION TO BID (ITB)
000002 APPENDICES

DIVISION 01 – GENERAL REQUIREMENTS

011000	SUMMARY
012300	ALTERNATES ADD-02
012500	SUBSTITUTION PROCEDURES
012500A	SUBSTITUTION REQUEST FORMS
012600	CONTRACT MODIFICATION PROCEDURES
012900	PAYMENT PROCEDURES
013100	PROJECT MANAGEMENT AND COORDINATION
013200	CONSTRUCTION PROGRESS DOCUMENTATION
013300	SUBMITTAL PROCEDURES
013516	ALTERATION PROJECT PROCEDURES
014000	QUALITY REQUIREMENTS
014200	REFERENCES
016000	PRODUCT REQUIREMENTS
016116	DELEGATED DESIGN REQUIREMENTS
017300	EXECUTION
017419	CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
017700	CLOSEOUT PROCEDURES
017823	OPERATION AND MAINTENANCE DATA
017839	PROJECT RECORD DOCUMENTS
017900	DEMONSTRATION AND TRAINING

DIVISION 02 – EXISTING CONDITIONS

024119 SELECTIVE DEMOLITION

DIVISION 03 – CONCRETE

033000 CAST-IN-PLACE CONCRETE

DIVISION 04 – MASONRY (NOT USED)

DIVISION 05 – METALS

051200 STRUCTURAL STEEL FRAMING

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

061053 MISCELLANEOUS ROUGH CARPENTRY
066400 PLASTIC PANELING

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

070150	PREPARATION FOR REROOFING
078413	PENETRATION FIRESTOPPING
079513	INTERIOR EXPANSION JOINT COVER ASSEMBLIES

DIVISION 08 – OPENINGS (NOT USED)

DIVISION 09 – FINISHES

092216	NON-STRUCTURAL METAL FRAMING
092900	GYPSUM BOARD
095113	ACOUSTICAL PANEL CEILINGS
096516	RESILIENT SHEET FLOORING
099123	INTERIOR PAINTING

DIVISION 10 – SPECIALTIES

101100	VISUAL DISPLAY UNITS
102800	TOILET AND CUSTODIAL ACCESSORIES

DIVISION 11 – EQUIPMENT

114000	FOOD SERVICE EQUIPMENT
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DIVISION 12 – FURNISHINGS

122413	ROLLER WINDOW SHADES
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DIVISION 13 – SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14 – CONVEYING EQUIPMENT (NOT USED)

DIVISION 21 – FIRE SUPPRESSION

210523	GENERAL-DUTY VALVES FOR FIRE PROTECTION PIPING
210529	HANGERS AND SUPPORTS FOR FIRE SUPPRESSION PIPING AND EQUIPMENT
210553	IDENTIFICATION FOR FIRE-SUPPRESSION PIPING AND EQUIPMENT
211313	WET-PIPE SPRINKLER SYSTEMS

DIVISION 22 – PLUMBING

220518	ESCUTCHEONS FOR PLUMBING PIPING
220523.12	BALL VALVES FOR PLUMBING PIPING
220523.14	CHECK VALVES FOR PLUMBING PIPING
220529	HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
220548	VIBRATION & SEISMIC CONTROLS FOR PLUMBING PIPING AND EQUIPMENT

220553	IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
220719	PLUMBING PIPING INSULATION
221116	DOMESTIC WATER PIPING
221119	DOMESTIC WATER PIPING SPECIALTIES
221316	SANITARY WASTE AND VENT PIPING
221319	SANITARY WASTE PIPING SPECIALTIES
221319.13	SANITARY DRAINS
221323	SANITARY WASTE INTERCEPTORS

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

230529	HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
230548	VIBRATION AND SEISMIC CONTROLS FOR HVAC
230553	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
230593	TESTING, ADJUSTING, AND BALANCING FOR HVAC
230713	DUCT INSULATION
230800	HVAC COMMISSIONING REQUIREMENTS
230923	DIRECT DIGITAL CONTROL (DDC) SYSTEM FOR HVAC
231123	FACILITY NATURAL-GAS PIPING
233113	METAL DUCTS
233300	AIR DUCT ACCESSORIES
233423	HVAC POWER VENTILATORS
233533	LISTED KITCHEN VENTILATION SYSTEM EXHAUST DUCTS
237423.16	PACKAGED, INDIRECT-FIRED, OUTDOOR, MAKEUP-AIR UNITS

DIVISION 26 – ELECTRICAL

260500	COMMON WORK RESULTS FOR ELECTRICAL
260519	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
260533	RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS
262726	WIRING DEVICES

DIVISION 27 – COMMUNICATIONS

270000	COMMUNICATIONS
270500	COMMON WORK RESULTS FOR COMMUNICATIONS
270528	PATHWAYS FOR COMMUNICATIONS SYSTEMS
270528.29	HANGERS AND SUPPORTS FOR COMMUNICATIONS SYSTEMS
270553	IDENTIFICATION FOR COMMUNICATIONS SYSTEMS
271513	COMMUNICATIONS COPPER HORIZONTAL CABLING
274100	AUDIO-VIDEO SYSTEMS
274123	AUDIO-VIDEO ACCESSORIES

WESTVIEW HIGH SCHOOL CULINARY CLASSROOM
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74-21106-00

ADD-04 4/14/21

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY (NOT USED)

DIVISION 31 – EARTHWORK (NOT USED)

DIVISION 32 – EXTERIOR IMPROVEMENTS (NOT USED)

DIVISION 33 – UTILITIES (NOT USED)

ADD-04 4/14/21

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Description of Alternates.

1.2 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.3 SCHEDULE OF ALTERNATES

- A. Alternate #1, Painting of Existing Plastic Laminate Clad Architectural Cabinets (Upper Shelving):
 - 1. Base Bid: Install (rehang) existing plastic laminate clad architectural cabinets as-is, without painting.
 - 2. Additive Alternate: Install (rehang) existing plastic laminate clad architectural cabinets after painting per spec section 099123 – Interior Painting. This includes the existing upper shelving units that are to be reinstalled within Culinary Classroom S134.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012300

ALTERNATES

012300 - 1

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates. All labor, materials, tools and other equipment, services and supervision required to complete all interior painting and decorating work as indicated on Finish Schedules and to the full extent of the Drawings and Specifications. Interior paint systems will be utilized for interior substrates.

B. Related Requirements:

1. Section 012300 "Alternates" for painting existing plastic laminate clad architectural cabinets. ADD 04

1.2 DEFINITIONS

- A. Gloss Level 1: Matte or Flat Finish: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 3: Eggshell Finish: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 4: Satin Finish: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 5: Semi-Gloss Finish: 35 to 70 units at 60 degrees, according to ASTM D 523.
- E. Gloss Level 6: Gloss Finish: 70 to 85 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 7: High Gloss Finish: More than 85 units at 60 degrees, according to ASTM D 523.

1.3 REFERENCES

- A. ASTM International:
1. ASTM C834 – Latex Sealing Compounds.
 2. ASTM D16 – Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.
 3. ASTM D4442 – Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-base Materials.
- B. Architectural Painting Specification Manual by the Master Painters Institute (MPI), including Evaluation, Systems, Preparation and Approved Product List (MPI Manual).

INTERIOR PAINTING

099123 - 1

ADD-04 4/14/21

- C. Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings) of the Environmental Protection Agency (EPA).

1.4 SYSTEM DESCRIPTION

- A. Painting and finishing shall include all coating systems materials, including primers, emulsions (except asphalt based), enamels, stains, sealers and fillers and other applied materials, whether used as prime, intermediate or finish coats.

1. Materials to Paint:

- a. Unless otherwise indicated in documents, Work receives painting and finishing. Consult Drawings, Schedules, and other specification Sections for complete requirements. Where materials required to be finished are not indicated in the Finish Schedule or Drawings, refer to the MPI Manual for the appropriate finish; provide premium grade finish.
- b. Paint existing (painted) and new gypsum board walls.
- c. Paint existing (painted) CMU walls.
- d. Paint plastic laminate upper shelving (those existing to remain in classroom S134).

2. Materials Not to Paint:

- a. Finished metal surfaces of anodized aluminum, polyvinylidene fluoride (PVDF), stainless steel, chromium plate, copper, bronze, and similar finished metals will not require finish painting, except as indicated otherwise.
- b. Glass and plastic, except as noted otherwise.
- c. Materials having complete factory finish or that require installer finishing, except as indicated otherwise. Shop priming of ferrous metal items and shop-fabricated components is included under various Sections.
- d. Walls and ceilings in concealed and generally inaccessible areas, above suspended ceilings, furred areas, pipe spaces, duct shafts, and the like.
- e. Acoustical ceiling tile and their suspension systems, unless indicated otherwise.
- f. Concrete floors, except as indicated to be painted.
- g. Moving parts of operating units, moving parts of mechanical and electrical units, linkages, sensing devices, motor and fan shafts, and the like.
- h. Code-required labels such as Underwriter's Laboratories, Factory Mutual, and Warnock-Hershey or any equipment identification, performance rating, name or nomenclature plates, and the like.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
1. Submit Samples on rigid backing, 8 inches square.
 2. Step coats on Samples to show each coat required for system.

INTERIOR PAINTING

099123 - 2

3. Label each coat of each Sample.
4. Label each Sample for location and application area.

C. Product List: For each product indicated, include the following:

1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
2. VOC content.

CI. Sample for Quality Basis of Design: For Alternate No. 1, provide a sample no smaller than 12" x 24" of existing plastic laminate clad architectural cabinet panel that is prepped and painted in accordance to specifications. Owner will provide an existing panel for use. ADD-04

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Paint: 1 gallon of each material and color applied.

1.7 QUALITY ASSURANCE

A. Quality Standard:

1. Work of this Section shall conform to not less than the minimum standards for material and Work including inspection and warranty requirements set forth in the MPI Manual.
2. Work of this Section shall be of the grade and finish system in accordance with the MPI as indicated in Painting and Finishing Schedule in Part 3 of this Section.

B. Qualifications:

1. Product Manufacturers: As listed in MPI and Color and Material Schedule in Drawings. No substitutions.
2. Applicator: Company specializing in and regularly engaged in performing Work of this Section with not less than three (3) years experience. Maintain regular work force of qualified journey-level personnel, trained, skilled, and experienced in performing required Work and constant competent supervision. Apprentices may be employed working under qualified journeymen's directions in accordance with trade regulations.

C. Regulatory Requirements:

1. Comply with applicable federal, state, and local requirements and publications pertaining to environmental protection and the protection of the health and safety of workers, visitors to the site, and persons occupying the Project Site.
2. Where conflict among requirements or with this specification exists, the most stringent shall govern.

ADD-04 4/14/21

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.9 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Perform no interior painting or decorating work unless adequate continuous ventilation and sufficient heating facilities are in place to maintain ambient air and substrate temperatures above minimum requirements for 24 hours before, during and after paint application. Provide supplemental ventilating and heating equipment if ventilation and heating from existing system is inadequate to meet minimum requirements.
- C. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
- D. Apply paint only to dry, clean, properly cured and adequately prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not affect the quality of finished surfaces.
- E. Perform no painting or decorating work unless a minimum lighting level of 323 Lux (30-foot candles) is provided on surfaces to be painted or decorated.
- F. Perform no painting or decorating work when the maximum moisture content of the substrate exceeds:
 - 1. 15 percent for wood.
 - 2. 12 percent for plaster and gypsum board.
- G. Conduct moisture tests using a properly calibrated electronic moisture meter.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. As listed in the Interior Painting Schedule.
 - 1. Benjamin Moore.
 - 2. Miller Paint.
 - 3. Rodda Paint Company.
 - 4. Sherwin Williams. (Basis-of-design product)

INTERIOR PAINTING

099123 - 4

- B. The following manufacturers will be considered for substitution subject to compliance with procedures specified in Section 012500 "Substitution Procedures," and the properties specified for each product in the PART 3 Interior Painting Schedule.

1. PPG.

2.2 PAINT, GENERAL

A. Materials:

1. Only materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, etc.) listed in the latest edition of the MPI Approved Product List (APL) are acceptable for use on this project. All such material shall be from a single source manufacturer for each system used.
2. Other materials such as linseed oil, shellac, thinners, solvents, etc., shall be the highest quality product of an MPI listed manufacturer and shall be compatible with paint materials being used as required.

- B. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction and, for interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

1. Flat Paints and Coatings: 50 g/L.
2. Nonflat Paints and Coatings: 150 g/L.
3. Dry-Fog Coatings: 400 g/L.
4. Primers, Sealers, and Undercoaters: 200 g/L.
5. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
6. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
7. Pretreatment Wash Primers: 420 g/L.
8. Floor Coatings: 100 g/L.
9. Shellacs, Clear: 730 g/L.
10. Shellacs, Pigmented: 550 g/L.

2.3 EQUIPMENT

- A. Painting and Decorating Equipment: To best trade standards for type of product and application.
- B. Spray Painting Equipment: Of ample capacity, suited to the type and consistency of paint or coating being applied and kept clean and in good working order at all times.

2.4 MIXING AND TINTING

- A. Unless otherwise specified herein or pre-approved, all paint shall be ready-mixed and pre-tinted. Re-mix all paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and color and gloss uniformity.

- B. Paste, powder or catalyzed paint mixes shall be mixed in strict accordance with manufacturer's written instructions.
- C. Where thinner is used, addition shall not exceed paint manufacturer's recommendations. Do not use kerosene or any such organic solvents to thin water-based paints.
- D. If required, thin paint for spraying according in strict accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Consultant.

2.5 FINISH AND COLORS

- A. Unless otherwise specified herein, all painting work shall be in accordance with MPI Premium Grade finish requirements.
- B. Refer to Color and Material Schedule and Drawings for identification and location of colors, PT-1 and PT-2. Match adjacent colors at Level 2 mechanical shaft work area.
- C. Except as noted herein or indicated in the Color and Material Schedule, interior walls and ceiling surfaces shall be painted in accordance with the following criteria over appropriate prime / sealer coat:
 - 1. Culinary Classroom: GL5 (semi-gloss) finish.
 - 2. Non-classroom areas (except as noted): washable latex with GL3 (eggshell) finish.
- D. Access doors, prime coated butts, and other prime coated hardware, registers, radiators and covers, exposed piping and electrical panels shall be painted to match adjacent surfaces (i.e. same color, texture and sheen), unless otherwise noted or where pre-finished.
- E. Plywood service panels (e.g. electrical, telephone, and cable vision panels) including edges shall be back-primed and painted to match painted wall mounted on.
- F. The inside of light valances shall be painted gloss white.
- G. The inside of all duct work behind louvers, grills and diffusers for a minimum of 18" (460 mm) or beyond sight-line, whichever is greater, shall be painted using flat black (non-reflecting) paint.

2.6 GLOSS AND SHEEN RATINGS

- A. As indicated in Part 3 of these Specifications.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Portland Cement Plaster: 12 percent.
 - 5. Gypsum Board: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. Carefully clean and replace all such items upon completion of painting work in each area. Do not use solvent or reactive cleaning agents on items that will mar or remove finishes (e.g. lacquer finishes).
 - 2. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Protect all adjacent interior surfaces and areas, including rating and instruction labels on doors, frames, equipment, piping, etc., from painting operations and damage with drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.

INTERIOR PAINTING

099123 - 7

- E. Substrate defects shall be made good and sanded by others ready for painting particularly after the first coat of paint. Start of finish painting of defective surfaces (e.g. gypsum board) shall indicate acceptance of substrate and any costs of making good defects shall be borne by the painter including re-painting of entire defective surface (no touch-up painting).
- F. Wood Substrates:
 - 1. Scrape and clean knots and, apply coat of knot sealer before applying primer.
 - 2. Sand surfaces that will be exposed to view and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.
 - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
- G. Plastic Laminate Substrates:
 - 1. Remove any grease, grime or cleaner buildup from the surface with laminate cleaner/degreaser.
 - 2. Repair any spots where laminate is loose or failing.
 - 3. Sand surfaces that will be painted in order to achieve proper primer adhesion, with care taken to avoid sanding through the laminate.
 - 4. Remove dust with shop vacuum and wipe down with tack cloth.
 - 5. Prime all exposed edges, ends, faces and undersides of plastic laminate.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations.
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat but, provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Tolerances: Final application shall match color and texture of approved samples and shall be smooth, uniform in appearance, color, texture, sheen, and shall be free of runs, sags, holidays, lap marks, air bubbles, pin holes, and other detrimental effects in accordance with requirements of the MPI and this Specification.
- B. Inspection and Testing:
 - 1. Provide and pay for inspection and testing of the Work of this Section in accordance with the warranty provisions of the MPI.
 - 2. Inspection Agency's Duties:
 - a. Provide qualified personnel at Project Site. Cooperate with Architect and Contractor in performance of services.
 - b. Perform required inspection, sampling, and testing of Products and applications and ascertain compliance with requirements of MPI.
 - c. After each inspection and test, submit 1 copy of written report within 5 calendar days to Architect and Contractor. Include in each report the Project title, date of report, date and time of inspection, weather conditions during visit, name of inspector, identification of Product and substrate, location in Project, type of inspection or test, results of tests, and whether results indicate conformity with Contract Documents.
 - d. Promptly notify Architect and Contractor in writing of observed irregularities or non-conformity of workmanship of Projects. When requested by Architect, provide interpretation of test results, evaluation of analysis of cause (in event of test failure), and recommendations for remedial action.
 - 3. Inspection Agency's Limitations:
 - a. Inspection Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - b. Inspection Agency may not approve or accept any portion of the Work for Owner or Architect.
 - c. Inspection Agency may not assume duties of Contractor or Applicator.
 - d. Inspection Agency has no authority to stop the Work.
 - 4. Applicator's Duties:
 - a. Pay inspection fees associated with inspection and warranty requirements set forth in MPI.
 - b. Notify inspection agency not less than 10 full working days prior to beginning Work of this Section.
 - c. Notify inspection agency not less than 2 full working days prior to expected time for operations requiring inspection or testing services.
 - d. Allow full access to the Work. Cooperate with inspection and testing personnel in performance of their duties of inspecting and testing of Work.
 - e. Provide incidental labor and facilities to provide access to Work to be inspected or tested. Repair destructive testing sites.
 - f. Correct deficiencies noted by Inspection Agency.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. Gypsum Board: (Damp areas with higher maintenance requirements including Culinary Classroom)
 - 1. Two water-based high-performance acrylic coats (over vinyl acrylic primer).
 - 2. Finish Sheen: Gloss Level 5.
 - a. Primer: S-W ProMar 200 Zero VOC Interior Latex Primer B28W02600 (Volume Solids: 26 percent plus or minus 2 percent).
 - b. Finish: S-W Pro Industrial Acrylic Semi-Gloss, B66 Series, (less than 50 g/L VOC), (Volume Solids: 35 percent plus or minus 2 percent).
- B. Existing painted CMU:
 - 1. Finish Sheen: Gloss Level 5.
- C. Existing plastic laminate clad architectural cabinets (Alternate No. 1) ADD-04:
 - 1. Two water-based high-performance acrylic coats (over water based, emulsion type, pigmented primer).
 - 2. Finish Sheen: Gloss Level 5.
 - a. Primer: Bonding, water based (MPI #17): S-W Extreme Bond Interior/Exterior Bonding Primer
 - b. Finish: Light Industrial Coating, Interior, Water Based, Semi-Gloss (MPI #153) S-w Pro Industrial DTM Acrylic

END OF SECTION 099123

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SECTION INCLUDES: FOOD SERVICE EQUIPMENT

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 RELATED WORK

- A. Rough-ins and Final Connections: Service lines from rough-in to point of final connections are provided by plumbing and electrical contractors.
- B. Electrical: Wiring, conduit, fuses, breakers, final disconnects, junction boxes, and other required electrical apparatus not built-in or mounted on equipment are provided by electrical contractor.
- C. Plumbing: Controls, regulators, valves, stops, traps, strainers, checks, grease traps, and fittings not mounted on/in equipment are provided by plumbing contractor.
- D. Mechanical: Ductwork from above finished ceiling to building exhaust and supply fans, flue pipes, exhaust and supply fans for hoods, room ventilation, and air supply blowers are provided by mechanical contractor.
- E. Miscellaneous
 - 1. Provides backing plates or blocking in wall or ceiling partitions.
 - 2. Provides fittings secured to structural ceiling to accommodate hangers.
 - 3. Provides the forming of architectural enclosures, floor, wall openings or recesses for equipment.
- F. SYSTEM DESCRIPTION
- G. Delegated Design: Design canopy hoods with fire protection system and seismic restraint of equipment using performance requirements and design criteria indicated, including comprehensive engineering analysis by a qualified professional engineer licensed by the State.
- H. Fabricated Equipment: Constructed to configuration, dimension, detail, and design as shown with materials and workmanship as specified.
- I. Manufactured Equipment: Mass produced and referenced by manufacturer's name and model number.

ADD-04 4/14/21

- J. Each model number includes the code *H011 as a suffix. This code is known as the Specified Identification System. It is not to be removed by the bidders. Its purpose is to identify the Food Service Consultant to the vendors providing equipment in the event it is necessary to communicate questions, clarifications, and comments, from prior to bid award through the final purchase. It is to be used on all correspondence, including fax and e-mail, when communicating with manufacturer representatives and factories.

1.3 DEFINITIONS

- A. Furnish - Supply and deliver to Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- B. Install (set in place) - Work at Project Site, including actual unloading, unpacking, assembly, erecting, rigging, placing, anchoring, applying, finishing, curing, protecting, cleaning, and similar operations, ready for final utility connections by other Sections as appropriate.
- C. Coordinate – Relay required information requested by other trades to ensure they are able to correctly perform their work related to the food service or laundry equipment installation.
- D. Provide - Furnish and install complete, ready for intended use.
- E. Contractor - All references to the Contractor in this Section 114000 shall refer to the Kitchen Equipment Contractor. Reference to any other Contractor shall be specific, such as General Contractor, Plumbing Contractor, Electrical Contractor, Architect, designated, etc.

1.4 LAWS, ORDINANCES AND STANDARDS

- A. STANDARDS: Except as otherwise indicated, comply with the following standards as applicable to the manufacture, fabrication, and installation of the work of this Section:
 - 1. Air Conditioning and Refrigeration Institute (ARI): Comply with the applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components, and installation.
 - 2. American Gas Association (AGA): Comply with AGA standards for gas heated equipment and provide equipment with the AGA seal. Automatic safety pilots shall be provided on all equipment, where available. (Canadian Gas Association or alternate testing lab's seals may be accepted if acceptable to local code jurisdictions.)
 - 3. American National Standards Institute (ANSI): Comply with ANSI Z21-Series standards for gas-burning equipment and provide labels indicating name of testing agency.
 - 4. American National Standards Institute (ANSI): Comply with ANSI B57.1 for compressed gas cylinder connections and with applicable standards of the Compressed Gas Association for compressed gas piping.
 - 5. American National Standards Institute (ANSI): Comply with ANSI A40.4 and A40.6 for water connection air gaps and vacuum breakers.
 - 6. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE): Comply with the applicable regulations and the latest edition of standards for remote refrigeration system(s), components, and installation.

7. American Society of Mechanical Engineers (ASME): Comply with ASME Boiler Code requirements for steam generating and steam heated equipment and provide ASME inspection, stamp, and registration with National Board.
8. American Society for Testing and Materials (ASTM): Comply with ASTM C1036 for flat glass.
9. American Society for Testing and Materials (ASTM): Comply with ASTM C1048 for heat-treated flat glass – Kind HS, Kind FT coated and uncoated glass.
10. American Welding Society (AWS): Comply with AWS D1.1 structural welding code.
11. National Electric Code (NEC): Comply with NFPA Volume 5 for electrical wiring and devices included with food service equipment, ANSI C2 and C73, and applicable NEMA and NECA standards.
12. National Electrical Manufacturers Association (NEMA): Comply with NEMA LD3 for high-pressure decorative laminates.
13. National Fire Protection Association (NFPA): Comply with the applicable sections of the NFPA for exhaust hood, ventilators, duct and fan materials, hoods fire suppression systems, construction and installation, as well as local codes and standards.
14. National Sanitation Foundation (NSF): Comply with the latest Standards and Revisions established by NSF for equipment and installation. Provide NSF Seal of Approval on each applicable manufactured item and on items of custom fabricated work. (UL Sanitation approval and seal may be accepted if acceptable to local code jurisdictions.)
15. Sheet Metal and Air Conditioning National Association (SMACNA): Comply with the latest edition of SMACNA guidelines for seismic restraint of kitchen equipment and applicable local regulatory agencies requirements.
16. Underwriters Laboratories (UL): Provide either UL labeled products for electrical components and assemblies or, where no labeling service is available, "recognized markings" to indicate listing in the UL "Recognized Component Index". (Canadian Standards Association or alternate testing lab's seals may be accepted if acceptable to local code jurisdictions.)
17. UL 300 Standard: Wet chemical fire suppression systems for exhaust hoods/ventilators shall comply with these requirements.
18. American with Disabilities Act (ADA): Comply with requirements as applicable to this Project.
19. All refrigerants used for any purpose shall comply with the 1995 requirements of the Montreal Protocol Agreement and subsequent revisions and amendments. No CFC refrigerants shall be allowed on this Project.
20. Comply with all applicable local codes, standards and regulations, and any special local conditions (example only: City of Los Angeles Testing Lab requirements or seismic standards compliance).
21. Confirm all drawings, specifications, and project documentation meet all federal, state, and local codes and regulations.

1.5 CONTRACTOR QUALIFICATIONS

- A. In addition to requirements of Related Sections 1.02, submit evidence of compliance with the following qualifications and conditions:
 1. Five (5) years minimum continuous operation under the same company name and ownership.

ADD-04 4/14/21

2. Evidence of Company's financial stability and financial ability to complete this Project without endangering that stability.
3. List a minimum of comparable size and scope projects completed in the last five (5) years with Owner's contact name and telephone number.
4. Have manufacturer's authorization to purchase, distribute, and install all items specified with this Project.
5. Maintain a staff or have access to personnel with a minimum of five (5) years' experience in the installation of comparable size and scope projects, and meeting NSF standards and requirements. (UL Sanitation standards and requirements may be accepted if acceptable to local code jurisdictions.)
6. Maintain or have access to a fabrication shop meeting NSF standards and labeling requirements. (UL Sanitation approval and seal may be accepted if acceptable to local code jurisdictions.) If other than the Contractor's own fabrication shop, they shall have five (5) years minimum experience in the fabrication of comparable size, scope, and level of quality projects. The Contractor shall submit their company name and credentials to the Architect, who shall have the right of approval or disapproval.
7. Maintain a staff or have access to personnel experienced in the preparation of professional style shop drawings and submittals.
8. Maintain or have access to manufacturer's authorized service personnel together with readily available stock of repair and replacement parts.
9. Any sub-Contractor employed by Contractor for this Project shall comply with the same qualification requirements.

1.6 SUBSTITUTIONS

- A. Refer to Division 1 for Substitution Request requirements.

1.7 APPROVED SUBSTITUTIONS AND/OR LISTED ALTERNATES

- A. Substitutions approved as noted in article 1.07 and/or any Listed Alternate Manufacturers listed in these Itemized Specifications or added by Addendum may be utilized in lieu of the primary specified manufacturer with the following conditions and understanding:

1. The Project Documents are designed and engineered using the primary specified manufacturer and model. The Contractor shall assume total responsibility for any deviations required due to the utilization of a substitution/alternate manufacturer or model including, but not limited to, fitting alternates into the available space, providing directions for required changes, and assuming any and all associated costs for utility, building, food service design, architectural, or engineering changes directly or indirectly related to the substitution.
2. The Contractor shall be responsible for supplying the model, which is equal to the primary specified model in regard to general function, features, options, sizes, accessories, utility requirements, finish, operation, and listing approvals. If the Owner or their appointed representative determines at any time during the construction and installation, prior to the final acceptance of the Project, that the substitution/alternate model submitted is not equal to the primary specified model, the Contractor shall assume all associated cost and implications required to replace the model submitted with the correct model.

ADD-04 4/14/21

3. The bid proposal shall clearly state any substitutions/alternates which will be utilized, including the manufacturer and model number. The proposal shall also include a data sheet for each substitution/alternate with all deviations between the primary specified manufacturer and the substitution/alternate manufacturer itemized and listed on the data sheet. The manufacturers' cut sheets are not acceptable as a substitute for the data sheet. Complex alternates, such as utility distribution systems, exhaust hoods, ventilators, etc., shall include a shop drawing specific to the Project.
4. Inclusion of an alternate manufacturer in the Itemized Specifications is not intended to indicate that there is an equal alternate unit to match every primary specified unit. It shall be the responsibility of the Contractor to ensure that the alternate unit submitted matches the primary specified unit and meets the other conditions, as stated above.
5. Manufacturers not approved as substitutions or listed as a Listed Alternate will not be permitted unless submitted for prior approval, as described above and in the General and Supplementary Conditions and applicable Division-1 Specifications Sections.
6. Submittal of a substitution/alternate manufacturer or model shall indicate agreement to the above stated conditions. Solely at the Owner's discretion, failure to comply with any of these conditions or to supply complete and correct data information shall result in the Contractor being required to provide the primary specified manufacturer at no additional cost to the Owner or to adjust the Contract cost.

1.8 DISCREPANCIES

- A. Where discrepancies are discovered between the drawings and the specifications regarding quality or quantity, the higher quality or the greater quantity shall be included in the Bid Proposal. The Contractor shall notify the Architect, in writing, of any discrepancies discovered and await clarification prior to proceeding with the items or areas in question.

1.9 SUBMITTALS

- A. The Contractor shall review all submittals for basic compliance with the Contract Documents and correct as required prior to submitting to the Design Team (Architects/Engineers/Consultants/Owner) for review. Failure to comply with this requirement, the submission of submittal(s) which are significantly inconsistent with the Contract Documents, or inconsistencies that are discovered during review by a Design Team member shall be justification for reimbursement by the Contractor to the Design Team member's company for the "lost" time or for the time required for a second review.
- B. Rough-In Drawings
 1. Submit electronic PDF file for approval. After approval, reproduce and supply the required number of distribution prints for record and construction purposes.
 2. Submit 1/4 inch (1:50) scale rough-in drawings for approval. These drawings shall be dimensioned from grid lines showing location of ducts, stubs, floor and wall sleeves for ventilation, plumbing, steam, electrical, refrigeration lines, beverage lines, concrete base and curb dimensions as required for equipment so supported.
 3. Site-verify mechanical, electrical and ventilating rough-in and sleeve locations.
 4. The Contractor shall be responsible for the accuracy of the information on their submittals.

5. In the event rough-ins have been accomplished before the award of this contract, the Contractor shall check the existing facility and make adjustments to their equipment to suit building conditions and utilities, where possible. If not possible, the Contractor shall so state in a letter to the Owner and Architect with reasons and an alternate method and pricing.

C. Shop Drawings

1. Submit electronic PDF file for approval. After approval, reproduce and supply the required number of distribution prints for record and construction purposes.
2. Submit shop drawings for items of custom fabrication included in this contract. Shop drawings shall be submitted at 3/4 inch (1:20) and/or 1-1/2 inch (1:10) scale and shall show dimensions, materials, details of construction, features and options, installation and relation of adjoining work requiring cutting or close fitting. Shop drawings shall also indicate reinforcements, anchorage and related work required for the complete installation of fixtures.
3. Before proceeding with the fabrication of any item, the Kitchen Equipment Contractor (KEC) shall be responsible for verifying and coordinating all dimensions and details with site dimensions and conditions.

D. Product Data Submittal Manuals

1. Submit electronic PDF file of Product Data Submittal Manuals with a cover sheet and detailed information on every item included in this Section for approval. Detailed information shall include, but not be limited to, item number, description, quantity, model numbers, options and accessories provided, exact utility requirements, manufacturer's cut-sheets, reference to specific shop drawings, etc. Distribute one additional copy of installation and start-up instructions to the Installer. Mark each data sheet with the applicable project equipment item number. Each data sheet shall include NEMA plug and receptacle configuration for applicable items, where applicable. Every cover sheet and associated detailed submittal shall provide sufficient and complete information to verify that the Contractor is providing each item in compliance with the Contract documents.
2. Architect review of drawings, shop details, product data brochures, and service and parts manuals are for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the contract documents or departures there from. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing their work in a safe, satisfactory, and professional manner.

1.10 OPERATION AND MAINTENANCE DATA MANUALS

- A. Operation and Maintenance Manuals (Service and Parts Manuals): Electronic manuals shall be furnished for items of standard manufacture on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner. Manuals shall be in alphabetical order according to manufacturer, including item numbers and utility options provided for the equipment installed.

ADD-04 4/14/21

1. Installing company's name, address, telephone number, and date of completed installation.
 2. Serial numbers of principal pieces of equipment.
 3. Part numbers of all replaceable items.
 4. Lubrication data and belt sizes.
 5. Electrical characteristics including data for motors and heaters.
- B. Service Agency List: Submit a complete list of local service agencies with the service and parts manuals for included manufacturers, complete with telephone numbers for all buy-out equipment installed.
- C. Provide video tapes for maintenance, training, operation, etc. where available from the manufacturer.

1.11 AS-BUILT/RECORD DOCUMENTS

- A. Maintain one record set of Food service Equipment Plans with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation. Provide an "as-built" set in reproducible transparency form and electronic computer disk form.
- B. Provide one (1) final set of Product Data Submittal Manuals with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation as a specification record set.
- C. These documents shall be provided on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner.
- D. Provide two (2) final complete set of Submittals to be retained by Architect as a Record Set.

1.12 SCHEDULE

- A. General: Time is of the essence in this agreement. Acceptance constitutes a guarantee that the Contractor can and will obtain materials, equipment, and manpower to permit overall completion of the entire building project on schedule upon notice to proceed. The Contractor shall coordinate their work with the progress schedule, as prepared and updated periodically by the General Contractor or Construction Manager.
- B. The Contractor shall notify the Food Service Consultant and the Architect in writing of anticipated delays not within the realm of control of the Contractor immediately upon the Contractor's realization that delays are imminent.
- C. The Contractor will not be granted relief for failure to meet schedules or failure of manufacturers to meet promised delivery dates unless the Contractor can establish, in writing, that orders were received by the manufacturer with reasonable lead times.
- D. The Contractor shall pay extra charges resulting from special handling or air shipment in order to meet the schedule if insufficient time was allowed in placing factory orders.

ADD-04 4/14/21

1.13 PRODUCT HANDLING

- A. Delivery of Materials: Deliver materials (except bulk materials) in manufacturer's containers fully identified with manufacturer's name, trade name, type, class, grade, size, color, power requirement, if any, and item number.
- B. Storage of Materials, Equipment and Fixtures: Contractor is responsible for receiving and warehousing of equipment and fixtures until ready for installation. The Contractor will store materials, equipment, and fixtures in sealed containers. They shall be stored off the ground and under cover, protected from damage.
- C. Handling Materials and Equipment: The Contractor will verify and coordinate conditions at the building site, particularly door and/or wall openings and passages to assure access for all equipment. Pieces too bulky for existing facilities shall be hoisted or otherwise handled with apparatus as required. All special handling equipment charges shall be arranged for and paid for by the Contractor .

1.14 PRODUCT PROTECTION

- A. The Contractor is responsible to protect their equipment against theft or damage during the progress of the project until final acceptance by the Owner. Items delivered to the job site at the Owner's or Contract Manager's request before the site is ready for installation should be signed for as approved by the Owner or Contract Manager.
- B. The Contractor will use all reasonable means to protect the materials of this Section before, during, and after installation and to protect the associated work and materials of the other trades.
- C. Pre-fabricated walk-in boxes, on-site and installed in advance of the rest of the equipment are not to be used for general storage by other trades and should be locked before leaving the site. Damage and theft resulting from the failure to secure boxes shall be repaired or replaced at the Contractor 's own expense. The Contractor shall be available, as needed, to open and secure walk-in boxes for the other trades to perform their work related to these walk-in boxes, within the other trades' schedules as not to delay their work.
- D. Contractor will verify if the flooring is to be acid washed. In the event of this type of cleansing, any equipment constructed of stainless steel shall not be delivered until a minimum of 24 hours after the final cleansing is completed.

1.15 WARRANTY

- A. Work shall be guaranteed against defects for one (1) year from the date of operation of the equipment. The Contractor will provide a written warranty of each component to include work in this Section to cover all testing and re-testing as may become necessary for one year past the Contract final acceptance date. Any equipment, system, or element failing to perform as directed in this Section shall be repaired or replaced at no cost to the Owner (including labor and transportation), excluding replacement cost of damaged components or work caused by misuse of the equipment.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. Equipment schedule: Refer to schedule on Food service Drawings and Part 5 Itemized Specifications for equipment included in this Section.

2.2 MATERIALS

A. Metals

1. Stainless Steel: AISI Type 302/304, hardest workable temper, and No.4 directional polish. Standard gauges are noted in these specifications under Heading 2.04; Section B.1.
2. Galvanized Steel Sheet: ASTM A526, except ASTM A527 for extensive forming; ASTM A525, G90 zinc coating, chemical treatment.

Note: Where painted finish is indicated, provide mill phosphatized treatment in lieu of chemical treatment.

3. Steel Sheet: ASTM A569 hot-rolled carbon steel.
4. Galvanized Steel Pipe: ASTM A53 or ASTM A120, welded or seamless, schedule 40, galvanized.
5. Steel Structural Members: Hot rolled or cold formed, carbon steel unless stainless steel is indicated.

Note: Galvanized Finish (G.I.): ASTM A123 hot-dipped zinc coating, applied after fabrication.

6. Aluminum: ASTM B209B221 sheet, plate and extrusions (as indicated), alloy, temper and finish as determined by manufacture / fabricator, except 0.40-mil natural anodized finish on exposed work unless another finish is indicated.
- B. Hardwood Work Surfaces: Laminated edge grained hard maple (*Acer saccharum*), NHLA First Grade with knots, holes and other blemishes culled out, kiln dried at 8 percent or less moisture, waterproof glue, machined, sanded, and finished with NSF approved oil-sealer.
- C. Joint Materials
1. Sealants: 1-part or 2-part, polyurethane or silicone based, liquid elastomeric sealant, non-solvent release type, Shore A hardness of 30, except 45 if subject to traffic. Sealants shall be NSF Listed for use in food zones. Installation shall comply with applicable requirements of NSF Standards.
 2. Backer Rod: 3/8 inch or larger joints shall be polyurethane rod stock, larger than joint width.
 3. Gaskets: Solid or hollow (but not cellular) neoprene or polyvinyl chloride, light grey, minimum of 40 Shore A hardness, self-adhesive or prepared for either adhesive application or mechanical anchorage.

D. Paint and Coatings

1. Provide the types of painting and coating materials which, after drying or curing, are suitable for use in conjunction with food service, durable, non-toxic, non-dusting, non-flaking, mildew resistant, and comply with governing regulations for food service.
2. Galvanize Repair Paint: MIL-P-21035.
3. Sound Deadener: NSF listed sound deaden material such as latex sound deadener for internal surfaces of metal work and underside of metal counters and tables between work top and underbracing.
4. Pretreatment: SSPC-PT2 or PT3, of FS TT-C490.
5. Primer Coating for Metal: FS TT-P-86, type suitable for baking, where indicated.
6. Enamel for Metal: Synthetic type, FA TT-P-491, type suitable for baking, where indicated.

2.3 FABRICATED PRODUCTS

A. Hardware

1. General: Manufacturer's standard, but not less than ANSI 156.9 Type 2 (Institutional), satin finish stainless steel or dull chrome finish on brass, bronze, or steel.
2. Hinged Door Hardware: Hinged doors shall be mounted with heavy duty NSF approved hinges with Component Hardware Group, Model No. P62-1010 pulls, or equal. Catches shall be heavy-duty magnetic type, except as otherwise indicated.
3. Drawer Hardware: Slides to be 200 pounds minimum capacity per pair, 300 series stainless steel, full extension, side-mounting, self-closing type, with stainless steel ball bearings and positive stops, Component Hardware Group Series S52, or equal. Pulls shall be Component Hardware Group, Model No. P62-1 012, or equal.
4. Sliding Door Hardware: Sliding doors shall be mounted on large, quiet ball bearing rollers in 14-gauge (2.0mm) stainless steel overhead tracks and be removable without the use of tools. Bottom of cabinet shall have stainless steel guide-pins and not channel tracks for doors.
5. All hardware shall be identified with manufacturer's name and number so that broken or worn parts may be replaced.

B. Casters

1. Type and size as recommended by caster manufacturer, NSF approved for the type and weight of equipment supported, but not less than 5 inch (127mm) diameter heavy-duty, ball bearing, solid or disc wheel with non-marking grease proof rubber, neoprene or polyurethane tire, unless otherwise specified. Minimum width of tread shall be 1-3/16 inch (30mm). Minimum capacity per caster shall be 250 pound (113.4kg), unless otherwise noted in itemized specifications.
2. Provide solid material wheels with stainless steel rotating wheel guard.
3. To be sanitary, provide sealed wheel and swivel bearings and polished plated finish per NSF.
4. Unless otherwise indicated, equip each item with two (2) swivel-type casters and two (2) fixed casters. Provide foot brakes on two (2) casters on opposite front corners of equipment.

5. Unless equipment item is equipped with another form of all-around protective bumper, provide circular rotating bumper above each caster, 5 inch (127mm) diameter tire of light grey synthetic rubber (hollow or closed-cell) on cadmium-plated disc.

C. Plumbing Fittings, Trim and Accessories

1. General: Where exposed or semi-exposed, provide bright chrome plated brass or polished stainless steel units. Provide copper or brass where not exposed.
2. Vacuum Breakers: Provide with food service equipment as listed in the itemized specifications.
3. Water Outlets: At sinks and at other locations where water is supplied (by manual, automatic or remote control), furnish commercial quality faucets, valves, dispensers or fill devices of the type and size indicated and as required to operate as indicated.
4. Waste Fittings: Except as otherwise indicated, furnish 2 inch (50mm) remote-lever waste valve and 3-1/2 inch (89mm) strainer basket.

D. Electrical Materials

1. General: Provide standard materials, devices and components as recommended by the manufacturer or fabricator, selected and installed in accordance with NEMA standards and recommendations and as required for safe and efficient use and operation of the food service equipment without objectionable noise, vibration and sanitation problems.
2. Before ordering equipment, confirm pertinent electrical requirements with the serving electrical utility, such as actual voltages available, number of phases and number of wires in the system.
3. Wire electrical work for fabricated equipment completely to a junction or pull box which is wholly accessible and mounted on the equipment. Wiring shall be labeled for outlet or item served. Verify local requirements for UL Listing on complete assembly and provide if required.
4. Components shall bear the UL label or be approved by the prevailing authority.
5. Controls and Signals: Provide recognized commercial grade signals, on-off push buttons or switches, and other speed and temperature controls as required for operation, complete with pilot lights and permanent signs and graphics to assist the user of each item. Provide stainless steel cover plates at control and signal electrical boxes. Locate controls and switches out of heat zones, in easily accessible locations that preclude accidental contact by employees.
6. Internal Wiring of Fixtures and Equipment
 - a. The Contractor shall be responsible for internal wiring of electrical devices built into or forming an integral part of fabricated equipment items. Wiring will be in metal conduit, connected to an accessible pull-box or j-box, and tagged for intended use. Refer to Section 26 Specifications for color coding of wiring.
 - b. Each standard item shipped in sections shall be properly connected internally and verified by the Contractor .
 - c. Furnish dish washers and conveyors internally wired to junction box or distribution panel as specified, including push button switches, motors, immersion heaters, solenoids, etc.

- d. Exposed flexible steel conduit on kitchen equipment shall be neoprene jacketed Seal -Tite conduit equal to Anaconda type "UA". UL approved, complete with approved liquid tight connectors on each end, and designed to provide electrical grounding continuity.
 - e. Exposed electrical conduit used in kitchen wet area applications, except for flexible connections, shall be rigid galvanized steel. Thin wall conduit (EMT) shall not be permitted for wet areas. Exposed outlet boxes shall be liquid tight type, with threaded hubs.
- 7. Convenience and Power Outlets
 - a. Make cutouts and install appropriate boxes or outlets in fabricated fixtures, complete with wiring, conduit, outlet and stainless steel cover plate.
 - b. Outlets and plugs shall conform to NEMA standards.
 - c. Electrical outlets and devices shall be first quality "Specification Grade".
 - d. Furnish GFCI outlets where adjacent to sink compartments, as per the National Electrical Code.
- 8. Plugs and Cords: Where cords and plugs are provided, they shall comply with National Electrical Manufacturer's Association (NEMA) requirements. Indicate NEMA configuration for each applicable item.
- 9. Heating Equipment
 - a. Install electric and heating equipment as to be readily cleanable or removable for cleaning.
 - b. Steam heated custom fabricated equipment shall be a self-contained assembly, complete with control valves located in an accessible position.
- 10. Motors: Totally enclosed type, except drip-proof type where not exposed to a dust or moisture condition; ball bearings, except sleeve bearings on small timing motors; windings impregnated to resist moisture; horse-power and duty-cycle ratings as required for the service indicated.
- 11. Power Characteristics: Refer to Division 26 specifications for project power characteristics. Also, refer to individual equipment requirements, for loads and ratings.

2.4 FABRICATION OF METAL WORK

A. General Fabrication Requirements

- 1. Remove burrs from sheared edges of metalwork, ease the corners and smooth to eliminate cutting hazard. Bend sheets of metal at not less than the minimum radius required to avoid grain separation in the metal. Maintain flat, smooth surfaces without damage to finish.
- 2. Reinforce metal at locations of hardware, anchorages, and accessory attachments wherever metal is less than 14 gauge (2.0mm) or requires mortised application. Conceal reinforcements to the greatest extent possible. Weld in place, on concealed faces.

3. Exposed screws or bolt heads, rivets, and butt joints made by riveting straps under seams and then filled with solder will not be accepted. Where fasteners are permitted, provide Phillips head, flat or oval head machine screws. Cap threads with acorn nuts, unless fully concealed in inaccessible construction, and provide nuts and lock washers unless metal for tapping is at least 12 gauge (2.5mm). Match fastener head finish with finish of metal fastened.
4. Where components of fabricated metal work are indicated to be galvanized and involve welding or machining of metal heavier than 16 gauge (1.6mm), complete the fabrication and provide hot-dip galvanizing of each component, after fabrication, to the greatest extent possible (depending upon available dip-tank sizes). Comply with ASTM A123.
5. Welding and Soldering
 - a. Materials 18-gauge (1.27mm), or heavier, shall be welded.
 - b. Seams and joints shall be shop welded or soldered as the nature of the material may require.
 - c. Welds must be ground smooth and polished to match original finish.
 - d. Where galvanizing has been burned off, clean and touch up the weld with high grade aluminum paint.
6. Provide removable panels for access to mechanical and electrical service connections, which are concealed behind or within food service equipment, but only where access is not possible and not indicated through other work.
7. Closures: Where ends of fixtures, splash backs, shelves, etc., are open, fill by forming the metal or welding sections, if necessary, to close entire opening flush to walls or adjoining fixtures.
8. Rolled Edges: Rolled edges shall be as detailed, with corners bull nose, ground and polished.
9. Coved Corners: Stainless steel food service equipment shall have 1/2 inch (13mm) or larger radius coves in horizontal and vertical corners, and intersections, per NSF standards.

B. Metal and Gauges

1. Except as otherwise indicated, fabricate exposed metalwork from stainless steel. Fabricate the following components from the gauge of metal indicated and other components from not less than 20 gauge (0.8mm) metal:
 - a. Table and counter tops: 14 gauge.
 - b. Sinks and drain boards: 14 gauge.
 - c. Shelves: 16 gauge.
 - d. Front drawer and door panels: 18 gauge (double pan construction).
 - e. Single pan doors and drawer fronts: 16 gauge.
 - f. Enclosed base cabinets: 18 gauge.
 - g. Enclosed wall cabinets: 18 gauge.
 - h. Exhaust hoods and ventilators: 18 gauge.
 - i. Pan-type insets and trays: 16 gauge.
 - j. Removable covers and panels: 18 gauge.
 - k. Skirts and enclosure panels: 18 gauge.
 - l. Closure and trim strips over 4" wide: 18 gauge.
 - m. Hardware reinforcement: 12 gauge.

ADD-04 4/14/21

- n. Gusset plates: 10 gauge.
- o. Custom channel bases: 14 gauge.

C. Work-Surface Fabrication

1. Fabricate metal work surfaces by forming and welding to provide seamless construction using welding rods matching sheet metal, grinding and polishing. Where necessary for disassembly, provide waterproof gasketed draw-type joints with concealed bolting.
2. Reinforce work surfaces 30 inches on center both ways with galvanized or stainless steel concealed structural members. Reinforce edges, which are not self-reinforced, by formed edges.

D. Metal Top Construction

1. Metal tops shall be one-piece welded construction, including field joints. Secure to a full perimeter galvanized steel channel frame cross-braced not farther than 2'-6" (760mm) on center. Fasten top with stud bolts or tack welds. If hat sections are used in lieu of channels, close ends.
2. Use properly designed draw fastening, trim strip, or commercial joint material to suit requirement, only if specified.

E. Structural Framing

1. Except as otherwise indicated, provide framing of minimum 1 inch (25mm) pipe-size round pipe or tube members with mitered and welded joints and gusset plates ground smooth. Provide 14 gauge (2.0mm) stainless steel tube for exposed framing, and galvanized steel pipe for concealed framing.
2. Where indicated, flange rear and end edges up to form splashes integrally with top, with vertical and horizontal corners coved of not less than 1/4 inch (6mm) radius, die formed. Turn back splashes 1 inch to wall across top and ends with rounded edge on break, unless otherwise specified.
3. For die-crimped edges, use inverted "V" 1/2 inch (13mm) deep inside and 2 inch (38mm) deep on outside, unless otherwise shown. For straight down flanges, make 1- 3/4 inch (45mm) deep on outside. For bull nose edges, roll down 1-3/4 inch (45mm).
4. Edges: die-formed, integral with top. For rounded corners, form to 1 inch radius, weld, and polish to original finish.

F. Field Joints: For any field joint required because of size of fixture, use butt-joints, reinforce on underside with angles of same material, bolt together with non-corrosive bolts and nuts, field weld, grind and polish.

G. Pipe Bases: Construct pipe bases of 1-5/8 inch (41mm) diameter 18 gauge (1.2mm) stainless steel tubing. Fit legs with polished stainless steel sanitary adjustable bullet feet to provide for adjustment of approximately 1-1/2 inch (38mm), without exposing threads. Space legs to provide ample support for tops, precluding any possibility of buckling or sagging and in no case more than 6'-0" centers.

H. Legs and Cross-rails

1. Equipment legs and cross rails shall be 1-5/8 inch (41mm), 16-gauge (1.59mm) stainless steel tubing.
2. Welds at cross rails shall be continuous and ground smooth. Please note: tack welds are not acceptable.
3. Camber bottom of legs inward and fit with a stainless steel bullet-type foot with not less than 2 inch (50mm) adjustment. Flanged feet with bolt holes may be required dependent on design applications. Provide proper type feet in compliance with local codes. Use stainless steel in all applications.
4. Peg free standing legs to floor with 1/4 inch (6mm) stainless steel rod.
5. Components
 - a. Stainless Steel Gusset: Stainless steel exterior to fit 1-5/8 inch (41mm) tubing, with Allen screw for fastening and adjustment. Not less than 3 inches (76mm) diameter at top and 3-3/4 inch (95mm) long. Outer shell 16-gauge (1.6mm) stainless steel, reinforced with 12-gauge (2.5mm) mild steel insert welded interior shell, or approved equal.
 - b. Stainless Steel Low Counter Legs: Stainless steel exterior 5-3/4 inch (146mm) minimum, 7 inch (1.78mm) maximum length with stainless steel 3- 1/2 inch (89mm) square plate with four counter-sunk holes, welded to top for fastening.
 - c. Stainless Steel Adjustable Foot: Stainless steel 1-1/2 inch (38mm) diameter tapered at bottom to 1 inch (25mm) diameter, fitted with threaded cold rolled rod for minimum 1-1/2 inch (38mm) diameter x 3/4 inch (19mm) threaded bushing plug welded to legs, or approved equal. Push-in foot not acceptable.
6. Fasten legs to equipment with gussets, as follows:
 - a. Sinks: Reinforced with bushings and set screw.
 - b. Metal Top Tables and Dish Tables: Welded to galvanized steel channels, 14-gauge (1.98mm) or heavier, anchored to top with screws through slotted holes.
 - c. Wood Top Tables: Welded to stainless steel channels, 14-gauge (1.98mm) or heavier, anchored to top with screws through slotted holes.

I. Shelves

1. Construct solid shelves under pipe base tables of 16 gauge stainless steel, with 1-1/2 inch turned down and under edges on exposed sides, and 2 inch turn up against walls or equipment. Fully weld to pipe legs.
2. In fixtures with enclosed bases, turn up shelves on back and sides with 1/4 inch (6mm) (minimum) radius and feather slightly to ensure a tight fit to enclosure panels.

J. Sinks

1. Construct sinks of 14 gauge stainless steel with No.4 finish inside and outside.
2. Form back, bottom and front of one piece, with ends and partitions welded into place. Partitions: double thickness, 1 inch minimum space between walls. Multiple compartments shall be continuous on the exterior, without applied facing strips or panels.
3. Cove interior vertical and horizontal corners of each tub not less than 1/4 inch radius, die formed. Outer ends of drain boards to have roll rim risers not less than 3 inches high.

ADD-04 4/14/21

4. Drill faucet holes in splashes 2-1/2 inches below top edge. Verify center spacing with faucet specified.
5. Sink insets shall be deep drawn of 16-gauge (1.59mm), or heavier, polished stainless steel. Weld into sink drain boards with 1-1/2 inch x 1-1/2 inch x 14 gauge stainless steel angle brackets, securely welded to sinks and galvanized cross angles spot welded to underside of drain boards to form an integral part of the installation.
6. The bottom of each compartment shall be creased such as to ensure complete drainage to waste opening. Slope bottom of sink bowls toward outlet.

K. Drains, Wastes and Faucets

1. Furnish and install Chicago Faucets stainless steel rotary drain assembly with connected overflow assembly as specified – see itemized 2.8. Waste connection shall have 2 inch (50mm) external thread size, with 1-1/2 inch (38mm) internal thread size.
2. Rotary Handle: Of sufficient length to extend to front edge of sink. No riveting, screws or soldering permitted to fit drains to sinks, with all parts of drains easily removable for servicing and replacement. Rotary handle bracket to be provided as part of the sink fabrication.
3. Water pans for steam tables shall be fitted with 1 inch (25mm) drains with chrome-plated brass stand pipes.
4. All faucets furnished with equipment included in this Section shall be lead-free and comply with NSF Standard #61, Section #9, such as manufactured by Chicago Faucets. Where the itemized specifications list a faucet by manufacturer and model, the Contractor shall verify that the listed faucet complies with this requirement.
5. If the listed faucet does not comply, the Contractor shall submit similar model which does comply from the same manufacturer where available or from one of the above manufacturers.

L. Workmanship

1. Best quality in the trade. Field verify dimensions before fabricating, conform all items to dimensions of building, neatly fit around pipes, offsets and other obstructions.
2. Fabricate only in accordance with approved shop drawings, showing pipes, obstructions to be built around, and location of utilities and services.

M. Enclosures

1. Provide enclosures, including panels, housings, and skirts for service lines, operating components and mechanical and electrical devices associated with the food service equipment, except as specifically indicated to be "open".
2. Where equipment is exposed to customer view, enclose of service lines, operating components, and mechanical and electrical devices.

N. Doors

ADD-04 4/14/21

1. Metal doors shall be double-cased stainless steel. Outer pans shall be 18-gauge (1.27mm) stainless steel with corners welded, ground smooth and polished. Inner pan shall be 20-gauge (.95mm) stainless steel fitted tightly into outer pan with a sound-deadening material such as Celotex or Styrofoam used as a core. The two pans shall be tack welded together and joints solder filled. Doors shall finish approximately 3/4 inch (19mm) thick and be fitted with flush recessed type stainless steel door pulls.
2. Wood doors shall be fabricated as detailed. If Formica or other plastic surfaces are used, sides and backs must be laminated.
3. Hinged doors shall be mounted on heavy-duty NSF approved hinges, or as noted on plans or specifications.

O. Drawer Assemblies

1. Assemblies shall consist of removable drawer body mounted in a ball bearing slide assembly with fully enclosed housing.
2. Slide assembly consists of one pair of 200 pound stainless steel roller bearing extension slides, with side and back enclosure panels, front spacer angle, two drawer carrier angles secured to slides and stainless steel front.
3. Drawer bodies for general storage are to be 20 inches x 20 inches (508mm x 508mm), with 18 gauge stainless steel containers.
4. Drawers intended to hold food products shall be removable type with 12 x 20 (305mm x 508mm) stainless steel food pans in a stainless steel assembly.
5. Drawer fronts are double cased, 3/4 inch (19mm) thick with 18 gauge (1.27mm) stainless steel welded and polished front pan. Steel back pan is tightly fitted and tack welded. Sound deaden with rigid insulation material.
6. Provide drawers with replaceable soft neoprene bumpers or for refrigerated drawers, a full perimeter soft gasket.

P. Closed Base: Where casework is indicated to be located on a raised-floor base, prepare casework for support without legs and for anchorage and sealant application, as required for a completely enclosed and concealed base.

Q. Support from Floor: Equip floor supported mobile units with casters and equip items indicated as roll-out units with manufacturer's standard one-directional rollers. Otherwise, and except for closed-base units, provide pipe or tube legs with adjustable bullet-design feet for floor supported items of fabricated metalwork. Provide 1-1/2 inch adjustment of feet (concealed threading).

R. Shop Painting

1. Clean and prepare metal surfaces to be painted. Remove rust and dirt. Apply treatment to zinc coated surfaces which have not been mill phosphatized. Coat welded and abraded areas of zinc coated surfaces with galvanize repair paint.
2. Apply 1.5 mil (dry film thickness) metal primer coating, followed by 2, 1.0 mil (dry film thickness) metal enamel finish coatings.
3. Bake primer and finish coatings in accordance with paint manufacturer's instructions for a baked enamel finish.

ADD-04 4/14/21

S. Sound Deadening

1. Sound deaden underside of metal tops, drain boards, under shelves, cabinet interior shelves, etc., above the underbracing/reinforcing/framing only.

2.5 FILTER EXHAUST HOODS

A. General

1. 18 Gauge type 304 stainless steel external welded construction, in accordance with the latest edition of NFPA No.96, including all applicable appendices. Exposed welds to be ground and polished.
2. Grease Removal: UL classified, non-adjustable, stainless steel grease filters with drip-channel gutters, drains and collection basins.
3. Light Fixtures: Furnish type of fixture specified. Fixtures shall be UL listed for hoods, NSF approved, with sealed safety lenses and stainless steel exposed conduit for wiring.
4. Exhaust Duct: Furnish welded stainless steel formed duct collars at ceiling or wall duct connections, where exposed. Furnish exposed to view ductwork as specified. Verify size and location of duct connections required in this contract, before fabrication. Other ductwork will be by the Mechanical Section.
5. Fire Extinguishing System: Pre-piped liquid chemical or water fire suppressant system, as specified, complying with applicable local and NFPA regulations. Wet chemical fire suppression systems shall comply with UL 300 Standards.

2.6 REFRIGERATION EQUIPMENT

A. General

1. Furnish either single or multiple compressor units, as specified or recommended by the manufacturer for the sizes and variations between connected evaporator loads as indicated.
2. Furnish units of the capacities indicated, arranged to respond to multiple-evaporator thermostats and defrosting timers. Include coils, receivers, compressors, motors, motor starters, mounting bases, vibration isolation units, fans, dryers, valves, piping, insulation, gauges, winter control equipment and complete automatic control system.
3. Refrigerant: Pre-charge units with type or types recommended by manufacturer for services indicated, with quick-disconnect type connections where specified, ready to receive refrigerant piping runs to evaporators and (where remote) to condensers. All refrigerant and associated components shall comply with the requirements of the Montreal Protocol Agreement. No CFC refrigerants or associated components shall be allowed on this Project. HFC refrigerants and components shall be used where available. HCFC refrigerants and components, with a minimum 2010 phase-out date, and intermediate replacement refrigerants are to be used only when HFC refrigerants are not available. Contractor shall be responsible for coordinating with manufacturers. Provide refrigerant leak monitoring devices where required by federal, state, or local codes.

B. Components

1. Coils: Coils for fabricated refrigerators shall have vinyl plastic coatings, stainless steel housings and shall be installed in such a manner as to be replaceable.
2. Expansion Valves: Remote refrigeration system shall be complete with thermostatic expansion valves at the evaporator.
3. Thermometers
 - a. Fabricated refrigerated compartments to be fitted minimally with a flush dial thermometer, with chrome plated bezels and to be provided as specified.
 - b. Thermometers shall be adjustable and shall be calibrated after installation.
 - c. Thermometers shall have an accuracy of ± 2 degrees Fahrenheit (1 degree Centigrade).
4. Hardware
 - a. Refrigerator hardware for fabricated refrigerator compartments shall be heavy-duty components.
 - b. Self-closing hinges.
 - c. Latches to be magnetic edge mount type, unless specified or detailed otherwise.
5. Locks
 - a. Doors and drawers for walk-in coolers/freezers and reach-in refrigerated compartments, both fabricated and standard, shall be fitted with cylinder locking type latches and provided with master keys.

C. Ventilation of Refrigerated Equipment

1. Adequate ventilation shall be provided for custom fabricated equipment with integral refrigeration condensing units, both built-in and drop-in. If flow through ventilation cannot be provided, provide flow direction partitions and an additional fan capable of cooling the condensing unit.
2. If, in the opinion of the Contractor, additional room ventilation is required to ensure correct operating temperatures of standard buy-out, custom fabricated or remote refrigeration condensing units, or compressor rack assemblies, they shall so state in a letter to the Architect for evaluation and direction.

2.7 MISCELLANEOUS MATERIALS

- A. Nameplates: Whenever possible, locate nameplates and labels on manufactured items, in accessible position, but not within customer's normal view. Do not apply name-plates or labels on custom fabricated work, except as required for compliance with governing regulations, insurance requirements, or operator performance.
- B. Manufactured Equipment Items: Furnish items as scheduled or herein specified. Verify dimensions, spaces, rough-in and service requirements, and electrical characteristics before ordering. Provide trim, accessories and miscellaneous items for complete installation.

ADD-04 4/14/21

C. Insert Pans

1. General: Provide cut-outs, openings, drawers, or equipment specified or detailed to hold stainless steel insert pans with a full complement of pans as follows:
 - a. One (1) stainless steel, 20-gauge (0.95mm) minimum, solid insert pan for each space, sized per plans, details, or specifications.
 - b. Where pan sizes are not indicated in plans, details, or specifications, provide one full-size pan for each opening.
 - c. Provide maximum depth pan to suit application and space.
2. Provide 18-gauge (1.27mm) removable stainless steel adapter bars where applicable.
3. Provide all cut-outs and openings or equipment specified or detailed to hold stainless steel insert pans with a hinged stainless steel removable night cover.

- D. Reasonable quietness of operation of equipment is a requirement. The Kitchen Equipment Contractor will be required to replace or repair any equipment producing out-of-the-ordinary intolerable noise. This also includes providing and installing bumpers and gaskets for doors and drawers on fabricated and standard manufactured items and sound insulation where feasible.

2.8 ITEMIZED SPECIFICATIONS

- A. Refer to the following pages for specific specification information on each item included in this Section.

ITEM 1 SLIM JIM WASTE RECEPTACLES: 5 REQUIRED

- A. Rubbermaid, model FG354000 *H011. Color: light gray.

ITEM 2 UTILITY CART: 1 REQUIRED

- A. Lakeside, model 243 *H011 with set of four round corner bumpers.

ITEM 3 HAND WASHING SINKS: 2 REQUIRED

- A. Advance Tabco, model 7-PS-62*H011.
- B. Seal to wall.

ITEM 4 DISPOSERS: 6 REQUIRED

- A. Red Goat, model F114P-R *H011 with the following accessories:
1. Model 30-H-RSA 3-1/2" – 4" sink adapter kit.
 2. Model RS remote on/off switch.

ADD-04 4/14/21

- B. Install assembly complete under tables as detailed.

ITEM 5 POT WASHING SINK TABLE WITH REMOVABLE SINK COVERS: 1 REQUIRED

- A. Pacific Stainless Products, model TCS-(1)2824R-(2)1824-14-B30 *H011 fully welded custom "Spec Line" sink table in configuration per plan. Include the following accessories:
1. One Chicago Faucets, model 923-H613XKCAB splash mount pre-rinse centered between two smaller sinks.
 2. One Chicago Faucets, model 631-L9E35ABCP splash mount faucet centered between large and smaller sinks.
 3. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 4. ~~Model PRSTM-3614 table mount potrack with shelf. above left drainboard. ADD 04~~
 5. Model PRSTM-6614 table mount potrack with shelf. over right drainboard and large sink as detailed.
 6. Stainless steel undershelf below left drainboard.
 7. 14" deep sinks.
 8. Allow clearance under right drainboard to install Item 6 existing undercounter warewasher.
 9. Sound deaden underside of top and sink compartments.
- B. Submit factory drawing for approval.
- C. Install assembly complete. Clip and seal to wall.

ITEM 6 UNDERCOUNTER WAREWASHER: 1 REQUIRED

- A. Existing equipment. Relocate and re-install in location shown.

ITEM 7 NOT USED ADD 04 - ~~MOBILE POT AND PAN SHELVEING: 1 REQUIRED~~

- ~~A. Metro, model SEC33S-SD with three model A1836NS intermediate super adjustable shelves *H011.~~

ITEM 8 CORNER/CHANNEL GUARDS AND LOW WALL CAPS: 1 LOT REQUIRED

- A. Fabricate as detailed and construct vertical corner/channel guards and low wall caps of one piece all welded 14 gauge stainless steel. Install in locations shown on Sheet FS1.1. Install with stainless steel screws.
- B. Seal guards to walls and at joints as required.

ITEM 9 REACH-IN REFRIGERATOR: 1 REQUIRED

- A. Traulsen, model RHT232WUT-FHS *H011 with doors hinged standard.

ADD-04 4/14/21

ITEM 10 CLOTHES WASHER AND DRYER: 1 EA REQUIRED

- A. Owner furnished and installed.

ITEM 11 DRY STORAGE SHELVING: 1 LOT REQUIRED

- A. Existing equipment.

ITEM 12 CUBE ICE MACHINE: 1 REQUIRED ADD 01

- A. Existing equipment. Relocate and reinstall in location shown. ~~Ice-O-Matic, model GEMU090 *H011 with model KPU090 Pump Kit.~~
- ~~B. Include model IF18C In-line water filtration system.~~

ITEM 13 NOT USED

ITEM 14 NOT USED

ITEM 15 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2 *H011, 3'-5" long Type I 18 gauge stainless steel exhaust only canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
1. Flush LED light fixture as shown on Captive-Aire factory drawings. Furnish and install lamp.
 2. Light and fan on/off switch to be mounted on wall.
 3. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 21 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 4. Hood to have insulation for zero inch clearance to combustibles at ceiling and walls.
 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 6. Install hood with 80" clearance from finished floor.
- B. Exhaust duct work and fans furnished and installed by Division 23.

ADD-04 4/14/21

ITEM 16 STAINLESS STEEL WALL FLASHING: 1 LOT REQUIRED

- A. Fabricate 20 gauge stainless steel Number 4 finish wall flashing bonded to gypsum board with heat resistant mastic beginning directly above cove base on walls and terminating 2" above bottom edge of canopy hoods. Flashing shall run full length of each canopy hood where shown. Flashing shall also wrap entire low wall under Item 21.
- B. Note: ceiling and wall flashing shall meet Mechanical Code Sections 507.4 and 507.9. Verify all requirements and provide flashing (insulated for 1 hour rating if required) to meet the codes.
- C. Install flashing with no exposed fasteners or screws in interlocking sections of equal lengths. Verify that surfaces are flat and smooth with a maximum variation of 1/16" in 10 feet.
- D. Install assembly complete.

ITEM 17 COMBI-OVEN STEAMER: 1 REQUIRED

- A. Rational, model ICC 6-HALF E 208/240 3PH (LM200BE) *H011 with the following accessories:
 - 1. Model 1900.1150US water filtration system.
 - 2. Model 60.31.099 Unit Elevation for Tabletop Installation.
 - 3. Safety door lock.
 - 4. USB Data Memory Stick.
 - 5. Model 60.72.107 Starter Package (includes one grill and pizza tray, two baking trays, and two granite-enameled containers.
 - 6. Three Model 6019-1250 CombiFry Baskets.
 - 7. Model 56.01.535 Detergent-Tabs Active Green.

ITEM 18 ADA PREP WORK TABLE: 1 REQUIRED ADD 01

- A. Pacific Stainless Products, model PTS8430C8R20-Modified *H011 fully welded prep table. Sink table shall incorporate the following:
 - 1. 12" x 18" x 7" deep custom sink (for ADA).
 - 2. Special 34" high table top.
 - 3. Chicago Faucets, model 786-LR9E35V317AB deck mount faucet.
 - 4. Chicago Faucets, model 337-CP Grid strainer offset.
 - 5. Fisher, model 4730 wall mount double-jointed fill faucet. ADD 04 ~~TMSC 8414 table mount cantilever shelf. Trim and seal openings in backsplash.~~
 - 6. Left end splash.
 - 7. Reinforce underside of top to support Item 17 Combi-Oven/Steamer.
 - 8. Sound deaden underside of top and sink compartment.
- B. Install assembly complete. Clip and seal to wall.

ADD-04 4/14/21

ITEM 19 NOT USED

ITEM 20 MOBILE PROOFING CABINET: 1 REQUIRED

A. Metro, model C519-CFC-U *H011 with the following accessories:

1. Full perimeter bumper.
2. Stainless steel universal slide upgrade.

B. Install assembly complete.

ITEM 21 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

A. Captive-Aire, model 6030ND-2WI *H011, Type I 6'-8" long x 2'-6" high 18 gauge stainless steel exhaust only canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:

1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
1. Light and fan on/off switch to be mounted on utility wall.
2. Ansul R102 Restaurant Fire Suppression System supplied by Item 15 hood.
3. Hood to have insulation for zero inch clearance to combustibles at ceiling.
4. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
5. Install hood with 80" clearance from finished floor.

B. Exhaust duct work and fans furnished and installed by Division 23.

ITEM 22 4-BURNER OPEN RANGES: 7 REQUIRED

A. American Range, model AR30-4B *H011 gas range with the following accessories:

1. 6" high swivel casters with brakes.
2. Additional chrome oven rack.
3. Innonvection oven.
4. 36" long gas quick disconnect assembly with cable restraint.

B. Install assembly complete.

ITEM 23 INDUCTION WOK: 1 REQUIRED

A. CookTek, model MWG5000-200 (#647101) *H011. Include 14" stainless steel Wok (Part #CT-103871).

ADD-04 4/14/21

ITEM 24 TEACHERS MAPLE TOP WORK TABLE: 1 REQUIRED

- A. John Boos, model BTNS01 *H011 48" long x 30" wide maple top work table with stainless steel base and 3-Tier drawer unit.

ITEM 25 MOBILE INGREDIENT CARTS: 6 REQUIRED

- A. FWE, model OTR-16-MSWT *H011.

ITEM 26 MOBILE TABLE: 1 REQUIRED

- A. Pacific Stainless, model WKS2430IS *H011 with marine top and 6" high all-swivel caster set; two with brakes.

ITEM 27 MOBILE ISLAND WORK TABLES: 6 REQUIRED ADD 01

- A. Existing equipment.
- B. Modify existing leg sets and install all swivel caster sets; two with brakes. Overall table height to be 36" after casters are installed.
- C. Relocate and reinstall in position shown.

ITEM 28 NOT USED

ITEM 29 REACH-IN FREEZER: 1 REQUIRED

- A. Traulsen, model G22010 *H011 ~~with the following accessories:~~

ITEM 30 STUDENT WORK STATION: 1 REQUIRED

- A. Pacific Stainless Products, model WKS-~~XXXX~~-A6S *H011 custom design table with integral sinks. Refer to details. Table shall incorporate the following:
 - 1. Three Chicago Faucets, model 631-L9E35ABCP splash mount faucets centered between sinks.
 - 2. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 - 3. Sink sizes: 18" x 18" x 14" deep.
 - 4. Provide cut-out in sinks shown and weld in Item 4 Disposer sink flange.
 - 5. Marine edges.
 - 6. Stainless steel 3-tier drawer assemblies as shown.
- B. Install assembly complete.

- C. Clip and seal to walls.

ITEM 31 MICROWAVE OVENS: 6 REQUIRED

- A. Existing equipment. Relocate and reinstall in location shown.

ITEM 32 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2WI-PSP-FB *H011, Type I 4'-6" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 1. Light and fan on/off switch to be mounted on wall.
 - 2. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 33 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 - 3. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 4. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 5. Install hood with 80" clearance from finished floor.
- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 33 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 7230NDI-PSP-FB *H011, Type I 7'-2" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 2. Light and fan on/off switch to be mounted on wall.
 - 3. Ansul R102 Restaurant Fire Suppression System supplied by Item 32 hood.
 - 4. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 6. Install hood with 80" clearance from finished floor.

ADD-04 4/14/21

- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 34 STUDENT WORK STATION: 1 REQUIRED

- C. Pacific Stainless Products, model WKS-~~XXXX~~-A6S *H011 custom design table with integral sinks. Refer to details. Table shall incorporate the following:
1. Three Chicago Faucets, model 631-L9E35ABCP splash mount faucets centered between sinks.
 2. Three Chicago Faucets, model 1366-NF rotary waste assemblies with 14 gauge stainless steel lever waste brackets welded to underside of triple sink compartments.
 3. Sink sizes: 18" x 18" x 14" deep.
 4. Provide cut-out in sinks shown and weld in Item 4 Disposer sink flange.
 5. Marine edges.
 6. Stainless steel 3-tier drawer assemblies as shown.
- D. Install assembly complete.
- E. Clip and seal to walls.

ITEM 35 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 5430ND-2-PSP-F *H011, Type I 4'-7" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
1. Flush LED light fixture as shown on Captive-Aire factory drawings. Furnish and install lamp.
 2. Light and fan on/off switch to be mounted on utility cabinet.
 3. Ansul R102 Restaurant Fire Suppression System furnished and installed by Captive-Aire. Install in accordance with NFPA bulletin 96, including all current amendments to protect this hood and Item 36 including surface protection as required. All piping and conduit shall be run concealed in walls or above ceiling, except where exposure is necessary for functional reasons. Exposed piping shall be chrome plated or run in stainless steel sleeves. Include reset relays and manual remote pull station. System shall connect to mechanical gas shut-off valve furnished loose by Captive-Aire. All contactors are furnished by the Electrical Division for shut down of electric supply to all equipment in the event of system activation. System to be installed inside hood mount utility cabinet at right end.
 4. Hood to have insulation for zero inch clearance to combustibles at ceiling and wall.
 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 6. Install hood with 80" clearance from finished floor.
- A. Exhaust and supply duct work and fans furnished and installed by Division 23.

ADD-04 4/14/21

ITEM 36 CANOPY HOOD WITH FIRE PROTECTION SYSTEM: 1 REQUIRED

- A. Captive-Aire, model 7230NDI-PSP-FB *H011, Type I 7'-2" long x 2'-6" high 18 gauge stainless steel canopy hood. Refer to Food Service Drawings. The hood shall incorporate the following:
 - 1. Flush LED light fixtures as shown on Captive-Aire factory drawings. Furnish and install lamps.
 - 2. Light and fan on/off switch to be mounted on utility cabinet.
 - 3. Ansul R102 Restaurant Fire Suppression System supplied by Item 35 hood.
 - 4. Hood to have insulation for zero inch clearance to combustibles at ceiling.
 - 5. Include 18 gauge stainless steel removable closure panels and trim as required to seal hood to ceiling. Verify ceiling height. Submit shop drawings prior to fabrication.
 - 6. Install hood with 80" clearance from finished floor.
- B. Exhaust and supply duct work and fans furnished and installed by Division 23.

ITEM 37 MOBILE INGREDIENT BINS: 3 REQUIRED

- A. Existing equipment. Relocate and reinstall in position shown.

PART 3 - EXECUTION

3.1 SUPERVISION

- A. A competent supervisor, representing the Contractor, shall be present at all times during progress of the Contractor's work.

3.2 SITE EXAMINATION

- A. Verify site conditions under the provisions of the General Conditions, Supplementary Conditions and applicable provisions of Division 1 Sections. Notify the Architect, in writing, of unsatisfactory conditions for proper installation of food service equipment.
- B. Verify wall, column, door, window, and ceiling locations and dimensions. Fabrication and installation should not proceed until dimensions and conditions have been verified and coordinated with fabrication details.
- C. Verify that wall reinforcement or backing has been provided and is correct for wall supported equipment. Coordinate placement dimensions with wall construction Section.
- D. Verify that ventilation ducts are of the correct characteristics, and in the required locations.
- E. Verify that utilities are available, of the correct characteristics, and in the required locations.

3.3 INSTALLATION

- A. Sequence installation and erection to ensure correct mechanical and electrical utility connections are achieved.
- B. Install items in accordance with manufacturer's instructions.
- C. Set each item of non-mobile and non-portable equipment securely in place, leveled and adjusted to correct height. Anchor to supporting substrate where indicated, and where required for sustained operation and use without shifting or dislocation. Conceal anchorages wherever possible. Adjust counter tops and other work surfaces to a level tolerance of 1/16 inch (maximum offset, and plus or minus on dimension, and maximum variation in 2'-0" run from level or indicated slope). Provide anchors, supports, bracing, clips, attachments, etc., as required to comply with the local seismic restraint requirements. The Guidelines for Seismic Restraint of Kitchen Equipment, as prepared for the Sheet Metal Industry Fund of Los Angeles and endorsed by SMACNA, should be followed.
- D. Complete field assembly joints in the work (joints which cannot be completed in the shop) by welding, bolting-and-gasketing, or similar methods as indicated and specified. Grind welds smooth and restore finish. Set or trim flush, except for "T" gaskets as indicated.
- E. Provide closure plates and strips where required, with joints coordinated with units of equipment.
- F. Provide sealants and gaskets all around each unit to make joints airtight, waterproof, vermin-proof, and sanitary for cleaning purposes.
- G. Joints up to 3/8 inch wide will be stuffed with backer rod to shape sealant bead properly, at 1/4 inch depth.
- H. At internal corner joints, apply sealant or gaskets to form a sanitary cove of not less than 3/8 inch radius.
- I. Shape exposed surfaces of sealant slightly concave with edges flush with faces of materials at joint.
- J. Provide sealant filled or gasketed joints up to 3/8 inch joint width. Wider than 3/8 inch, provide matching metal closure strips, with sealant application each side of strips. Anchor gaskets mechanically or with adhesives to prevent displacement.
- K. Treat enclosed spaces, inaccessible after equipment installation, by covering horizontal surfaces with powdered borax at a rate of 4 ounces per square foot.
- L. Insulate to prevent electrolysis between dissimilar metals.
- M. Cut and drill components for service outlets, fixtures, piping, conduit, and fittings.
- N. Verify and coordinate the mounting heights of all wall shelves and equipment, with equipment located below them for proper clearances.

ADD-04 4/14/21

- O. Coordinate with the Plumbing and Electrical Divisions and provide holes in food service equipment for plumbing and electrical service to and through the fixtures, as required. This includes welded sleeves, collars, ferrules, or escutcheons. Locate these services so that they do not interfere with intended use and/or servicing of the fixture. No alterations of the building are allowed without written permission by the General Contractor and/or Architect. (i.e. – routing refrigerant lines).

3.4 ADJUSTING

- A. Test and adjust equipment, controls and safety devices to ensure proper working order and conditions.
- B. Repair or replace equipment, which is found to be defective in its operation, including units which are below capacity or operating with excessive noise or vibration.

3.5 CLEANING AND RESTORING FINISHES

- A. After completion of installation and completion of other major work in food service areas, remove protective coverings and clean food service equipment internally and externally.
- B. Restore exposed and semi-exposed finishes, to remove abrasions and other damages, polish exposed metal surfaces and touch-up painted surfaces. Replace work, which cannot be successfully restored.
- C. Polish glass, plastic, hardware and accessories, fixtures and fittings.
- D. Wash and clean equipment and leave in a condition ready for the Owner to sanitize and use.

3.6 TESTING, START-UP AND INSTRUCTIONS

- A. Delay the start-up of equipment until service lines have been tested, balanced, and adjusted for pressure, voltage and similar considerations and until water and steam lines have been cleaned and treated for sanitation.
- B. Make arrangements for demonstration of food service equipment operation and maintenance in advance with the Owner/Operator.
- C. Demonstrate food service equipment to familiarize the Owner and the Operator on operation and maintenance procedures, including periodic preventative maintenance measures required. Include an explanation of service requirements and simple on-site service procedures as well as information concerning the name, address and telephone number of qualified local source of service. The individual performing the demonstration shall be knowledgeable of operating and service aspects of the equipment.
- D. Provide a written report of the demonstration to the Owner, outlining the equipment demonstrated and malfunctions or deficiencies noted. Indicate individuals present at demonstration.

ADD-04 4/14/21

- E. Final Cleaning: After testing and start-up, clean the food service equipment and leave in a condition ready for the Owner to sanitize and use.

3.7 CLEAR AWAY

- A. Throughout the progress of their work, the Contractor shall keep the working area free from debris and shall remove rubbish from premises resulting from work being done by them. At the completion of their work, the Contractor shall leave the premises in a clean and finished condition.

END OF SECTION 011000

CODE SUMMARY

SECTION I – GOVERNING CODES

- 2019 OSSC (Structural)
- 2019 OMSC (Mechanical)
- 2019 Oregon Zero Energy Ready Commercial Code (ASHRAE Standard 90.1)
- 2017 OPSC (Plumbing)
- 2017 OESC (Electrical)
- 2019 NFPA 13 (Sprinkler Systems)
- 2019 NFPA 72 (Fire Alarm and Signaling Code)

SECTION II – BUILDING CONSTRUCTION DATA

- Type of Construction = Type II-N, Sprinklered (comparable to today's II-A)
- Existing 1993 building permitted under 1988 Uniform Building Code with 1990 State of Oregon Amendments
- Use and occupancy = Educational occupancy (Group E)
- Maximum allowable height in stories = N/A (no changes)
- Maximum proposed height = N/A (no changes)
- Number of stories for building = 2. This T.I. project is primarily located on the ground floor (Level 1), with a mechanical shaft provided on Level 2 to rooftop.
- Total Floor Area of the Building: Approximately 240,700 sf, divided onto two floors
- 9 separate areas via 2 hour area separation walls, with largest area at 45,700 sf
- Floor Area for this T.I. project: 1260 sf
- Basement = No
- Minimum Required Setbacks to Property Line = N/A (no changes)
- Front: 15 / Side: 5 / Rear: 15 / Street Side: 10

SECTION III – BUILDING OCCUPANCY DATA (No changes)

- Proposing a T.I. without an occupancy change.
- Occupancy classification group(s) on this floor:
- Educational occupancy (Group E)
- T.I. space is 'unseparated' use

SECTION IV – BUILDING AREA DATA ACTUAL AND ALLOWABLE (No changes)

- There is no change in occupancy of the T.I. space from the previous tenant space use. (Skip this section.)

SECTION V – FIRE RESISTIVE BUILDING ELEMENTS (No changes)

- There is no change in occupancy of the T.I. space and there are no modifications to any of the fire resistive components of the building. (Skip this section.)
- Type I hoods shall be designed and installed in accordance with 2019 Oregon Mechanical Specialty Code 507.2. Clearances to combustibles shall conform to 507.2.6.

SECTION VI – BUILDING EXITING (No changes, see adjacent plan.)

- OSSC Table 1004.1.2
- Square Footage of Classroom = 955
- Occupant Load = 48
- Maximum floor area allowance per occupant = 20 net sf
- Number of Exits Required = 1
- Minimum exit width required = 32"
- Exit width provided = Existing to remain: 39" (42" door panel minus door thickness and jamb stop)
- Existing Building has corridors that are 1-hour rated. We do not anticipate any work to these walls or ceilings.
- Emergency exit illumination – See drawing E1.1
- Exit Sign Layout = Existing internally illuminated exit light that is ceiling mounted over existing exterior door to remain (be rehung)

SECTION VII – BUILDING FIRE DETECTION AND SUPPRESSION

- Existing fire alarm system is to remain. No changes.
- Sprinkler system is required. Existing sprinkler system in this area to be adjusted to accommodate current ceiling layout. Sprinkler design is a deferred submittal.
- Type of sprinkler system is an automatic wet sprinkler system compliant with NFPA 13.
- Standpipes are not required.
- Fire department vehicular accesses provided to site remain unchanged. (No changes)
- Fire extinguisher will be provided per plans. It is to be Type K.

SECTION VIII – OCCUPANCY VENTILATION REQUIREMENTS

- Outside air / occupancy ventilation table can be found in the plans at ...
- Specific ventilation required for commercial kitchens include:
- Type I exhaust ducts shall be designed in accordance with 2019 Oregon Mechanical Specialty Code 506.3.

SECTION IX – ENERGY CODE REQUIREMENTS

- Energy Code analysis was conducted using the prescriptive Simplified Approach Option. Form has been upload as part of the AHJ plan review submittal.
- No changes have been made to building components and their associated R / U values.
- Energy forms have been completed for HVAC and Interior Lighting. No changes to envelope or exterior lighting.

SECTION X – HAZARDOUS MATERIALS

- No hazardous chemicals or materials are expected in this project or future use of space.

SECTION XI – ACCESSIBILITY

- There is no change to site's exterior route of travel. See diagram on overall (site) plan on Cover Sheet of drawings.
- See adjacent floor plan for interior route of travel.
- See FS drawings for elevations of sinks, counters, etc. Station #7 is identified as the ADA accessible kitchen with undersink knee clearance and 2'-10" counter height.

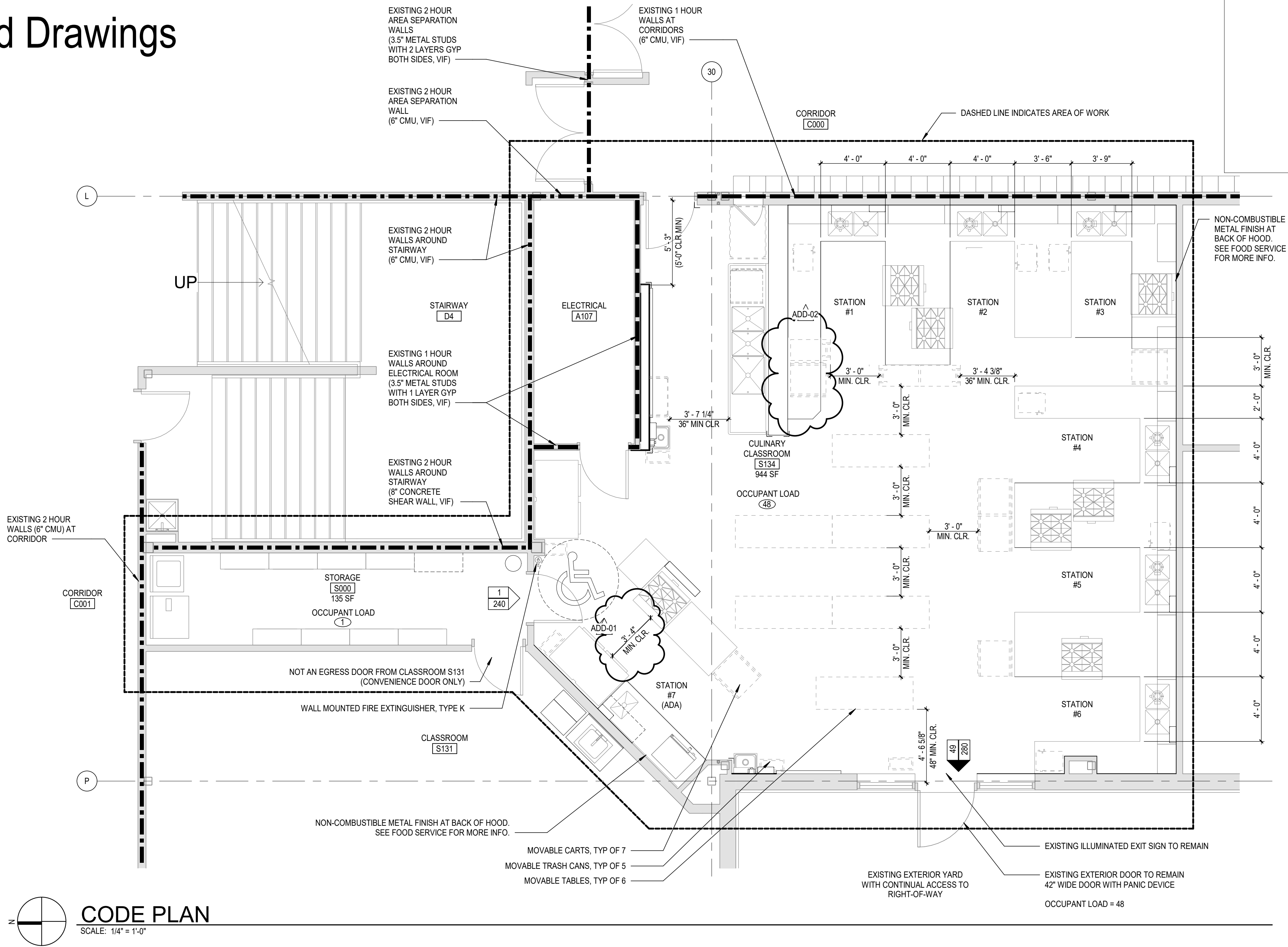
SECTION XIII – UNDERGROUND AND PADMOUNTED TRANSFORMERS.

- N/A this project.

SECTION XIV – SPECIAL INSPECTION, STRUCTURAL OBSERVATION AND DEFERRED SUBMITTALS

- Special inspections are required for steel installation. See first 'S' sheet, S0.1.
- Structural observation is not required.
- There will be deferred submittal items. See front page of plans for list.

Revised Drawings



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

SYMBOL LEGEND

- OCCUPANCY LOAD
- COMBINED OCCUPANT LOAD AT A GIVEN DOOR
- TOTAL EXIT CAPACITY OF DOOR
- (THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS: CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2)
- COMBINED OCCUPANT LOAD AT A GIVEN EXIT DOOR. (SUM EQUALS TOTAL OCCUPANT LOAD)
- TOTAL EXIT CAPACITY OF DOOR
- (THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS: CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2)

WALL SEPARATION LEGEND

WALL HOURLY RATING
0 = 0 HOUR
1 = 1 HOUR
2 = 2 HOUR

A

B

C

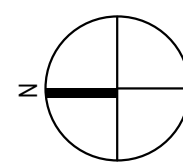
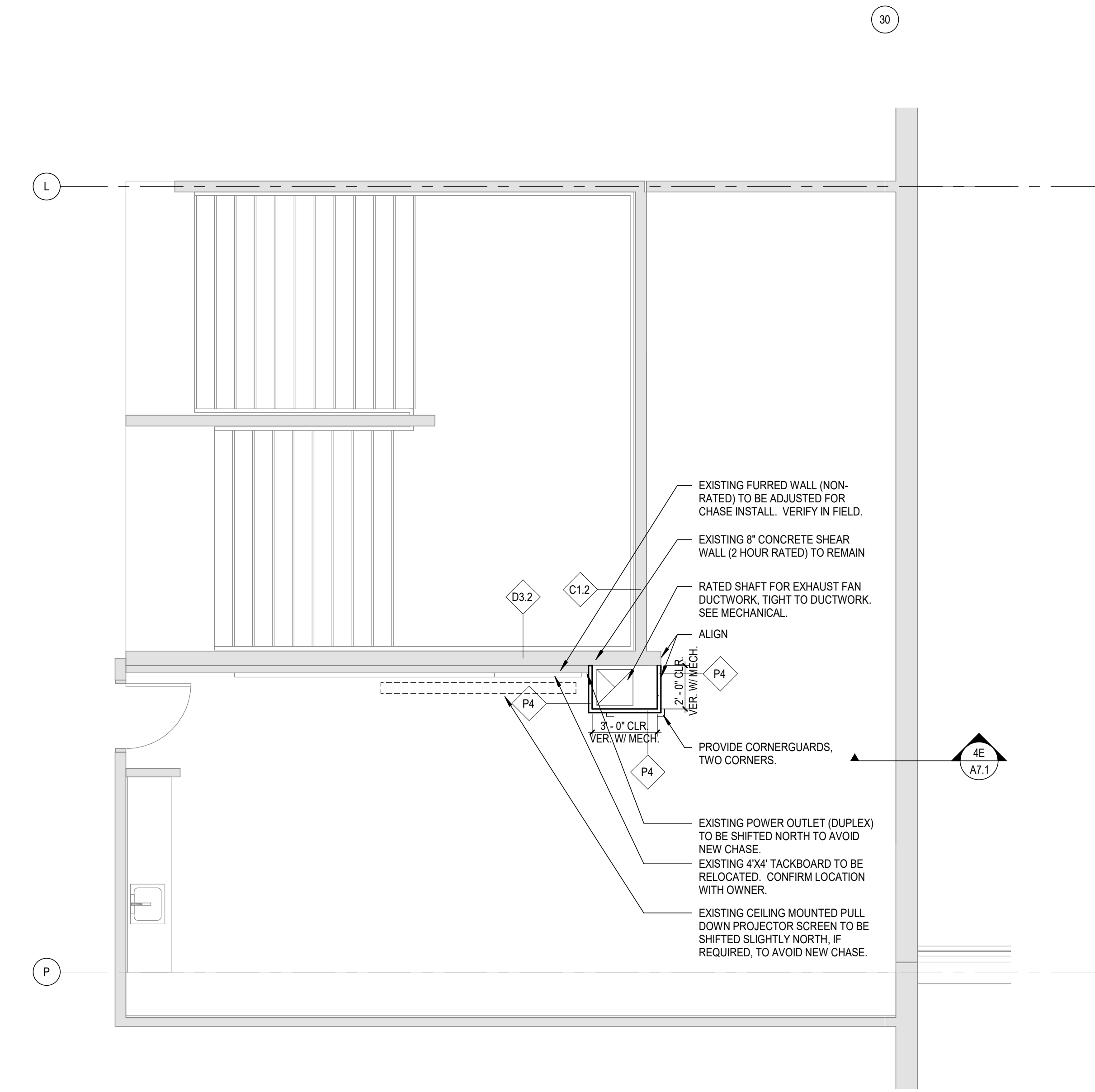
D

E

1

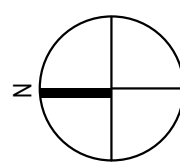
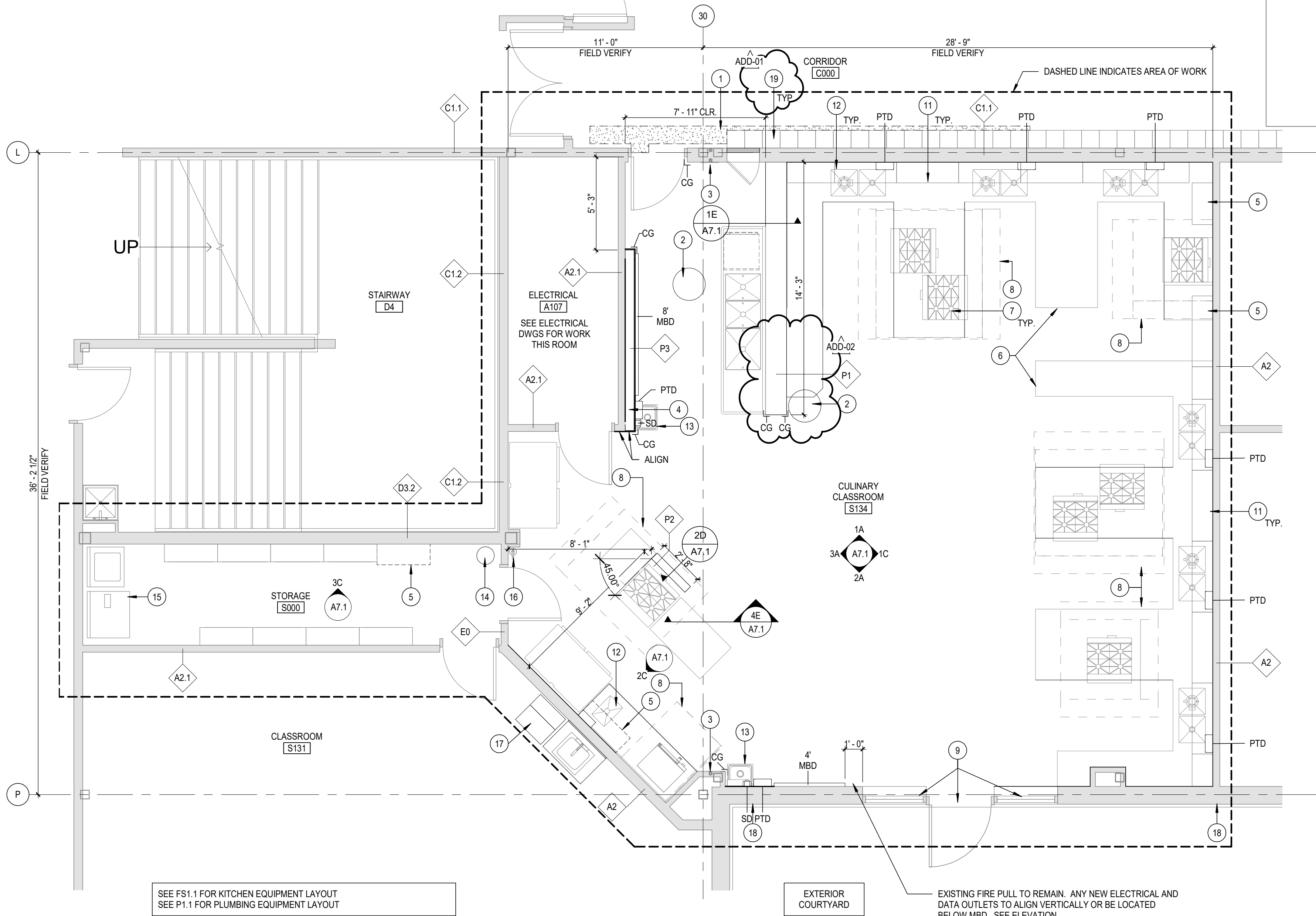
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3



SECOND LEVEL FLOOR PLAN - MECHANICAL SHAFT

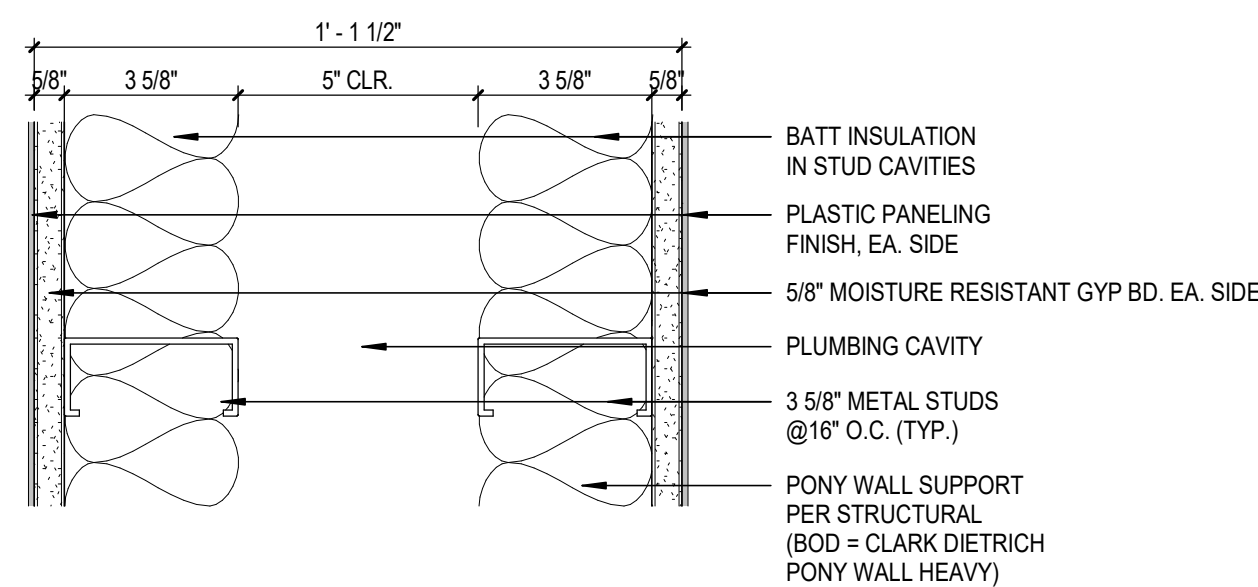
SCALE: 1/4" = 1'-0"



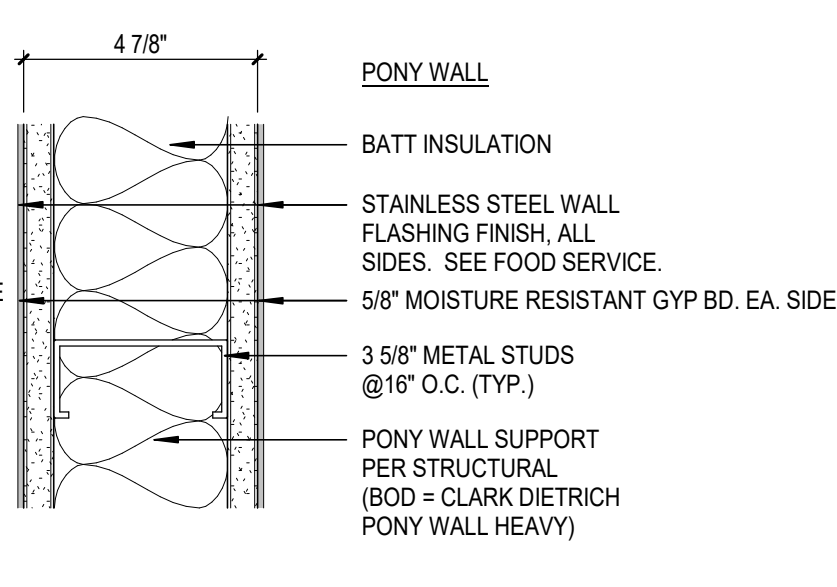
FIRST LEVEL FLOOR PLAN - CULINARY CLASSROOM

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

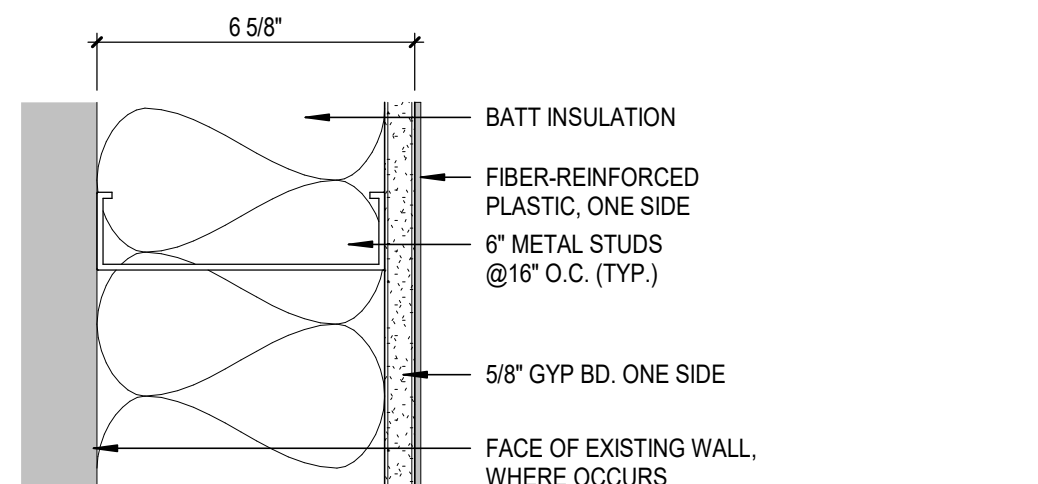
P1 WALL ASSEMBLY: PONY WALL W/ PLUMBING CHASE



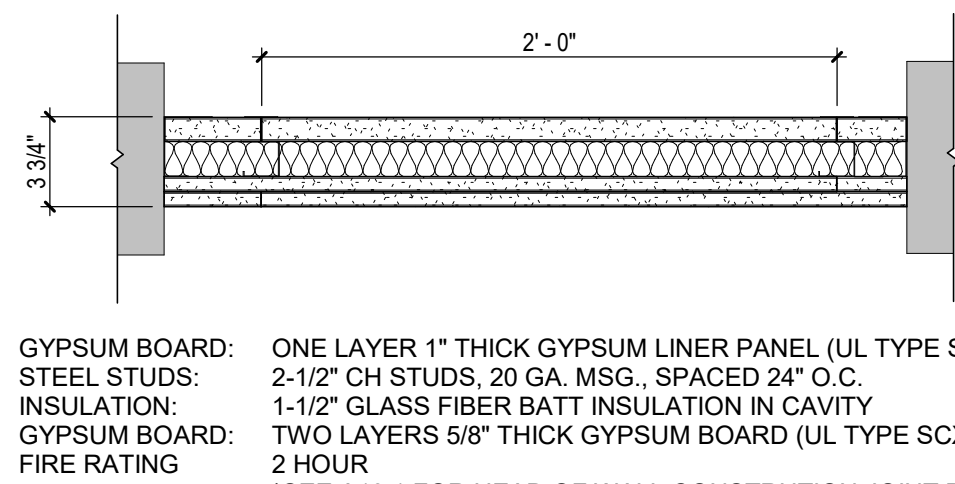
P2 WALL ASSEMBLY: PONY WALL



P3 WALL ASSEMBLY: FURRED / PLUMBING CHASE WALL



P4 WALL ASSEMBLY: UL DESIGN NO. U415 B



EXISTING WALL ASSEMBLY LIST

FIELD VERIFY ALL EXISTING PARTITION TYPES. SEE ADJACENT DRAWINGS FOR NEW WALL ASSEMBLY TYPES

A2: 3 1/2\"/>

A2.1: SAME AS A1, BUT RATED 1 HOUR

C1.1: 6\"/>

C1.2: 6\"/>

D3.2 8\"/>

NOTE AT EXISTING C1.1, C1.2, AND D3.2 WALLS: ALTHOUGH NO THROUGH PENETRATIONS ARE ANTICIPATED THIS PROJECT IN EXISTING RATED WALLS, WHERE A PENETRATING ITEM IS A MAXIMUM 6-INCH NOMINAL DIAMETER AND THE AREA OF THE OPENING THROUGH THE WALL DOES NOT EXCEED 144 SQUARE INCHES, CONCRETE, GROUT, OR MORTAR IS PERMITTED WHERE INSTALLED THE FULL THICKNESS OF THE WALL OR THE THICKNESS REQUIRED TO MAINTAIN THE FIRE-RESISTANCE RATING, PER OSSC 714.4.1.

NOTE AT P4: ALTHOUGH NO THROUGH PENETRATIONS ARE ANTICIPATED THIS PROJECT IN NEW RATED WALLS, IF REQUIRED, THROUGH PENETRATIONS SHALL BE PROTECTED USING SYSTEMS INSTALLED AS TESTED IN THE APPROVED FIRE-RESISTANCE-RATED ASSEMBLY PER OSSC 714.4.1.2. ANY PENETRATIONS SHALL BE UL APPROVED BY THE "MANUFACTURER-SPECIFIC" SYSTEM COMPATIBLE WITH THE INSTALLED FIRE-RATED ASSEMBLY SYSTEM.

GENERAL ARCHITECTURAL NOTES

- ALL INTERIOR STUD WALLS SHALL EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE UNLESS NOTED OTHERWISE. SEE REFLECTED CEILING PLAN NOTES
- PROVISIONS SHALL BE MADE AT ALL FULL HEIGHT NON-BEARING WALLS FOR 1-INCH VERTICAL MOVEMENT OF THE BUILDING STRUCTURE WITHOUT TRANSFER OF COMPRESSIVE LOADS TO WALL
- PROVIDE FIRESTOPPING AT RATED WALLS (INCLUDING EXISTING) TO MEET FIRE RATING OF RESPECTIVE WALLS. SEE DETAILS ON SHEET A10.1 AND SPEC 078413
- FURNISH AND INSTALL FIRE-TREATED WOOD BLOCKING IN METAL STUD PARTITIONS FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS, I.E. TOILET ACCESSORIES, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKER BOARDS, TACK BOARDS, AUDIO VISUAL BRACKETS, AND OTHER WALL ATTACHED ITEMS. SEE DETAILS ON A10.1
- "MBD" AND "TBD" INDICATE MARKER BOARDS AND TACK BOARDS ON PLANS. THE LENGTH PRECEDES THE DESIGNATION (EXAMPLE 16\"/>

SYMBOL LEGEND

- CG = CORNERGUARD/CHANNEL GUARD PER SPEC 114000 & FS1.1
MBD = MARKERBOARD
PTD = PAPER TOWEL DISPENSER
SD = SOAP DISPENSER
TBD = TACKBOARD

- # = WALL TYPE (SEE INFO TO THE LEFT ON THIS SHEET)
= SHEET NOTE (SEE LIST TO THE RIGHT ON THIS SHEET)

FINISH SCHEDULE FOR CULINARY CLASSROOM

- WALLS: SEMI-GLOSS PAINT, ALL WALLS. SEE SPEC 089123.
PLASTIC PANELING AT WET WALLS AS SHOWN ON ELEVATIONS. SEE SPEC 066400.
SEE FOOD SERVICE DWGS FOR INFO ON STAINLESS STEEL WALL FINISH (ITEM #16) LOCATED BEHIND WALL ADJACENT HOODS AND AT STATION #7 PONY WALL
- CEILING: ACOUSTIC PANEL CEILING AS SHOWN ON REFLECTED CEILING PLAN SEE SPEC 095113.
- FLOORS: RESILIENT SHEET FLOORING WITH INTEGRAL COVE BASE SEE SPEC 098516.

SHEET NOTES

- HATCH INDICATES APPROXIMATE EDGE OF VCT PATCH / REPLACEMENT (TO MATCH EXISTING). SEE PLUMBING AND DEMO FOR SAW CUT WORK.
- GREASE INTERCEPTOR TOP PANEL, FLUSH WITH FLOORING. SEE P1.1.
- WALL ALUMINUM SEISMIC JOINT COVER TO REMAIN
- FURRED WALL FOR PLUMBING. AVOID PENETRATING EXISTING WALL.
- SALVAGE AND REINSTALL EXISTING UPPER SHELVING TO ACCOMMODATE NEW WORK. SEE ELEVATIONS.
- LOCATION OF NEW COUNTERS. SEE FOOD SERVICE DRAWINGS.
- COOKING RANGE, TYP. OF 7. SEE FOOD SERVICE DRAWINGS.
- LOCATION OF EXHAUST HOOD ABOVE. SEE FOOD SERVICE DRAWINGS.
- ROLLER SHADES ON ALL EXTERIOR WINDOWS. SEE DETAIL 4B/A10.1 AND SPEC 122413.
- EXISTING UPPER SHELVING TO REMAIN. U.N.O. PER ALTERNATE #1. ADD-02 APPLY FRESH PAINT TO ALL EXPOSED SIDES.
- PREP SINK, TYP. OF 7. SEE FOOD SERVICE & PLUMBING DRAWINGS.
- HAND SINK WITH SIGNAGE. SEE ELEVATIONS AND FOOD SERVICE DRAWINGS.
- EXISTING INSULATED PIPE TO REMAIN. COORDINATE WITH NEW EXHAUST DUCTWORK AND SHAFT ABOVE.
- EXISTING WASHER/DRYER TO REMAIN. INSTALL OCG RACK FOR STACKED W/D AND ADJUST EXISTING EXHAUST CONNECTION TO ACCOMMODATED STACKED CONFIGURATION.
- EXISTING FIRE EXTINGUISHER AND WALL MOUNT BRACKET TO REMAIN.
- EXISTING ICE MAKER TO BE RELOCATED. SEE PLUMBING FOR MORE INFO.
- EXTERIOR WALL CLEANOUT. PATCH AND SEAL EXISTING ENVELOPE AS REQUIRED TO PREVENT AIR AND WATER INTRUSION. SEE PLUMBING FOR MORE INFO.
- REINSTALL SALVAGED LOCKERS, INCLUDING BASE AND RUBBER WALL BASE

DLR Group
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REGISTERED ARCHITECT
JANE E. GOODING
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6821
STATE OF OREGON

CULINARY CLASSROOM
Westview High School - Beaverton School District
4200 NW 185th Ave, Portland, OR 97229

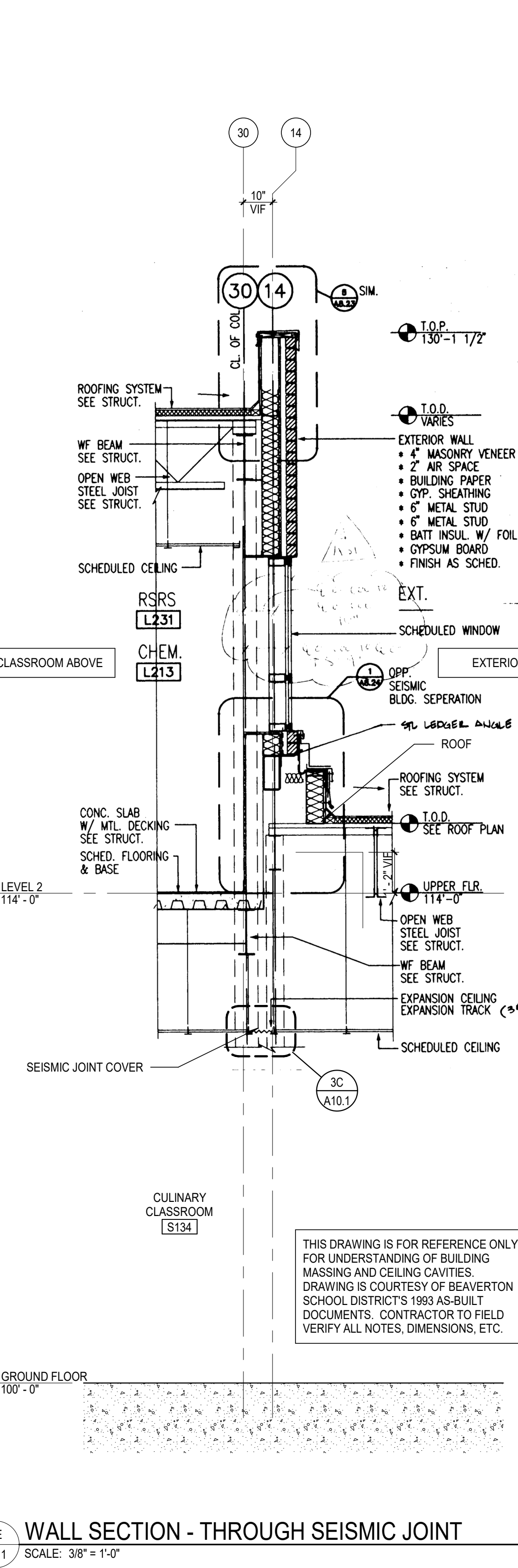
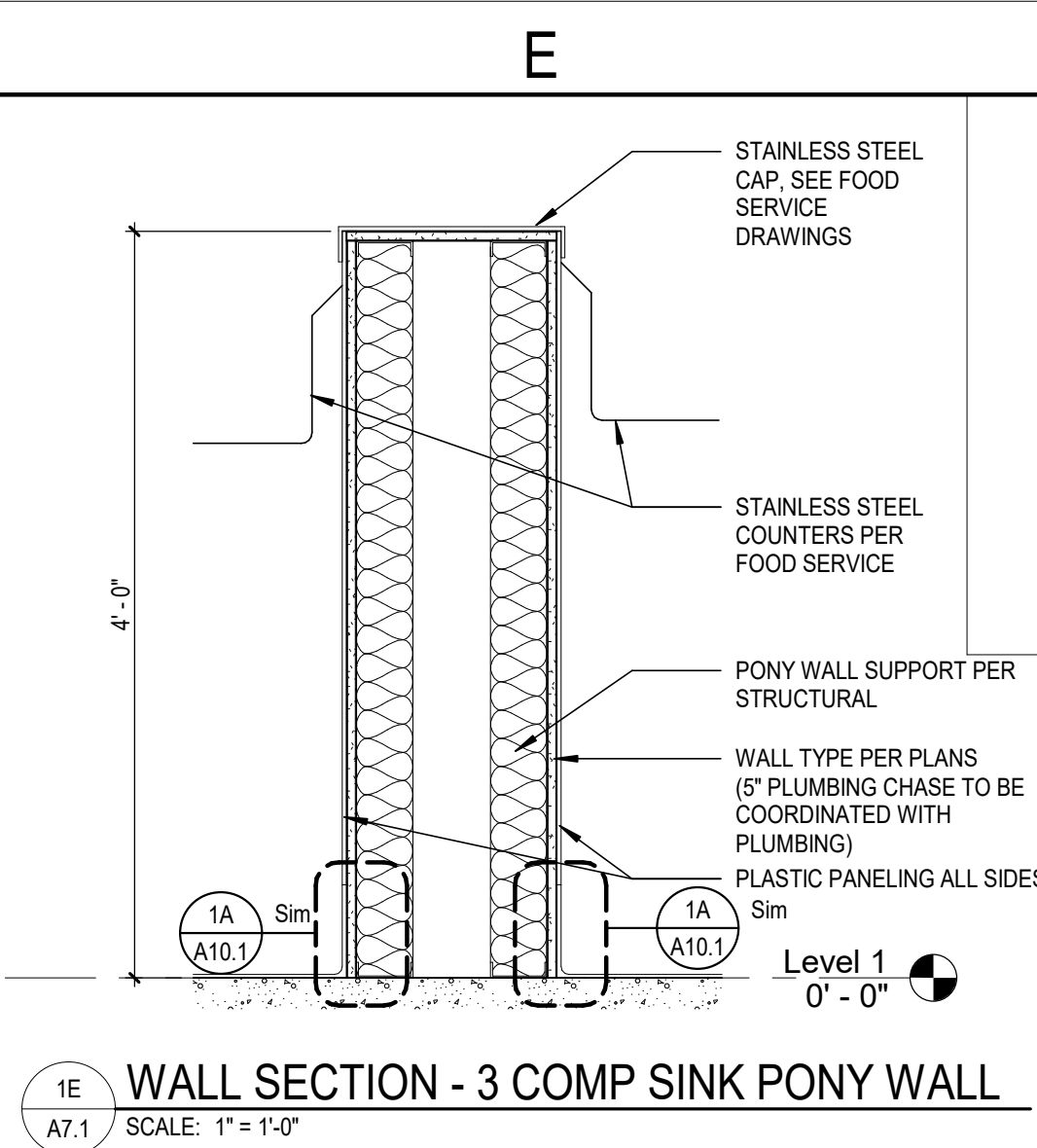
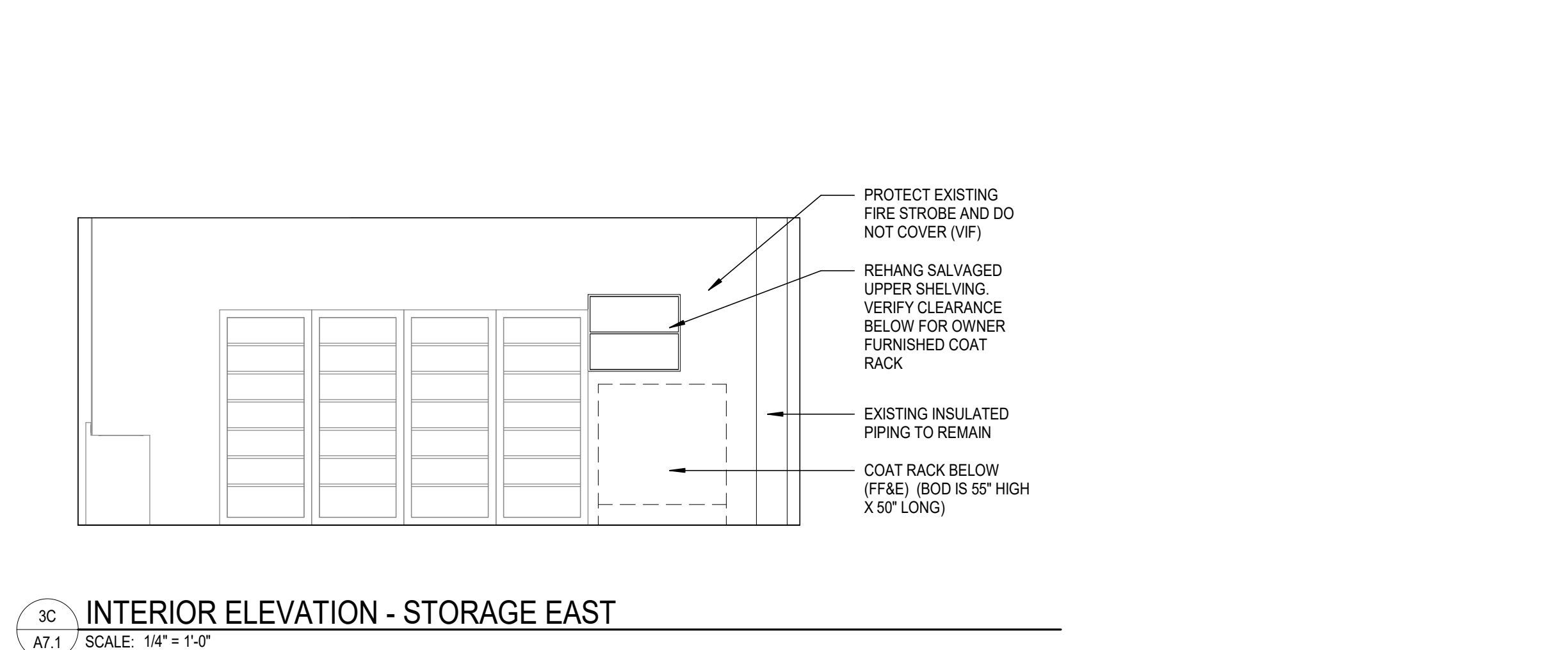
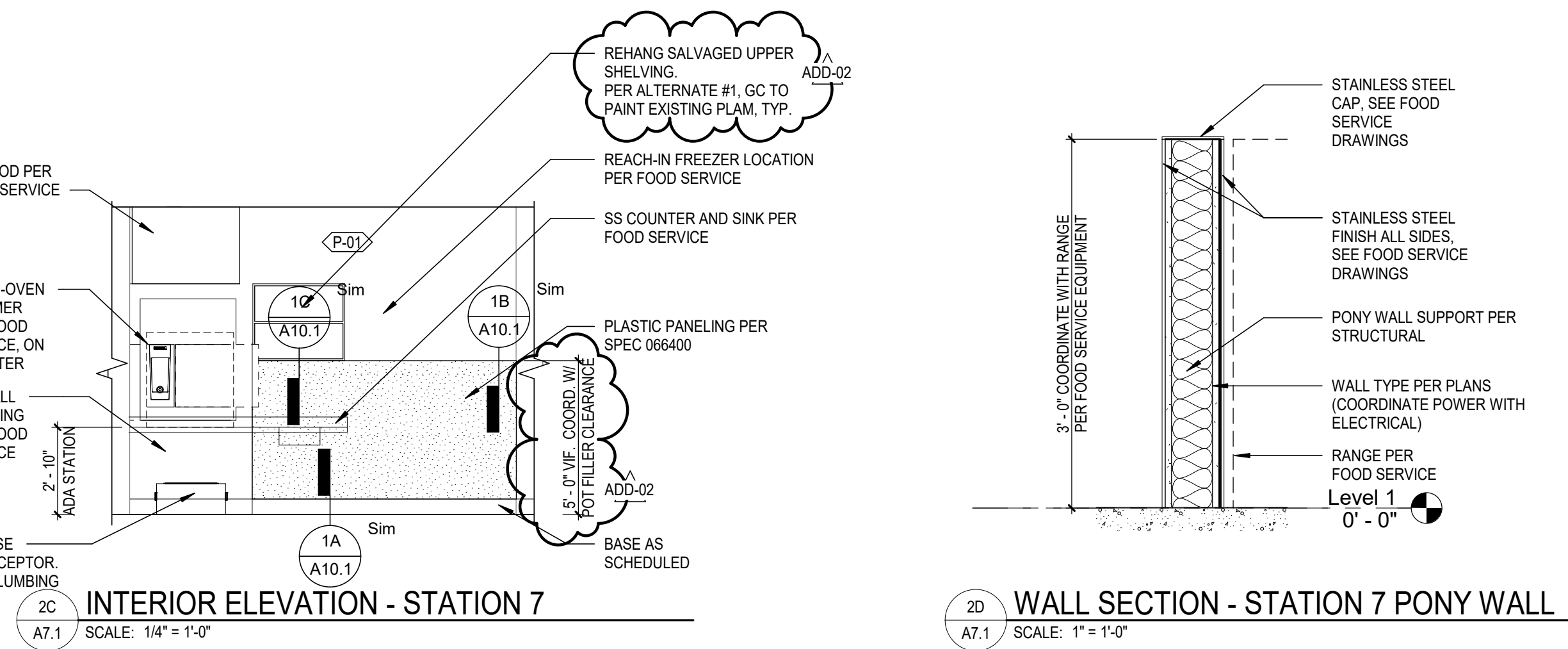
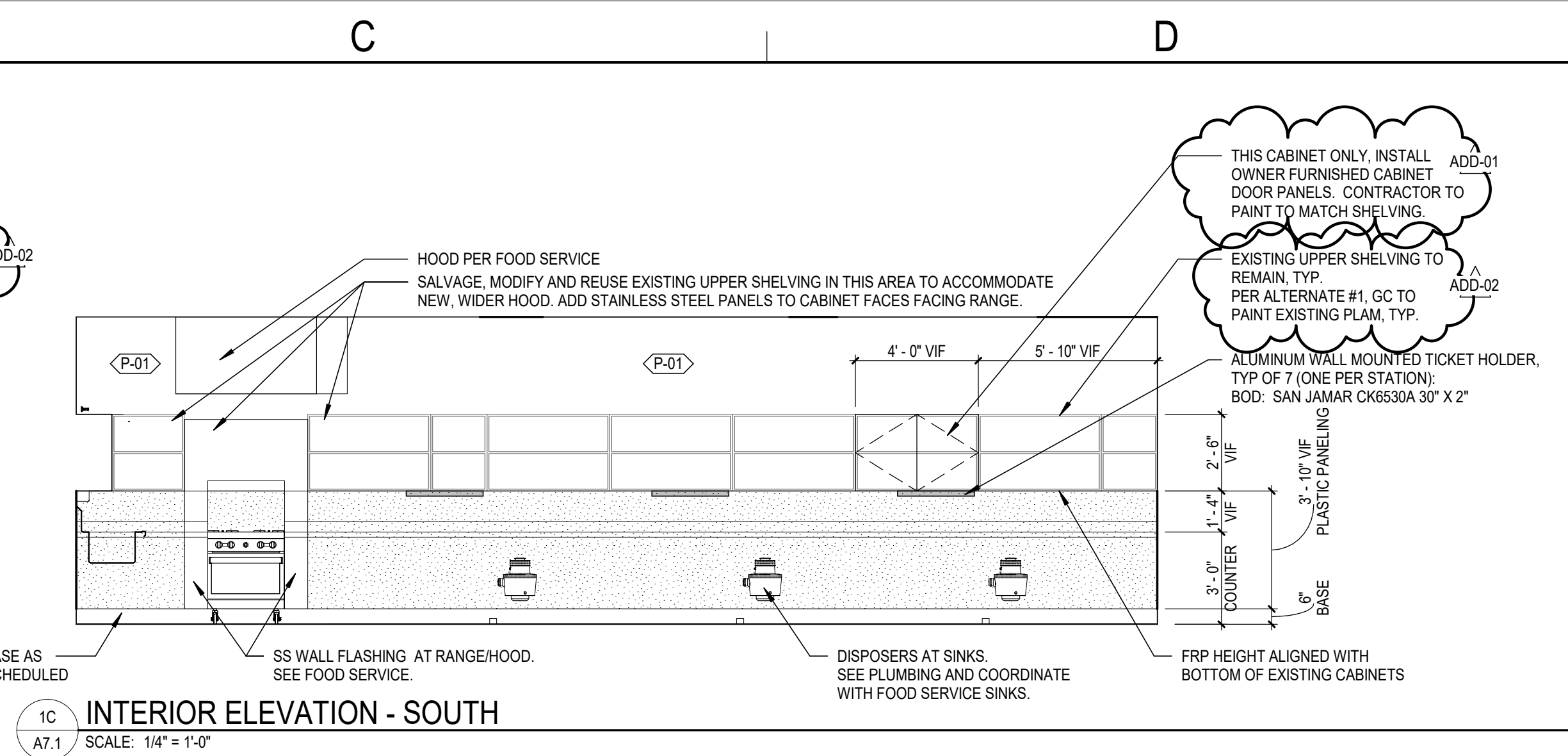
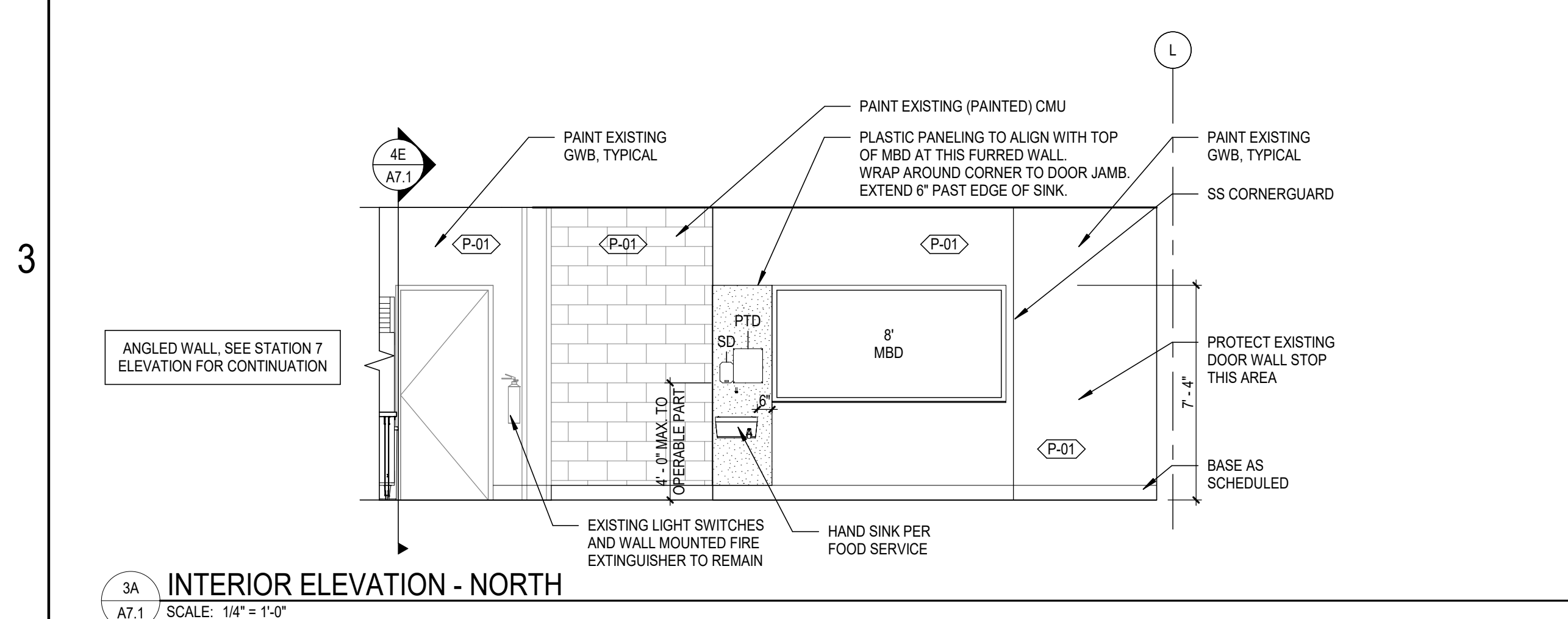
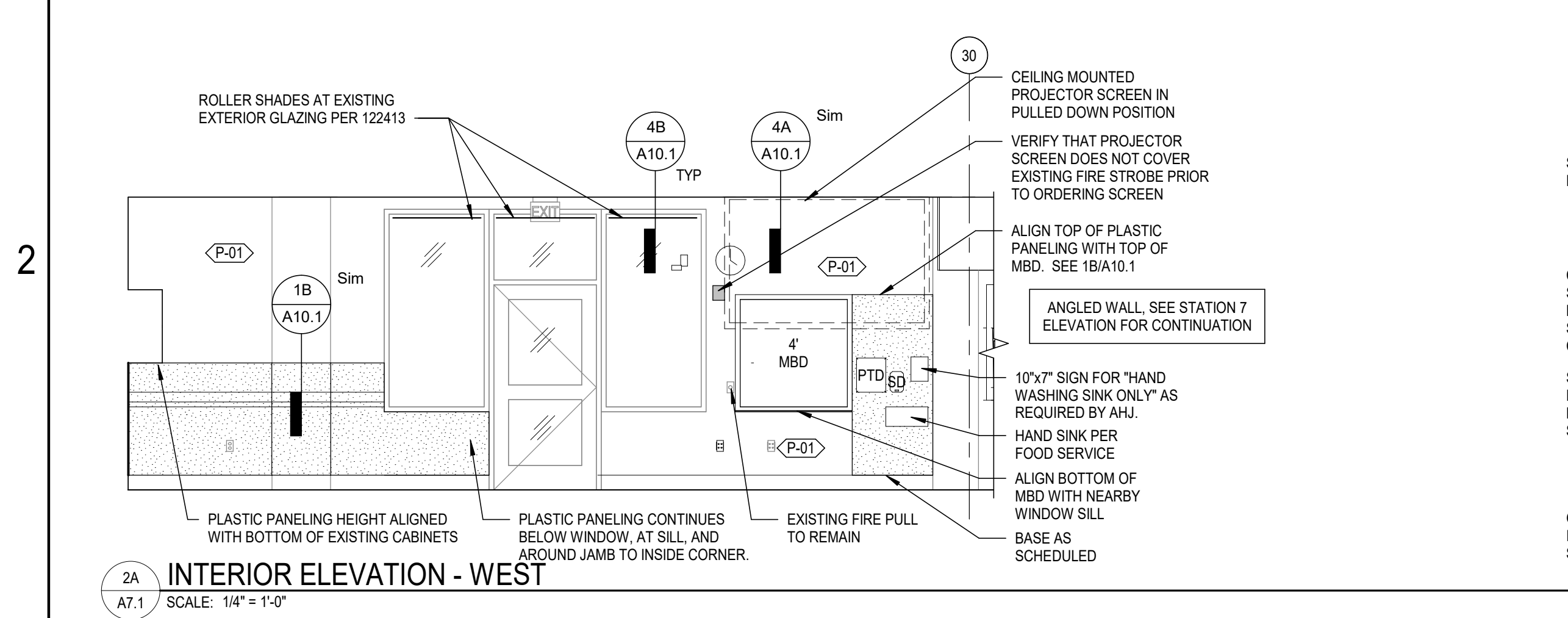
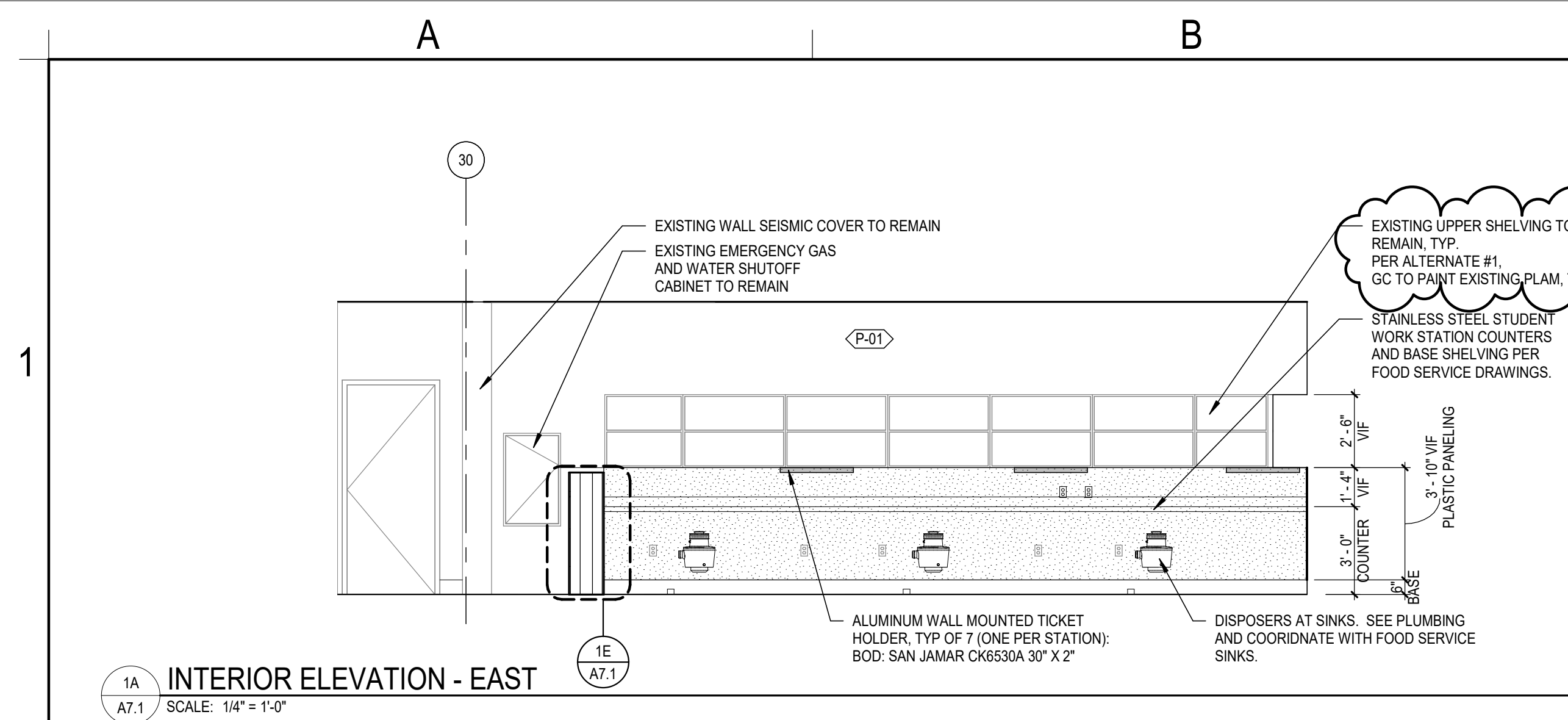
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REVISIONS
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ADD-02 4/9/21
ADD-04 4/14/21

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FLOOR PLANS

A1.1



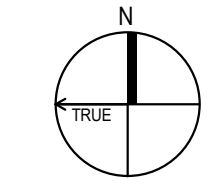
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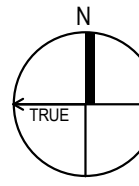


FIRST LEVEL PLUMBING DEMOLITION PLAN

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

REMOVE SINK AND DISCONNECT CW, HW, HWC, W AND V. PREPARE FOR RECONNECTION AT SAME LOCATION. (TYP-7)

DISCONNECT GAS PIPING FROM EXISTING RANGES AND REMOVE GAS PIPING UNDER COUNTER BACK TO WALL AND PREPARE FOR RECONNECTION AT SAME LOCATION TO NEW RANGES. (TYP.)



FIRST LEVEL PLUMBING PLAN

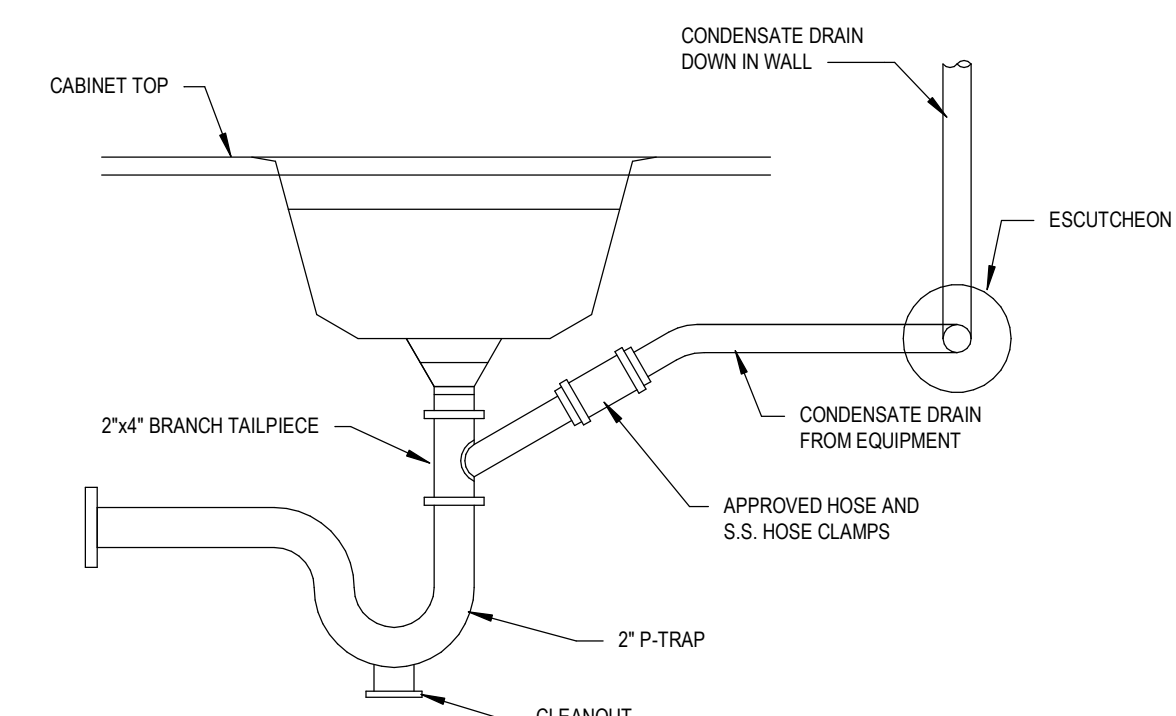
SCALE: 1/8" = 1'-0"

SHEET NOTES

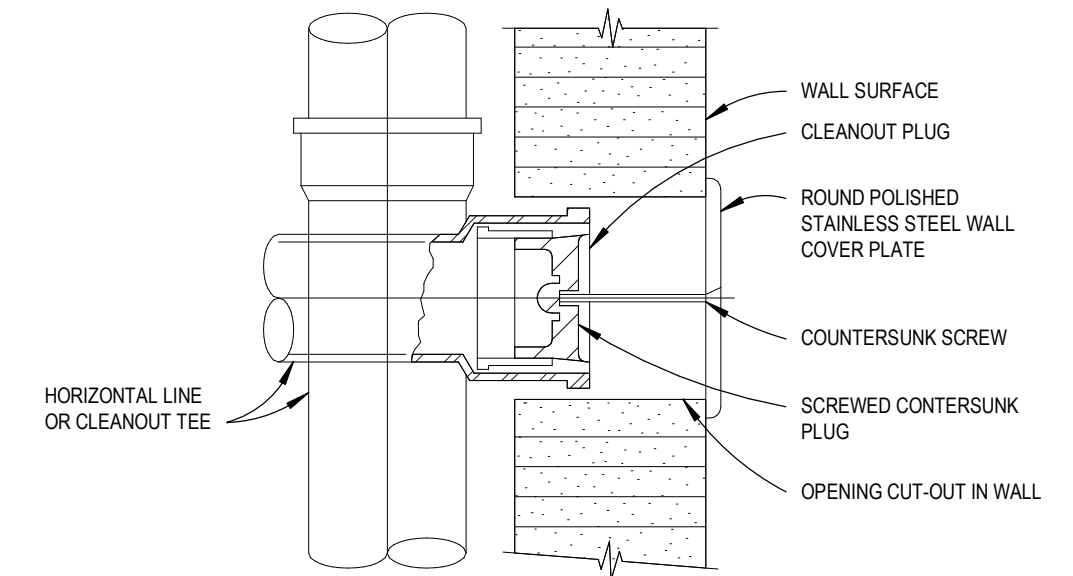
- SAW CUT (E/FLOOR FOR INSTALLATION OF NEW WASTE PIPES. SEE ARCH DRAWINGS. COORDINATE ON SITE, AND FIELD VERIFY ACTUAL CONDITION.
- EXISTING 2-1/2"VTR TO REMAIN.
- ROUTE NEW GAS PIPING UNDER COUNTER TO NEW RANGE AND CONNECT TO EXISTING GAS PIPING IN WALL.
- PROVIDE A MINIMUM OF 5-1/2" CLEARANCE ABOVE GREASE INTERCEPTOR FOR ROUTINE MAINTENANCE.
- RECONNECT EXISTING PLUMBING (CW, HW, V) TO NEW SINK. BRANCH 1/2"CW TO SERVE PRE-RINSE FAUCET. BRANCH 1/2"HW TO SERVE DISHWASHER DRAIN WATER TEMPERING. BRANCH 3/4"HW TO SERVE DISHWASHER. SEE FOOD SERVICE DRAWING (FS1.2) FOR EXACT LOCATION.
- ROUTE 1/2"CW, 1/2"HW, 1-1/2"V, 2"W TO HAND SINK.
- SEE FOOD SERVICE DRAWING FOR NEW SINKS. RECONNECT EXISTING PLUMBING (CW, HW, HWC, V) TO NEW SINKS. (TYP-7)
- SAW CUT (E/FLOOR FOR INSTALLATION OF NEW 2"W, 2"CW & 2"HW PIPES UNDERGROUND. SEE ARCH DRAWINGS. COORDINATE ON SITE, AND FIELD VERIFY ACTUAL CONDITION.
- ROUTE 3/4"CD FROM EXISTING ICE MACHINE'S CONDENSATE PUMP TO EXISTING SINK TAILPIECE PER DETAIL 4P1.1. PROVIDE LITTLE GIANT ACS-2-IN-PAN CONDENSATE OVERFLOW DRAIN FROM SINK AND USE NEW P-TRAP.
- REMOVE EXISTING 2"W MAIN AND REPLACE WITH NEW 3"W AT SAME LOCATION.
- COORDINATE GREASE INTERCEPTOR AND NEW WASTE PIPING WITH EXISTING FOUNDATION.
- DROP 3/4"CW FROM NEW 1"CW MAIN OVERHEAD TO SERVE COMBI-OVEN STEAMER. BRANCH ANOTHER 3/4"CW TO SERVE WATER FILTRATION SYSTEM.

GREASE AND SOLID INTERCEPTOR SCHEDULE										
MARK	TYPE	DESIGN FLOW (GPM)	LIQUID CAPACITY (GAL)	GREASE CAPACITY (LBS)	SOLID CAPACITY (GAL)	INSTALLATION ARRANGEMENT	INLET/OUTLET CONNECTIONS	WEIGHT (LBS)	BASIS OF DESIGN	NOTES
GI-1	HYDROMECHANICAL	20	10	70	-	ABOVE GRADE	2 INCHES	40	SCHIER GB-1	1, 2, 3
GI-2	HYDROMECHANICAL	35	20	130	-	BELOW GRADE	3 INCHES	50	SCHIER GB-2	2, 3
GI-3	HYDROMECHANICAL	50	65	440	-	BELOW GRADE	4 INCHES	150	SCHIER GB-50	2, 3
SI-1	SOLID INTERCEPTOR	35	16	-	2	BELOW GRADE	2 INCHES	42	STRIEM AA-2	2, 3

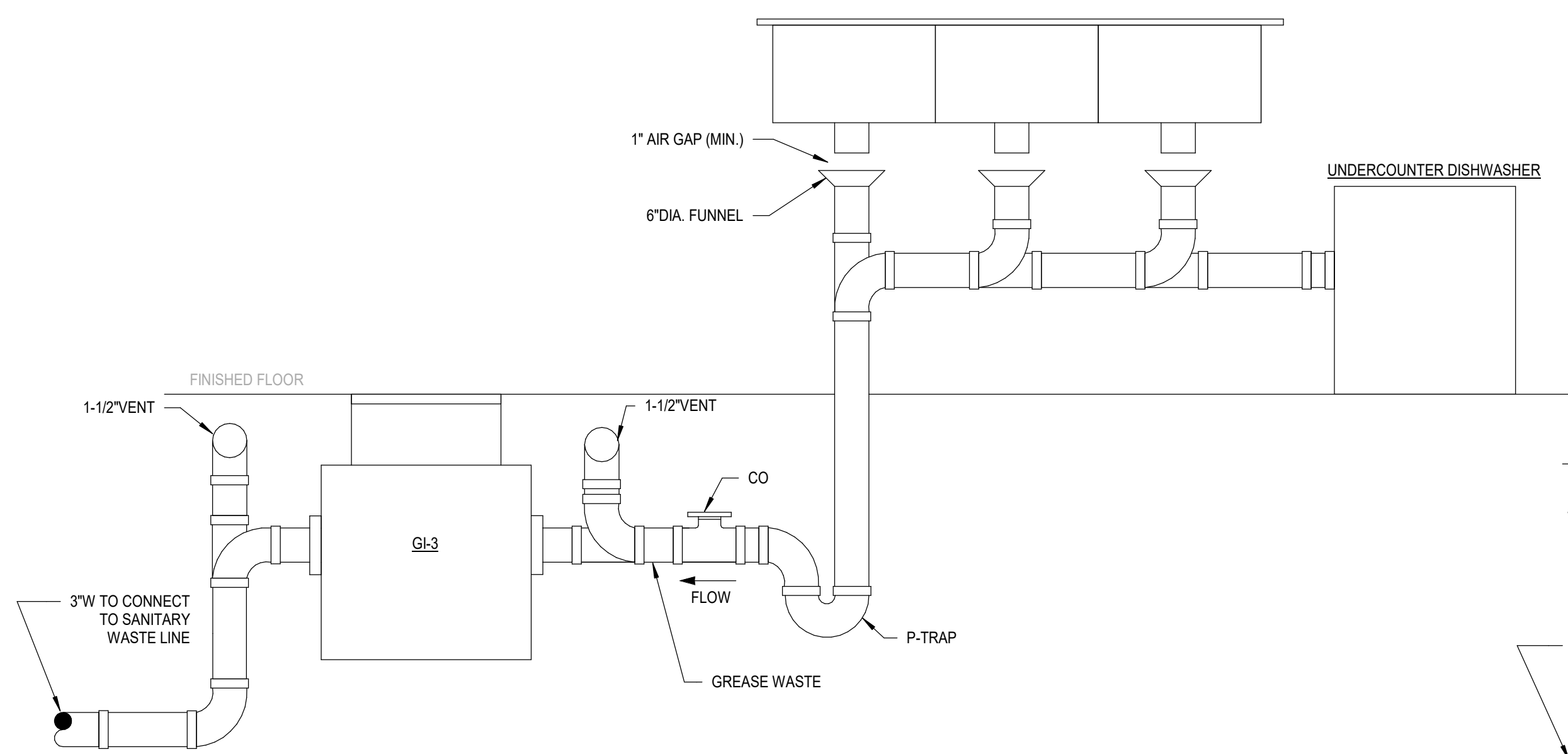
NOTES:
1. PROVIDE A MINIMUM OF 5-1/2" ABOVE TOP OF INTERCEPTOR FOR MAINTENANCE ACCESS.
2. PROVIDE WITH FIELD CUT RISER.
3. LOCATE COVER AND INTERCEPTOR TO ALLOW FOR FULL ACCESS TO TANK FOR PROPER MAINTENANCE.



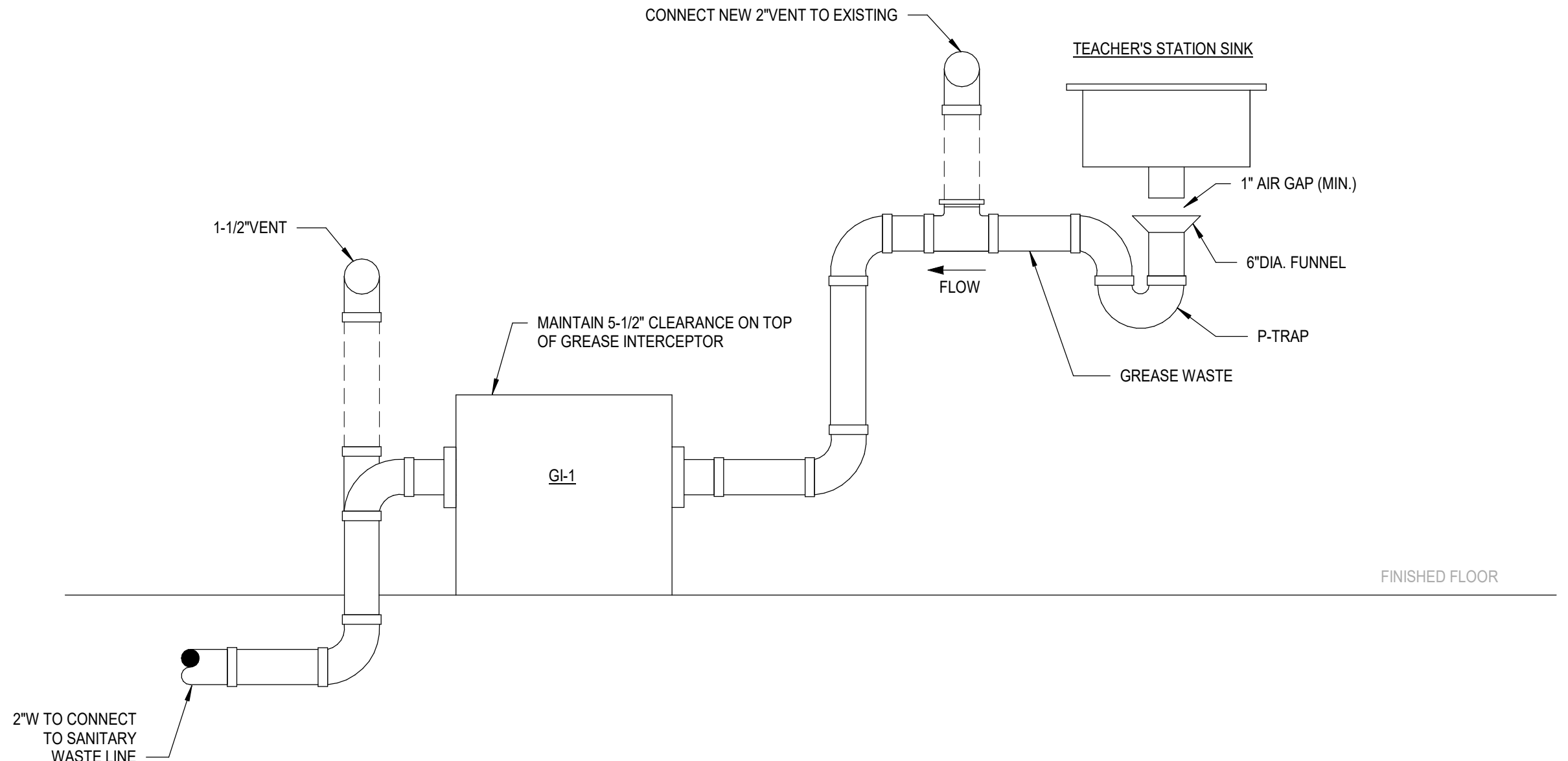
6 CONDENSATE LINE DRAIN CONNECTION DETAIL
P1.1 NO SCALE



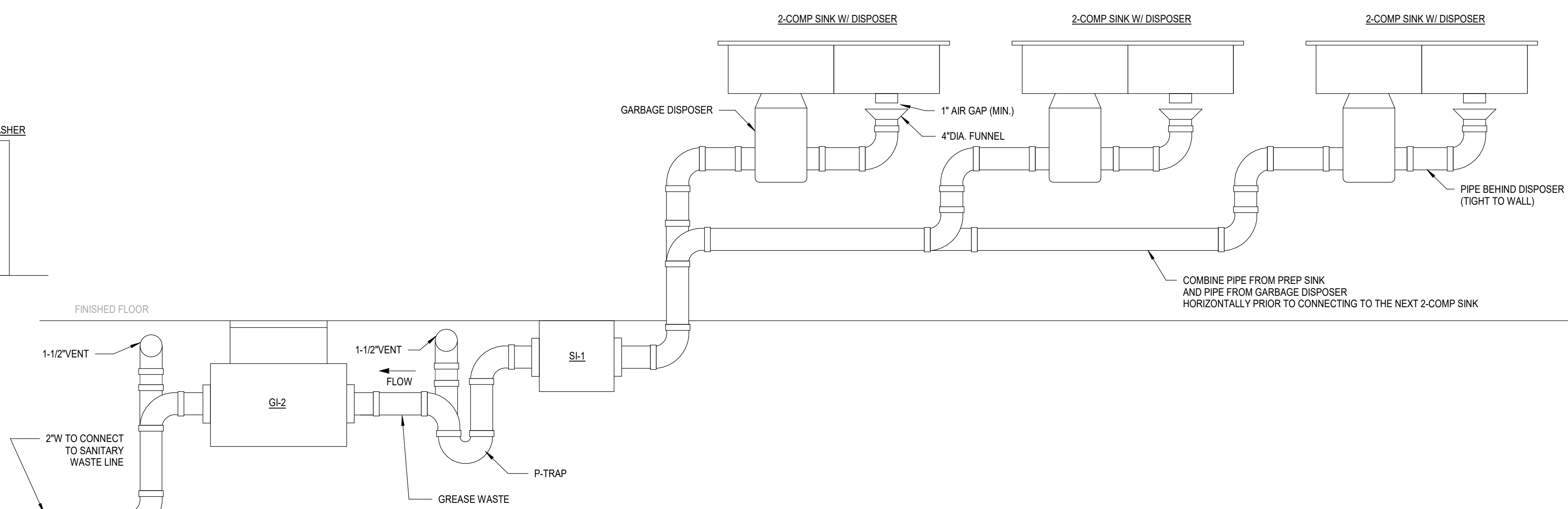
7 WALL CLEANOUT DETAIL
P1.1 NO SCALE
3 COMPARTMENT SINK



4 GREASE INTERCEPTOR - 3-COMP SINK & DISHWASHER
P1.1 NO SCALE

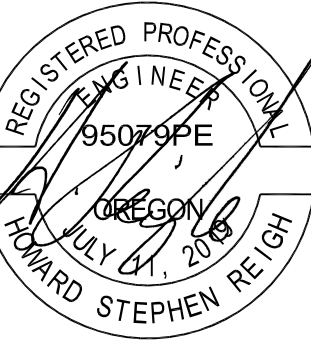


3 GREASE INTERCEPTOR - TEACHER'S STATION (ADA)
P1.1 NO SCALE



5 GREASE INTERCEPTOR - 2-COMP SINK WITH DISPOSER
P1.1 NO SCALE

DLR Group
© DLR Group



EXPIRES: 12/31/2022

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02/18/21
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ADD-01 3/17/21 ADD-01
ADD-02 4/9/21 ADD-02
ADD-04 4/14/21

74-21106-00

OVERALL FIRST FLOOR PLUMBING PLAN

P1.1

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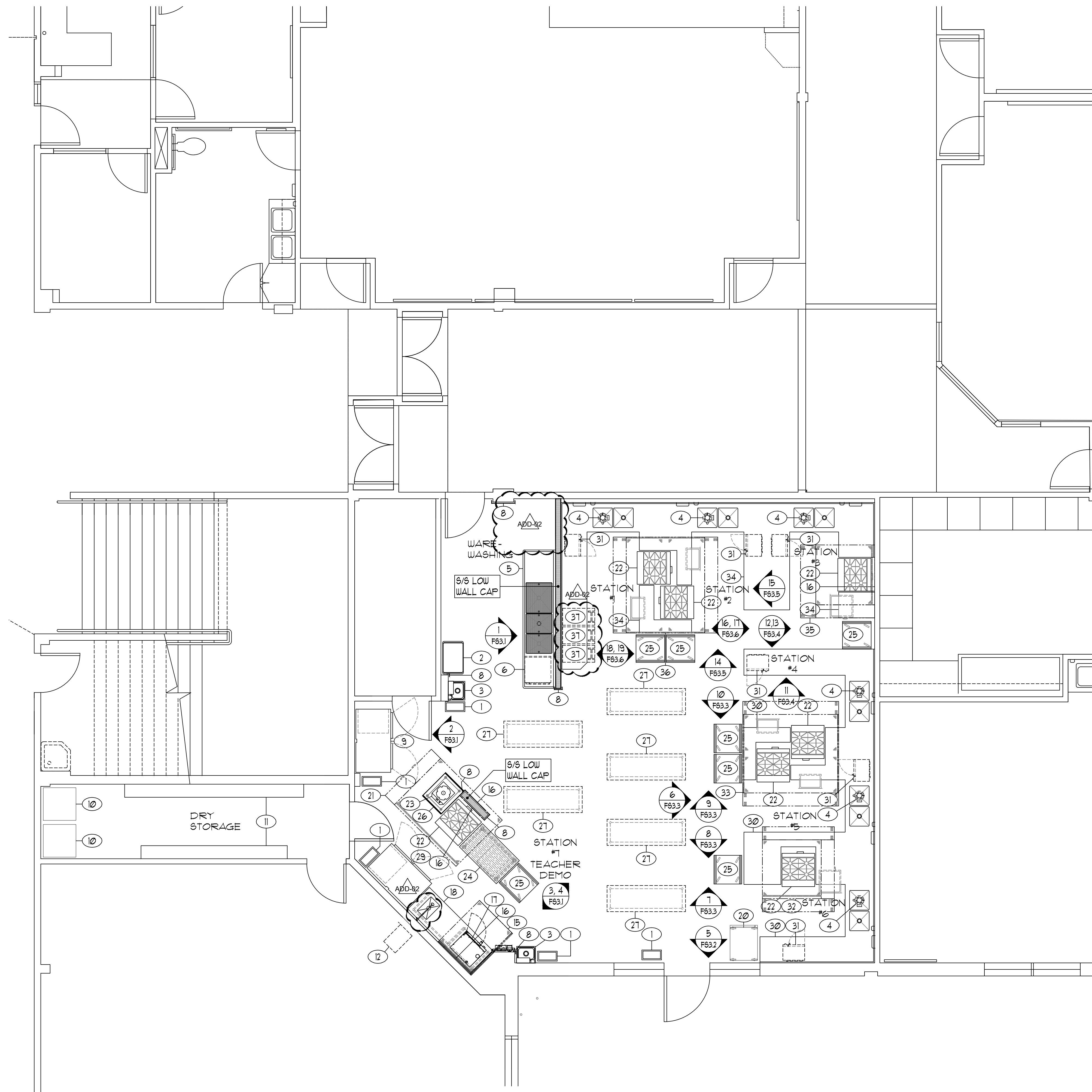
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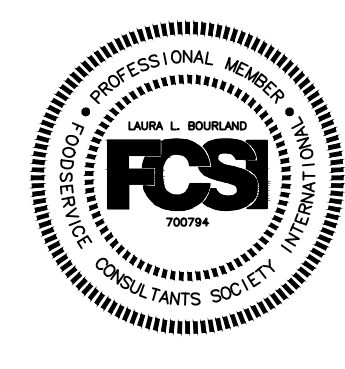
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EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	QUAN	REMARKS:
1	SLIM JIM WASTE RECEPTACLES	5	---
2	UTILITY CART	1	---
3	HAND WASHING SINKS	2	---
4	DISPOSERS	6	---
5	POT WASHING SINK TABLE WITH REMOVABLE SINK COVERS	1	---
6	UNDERCOUNTER WAREWASHER	1	EXISTING/RELOCATED - ADD NEW DWT KIT
7	NOT USED	---	---
8	CORNER CHANNEL GUARDS	LOT	---
9	REACH-IN REFRIGERATOR	1	---
10	CLOTHES WASHER AND DRYER	1	BY OWNER
11	DRY STORAGE SHELVE	LOT	EXISTING EQUIPMENT
12	CUBE ICE MACHINE	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
13	NOT USED	---	---
14	NOT USED	---	---
15	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
16	STAINLESS STEEL WALL FLASHING	LOT	---
17	COMBI-OVEN STEAMER	1	---
18	ADA PREP WORK TABLE	1	---
19	NOT USED	---	---
20	MOBILE PROOFING CABINET	1	---
21	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
22	4-BURNER OPEN RANGES	7	---
23	INDUCTION WOK	1	---
24	TEACHERS MAPLE TOP WORK TABLE	1	---
25	MOBILE INGREDIENT CARTS	6	---
26	MOBILE TABLE	1	---
27	MOBILE ISLAND TABLES	6	EXISTING EQUIPMENT
28	NOT USED	---	---
29	REACH-IN FREEZER	1	---
30	STUDENT WORK STATION	1	---
31	MICROWAVE OVENS	6	EXISTING/RELOCATED
32	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
33	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
34	STUDENT WORK STATION	1	---
35	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
36	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
37	MOBILE INGREDIENT BINS	3	EXISTING/RELOCATED



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ADD-04 4/14/21

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FOOD SERVICE
EQUIPMENT PLAN

FS1.1



~~ADD-Q:~~

NOTE: REFER TO PLUMBING DRAWINGS CONFIRMING ALL EQUIPMENT DRAIN LINES ARE TO RUN TO GREASE INTERCEPTORS. DRAIN LINES ARE TO RUN DIRECTLY BACK TO WALLS AND RUN ALONG WALLS TO BE CLEAR OF UNDER TABLE STORAGE SPACE.

- THIS DRAWING IS NOT TO BE USED FOR ESTABLISHING ROUGH-IN LOCATIONS. REFER TO DIMENSIONED DRAWING PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.
2. UNDER PLUMBING WORK OF DIVISION 22, MAKE ALL ROUGH-INS AND FINAL CONNECTIONS IN CONFORMANCE WITH LOCAL CODES. PROVIDE SHUT-OFF VALVES WITH PERMANENT NAME TAGS IDENTIFYING SUPPLY LINES TO EACH INDIVIDUAL PIECE OF EQUIPMENT. INCLUDE TRAPS, TAIL PIECES, AND LINE STRAINERS AS REQUIRED.
3. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL FLOOR SINKS AND AREA DRAIN FLUSH WITH FINISHED FLOOR IF CODE ALLOWS.
4. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL GREASE TRAP OR INTERCEPTOR AS REQUIRED.
5. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL SINK WASTE LINES. USE COPPER DRAIN LINES. NO PVC IS ACCEPTABLE.
6. UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, PROVIDE FAUCETS AT EQUIPMENT. UNDER PLUMBING WORK OF DIVISION 22, INSTALL AND CONNECT FAUCETS.
7. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL CHROME PLATED VACUUM BREAKERS OR BACKFLOW PREVENTION DEVICES ON SUPPLY LINES TO EQUIPMENT AS REQUIRED BY CODES.
8. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL STAINLESS STEEL OR CHROME PLATED ESCUTCHEON PLATES FOR ALL WATER LINES PENETRATING COUNTER TOPS AND BACK SPLASHES.
9. UNDER PLUMBING WORK OF DIVISION 22, FURNISH PRESSURE REDUCING VALVE FOR ALL GAS AND WATER LINES. MAXIMUM WATER PRESSURE AT BOOSTER HEATER AND DISHWASHER SHALL BE 20 PSI.
10. UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH GAS QUICK DISCONNECT ASSEMBLIES WITH CABLE RESTRAINTS FOR EACH GAS FIRED COOKING APPLIANCE.
11. UNDER PLUMBING WORK OF DIVISION 22, PROVIDE 120 DEGREE HOT WATER SUPPLY AT WAREWASHER/ BOOSTER HEATER AS SHOWN. VERIFY REQUIRED TEMPERATURE FOR SUPPLY AT SINK FAUCETS WITH LOCAL AND NATIONAL CODES.
12. UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL A SOLENOID VALVE ON PRIMARY GAS SUPPLY TO SHUT-OFF EQUIPMENT DURING FIRE SYSTEM ACTIVATION. SOLENOID SHALL BE ACCESSIBLE FOR SERVICING, TESTING, AND RESETTING IN THE EVENT OF SYSTEM ACTIVATION.
13. SEE PLUMBING AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

COLD WATER	
HOT WATER	
WASTE	
GAS	
FLOOR DRAIN	
FLOOR SINK	

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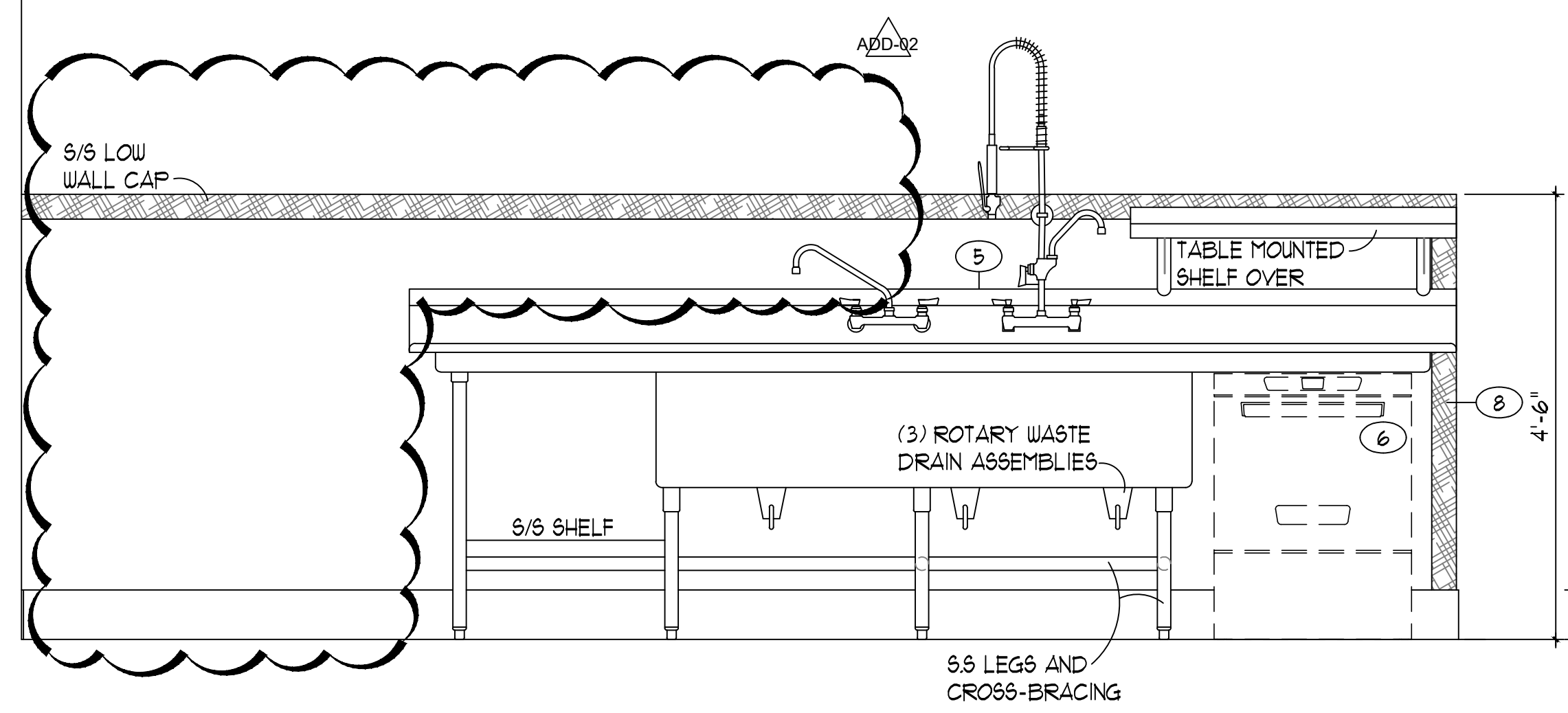
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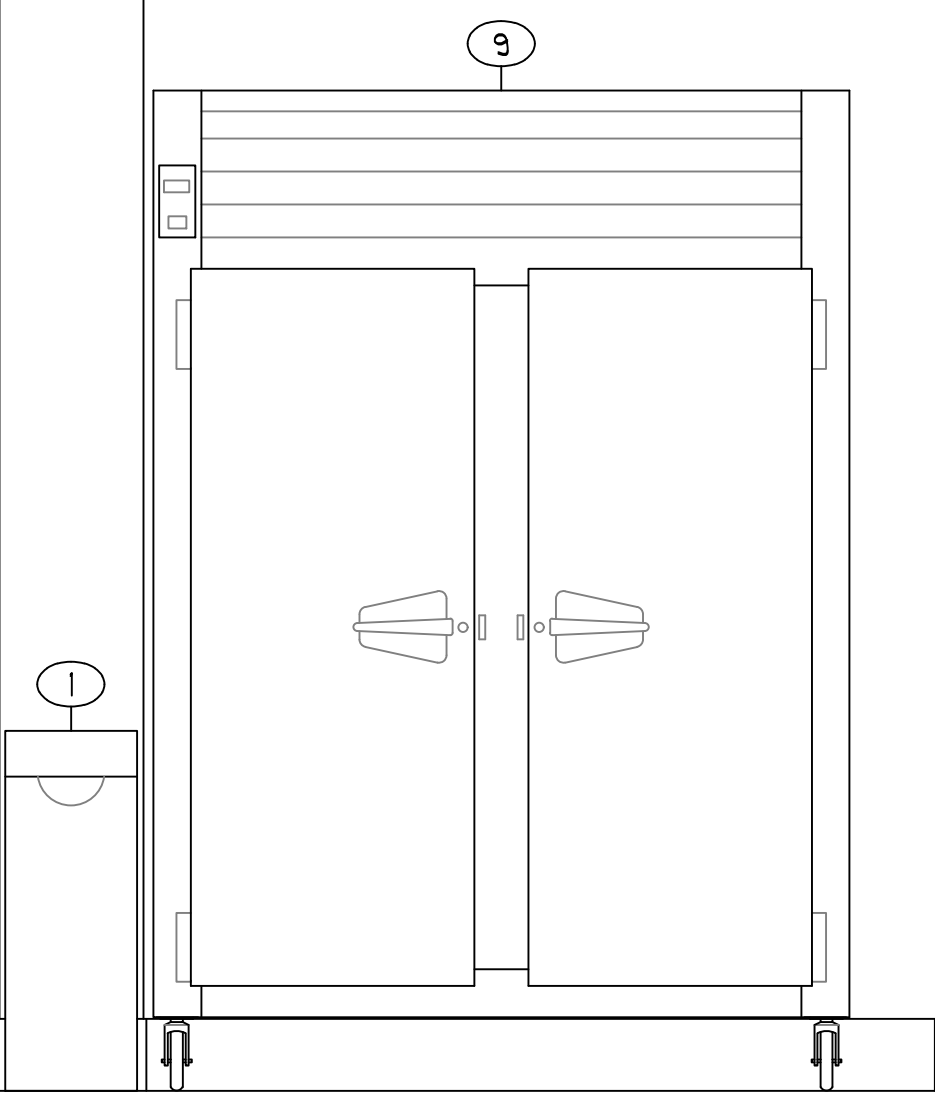
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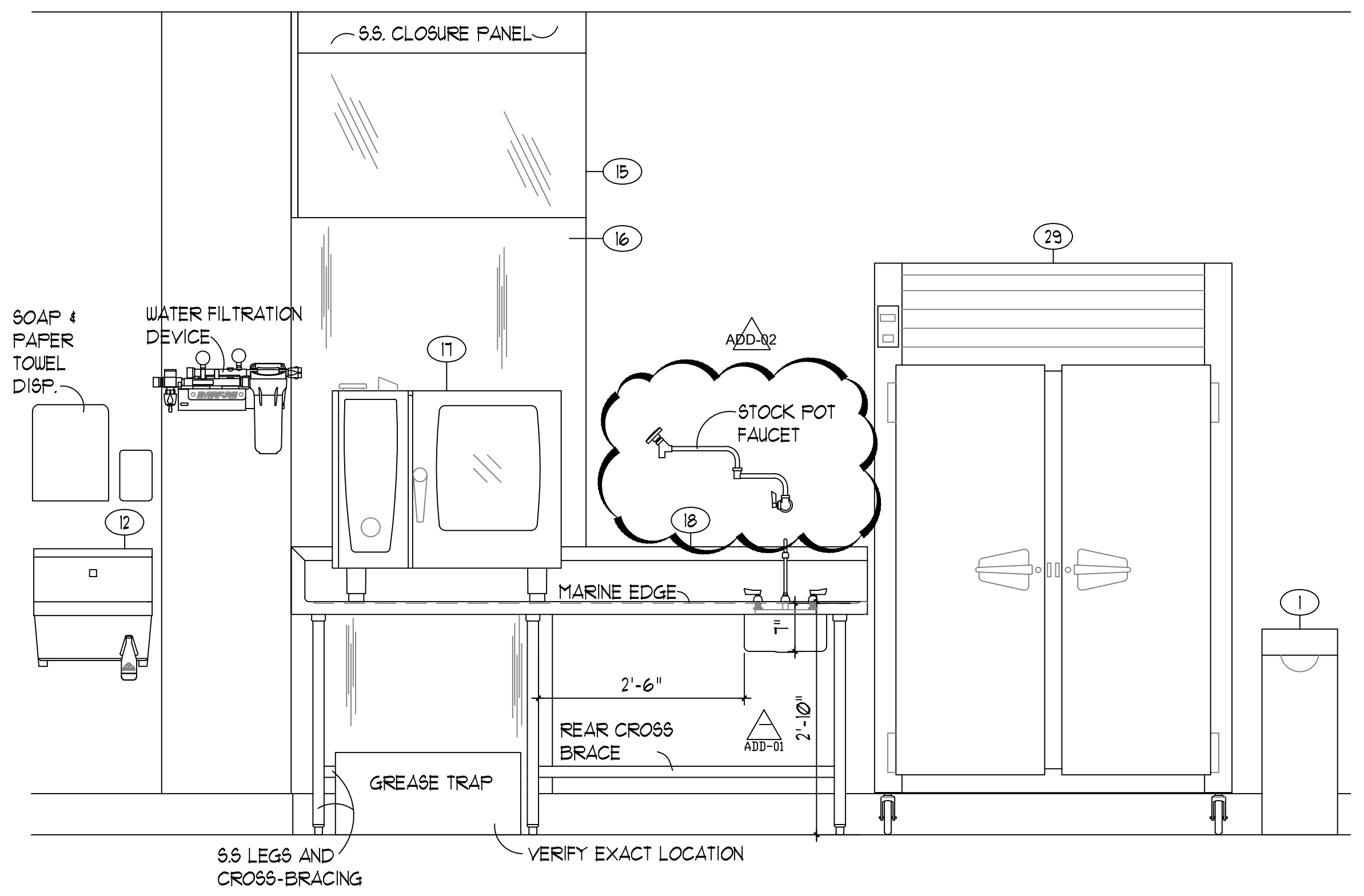
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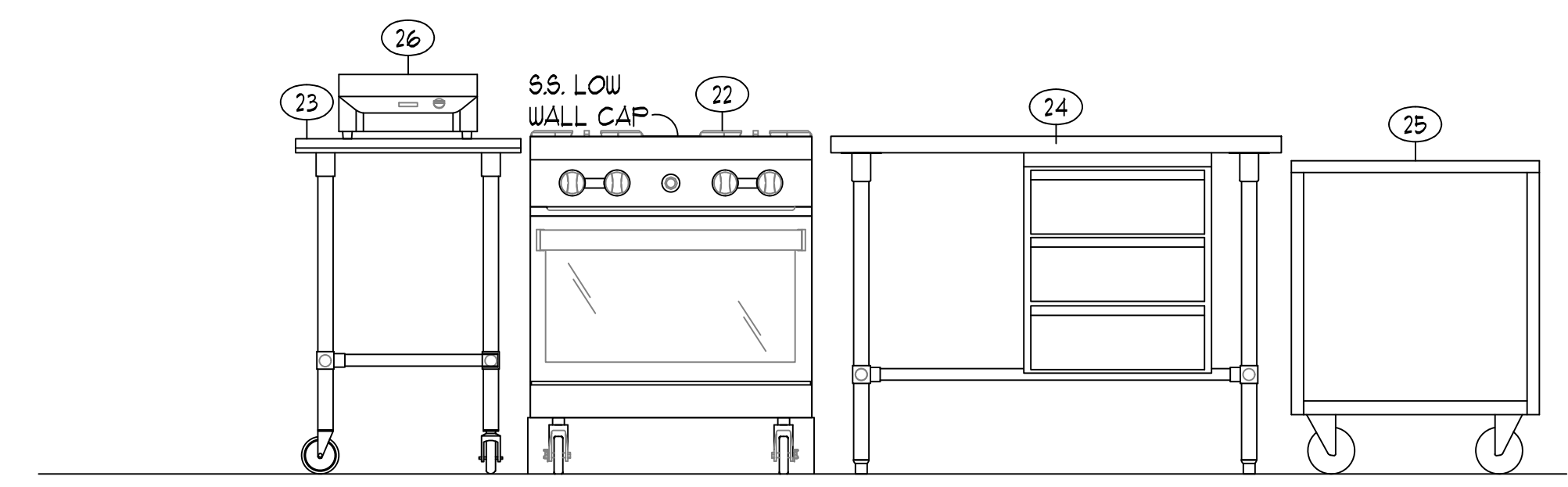
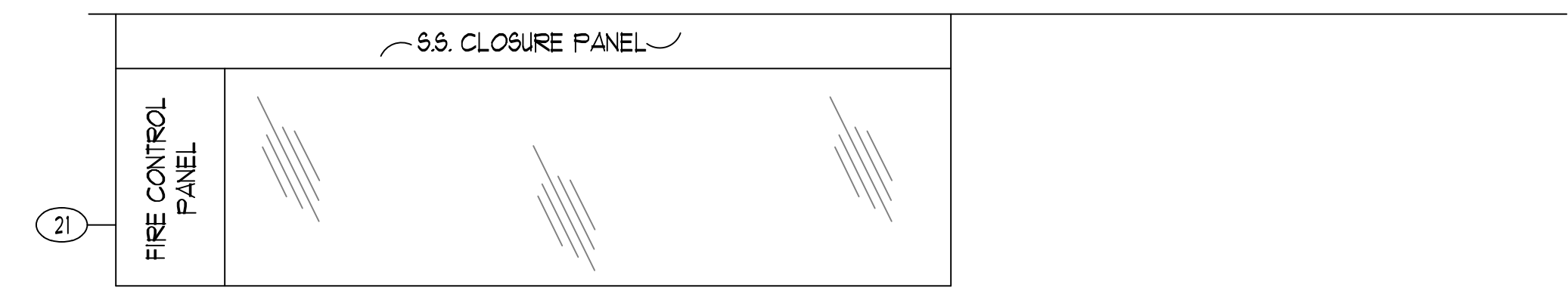
1 ELEVATION POT WASHING SINK TABLE
3/4" = 1'-0"



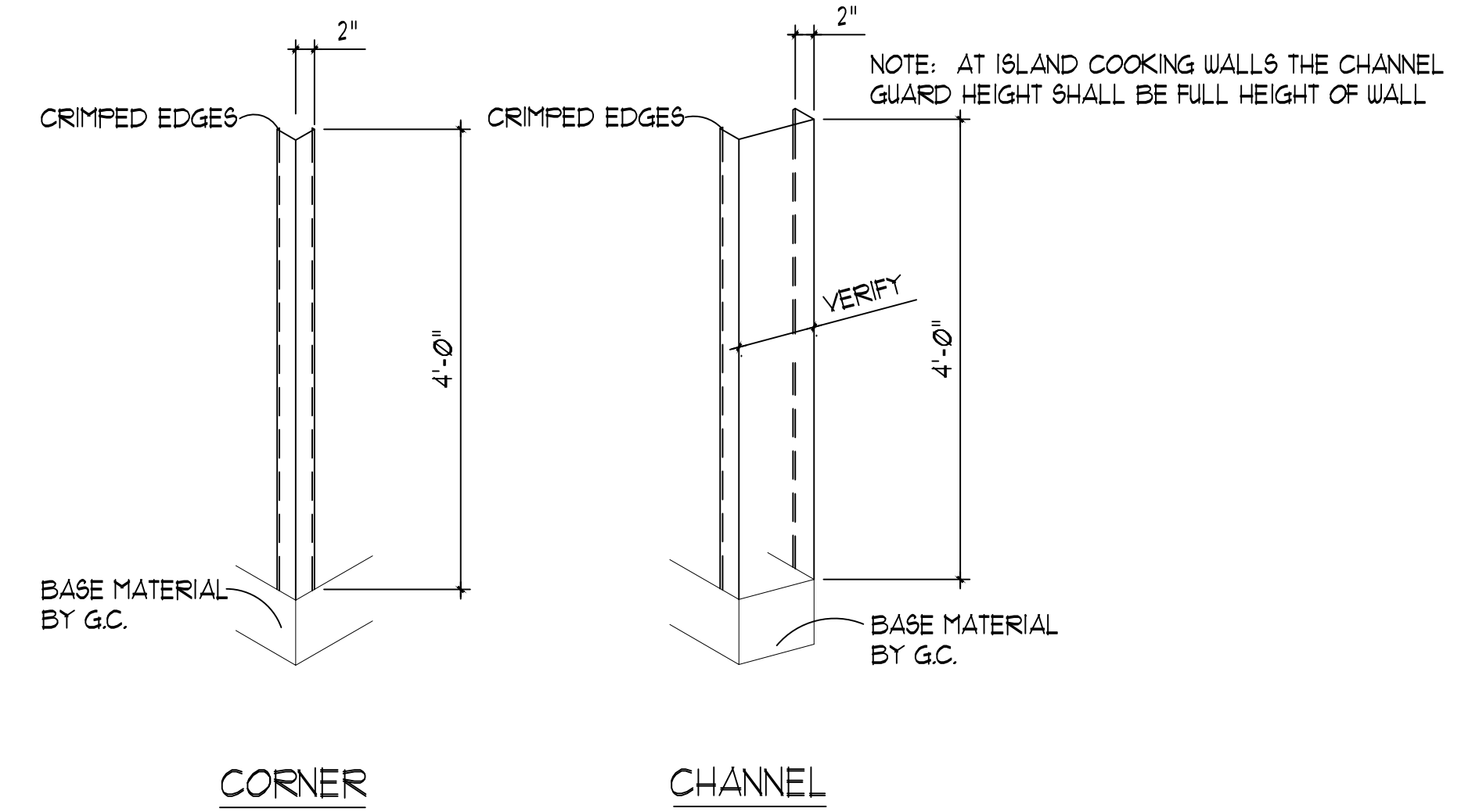
2 ELEVATION REACH-IN REFRIGERATOR
3/4" = 1'-0"



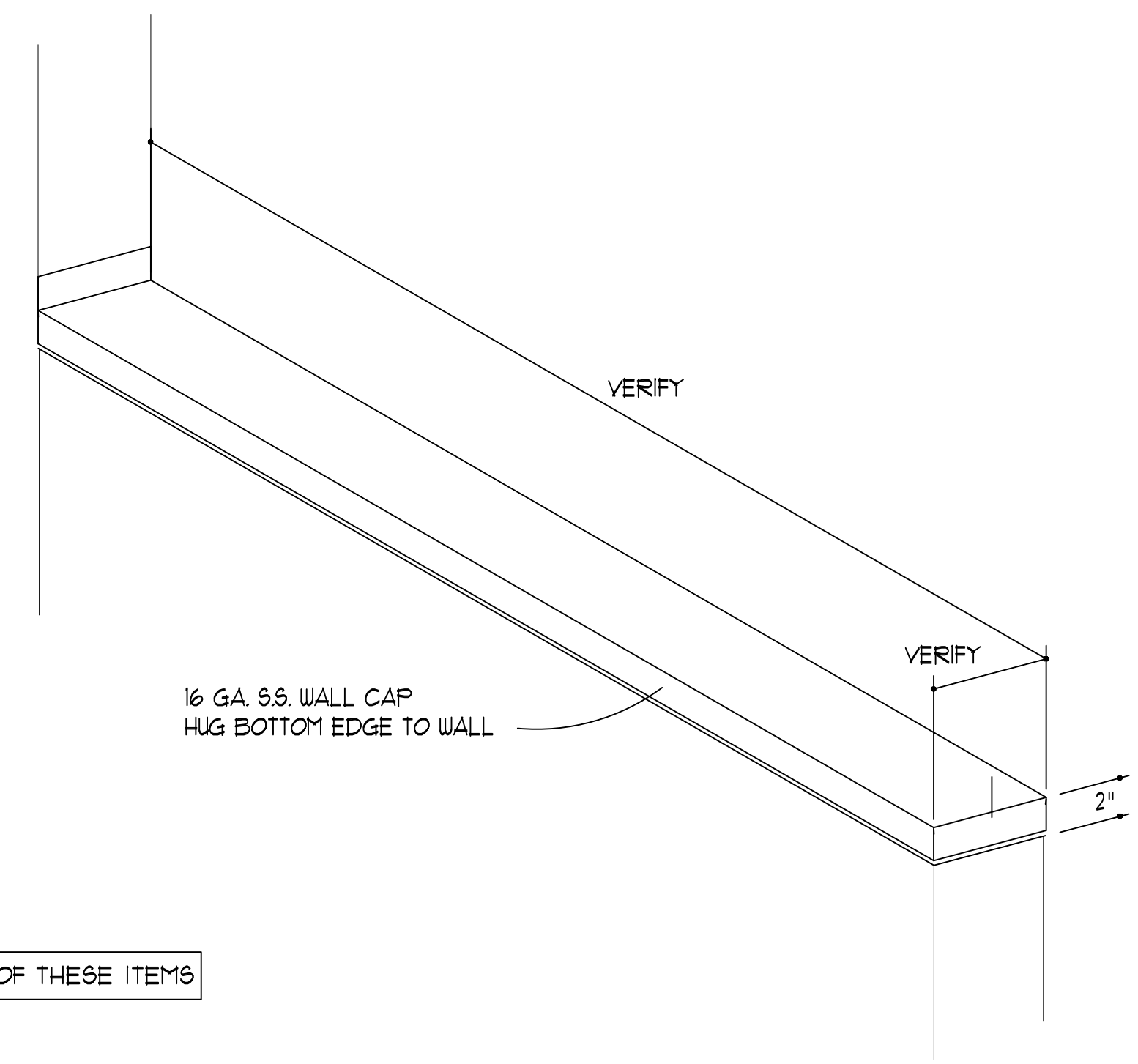
3 ELEVATION ADA PREP WORK TABLE
3/4" = 1'-0"



4 ELEVATION TEACHERS COOKING STATION
3/4" = 1'-0"

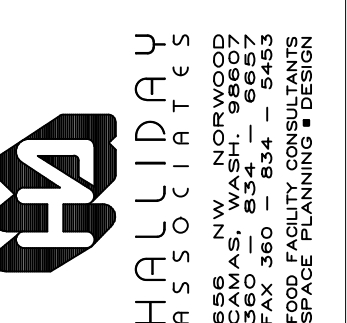


A ISOMETRIC CHANNEL/WALL GUARDS
3/4" = 1'-0"



B ISOMETRIC / WALL CAP
3/4" = 1'-0"

NOTE: SEE SHEET WHS-FS1.1 FOR LOCATIONS AND QUANTITIES OF THESE ITEMS



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FOOD SERVICE
ELEVATION AND
FABRICATION
DETAILS

FS3.1

19 ELEVATION STUDENT WORK STATION COUNTER
3/4" = 1' - 0"