### SECTION 11 40 00 FOODSERVICE EQUIPMENT

### PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. The general provisions of the Contract, including General and Supplementary Conditions and General Documents, apply to the Work specified in this Section.

## 1.2 SUMMARY OF THE WORK

- A. Project Name and Location: TOMBALL HIGH SCHOOL #3 TOMBALL, TX
- B. Approval of Working Surface: Any contractor performing work over the work of other contractors shall notify the Architect of any unsatisfactory conditions. The beginning of work by any contractor shall constitute acceptance of the previous work.
- C. Field Verification of All Dimensions: Before ordering any materials or doing any work, field verify all measurements of the building and be responsible for their accuracy. No extras will be allowed for variations from drawings in existing conditions or work performed under this contract. Any discrepancies found shall be submitted to the Architect or Foodservice Design Professionals (FDP) for instructions before proceeding.
- D. Cutting and Patching: No excessive cutting will be permitted, nor shall any structural members be cut without the written approval of the Architect. Each Contractor shall leave all chases and openings straight, true, and of the proper size in their work, as may be necessary for the proper installation of their and other contractors' work. After such work has been installed, the contractor shall carefully fit around, close, repair, patch, and point up the same as directed to the satisfaction of the Architect.
- E. Cooperation: The General Contractor, all other contractors, and all subcontractors shall coordinate their work with all adjacent work and shall cooperate with all other trades to facilitate the general progress of the work. Each trade shall afford all the other trades every reasonable opportunity to install their work and store their material.
- F. Inspection and Tests: The architect, Owner, Foodservice Design Professionals (FDP), and their representative shall always have access to the work, whether in preparation or progress. Provide proper and safe facilities for such access and inspection.
- G. Fees, Permits, and Inspections: Secure and pay fees for all permits, licenses, and inspections as required by all authorities having jurisdiction. Give all notices and comply with all laws, ordinances, codes, rules, regulations, and contract requirements bearing on the work.

# 1.3 SCOPE OF WORK

A. Include the Work specified, shown, or inferable as part of Food Service Equipment. Portions of this Work may be subcontracted to those qualified to do such work as necessary because of jurisdictional trade agreements and restrictions.

- B. The General Contractor is responsible for Related Work specified in other Sections: i.e., final plumbing, electrical and mechanical connections. The Kitchen Equipment Contractor (KEC) is responsible for all internal connections.
- C. Specifications and drawings have been prepared to form the basis for procurement, erection, start-up, and equipment adjustment in this contract. Plans and specifications shall be considered mutually explanatory. Work required by one, but not by the other, shall be performed as though required by both. Items required by one but not by the other shall be provided as though required by both. Work shall be accomplished as called for in specifications and shown on drawings so that all equipment items shall be entirely functional for the purpose for which they were designed and intended. Provide all necessary material, tools, equipment, and labor required for the complete delivery, un-crating, erection, and installation as designated on the food service equipment plan and, in the specifications, to be made ready for final connection by the appropriate Division contractors. When there is any discrepancies from the Architect and or Foodservice Design Professionals (FDP) before bidding.
- D. Should the drawings disagree in themselves or the specifications with the drawings (and clarification was not sought before bidding), the higher cost, better quality, more stringent, and greater quantity of the work or materials shall be completed without additional costs to the Owner.

# 1.4 OTHER DIVISIONS/CONTRACTORS RELATED WORK

# A. Division 03 (Concrete) is responsible for but not limited to:

- 1. Slab depressions reinforced concrete wearing bed at prefabricated cold storage assemblies.
- 2. Concrete or masonry platforms (with a finished top and coved base at the perimeter) for the raised setting of food service equipment.
- 3. Slab depressions to receive stainless steel drain trench liner/grate assemblies (provided under this Section).

# B. Division 09 (Finishes) responsible for but not limited to:

1. Interior finished floor with a coved base at prefabricated cold storage assemblies.

### C. Division 10 (Specialties) responsible for but not limited to:

- 1. S/S Corner Guards throughout the kitchen (unless specified otherwise).
- 2. Lockers.

# D. Division 22 (Plumbing) is responsible for but not limited to:

- 1. All connections shall follow local codes and national standards, except where plans and specifications exceed those codes and standards.
- 2. Empty PVC and wide-sweep bends for refrigerant piping to beverage lines, Co2 lines, and remote food service equipment refrigeration systems.

- 3. Rough-in and final connection of plumbing systems to food service equipment and between components (including materials and labor). Accessories provided loose with food service equipment by Section 11 40 00 to be field installed by Division 22. This includes but is not limited to the installation of all faucets (water fill faucets, pre-rinse faucets, etc.), hoses, gas disconnects, and drains from the equipment point of connection to building plumbing systems.
  - a. Kitchen Equipment Contractor is responsible for providing all faucets (water fill faucets, pre-rinse faucets, etc.), drain fittings, mixing valves, control valves, water pressure regulators, vacuum breakers, and all accessories for equipment specified under 11 40 00. Division 22 is responsible for installation.
- 4. Indirect drain line runs from the equipment to the nearest drain or floor sink—lines to be type 'K' Copper.
- 5. If any plumbing accessories or fittings are provided loose with equipment by 11 40 00, Div. 22 is to attach to equipment and provide final connection.
- 6. Gas Supply Systems with all components and fittings required for a complete system.
- 7. Water Supply Systems with all components and fittings required for a complete system.
- 8. Compressed Air Systems with all components and fittings required for a complete system.
- 9. Piping and Drainage Systems (Sanitary and grease laden). Systems are to be cleaned before the final connection with food service equipment.
- 10. Floor Sinks (Provide and Install). Flange and grates to be flush with the finished floor.
- 11. Floor Drains (Provide and Install). Flange and grates to be flush with the finished floor.
- 12. Trench Drains (Provide and Install). Trench Liners provided by 11 40 00. Flange and liners to be flush with the finished floor.
- 13. Grease Traps as required (Size, Provide, Locate, and Install). Verify with local codes to bypass or pipe thru Grease Trap and/or Interceptor.
- 14. P-Traps as required (including all disposers).
- 15. Interconnect water thru Water Filter (Filter provided by 11 40 00 unless otherwise specified) to equipment.
- 16. Gas Quick Disconnect Installation (Quick Disconnect provided by 11 40 00).
- 17. Safety Restraint Cable Installation (Safety Restraint Cable Provided by 11 40 00).
- 18. Specified couplings and piping to all equipment furnished by 11 40 00.
- 19. Air Compressors (Size, Provide, and Install unless otherwise specified).
- 20. Water Softeners (Size, Provide, and Install unless otherwise specified).

- 21. Pressure Boilers (Size, Provide, and Install unless otherwise specified).
- 22. Hand Sinks (Provide (unless otherwise specified) and Install). Provide a hot water tempering valve if required. Water temperature to be at least 100 degrees and flow for at least 20 seconds.
- 23. Ice Bin Drain Insulation (Provide and Install).
- 24. Unions at disposer solenoid valves (Provide and Install).
- 25. Back Flow Prevention as required (Provide and Install including all disposers). Back-Siphonage shall be installed at all fixtures and equipment where backflow and/or backsiphonage may occur and where a minimum air gap cannot be provided between the water to the fixture or equipment at its flood/level rim. When furnished with equipment, vacuum breakers shall override the above if acceptable with applicable codes. Division 22 is responsible for verifying requirements with local codes.
- 26. Janitor Sink with Faucet (Provide and Install).
- 27. Freeze Proof Hose Bibb at the exterior of the building by receiving door (Provide and Install unless otherwise specified).
- 28. Reverse Osmosis Systems (Size, Provide (unless otherwise specified), Locate, and Install).
- 29. All piping within the counter body or under fabricated counters must be run to a connection point below the counter body by Section 11 40 00—final connection by Division 22.
- 30. Exhaust Hood condensate drain connections (Provide and Install).
- 31. Interconnection of ½" CW to Pre-Rinse and Disposers cone/body inlets piped through the solenoid and vacuum breaker.
- 32. Fire System Piping. The exposed piping is to be chrome plated.
- 33. Pipe  $\frac{1}{2}$  cold water to swirl inlets at disposers.
- 34. Water Treatment for Ice Builders (Non-Chlorinated water with a PH Level of 10 or Higher) and any drains and overflows. Piping from Ice Builders to Tumble Chillers by Div. 23.
- 35. Refer to Section 2.2 PLUMBING / MECHANICAL REQUIREMENTS for additional information.

#### E. Division 23 (Mechanical) responsible for but not limited to:

- 1. All connections shall follow local codes and national standards, except where plans and specifications exceed those codes and standards.
- 2. Empty EMT Conduit with pull-wire and wide-sweep bends for refrigerant piping to remote food service equipment refrigeration systems.

- 3. Rough-in and final connection of mechanical systems to food service equipment, cold storage assemblies, and between components (including materials and labor).
- 4. A mechanical contractor will test and balance rooms and exhaust hoods. Balance report for food service Exhaust Hoods to be provided to Foodservice Design Professionals (FDP) immediately upon completion (send to Houston.Submittal@fdp.org) and must be submitted with O&M manuals.
- 5. Exhaust Hoods, Condensate Hoods, Fire Suppression Systems, connections, and controls (Provide and Install unless otherwise specified). Provide tempered air at all supply ducts.
  - a. If Exhaust/Condensate Hoods and Fire Suppression Systems are specified under Section 11 40 00, Division 23 is responsible for all Exhaust and Condensate Hood connections (Provide and Install).
- 6. VFD System and controllers when required by code (Provide and Install).
- 7. Provide and install all ventilation (direct or indirect), air conditioning, and heating systems (unless otherwise specified).
- 8. Coordinate Supply and Return ducts above Serving Counters. Cold air is not to blow directly on hot food counters or open-air refrigerated merchandisers.
- 9. Coordinate Supply and Return ducts away from equipment with top-mounted refrigeration. Air is not to blow directly on compressors.
- 10. Mechanical Contractor to locate temperature monitors within return ducts.
- 11. Circulating air above cold storage assemblies (Provide and Install).
- 12. Circulating air above and in air gaps at Warehouse cold storage assemblies (Provide and Install).
- 13. Water Chillers as required (Provide, Size, and Locate).
- 14. Piping from Ice Builders to Tumble Chillers (Size, Provide and Install).
- 15. Refer to Section 2.2 PLUMBING / MECHANICAL REQUIREMENTS for additional information.

# F. Division 26 (Electrical) responsible for but not limited to:

- 1. Rough-in and final connection of electrical systems to food service equipment, cold storage assemblies, and between components (including materials and labor). Accessories provided loose with food service equipment by Section 11 40 00 to be field installed by Division 26.
- 2. Empty EMT Conduit with pull-wire and wide-sweep bends for refrigerant piping to remote food service equipment refrigeration systems.
- 3. Empty EMT Conduit with pull-wire and wide-sweep bends for interconnect cables between LAN and POS terminals, change-makers, pre-check units, printers, CPUs, etc.

Division 26 to verify where the conduit will run for POS System (i.e., Manager's Office or IDF Room).

- 4. Empty EMT Conduit with pull-wire and wide-sweep bends for fire suppression systems. Interconnect the Fire Protection System to panel box shunt trips and building alarms.
- 5. Cold Storage Assembly Light Fixture Installation (Provided loose by Section 11 40 00).
- 6. Table Limit Switch Installation (Provided loose by Section 11 40 00).
- 7. Electrical Materials and Devices (Shunt-trip breakers, surge protectors, lighting control devices, conduit, wire, etc.).
- 8. Switches and Stainless Steel Disconnects as required (Provide, Locate, and Install to be in an accessible location).
- 9. Charging Stations for Forklifts, Pallet Stackers, and Pallet Jacks (Size, Provide, Locate, and Install).
- 10. Interconnection between Condensate Fan and Dishmachine control panel.
- 11. Interconnection between Exhaust Hood fans and switch.
- 12. Interconnection between Exhaust Hood lights and switch.
- 13. Door Heaters, Lights, Coils, and Heated Pressure Relief Ports pre-wired to the junction box at the top of cold storage assemblies provided by Section 11 40 00—final connection by Div. 26.
- 14. If any electrical accessories, fittings, and cord/plugs are provided loose with equipment by 11 40 00, Div. 26 is to attach to equipment and provide final connection.
- 15. Provide waterproof receptacles in wet areas.
- 16. All electrical connections beneath Exhaust Hoods to extend to shunt trip breakers with electrical panel box for shutdown during fire mode.
- 17. Receptacles will be pre-wired to Junction Box or Load Center for final connection by Division 26.
- 18. All electrical lighting, power, and distribution systems.
- 19. Do not interconnect more than three (3) convenience outlets on one (1) breaker.
- 20. Other than convenience outlets, all electrical connections on food service plans are dedicated breakers.
- 21. Doorbell at receiving door (Provide and Install –audible throughout Kitchen, Office, and Dry Storage room).
- 22. Adequate lighting at receiving door.
- 23. Dedicated circuit for heated drain line connection in Walk-In Freezer (120/1/16.0 Amp) at each coil.

24. Refer to Section 2.5, ELECTRICAL REQUIREMENTS, for additional information.

## G. Division 27 (Communication) responsible for but not limited to:

- 1. Data line coordination for food service equipment.
- 2. Time clocks.
- 3. Video cameras for learning assistance in food service areas as required (Provide, Locate, and Install).
- 4. Edwards 860 Series (Red Lens) surface-mounted Xenon Strobe Beacons within the Kitchen (located above the Freezer) and Cafetorium interconnecting to the Cold Storage Assembly Entrapment Panic Alarm. Coordinate location with Owner. Strobe Beacons to be audible throughout Kitchen and Cafetorium (*Critical*).

### H. Division 28 (Electronic Safety and Security) is responsible for but not limited to:

- 1. Security Cameras as required (Provide, Locate, and Install).
- 2. Interconnection of Entrapment Panic Alarm for Cold Storage Assembly to the main Building Alarm System that will notify the person designated by the Owner that the Entrapment Panic Alarm has been activated (*Critical*).

## I. General Contractor responsible for but not limited to:

- 1. Any wall penetration required for food service equipment utilities. Escutcheon plates or S/S sleeves are to be provided and installed as needed.
- 2. Bulk Freezer Ventilation Pipe (Provide and Install unless otherwise specified).
- 3. Core drilling for Guide Rails.
- 4. Refrigeration Roof Curbs / Roof Jack.
- 5. Interior Bollards to be epoxy painted per local codes (Provide and Install).
- 6. Provide and Install <sup>3</sup>/<sub>4</sub>" Plywood blocking in the wall for mounting equipment furnished by Section 11 40 00 as required.
- 7. Cold Storage Assembly Depressions (to be dead level) and sand leveling bed.
- 8. Structural bracing for Bulk Cold Storage Assembly ceiling panels if required.
- 9. Menu System Video Monitors in Servery (unless otherwise specified).
- 10. Structural bracing for Menu System Video Monitors if required.
- 11. Interior/Exterior refrigeration penetrations and sleeves at building penetrations.
- 12. DoorScope viewer (peephole) with wide viewing angle at receiving door.

- 13. Canopy at receiving door. Coordinate height with the height of Receiving Door (8') and the mounting height of Air Screen above the door.
- 14. Soap and towel dispenser provided by Owner. G.C. is responsible for installation.
- 15. Washer and Dryer (Provide and Install, unless otherwise specified).
- 16. Dwarf wall at exposed front/ends of cafeteria serving counters with the finish as selected by the Architect.
- 17. Final cleaning of all equipment before demonstrations.

## 1.5 QUALITY ASSURANCE

- A. In addition to complying with all applicable laws, statutes, building codes, and regulations of public authorities, comply with the following:
  - 1. National Sanitation Foundation (all equipment to bear label)
  - 2. National Electric Code
  - 3. Underwriters' Laboratories, Inc. (all applicable equipment to bear label)
  - 4. American Gas Association Laboratories
  - 5. National Fire Protection Association
  - 6. Americans with Disabilities Act
  - 7. Food and Drug Administration HAACP Guidelines
  - 8. International Energy Conservation Code (IECC)
  - 9. Department of Energy
  - 10. Environmental Protection Agency
- B. Furnish certification of regularly manufactured equipment listing or classification by Underwriter's Laboratories, Inc. with the initial submittal.
- C. Furnish a list of equipment and components (internal and external) that are not of domestic origin. All equipment and components (internal and external) should be of domestic origin when possible. This information should be provided with the initial submittal.
- D. Projects outside the continental United States shall adhere to all local authorities having jurisdiction over that project.

### 1.6 SUBSTITUTIONS

A. Equipment items or components specified are intended to be the Basis of the Bid. All other brands, including any additional names, which may be listed as "Alternates" or "Approved Equal," must conform with the general and item specifications, warranties,

size/dimensions, quality, accessories, function, voltage, horsepower, etc. of the firstnamed brand and be subject to Paragraph C-03 of this Article.

- B. Proposed Substitutions:
  - 1. Submitted at least 14 calendar days before Bid Date.
  - 2. Submit proposed substitutions with catalog data and manufacturer's shop details indicating all modifications required to conform with the specified brand.
  - 3. List of deviations must include equipment name, model number, accessories, and features with deviation(s) noted for specified and proposed alternate equipment. Equipment without listed deviation(s) will be considered furnished as specified.
- C. Substitutions with prior approval:
  - 1. Submitted on Bidder's letterhead attached to Proposal Form with individual additive/deductive amounts stipulated and the documentation required in Paragraph B-02.
  - 2. Owner reserves the right to accept or reject any or all substitution proposals before execution of the Contract.
  - 3. Provide all design/engineering services required to adjust in space, systems, utilities, etc., and pay all additional costs of utilities, construction, or professional services that may be incurred due to the acceptance of any substitution.
- D. All appliances within a common group or category (e.g., refrigerators, kettles, ovens, etc.): same manufacturer.

## 1.7 INTERPRETATION OF DOCUMENTS

- A. During Bidding: Bidder's, supplier's, or vendor's questions and comments about Construction Document's clarity or intent will be addressed by addendum.
- B. After Award:
  - 1. Clarification Bulletin will confirm Construction Document requirements.
  - 2. Request for Information submitted by Contractor shall contain Contractor's proposed resolution.

### 1.8 WARRANTY

- A. Provide a written warranty for parts and labor for one year from the date of Substantial Completion, including an extended four-year replacement warranty on compressor bodies.
- B. Components of equipment subject to replacement before one year's use (such as refrigerator door gaskets) and those items which may fail due to improper or inadequate periodic maintenance by the Owner/Operator (such as an uncleaned refrigeration system condenser) are not intended to be included within the scope of the Warranty.

- C. Refrigeration Systems/Equipment: One-year free service available within twenty-four hours of notification.
- D. Furnish three copies of a list of all equipment and their respective local service agencies, indicating the address, telephone number, and name of the person to contact. The service agencies selected shall be factory-authorized for the equipment assigned whenever possible.
- E. Provide the following for refrigeration systems/equipment unless specified otherwise:
  - 1. One (1) year of free refrigeration system service is available within twenty-four hours of notification.
  - 2. Provide five (5) year manufacturer's registered written replacement warranty certificate covering compressor bodies. Warranty to cover labor costs for the first year.
  - 3. Provide ten (10) years of the manufacturer's registered written replacement/repair warranty certificate covering cold storage assembly panels. Warranty to cover defects in material and workmanship. Warranty to cover labor costs for the first year.
  - 4. Provide one (1) year parts and labor warranty for all parts of the refrigeration system(s) and cold storage cooler(s) and freezer(s) not otherwise covered herein.
- F. All above-stated warranty periods are from the date of Substantial Completion. All replacement parts due to a warranty call should be the same quality as the original. Replacement parts should be of a domestic origin where possible.

## 1.9 SUBMITTAL DATA

- A. Special Requirements: The following are in addition to any general requirements given elsewhere in the Documents.
- B. Submittal Requirements:
  - 1. Kitchen Equipment Contractor to furnish all submittals via PDF, drawings to be scaled per General Specifications and provided in Three (3) submittal packages.
  - 2. Foodservice Design Professionals requires the below-listed business days for each package submitted. Packages are to be submitted within 14 days between each issued package. Each package should contain individual submittal sets.
    - a. Package One to include (2) Individual sets: 10 Business Days for Review
      - i. Equipment rough-in
      - ii. Equipment Brochure
    - b. Package Two to include (3) Individual sets: 10 Business Days for Review
      - i. Exhaust Hoods
      - ii. Cold Storage Assemblies
      - iii. Refrigeration

- c. Package Three to include (4) Individual sets: 15 Business Days for Review
  - i. Custom Fabrication
  - ii. Serving Counters
  - iii. Merchandising Equipment
  - iv. Miscellaneous Submittals
- C. Submittals to be identified with the below-listed file name structure:
  - 1. 11 40 00-1 EQUIPMENT BROCHURE
  - 2. 11 40 00-2 EQUIPMENT ROUGH-IN PLANS
  - 3. 11 40 00-3 CUSTOM FABRICATION
  - 4. 11 40 00-4 SERVING COUNTER
  - 5. 11 40 00-5 EXHAUST HOODS
  - 6. 11 40 00-6 COLD STORAGE ASSEMBLY
  - 7. 11 40 00-7 REFRIGERATION
  - 8. 11 40 00-8 BEVERAGE MERCHANDISER
- D. Package One (1) requires both submittals: Brochure and Rough-in plans. **If not sent together, the submittal will be rejected.**
- E. Foodservice Design Professionals (FDP) will notate all submittals in RED. Architects and General contractors will be notated in color per their direction.
- F. If hard copy submittals are required, Kitchen Equipment Contractor will furnish all copies to the specified trades as required.
- G. If discrepancies, missing information, or incorrect information occur within the documents, Kitchen Equipment Contractor is to seek clarification or note the need for further direction on submittals. The Kitchen Equipment Contractor is to bid the higher of the discrepancies. *Refer to Section 1.3 SCOPE OF WORK: Subsection D.*
- H. Brochure Format (for regularly manufactured equipment and components):
  - 1. Front and rear protective cover with labeled project name.
  - 2. Brochure index: Indicate Functional Area/Room number, item number, quantity, description, and manufacturer.
  - 3. A separate flysheet for each component or item of equipment, indicating item number, name, quantity, manufacturer, optional equipment, modifications, special instructions, and utility requirements. Any equipment or assembly containing more than one buyout sub-assembly or component shall have the second item listed in parenthesis beside the primary item name—for example, Serving Counter (hot food well).

- 4. Catalog specification sheet with all options notated on the specification sheet and manufacturer's drawing.
- I. Shop Drawings (Rough-In Drawings):
  - 1. Separate drawing sheets: same size as Contract Drawings (Contract Drawings are not to be traced or reproduced). Submittal drawings are to be provided by Kitchen Equipment Contractor and not copied or reproduced from Contract Documents. Any reproduced submittal drawings will be rejected.
  - 2. ¼" scale drawing of fixed/movable food service equipment and prefabricated Cold Storage Assemblies with itemized schedules.
  - 3. Special Conditions Drawings, sizing, and locating the following conditions:
    - a. Slab depressions, cores, sleeves, or block-outs (cold storage assemblies, drain trenches, piping, etc.).
    - b. Concrete or masonry platforms.
    - c. Pipe sleeves or roof jacks.
    - d. Wall openings or block-outs for pass-through equipment, recessed control panels, in-wall fire-protection system components, etc.
    - e. Blocking grounds or anchor plates required in walls for equipment support/attachment.
    - f. Above-ceiling hanger assemblies for support of exhaust hoods, ceiling-mounted pot racks, etc.
    - g. Access panels in walls or ceiling for service of equipment.
    - h. Ceiling pockets or recesses for unusually high equipment.
    - i. In-wall carriers for wall-hung or cantilevered equipment.
  - 4. Electrical Rough-In Drawing
  - 5. Plumbing and Mechanical Rough-In Drawing
  - 6. Required information:
    - a. All fixed and portable food service equipment shown on Contract Drawings.
    - b. All prefabricated Cold Storage Assemblies and Conveyor/Dishtable Assemblies shown on Contract Drawings.
    - c. All general-use and convenience utilities or services indicated on Contract Drawings, including those required by or connected to equipment or devices, not in this Section.
    - d. All Rough-In Drawings: Fully dimensioned from engineering benchmark (column lines, when provided) and finished-room surface to the point of stub-up through

floor and stub-out through wall or ceiling for all mechanical, electrical, and plumbing services.

- e. Connection number/tag system and symbols: Identical to Contract Drawings.
- J. Shop Drawings (Manufacturer's and Fabricator's):
  - 1. Sheet Size: Identical to Contract Drawings, drawn or plotted at a  $\frac{1}{4}$ " scale for plan view,  $\frac{1}{2}$ " for elevations, and  $\frac{11}{2}$ " for sections and construction details.
  - 2. Included information: The item number, name, and quantity.
  - 3. Construction details, sections, and elevations to reflect the requirements of the Specifications and Drawings.
  - 4. Indicate adjacent walls, columns, and equipment.
  - 5. Indicate plumbing and electrical schematic drawings for equipment such as conveyors, waste systems, self-cleaning exhaust hoods, exhaust hood fire protection systems, and fabricated fixtures with a single electrical or plumbing connection.
  - 6. Mechanical or electrical operating components or products integrated into a fabricated fixture: ventilation and service access required or recommended by the manufacturer, including panel size and location to permit easy lubrication, adjustment, or replacement of all moving parts.
- K. All equipment and engineering rough-in plans sheet numbers are to match the contract documents. All equipment item numbers and engineer item numbers located on the schedules are to match the contract documents. All engineering requirements must be updated to accommodate the provided equipment and match the contract documents. The Kitchen Contractor coordinates any MEP revisions to accommodate the supplied and proposed equipment. The Kitchen Equipment Contractor is responsible for any costs associated with equipment substitution.
- L. Foodservice Design Professionals (FDP) drawings and schedules are not to be copied in any way. Any replicated drawings of Foodservice Design Professionals (FDP) will be rejected.

### 1.10 SERVICE MANUAL

- A. Three copies bound in 1½" hardback, three-ring binders (as many volumes as required by the scope of the project) with the same data as the brochure after installation (Refer to "Submittal Data"). Provide separate service manuals for each independent area within the project scope (Main Kitchen, Culinary, Concession, etc.).
- B. Each Volume: Section for maintenance of finish materials (e.g., stainless steel, plastic laminates, FRP, Plexiglas, etc.).
- C. Catalog specification sheet and/or manufacturer's shop drawings.
- D. Each Volume: Index of items, manufacturer's operating/maintenance information, replacement parts data, list of all product warranties, and price lists. Provide the name, title, and address of personnel at each respective manufacturer and service personnel to be contacted for spare/replacement parts and service after the warranty period.

- E. To the extent possible, provide two copies of the manufacturer's video instructional cassettes for operating, maintenance, and equipment service.
- F. Internally subdivide binder contents with permanent page dividers, logically organized by equipment item number or manufacturer name, with tab titling printed under reinforced, laminated plastic tabs.
- G. Electronically submitted manuals must follow the formatting requirements listed above.
- H. Service Manual to be provided to the owner before kitchen equipment demonstration.

# 1.11 VERIFICATION AND COORDINATION OF PROJECT / DATA

- A. Utilities Rough-in Drawings and field verifications are to be completed within four weeks after receipt of notice-to-proceed. Review Contract Drawings and Submittal Data for accuracy and completeness and notify Architect of conflicts and proposed adjustments. Coordinate work with other sub-contractors.
  - 1. KEC to provide on-site field verification of all underground utilities before pouring concrete for capacity and location and coordinate with General Contractor. Submit a review to Architect and General Contractor. If rough-ins need to be relocated, KEC will compensate other trades for the required relocation.
  - 2. KEC to provide on-site field verification of all other utility connections and locations and coordinate with General Contractor. Submit a review to Architect and General Contractor.
- B. On-Site Inspection Reports
  - 1. Before concrete pour: The Kitchen Equipment Contractor is to submit a copy of the report below to the Architect, General Contractor, and Foodservice Design Professionals (FDP) within 24 hours of the inspection. The form to be submitted is contained within these General Specifications.
  - 2. Before delivery of equipment: The Kitchen Equipment Contractor is to submit a copy of the report below to the Architect, General Contractor, and Foodservice Design Professionals (FDP) within 24 hours of the inspection. The form to be submitted is contained within these General Specifications.

	<b>On - Site Inspection Report</b> Prior to Concrete Pour
Inspection Date	Project Name
-	Company Email
	Contact Email
General Contractor G.C. Contact Number	PM Email
Foodservice ConsultantFoodserviceContact Number28	dservice Design Professionals, LLC PM
The following conditions were o	e location of UNDERGROUND utilities was conducted on this date. served and brought to the attention of the General Contractor. (KEC tion and copy of the Utility Plan indicating the corrective action e encountered?
Inspector's Initials	
General Contracto	he responsibility of the Kitchen Equipment Supplier and the Coordination between the two parties is mandatory. nor FDP need to be present at any of the inspections.
FMAIL A COPY OF THIS REP	RT AND ANY ADDITIONAL INFORMATION TO THE ARCHITECT.

GENERAL CONTRACTOR AND FOODSERVICE DESIGN PROFESSIONALS, LLC.

	<b>On - Site Inspection Report</b> Prior to Delivery of Equipment
Inspection Date	
Project Location	
Inspector's Name	_ Company
Inspector's Contact Number	Email
Architectural Firm	Contact
Architect's Contact Number	Email
General Contractor	PM
G.C. Contact Number	Email
Foodservice ConsultantFoodservice DoContact Number281.350.2323	esign Professionals, LLC PM

An on-site Inspection to verify the location of INSTALLED utilities was conducted on this date. The following conditions were observed and brought to the attention of the General Contractor. (KEC is to provide a written description and copy of the Utility Plan indicating the corrective action required).

1. What difficulties, if any, were encountered?

Inspector's Initials

This Inspection Report is the responsibility of the Kitchen Equipment Supplier and the General Contractor. Coordination between the two parties is mandatory. Neither the Architect nor FDP need to be present at any of the inspections.

EMAIL A COPY OF THIS REPORT AND ANY ADDITIONAL INFORMATION TO THE ARCHITECT, GENERAL CONTRACTOR AND FOODSERVICE DESIGN PROFESSIONALS, LLC.

FOOD SERVICE EQUIPMENT

- C. Review critical systems/components for application, performance, and capacity and submit calculation worksheets with the initial submission of brochure/rough-in drawings, with all proposed adjustments noted, including:
  - 1. Exhaust hood removal/supply air volume, velocity, static pressure, duct collar sizes, and locations.
  - 2. Refrigeration Systems (compressor, condenser, and evaporator) capacities/sizes, quantities, and refrigerant piping distances/sizes.
  - 3. Exhaust Hood Fire Suppression Systems (nozzle locations, air handler, fuel interlocks, piping/distance limitations).
  - 4. Locations of Vacuum Breakers.
  - 5. Conformance of Refrigerated Components/Equipment with HACCP Guidelines (e.g., salad/sandwich pans, upright/open refrigerator cabinets, salad bars) with HACCP Guidelines.
  - 6. Gas and water line sizes and manifold configurations.
  - 7. Diameter and length of flexible connector lines for fixed/movable gas appliances.
  - 8. Fabricated Equipment load center panels (individual and total amperage calculations and circuit balance).
  - 9. ADA compliance of workstations, service positions, passageways, etc.
- D. Ceiling mounted appliances/fixtures: Verify and coordinate dimensions/location of support framing/hangers with the General Contractor—all material and installation below 12'-0" AFF: Section 11 40 00.
- E. Dimension Responsibility: Obtain actual or guaranteed measurements for the proper equipment fit. All dimensions indicated in Contract Documents are approximate and are as accurate as can be determined at the time. Field-check all horizontal/vertical measurements and conditions at the building before fabrication or delivery of equipment and notify the Architect of all conflicts or deviations from the dimensions shown.
- F. Checking Dimensions at Site: Before ordering any materials or doing any work, verify all measurements of the building and be responsible for their correctness. No extras will be allowed for variations from drawings in existing conditions or work performed under this contract. Any discrepancies found shall be submitted to the Architect for instructions before proceeding.
- G. Scheduling to Fit Openings: Should it become necessary to schedule the construction of walls or partitions before delivery of fixed equipment, the equipment must be fabricated for passage through finished openings. Maintain close contact with the project and be cognizant of all conditions, including vertical handling limitations within the building (elevator cabs or openings, stairs, etc.) and possible hoisting requirements. Coordinate all procedures with General Contractor and Project Team.

- H. Refrigerated and Dry Storage Areas: Verify and coordinate dimensions to accommodate scheduled modular shelf sections. Notify Architect of the variance between the Contract Documents and actual conditions.
- I. Color/Pattern Selections: Submit selection samples of solid polymer products, plastic laminate, paint or stain finishes, and vinyl-coated surface material of equipment as selected by the Owner.
- J. Movable Equipment Interface: Rolling stock (pan racks, carts, dollies, dish/tray/rack dispensers) required to fit through or into fixed equipment (roll-in refrigerators, counter bodies, etc.) is to be reviewed and coordinated for compatibility at the time initial of shop drawing submittal. Indicate conflicts and proposed adjustments.
- K. Relocation of Work: Relocate or re-route work as required to coordinate related items free of charge if no extra work is involved.
- L. Kitchen Equipment Contractor must provide FDP with the food service equipment lump sum pricing (including material and labor) after the contract has been executed and before submittals are provided to FDP. This information is critical to FDP for accounting/billing purposes.

## 1.12 EQUIPMENT FURNISHED / INSTALLED BY OTHERS

- A. Obtain and coordinate utility requirements of Owner-Furnished/Owner-Installed (OF/OI) equipment with the building utilities and rough-in drawings/provisions.
- B. Coordinate physical data of OF/OI appliances or equipment and incorporate information into Submittal Drawings. Vendor- or Purveyor-Furnished equipment (e.g., coffee/tea equipment): same as OF/OI.

### 1.13 WORK INSTALLED BUT FURNISHED BY OTHERS

- A. Coordinate delivery/installation schedule of Owner-Furnished/Contractor-Installed (OF/CI) equipment with the Owner at least ninety (90) days before equipment requirement.
- B. Obtain and coordinate utility requirements of OF/CI equipment with the building utilities and rough-in drawings/provisions.
- C. Receive at the job site and fully incorporate into installation procedures as if furnished under this Section.

### PART 2 - PRODUCTS

### 2.1 FABRICATED FIXTURES MATERIAL / COMPONENTS

- A. Stainless steel sheets or shapes: 18-8, Type 302, polished to 180 grit No. 4 finish.
  - 1. Stainless steel joints and seams: Heli-arc welded, free of pits and flaws, ground smooth, and polished to a No. 4 finish.

- 2. The "grain" direction of horizontal stainless-steel surfaces: Longitudinal, including the splash back. The polishing procedure at right-angle corners of fixtures shall provide a mitered appearance.
- B. Galvanized Iron Sheets: Armco copper bearing Zinc Grip or Zinc Grip/Paint Grip.
  - 1. Galvanized iron joints and seams: Arc-welded, free of pits, flaws, and ground smooth.
  - 2. Galvanized sheets or shapes: Washed with mineral spirits and painted with Rust-Oleum gray semi-gloss enamel.
- C. Sound Deadening: Schnee Butyl Sealant ½" wide rope positioned continuously between all frame members or contact material and underside of stainless-steel surface (sinks, tabletops, food wells, over shelves, and undershelves). Tighten stud bolts for maximum compression of sealant and trim excess.
- D. Plastic Laminates: Color/pattern selected by Architect, in 1/16" thickness for flat surfaces: 1/32" thickness for radiused surfaces. Plastic laminates and adhesives must be NSF-approved (Standard No. 35).
- E. Solid Polymer products: Color/pattern/material selected by Architect in thickness as specified. Solid Polymers and adhesives must be N.S.F. approved (Standard No. 51).
- F. Casters:
  - Fabricated fixtures with "Open Base" construction: Jarvis and Jarvis Model No. 5-405-113P-NSF swivel casters with grease seals on forks and wheels; Zerk fitting in swivel; two casters: Model No. E-75 Verti-Lock brakes. All casters: B-7" rolling bumpers with stainless steel top discs.
- G. Cutting Boards: 1/2" thick Read Products, Inc. "Richlite" cutting board, size as indicated.
- H. Identification Plates, Labels, Tags:
  - 1. Prohibited Information: Names of suppliers, fabricators, and contractors.
  - 2. NSF Labels: Required on all pieces of equipment.
  - 3. Required Information: Function or purpose of controls such as display light switches, food warmer controls, etc.
  - 4. Plate Construction: Engraved phenolic plastic, secured to equipment with epoxy cement or stainless-steel screws. Furnish samples.

### 2.2 PLUMBING / MECHANICAL REQUIREMENTS

- A. Plumbing Fittings and Components: Furnished under this Section as follows:
  - Note: Fitting and components described in Items 1, 2, 3, 4, and 5 are furnished loose by 11 40 00 for final installation and connection by Division 22.

- 1. Control valves and appliance pressure regulators for water, gas, steam, and vacuum breakers: wherever required on food service equipment (chrome-plated where exposed).
- 2. Faucets and drains with and without connected overflows (unless otherwise indicated) for all sinks.
- 3. Specialty food service water-fill faucets, hose bibbs, or hose assemblies indicated in drawings/specifications.
- 4. Wade Model No. W-10 Shock-Stop shock absorbers for all food service equipment with quick-opening or solenoid-operated water valves.
- 5. T&S HW-6 Series Water Quick Disconnect hose, diameter per water connection size requirements, with safety fitting, w/coiled restraining device, full port ball valve, antimicrobial coating, lifetime warranty.
- 6. Extensions of indirect waste fittings to open-sight floor sink or floor drains from sinks, under bar equipment, and food-holding components of serving counters (e.g., cold pans, hot food wells, refrigerator/freezer coils not equipped with condensate evaporators) furnished and installed by Division 22. Drains: All drains to be type 'K' Copper Paint with aluminum paint where exposed. Div. 22 to ensure a minimum air gap of 1" and not less than twice the effective opening of the indirect waste pipe, per code. Div. 22 to ensure all drain lines are centered over floor sink grate openings and no water splashes on the floor.
- 7. Piping brackets and supports beneath fabricated equipment.
- 8. Closed Base Bodies: Removable 18-gauge stainless steel closure panel at plumbing penetrations under the top.
- 9. Control valves on Open Base fixtures: Mounted on a 14-gauge stainless steel gussetshaped panel with h 3½" setback from the countertop edge/rim to the face of the control handle.
- 10. Fill hose/faucet at support pedestals or Closed Base Body: Installed in a 15" x 18" x 5" deep recessed mounting panel. Panel bottom: sloped on a 60° angle, with 3/8" stainless steel rod hanger-bracket for the hose.
- 11. Provide filtration option as shown on contract documents (a, b, c, or combination thereof):
  - a. In-line Water Filter System:
    - i. Everpure System filters for coffee/tea brewers, icemakers, water chillers, convection steamers, and beverage systems. They should be sized per the manufacturer's recommendation.
  - b. Remote Central Water Filter System.
  - c. Remote and/or In-line Reverse Osmosis system.

- B. Gas-Heated Equipment Fittings and Components: Furnished under this Section as follows:
  - 1. Fixed Equipment: T&S Manufacturer Safe-T-Link "HG-4-SK" Series gas appliance connector: Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit. Diameter per fuel volume/connection size requirements. Gas valve diameter size per fuel volume/connection size requirements.
    - a. Restraining device: Heavy duty steel cable, fastened to equipment and walls, 3" to 6" shorter than equipment connector length.
- C. Final Plumbing Connections Provisions:
  - 1. Fabricated equipment containing components, fittings, and devices indicated on food service connection drawings to be connected to the building systems: each component, fitting, or group thereof pre-piped to a utility compartment for final connection by Division 22. Refer to drawings for capacities.
  - 2. Field-assembled equipment (e.g., prefabricated cold storage assemblies, exhaust hoods, ware wash machines, convection ovens, etc.): plumbing components completely interconnected under this Section for final connection arrangements indicated on Utility Connection Drawings.
  - 3. All plumbing final connection points of equipment shall be tagged, indicating the following:
    - a. Item number
    - b. Name of devices or components
    - c. Type of utility (water, gas, steam, drain, chilled water)
- D. Ducts and Vents:
  - 1. Exhaust hoods furred-in to ceiling: 2" high duct collar for final connection to the duct system.
  - 2. Warewash machines equipped with integral vent cowls or extended hoods: furnished with 18-gauge stainless steel seamless duct risers to 6" above the finished ceiling for final connection. The duct: trimmed at the ceiling with a 16-gauge stainless steel angle flange with all corners welded.
- E. Refer to Section 1.4: OTHER DIVISIONS/CONTRACTORS RELATED WORK; Sub Sections E. Plumbing and F. Mechanical for additional information.

# 2.3 FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS

- A. Install complete with all refrigerants, oil, dials, dehydrators, gauges, and controls required for the system's proper operation.
- B. Self-contained or factory-installed compressors: Check and adjust to the proper operating temperature prescribed by FDA/HACCP.

### 2.4 PLUMBING TRIM

- A. Faucets: Furnished for all sinks or equipment requiring open water supply.
- B. Fill Faucets: Furnished for appliances requiring open water supply.
- C. Drain Fittings: Furnished for all sinks or equipment requiring removal of liquids. Install specified chrome-plated or stainless-steel fittings in die-stamped openings with washers and locknuts. The solder may be used as a sealer but shall not be applied to the top surface of the drain fittings.

# 2.5 ELECTRICAL REQUIREMENTS

- A. All electrical systems, components, and accessories within the work of this Section: Certified to be in accordance with NEC 70.
- B. Electrical Fittings and Components: Furnished under this Section as follows. Coordinate food service equipment loads, voltage, and phase with the building system and confirm any existing or OF/OI equipment requirements.
- C. Cord and Caps:
  - 1. Coordinate all food service equipment cord/caps with related receptacles.
  - 2. All 120, 120/208, and 208 volts "plug-in" equipment shall have Type SO or SJO cord and plug with ground wire fastened to the frame/body of the item.
  - 3. Cord lengths for fixed equipment: Adjusted to eliminate loose-hanging excess.
  - 4. All non-fixed plug-in "buy-out" equipment: Hubbell configuration and ratings as required.
  - 5. All mobile electrical support equipment (heated cabinets, dish carts, etc.) and counter appliances mounted on mobile stands (mixers, food cutters, toasters, coffee makers, microwave ovens, etc.): 8'-0" cord length with cord-hanger strap secured to the rear of equipment or mobile stand.
- D. Switches and Controls:
  - 1. Each motor-driven appliance or electrically heated unit: Equipped with a control switch or starter per Underwriters' Laboratories, Inc., with low-voltage and overload protection.
  - Disposer controls recess-mounted in the wall: External fittings and accessories removed from the enclosure and furnished with 16-gauge stainless steel perimeter angle flange with welded corners. Install control at 4'-0" AFF to the bottom of the enclosure.
  - 3. Disposer controls recess-mounted in counter-splash risers: External fittings and accessories removed from NEMA 4 enclosure and furnished with 16-gauge stainless steel perimeter angle flange with welded corners. Install control at 3'-0" AFF to the bottom of the enclosure. Provide the panel with a 60" long Seal-Tite electrical conduit from the bottom of the control panel for final field connections under Division 26.

- 4. Equipment that is not provided with built-in circuit breakers or fused terminal block and is indicated on Utility Connections Drawings to be directly connected to the building electrical system: a NEMA 4 stainless steel disconnect switch furnished and installed by Division 26.
- 5. All remote manual starters, disconnect switches, magnetic contactors or starters, and push-button stations: NEMA Type 4 enclosure; NEMA Type 1 enclosure only when installed in a Closed Base Body.
- E. Heating Elements:
  - 1. Electrically heated equipment: Thermostatic controls.
  - 2. Water heating equipment: Equipped with positive low water shut-off.
- F. Receptacles and Switches:
  - 1. Receptacles installed in vertical panels of support pedestals or Closed Base Bodies: installed in 12" x 8½" x 3" deep recessed mounting panel sloped at a 60° angle and turned up to the top of the opening.
  - 2. Pre-wire receptacles in closed base fixtures to a junction box installed within 6" from the bottom of utility or compressor compartments.
  - 3. Receptacles mounted on Open Base fixtures: Installed on a 12" x 10½" x 4½" deep 14gauge stainless steel panel with returned ends and sloping recess—secure panel to the underframe of fixture top.
  - 4. Pre-wire receptacles on open base fixtures to a junction box secured to a leg or mounted on the underside of the lower shelf. Vertical runs of wiring: Made in rigid conduit or within the tubular leg.
  - 5. Receptacles installed in/on-fabricated equipment: Hubbell, Inc. assemblies horizontally mounted in a metal box with stainless steel cover plate.
  - 6. Switches installed in/on-fabricated equipment: Hubbell, Inc. with metal box and stainless-steel cover plate. Switches: pre-wired to the controlled device and a junction box installed within 6" from the bottom of the utility or compressor compartment. All refrigeration system switches: Installed within the compressor compartment near the door opening.
  - 7. Load centers installed in/on fabricated equipment to have all fixture components prewired to the load center with balanced phase loading. Load center: Ready for final connection by Division 26 and flush-mounted within the utility compartment rear panel, set back 8" from the access door. All breaker/device information will be typewritten on the circuit schedule in the load center door (number corresponding breaker/device) with an enclosed schematic wiring diagram of fixture components.
  - 8. All receptacles are to be pre-wired to the cord and plug assembly and routed through the over-shelf post at all island equipment locations unless specified otherwise.

### G. Light Fixtures:

- 1. Light fixtures with lamps installed in/on fabricated or field-assembled equipment: prewired to a junction box for final connection (continuous-run fixtures when indicated).
- 2. LED Display Light: Install light fixtures full-length of Display Stand and Serving Shelf with stud bolts and pre-wire through support posts to an apron-mounted switch.
- 3. Heat Lamps: Installed to the underside of serving shelf assemblies. When multiple 24" heat lamps are specified, provide maximum length heat lamp chassis. Install all switches remotely from lamps.
- 4. Cold Storage LED Light Fixtures: Furnished by Section 11 40 00, final installation by Div. 26. All electrical wiring and conduit, provided by Div. 26, electrically connected through the Vapor Proof light fixture base connection, located on the interior door header—all Conduit to be EMT Watertight. Door frame wiring stubs out the top of panels 8" in flexible conduit for final connection by the electrical contractor. All horizontal conduits: below ceiling panels. All lighting fixtures will be wired from inside the assembly—no penetrations through the ceiling panels. Seal-sleeved penetrations are airtight at both sides of the panel. KEC is responsible for verifying that trade contractors seal all penetrations.
- H. Final Electrical Connection Provisions:
  - 1. Fabricated equipment containing electrically operated components or fittings indicated on Utility Connections Drawings: Direct connected, with each component, fitting, or group pre-wired to a junction box for final connection by Division 26. Refer to drawings for circuit loading.
  - 2. Fabricated equipment containing electrically operated components and devices indicated: Circuit-breaker load center with each component or device pre-wired to a separate circuit breaker for balanced phase loading and single final connection by Division 26.
  - 3. Field-assembled equipment (e.g., prefabricated cold storage assemblies, exhaust hoods, ware wash machines, etc.) shall have electrical components completely interconnected in this Section for final connection arrangements as indicated on Utility Connection Drawings by Division 26.
  - 4. Pre-wire the following groups of cold storage assembly electrical devices to a topmounted junction box for final connection by Division 26 per compartment grouping (unless otherwise indicated).
    - a. Light fixtures and switches; heated pressure-relief ports.
    - b. Door/jamb heaters.
    - c. Evaporator fans, defrost elements and drain line heaters.
  - 5. All electrical final connection points of equipment shall be tagged, indicating the following:

- a. Item number.
- b. Name of devices on the circuit.
- c. Total electrical load.
- d. Voltage and phase.
- I. Lamps: in all food service equipment containing light fixtures. Refrigerator or heated cabinets: All exposed LED lamps above or within a food zone: Shat-R-Shield lamps or standard lamps, sleeved with end caps.
- J. Refer to Section 1.4: OTHER DIVISIONS/CONTRACTORS RELATED WORK; Subsection F. Division 26 (Electrical) for additional information.

# 2.6 CUSTOM – FABRICATED / ASSEMBLED UNITS

A. Mechanical or electrical operating components or products integrated into a fabricated fixture: Ventilation and service access required or recommended by the manufacturer. The service access panel(s) size and placement permit easy lubrication, adjustment, or replacement of all moving parts and are to be indicated on fabrication shop drawings.

# 2.7 BAKER TABLETOPS (Unless specified otherwise)

- A. 14-gauge 304 S/S top with 2" square turn down at the front, 6" high enclosed splash at two (2) sides and rear. Brace same as "Counter/Tabletops."
- B. 1<sup>1</sup>/<sub>4</sub>" x 6" high integral coved riser at rear and ends unless indicated otherwise on drawings.
- C. 16-gauge stainless steel flour-trough at free long sides, secured to the underside of the top. Trough: 3" diameter with eased edges/corners.

# 2.8 COUNTER / TABLETOPS

- A. 14-gauge stainless steel; all free edges turned down 2" with <sup>3</sup>/<sub>4</sub>" tight hem at the bottom—free corners: rounded on <sup>3</sup>/<sub>4</sub>" radius.
- B. Marine edges: Turned up  $\frac{1}{2}$ " on 45° angle and turned down 2" with  $\frac{3}{4}$ " tight hem at the bottom.
- C. Cafeteria serving countertops at hot food stations: Full-length x  $3\frac{1}{2}$ " x  $\frac{1}{2}$ " high raised rail at (customer's) front side with  $45^{\circ}$  integral turndown to counter surface.
- D. Tops abutting high fixtures or walls: Cove up specified height and slope back 1½" at the top on 45° angle; 2½" slope where piping occurs. Turn down 1" at the rear of the splash and tight ends to the bottom of the top turndown. Secure splash turndown to the wall with a 4" long 14-gauge stainless steel "Z" clip anchored to the wall, 36" OC.
- E. Freestanding tables and all serving counter splash-risers: Turned back at a 90° angle with 1" turndown at the rear.

- F. Brace tops with rigid-welded 1½" x 1½" x 1/8" galvanized steel angle frame at the perimeter with cross bracing 2'-0" OC maximum. Provide 4" x 4" x 12-gauge stainless steel triangular pads where leg gusset welds to frame. Paint the entire frame with Rust-Oleum gray semi-gloss enamel. Angle frames: Secured to the underside of top surfaces with ¼" studs welded 9" OC maximum with chrome-plated washer, lock washer, and cap nut. Studs: Such length that cap nuts can be made up tight, bringing the top down snugly on the angle frame eliminating all vibrations or "oil-canning."
- G. Tops: 1<sup>1</sup>/<sub>2</sub>" overhang at free sides of underframe or Closed Base Body.
- H. Mockett Model No. SG5-26 chrome-plated/plastic grommet assembly or integrally welded stainless-steel flange or inverted gusset where service utilities or support posts penetrate or abut tops, ground, and polished to match the top. When conditions permit, provide a 1" x 1½" rectangular backsplash opening for service utilities instead of piercing the horizontal surface. Install stainless steel split tubing at the raw edge of the opening.
- I. Extend underbracing members to the wall, turn down 6", and anchor to the wall when specified to be mounted on leg/bracket assembly.
- J. All openings in tops: 3/16" high raised die-formed edges.
- K. All top openings for pans or inserts: 20-gauge stainless steel, watertight liners, 8<sup>1</sup>/<sub>2</sub>" deep, secured to the underside of the countertop.
- L. All "built-in" and "drop-in" counter equipment/appliances to have framing members at the perimeter of the opening.
- M. Scrap Basket: 18-gauge stainless steel construction 6<sup>1</sup>/<sub>2</sub>" x 6<sup>1</sup>/<sub>2</sub>" x 21<sup>3</sup>/<sub>4</sub>" long. Top of container: 5/8" wide x <sup>1</sup>/<sub>4</sub>" high full perimeter flange with <sup>1</sup>/<sub>4</sub>" diameter stainless steel rod bail handle. Interior vertical corners coved on <sup>1</sup>/<sub>2</sub>" radius. Countertop: Fitted with 6<sup>3</sup>/<sub>4</sub>" square die-stamped opening.

# 2.9 COLD PANS

- A. 14-gauge stainless steel with  $\frac{3}{4}$ " coved interior welded integrally to the countertop with a  $\frac{3}{16}$ " raised edge at the perimeter of the opening depth of cold pan to follow NSF 7 compliance.
- B. Slope bottom to required quantity of Component Hardware Model No. E16-4021 drain fittings at 48" OC maximum. Sleeve through insulation at drain fittings and extend common drain line into utility compartment for indirect waste connection.
- C. <sup>1</sup>/<sub>2</sub>" OD copper refrigerant lines in a serpentine pattern, 1<sup>1</sup>/<sub>2</sub>" OC flattened for maximum contact. Secure tubing to the underside of <sup>1</sup>/<sub>4</sub>" thick aluminum "distribution plate" installed tight to the underside of the frost plate area and apply cold-conductive mastic to all surfaces.
- D. Component Hardware Model No. E16-4021 drain fittings at 48" OC maximum, sleeved through the insulation with common drain line extended into utility compartment.
- E. Heat Cable: Low-wattage, full-perimeter, below countertop at the edge of depression. Secure with "Z" clips, 9" OC, and interwire with compressor switch for simultaneous operation.

- F. Enclose the sides and bottom of pans with an airtight 18-gauge galvanized jacket and pack with 2" fiberglass insulation set in mastic.
- G. Compressor: Size as indicated or required to accommodate the size of the cold pan. Locate the compressor in the compartment below the unit or as shown on the drawings.
- H. Sectional 16-gauge stainless steel perforated false bottom (¼" holes, @ ¾" OC). Turn down 1½" on all sides, weld corners, and provide finger rings. False bottom sections: 24" long maximum.

### 2.10 DRAWERS

- A. Stainless Steel Liners: Component Hardware Model No. S80-2020 (20" x 20"), easily removable with drawer in the fully extended position.
- B. Drawer Frame: 16-gauge stainless steel flanged out at the top. Weld the frame to a doublepanel 16-gauge stainless steel drawer front with full-length recessed pull at the top (similar profile as Garcy Model No. R-1060) with closed ends.
- C. Channel-formed horizontal pull: <sup>3</sup>/<sub>4</sub>" turndown at the front and ends with <sup>1</sup>/<sub>2</sub>" tight hem. The front edge of the pull: flush with the face of the drawer. Recess behind pull: sloped up on a 60° angle, terminating 1" below the bottom edge of pull.
- D. Mount drawer frame on Component Hardware Model No. S52-2020 self-closing slides, with Delrin bearings, full-depth of the fixture. Secure slides to the body or brackets to eliminate lateral movement in the extended position. Refrigerator drawers: Component Hardware Model No. S52-2024 stainless steel slides with Delrin bearings.
- E. Drawer enclosure in an Open Base Fixture: 18-gauge stainless steel flanged out at the top for attachment to the underside of the tabletop. The lower edge of the enclosure is flanged in toward the open bottom. Mount drawer slides to enclosure and brace as required. The face of the enclosure is to be the same length and height of the drawer face. Provide  $\frac{3}{4}$ " deep offset in front of the enclosure and  $2\frac{1}{2}$ " from the underside of the tabletop for a flush-fitting appearance.
- F. Drawer enclosure on freestanding fixture: Full depth of table framing.
- G. Drawer enclosure in a Closed Base Fixture: Completely partitioned from the adjoining area. Drawer front: Flush fitting with the face of the body.
- H. Drawer Liners other than tool/utility: Bread Drawer: Component Hardware Model No. S83-2020; Refrigerated Drawer: Component Hardware Model No. S81-1520 stainless steel liner.
- I. Cash Drawer: Integral stainless-steel body, 3" deep.

# 2.11 FOOD WELLS (UNLESS SPECIFIED OTHERWISE)

A. Food Warmer Controls: Remote-mounted in sloping recessed apron panel. The control panel is recessed  $2\frac{1}{2}$ " from the bodyline at the top of the 60° slope and 1" at the lower edge. Terminate slope angle  $2\frac{1}{2}$ " below the countertop. Mount panel on concealed piano hinge at bottom edge; secure with screws at upper corners.

- B. Manifold all warmer drains and extend to within the utility compartment for indirect waste connection. Install valve in the drain line and extend handle through compartment door.
- C. Removable 18-gauge stainless steel closure panel at the underside of warmers.
- D. 14-gauge stainless steel plate/utensil shelf full-length of hot food station unless noted otherwise: 10" below countertop x 9" deep, with rear panel coved up to the underside of the countertop; end panels turned up square. Front of shelf: Turned down 1½" and returned under for closure panel attachment.
- E. Food wells: Hatco Model No. HWBIBRT-FULD insulated food warmer (1200 watts, 208 volts, single phase) secured to the underside of 12" x 20" die-stamped countertop openings with thermal breaker mastic rope applied at the perimeter of food well flange.
- F. Soup Warmers: Hatco Model No. HWB-11QTD soup warmer secured to the underside of 11" diameter die stamped countertop opening with thermal breaker mastic rope applied at the perimeter of soup well flange. The maximum allowable temperature of the countertop at the contact surface is: 120°F. Each warmer: Equipped with one 11-quart stainless steel round insert and slotted cover.

## 2.12 SINKS

- A. 14-gauge stainless steel; all interior corners (horizontal/vertical) coved on <sup>3</sup>/<sub>4</sub>" radius. 1<sup>1</sup>/<sub>2</sub>" wide double-walled partitions with flat tops between compartments.
- B. Continuous exterior panels of multiple-compartment sinks: 14-gauge stainless steel filler panel welded ground and polished between compartments.
- C. Sinks (with overflow): Score and slope sink bottom  $\frac{1}{2}$ " to die-stamped opening fitted with Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. 14-gauge stainless steel bracket: Welded to sink bottom for drain stem with  $\frac{1}{2}$ " handle clearance.
- D. Where sinks are installed in fixtures with Closed Base Body, provide a Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. (Sinks with dimensions larger than 20" x 20" in Closed Base Body will not have overflow fitting.) 14-gauge stainless steel bracket: welded to sink bottom with T & S Model No. BL-4740-1 guide bushing. Install on shortened drain stem, one T & S Model No. BL-4710-1 remote control stem assembly only (length as required) with Model No. 113-L universal joint and white blank button. Set drain control handle in Cambro Model PSB-6 bowl with bottom omitted (dress raw edge) to permit passage of drain handle—secure bowl in utility compartment door or body panel with clear silicone.
- E. When single-hole deck-mounted faucets are specified, install overflow fitting in the sidewall of the sink compartment and provide ell-fitting in connecting tubing.
- F. Flush Covers when specified: 1/2" thick Read Products, Inc. "Richlite" cutting board, size as indicated. Support clips: 1/4" stainless steel rod 2" long, formed at 45° with two 3/4" leg ends (1/4" long threaded ends). Insert rod clips through tight-clearance holes in the sink, seal watertight, and secure with stainless steel acorn nuts or tack-weld at the exterior of the sink wall. Set support clips 1/2" below the top. Provide a 14-gauge stainless steel channel or angle

support frame to store covers when not in use. Cover holder: Adjacent to sink compartment, below countertop, or under drawer assembly.

## 2.13 TRAY SLIDES (UNLESS OTHERWISE SPECIFIED)

- A. Tray slides: 12" wide, solid 14-gauge stainless steel turned up 2" at the rear behind countertop turndown; turned down 4" at the front and free ends unless otherwise indicated.
- B. Three ¼" high die-formed inverted "V" ridges at 4" OC, 2" from the leading edge, terminating 2" from ends of tray slide with tapered ridge ends.
- C. Ridges formed on radius: Equal-length segments with 2" separation between chords.
- D. Secure tray slides to countertop/body frame, same as "Countertops." Enclose the exposed underside of the tray slide with 18-gauge stainless steel.
- E. When indicated, project tray slides 2" beyond the serving countertop and return the entire width of the serving counter at free ends.
- F. All tray slides are to be provided and mounted per ADA requirements.

## 2.14 DISHTABLES

- A. Soiled/clean dishtable: 14-gauge stainless steel; free edges coved up 3" with 1½" diameter rolled rim and bullnose corners.
- B. Edge of dishtables next to high fixtures or walls: Coved up 10" and sloped back 1½" on 45° angle; 2½" slope where piping occurs. Turn down 1" at the rear of splash and secure to wall with 4" long 14-gauge stainless steel "Z" clips anchored to the wall, @ 36" OC.
- C. Exposed rear splash: 16-gauge stainless steel finish panel from the top of the splash to the bottom edge of the rolled rim with a welded vertical joint at the end. Secure the panel with concealed attachment and install bracing 24" OC.
- D. Cove all interior corners (horizontal/vertical) on <sup>3</sup>/<sub>4</sub>" radius and slope tables 1/8" per foot to sinks, scuppers, or ware wash machines, maintaining level crown/splash.
- E. Brace dishtables with 1" x 4" 12-gauge stainless steel channels down the top centerline and between each pair of legs, with closed ends. Bracing: secured to the underside of the dishtable with ¼" studs welded 6" OC maximum, with chrome-plated washer, lock washer, and cap nut. Studs: such length that the cap nuts can be made up tight, bringing the dishtable down on the channel members, eliminating all vibration and "oil-canning."
- F. Integrally welded stainless steel flange or inverted gusset where service utilities or support posts penetrate or abut tops; ground and polished to match the top.
- G. Hose Bibb: Chicago Model No. 305VBRCF; mounted on 12-gauge stainless steel flange or inverted gusset bracket with 3/8" stainless steel rod hose hanger.

- H. Extend underbracing members to the wall, turn down 6", and anchor to the wall when specified to be mounted on leg/bracket assembly.
- I. Paper-Drop Opening: 9" square with 4" integral chute having hemmed bottom edge. Slope dishtable top 1" toward the opening, forming a 16" square tapered deposit point.
- J. Accessible Tray-Drop Opening: 10" x 18" with integral 16-gauge stainless steel seamless chute sloped at 45° angle toward the center of mobile soak sink position.
- K. All dishtables with a Conveyor Type Dishmachine must have a table limit switch provided by Manufacturer and installed by Division 26. Wiring must be concealed within dishtable fabrication.

# 2.15 DISH / TRAY DEPOSIT ASSEMBLY

- A. 14-gauge stainless steel deposit shelf, size as indicated. Extend the frame through the opening, flush with the public side of the partition, height as local code authorities require. Turn the shelf down 1" at the front with <sup>3</sup>/<sub>4</sub>" return at the bottom (either scribed into a partition or forming reveal). Shelf: 1" square turndown at the long rear side, integral with conveyor slider pan, tray-accumulator, or dishtable. Extend the rear/end splash to align with the head of the deposit station opening. Modify rolled rim at the operator's side of the tray drop window to have a 3" rolled rim.
- B. 18-gauge stainless steel window frame with perimeter flange channel-formed 1" x <sup>3</sup>/<sub>4</sub>" at both wall sides. Weld all corners of the frame and install with concealed attachment. Align/abut one jamb of the frame with end splash of conveyor slider pan or dishtable whenever adjacent.

### 2.16 UTENSIL – WASH COUNTERS

- A. 14-gauge stainless steel; all free edges coved up 3" with 1<sup>1</sup>/<sub>2</sub>" diameter rolled rim and bullnose corners.
- B. Edges of utensil-wash counters next to high fixtures or walls: Coved up 10" and sloped back 1½" on 45° angle; 2½" slope where piping occurs. Turn down 1" at the rear of splash and secure backsplash to the wall with 4" long 14-gauge stainless steel "Z" clip anchored to wall @ 36" OC. Vacuum breaker pockets: 4" long square turnback sections aligned with the slope break line.
- C. Exposed Rear Splash: 16-gauge stainless steel finished panel from the top of the splash to the bottom edge of the rolled rim with a welded vertical joint at the end of the splash and ½" turnback at the bottom of the panel. Secure the panel with concealed attachment and install bracing 24" OC.
- D. Cove all interior corners (horizontal/vertical) on <sup>3</sup>/<sub>4</sub>" radius and slope tables 1/8" per foot, maintaining level crown.
- E. Brace utensil-wash counters with 1" x 4" 12-gauge stainless steel channels down the centerline of the top and between each pair of legs, with closed ends.

Bracing: Secured to underside of dishtable with <sup>1</sup>/<sub>4</sub>" studs welded 6" OC. maximum, with a chrome-plated washer, lock washer, and cap nut. Studs: Such length that the cap nuts can be made up tight, bringing the dishtable down on the channel members, eliminating all vibration and "oil-canning."

- F. Integrally welded stainless steel flange or inverted gusset where service utilities or support posts penetrate or abut tops: ground and polished to match the top.
- G. Extend underbracing members to the wall, turn down 6", and anchor to the wall when specified to be mounted on a leg/bracket assembly.
- H. Hose Bibb: Chicago Model No. 305VBRCF; mounted on 12-gauge stainless steel flange or inverted gusset bracket with 3/8" stainless steel rod hose hanger.

## 2.17 DOORS

- A. 18-gauge x 1" stainless steel double pan-formed welded construction, insulated with 1" thick polyurethane boards. Seal the perimeter joint of the pans. Offset the lower horizontal framing member of the Closed Base Body to align the flush access door with the bottom of the Body.
- B. Channel-formed full-length horizontal recessed pull:  $\frac{3}{4}$ " turndown at the front and ends with  $\frac{1}{2}$ " tight hem. The front edge of the pull: Flush with the face of the door. Recess behind pull: Sloped up on a 60° angle and terminated 1" below the bottom edge of pull.
- C. Door Hardware
  - 1. Two Component Hardware Model No. M75-1002 stainless steel hinges (notch door/jamb at hinge location).
  - 2. Component Hardware Model No. 35-2000 Concealed Magnetic Catch.
  - 3. Component Hardware Model No. D30-4780 lock in the upper free corner of the door.
- D. Louvered opening: Cut-out opening size as indicated, turn in 1", and weld. All corners: Ground and polished.
  - 1. Full-height 18-gauge stainless steel louver with 1" vanes at 45°,  $\frac{1}{2}$ " spacing. Perimeter channel-formed frame:  $1\frac{1}{2}$ " x 1".
  - 2.  $45^{\circ}$  x 1" x  $\frac{1}{2}$ " x opening width plus  $\frac{1}{2}$ " 18-gauge stainless steel louver.
  - 3. Tack the louver flange's weld tab to the door's back panel.
- E. Drain handles opening: 6" diameter hole through the double pan to accommodate Cambro Model No. PSB-6 Bowl:
  - 1. Secure the bowl to the door panel with clear silicone.
  - 2. Omit the bottom of the bowl. Dress raw edges of opening for passage of drain handle.
  - 3. Exposed insulation at the penetration of the door pan: Painted black.

- F. Sliding Doors: fabricate same as Paragraph "A."
  - 1. Aluminum Sliding Door Track: Component Hardware Model No. B57-0000 Series, length as required. Secure to angle frame at the top of the underside.
  - 2. Front/rear door sheaves: Stainless steel <sup>3</sup>/<sub>4</sub>" side-mounted door hangers; two (2) required per door.
  - 3. Recessed Vertical Pull at Upper Corner of Door: Component Hardware Model No. P63-1012.
  - 4. By-Passing Door Guides secured to bottom shelf: Component Hardware Model No. B62-1093.
  - 5. Door Stop at the bottom edge of door: Component Hardware Model No. B60-1086.
- G. Offset the lower horizontal framing member of the Closed Base Body/utility compressor compartment to align the door flush with the bottom of the Body.

## 2.18 CLOSED BASE BODIES

- A. Frame: Rigid-welded 1<sup>1</sup>/<sub>2</sub>" x 1<sup>1</sup>/<sub>2</sub>" x 1/8" galvanized steel angle forming a continuous structure around the top and bottom perimeters of the fixture, a post at each corner, studs spaced 48" OC maximum. The top of the frame is cross-braced with 1<sup>1</sup>/<sub>2</sub>" angles, 2'-0" OC maximum.
- B. 18-gauge stainless steel panels and trim with concealed attachment. All seams: Welded, ground, and polished.
- C. Exposed Vertical Corners: Rounded on <sup>3</sup>/<sub>4</sub>" radius. Closed Base Bodies adjacent to walls or fixtures: square corners.
- D. Vertical and horizontal channel members at shelf interior or drawer enclosures, such as corners and center mullions: Closed and sealed.
- E. Closed Base Bodies set on finished masonry platforms: closed and caulked at the underside of equipment overhang and bolted to the platform. Body overhang of the platform: 1" at free ends and 2" at the front and exposed rear sides.
- F. Closed Base Bodies not set on the platform: Component Hardware Model No. A54-2-6, 6" legs spaced 4'-0" OC maximum.

## 2.19 COMPRESSOR COMPARTMENTS

- A. Same material as Closed Base Bodies with back and end partitions; omit bottoms only.
- B. 10-gauge steel slide-out support: Channel frame on full extension slides with 125 lb. minimum capacity secured to fixture frame with anti-vibration mountings for maximum sound deadening. Closed Base Body on the solid platform: front-to-back slide-out support channels set 4" above the bottom for air circulation.

C. Access Door: 18-gauge stainless steel double-pan type with a channel formed horizontal recessed pull full length of the top (similar profile as Garcy Model No. R-1060) with closed ends. Channel-formed horizontal pull: <sup>3</sup>/<sub>4</sub>" turndown at front and face of the door. Recess behind pull slopes up on a 60° angle, terminating 1" below the bottom edge of pull. Offset the lower horizontal framing member of the Closed Base Body to align the flush access door with the bottom of the body.

Door hardware: two Component Hardware Model No. M75-1002 stainless steel hinges (notch door/jamb at hinge locations) and Component Hardware Model No. 35-2000 concealed magnetic catch.

D. Access Doors Louver: Full-height, with 1½" x 1" x 18-gauge stainless steel channel-formed frame with welded corners. 18-gauge stainless steel louver. Submit a sample of the design for approval.

# 2.20 UTILITY COMPARTMENTS

- A. Closed Base Bodies or Pedestal Supports: Fitted with utility compartments wherever piping or wiring is required in/on the fixture.
- B. Same material as Closed Base Bodies with full-height back and end partitions. Omit bottoms except at hose-reel locations.
- C. Access Doors: 18-gauge stainless steel double-pan type with a channel formed horizontal recessed pull full-length of the top (similar profile to Garcy Model No. R-1060) with closed ends. Channel-formed horizontal pull: <sup>3</sup>/<sub>4</sub>" turn down at the front of the door, a recess behind the pull slopes up on a 60° angle, terminating 1" below the bottom edge of the pull. Offset the lower horizontal framing member of the Closed Base Fixture to permit flush alignment of the door with the face and bottom edge of the body. Door hardware: two Component Hardware Model No. M75-1002 stainless steel hinges (notch door/jamb at hinge locations) and one Component Hardware Model No. 35-2000 concealed magnetic catch.
- D. No shelves of Closed Base Fixtures are to be penetrated.

# 2.21 UTENSIL RACKS

- A. Rack: <sup>1</sup>/<sub>4</sub>" x 2" 300 series stainless steel flat bar with No. 4 finish, fully welded and formed to match the shape shown on drawings. Lowest band 7'-6" AFF unless otherwise indicated.
- B. Ceiling Mount Supports 1-5/8" diameter 16-gauge stainless steel tubing from band to 18" above the ceiling. Anti-sway bracing above the ceiling 1½" Unistrut members. Tubing penetrations at the ceiling Component Hardware Model No. A16-0206 stainless steel gussets.
- C. Table Mount Supports 1-5/8" diameter 16-gauge stainless steel tubing extended thru countertop. Secure to closed base framing or cross rail/undershelf on the open base fixture. Tubing penetrations of countertops integrally welded stainless steel inverted gusset.

- D. Utensil Rack Hooks Component Hardware Model No. J77-4401 stainless steel hooks spaced 8" OC maximum.
- E. Electrical Receptacle: NEMA No. 5-20-R or as noted. Mount in fully welded 3½" x 5½" x 3" 14-gauge stainless steel enclosure with ½" radius corners. Stainless steel cover plate to fit specified receptacle. Pre-wire thru tubular support for final connection above the ceiling by Division 26.

### 2.22 CASHIER / SERVING COUNTERS

- A. Exterior Body Panels, when specified: <sup>3</sup>/<sub>4</sub>" thick marine grade hardwood plywood with plastic laminate or solid polymer in Architect's selection of color/pattern at all exposed surfaces; backing sheet where concealed.
- B. Position, size, and finish horizontal or vertical reveal as Architect directs.
- C. Secure panels to counter body framing in a concealed manner. Install removable panels with "Z" clips overlapping body framing members.
- D. Hinged doors in exterior body panel(s) Grass Model No. 1200VZ or 1200VZ8 self-closing hinges. Three (3) required per door; Grass Model No. G/HRZ base plate at each hinge; Ives Model No. TM820 concealed push latch at each door. Confirm Model No. and provide samples with the submittal.
- E. Cashier counter to have 16-gauge s/s intermediate shelf, turned down 1 1/2" with tight hem at front. Cove up 2" at rear and sides. Brace undershelf with 1" x 4" 14-gauge stainless steel channel at the longitudinal centerline. Provide an outlet for power/data within the body above the intermediate shelf. Provide cash drawer inserts per district standards.
- F. Sneeze Guards to be adjustable and meet NSF standards.

### 2.23 OPEN BASE STRUCTURES

- A. 1-5/8" OD x 16-gauge seamless stainless-steel tubing legs beveled at the bottom. 1<sup>1</sup>/<sub>4</sub>" OD cross rails fully welded (360° smooth and polished) to legs at 10" AFF, OC.
- B. Top of Leg: Inserted in Component Hardware Model No. A20-0206 gusset fully welded to table frame or sink bottom.
- C. Bullet Foot: Component Hardware Model No. A10-0851.
- D. Freestanding fixtures requiring utility connections: Component Hardware Model No. A10-0854 flanged feet at the fixture corners, anchored to the floor with non-corrosive bolts.

- E. Table Bases: Maximum leg spacing of 6'-0" OC; dishtable and utensil wash counter bases at 5'-0" OC.
- F. Open Base equipment specified to be supported by brackets at the rear side only (not completely cantilevered): Tubular legs at the front side only with Component Hardware Model No. A10-0854 flanged feet anchored to the floor with non-corrosive bolts. Front-to-back cross rail: fitted into Component Hardware Model No. A20-0406 circular gusset secured to the wall with non-corrosive bolts.

### 2.24 UNDER SHELVES

- A. Open Base Structures: 16-gauge stainless steel turned down  $1\frac{1}{2}$ " with tight hem at the bottom. Notch all corners to fit tubular legs and weld from the underside to fill the gap, grind, and polish. Cove up 2" at the rear or ends adjacent to wall, columns, refrigerators, etc. The turn-up at freestanding fixtures is to be hemmed tight to the bottom of the turndown. Brace undershelf with 1" x 4" 14-gauge stainless steel channel at the longitudinal centerline and each intermediate pair of legs.
- B. Open Base Structure specified to be supported by brackets at the rear side only (not completely cantilevered): 16-gauge stainless steel turned down 1 ½" at free sides with tight hem at the bottom edge. Notch all corners to fit tubular legs as required and weld from the underside to fill the gap, grind, and polish. Cove up 2" at rear ends, as indicated. Fill the gap at the front-to-back rail, grind, and polish. Brace undershelf with 1" x 4" x 1" 14-gauge stainless steel channel at longitudinal centerline between front to back rails.
- C. Closed Base Fixtures: 16-gauge stainless steel turned down 1½" at front. Front edge of bottom shelf: Turned back and sealed to finished masonry platform or boxed for leg application. Center shelf has ¾" tight hem.
  - 1. Shelves: Turn up square at ends (coved up at rear only) to the shelf above or countertop flanged out for attachment with no open spaces at interior.
  - 2. All shelf partitions at exposed ends of cabinet bodies or interiors: Free of exposed framing members.
  - 3. Reinforce shelves with full-length 1" x 4" x 14-gauge stainless steel closed hat channel.
  - 4. Unless otherwise noted, all closed base undershelves must be 22" deep and clear.
  - 5. Fully weld smooth and polish the vertical seam of the shelf turndown/turn up with the face of the body partition.
  - 6. Seal the vertical seam of the square turn-in at the exposed interior of open shelf sections.

## 2.25 ANCHOR PLATES / WOOD GROUNDS

A. Behind the finished surface, wherever building walls, partitions, or ceiling construction will not accommodate direct attachment of equipment such as over shelves, wall cabinets, hose reels, utensil racks, exhaust hoods, display cases, etc. Material and installation by General Contractor. Location and coordination with trades by Section 11 40 00.

- B. Anchor Plates: Not less than 12" x 12" x 1⁄4" thick steel, secured to the structure above or behind the finished surface, positioned at attachment points.
- C. Wood Grounds: Length required by fixture, component, or device, 24" wide x ¾" thick plywood secured to partition system before gypsum board installation.
- D. Above ceiling supports: Structural shapes (4" x 8.0 lb. channel) suspended from the structure. Maximum height 15'-0" AFF. Size: width of equipment x length of equipment plus 6'-0". Cross bracing at 6'-0" OC maximum.

## 2.26 OVER SHELVES

- A. 16-gauge stainless steel with free edges turned down 1" with  $\frac{1}{2}$ " tight hem at the bottom— $\frac{3}{4}$ " radius at free corners.
- B. Turn up 2" raw at walls and sides with a horizontal coved corner at the rear. Round front corners of turn up on <sup>3</sup>/<sub>4</sub>" radius.
- C. Where shelf width exceeds 12" width, reinforce with  $\frac{1}{2}$ " x 4" x 14-gauge stainless steel closed hat channel full-length of the shelf.
- D. Wall-Mounted Shelves: 16-gauge stainless steel brackets 48" OC maximum, set in 6" from ends.
- E. Freestanding Shelves: Where splash is required at free over shelves, turn up square 2" at ends, cove up at the rear, and hem tight to lower edge of front turndown. Weld exposed corners.
  - Freestanding over shelves: 16-gauge stainless steel cantilevered brackets at the rear of the table; double-cantilevered brackets at the center of the table. Posts for cantilevered over shelves are 1-5/8" OD x 16-gauge stainless steel secured to the underframe, 4'-0" OC. Ends of shelves: Secured to adjacent wall/fixture or mounted on 1¼" diameter stainless steel posts.
  - 2. Freestanding over shelves not on cantilevered brackets: 1<sup>1</sup>/<sub>4</sub>" OD x 16-gauge stainless steel posts, each pair at 4'-0" OC maximum.
- F. Baker Table Over shelves: Supported 18" above the top with 1¼" OD stainless steel tubular supports with channel shoe secured to risers.
- G. Glass/Cup Rack Over shelf at Dishtables: 14-gauge stainless steel with 1½" deep "vee" trough at free long sides with 1" tight hem inside the trough. Provide a ½" marine edge at free ends and; a 4" splash at the wall. Suspend shelf at 18" above dishtable surface on posts/brackets anchored to dishtable frame/wall at rear; 1" OD stainless steel tubing supports from the structure above the ceiling at front edge, 60" OC at each end.
  - 1. Install at both ends a ½" stainless steel drain tube (connecting both vee-troughs) extended to the dishtable surface through splash turnback.
- 2. Rack-rest: horizontal full-length 1-5/8" OD stainless steel tubing supported at 10" OC above shelf (8" OC for double service shelf) by 1¼" OD stainless steel tubing with closed ends. Support tubing: welded, ground, and polished, spaced 60" OC.
- 3. Rack-rest supports to wall: 4" x 4" x 10-gauge stainless steel flange plates welded to support tubing. Anchor flanged plates to blocking ground with non-corrosive bolts.

### 2.27 DRAIN TRENCH LINER / GRATING

- A. Liners: 14-gauge stainless steel in sizes as indicated.
- B. Interior of liners: 6" deep with all interior corners (horizontal/vertical) coved on <sup>3</sup>/<sub>4</sub>" radius; sloped and scored 1" to integrally welded Component Hardware Model No. D34-Y011 basket drain assemblies @ 48" OC, fitted with 6" long welded tailpiece. Stainless steel safety chain: connected to basket strainer assembly and top of liner wall.
- C. Liners: 1" wide perimeter shoulder at the top, turned up flush with finished floor, tight hemmed back down to the shoulder level, and flanged out 2" for attachment to the slab.
- D. Underside of sloping liner portion: 2" long "Z" clips.
- E. Grating: IMC-TEDDY PFD-ADA removable fiberglass grating:
  - 1. 1" deep "I" bearing bars with 0.6" wide top flange.
  - 2. Full perimeter frame, section quantities, and sizes indicated.
  - 3. Maximum of 2'-0" sections.
  - 4. Grating bars should be spaced 0.4" apart per ADA requirements.
  - 5. Grating to be two (2) equal sizes.

### 2.28 WALL PANELS

- A. Wall Panels: 18-gauge stainless steel, double pan-formed ½" thick with internal stiffener members. Fill with USDA-approved thermal insulation, full height, and width of panels, and attach to the interior with mastic. The maximum allowable temperature at the rear side of the panel: is 120°F.
  - 1. Height of panels as required: Top of tile base to the underside of the hood, top of tile base to the top cap of stub wall, or top of splash to the underside of the hood.
  - 2. Level and square lower edge and sides.
  - 3. Butt joints on all panels.

### 2.29 EXHAUST HOODS (SURFACE-MOUNTED CONDENSATE)

A. Hoods: Size/shape as indicated: 18" high on the interior.

- B. Body: 16-gauge stainless steel, with all seams welded, ground, and polished.
- C. Continuous condensate trough at perimeter: 3" x 1".
- D. Frame the top of the hood with  $1\frac{1}{2}$ " angle iron assembly and suspend from the structure above the ceiling by  $\frac{1}{2}$ " diameter steel rods, drawn tight against the finished ceiling surface.
- E. Duct opening/collar as specified with stainless steel louvered grille over the opening.
- F. Div. 22 to extend drain line to floor sink when shown. The drain line is to be silver painted. Div.
  22 to ensure all drain lines are centered over floor sink grate openings and no water splashes on the floor.
- G. <sup>1</sup>/<sub>2</sub>" diameter steel hanger rods at 4'-0" OC maximum to be by Kitchen Equipment Contractor, but they are to be anchored to the supporting structure (or slab) by the General Contractor in the locations required by exhaust hood shop detail.
- H. Hoods and components to meet all NSF standards, NFPA 96, UL 710 and current IECC requirements.

### 2.30 EXHAUST HOODS (UNLESS SPECIFIED OTHERWISE)

- A. Exhaust to be provided to meet all current local jurisdiction mechanical and energy code requirements. Kitchen Equipment Contractor to verify code requirements and coordinate with Divisions 23 and 26. Hoods over production equipment to be Type 1 with continuous capture. All Type 1 hoods should be 6' deep to ensure smoke/steam capture unless otherwise noted.
- B. Install fire suppression system(s) in all ventilators specified in this section. Install per the manufacturer's recommendations and applicable codes or standards. Submit installation certification form to Architect.
- C. Locate chemical cylinders as indicated on drawings and install piping to exhaust hood(s) in a concealed manner. Set cylinders and cabinets at 7'-0" clear AFF unless noted otherwise. Provide polished chrome plated tubing piping/fittings, where exposed at cylinder location and at the interior of exhaust ventilator—exposed pipe threads in/above the food zone are not allowed. Submit a schematic installation diagram and confirm critical distances from cylinders to nozzles.
- D. Remote manual release located in the path of egress from the protected exhaust hood area. Kitchen Equipment Contractor to coordinate location with local Fire Marshal requirements before submittal review. All conduits will be recessed within the wall; SURFACE MOUNTING WILL NOT BE ACCEPTED.
- E. Provide one (1) handheld Type 'K' and ABC 6-liter fire extinguisher per Ansul system, surface wall mounted.
- F. Required quantity and sizes of mechanically operated gas valves.

- G. Confirm interconnection of all equipment as required to ensure exhaust hood and fire suppression systems are entirely operational and meet local jurisdiction code requirements.
- H. <sup>1</sup>/<sub>2</sub>" diameter steel hanger rods at 4'-0" OC maximum to be by Kitchen Equipment Contractor, but they are to be anchored to the supporting structure (or slab) by the General Contractor in the locations required by exhaust hood shop detail.
- I. Provide an appropriate quantity of fire suppression systems as required by local jurisdiction code requirements.
- J. Double wall insulated construction at ends. S/S where exposed.
- K. Hoods and components to meet all NSF standards, NFPA 96, UL 710 and current IECC requirements.
- L. Refer to Section 1.4: OTHER DIVISIONS/CONTRACTORS RELATED WORK; Subsection E. Division 23 (Mechanical) for additional information.

### 2.31 HIGHLIGHTING

- A. Polish the following vertical surfaces to a No. 8 finish:
  - 1. Serving and display shelf turndowns.
  - 2. Conveyor and dish/tray deposit station turndowns/frame.
  - 3. Tray slide turndowns.

### 2.32 SHOP / FIELD JOINTS

- A. Field joints: The least number is used only when equipment size must be limited for building or interior space access.
- B. Stainless steel tops (including edges and splashes): Fully welded, ground, and polished to match adjacent surfaces.
- C. Vertical field joints of fixture backsplashes that are inaccessible from the back: terminate 1" above the horizontal coved corner. The remaining height of the field joint: hairline butt joint with offset draw-angle behind. All horizontal/vertical draw joints: located and noted on shop drawings.
- D. Hairline butt joint: 1½" x 1½" x 1/8" steel angles welded to the back/underside of countertop/shelf. Offset angle beyond joining metal edge ½" (min.) to provide a flat backing surface for a joint with the angle of other joining metal edge, set for ½" space between vertical legs of angles. Bolt sections together with 5/16" machine bolts, lock washers, acorn head cap nuts, set 3" OC.
- E. Closed Base Bodies: Draw-type with hairline seam fully field-welded.
- F. Millwork: Plastic laminated joints shall be dowelled, glued, and draw-bolted with fasteners.

G. Solid Polymer: Surfaces drawn tight, filled, sanded, and finished to match adjacent surfaces.

### 2.33 PREFABRICATED COLD STORAGE ASSEMBLIES

- A. Assembly to be installed by Factory Authorized Installers only.
- B. KEC to provide a 1-year cold storage assembly panel installation warranty. Panel installation warranty to cover labor and part replacement issues resulting from a failure to complete the following during installation:
  - 1. Cold Storage Assembly panels to be installed square, plumb, and level.
  - 2. To create a proper seal, ceiling panels must be installed flush and tight to wall panels with undamaged gasket material. Any signs of condensation at joints or assembly walls should be reported to FDP and addressed immediately. Caulk at panel seams will not be an acceptable solution.
  - 3. All cam-locks should be engaged and cam-lock covers in place.
  - 4. Any gaps under the floor angle (due to shimming) must be entirely sealed to the slab.
  - 5. All penetrations in the ceiling or wall panels should be insulated and sealed by appropriate trade contractors and verified by KEC, including but not limited to Light Fixtures, Refrigeration Lines, Sprinklers, Temperature Sensors, etc.
  - 6. Proper installation of the door systems should allow the door to self-close and seal around the perimeter of the door opening and at the floor threshold.
  - 7. Final operation of the IC/IC+ control, door heaters, and light switches should be confirmed upon completion of the electrical connections.
  - 8. The cold storage assembly panel installation warranty will cover service issues resulting from faulty installation.
- C. KEC is responsible for overall install accuracy/quality and quality control of work performed regardless of installer or any field modifications due to building/construction conditions.

KEC is to provide a Letter of Install Approval to Foodservice Design Professionals (FDP) upon completed installation, verifying that all items above have been inspected by the KEC for completeness and installed per manufacturer requirements. This letter will be required as part of the completion of the contract.

- D. Sectional Assemblies: Size/shape indicated on drawings; 9' AFF unless otherwise specified. Door locations/size: exactly as shown.
- E. Sandwich Panel Insulation: Class 1 Urethane with a vapor barrier, 4" thickness with mature "U" factor of .030 or lower.
- F. Wherever compartment dimension exceeds the clear-span ability of ceiling panels, provide lbeam support on the exterior of the ceiling or spline-hangers. Install ½" diameter steel rods

through beams/hangers and secure them to the structure above. Beams or posts within compartments are not acceptable.

- G. Reinforce prefabricated wall panels to rigidly support the door assemblies—all door jambs are furnished with replaceable full-perimeter thermostatically controlled heater cables. Install 2" x 4" 16-gauge stainless steel hat-channel full-width of the jamb with 1/8" stainless steel removable flush sill, secured with stainless steel screws and sealed watertight to channel.
- H. Provide an aluminum cove base at the interior and exterior of exposed panels for all floor assemblies.
- I. Floor Installations:

### 1. **4**" Recessed Exposed Factory Floor Installation (if required):

- a. Six mil polyethylene sheets in slab recess with all joints lapped 6 inches and sealed to form a watertight seal.
- b. Level and square prefabricated perimeter and partition wall panels anchored to slab recess. Protect the exposed surface of panels.
- c. 4" commercial grade manufacturer's dura floor with diamond treadplate surface and marine grade plywood subfloor.
- d. 15# felt slip sheet over insulation with 6" lapped joints flashed up the height of the finished floor base.
- e. 1/2" sand leveling bed by G.C.

### 2. 8-1/2" Recessed Floor Installation (if required):

- a. Six mil polyethylene sheets in slab recess with all joints lapped 6 inches and sealed to form a watertight seal.
- b. Level and square prefabricated perimeter and partition wall panels anchored to slab recess. Protect the exposed surface of panels.
- c. 4" manufacturer's floor.
- d. 15# felt slip sheet over insulation with 6" lapped joints flashed up the height of the finished floor base.
- e. 1/2" sand leveling bed by G.C.
- f. Concrete flooring and tile over insulation by Divisions 03/09.

### 3. **12**" Recessed Floor Installation (if required):

a. Six mil polyethylene sheets in slab recess with all joints lapped 6 inches and sealed to form a watertight seal.

- b. Level and square prefabricated perimeter and partition wall panels anchored to slab recess. Protect the exposed surface of panels.
- c. 4" manufacturer's floor.
- d. 15# felt slip sheet over insulation with 6" lapped joints flashed up the height of the finished floor base.
- e. 1/2" sand leveling bed by G.C.
- f. Concrete flooring over insulation by Division 03:
  - i. Concrete mix: 5000 psi @ Freezers and 3000 psi @ Coolers.
  - ii. No limestone or fly ash; fiberglass reinforced.
  - iii. #3 rebar, set on 12" centers in both directions.
  - iv. Center rebar vertically in wearing bed.
  - v. 10" high concrete 45° angled wall curb at interior perimeter per food service details.
- g. Diamond treadplate wall panels on the interior and exposed exterior by 11 40 00. Refer to drawings for height. Coordinate diamond treadplate wall covering at the interior with angled wall curb.
- h. Ventilation Pipe Requirements by G.C.:
  - i. Bottom perforated vent pipes to be #40 PVC on six ft. max centers open on both ends with the thermostatically controlled fan on (1) end and perforated mesh on the opposite end of the fan at the exterior of the building.
  - ii. Vent pipes to turn parallel with exterior wall 180° turn down.
  - iii. Vent pipe openings to be held at 24" above grade or roof per design.
  - iv. Fans to be Grainger Manufacturer and sized per airflow needs. Airflow is to be sized based on the length and number of bends.
  - v. If no exterior wall is adjacent, vent pipes will route up and extend past the roof. Roof penetrations by Division 07.

### 4. Surface Mounted Factory Floor Installation (if required):

- a. 4" commercial grade manufacturer's dura floor with diamond treadplate surface and marine grade plywood subfloor.
- b. 36" reinforced diamond treadplate internal ramp.

- c. 10-gauge stainless steel threshold to provide a smooth transition to the interior cold storage assembly floor.
- J. Modularm Model No. 75LC (unless otherwise specified) temperature monitor/alarm with sensor and probe-cord length required to extend from the exterior front of the assembly to a mounting position of the sensor within the evaporator return airstream. The system is to be interconnected to the building's alarm system (by Division 27) and to notify facility personnel of the district/owner choosing when activated.
- K. Modularm Model No. IP-1 (unless otherwise specified) Illuminated Push Button and Entrapment Alarm interconnected to Edwards 860 Series Strobe Beacons (Strobes by Div. 26) in Kitchen above freezer and in Cafetorium. The system is to be interconnected to the building's alarm system (by Division 27) and to notify facility personnel of the district/owner choosing when activated.
- L. Cooper Atkins Temp Track smart system (unless otherwise specified) <u>for hospital applications</u>. Confirm all component model numbers for complete installation and operation.
- M. LED surface-mounted light fixture, in quantity/arrangement shown on drawings—light fixtures to be perpendicular to coils. Light fixtures wired to interior and exterior temperature control panel. Light fixtures are to be provided by Section 11 40 00 and installed by Division 26. Division 26 is to seal all conduit penetrations at light fixtures. KEC to verify that penetrations are sealed.
- N. Penetrations of Panels: To be sealed by factory installer and appropriate trade contractors, with Dow Corning 3-6548 silicone RTV foam, total depth of the panel. Trim excess flush. KEC to verify that all penetrations are sealed.
- O. Install closure panels and trim strips to building walls and ceiling with concealed attachment. Closure material: same as wall panels unless noted otherwise.
- P. Compartment Entrance Doors: 36" x 78" nominal clearance unless otherwise noted.
  - 1. Mount hinged doors on two Kason Model No. 1346; polished chrome-plated nylon camlift hinges.
  - 2. Hinge doors as indicated on drawings.
  - 3. Defrost heater: Thermostatically controlled and replaceable at the entire perimeter of all doors, except when using clear Lexan doors (in addition to door jambs). Defrost heaters to be wired for continuous service.
  - 4. 36" high x full-length diamond aluminum treadplate at front and rear of all hinged doors.
  - 5. 12" x 2" engraved phenolic plastic compartment identification sign in Architect's color selection with 1" letters, mounted above door window.
  - 6. 14" x 24" four-panel glass view window with heater and molded non-metallic inner and outer frame. The heater is to be wired for continuous service.

- 7. Padlock/key provisions in the door latch with safety release mechanisms as listed below.
- 8. Kason 1826 Intelli-Vent LED Heated Pressure Relief Ports with Dual Port Vent and Security Light. Locate One (1) 12" below ceiling on cooler/freezer common wall panel and One (1) 12" below ceiling on cooler wall panel. If Cooler and Freezer are separate units, locate one on the freezer wall panel as well, 12" below ceiling and mounted in the door frame assembly. All ports to have separate dedicated electrical connections and be wired for continuous service.
- 9. Kason Model No. 0487 (unless specified otherwise) Frost Free inside release with fiberglass rod and plastic flange with safety flow plastic knob ADA compliant.
- 10. Manual backup vacuum release mechanism to punch hole in wall assembly to release vacuum within freezer assembly. Mechanism to include a pull-down handle with freezeproof hand grip. Handle to have the ability to penetrate and/or punch hole in wall accordingly to assist with opening of door assembly in the event of entrapment (and failure of frost free inside release button). Wall panel to include knock-out section to assist with requirements. Release mechanism assembly to be built-in/mounted to the door assembly structural frame to minimize mechanism tear-out and/or failure. Handle to be painted yellow with phenolic label "Vacuum Pressure Release."
- Q. Provide refrigeration calculations and refrigeration alarm to meet local jurisdiction code requirements.
- R. If air screens or air shields are specified above doors or on the interior of the assembly, the manufacturer must provide adequate blocking in panels to support these components and prewired electrical connections. Installer to coordinate location of door closure to not interfere with air screens or air shields. Clear-VU swinging door assemblies are not required if <u>air shields</u> are specified.
- S. S/S trim above cold storage assembly to conceal manufacturers ceiling grid.
- T. Field-check all horizontal/vertical measurements and conditions at the building before fabrication or delivery of equipment.
- U. Cold Storage Assemblies to be installed by the PRE-APPROVED INSTALLERS listed below:
  - 1. QBR Refrigeration, 30083 Hwy 90 Blvd., Katy, TX 77493, Mr. Andy Spellins, 713-973-2875, andy.spellins@qbrsales.com
  - 2. Machine Ice, 8915 Sweetwater Ln., Houston, TX 77037, Mr. Will Weaver, 281-448-7823
  - 3. Coolers Inc., 6922 Alder Dr., Houston, TX 77081, Mr. Lee Mamone, 713-665-8886

# 2.34 COLD STORAGE REFRIGERATION SYSTEMS

A. Unit Coolers: specified quantity and model, ceiling-hung by ½" OD nylon bolts with stainless steel washers and nuts. Insert hanger bolts through the plastic sleeve and seal penetration airtight.

- 1. Unit cooler drain fittings: positioned as indicated on drawings. Installation of cast teefittings on drain pan outlet with union and cleanout plug and extension of 1" Type K copper drain line through wall panel to air-gap fitting or floor drain under this Section.
- 2. Slope drain line  $\frac{1}{2}$ " per foot, trap at the exterior of assembly and turn down into the drain. Manifold drain lines of adjacent compartments wherever possible.
- 3. Install drain line plastic sleeve through compartment wall, seal around drain line, and install stainless steel escutcheon with setscrews.
- 4. Electric drain line heater cable (self-regulating 7 watts): on all unit coolers operating below 36°F., installed from coil drain line fitting to wall penetration under this Section. Heater cables: the minimum rating of 15 watts/lineal foot, 208 volts, single phase. Wrap drain line with maximum 2" loop spacing and interwire to unit cooler for continuous operation.
- 5. Mounted, pre-piped, and pre-wired evaporator components:
  - a. Sporlan thermostatic expansion valve with external equalizer.
  - b. Shut-off valve at evaporator suction and liquid lines.
  - c. Sporlan "Catch-All" refrigerant filter/dehydrator on liquid line.
  - d. White Rogers 1609-101 adjustable thermostat with remote bulb positioned in return airstream of the evaporator.
  - e. Electrical disconnect switch in NEMA 4 enclosure.
  - f. **For any facility within 20 miles of a salt air environment:** Condenser and Evaporators to be built with Electrofin coating to retard salt air deterioration. Coils are to be coated with Technicoat 10-2 coating for protection against a salt air environment.
- 6. Two (2) fan door activation switches to turn off evaporator coils when the door is opened.
- B. Refrigerant System Installation:
  - 1. Refrigerant Lines; Type "L" rigid copper tubing. Fittings: Wrought copper or brass designed for use with high-temperature solder. Piping joints: Made with silver solder (Sil-Fos). Piping: Properly suspended from and anchored to the structure with adjustable hangers 6' OC maximum. Suction lines: Sized to have a maximum pressure drop of two pounds in medium-temperature systems; one pound in low-temperature systems. Liquid lines: Sized to give maximum pressure to prevent trapping of oil. Insulation on all suction lines: Armaflex insulation by Armstrong. <sup>3</sup>/<sub>4</sub>" thick at medium-temp 1" thick at low temp. Refrigerant lines in PVC conduit: Sealed at both ends with Dow Corning 3-6548 silicone RTV foam. The refrigeration system installer will wrap Exterior Refrigerant Lines in the self-fastening jacket of Type 3003-H14 aluminum alloy 0.016-inch thick. Provide aluminum strapping and seals for applying aluminum jackets

and covers according to the manufacturer's recommendations for a completely weathertight covering.

- C. Evacuation and Charging:
  - 1. After completion of the pressure test, the system shall be evacuated using an approved auxiliary vacuum pump. Connections for evacuation: Following the manufacturer's recommendations.
  - 2. Charging after the initial charge, which is contained in the condensing unit (R448A Non-CFC Ozone Depletion Refrigerant for medium and high temp units, R513A Non-CFC Ozone Depletion Refrigerant on low temp units) (Refrigerant must meet District Standards, Industry Standards, and local Codes): given through the charging valve in the high side passing all of the liquid refrigerants through a charging dehydrator. All charging lines and gauges must be purged of air before connection with the system. Refrigerant: unused and shall be delivered in clean containers. After the system is fully charged: start and place it in full operation.
- D. Refrigeration system to be installed by the **PRE-APPROVED INSTALLERS** listed below:
  - 1. QBR Refrigeration, 30083 Hwy 90 Blvd., Katy, TX 77493, Mr. Andy Spellins, (713) 973-2875, <u>andy.spellins@qbrsales.com</u>
  - 2. Machine Ice, 8915 Sweetwater Ln., Houston, TX 77037, Mr. Will Weaver, (281) 448-7823
  - 3. Coolers Inc., 6922 Alder Dr., Houston, TX 77081, Mr. Lee Mamone, (713) 665-8886

### 2.35 PRE-APPROVED KITCHEN EQUIPMENT CONTRACTORS

A. Only the following named Subcontractors and those approved later, if any, are approved for inclusion in the Contractor's Bid.

# B. Any contractor requesting inclusion within this bid must submit AIA form 305 a minimum of 14 days before the bid date for review or as required by Architect.

- 1. Stafford Smith, Mr. JP Garcia, 7129 North Loop East, Houston, TX 77028, (713) 892-5001, E-mail: jpgarcia@staffordsmith.com
- Kirby Restaurant Supply, Mr. Billy Anderson, 809 S. Eastman Road, Longview, Texas 75602, Phone: (903) 757-2723, Fax: (903) 757-9519, Email: <u>billya@kirbyrestaurantsup.com</u>
- 3. Mission Restaurant Supply, 1126 S. St. Mary's Street, San Antonio, Texas 78210. Mr. Brian Mosher, Phone (210) 354-0690, Fax (210) 354-0746, E-mail: brianM@missionrs.com
- 4. Kommercial Kitchens, Mr. Terry Woodard, 13544 East Fwy., Houston, TX 77015, (409) 769-1199, E-mail: <u>terry@kommercialkitchens.com</u>

- 5. Amundsen Commercial Kitchens, Mr. Lewis Beville, 105 Montie, Longview, TX 75604, (903) 576-6354, E-mail: <u>lewis@afeok.com</u>
- 6. Supreme Fixtures Co., Inc., Mr. Tim Hampel, 11900 Vinny Ridge Road, P.O. Box 193655, Little Rock, AR 72219, Phone: (501) 455-2552, Fax: (501) 455-0802, E-mail: tim@supremefixture.com

### 2.36 PRE-APPROVED STAINLESS-STEEL FABRICATION SUPPLIERS

A. Only the following named Subcontractors and those approved later, if any, are approved for inclusion in the Contractor's Bid.

# B. Any supplier requesting inclusion within this bid must submit AIA form 305 at least 14 days before the bid date for review or as required by Architect.

- 1. Texas Metal Equipment Company, Mr. Andrew Harman, 6707 Mayard, Houston, Texas 77041, (713) 466-8722, Fax: (713) 466-0166
- 2. Kommercial Kitchens, Mr. Terry Woodard, 13544 East Fwy., Houston, TX 77015, (832) 767-5287
- Mission Restaurant Supply, 1126 S. St. Mary's Street, San Antonio, Texas 78210. Mr. Brian Mosher, Phone (210) 354-0690, Fax (210) 354-0746, E-mail: brianM@missionrs.com

### PART 3 - EXECUTION

#### 3.1 DELIVERY AND INSTALLATION

- A. Supervision: Provide a skilled and proficient foreman or supervisor who shall remain on the job during the entire installation.
- B. Delivery: Coordinate with the progress of construction and Owner's operation schedules. Unless otherwise instructed and documented by Owner or General Contractor, the following procedures apply:
  - 1. Field-Assembled Fixed Equipment integrated into the structure (e.g., cold storage assemblies, exhaust hoods, drain trench/grate assemblies, conveyor systems, ceiling-mounted utensil racks, etc.) are to be sent to the job site when directed by the General Contractor and installed/protected accordingly.
  - 2. All other Fixed Equipment: delivered after completion of work on adjacent finished ceilings, lighting, finished floor and wall systems, including painting.
  - 3. Major Movable Equipment: delivered, when possible, to inventory in a secured area for interim job-site storage or, if the secured area is unavailable when fixed equipment installation/clean-up has been completed.
  - 4. Minor appliances and loose items (e.g., pans, covers, flatware containers, etc.) should be delivered only when the Owner is prepared to receive and inventory such items.

- C. Installation: performed by the manufacturer of custom fabricated fixtures.
  - 1. Assemble, square, level, and ready all items for the final utility connections.
  - 2. Cut neatly around obstructions to provide sanitary conditions.
  - 3. Where gaps of ¼" or less occur adjacent to or between equipment, insert rope backing and smoothly applied General Electric construction sealant Series SE-1200 silicone mastic (silver color). Mask both sides of the gap for neat sealant application and remove excess. If space exceeds ¼," neatly install 18-gauge stainless steel trim molding of proper shape with concealed attachment. Use epoxy cement or "Z" clips wherever possible to secure stainless steel trim. Exposed edges or corners of trim: eased and smooth.
  - 4. Refrigeration coil drain line runs to an indirect drain connection greater than 2" from the face of the wall or panel: Either of the following field procedures:
    - a. Trench the floor and provide a 6" wide x 2" deep 16-gauge stainless steel sloping (-1" to -2") trough from the face of the cooler/freezer wall to the body of the floor sink/floor drain. Trough: turned up 4" at the wall; <sup>3</sup>/<sub>4</sub>" flange with <sup>1</sup>/<sub>2</sub>" turndown at both long sides. Set trough in waterproof mastic and seal 1" OD drain tube penetration into floor sink/floor drain at -2<sup>1</sup>/<sub>2</sub>" BFF. Patch the floor to match adjacent material/surface.
    - b. Provide 12" x 6" x 2" deep 16-gauge stainless steel condensate pan mounted to cooler/freezer wall at 6" AFF clear. Trench the floor and install a 1" OD drain line from the bottom of the pan to the body of the floor sink/drain. Slope drain line ¼" per foot and seal all connections watertight. Patch the floor to match adjacent material/surface.
- D. Protection of Work:
  - 1. Fabricated fixtures: Fiberboard or plywood taped to tops and exposed body panels/components.
  - 2. Manufactured Equipment: Fiberboard or plywood taped as required by equipment shape and installation-access requirements.
  - 3. Prohibited use of equipment: Tool and materials storage, workbench, scaffold, stacking area, etc.
  - 4. Damaged Equipment: Immediately documented and submitted to the Owner with the Contractor's recommendation of action for repair or replacement and its impact on the Project Schedule and Contract Amount, if any.

## 3.2 CLEAN AND ADJUST

- A. Clean up and remove all debris from this Work from the job site as the installation progresses.
- B. Lubricate and adjust drawer slides, hinges, and casters.

- C. Adjust pressure regulating valves, timed-delay relays, thermostatic controls, temperature sensors, exhaust hood grilles, etc.
- D. Clean or replace faucet aerators and line strainers.
- E. Touch-up damage to painted finishes.
- F. Startup and check the operation of all refrigeration systems for at least 72 hours before acceptance.

### 3.3 EQUIPMENT START-UP/DEMONSTRATION

- A. Carefully test, adjust, and regulate all equipment following the manufacturer's instructions and certify in writing to the Owner that the installation, adjustments, and performance are in full compliance.
- B. Provide the Owner or food service Operators with a thorough operational demonstration of all equipment and furnish instructions for general and specific care and maintenance. Coordinate and schedule selected equipment items and attendees with the Owner at least two weeks before the demonstration starts.

### 3.4 FINAL OBSERVATION

- A. Final observation will be made when the Contractor certifies that they have completed their work, thoroughly reviewed the installation/operation of each item in the contract, and found it to comply with the Construction Documents.
- B. Repetitive final observations (more than two) and all costs associated with it which may be incurred due to the Contractor's failure to comply with the requirements of this Article will be invoiced to this Contractor on a \$70.00/hr and expense basis.

### PART 4 - EQUIPMENT SCHEDULE

- 4.1 REGULARLY MANUFACTURED EQUIPMENT/COMPONENTS: Standard finishes and accessories unless specifically deleted or superseded by the Contract Documents.
- 4.2 FABRICATED AND FIELD-ASSEMBLED EQUIPMENT: Arrangement and configuration as shown on Plans, Elevations, Detail Drawings, and outlined in Specifications.
- 4.3 REFER TO DRAWINGS: For unit quantities and plumbing, electrical or mechanical provisions are required, including the manufacturer's optional voltages, wattages, burner capacities, etc.
- 4.4 REFER TO PART 2 PRODUCTS: For accessories, fittings, requirements, and procedures related to the listed buy-out and fabricated equipment.
- 4.5 ALTERNATE MANUFACTURER REQUIREMENTS: A specific product manufactured by the listed pre-approved equals shown under Section 4.7 Food Service Equipment are acceptable only if the specific product can evidence compliance with the specified line items and the contract documents (Refer to Section 1.6; Sub-Section A.).

### 4.6 RE-USED EXISTING EQUIPMENT IF SHOWN

- A. Existing equipment scheduled for re-use is to be inventoried and documented that equipment is in operating condition once Kitchen Contractor has taken ownership.
- B. Provide pictures of all equipment once inventoried and issue them to the architect to ensure that equipment has not been damaged.
- C. Verify the locations of all equipment with the owner.
- D. Existing equipment that is to be reused may need parts or accessories for proper and complete operation. Submit a report listing all items with pricing for approval to allow complete installation.
- E. Utility disconnection and re-connection: Under Divisions 22 and 26. Kitchen Contractor to verify utility requirements of existing equipment and coordinate with Foodservice Design Professionals (FDP) as required. All utilities not scheduled for re-use must be capped and covered by required disciplines.
- F. Disassembly, removal, transportation, and relocation: under this Section and scheduled with General Contractor. The owner's representative must be present and coordinate the date/time with the owner.
- G. Thoroughly clean inside and out before relocation.
- H. Review functional parts (e.g., doors, controls, heating elements, compressors, etc.) and submit a report of required repairs and cost estimates. Any finishes or equipment damaged due to construction will be repaired as required.
- I. Existing equipment not scheduled for reuse is to be carefully removed/relocated by the Kitchen Contractor per the Owner's direction. Kitchen Contractor to coordinate the date/time with General Contractor and Owner.

- J. Removal or replacement of existing equipment is to be scheduled for times of least interruption and inconvenience to the food service operation. Submit the proposed time frame schedule, task sequence, and process for approval before starting work.
- K. Kitchen Contractor to verify size and shape for all existing re-used equipment and coordinate with Foodservice Design Professionals (FDP) as required.
- L. Any modification(s) required/desired for re-used existing equipment to be verified by the Kitchen Contractor. Before the changes are made, all modifications must be approved by the Owner and Foodservice Design Professionals (FDP).
- M. The KEC is to verify and coordinate all the utility requirements with the construction documents as required. Refer to the general specifications regarding conflicts.

### 4.7 FOOD SERVICE EQUIPMENT

- A. All equipment is to have a performance check from factory-authorized personnel. Warranties will begin on the day of the performance check.
- B. All equipment and internal components should be of domestic origin where possible.
- C. Architectural coordination items for <u>potential</u> Food Service color, material or signage selections:
  - 1. Countertops: Stone (stainless steel is provided unless otherwise specified)
  - 2. Tray slides: Corian or Stone (stainless steel is provided unless otherwise specified)
  - 3. Counter fronts: Ceramic tile, 3 Form, or Plastic Laminate
  - 4. Sneeze Guards: Stone insets
  - 5. General color, material and graphic selections:
    - a. Display Air Screen Merchandisers Color selection: Powder Coat or Plastic Laminate (stainless steel is provided unless otherwise specified)
    - b. Bakery Display Cases Color selection: Powder Coat or Plastic Laminate (stainless steel is provided unless otherwise specified)
    - c. Pass Thru or Reach In Holding Cabinets Color selection: Powder Coat (Mfg.: True) or Plastic Laminate (Mfg.: Traulsen) (Stainless steel is provided unless otherwise specified)
    - d. Hanging Heat Lamps Track and Fixture color selection
    - e. Heated Merchandisers
    - f. Portable Guide Rails Stanchion and Belt color selection
    - g. Popcorn machine Signage selection

- h. Bottle Cooler Signage selection
- i. Graphics Package information
- j. Hot Food Well covers
- D. General Architectural finishes:
  - 1. Walls: Ceramic Tile, Flat FRP, or Molded FRP (Smooth, Impervious, and easily cleanable as approved by local jurisdiction)
  - 2. Ceilings: Removable Vinyl Face Tile (Smooth, Impervious, and easily cleanable as approved by local jurisdiction)
  - 3. Floors: Tile, Epoxy, or Rubberized flooring system (Smooth, impervious, easily cleanable and slip resistant as approved by local jurisdiction) (Coordinate floor tile transition at serving lines)
  - 4. Floors: Cold Storage Assembly Extend kitchen floor flush into Cold Storage Assembly with coved base
  - 5. Furr Downs above Serving Counters

### MAIN KITCHEN

Manufacturer:	American Panel
Model:	 Defente la sector
Size and Shape: Alternate:	Refer to drawings Thermokool, Bally, Kolpak
Alternate.	mermokool, Dally, Kolpak

- 1. Installation to be completed by Factory Approved / Authorized installer. Refer to Section 2.33 Submittal drawings to include factory approval letter or certificate.
- 2. Assembly to have 9'-6" interior clearance.
- 3. 304 #3 finish 20 gauge stainless steel finish where exposed, 20 gauge galvanized steel where concealed.
- 4. Factory floor with smooth aluminum finish, recessed in slab 8 1/2". Secure floor to wall assembly with cam-lock assembly. KEC to ensure the floor assembly is level prior to the wearing bed installation. Kitchens finished floor to extend to walk-in.
- 5. Threshold to be smooth and level with finished floor.
- 6. Interior walls to be .040" aluminum, white embossed texture on walls.
- 7. Ceiling to be embossed textured .040" aluminum baked white enamel.
- Two (2) 36" doors. Doors to be 18 gauge stainless steel, type 304 (18-8), #3 finish, with heated perimeter / door jambs / windows and threshold heaters. Each door to be equipped with 3'-0" high diamond tread kick plate on both sides of doors. Mount hinged doors on two (2) Kason model no. 1346 (or equal); polished chrome plated nylon cam-lift hinges.
- Provide an illuminated Push Button and Entrapment alarm within cooler and freezer, interconnected to Edwards 860 Series Strobe Beacons (or equal), in Kitchen above freezer and Cafetorium (Verify Location). (Strobe Beacons by Div. 26). Alarm to notify facility personnel of activation based on district/owner requirements.
- 10. Provide Kason model no. 0487 Frost Free Inside release (or equal). Fiberglass rod and plastic flange, with safety glow plastic knob, ADA compliant.
- 11. Manual backup vacuum release mechanism to punch hole in wall assembly to release vacuum within freezer assembly. Mechanism to include a pull-down handle with freeze-proof hand grip. Handle to have the ability to penetrate and/or punch hole in wall accordingly to assist with opening of door assembly in the event of entrapment (and failure of Frost free inside release button). Wall panel to include a knockout section to assist with requirements. Release mechanism assembly to be built-in/mounted to the door assembly structural frame to minimize mechanism tear-out and/or failure. Handle to be painted yellow with phenolic label "Vacuum Pressure Release".
- 12. 18 gauge stainless steel, type 304 (18-8), #3 finish trim where adjacent to walls and enclosure panels that extend to 2" above finished ceiling.
- 13. Freezer One (1) lot LED light fixtures to operate in temperatures to -20 F. Lights to be installed perpendicular to coils.

- 14. Refrigerator- One (1) lot LED light fixtures. Lights to be installed perpendicular to coils.
- 15. 3'-0" high diamond tread plate at exposed exterior surfaces. Fasten to wall with stainless steel fasteners.
- 16. Provide door bumper at doors.
- 17. All conduit to be exposed. No ceiling penetrations.
- 18. Provide Manufacturers alarm/control system that includes hi/low limits. Route temperature sensor to be located to the side of evaporator coil.
- 19. Doors to be provided with CCI Industries, Inc., Clear-VU swinging door assemblies.
- 20. K.E.C. to provide aluminum coved base to interior of assembly. Provide sealant between floor and wall panels.
- 21. All holes in assembly to be sealed by factory installer.
- 22. 6" oversized heated Pressure Relief Port with red indicator light to confirm electrical interconnection. Locate 12" below ceiling on cooler/freezer common wall and on cooler wall. Additional Heated Relief Port to be provided on freezer door and interconnected to door assembly electrical. Locate upper corner of hinged side of door.
- 23. KEC to field verify all horizontal/vertical measurements and conditions at the building prior to fabrication or delivery of equipment.
- 24. KEC to provide 1 year walk-in panel installation warranty. KEC is responsible for overall install accuracy/quality and quality control of work performed regardless of installer or any field modifications due to building/construction conditions. KEC to provide Letter of Install Approval to FDP upon completed install.
- 25. Manufacturer to provide One Year Parts and Labor Warranty.
- 26. Interwiring of temperature monitor panel to master building alarm system or to the Owner's network. Technology department to provide all interfacing of alarm system and with the building alarm system. Conduit from refrigeration system to monitor by Division 26. Temperature Monitor installation at 4'-0" above finished floor. All conduit to be located above walk-in cooler/freezer ceiling. Exposed electrical conduit is not acceptable. Threshold to be smooth and level need to be moved up just after last flooring option line.
- 27. Manufacturer Representative to provide training on controls and inside emergency release mechanisms.
- 28. Manufacturer to review final installation and provide letter confirming installation meets manufacturer requirements.
- 29. **Special Instruction:** Assembly to be connected to back-up generator per TISD standards.

ITEM NO. 103.1

### COLD STORAGE REFRIGERATION SYSTEM

Manufacturer:	RDT
Model:	ZS1-2 EcoSmart
Size and Shape:	Refer to drawings
Alternate:	Cold Zone

- 1. Air cooled system.
- 2. Cooler temperature to be +35 degrees.

- 3. Freezer temperature to be -10 degrees.
- 4. EcoSmart system on demand defrost.
- 5. KE2 Controllers located per Owner requirements.
- 6. S/S covered housing.
- 7. All exterior piping to be aluminum wrapped.
- 8. System to accommodate Item No. 102 Cold Storage Assembly.
- 9. S/S covered housing mounted to a 24" tall 1/8 galvanized angle iron frame anchored to concrete pad. Provide S/S skirting around frame.
- 10. Mount condensing unit on common exterior rack. Refer to Architectural and Engineering drawings for exact location of remote unit. Coordinate routing of refrigeration lines and conduit with appropriate trades. Heat tape and insulate all drain lines. General Contractor to seal all building penetrations at refrigeration lines.
- 11. **Special Instruction:** Unit to be connected to back-up generator per TISD standards.

### ITEM NO. 104 COLD STORAGE SHELVING

### **QUANTITY 1**

Manufacturer:	Cambro
Model:	Camshelving Premium
Size and Shape:	Refer to drawings
Alternate:	

- 1. Each unit to be four (4) tiers high with open grid mats.
- 2. Four (4) 74" post per unit. Provide foot plates at all posts when assembly is supplied with walk-in floor.
- 3. Refer to drawings for size, width and lengths.
- 4. Quantity One (1) to equal One (1) lot: all shelving shown within cold storage assembly.
- 5. Verify shelving requirements with approved submittal prior to ordering.

### ITEM NO. 105 DUNNAGE RACK

### **QUANTITY 2**

Manufacturer:	Cambro
Model:	Camshelving Premium
Size and Shape:	Refer to drawings
Alternate:	

1. Size as shown.

### ITEM NO. 107 DRY STORAGE SHELVING

### **QUANTITY 2**

Manufacturer: Model: Size and Shape: Alternate:

Cambro Camshelving Premium Refer to drawings

- 1. Each unit to be five (5) tiers high with open grid shelving.
- 2. Four (4) 86" posts per unit.
- 3. Quantity Two (2) to equal One (1) Lot: all shelving shown within the dry storage room.
- 4. Refer to drawings for size, width, and lengths.
- 5. Verify shelving requirements with approved submittal prior to ordering.

ITEM NO. 109.1 ICE MAKER

**QUANTITY 1** 

Manufacturer:	Hoshizaki
Model:	KML-500MAJ/B-500
Size and Shape:	Refer to drawings
Alternate:	Manitowoc

- 1. One (1) ice maker model no. KML-500MAJ
- 2. One (1) ice bin model no. B-500
- 1. Stainless steel bin.
- 2. Stainless steel legs.
- 3. Provide bin adapter kit as required.
- 4. Provide Luminice II Virus and Bacteria Inhibitor.
- 5. Provide sizes and quantities as required: T&S model #HW-6<u>VERIFY</u>-48 water hose and disconnect from filter to Ice Machine.
- 3. One (1) Everpure EV9293-01 pre-filter and water filter sized to manufactures recommendations. Mount on wall adjacent to ice machine in an easily accessible location.
- 6. Coordinate cord and cap with receptacle. Water supply to filter to be hard copper plumbed. 60" long flex hose from filter to ice maker. Interconnection thru water filter to ice machine and final connection by Division 22. Water filter overflow tube to be strapped to back side of ice machine and extend to 1" above floor sink.

### ITEM NO. 110B STACKED WASHER/DRYER

Manufacturer:	Owner Furnished
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Washer:
- 2. 2.0 cubic ft. capacity.
- 3. Straight vane agitator.
- 4. 7 cycles, 2-speed.
- 5. 4 water temperatures.
- 6. "Quick pak" sound insulation.
- 7. Color to be white.
- 8. Water and drain hoses.
- 9. Dryer:

- 10. 3.4 cubic ft. capacity.
- 11. 4 cycles plus Air only.
- 12. Auto dry.
- 13. Wrinkle Guard 1.
- 14. Color to be white.
- 15. To include dryer cord and vent kit.
- 16. Units to include model stationary assembly including: white stack stand, dryer wall mount kit,door latch kit.
- 17. Verify utility requirements with owner/operator. Models at time of delivery shall be the current models' numbers.

# ITEM NO. 111 CHEMICAL SHELF

### **QUANTITY 1**

Manufacturer:	Cambro
Model:	Camshelving Premium
Size and Shape: Alternate:	Refer to drawings

- 1. Each unit to be four (4) tiers high with open grid mats.
- 2. Four (4) 74" posts per unit.

# ITEM NO. 121 TWO COMPARTMENT SINK W. DISPOSER

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S marine edge with 2" turndown at free sides.
- 2. Open base construction.
- 3. 10" high splash where adjacent to walls/fixtures.
- 4. Two (2) 24" x 26" x 15" deep sink compartments.
- 5. One (1) T&S model no. B-0291, splash mount faucet, 18" swing nozzle, LL inlets, for <sup>3</sup>/<sub>4</sub>" hot and cold water connections.
- 6. Two (2) Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. Provide 18 gauge S/S bracket for drain handle welded to sink bottom.
- Provide One (1) T&S model no. B-0133-EE-CR-8C pre-rinse, *two (2)* B-0108-C spray head, two(2) B-0109-04 18" long wall bracket (dealer to cut to correct length), one (1) additional spray face model no. 108SFRK with ceramic cartridges.
- 8. 16 gauge S/S undershelf per drawings.
- 9. Disposer installed in top integrally welded disposer cone. Notch and punch splash turn back for vacuum breaker. 12 gauge S/S bracket mounted below counter top for disposer control panel ground and polished to match top.

- 10. 12" deep single post mounted overshelf at 18" above counter top, punched to accommodate spray rinse.
- 11. Post mounted utensil rack, extend 1-5/8" diameter S/S post from back splash, turn forward 12" and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with owner.
- 12. One (1) Chicago model no. 305-VBRCF hose bibb and rack mounted on 12 gauge S/S bracket ground and polished to match top. Hose and spray nozzle by owner.
- 13. Omit rear rail at sink compartments, disposer, and front rail at hose bibb.
- 14. Two (2) "Richlite" ½" thick removable sink covers installed at each sink. Weld ½" bar stock, set 5/8" below work surface at all four corners for support of sink covers. Two (2) finger holes per board.
- 15. Provide top and bottom c-channel support storage for sink covers at right or left end of counter.
- 16. One (1) Edlund model no. S-11 Manual can opener, mounted on raised platform.
- 17. Flanged feet at front only.
- 18. Seal at all splash penetrations.

### ITEM NO. 123 DISPOSER-CONE MOUNT/SINK MOUNT

**QUANTITY 4** 

Manufacturer:	Salvajor
Model:	200-CA-18-ARSS -LD /200-SA-6-ARSS-LD
Size and Shape: Alternate:	Refer to drawings

- 1. Fixed nozzle.
- 2. Delete standard syphon breakers and provide T & S B-0456-04 vacuum breakers and mount 6" from tabletop to base of breaker.
- 3. Solenoid valve.
- 4. Flow control.
- 5. Model no. ARSS-LD control panel.
- 6. Auto-reverse.
- 7. Dejamming tool.
- 8. Install vacuum breaker in splash.
- 9. S/S cone cover.
- 10. Perforated silver saver and disposer cone with scrap ring.
- 11. Two (2) Swirl inlet located in disposer cone at a 45 degree angle.
- 12. GC to pipe 1/2" cold water to disposer body and swirl inlets. Excess electrical cord to be secured to fabrication as required. Install into counter by section 114000.

# ITEM NO. 124 WORKTABLE W/ OVERSHELF

**QUANTITY 2** 

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings

FOODSERVICE DESIGN PROFESSIONALS

### Alternate:

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- 1. Top: 14-gauge type 304 S/S top with 6" high backsplash at wall and 2" turndown at free sides.
- 2. Open base construction.
- 3. 16-gauge S/S overshelf post mounted 18" above working surface.
- 4. 16-gauge S/S undershelf.
- 5. Two (2) 20" W x 20" L drawer assemblies. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 6. Close back of splash when exposed.

### ITEM NO. 125 20 QT. MIXER W/STAND

**QUANTITY 2** 

Manufacturer:	Hobart
Model:	HL200
Size and Shape:	Refer to drawings
Alternate:	

- 1. Food mixer, Bench Model, 1/2-HP motor, 20 qt. Capacity.
- 2. 115/60/1 ph.
- 3. 15 minute timer.
- 4. Epoxy enamel finish-bench model.
- 5. One (1) 20 qt. S/S bowl.
- 6. One (1) 20 qt. Aluminum "B" flat beater.
- 7. One (1) 20 qt. S/S "D" wire whip.
- 8. One (1) 20 qt. "ED" dough hook.
- 9. One (1) 20 qt. Lexan splash cover.
- 10. One (1) Caddy model no. T-242 mobile mixer stand, with casters, two (2) with brakes. Secure mixer to table with non-corrosive bolts. Alternate- New Age.
- 11. Stand to be Pre-Drilled to accommodate Mixer.

### ITEM NO. 127 SLICER WITH STAND

Manufacturer:	Hobart
Model:	HS9N-1
Size and Shape:	Refer to drawings
Alternate:	

- 1. One (1) high/low fence assembly.
- 2. Tubular S/S food chute.
- 3. Cord and plug.
- 4. One (1) Caddy slicer T-249A stand with casters, two (2) with brakes. Alternate-New Age

### ITEM NO. 128 UTILITY CART

### **QUANTITY 2**

Manufacturer:	Lakeside
Model:	522
Size and Shape:	Refer to drawings
Alternate:	Caddy

- 1. Four (4) N.S.F. approved non-marking casters, Two (2) with brakes.
- 2. Extended perimeter bumper.

### ITEM NO. 129 WORKTABLE W/S.BAR UT.RACK

### **QUANTITY 5**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S, 2" turn down at free sides.
- 2. Open base construction.
- 3. 16 gauge S/S undershelf.
- 4. Two (2) 20" W x 20" L drawer assemblies. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 5. Flanged feet.
- Post mounted utensil rack, extend 1-5/8" diameter S/S post from cross rail, thru top to 78" A.F.F. and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with Owner.
- 7. Provide a duplex receptacle and housing mounted below countertop per drawings. Interconnect and prewire a 5'-0" cord and plug out of receptacle housing for plugging into ceiling drop cord receptacle. 114000 and Div. 26 to coordinate location of drop cord receptacle.

ITEM NO. 130 WORKTABLE

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S, 6" high backsplash at walls, 2" turndown at free sides. Close back of splash when exposed.
- 2. Open base construction.
- 3. 16 gauge S/S undershelf.
- 4. One (1) 20" W x 20" L drawer assembly. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 5. 6" S/S adjustable feet.

# ITEM NO. 136 BAKER'S TABLE

### **QUANTITY 1**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S with 2" square turn down at front, 6" high enclosed splash at sides and rear.
- 2. Provide finished back at exposed backsplash.
- 3. 12" deep post mounted overshelf at 18" above counter top.
- 4. 18 gauge butt joint wall panel from splash to underside of shelf.
- 5. 16 gauge S/S flour trough.
- 6. Rear rail only.
- 7. One (1) lot Rubbermaid no. FG360288WHT ingredient bins.
- 8. One (1) tier of three (3) 20" x 20" x 5" deep all stainless steel drawers. To be in #18 gauge stainless steel housing having 3/4" radius (vertical) exterior corners.

### ITEM NO. 138 PAN RACK

# Manufacturer:CresCorModel:207-UA-13ASize and Shape:Refer to drawingsAlternate:---

- 1. Four (4) 5" casters.
- 2. Adjustable universal slides on 1-1/2" centers.
- 3. Corner bumpers.
- 4. Omit bumper on roll-in racks.

### **ITEM NO. 139**

# INSUL MOBILE PROOFER

### **QUANTITY 1**

Manufacturer:	CresCor
Model:	H-137-WSUA-12D
Size and Shape: Alternate:	Refer to drawings

- 1. Insulated proofer/heated cabinet.
- 2. Field reversible doors.
- 3. Adjustable universal angles.
- 4. Four (4) 5" casters, two (2) with brakes.
- 5. Tempered glass door windows.
- 6. Key lock handle.
- 7. Corner bumpers.

- 8. Cord and plug. Coordinate NEMA configuration with Electrician.
- 9. Thermometer.
- 10. 1500 watt heater.

### ITEM NO. 143 WORKTABLE WITH SINK & S.BAR UT.RACK

**QUANTITY 1** 

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S, 2" turn down at all sides.
- 2. Provide table in two (2) sections-one (1) 27" and one (1) 33" section. Refer to detail.
- 3. Open base construction.
- 4. Full length 16 gauge S/S undershelf.
- 5. Four (4) 20" W x 20" L drawer assemblies. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 6. One (1) 15" x 20" x 10" deep sink compartment. Coordinate location with drain overflow.
- One (1) T&S model no. B-0320-BB-CR, rigid gooseneck, ceramic cartridges, deck faucet for <sup>3</sup>/<sub>4</sub>" hot and cold water connections.
- 8. One (1) Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. Provide 18 gauge S/S bracket for drain handle welded to sink bottom.
- 9. Post mounted utensil rack, extend 1-5/8" diameter S/S post from cross rail, thru top to 78" A.F.F. and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with Owner. 48" max. upright post spacing.
- 10. Provide a duplex receptacle and housing mounted below countertop per drawings. Interconnect and prewire a 5'-0" cord and plug out of receptacle housing for plugging into ceiling drop cord receptacle. 114000 and Div. 26 to coordinate location of drop cord receptacle.
- 11. Omit front cross rail at sink section.
- 12. Flanged feet.

# ITEM NO. 151 FIRE PROTECTION SYSTEM

Manufacturer:	Ansul
Model:	R102
Size and Shape:	Refer to drawings
Alternate:	

- 1. Duct and plenum protection to exhaust hood.
- 2. Surface protection for cooking equipment.
- 3. Locate remote fire pulls as recommended by Fire Marshal.
- 4. One (1) lot Mechanical gas valve (maximum diameter as required). Size as required. Furnished by Section 114000, installed by Division 22. Kitchen Equipment Contractor to coordinate location

with local Fire Marshal requirements prior to submittal review. All conduits to be recessed within wall, SURFACE MOUNTING WILL NOT BE ACCEPTED.

- 5. System to meet U.L. 300 requirements.
- 6. Provide one (1) hand held Type 'K' and ABC 6 liter fire extinguisher per Ansul System, surface wall mounted.
- 7. Exposed pipe threads are unacceptable.
- 8. All exposed piping to be chrome plated.
- 9. All hood penetrations to have U.L. listed "Quick Seal". Provide s/s escutcheons at all hood penetrations.
- 10. Provide phenolic I.D. labels for exhaust hood, remote fire pull, light/fan switches and fire protection system.
- 11. Provide a manufacturer performance test and report that verifies this system is fully operational.
- 12. Provide s/s cabinet as shown on plan.
- 13. Installer to provide one (1) Ansul system per exhaust hood, review drawings and provide systems as required.
- 14. Install hand held extinguishers, maximum of 3'-2" A.F.F. to top of unit.

ITEM NO.	152	EXHAUST HOOD

Manufacturer:	By Mechanical
Model:	
Size and Shape:	
Alternate:	

ITEM NO. 153 EXHAUST HOOD

Manufacturer:By MechanicalModel:---Size and Shape:---Alternate:---

ITEM NO. 154 EXHAUST HOOD

Manufacturer:	By Mechanical
Model:	
Size and Shape:	
Alternate:	

# ITEM NO. 155 EXHAUST HOOD

Manufacturer:	By Mechanical
Model:	
Size and Shape:	

**QUANTITY 1** 

**QUANTITY 1** 

**QUANTITY 1** 

Alternate:

ITEM NO. 156 EXHAUST HOOD

Manufacturer: Model:	By Mechanical
Size and Shape: Alternate:	

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### ITEM NO. 157 EXHAUST HOOD

Manufacturer:	By Mechanical
Model:	
Size and Shape:	
Alternate:	

### ITEM NO. 161 CONVECTION OVEN

**QUANTITY 7** 

**QUANTITY 1** 

**QUANTITY 1** 

Manufacturer:	Blodgett
Model:	DFG-100ES DBL
Size and Shape:	Refer to drawings
Alternate:	

- 1. S/S front, top and sides.
- 2. Two (2) 1/2 HP 2-speed motors.
- 3. Natural gas.
- 4. SSI-M solid state infinite control with manual timer.
- 5. Electronic spark ignition.
- 6. Five (5) oven racks per compartment.
- 7. Dual pane thermal windows.
- 8. Simultaneous door operation.
- 9. Heavy duty casters, two (2) with brakes.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.
- 11. Dedicated gas connections, do not manifold.
- 12. Shunt trip breaker by Division 26.

# ITEM NO. 162 DBL CONVECTION STEAMER - GAS

### **QUANTITY 2**

Manufacturer: Model: Size and Shape: Cleveland 24CGA10.2 Refer to drawings

### Alternate:

-

- 1. Double stack ten (10) pan capacity.
- 2. Touch screen controls., self diagnostics, user selected automatic holding feature, 10 namable pan timers, door open alert, Clock, Programmable delime schedule with on-screen directions and notifications. 1 minute button adds to cook time, user optional load compensating timer.
- 3. Two (2) compartments.
- 4. Individual connections.
- 5. Stainless steel legs.
- 6. Field stacking kit.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.
- 8. Provide sizes and quantities as required: T&S model #HW-6<u>VERIFY</u>-48 water hose and disconnect from filter to steamer, color coded for filtered and non-filtered water.
- 9. Provide Everpure filtration system as recommended by the manufacturer. Div 22 to interconnect equipment to the filter system.
- 10. KEC to coordinate filtered and unfiltered water with steamer, do not connect filtered water to unfiltered water connection.
- 11. Coordinate location with floor sink outside steam free zone. Division 26 to provide shunt trip breaker.

# ITEM NO. 164 30 GA. TILT BRAISING PAN- MANUAL TILT

Manufacturer:	Groen
Model:	BPM-30GA
Size and Shape:	Refer to drawings
Alternate:	Cleveland

- 1. Advanced Control-control system.
- 2. Manual tilt.
- 3. S/S construction.
- 4. Open leg frame.
- 5. Steamer pan inserts.
- 6. Pan carrier.
- 7. Etch marks.
- 8. Double pantry swing faucet.
- 9. Flanged feet. Secure rear to floor with non-corrosive anchors.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.
- 11. Trench Liner to consist of:
- 12. S/S trench liner by 114000. Installation by G.C.
- 13. Custom Fabricated or IMC/Teddy

- 14. Fibergrate: Gray #2 1" Thick, 1 1/2" squares mesh, Quartz grit top. Provide in two (2) equal sections, all ends to be finished ends.
- 15. 14 gauge s/s liner
- 16. Klein no. 1834-1010-100 basket drain.
- 17. Klein no. 1870-1001-3251 safety chain.
- 18. Location of trench liner is critical. G.C. and 114000 to verify location prior to concrete pour. Oversize trench liner block out to accommodate equipment pour path.

### ITEM NO. 165 TWO BURNER RANGE

# QUANTITY 1

Manufacturer:	Garland
Model:	MST4S-E
Size and Shape:	Refer to drawings
Alternate:	

- 1. Cabinet base with door.
- 2. Removable cast iron grates.
- 3. Removable drippings tray.
- 4. 1" rear gas connections.
- 5. Set of (4) casters, 6" high (2) locking.
- 6. External pressure regulator.
- 7. S/S front end caps at manifold.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.

### ITEM NO. 172 COMBI OVEN - DBL

Manufacturer:	Alto Shaam
Model:	CTP7-20G over VMC-F4G
Size and Shape:	Refer to drawings
Alternate:	

- 1. Removable, single-point, quick-release, temperature probe.
- 2. 3" casters, set of four (4) Two with brakes.
- 3. Wire rack.
- 4. 5032550 stacking kit.
- 5. Alto-Shaam non-caustic oven cleaner, case of six (6) bottles for use in VMC-F4G.
- 6. Automatic Tablet-based cleaning system for CTP7-20G.
- 7. KEC to coordinate accessories with Owner prior to ordering.
- 8. Smoking feature.
- 9. Heat Shield
- 10. Extended one-year warranty.

- 11. System installation to be reviewed by an authorized factory installer, provide report confirming installation meets factory's requirements.
- 12. Reverse Osmosis System to be 3M model SGLP100-CL-BP (5636204) which Includes: wall mounted with steel mounting bracket, quick disconnect plumbing, cleaning bypass assembly, & connection fittings for standard 3/4" water line. Refer to Manufacturer's Data Sheet for mounting and connection instructions. GC to provide wall blocking as required. Div. 22 to provide all interconnection tubing and components required by RO system. Copper piping to the RO System by Div. 22. Plastic pipe or reinforced opaque beverage tubing from RO System to equipment by Div. 22.
- 13. Provide sizes and quantities as required: Dormont s/s water disconnect from filter to steamer, color coded for filtered and non-filtered water.
- 14. KEC to coordinate filtered and unfiltered water with Combi Oven, do not connect filtered water to unfiltered water connection. Top combi oven requires water connections Bottom combi does not.
- 15. Provide quantities and sizes required: Dormont Model #VER-KITCF-2S-48" Gas Conn. Kit, 48" long, dble. Supr-Swivel coupling with SafetyQuick safety fitting, w/coiled restraining device, full port gas valve, antimicrobial coating, lifetime warranty.
- Water supply to have shut-off valve and back flow preventer furnished and installed by Division
  Supply water to interconnect thru water filter and then to each oven. Indirect drain line to be ran outside of the footprint of the unit, coordinate location of the related floor sink.

# ITEM NO. 174 CONVEYOR OVEN

Manufacturer:	Lincoln
Model:	1116-000-U-K1835
Size and Shape:	Refer to drawings
Alternate:	Middleby Marshall

- 1. One (1), Two (2) ovens stacked. Three (3) ovens stacked. (choose which is required)
- 2. Entrance/Exit take-off shelves model 1207, exit shelf 1140 with stop lip.
- 3. Portable stand with casters, two (2) with brakes. (single or double) **OR** Low stand with casters, two (2) with brakes. (triple)
- 4. One (1) gas pressure valve for each oven.
- 5. Insulated S/S top.
- 6. Two (2) extended take-off shelves.
- 7. Shunt trip breakers furnished and installed by Division 26.
- 8. Cord and plug assembly.
- 9. Cap n cover utilities for future oven.
- 10. All table heights adjacent pizza ovens are to be adjusted to match pizza oven conveyor height.
- 11. Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.

### ITEM NO. 187 PASS-THRU HEATED CABINET- 2DR

### **QUANTITY 5**

Manufacturer:	Traulsen
Model:	AHF-232WP
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Controls mounted on kitchen side.
- 9. Full height doors hinged as per plan. Stainless doors located on kitchen and server side.
- 10. Re-hinging feature.
- 11. Provide opening in wall 2" taller than equipment and 2" wider, KEC to coordinate with GC as required. Trim is not to be secured to the equipment.
- 12. Special Instructions: One (1) unit to be connected to back-up generator per TISD standards.

### ITEM NO. 188 PASS-THRU REFRIGERATOR - 1DR

Manufacturer:	Traulsen
Model:	AHT-132WPUT
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Controls mounted on kitchen side.
- 9. Five (5) Year compressor warranty.
- 10. Full height doors hinged as per plan. Stainless doors located on kitchen and server side.
- 11. Re-hinging feature.
- 12. Omit plug. Unit to be Hard Wired.
- 13. Provide opening in wall 2" taller than equipment and 2" wider, KEC to coordinate with GC as required. Trim is not to be secured to the equipment.
- 14. **Special Instructions:** One (1) unit to be connected to back-up generator per TISD standards.

### ITEM NO. 189 PASS-THRU REFRIGERATOR - 2DR

### **QUANTITY 2**

Manufacturer:	Traulsen
Model:	AHT-232WPUT
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Controls mounted on kitchen side.
- 9. Five (5) Year compressor warranty.
- 10. Full height doors hinged as per plan. Stainless doors located on kitchen and server side.
- 11. Re-hinging feature.
- 12. Omit plug. Unit to be Hard Wired.
- 13. Provide opening in wall 2" taller than equipment and 2" wider, KEC to coordinate with GC as required. Trim is not to be secured to the equipment.
- 14. **Special Instructions:** One (1) unit to be connected to back-up generator per TISD standards.

### ITEM NO. 190 REACH-IN HEATED CABINET- 1DR

Manufacturer:	Traulsen
Model:	AHF-132W
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Omit plug. Unit to be Hard Wired.
- 9. Full height glass doors hinged as per plan.
- 10. Re-hinging feature.

### ITEM NO. 191 REACH-IN HEATED CABINET- 2DR

### **QUANTITY 3**

Manufacturer:	Traulsen
Model:	AHF-232W
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Full height glass doors hinged as per plan.
- 9. Re-hinging feature.

# ITEM NO. 192 REACH-IN REFRIGERATOR - 1DR

### **QUANTITY 5**

Manufacturer:	Traulsen
Model:	AHT-132WUT
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Five (5) Year compressor warranty.
- 9. Omit plug. Unit to be Hard Wired.
- 10. Full height glass doors hinged as per plan.
- 11. Re-hinging feature.
- 12. Special Instructions: One (1) unit to be connected to back-up generator per TISD standards.

### ITEM NO. 197 BACK COUNTER-CLOSED BASE

### **QUANTITY 2**

Manufacturer: Model: Size and Shape: Alternate: Custom Fabricated ---Refer to drawings ---

### FOODSERVICE DESIGN PROFESSIONALS

- 1. Top: 14 gauge type 304 S/S, 2" turn down at free sides. 4" splash where adjacent to equipment and walls.
- 2. Closed base construction.
- 3. 16 gauge S/S intermediate shelf.
- 4. Double pan insulated stainless steel doors.
- 5. Full length 16 gauge S/S undershelf.
- 6. 6" S/S adjustable feet.

# ITEM NO. 201 SERVING COUNTER

Manufacturer:	Moduserve
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Semi-open base counter.
- 2. Top: Cambria 34" high with 3 cm thickness and bull nose edges. Countertop to extend 10" past body to serve as tray slide.
- 3. Provide raised insulated platform in the front area of all hot food wells.
- 4. Countertops at all hot food wells to be recessed 1" to accommodate 18" x 26" sheet pans.
- 5. Seven (7) Hot/Cold built-in food wells with thermostat and manifold drain line into a common drain with individual shut-off valves.
- 6. Breath Protector to be single tier Elite IV with full height front glass, heat lamp and LED display lighting.
- 7. One (1) refrigerated cold pan located per drawings. Provide on/off switch in control panel. Provide pan insert divider strip and perforated false bottoms.
- 8. Breath Protector to be two tier Elite IV with full height, adjustable front glass and LED display lighting. Frost top at first shelf.
- 9. Provide louvered door at compressor compartments located on operator side of counter.
- 10. One (1) convenience outlet in each control panel. Provide one (1) outlet below counter for Beverage Merchandiser.
- 11. One (1) plumbing and One (1) load center compartment.
- 12. 16 gauge S/S undershelves.
- 13. One (1) T & S Model no. B0208 single pantry faucet with OC56 cast spout. One (1) T & S model no. 513 blending valve mounted on recessed panel. One (1) lot vacuum breaker and back flow preventor at each blending valve.
- 14. Provide waterproof grommets in counter top for each piece of equipment mounted on counter.
- 15. Full length Component Hardware L75 Series lights located under trayslide pre-wired to single switch located in control panel. Provided and installed by Section 114000.
- 16. Cashier station to be integral with counter, lockable cashier drawer, undershelf to accommodate owners POS System, outlet to accommodate POS system and data line.
- 17. 6" S/S legs.
- 18. 16 gauge S/S kick plate.
- 19. Prep front of counter for tile by Counter Manufacturer. Color/Pattern to be coordinated with Owner and Architect.
- 20. Provide S/S trim at perimeter of Beverage Merchandiser.

### ITEM NO. 203 HEATED MERCHANDISER - 34"

### **QUANTITY 2**

Manufacturer:	Hatco
Model:	HZMS-30D (slanted)
Size and Shape:	Refer to drawings
Alternate:	

- 1. Refer to drawings for size and location.
- 2. LED red accent light at support post.

### ITEM NO. 207 REFRIGERATED AIRSCREEN

**QUANTITY 4** 

RPI VIENNA
VIAS4-20-R-SQ-INS
Refer to drawings
Federal LMDM4878SC

- 1. Counter height is 34".
- 2. Slide-in models.
- 3. Rear door access.
- 4. 6" casters.
- 5. Self-contained.
- 6. Fold down rear work ledge.
- 7. Lift-up evaporator.
- 8. **Special Instruction:** Start-up and calibration of unit must be by factory authorized service agency, prior to customer demonstration. K.E.C. to coordinate 18" height clearance at top of unit.

### ITEM NO. 208 HANGING HEAT LAMPS

Manufacturer:	Hatco
Model:	725RT
Size and Shape:	Refer to drawings
Alternate:	

- 1. Ceiling mounted retractable heat lamps.
- 2. Heat lamp track adapter.
- 3. Verify color of track and fixture assembly with architect.
- 4. On/off switch located on light assembly.
- 5. Interconnect to wall mounted light switch by Division 26.
- 6. Locate per drawings.
- 7. Coordinate with overhead furr down and serving counter as required.
- 8. **Special Instruction:** Section 114000 to coordinate with the General Contractor required wall blocking and electrical circuits to accept mounting of heat lamps.
#### ITEM NO. 214 CASH REGISTER

# Manufacturer:Owner FurnishedModel:---Size and Shape:Refer to drawingsAlternate:---

ITEM NO. 215 GUIDE RAIL

# QUANTITY 10

**QUANITY 1** 

**QUANTITY 8** 

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. 1-5/8" O.D. stainless steel tubular guide rails with 1-5/8" uprights set in sleeves set in concrete at maximum 4'-0" on center.
- 2. Top of rails to be 34" A.F.F. for high schools.
- 3. Section 114000 to coordinate guide rails with ADA requirements.

# ITEM NO. 217 SERVING COUNTER

Manufacturer:ModuserveModel:---Size and Shape:Refer to drawingsAlternate:---

- 1. Semi-open base counter.
- 2. Top: Cambria 34" high with 3 cm thickness and bull nose edges. Countertop to extend 10" past body to serve as tray slide.
- 3. Provide raised insulated platform in the front area of all hot food wells.
- 4. Countertops at all hot food wells to be recessed 1" to accommodate 18" x 26" sheet pans.
- 5. Seven (7) Hot/Cold built-in food wells with thermostat and manifold drain line into a common drain with individual shut-off valves.
- 6. Breath Protector to be single tier Elite IV with full height front glass, heat lamp and LED display lighting.
- 7. One (1) Heat through stone section.
- 8. One (1) modified hot food breath protector with mirror finish with 1" round post. Post to be vertical front post only with slight angle towards rear of counter. Self-service height temper glass to be fixed mounted to angle section of post. No heat lamp or display light.
- 9. One (1) refrigerated cold pan located per drawings. Provide on/off switch in control panel. Provide pan insert divider strip and perforated false bottoms.
- 10. Breath Protector to be two tier Elite IV with full height, adjustable front glass and LED display lighting. Frost top at first shelf.
- 11. Provide louvered door at compressor compartments located on operator side of counter.

- 12. One (1) convenience outlet in each control panel. Provide one (1) outlet below counter for Beverage Merchandiser.
- 13. One (1) plumbing and One (1) load center compartment.
- 14. 16 gauge S/S undershelves.
- 15. One (1) T & S Model no. B0208 single pantry faucet with OC56 cast spout. One (1) T & S model no. 513 blending valve mounted on recessed panel. One (1) lot vacuum breaker and back flow preventor at each blending valve.
- 16. Provide waterproof grommets in counter top for each piece of equipment mounted on counter.
- 17. Full length Component Hardware L75 Series lights located under trayslide pre-wired to single switch located in control panel. Provided and installed by Section 114000.
- 18. Cashier station to be integral with counter, lockable cashier drawer, undershelf to accommodate owners POS System, outlet to accommodate POS system and data line.
- 19. 6" S/S legs.
- 20. 16 gauge S/S kick plate.
- 21. Prep front of counter for tile by Counter Manufacturer. Color/Pattern to be coordinated with Owner and Architect.
- 22. Provide S/S trim at perimeter of Beverage Merchandiser.

# ITEM NO. 218 SERVING COUNTER

Manufacturer:	Moduserve
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Semi-open base counter.
- 2. Top: Cambria 34" high with 3 cm thickness and bull nose edges. Countertop to extend 10" past body to serve as tray slide.
- 3. Provide raised insulated platform in the front area of all hot food wells.
- 4. Countertops at all hot food wells to be recessed 1" to accommodate 18" x 26" sheet pans.
- 5. Seven (7) Hot/Cold built-in food wells with thermostat and manifold drain line into a common drain with individual shut-off valves.
- 6. Breath Protector to be single tier Elite IV with full height front glass, heat lamp and LED display lighting.
- 7. One (1) Heat through stone section.
- 8. One (1) modified hot food breath protector with mirror finish with 1" round post. Post to be vertical front post only with slight angle towards rear of counter. Self-service height temper glass to be fixed mounted to angle section of post. No heat lamp or display light.
- 9. One (1) refrigerated cold pan located per drawings. Provide on/off switch in control panel. Provide pan insert divider strip and perforated false bottoms.
- 10. Breath Protector to be two tier Elite IV with full height, adjustable front glass and LED display lighting. Frost top at first shelf.
- 11. Provide louvered door at compressor compartments located on operator side of counter.
- 12. One (1) convenience outlet in each control panel. Provide one (1) outlet below counter for Beverage Merchandiser.
- 13. One (1) plumbing and One (1) load center compartment.

- 14. 16 gauge S/S undershelves.
- 15. One (1) T & S Model no. B0208 single pantry faucet with OC56 cast spout. One (1) T & S model no. 513 blending valve mounted on recessed panel. One (1) lot vacuum breaker and back flow preventor at each blending valve.
- 16. Provide waterproof grommets in counter top for each piece of equipment mounted on counter.
- 17. Full length Component Hardware L75 Series lights located under trayslide pre-wired to single switch located in control panel. Provided and installed by Section 114000.
- 18. Cashier station to be integral with counter, lockable cashier drawer, undershelf to accommodate owners POS System, outlet to accommodate POS system and data line.
- 19. 6" S/S legs.
- 20. 16 gauge S/S kick plate.
- 21. Prep front of counter for tile by Counter Manufacturer. Color/Pattern to be coordinated with Owner and Architect.
- 22. Provide S/S trim at perimeter of Beverage Merchandiser.

# ITEM NO. 219 SERVING COUNTER

Manufacturer:	Moduserve
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Semi-open base counter.
- 2. Top: Cambria 34" high with 3 cm thickness and bull nose edges. Countertop to extend 10" past body to serve as tray slide.
- 3. Provide raised insulated platform in the front area of all hot food wells.
- 4. Countertops at all hot food wells to be recessed 1" to accommodate 18" x 26" sheet pans.
- 5. Seven (7) Hot/Cold built-in food wells with thermostat and manifold drain line into a common drain with individual shut-off valves.
- 6. Breath Protector to be single tier Elite IV with full height front glass, heat lamp and LED display lighting.
- 7. One (1) refrigerated cold pan located per drawings. Provide on/off switch in control panel. Provide pan insert divider strip and perforated false bottoms.
- 8. Breath Protector to be two tier Elite IV with full height, adjustable front glass and LED display lighting. Frost top at first shelf.
- 9. Provide louvered door at compressor compartments located on operator side of counter.
- 10. One (1) convenience outlet in each control panel. Provide one (1) outlet below counter for Beverage Merchandiser.
- 11. One (1) plumbing and One (1) load center compartment.
- 12. 16 gauge S/S undershelves.
- 13. One (1) T & S Model no. B0208 single pantry faucet with OC56 cast spout. One (1) T & S model no. 513 blending valve mounted on recessed panel. One (1) lot vacuum breaker and back flow preventor at each blending valve.
- 14. Provide waterproof grommets in counter top for each piece of equipment mounted on counter.
- 15. Full length Component Hardware L75 Series lights located under trayslide pre-wired to single switch located in control panel. Provided and installed by Section 114000.

- 16. Cashier station to be integral with counter, lockable cashier drawer, undershelf to accommodate owners POS System, outlet to accommodate POS system and data line.
- 17. 6" S/S legs.
- 18. 16 gauge S/S kick plate.
- 19. Prep front of counter for tile by Counter Manufacturer. Color/Pattern to be coordinated with Owner and Architect.
- 20. Provide S/S trim at perimeter of Beverage Merchandiser.

#### ITEM NO. 249 THREE COMPARTMENT SINK

**QUANTITY 1** 

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14-gauge S/S 3" high 1-1/2" rolled rim at free sides, 10" high splash at walls.
- 2. Open base construction.
- 3. Omit rear rail at sink.
- 4. Three (3) 30" x 26" x 15" deep sink compartment.
- 5. Two (2) T&S model no. B-0291, splash mount faucet, 18" swing nozzle, LL inlets, for <sup>3</sup>/<sub>4</sub>" hot and cold water connections.
- 6. Three (3) Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. Provide 18 gauge S/S bracket for drain handle welded to sink bottom.
- 7. 12" deep single post mounted perforated overshelf mounted at 18" above counter top.
- 8. 18-gaugebutt joint wall panel from splash to underside of shelf.
- Post mounted utensil rack, extend 1-5/8" diameter S/S post from back splash, turn forward 12" and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center.
- 10. 16-gauge S/S undershelf as per drawings.
- 11. Flanged feet at front only of counter.
- 12. Anchor flanged feet to floor with non-corrosive bolts. Secure wall mounted equipment / components to in wall grounds or anchor plates. Coordinate installation with the general contractor.

ITEM NO. 250 DISHMACHINE

Manufacturer:	Hobart
Model:	CL44eN-BAS
Size and Shape: Alternate:	Refer to drawings Champion
Alternate.	onampion

- 1. Dishwasher, conveyor type, single tank design, 202 racks/hour capacity, S/S construction, with automatic fill, auto timer, and 115 volt pilot circuit.
- 2. 15 KW Electric tank heat.

- 3. Verify direction of dishmachine with drawings.
- 4. One (1) Extended warranty One (1) Year parts and labor.
- 5. Interior Chamber height to be 4" taller than standard.
- 6. Single point electrical connection for Motors, Controls and Tank Heat. Div. 26 to provide S/S disconnect switches located as per plans interconnected to dishmachine and external booster heater.
- 7. Two (2) vent cowls with 4 x 16 vent and damper. Provide 18 gauge stainless steel seamless duct risers 6" above finish ceiling for final connection. The duct: trimmed at ceiling with 16 gauge stainless steel flange with all corners welded.
- 8. One (1) table limit switch with stainless steel cover to conceal back. Provided by Manufacturer / Installed by Div. 26.
- 9. Four (4) 20"x20" Peg racks.
- 10. Four (4) 20" x 20" sheet pan racks.
- 11. Two (2) 20" x 20" combination racks.
- 12. Vent fan controls.
- 13. Drain water tempering kit. Drain water tempering kit is to be installed by Hobart Service.
- 14. Peak Rate of drain flow = 38 gpm. Division 22 to provide and install backflow preventor between booster heater and filter. Final connection by Division 22. Coordinate location of electrical disconnects on free wall.

# ITEM NO. 252 BOOSTER HEATER

# **QUANTITY 1**

Manufacturer:	Hatco
Model:	C-30
Size and Shape:	Refer to drawings
Alternate:	

- 1. Compact booster heater.
- 2. One (1) Brass Pressure Reducing Valve with By-Pass.
- 3. 6" adjustable S/S legs.
- 4. One (1) Phosphate water treatment unit. System to be in an accessible location.
- 5. One (1) Shock Absorber.
- 6. S/S body and base.
- 7. Division 22 to provide and install backflow preventor between booster heater and filter. Final connection by Division 22. Interconnect to dishmachine by Division 22. Coordinate location of electrical disconnects on free wall. GC to insulate hot water from booster heater to dishmachine.

# ITEM NO. 255 MOBILE UTENSIL SHELF

# **QUANTITY 9**

Manufacturer: Model: Size and Shape: Alternate: Cambro Camshelving Premium Refer to drawings

- 1. Four (4) tier, indlcudes two (2) drop-ins and (1) cutting board/tray drying rack, built in Microban antimicrobial product protection.
- 2. Four (4) 75" high posts.
- 3. Two (2) no. 5MPX casters per unit.
- 4. Two (2) no. 5MPBX locking casters per unit.
- 5. Two (2) bottom shelves equipped with sheet pan drying rack assemblies.

#### ITEM NO. 260 HAND SINK

# **QUANTITY 10**

Manufacturer:	Advance Tabco
Model:	7-PS-50
Size and Shape:	Refer to drawings
Alternate:	

- 1. 20 gauge stainless steel construction.
- 2. Basket drain and wall bracket.
- 3. Gooseneck faucet with wrist handles.
- 4. Soap and towel dispensers by Owner.
- 5. P-Trap assembly, delete open/close drain vavle.
- 6. Custom fabricated removable end splashes on sides as required by code. height same as rear splash.
- 7. Trade contractor to provide temperature adjustment valves as required.

#### ITEM NO. 265 40 GALLON TILT KETTLE

Manufacturer:	Groen
Model:	DH-40A
Size and Shape:	Refer to drawings
Alternate:	Cleveland

- 1. Kettle, Gas, Tilting, 40-gallon capacity, 2/3 steam jacket design, floor mounted control console supports, s/s exterior finish, std w/flanged feet.
- 2. Stainless steel.
- 3. Food strainer.
- 4. Hot and cold faucet.
- 5. Faucet mounting bracket.
- 6. Kettle markings.
- 7. Hinged cover model #51.
- 8. Kettle accessory kit.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty. Alternate: Dormont
- Provide sizes and quantities as required: T&S Model #HW-6<u>VERIFY</u>-48 water disconnect. Alternate: Dormont

- 11. Trench Liner to consist of:
- 12. S/S trench liner by 114000. Installation by G.C.
- 13. Custom Fabricated or IMC/Teddy.
- 14. IKG grating type "D".
- 15. 1-1/2" x 3/16" bearing bars and perimeter frame. Provide in two (2) pieces.
- 16. 14 gauge s/s liner.
- 17. Klein no. 1834-1010-100 basket drain.
- 18. Klein no. 1870-1001-3251 safety chain.
- 19. Location of trench liner is critical. G.C. and 114000 to verify location prior to concrete pour. Recommend block out of trench liner area.

# ITEM NO. 614 FILL FAUCET

#### **QUANTITY 3**

Manufacturer:	T & S
Model:	B-0610
Size and Shape:	Refer to drawings
Alternate:	

- 1. Pot Filler Faucet, splash-mounted, 8" centers, vacuum breaker, flexible S/S hose, 60" long, hooked nozzle with self-closing valve, ½" IPS female inlets, built-in check valves.
- 2. 12" square 12 ga. S/S wall plate with hose rack with radius corners.
- 3. Install at 48" A.F.F. by Division 22. Coordinate height of backflow preventor with highest water level of associated equipment.

#### ITEM NO. 615 MENU MONITOR

# **QUANTITY 5**

Manufacturer:	OWNER FURNISHED / CONTRACTOR INSTALLED
Model:	
Size and Shape:	Refer to drawings
Alternate:	

# ITEM NO. 646 CUP DISPENSER

Manufacturer:	Dispense Rite
Model:	CTC-L-3SS
Size and Shape:	Refer to drawings
Alternate:	

- 1. Stainless steel exterior.
- 2. Condiment tray mounted above each unit.

# ITEM NO. 647 TEA/COFFEE BREWER

# **QUANTITY 2**

Manufacturer:	Bunn
Model:	ITB w/TDO 4 Dispenser
Size and Shape:	Refer to drawings
Alternate:	

- 1. Tea/Coffee Brewer with Tray, dual voltage adaptable.
- 2. Digital readout displays in English/Spanish/French.
- 3. Infusion Series technology: (3) brew buttons & (2) batch sizes, BrewWISE® intelligence with preinfusion & pulse brew, energy-saver mode, brew counter.
- 4. Includes integrated (3) position flip tray, overlay kit for customization.
- 5. USB programming capable.
- 6. Three (3) TDO-5 Brew Thru Reservoir, Two 2.5 Airpots.
- 7. Inline water filtration as recommended by manufacturer. Field verify installation (out of sight) below countertop where possible.
- 8. Dormont Water quick disconnects.
- 9. Locate per drawings.
- 1. ice maker.
- 2. Cord and plug assembly, NEMA 5-20.
- 3. Coordinate installation into counter.
- 4. 5000 BTU/hr heat rejection.

#### ITEM NO. 803 SET UP TABLE

#### **QUANTITY 1**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

#### **CULINARY & FLORAL COOLER**

ITEM NO. 901 DEMO COUNTER

Manufacturer:	<b>Custom Fabrication</b>
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge S/S top with 2" turndown at free sides.
- 2. Open base construction.
- 3. Four (4) casters, two (2) with brakes.
- 4. Refer to shop drawings for final review.

# ITEM NO. 902 COLD STORAGE ASSEMBLY - FUTURE

Manufacturer:	American Panel
Model:	
Size and Shape:	Refer to drawings
Alternate:	Thermokool, Bally, Kolpak

- 1. Installation to be completed by Jack Horton or Approved Authorized Installer. Installation to be completed by Factory Approved / Authorized installer. Refer to Section 2.33 Submittal drawings to include factory approval letter or certificate.
- 2. Manufacturer to review final installation and provide a letter confirming installation meets manufacturer requirements.
- 3. Assembly to have 9'-6" interior clearance.
- 4. 304 #3 finish 20 gauge stainless steel finish where exposed, 20 gauge galvanized steel where concealed.
- 5. Factory floor with smooth aluminum finish, recessed in slab 8 1/2". Secure floor to wall assembly with cam-lock assembly. KEC to ensure the floor assembly is level prior to the wearing bed installation. Kitchens finished floor to extend to walk-in.
- 6. Factory floor with diamond treadplate finish, recessed in slab 4". Provide reinforced super floor with 3/4" marine grade plywood foamed in place at the factory with fiberglass reinforced plastic structural grid and a stainless steel floor. Installation to meet all NSF and UL listings.
- 7. Reinforced 36" internal ramp integral to floor assembly.
- 8. Threshold to be smooth and level with finished floor. Critical.
- 9. Interior walls to be .040" aluminum, white embossed texture on walls.
- 10. Ceiling to be embossed textured .040" aluminum baked white enamel.
- 11. Two (2) 36" doors. Doors to be 18 gauge stainless steel, type 304 (18-8), #3 finish, with heated perimeter / door jambs / windows and threshold heaters. Each door to be equipped with 3'-0" high diamond tread kick plate on both sides of doors. Mount hinged doors on two (2) Kason model no. 1346 (or equal); polished chrome plated nylon cam-lift hinges.
- 12. Provide an illuminated Push Button and Entrapment alarm within cooler and freezer, interconnected to Edwards 860 Series Strobe Beacons (or equal), in Kitchen above freezer and Cafetorium (Verify Location). (Strobe Beacons by Div. 26). Alarm to notify facility personnel of activation based on district/owner requirements.
- 13. Provide Kason model no. 0487 Frost Free Inside release (or equal). Fiberglass rod and plastic flange, with safety glow plastic knob, ADA compliant.
- 14. Manual backup vacuum release mechanism to punch hole in wall assembly to release vacuum within freezer assembly. Mechanism to include a pull-down handle with freeze-proof hand grip. Handle to have the ability to penetrate and/or punch hole in wall accordingly to assist with opening of door assembly in the event of entrapment (and failure of Frost free inside release button). Wall panel to include a knockout section to assist with requirements. Release mechanism assembly to be built-in/mounted to the door assembly structural frame to minimize mechanism tear-out and/or failure. Handle to be painted yellow with phenolic label "Vacuum Pressure Release".

- 15. Adjust door height as required to accommodate mobile interior shelving.
- 16. 18 gauge stainless steel, type 304 (18-8), #3 finish trim where adjacent to walls and enclosure panels that extend to 2" above finished ceiling.
- 17. Freezer One (1) lot LED light fixtures to operate in temperatures to -20 F. Lights to be installed perpendicular to coils.
- 18. Refrigerator- One (1) lot LED light fixtures. Lights to be installed perpendicular to coils.
- 19. 3'-0" high diamond tread plate at exposed exterior surfaces. Fasten to wall with stainless steel fasteners.
- 20. Provide door bumper at doors.
- 21. Compartments to be have all electrical concealed within the walls or located above the ceiling.
- 22. Coordinate wall opening size with door assembly.
- 23. 18 gauge stainless steel, type 304 (18-8), #3 finish, wrap wall opening at door assembly.
- 24. Provide Manufacturers alarm/control system that includes hi/low limits . Route temperature sensor to be located to the side of evaporator coil. (Verify with District preference).
- 25. Doors to be provided with CCI Industries, Inc., Clear-VU swinging door assemblies. (NOT REQUIRED IF ITEM 116 AIR SHIELD IS SPECIFIED.)
- 26. **(PM Only applies if tile floors are being provided:)** K.E.C. to provide aluminum coved base to interior of assembly. Provide sealant between floor and wall panels.
- 27. All holes in assembly to be sealed by factory installer.
- 28. 6" oversized heated Pressure Relief Port with red indicator light to confirm electrical interconnection. Locate 12" below ceiling on cooler/freezer common wall and on cooler wall. Additional Heated Relief Port to be provided on freezer door and interconnected to door assembly electrical. Locate upper corner of hinged side of door.
- 29. Standalone Freezer assembly to have 6" oversized Heated pressure relief ports located 12" below ceiling and mounted in the door frame assembly.
- 30. KEC to field verify all horizontal/vertical measurements and conditions at the building prior to fabrication or delivery of equipment.
- 31. KEC to provide 1 year walk-in panel installation warranty. KEC is responsible for overall install accuracy/quality and quality control of work performed regardless of installer or any field modifications due to building/construction conditions. KEC to provide Letter of Install Approval to FDP upon completed install.
- 32. Manufacturer to provide One Year Parts and Labor Warranty.
- 33. Interwiring of temperature monitor panel to master building alarm system or to the Owner's network. Technology department to provide all interfacing of alarm system and with the building alarm system. Conduit from refrigeration system to monitor by Division 26. Temperature Monitor installation at 4'-0" above finished floor. All conduit to be located above walk-in cooler/freezer ceiling. Exposed electrical conduit is not acceptable. Threshold to be smooth and level need to be moved up just after last flooring option line.
- 34. Manufacturer Representative to provide training on controls and inside emergency release mechanisms.

# ITEM NO. 903A COLD STORAGE REFRIGERATION SYSTEM

# **QUANTITY 1**

Manufacturer:	RDT
Model:	ZS1-2 EcoSmart
Size and Shape:	Refer to drawings
Alternate:	Cold Zone

- 1. Air cooled system.
- 2. Cooler temperature to be +35 degrees.
- 3. Freezer temperature to be -10 degrees.
- 4. EcoSmart system on demand defrost.
- 5. KE2 Controllers located per Owner requirements.
- 6. S/S covered housing.
- 7. All exterior piping to be aluminum wrapped.
- 8. System to accommodate Item No. 902 Cold Storage Assembly.
- Unit to be located on roof. Refer to Architectural and Engineering drawings for exact location of remote unit. Coordinate routing of refrigeration lines and conduit with appropriate trades. Heat tape and insulate all drain lines. General Contractor to seal all building penetrations at refrigeration lines.
- 10. Special Instruction: Unit to be connected to back-up generator per TISD standards.

# ITEM NO. 903B COLD STORAGE REFRIGERATION SYSTEM

Manufacturer:	RDT
Model:	ZS1-2 EcoSmart
Size and Shape:	Refer to drawings
Alternate:	Cold Zone

- 1. Air cooled system.
- 2. Cooler temperature to be +35 degrees.
- 3. Freezer temperature to be -10 degrees.
- 4. EcoSmart system on demand defrost.
- 5. KE2 Controllers located per Owner requirements.
- 6. S/S covered housing.
- 7. All exterior piping to be aluminum wrapped.
- 8. System to accommodate Item No. 102 Cold Storage Assembly.
- 9. S/S covered housing mounted to a 36" tall 1/8 galvanized angle iron frame anchored to concrete pad. Provide S/S skirting around frame.
- 10. Mount condensing unit on common exterior rack. Refer to Architectural and Engineering drawings for exact location of remote unit. Coordinate routing of refrigeration lines and conduit with appropriate trades. Heat tape and insulate all drain lines. General Contractor to seal all building penetrations at refrigeration lines.
- 11. **Special Instruction:** Unit to be connected to back-up generator per TISD standards.

# ITEM NO. 904 COLD STORAGE SHELVING - QTY 2 FUTURE

#### **QUANTITY 3**

Manufacturer:	Cambro
Model:	<b>Camshelving Premium</b>
Size and Shape:	Refer to drawings
Alternate:	

- 1. Each unit to be four (4) tiers high with open grid mats.
- 2. Four (4) 74" post per unit. Provide foot plates at all posts when assembly is supplied with walk-in floor.
- 3. Refer to drawings for size, width and lengths.
- 4. Quantity Two (2) to equal One (1) lot: all shelving shown within cold storage assembly.
- 5. Verify shelving requirements with approved submittal prior to ordering.

# ITEM NO. 907 DRY STORAGE SHELVING - FUTURE

**QUANTITY 1** 

Manufacturer:	Cambro
Model:	Camshelving Premium
Size and Shape:	Refer to drawings
Alternate:	

- 1. Each unit to be five (5) tiers high with open grid shelving.
- 2. Four (4) 86" posts per unit.
- 3. Quantity One (1) to equal One (1) Lot: all shelving shown within the dry storage room.
- 4. Refer to drawings for size, width and lengths.
- 5. Verify shelving requirements with approved submittal prior to ordering.
- Provide four (4) Can Storage Rack model CR24E, each accommodates (8) #10 cans or (12) #5 cans, corrosion-resistant, taupe epoxy finish, compatible with MetroMax® i, MetroMax® Q, & Super Erecta Pro shelves.

### ITEM NO. 909 ICE MACHINE - FUTURE

Manufacturer:	Hoshizaki
Model:	KML-500MAJ/B-500
Size and Shape:	Refer to drawings
Alternate:	Manitowoc

- 1. Stainless steel bin.
- 2. Stainless steel legs.
- 3. Provide bin adapter kit as required.
- 4. Provide Luminice II Virus and Bacteria Inhibitor.
- 5. Provide sizes and quantities as required: T&S model #HW-6<u>VERIFY</u>-48 water hose and disconnect from filter to Ice Machine.
- 6. KEC to coordinate routing of water lines from the ice machine to the remote water filter system.

- 7. One (1) pre-filter and water filter sized to manufactures recommendations. Mount on wall adjacent to ice machine in an easily accessible location.
- 8. Coordinate cord and cap with receptacle. Water supply to filter to be hard copper plumbed. 60" long flex hose from filter to ice maker. Interconnection thru water filter to ice machine and final connection by Division 22. Water filter overflow tube to be strapped to back side of ice machine and extend to 1" above floor sink.

# ITEM NO. 910 STACKED WASHER/DRYER - FUTURE

**QUANTITY 1** 

Manufacturer:	Owner Furnished
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Washer:
- 2. 2.0 cubic ft. capacity.
- 3. Straight vane agitator.
- 4. 7 cycles, 2-speed.
- 5. 4 water temperatures.
- 6. "Quick pak" sound insulation.
- 7. Color to be white.
- 8. Water and drain hoses.
- 9. Dryer:
- 10. 3.4 cubic ft. capacity.
- 11. 4 cycles plus Air only.
- 12. Auto dry.
- 13. Wrinkle Guard 1.
- 14. Color to be white.
- 15. To include dryer cord and vent kit.
- 16. Units to include model stationary assembly including: white stack stand, dryer wall mount kit,door latch kit.
- 17. Verify utility requirements with owner/operator. Models at time of delivery shall be the current models numbers.

#### ITEM NO. 913 FLORAL COOLER

#### **QUANTITY 1**

American Panel
Refer to drawings
Thermokool, Bally, Kolpak

1. Installation to be completed by Jack Horton or Approved Authorized Installer. Installation to be completed by Factory Approved / Authorized installer. Refer to Section 2.33 Submittal drawings to include factory approval letter or certificate.

- 2. Manufacturer to review final installation and provide a letter confirming installation meets manufacturer requirements.
- 3. Assembly to have 9'-6" interior clearance.
- 4. 304 #3 finish 20 gauge stainless steel finish where exposed, 20 gauge galvanized steel where concealed.
- 5. Threshold to be smooth and level with finished floor. Critical.
- 6. Interior walls to be .040" aluminum, white embossed texture on walls.
- 7. Ceiling to be embossed textured .040" aluminum baked white enamel.
- 8. Floorless Assembly with screeds secured to slab.
- One (1) 36" door. Doors to be 18 gauge stainless steel, type 304 (18-8), #3 finish, with heated perimeter / door jambs / windows and threshold heaters. Each door to be equipped with 3'-0" high diamond tread kick plate on both sides of doors. Mount hinged doors on two (2) Kason model no. 1346 (or equal); polished chrome plated nylon cam-lift hinges.
- 10. Provide an illuminated Push Button and Entrapment alarm within cooler and freezer, interconnected to Edwards 860 Series Strobe Beacons (or equal), in Kitchen above freezer and Cafetorium (Verify Location). (Strobe Beacons by Div. 26). Alarm to notify facility personnel of activation based on district/owner requirements.
- 11. Provide Kason model no. 0487 Frost Free Inside release (or equal). Fiberglass rod and plastic flange, with safety glow plastic knob, ADA compliant.
- 12. Manual backup vacuum release mechanism to punch hole in wall assembly to release vacuum within freezer assembly. Mechanism to include a pull-down handle with freeze-proof hand grip. Handle to have the ability to penetrate and/or punch hole in wall accordingly to assist with opening of door assembly in the event of entrapment (and failure of Frost free inside release button). Wall panel to include a knockout section to assist with requirements. Release mechanism assembly to be built-in/mounted to the door assembly structural frame to minimize mechanism tear-out and/or failure. Handle to be painted yellow with phenolic label "Vacuum Pressure Release".
- 13. All conduit to be exposed. No ceiling penetrations.
- 14. 18 gauge stainless steel, type 304 (18-8), #3 finish trim where adjacent to walls and enclosure panels that extend to 2" above finished ceiling.
- 15. Refrigerator- One (1) lot LED light fixtures. Lights to be installed perpendicular to coils.
- 16. 3'-0" high diamond tread plate at exposed exterior surfaces. Fasten to wall with stainless steel fasteners.
- 17. Provide door bumper at doors.
- 18. Provide Manufacturers alarm/control system that includes hi/low limits . Route temperature sensor to be located to the side of evaporator coil. (Verify with District preference).
- 19. Doors to be provided with CCI Industries, Inc., Clear-VU swinging door assemblies.
- 20. All holes in assembly to be sealed by factory installer.
- 21. KEC to field verify all horizontal/vertical measurements and conditions at the building prior to fabrication or delivery of equipment.
- 22. KEC to provide 1 year walk-in panel installation warranty. KEC is responsible for overall install accuracy/quality and quality control of work performed regardless of installer or any field

modifications due to building/construction conditions. KEC to provide Letter of Install Approval to FDP upon completed install.

- 23. Manufacturer to provide One Year Parts and Labor Warranty.
- 24. Interwiring of temperature monitor panel to master building alarm system or to the Owner's network. Technology department to provide all interfacing of alarm system and with the building alarm system. Conduit from refrigeration system to monitor by Division 26. Temperature Monitor installation at 4'-0" above finished floor. All conduit to be located above walk-in cooler/freezer ceiling. Exposed electrical conduit is not acceptable.
- 25. Manufacturer Representative to provide training on controls and inside emergency release mechanisms.

# ITEM NO. 921 TWO COMPARTMENT SINK - QTY 2 FUTURE

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S marine edge with 2" turndown at free sides.
- 2. Open base construction.
- 3. 10" high splash where adjacent to walls/fixtures.
- 4. Two (2) 24" x 26" x 15" deep sink compartments.
- 5. One (1) T&S model no. B-0291, splash mount faucet, 18" swing nozzle,LL inlets, for <sup>3</sup>/<sub>4</sub>" hot and cold water connections.
- 6. Two (2) Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. Provide 18 gauge S/S bracket for drain handle welded to sink bottom.
- Provide One (1) T&S model no. B-0133-EE-CR-8C pre-rinse, *two (2)* B-0108-C spray head, two(2) B-0109-04 18" long wall bracket (dealer to cut to correct length), one (1) additional spray face model no. 108SFRK with ceramic cartridges.
- 8. 16 gauge S/S undershelf per drawings.
- 9. 12" deep single post mounted perforated overshelf at 18" above counter top, punched to accommodate spray rinse.
- 10. Post mounted utensil rack, extend 1-5/8" diameter S/S post from back splash, turn forward 12" and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with owner.
- 11. One (1) Chicago model no. 305-VBRCF hose bibb and rack mounted on 12 gauge S/S bracket ground and polished to match top. Hose and spray nozzle by owner.
- 12. Omit rear rail at sink compartments, disposer and front rail at hose bibb.
- Two (2) "Richlite" ½" thick removable sink covers installed at each sink. Weld ¼" bar stock, set 5/8" below work surface at all four corners for support of sink covers. Two (2) finger holes per board.
- 14. Provide top and bottom c-channel support storage for sink covers at right or left end of counter.
- 15. One (1) Edlund model no. S-11 Manual can opener, mounted on raised platform.

- 16. Flanged feet at front only.
- 17. Seal at all splash penetrations.

# ITEM NO. 922 GRIDDLE - FUTURE

# **QUANTITY 2**

Manufacturer:	Vulcan
Model:	948RX
Size and Shape:	Refer to drawings
Alternate:	

- 1. Igniter and Flame Safety features.
- 2. Natural gas.
- 3. Provide quantities and sizes required: T&S Brass Model# HG-4D-48SK. Gas connection 48" long with male to Quick Disconnect with SwiveLink, 360 degree, fittings for both hose ends. Quick disconnect to be located at the appliance. Installation kit includes restraining cable. Hose to be Hydro-Formed corrugated 321 series stainless steel. Hose ends to be welded and outer coating to be extruded. Diameter and length to be determined by requirements of specific equipment.5 year warranty. Restraining device: heavy duty steel cable, fastened to equipment and walls, 3" to 6" shorter than equipment connector length.

# ITEM NO. 923 DISPOSER 3 HP - FUTURE

Manufacturer:	Salvajor
Model:	200-CA-18-ARSS -LD
Size and Shape:	Refer to drawings
Alternate:	

- 1. Fixed nozzle.
- Delete standard syphon breakers and provide T & S B-0456-04 vacuum breakers and mount 6" from tabletop to base of breaker.
- 3. Solenoid valve.
- 4. Flow control.
- 5. Model no. ARSS-LD control panel.
- 6. Auto-reverse.
- 7. Dejamming tool.
- 8. Install vacuum breaker in splash
- 9. S/S cone cover.
- 10. Perforated silver saver and disposer cone with scrap ring.
- 11. Two (2) Swirl inlet located in disposer cone at a 45 degree angle.
- 12. GC to pipe 1/2" cold water to disposer body and swirl inlets. Excess electrical cord to be secured to fabrication as required. Install into counter by section 114000.

# ITEM NO. 924 REFRIGERATED BASE - FUTURE

# **QUANTITY 2**

Manufacturer:	Delfield
Model:	F17C52
Size and Shape:	Refer to drawings
Alternate:	

- 1. Stainless steel front, sides, drawers and grille. Stainless steel back
- 2. Stainless steel interior
- 3. Full electronic control
- 4. 6" Casters, 2 with brakes.
- 5. Lifetime warranty on all drawers and slides

# ITEM NO. 929 WORKTABLE W/S.BAR UT.RACK - FUTURE

#### **QUANTITY 6**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S, 2" turn down at free sides.
- 2. Open base construction.
- 3. 16 gauge S/S undershelf.
- 4. Two (2) 20" W x 20" L drawer assemblies. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 5. Flanged feet.
- Post mounted utensil rack, extend 1-5/8" diameter S/S post from cross rail, thru top to 78" A.F.F. and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with Owner.
- 7. Provide a duplex receptacle and housing mounted below countertop per drawings. Interconnect and prewire a 5'-0" cord and plug out of receptacle housing for plugging into ceiling drop cord receptacle. 114000 and Div. 26 to coordinate location of drop cord receptacle.

# ITEM NO. 932 SIX BURNER RANGE - FUTURE

Manufacturer:	Vulcan
Model:	36S-6B
Size and Shape: Alternate:	Refer to drawings
Allemale.	

- 1. Standard oven with two (2) oven racks.
- 2. Stainless steel front, sides,
- 3. 3/4" rear gas connection.
- 4. 10" high stainless steel backguard.

- 5. Heavy duty casters, two (2) with brakes.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.

# ITEM NO. 936 BAKER'S TABLE - FUTURE

**QUANTITY 2** 

Manufacturer:	Custom Fabricated
Model: Size and Shape:	 Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S with 2" square turn down at front, 6" high enclosed splash at sides and rear.
- 2. 1-1/2" thick hard maple tabletop with 2" drop edge at all sides by John Boos.
- 3. Provide finished back at exposed backsplash.
- 4. 12" deep post mounted overshelf at 18" above counter top.
- 5. Post mounted utensil rack, extend 1-5/8" diameter S/S post from back splash, turn forward 12" and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center. Verify height with owner.
- 6. 18 gauge butt joint wall panel from splash to underside of shelf.
- 7. 12" deep saddle mount overshelf (for hard maple tabletop.)
- 8. 16 gauge S/S flour trough.
- 9. Rear rail only.
- 10. One (1) lot Rubbermaid no. FG360288WHT ingredient bins.
- 11. One (1) tier of three (3) 20" x 20" x 5" deep all stainless steel drawers. To be in #18 gauge stainless steel housing having 3/4" radius (vertical) exterior corners.

#### ITEM NO. 939 INSUL MOBILE PROOFER - FUTURE

Manufacturer:	CresCor
Model:	H-137-WSUA-12D
Size and Shape:	Refer to drawings
Alternate:	

- 1. Insulated proofer/heated cabinet.
- 2. Field reversible doors.
- 3. Adjustable universal angles.
- 4. Four (4) 5" casters, two (2) with brakes.
- 5. Tempered glass door windows.
- 6. Key lock handle.
- 7. Corner bumpers.
- 8. Cord and plug. Coordinate NEMA configuration with Electrician.
- 9. Thermometer.

10. 1500 watt heater.

# ITEM NO. 944 FRYER - FUTURE

**QUANTITY 2** 

Manufacturer:	Frymaster
Model:	MJ140
Size and Shape:	Refer to drawings
Alternate:	

- 1. 40lb oil capacity.
- 2. S/S fry tank and twin baskets. Provide extra set of twin baskets.
- 3. S/S cabinet
- 4. Four (4) casters two (2) with brakes.
- 5. Fry pot cover.
- 6. Cord and plug assembly.
- 7. Fryer located in restaurant portion to have Frymaster built in filter system.
- 8. Provide one (1) Frymaster portable oil filter for lab fryers.
- 9. Provide one (1) Frymaster portable shortening disposal unit.
- Provide quantities and sizes required: Dormont Model #VER-KITCF-2S-48 Gas connection kit, 48" long, double Super-Swivel coupling with Safety Quick safety fitting w/coiled restraining device, full port gas valve, antimicrobial coating, lifetime warranty.

#### ITEM NO. 948 DISHMACHINE - FUTURE

Manufacturer:	Hobart
Model:	CL44eN-BAS
Size and Shape:	Refer to drawings
Alternate:	Champion

- 1. Dishwasher, conveyor type, single tank design, 202 racks/hour capacity, S/S construction, with automatic fill, auto timer, and 115 volt pilot circuit.
- 2. 15 KW Electric tank heat.
- 3. 480/60/3.
- 4. Verify direction of dishmachine with drawings.
- 5. One (1) Extended warranty One (1) Year parts and labor.
- 6. Chamber height to be 4" taller than standard.
- 7. Single point electrical connection for Motors, Controls and Tank Heat. Div. 26 to provide S/S disconnect switches located as per plans interconnected to dishmachine and external booster heater.
- 8. Two (2) vent cowls with 4 x 16 vent and damper. Provide 18 gauge stainless steel seamless duct risers 6" above finish ceiling for final connection. The duct: trimmed at ceiling with 16 gauge stainless steel flange with all corners welded.
- 9. One (1) table limit switch with stainless steel cover to conceal back. Provided by Manufacturer / Installed by Div. 26.

- 10. Four (4) 20"x20" Peg racks.
- 11. Four (4) 20" x 20" sheet pan racks.
- 12. Two (2) 20" x 20" combination racks.
- 13. Vent fan controls.
- 14. Drain water tempering kit. Drain water tempering kit is to be installed by Hobart Service.
- 15. Peak Rate of drain flow = 38 gpm. Division 22 to provide and install backflow preventor between booster heater and filter. Final connection by Division 22. Coordinate location of electrical disconnects on free wall.

#### ITEM NO. 949 THREE COMPARTMENT SINK - FUTURE

# **QUANTITY 1**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14-gauge S/S 3" high 1-1/2" rolled rim at free sides, 10" high splash at walls.
- 2. Open base construction.
- 3. Omit rear rail at sink.
- 4. Three (3) 30" x 26" x 15" deep sink compartment.
- 5. Two (2) T&S model no. B-0291, splash mount faucet, 18" swing nozzle, LL inlets, for <sup>3</sup>/<sub>4</sub>" hot and cold water connections.
- 6. Three (3) Fisher 22306 twist waste valve 3 1/2" x 2" with overflow and tailpiece. Provide 18 gauge S/S bracket for drain handle welded to sink bottom.
- 7. 12" deep single post mounted perforated overshelf mounted at 18" above counter top.
- 8. 18-gaugebutt joint wall panel from splash to underside of shelf.
- 9. Post mounted utensil rack, extend 1-5/8" diameter S/S post from back splash, turn forward 12" and weld full length x 2" x ¼" S/S bar with Component Hardware model no. V-77-4401 S/S sliding hooks at 8" on center.
- 10. One (1) Chicago model no. 305-VBRCF hose bibb and rack mounted on 12 gauge S/S bracket ground and polished to match top. Hose and spray rinse by owner.
- 11. Omit front rail at hose bibb.
- 12. 16-gauge S/S undershelf as per drawings.
- 13. Flanged feet at front only of counter.
- 14. Anchor flanged feet to floor with non-corrosive bolts. Secure wall mounted equipment / components to in wall grounds or anchor plates. Coordinate installation with the general contractor.

# ITEM NO. 950 FOUR BURNER RANGE - FUTURE

**QUANTITY 2** 

Manufacturer: Model: Size and Shape: Vulcan V4B36- B, S OR C Refer to drawings

#### Alternate:

Garland, Montague, Southbend

- 1. Standard base oven
- 2. Convection oven base.
- 3. 3/4" rear gas connection. Stainless steel cap and plat at front manifold.
- 4. 3/4" gas regulator.
- 5. 10" high stainless steel backguard.
- 6. Heavy duty casters with brakes.
- 7. Electronic ignition.
- 8. Cord and plug assembly, coordinate NEMA configuration with electrician.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.

# ITEM NO. 951 FIRE PROTECTION SYSTEM - FUTURE

#### **QUANTITY 2**

Manufacturer:	Ansul
Model:	R102
Size and Shape:	Refer to drawings
Alternate:	

- 1. Duct and plenum protection to exhaust hood.
- 2. Surface protection for cooking equipment.
- 3. Locate remote fire pulls as recommended by Fire Marshal.
- 4. One (1) lot Mechanical gas valve (maximum diameter as required). Size as required. Furnished by Section 114000, installed by Division 22. Kitchen Equipment Contractor to coordinate location with local Fire Marshal requirements prior to submittal review. All conduits to be recessed within wall, SURFACE MOUNTING WILL NOT BE ACCEPTED.
- 5. System to meet U.L. 300 requirements.
- 6. Provide one (1) hand held Type 'K' and ABC 6 liter fire extinguisher per Ansul System, surface wall mounted.
- 7. Exposed pipe threads are unacceptable.
- 8. All exposed piping to be chrome plated.
- 9. All hood penetrations to have U.L. listed "Quick Seal". Provide s/s escutcheons at all hood penetrations.
- 10. Provide phenolic I.D. labels for exhaust hood, remote fire pull, light/fan switches and fire protection system.
- 11. Provide a manufacturer performance test and report that verifies this system is fully operational.
- 12. Provide s/s cabinet as shown on plan.
- 13. Installer to provide one (1) Ansul system per exhaust hood, review drawings and provide systems as required.
- 14. Install hand held extinguishers, maximum of 3'-2" A.F.F. to top of unit.

# ITEM NO. 952 EXHAUST HOOD - FUTURE

# **QUANTITY 1**

Manufacturer:	By Mechanical
Model:	
Size and Shape:	
Alternate:	

**ITEM NO. 953** 

# **EXHAUST HOOD - FUTURE**

**QUANTITY 1** 

By Mechanical

**ITEM NO. 954** 

#### **SOILED & CLEAN DISHTABLE - FUTURE**

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S 3" high 1-1/2" rolled rim at free sides. 10" high splash at walls.
- 14 gauge S/S recessed deposit shelf. Extend shelf through opening to be flush with wall at deposit side. Turn shelf down 2" at front with <sup>3</sup>/<sub>4</sub>" return at bottom (either scribed into partition or forming reveal). Shelf: integral with dishtable. Provide Component Hardware E32-4900 drain extend drain line to floor sink.
- 3. 18 gauge butt joint wall panel from splash to underside of shelf.
- 4. Modify rolled rim at the operators side of the tray drop window to have a 3" rolled rim.
- 5. Install Disposer as shown. Notch and punch splash turn back for vacuum breaker. 12 gauge S/S bracket mounted below counter top and polished to match top for disposer control panel.
- Provide One (1) T&S model no. B-0133-EE pre-rinse, B-0108-C spray head, two (2) B-0109-04 18" long wall bracket (dealer to cut to correct length), one (1) additional spray face model no. 108SFRK with ceramic cartridges.
- 7. One (1) Chicago model no. 305-VBRCF hose bibb and rack mounted on 12 gauge S/S bracket ground and polished to match top. Hose and spray rinse by owner.
- 8. One (1) 18" disposer cone.
- 9. Removable S/S rack guide assembly when sink is shown.
- 10. Provide  $\frac{1}{2}$ " slope in top towards dishmachine per the general specifications.
- 11. When shown, one (1) Cookson Model #ESC10 S/S roll down door at the deposit shelf. The door hood is to be mounted to the face of the wall on the operator's side. Push-up operation.
- 12. Fully welded s/s window frame and s/s trim on face sides and top (both sides), coordinate with roll down door.
- 13. S/S corner filler at backsplash; slope to dishtable.
- 14. S/S cover to conceal table limit switch.

- 15. 2 1/2" backsplash at dishmachine portion, single thickness of s/s will not be accepted.
- 16. Anchor flanged feet to floor with non-corrosive bolts. Secure wall mounted equipment / components to in wall grounds or anchor plates. Coordinate installation with the general contractor.
- 17. Radius Turning Bar located per drawings. ¼" x 2" flat S/S bar welded to 1/2" diameter post fully welded to the countertop. 36" radius at turning bar. Fabrication to allow for continuous discharge of racks to the table limit switch. KEC to coordinate requirements with fabrication.

# ITEM NO. 955 MOBILE UTENSIL SHELF - QTY. 2 FUTURE

# **QUANTITY 6**

Manufacturer:	Cambro
Model:	Camshelving Premium
Size and Shape:	Refer to drawings
Alternate:	

- 1. Four (4) tier, indlcudes two (2) drop-ins and (1) cutting board/tray drying rack, built in Microban antimicrobial product protection.
- 2. Four (4) 75" high posts.
- 3. Two (2) no. 5MPX casters per unit.
- 4. Two (2) no. 5MPBX locking casters per unit.
- 5. Two (2) bottom shelves equipped with sheet pan drying rack assemblies.

# ITEM NO. 956 UTILITY SINK - FUTURE

# **QUANTITY 2**

Manufacturer:	Advance Tabco
Model:	400
Size and Shape:	Refer to drawings
Alternate:	

#### **ITEM NO. 960**

#### HAND SINK - QTY. 4 FUTURE

Manufacturer:	Advance Tabco
Model:	7-PS-50
Size and Shape:	Refer to drawings
Alternate:	

- 1. 20 gauge stainless steel construction.
- 2. Basket drain and wall bracket.
- 3. Gooseneck faucet with wrist handles.
- 4. Soap and towel dispensers by Owner.
- 5. P-Trap assembly, delete open/close drain valve.
- 6. Custom fabricated removable end splashes on sides as required by code. height same as rear splash.
- 7. Trade contractor to provide temperature adjustment valves as required.

# ITEM NO. 961 CONVECTION OVEN - FUTURE

# **QUANTITY 2**

Manufacturer:	Blodgett
Model:	DFG-100ES DBL
Size and Shape:	Refer to drawings
Alternate:	

- 1. S/S front, top and sides.
- 2. Two (2) 1/2 HP 2-speed motors.
- 3. Natural gas.
- 4. SSI-M solid state infinite control with manual timer.
- 5. Electronic spark ignition.
- 6. Five (5) oven racks per compartment.
- 7. Dual pane thermal windows.
- 8. Simultaneous door operation.
- 9. Heavy duty casters, two (2) with brakes.
- Provide quantities and sizes required: T&S Model #HG-4<u>VERIFY</u>-48SK Antimicrobial Coated Hose w/NPT Male Ends, Swivel Links, 2-Piece Quick Disconnect, 90° Elbow & Installation Kit w/coiled restraining device, full port gas valve, lifetime warranty.
- 11. Dedicated gas connections, do not manifold.
- 12. Shunt trip breaker by Division 26.

# ITEM NO. 967 MOBILE WORKTABLE

Manufacturer:	Custom Fabricated
Model:	
Size and Shape:	Refer to drawings
Alternate:	

- 1. Top: 14 gauge type 304 S/S with 2" turndown at all sides.
- 2. Open base construction.
- 3. 16 gauge S/S undershelf per drawings.
- 4. Two (2) 20" W x 20" L drawer assemblies. Component Hardware #S52-2020 drawer slides with delrin bearings 200lb capacity. Component Hardware #S80-2020 drawer pan.
- 5. 5" N.S.F. approved non-marking swivel casters, two with brakes.
- At one (1) table only, table height to match takeoff shelf. (For Single deck, table height to match takeoff shelf. For Double, table height to match lowest take off shelf. For Triple, table height to match center take off shelf.)
- Recessed top per drawings to accommodate cutting board. Cutting board to be flush with rest of counter. Provide stainless steel pegs in recessed top to hold cutting board in place. Cutting board to be <sup>1</sup>/<sub>2</sub>" thick Richlite.

8. One (1) table located at Pizza Oven #172, is to match lowest (or intermediate, if 3- tier) pizza conveyor belt height. Table to have 1" recess in top with pegs for 24" x 24" x 1" Richlite Cutting Board. Cutting Board by 11 40 00.

#### ITEM NO. 984 MICROWAVE - FUTURE

**QUANTITY 2** 

Manufacturer:	Panasonic
Model:	NE-17523
Size and Shape: Alternate:	Refer to drawings

1. **Special Instruction:** Coordinate cord and cap with receptacle.

#### ITEM NO. 992 REACH-IN REFRIGERATOR - 1DR

**QUANTITY 2** 

Manufacturer:	Traulsen
Model:	AHT-132WUT
Size and Shape:	Refer to drawings
Alternate:	

- 1. Anodized aluminum interior and S/S exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.
- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. 6" high adjustable S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Five (5) Year compressor warranty.
- 9. Omit plug. Unit to be Hard Wired.
- 10. Full height glass doors hinged as per plan.
- 11. Re-hinging feature.
- 12. Coordinate connection to back-up generator per TISD standards.

# ITEM NO. 993 REACH-IN FREEZER - 3DR

Manufacturer:	Traulsen
Model:	RLT-332WUT
Size and Shape:	Refer to drawings
Alternate:	

- 1. S/S interior and exterior.
- 2. Interior lights with bulbs.
- 3. Exterior digital thermometer.
- 4. Locking hardware.

- 5. Universal 18" x 26" and 12" x 20" pan files on 4" centers in all sections.
- 6. S/S legs.
- 7. Furnish start-up and three (3) years repair service, including parts and labor.
- 8. Five (5) Year compressor warranty.
- 9. Provide cord and plug.
- 10. Full height stainless steel doors hinged as per plan.
- 11. Re-hinging feature.
- 12. Traulsen to provide temperature monitoring / alert feature. Connect to building wifi or ethernet.
- 13. Coordinate connection to back-up generator per TISD standards.

# END OF TOMBALL HS 3