
SECTION 11 40 00**FOOD SERVICE EQUIPMENT**

PART 1 - GENERAL**FOODSERVICE EQUIPMENT SPECIFIC CONDITIONS****PART I - GENERAL****1.1 RELATED DOCUMENTS**

- A. General provisions of the contract, including General Conditions, Supplementary Conditions and General Documents, other Division I specification Documents and other Division I specification sections apply under this section.

1.2 SCOPE OF WORK

- A. Furnish all labor, materials and services necessary for the installation of food service equipment in strict accordance with the Contract Documents and local codes including that which is reasonably inferred. No extra charge will be allowed for that which the Kitchen Equipment Contractor should have been familiar.
- B. Supervise and provide required instructions for work to be performed by other contractors in connection with requirements for all equipment under this section.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. LEED-NC Requirements: Division 1.
- B. Floors and setting beds, quarry tile and base, masonry pads, walls and finishes, ceilings and related building work: Divisions 3 through 9.
- C. Sub-floor, water proofing, floor depressions, wearing floor and coved base, and related building work for cold storage rooms: Divisions 3 through 9.
- D. Wire cloth, concrete setting bed, floor tile, grout and tile wall base with wire cloth and epoxy grout at depressed cold storage rooms: Divisions 3 through 9.
- E. Wall backing to support all wall mounted equipment: Division 5.
- F. All sealants: Division 7.
- G. All hood or ventilator duct work upstream from the connection position: Division 23.
- H. All water, waste, indirect waste piping from sinks and ventilators, steam and gas services to the equipment including all shut-off valves, plumbing trim, traps, etc., and final connections to the equipment except as specified herein: Division 22 and 23.

- I. All floor sinks and floor drains: Division 22.
- J. Piping sleeves for refrigeration and drain lines through building floors: Division 22 and 23.
- K. Final connection of the re-circulating and city water to refrigeration rack: Division 22.
- L. All electric services and components including wiring to and final connections to all equipment except as specified herein: Division 26.
- M. Furnishing and installation of conduit at cold storage rooms in cooperation with the Kitchen Equipment Contractor: Division 26.
- N. Furnishing and installation of main power lines to refrigeration systems control panel and wiring for control/defrost heaters between panel and coils in accordance with factory supplied wiring diagrams and local codes: Division 26.
- O. Installation of light fixtures furnished loose at cold storage rooms: Division 26.
- P. Connection of cold storage room temperature alarm system to the building security system: Division 26.
- Q. Grounding type receptacles for all wall mounted outlets to be used for plug-in equipment: Division 26.

1.4 OWNER/PURVEYOR FURNISHED EQUIPMENT

- A. Obtain and coordinate manufacturer and model number not less than 60 days before equipment is required.
- B. Obtain and coordinate utility requirements.

1.5 EXISTING EQUIPMENT

- A. Items of equipment scheduled and specified "Existing" or "By Owner" shall be removed from their present location and reinstalled as shown on the drawings and hereinafter specified.
- B. Verify location of existing equipment with Owner.
- C. Existing equipment utility connections shall be disconnected by others.
- D. All equipment shall be thoroughly cleaned and all broken or defective components replaced.

1.6 REGULATIONS

- A. All work and materials shall be in accordance with the latest rules and/or regulations of agencies/authorities having jurisdiction.
- B. All regulations, including building codes, and other codes applying to this jurisdiction should be followed. In addition all equipment shall comply with the following:
 - 1. Local Health Code
 - 2. National Fire Protection Association, Kitchen Ventilators (NFPA-96).
 - 3. National Electric Manufacturer's Association (N.E.M.A.).
 - 4. Underwriters Laboratories Inc., (U.L.), must bear label.
 - 5. National Electric Code, (N.E.C.).

6. National Sanitation Foundation, (N.S.F.), including NSF-7, must bear label.
 7. American Society of Mechanical Engineers must carry the (A.S.M.E.) stamp.
 8. American Gas Association (A.G.A.).
 9. Occupational Safety and Health Act (O.S.H.A.) Standards.
 10. Hazard Analysis Critical Control Path (H.A.C.C.P.) Standards.
 11. America Disability Act (A.D.A.) Standards.
- C. The Contract Documents shall govern wherever they require larger sizes or higher standards than are required by regulations.
- D. The regulations shall govern whenever the Contract Documents require something which will violate the regulations.
- E. When seismic regulations are applicable, all equipment shall be fabricated and installed in accordance with those regulations. All seismic requirements shall be shown on all submittals. Submit requested information to the agencies and authorities having jurisdiction.
- F. No extra charge will be paid for furnishing items required by the regulations, but not specified and/or shown on the drawings.
- G. Rulings and interpretations of the enforcing agencies shall be considered a part of the regulations.

1.7 ALTERNATES AND SUBSTITUTIONS

- A. The materials or products specified herein by trade names, manufacturer's name or catalog number shall be provided as specified. Substitutions will not be permitted unless approved by owner's representative in writing no later than 10 days prior to bidding. This stipulation applies to all equipment & materials. All substitutions or alternates will be expected to perform in all respects as well as the original specification.
- B. Refer to Foodservice Equipment Bidders Guidelines.

1.8 REVIEW OF CONTRACT DOCUMENTS

- A. Unless expressly stipulated, and in a timely manner, no additional allowances will be made for Contractors or Manufacturers for errors, omissions or ambiguities not reported at time of bidding.
- B. Carefully review and compare the Contract Documents and at once report to Owner and/or Designer any errors, ambiguities, inconsistencies or omissions. Unless expressly stipulated, and in a timely manner, Kitchen Equipment Contractor shall be liable to Owner or Designer for any damage resulting from such errors, inconsistencies or omissions in the Contract Documents. Work shall not be done without approved Drawings, Specifications and/or Modifications and without receiving prior written authorization from Owner or Designer.

1.9 WARRANTY

- A. All equipment, fixtures and materials furnished and installed shall be guaranteed against defect in workmanship and material. All repairs and replacements which may have become apparent and necessary by reasons of such defects, during the first year after final completion and acceptance of equipment installation, shall be made without cost and

expense to the Owner. All such repairs and replacements shall be made at a time and during hours satisfactory to the Owner.

- B. For all commercially manufactured equipment that has refrigeration systems and semi-hermetic compressors, furnish an additional four (4) year warranty on all compressors.
- C. Warranty period shall commence with the date of final acceptance of installation by Owner.
- D. Components of equipment subject to replacement prior to one year's use and those items which may fail due to improper or inadequate periodic maintenance by the Owner/Operator are not intended to be included within the scope of warranty.
- E. Provide all labor, material, refrigerant, and incidental expenses to maintain the temperatures specified on all refrigeration systems. Systems to be kept in first class working condition for a period of one (1) year from date of acceptance by Owner, or the date systems are put into operation, whichever occurs first, without additional cost to the Owner.

1.10 SUBMITTALS

A. Use of Consultants Drawings

Consultant Drawings are not intended for construction purposes, but are information intended only for use by the Architect and Engineers as an aid in the design of the building and utility distribution systems and for bidding equipment purchase. Consultant drawings in electronic format will not be issued by the Architect or Owner to third parties, including equipment suppliers, without express written consent of the Consultant.

Consultant base Equipment Plans and Equipment Elevation Sheets will be provided to contracted equipment supplier in PDF electronic format on request without charge. Utility rough-in/connection schedules and plans will be provided in electronic format on payment by the KEC to Consultant of a nominal fee of \$250 per drawing sheet for third party formatting. Regardless of fees charged the transfer of drawings is not to be considered a sale and the Consultant makes no warranties, express or implied, of Merchantability or of fitness for a particular purpose.

Regardless of drawing formats provided it will remain the responsibility of equipment supplier to develop submittals in accordance with the Specific Conditions and assume all required responsibilities there to. The consultant is not to be liable for errors or omissions by the KEC's use of electronic data provided by the Consultant or the development of data used in the submittal approval process.

B. Product Data

1. After award of contract and before proceeding with the purchase of manufactured equipment, submit four (4) bound sets of specification sheets consisting of:
Hard Cover
Title Sheet

Index all items with columns for: Item number, quantity, description and status (fabricated, manufactured, by Owner/Operator, by General Contractor, etc.)

A typewritten lead sheet for each manufactured equipment item showing: Item number, quantity, description; manufacturer's name, address and telephone; model

number; optional finishes, equipment, accessories and modifications; utilities required and special notes.

Manufacturer's specification sheets and/or drawings.

C. Drawing Submittals

1. For all drawing submittals provide electronic disk media in addition to the vellum and bond copies.
2. Also submit one (1) CAD produced vellum or sepia set and two (2) bond copies (blue or black line) sets of drawings for Consultants review. Plan drawings shall be at a scale of ¼" - 1'-0" (1:50).

D. Rough-In Drawings.

1. Drawings shall be dimensioned, showing ventilation requirements, floor and wall sleeves, plumbing, gas, steam, and electrical connections, including those items supplied by the Owner. Provide concrete pad dimensions, depressions and special conditions as required for equipment. Elevations and sections of special work shall be prepared for use of the respective trades. Kitchen Equipment Contractor shall be responsible for the accuracy of all information on his drawings.
2. The following shall each be drawn on separate sheets and/or plans: Plumbing; Electrical; Building Works & Ventilation; Refrigeration and Beverage Systems.
3. Utilities shall be stubbed out of walls wherever possible.
4. Verify mechanical, electrical, and ventilation rough-in and sleeve/conduit locations before floor slabs are poured.
5. In the event rough-in has been accomplished before the award of the contract, check existing facility and furnish all equipment to suit building conditions and utilities. No extra charges shall be allowed for utility changes to fit equipment during installation and connection.

E. Wall Backing Drawings

1. Prepare and submit as wall backing drawings. The drawings shall show the location and size of all wall backing required. The drawings shall be submitted for checking and to the General Contractor in time for the wall backing to be installed prior to closing of the walls.

F. Shop Drawings

1. Prepare and submit shop drawings for all special fabricated items of work included in this contract. The detail drawings shall be submitted at minimum of ¾" (1:20) scale for elevations and 1-1/2" (1:10) scale for sections. Drawings shall show all dimensions, all details of construction, installation and relation to adjoining and related work. Drawings shall show all reinforcements, anchorage and other related work required for the complete installation of all fixtures.

G. Refrigeration Drawings

1. Manufacturer's drawings and manufacturer's specification sheets shall be submitted for approval prior to commencing work. Drawings shall include refrigeration piping

showing actual line sizes and system allocation, evaporators, compressors, condensers, and required valves and accessories.

2. Specification sheets and drawings shall be presented in bound sets with all items and piping properly identified, including model, system allocation, any required electrical characteristics and BTU (KCAL) load as applicable.

H. Record Drawings

1. At the conclusion of the project and prior to final payment provide updated record Drawings incorporating all changes that occurred during construction in the form of CAD disks and one (1) set of vellums.

I. Checking

1. Checking product data, rough-in drawings, wall backing drawings, shop drawings, and refrigeration drawings by Designer is for design concept only, and does not relieve the Kitchen Equipment Contractor of responsibility for compliance with Contract Documents, verification of utilities with equipment requirements for conformity and location, verification of all dimensions of equipment and building conditions or reasonable adjustments due to deviations.
2. Drawings shall be prepared on the Kitchen Equipment Contractor's sheets and by his employees. Drawings and any part thereof created by photograph, paste-up, or other methods using Designers drawings and/or details will be returned for re-submittal.
3. Submittals and checking shall be accomplished before ordering equipment or starting fabrication.

J. Requests for Information (RFI's).

All RFI's to be submitted per General Conditions or otherwise by e-mail directly to the project manager.

K. Mailing and Distribution

1. All drawings shall be delivered in a mailing tube. Folded drawings shall be returned for re-submittal.
2. After checking, supply the specified number of distribution prints and as many as ten (10) corrected product data books as directed by the Owner.

1.11 PARTS AND SERVICE MANUALS

A. Furnish three (3) bound sets of parts and service manuals.

1. The manuals shall include a source directory for parts and service for all items.
2. The manuals shall be submitted in time to allow review and transmittal to the Owner/Operator prior to start-up and demonstration of the equipment. Manuals must be submitted before the Owner will issue final acceptance of the installation.

1.12 VERIFICATION AND COORDINATION OF PROJECT/DATA

A. Range Lines

All front manifold range lines shall be assembled and aligned at the factory before shipment, including back guards, high shelves and salamanders.

B. Pans and Inserts

Verify sizes with Owner on the following items before ordering or fabrication:

1. Steam Pans.
2. Sheet Pans.
3. Trays.
4. Glass and Cup Racks.

C. Quietness of Operation

Quietness of operation of all food service and refrigeration equipment is a requirement. Remove or repair any equipment producing abnormal and objectionable noises.

D. Delivery and Entry

Verify all conditions at the building, particularly door openings and passageways for large equipment. Coordinate with the General Contractor access to insure delivery of equipment to the required areas. Coordination shall include, but not be limited to, early delivery, hoisting, window removal and/or delay of wall construction. All special equipment, handling charges, window removal, etc. shall be paid for by the Kitchen Equipment Contractor.

E. Connection Terminals

All equipment will be complete with standard connections as they relate to their Country of Origin. It shall be the responsibility of the Kitchen Equipment Contractor to provide any and all required adaptors to assure the proper connection to the conditions at the jobsite.

F. Site Verification

Notify Designer, Owner and the General Contractor in writing if, in the Kitchen Equipment Contractor's opinion, the jobsite is not adequate to insure proper installation of the equipment. Notification shall be in writing with sufficient time to effect corrective measures to meet the installation schedule.

G. Cold Storage Rooms and Refrigeration Systems

1. Coordinate the timely installation of the wearing floors inside the cold storage rooms with the General Contractor to prevent prolonged exposure of the floor insulation.
2. Prohibit cold storage rooms from being used by any other trade for storage or work areas. Repair or cause replacement to any damaged areas on the interior of the cold storage rooms, if the damage was caused due to the cold storage rooms being used for storage or work areas.
3. Advise acceptability of the remote refrigeration condensing unit's location in regard to ambient temperature, noise and accessibility. If the proposed location is unacceptable for any reason, advise Owner and request direction in writing.

PART 2 PRODUCTS**2.1 COMMERCIALLY MANUFACTURED EQUIPMENT**

- A. All items of standard equipment shall be the latest model at time of delivery.

- B. Follow manufacturer's directions used to fulfill this contract which cover points not necessarily shown on the drawings or specifications.
- C. All doors shall be hinged as shown on plans.

2.2 PLUMBING WORK

- A. Provide suitable pipe slots, chases and/or do all drilling, punching and cutting of equipment required to provide access for Division 22 connections and/or runs. Such work performed at the job site shall be of the same quality as similar work in the shop.
- B. To insure proper clearance for cleaning, all horizontal piping lines shall be run at the highest possible elevation through equipment and not less than 6" (150 mm) above floor, wherever possible.
- C. Indirect waste piping (except from sinks and ventilators) shall be installed in accordance with the local codes. Piping shall run as described hereinafter, and shall discharge into floor sinks. Extend piping to a point of at least 2" (50 mm) above rim of floor sink and cut bottom on 45° angle. All indirect waste piping shall be installed and routed in a manner to insure proper drainage and shall conform with shelves, spaces, equipment or building conditions. Indirect waste piping to be secured to fixture.
 - 1. Indirect waste piping from ice bins, ice pans or similar items shall be insulated to prevent condensation.
- D. Water inlets shall be located above the positive water level to prevent siphoning of liquids into the water system. Wherever conditions shall require a submerged inlet. Provide a suitable type of check valve and vacuum breaker.
- E. Where exposed, piping and fittings shall be chrome plated.
- F. Faucets shall be furnished on all sinks, bain maries, water stations and other fixtures as detailed or specified and shall be supplied with non-splash aerator, water saving devices where required by local codes.

G. DRAINS AND WASTES

- 1. Furnish all necessary drains and wastes with the equipment.

H. Quick Disconnect Valves

- 1. Flexible gas connectors shall be as manufactured by Dormont Manufacturing Co. safety quik disconnect valve with assembly multi-plane swivel assembly disconnect-valve, restraining cable, Type 304 stainless steel hose and braid connector with flexible plastic coating of sufficient length to attach properly to the device, all necessary fittings and related appurtenances required for the proper operation of the assembly. Assemblies shall be AGA and CGA design certified NSF and comply with applicable ANSI (Z21.69) and CAN/CGA (6.16) standards.
- 2. Water hose quick disconnect shall be Dormont "Swirl" hoses for ice machines, coffee and tea makers and any mobile equipment requiring water connections and shall include all required brass quick disconnect fittings.

I. Water Filters

1. All ice machines, coffee and tea makers or urns, carbonated beverage dispensers and steam equipment shall have a water filter of proper type as manufactured by Cuno, Inc. or as required by the equipment manufacturer.

2.3 VENTILATION WORK

- A. Provide all labor, material and installation services to install all hoods including trim per Consultants design intent; verify sizes and locations of duct connections; and provide assistance in duct layout as required.

2.4 ELECTRICAL WORK

- A. Insure that all equipment furnished under this contract shall be so wired, wound or constructed as to conform with the characteristics of electrical and other services at the premises.
- B. Appliances shall be new, of manufacturer's current production and furnished complete with motors drive mechanism, starters and controllers, including master switches, timers, cut-outs, reversing mechanism and other electrical equipment if and as applicable. Wiring and connection diagrams shall be furnished with electrically operated machines and for all fabricated equipment.
- C. All conduit wiring shall be run concealed wherever possible. Conduit shall be continuous from outlet to outlet and from outlet to load center circuit or pull boxes and shall center and be secured in such a manner that each system shall be electrically continuous throughout. All conduits shall be thoroughly and substantially supported by accepted industry practices.
- D. Supply on each motor driven appliance or electrical heating unit, a suitable control switch or starter of proper type wherever such equipment is not so built.
- E. All plug-in equipment shall have plugs and cords furnished and installed. Coordinate work with Division 26 so that the receptacles provided will match the specific plugs installed as part of the plug-in equipment. Any changes on cords and plugs required in the field due to lack of coordination between Division 26 and Kitchen Equipment Contractor shall be the latter's responsibility.
- F. All electrically heated, fabricated equipment shall be internally wired to a thermostatic control and an "on/off" red light indicator, both to be mounted in a terminal box with a removable access panel and located outside the heating area. Wiring to be nickel-plated copper, properly insulated.
- G. All cold storage room electrical components shall be provided with conduit, splice boxes, switches, fittings, etc. concealed within the insulated panels at time insulation is foamed in place. Conduit shall extend up within wall panels, through ceiling panels ready for EYS fittings and final connection by Division 26.

- H. Provide all incandescent bulbs and fluorescent tubes required for equipment under this section.

2.5 FABRICATED EQUIPMENT

A. Special Fabricated Equipment

All specially fabricated equipment must be by one manufacturer acceptable to Designer and the Owner.

B. Workmanship

All work must be done in an approved workmanlike manner to the complete satisfaction of Designer and the Owner.

C. Stainless Steel

All stainless steel shall be the U.S. standard gauge, 18-8, Type 304, finish as noted in Paragraph 2.5N.

D. Galvanized Steel

All galvanized steel shall be electro-galvanized.

E. Welding and Soldering

1. All seams and joints shall be shop welded or soldered as the nature of the material may require. Welds to be ground smooth and polished to match original finish.
2. Framework of galvanized steel shall be welded construction. Where galvanizing has been burned off, the weld shall be touched up with high-grade aluminum paint.

F. Sound Deadening

The underside of all metal to tables, counters, drainboards, sinks and dish tables shall have a hard drying mastic 1/16" (2 mm) minimum thickness. Exposed mastic will not be acceptable.

G. Metal Top Construction

1. All seams and joints shall be one-piece welded construction, reinforced on the underside with galvanized steel reinforcing welded in place so tops can support heavy weight without deflection. Cross braces to be not more than 30" (760 mm) on center.
2. Field joints in stainless steel tops; where required due to limitation of sheet sizes, equipment sizes or installation requirements shall be welded, ground smooth and polished to blend with adjacent surfaces.
3. If inverted hat sections are used in lieu of channels, close ends. All exposed sides, ends, etc. shall be stainless steel #4 finish.

H. Fasteners

1. Exposed bolt heads will not be permitted on fixtures.
2. Butt joints made by riveting straps under seams and then filled with solder will not be accepted.
3. Rivets of any kind, including pop-rivets, will not be accepted.

4. Exposed screw heads, when necessary, shall be one of the same material as the pieces joined and countersunk flush.

I. Rolled Edges

Rolls shall be as detailed with corners bull nosed, welded, ground and polished.

J. Corners

Dish tables, drainboards, splash backs and turned up edges shall have ½" (15 mm) or larger radius bends in all horizontal and vertical corners, coved at intersections unless specified otherwise.

K. Enclosed Cabinet Bases

Bases shall be made of 18 gauge stainless steel sheets reinforced by forming the metal. Sides and partitions shall terminate at front in a 2" (50 mm) wide fully enclosed mullion and welded at intersections. Shelves are to be removable where detailed. Exposed ends, partitions and shelves are stainless steel.

L. Legs and Cross Rails

1. Equipment legs and cross rails shall be 1-5/8" (40 mm) 16 gauge stainless steel tubing unless otherwise noted. All welds at cross rails shall be continuous and ground smooth. Tack welds are not acceptable. Tops of legs to be fitted with Component Hardware A20-0406 or A20-0206 leg sockets or approved equal. Gussets are to be welded to underside of sinks and bracing.
2. Bottom of legs to be fitted with Component Hardware A10-0852 adjustable stainless steel foot or approved equal. Foot plug to be welded, ground and polished. When flanged feet are specified, use Component Hardware 010-0854 adjustable stainless steel foot or approved equal.
3. Enclosed cabinet bases mounted on 6" (150 mm) high legs are to be equipped with Component Hardware 8048 Series adjustable stainless steel counter legs or approved equal, with mounting plate as required.

M. Metal Gauge

Unless otherwise noted in itemized specifications or details, all gauges to be manufactured to the following minimum thickness:

<u>Stainless Steel</u> <u>USS Gauge</u>	<u>Decimal</u> <u>Thickness</u>	<u>Millimeter</u> <u>Thickness</u>
12	.1094	2.78
14	.0781	1.98
16	.0625	1.59
18	.0500	1.27
20	.0375	0.95

N. Materials

All fabricated items to be provided in gauge, metal type and finished per the following table:

FOOD SERVICE DESIGN GROUP**RESIDENCE INN MARRIOTT
840 KILDARE STREET, LANCASTER, CA**

<u>Description</u>	<u>Gauge</u>	<u>Metal</u>	<u>Finish No.</u>
<u>Dish table, Table and Countertops</u>	16	S.S.	4
<u>Hat Sections/Channel:</u>			
Unexposed	14	Galvanized	---
Exposed	16	S.S.	4
<u>Counter Body:</u>			
Framework	14	Galvanized	---
Aprons, Partitions, Backs and Ends:			
(Exposed)	18	S.S.	4
(Unexposed)	18	Galvanized	---
Shelves	16	S.S.	4
<u>Doors</u>			
Outside faces	18	S.S.	4
Inside faces	20	S.S.	2B
<u>Drawer Pans</u>			
General	20	S.S.	2B
Refrigerated	20	S.S.	2B
<u>Shelf</u>			
Wall Mounted	16	S.S.	4
Fixture Mounted	16	S.S.	4
Table	16	S.S.	4
Refrigerator		S.S. Wire	4
<u>Shelf Bracket (Exposed)</u>	16	S.S.	4
<u>Wall Flashing</u>	20	S.S.	4
<u>Equipment Legs & Cross Rails</u>	16	1-5/8" diameter S.S. tubing	4

O. Closure

Backs of all fixtures, splash back, shelves, etc., shall be closed.

P. Casters

Casters shall be heavy duty, non-marking, ball bearing NSF approved type with greaseproof neoprene or polyurethane tires. Wheels shall be 5" (130 mm) diameter. Minimum width treads of 1-3/16" (30 mm). Minimum capacity per caster 250 lbs. (115 kg.).

Q. Sinks

1. Fabricated sinks shall have corners same as for metal tops. One piece welded construction with bottom pitched to drains and double wall partitions. Multiple compartments shall have continuous exteriors. Openings between compartments or applied panel will not be accepted.
2. Sink insets shall be 16-gauge stainless steel welded as integral part of top.

R. Drawers

All drawer pans shall be 18 gauge stainless steel having all corners coved except where specifically noted otherwise. Pan to be mounted on fabricated 14 gauge stainless steel angle cradle frame. Frame to be supported on Component Hardware S52 or approved equal full

extension slides with 200 lbs. (91 kg.) capacity per pair. Pan to be easily removable without the use of tools. Drawer fronts shall be double pan type with sound deadening material. Drawer shall be self-closing.

S. Doors

1. All metal doors to be double pan type reinforced and stiffened to prevent flexing and filled with sound deadening material.
2. Sliding doors shall be mounted on large ball-bearing quiet rollers in 14 gauge stainless steel overhead tracks and be removable without the use of tools. Sliding doors shall be self-closing.
3. Hinged doors shall be flush type, mounted on heavy duty, stainless steel, lift-off hinges, or as specified.
4. When specified pulls shall be Component Hardware P62-1010 or approved equal.

T. Hardware

1. All hardware shall be of heavy duty construction and identified on shop drawings by manufacturer and model number and shall be subject to final approval by Designer.
2. All hardware shall be identified with manufacturer's name and number so that broken or worn parts may be replaced.

U. Breaker Strips

All ice pans, ice bins, refrigerated pans and cabinets shall be provided with breaker strips where adjoining top or cabinet face materials to prevent condensation. Breaker strips shall be fastened with stainless steel, counter sunk screws. Pop rivets will not be acceptable.

V. Insulation

All refrigerator insulation shall be board form or foamed in-place polyurethane. Fiberglass insulation shall not be used. Heated areas shall have minimum of 1" (25 mm) of thick fiberglass/mineral wool 2½" (62 mm) density blanket insulation. Cold areas shall be 1" (25 mm) thick as indicated on details or drawings. Insulation shall be bonded to all surfaces.

W. Refrigerated Items

1. All custom fabricated units to meet NSF-7 criteria.
2. All reach-in refrigerators and freezers with remote refrigeration systems shall be complete with thermostatic expansion valves at the evaporator.
3. Fabricated compartments, refrigerated shelves, plates, etc., shall be provided with a 20 gauge steel box to house expansion valves when valve is remote from evaporator. Install in base of fixtures or in a concealed position.
4. All refrigerated compartments shall be fitted with dial type thermometers with chrome-plated bezels. Thermometers shall be adjustable and shall be calibrated after insulation.
5. Refrigerator hardware for fabricated refrigerator compartments shall be heavy-duty components. Hinges shall be self-closing. Latches to be magnetic edge mount type with cylinder lock unless specified or noted.
6. Refrigerated drawers shall be sized to accommodate two (2) 12" x 20" x 5" (Gastronorm 1/1) steam table pans side by side or as specified or shown on the drawings. Drawer pulls shall be Component Hardware Group, Inc. Model No. P60-1010 or as shown on the drawings. Drawer slides shall be Component Hardware Group S52

Series, 200 pound (91 Kg) capacity, with stainless steel bearings of length as required to suit drawer depth. Drawer front shall be double pan with 18-gauge stainless steel front insulated core and 20-gauge stainless steel back panel. Drawer frame shall be 14-gauge stainless steel.

7. Refrigerator door openings shall be sized to suit 18" x 26" bun pan or as specified or shown on the drawings.
8. Refrigerated bodies shall have extruded snap-on matte gray breaker strip at door and ingredient pan openings. Provide Component Hardware Group PTC T12-5000 condensate evaporator complete with wall mounting bracket.
9. Shelves shall be stainless steel wire installed on stainless steel removable keyhole type pilasters.

2.6 STANDARD DETAILS

Standard Details included as part of drawings are to be considered guides to quality and scope of work involved. Where shop practices dictate, alternate construction methods and component items of equal manufacturer may be substituted. It will be the responsibility of the Kitchen Equipment Contractor to prove the quality of the proposed methods.

2.7 COLD STORAGE ROOMS

- A. All prefabricated cold storage rooms shall be manufactured by one manufacturer and installed by factory-supervised installer.
- B. Interior finished ceiling height shall be 8'-0" (2440 mm) unless otherwise specified.
- C. Materials
 1. Insulation shall be non-burning urethane, foamed in place, not frothed or rigid board-form.
 - a. Insulation shall be fluorocarbon filled (F-11) 95% closed cell content, nominal density of 2.0 pounds \pm 0.1 per cubic foot. Dimensional stability shall be from -45° F. (+7° C.) to 200° F. (93° C.).
 - b. Insulation shall have a thermal conductivity (K-factor) not to exceed (0.14 B.T.U./hour/square foot) as tested on ASTM C-177, at 75° F. (24° C.) mean temperature and an overall coefficient of heat transfer factor (U) not to exceed 0.029.
 - c. Classification: Each compartment shall bear a label "Class 1-Insulated Panel" as certified by an independent testing laboratory to have a surface burn spread 25 or less as determined by ASTM E84, UBC No. 8-1, Class A National Fire Protection Association N F P A Number 101, "Life Safety Code".
 2. Aluminum sheets used as a fascia for wall and ceiling panels shall be stucco aluminum not less than .0404" thick.
 3. Stainless steel sheets used as a fascia for wall and ceiling panels shall be 20 gauge. Other stainless steel shall be the gauge specified. All stainless steel shall be 18-8, Type 304, # 4 finish unless otherwise specified.
 4. Galvanized steel sheets used as a fascia for wall and ceiling panels shall be prime finish, not less than 20 gauge complying with ASTM 525 and with G90 coating.
 5. Wall protection panels shall be Fiberglass Reinforced Polyester (FRP-X) Paneling 3/32" thick, embossed, white color or as specified with low smoke and less than 25 flame spread rating.
- D. Panel Construction

1. Panels shall consist of precision die formed metal pans with $\frac{1}{2}$ " (50 mm) to $\frac{3}{4}$ " (76 mm) flanged perimeter, foamed in place urethane insulation between interior and exterior pans, thoroughly checked for gauge and shall be interchangeable with panels of like size. Metal pans shall be treated on the inside with a preparation coating of bonding agent to ensure a stable adhesion with the chemical bonding capabilities of the insulation.
2. Wall and ceiling panels shall be 4" (100 mm) thick and contain 100% foamed in place insulation and shall not have any internal wood or metal structural members. To ensure tight fitting joints, all panel edges shall have foamed in place urethane tongues and grooves and a flexible vinyl gasket foamed in place on the interior and exterior of all edges.
3. Panels shall be rigidly coupled by a cam action hooked locking device. Locking device shall be foamed in place, maximum 48" (1200 mm) on center. Locking device shall be accessible from the inside to facilitate installation in confined areas and shall be provided with pressfit caps to close wrench holes. Joints between panels shall be sealed at interior and exterior edges with a pvc gasket or an odorless nontoxic, synthetic polymerized sealant, to maintain continuity.
 - a. Wall panels shall have a minimum of three (3) locking devices between each panel, located in the center, lower corner and upper corner.
 - b. Ceiling panels shall have a minimum of two (2) locking devices between ceiling panel and at wall panels, located at each corner of the wall panel. Ceiling panel joints shall be offset from wall panel joints.
 - c. Pre-fabricated floor panels shall have a minimum of two (2) locking devices between each floor panel and at wall panels, located at each corner of the wall panel.
4. All interior vertical corners shall be coved with a $\frac{1}{2}$ " (12 mm) radius.
5. Exterior panels, interior partitions, corner panels, ceiling panels and "T" intersection panels shall be matching construction.

E. Wall/Ceiling Support System

1. Ceiling panels shall have a maximum deflection of $\frac{1}{240}$ of the span under uniform loading of twenty (20) pounds per square foot. When the ceiling panels require a support system, the Manufacturer shall submit details and structural calculations to an engineer for approval prior to fabrication. A copy of the approved submittal shall be forwarded to Owner and Designer.
2. An indoor ceiling panel support system, when required, shall be furnished and installed using a hanger wire network attached to hanger brackets, designed to engage with the female lock pins imbedded within the roof panel foam core, spaced 4'-0" (1200 mm) on center.

F. Floor Types and Conditions

1. TYPE I - Insulated Depressed Building Floor with wearing surface (quarry tile or vinyl) as specified in architectural drawings to be as follows:
 - a. The floor shall be constructed at the jobsite in a depressed slab.
 - b. Apply asphalt emulsion to clean smooth depressed floor. Install Alumiseal Zero Perm vapor barrier, up sides of recess and lapped 6". Install cold storage room wall panels down into the bottom of the depression. Provide two (2) 2" (50 mm) thick layers of rigid board form urethane with staggered joints in depression over vapor barrier, installed after walls are in place.

- c. On top of floor insulation provide a protective covering of 15 pounds felt. Overlap joints 6" (150 mm). Flash up sides to height of wall base.
 - d. When indicated on contract documents, finished floor outside the cold storage rooms shall ramp up 1/2" (12 mm) to the floor inside. The finished floor between cold storage rooms shall be ramped as well when indicated.
 - e. Concrete substrate topping and wearing surface to be provided and install as specified in Divisions 3, 7 and 9.
2. TYPE II - Pre-Fabricated Floor To Be As Follows:
- a. The floor shall be pre-fabricated metal clad, foamed in place urethane insulated panels. Floor panel construction and insulation to be fully gasketed and to match that of wall and ceiling panels. Floor panels shall have a full integral cove with a minimum of 1/2" (12 mm) radius.
 - b. Wearing floor to be 1/8" (3 mm) thick diamond pattern aluminum tread plate over 3/4" marine grade plywood. When vinyl wearing surface is specified provide 1/8" thick (3 mm) smooth aluminum plate in lieu of diamond plate. Tread plates shall be maximum size sheets available.
 - c. Exterior bottom face of floor shall be clad with 18 gauge galvanized steel.
 - d. Section lock parts, joints between floor panels and floor wall panels shall be filled with silicone sealant.
 - e. Interior/exterior ramps shall be furnished where specified and/or indicated on drawings.

G. Door and Door Frames

- 1. Door sizes shall be as specified, hinged as indicated on plan. Door shall be able to remain open when opened over 120°.
- 2. Door shall be infitting, flush mounted, double pan 22 gauge stainless steel interior and exterior panels with foamed-in-place urethane insulation, 3" (76 mm) thick minimum. Same construction as for wall panels. Corners of doors shall be Heliarc welded, ground and polished.
- 3. Door frames shall be 22-gauge stainless steel. When exterior protection is specified the exterior door frame shall have raised exterior casing to form a stop.
- 4. Furnish and install a removable threshold at each low temperature door, construction of 1/8" (3 mm) thick stainless steel with 2B finish.
- 5. Provide a heating element on the ambient side of each door frame head, jambs and threshold. The heating element shall be a dual 120-volt, 240-watt with thermostatic control, factory pre-wired to a "GS" splice box located above the door on the interior. Manufacturer shall provide a 1-1/4" (30 mm) diameter hole in the ceiling panel with a loose escutcheon through which Division 26 shall make final connection.
- 6. Gasket shall be extruded polyvinyl chloride with vulcanized corners and continuous magnetic core at sides and top of door frame. The stainless steel jamb facing shall extend to protect the gasket.
- 7. When a cold storage room has a door to both the storage/receiving area and the issue area, the lock on the storage/receiving door shall be blank on the inside, without inside release. The lock on the issue side shall be as specified in Paragraph 10.
- 8. Door shall be adjusted to be self-closing after installation and floor is finished.
- 9. Sill wipers for Type 1 floors shall be adjustable, extruded neoprene secured by removable stainless steel retainer strip and fasteners.
- 10. Each hinged door shall have:
 - a. Kick plate of 14 gauge stainless steel with 0.10 aluminum diamond tread, 3'-0" (600 mm), high and full width of door. Mount on interior and exterior face of each door.

- b. Hinges, three (3) each per door, shall be cam lift, spring-assist, zinc die cast and polished chrome plated. Doors 42" (1065 mm) wide and wider shall have four (4) hinges.
 - c. Latch shall be heavy-duty chrome plated brass with adjustable keeper, interior safety release and provisions for padlocking. Padlock by others.
 - d. Door closer shall be Kason Model 1094.
 - e. Hardware shall be mounted with 12 gauge reinforced steel tapping plates and machine screws.
 - f. Heated viewport approximately 14" (254 mm) x 14" (254 mm) or 14" (254 mm) x 24" (610 mm) high, minimum triple thermopane glass. Viewport wiring to be concealed within door and out top of door, complete with flex cable to recessed splice box within door section.
11. Door section shall be self-supporting constructed similar to wall panels with 4" (100 mm) foamed in place urethane core and 12 gauge steel reinforcing. No wood frame will be permitted. Jambs and headers shall be 18-gauge stainless steel with steel backing in full perimeter.

H. Light Fixtures and Switches

- 1. Quantity of light fixtures shall be as indicated on the electrical plan.
- 2. Light fixtures shall be ceiling mounted; cast aluminum; fully enclosed; gasketed; vapor tight; weather tight; with shatterproof, heat resistant diffuser; and junction box.
- 3. Light switches shall be three-way or four-way, AC, pre-switch, mounted in recessed "FS" boxes with gray Hypolan, weatherproof plate, press switch cover and unbreakable red plastic pilot light lens constant burning on interior and indicating on exterior.
- 4. Cold storage rooms with doors at each end shall have three-way switches on the exterior and four-way on the interior.
- 5. Light fixtures shall be factory mounted on the latch side of doors and pre-wired with rigid conduit and wiring run within the wall panel, terminated in a vapor tight splice box mounted on the interior wall near ceiling. Manufacturer shall provide a 1-1/4" (31 mm) diameter hole in ceiling panel with a loose escutcheon through which Division 26 shall make final connections.
- 6. Alternate Light Fixtures: When ceiling mounted light fixtures cannot be used, the following light fixture shall be used.
 - a. Light fixture shall be Component Hardware VXS-100PC vaporproof with cast aluminum junction box and fixture body, gasket, plastic coated globe, wire guard and sized to receive one (1) 100-watt bulb.
 - b. Light fixture is mounted in the door section wall panel. Fixture shall be factory mounted and pre-wired to light switch with galvanized steel nipple terminated at exterior face of the ceiling panel.

I. Digital Thermometer and Alarm

- 1. Digital thermometer and alarm shall be furnished for each cold storage room.
- 2. Digital thermometer and alarm shall consist of solid state audio alarm, silence button, trouble light, digital read out and stainless steel cover.
- 3. Digital thermometer and alarm shall be Modularm Corp. Model 75LC with IP-1 flush mounted with stainless steel cover plate, on latch side of the door on the exterior of each cold storage room, pre-wired with rigid conduit and wiring run within the wall paneling using "FS" recessed box on the exterior and terminated in a "GS" splice box mounted on the interior near the ceiling. Manufacturer shall provide a 1-1/4" (31 mm) diameter hole in ceiling panel with loose escutcheon through which Division 26 shall make final connection.

4. When the door does not open into an ambient area, the digital thermometer and alarm shall be factory installed, as specified remote wall panel with an ambient face that will not interfere with other equipment and functions and identified with a name plate of the room being monitored. The sensor capillary shall be extruded as required and, when necessary, run in electrical conduit. Provide escutcheon plates on each side of each partition penetrated.

J. Door Fan Switch

1. Door fan switch shall be provided for each low-temperature cold storage room, when it opens into a non-refrigerated area, to shut off evaporator coil fan motors when the door is opened.
2. Door fan switch shall be factory mounted on the door jamb and pre-wired with rigid conduit and wiring within the wall panel to a splice box located on the interior near the ceiling. Manufacturer shall provide a 1-1/4" (31 mm) hole in ceiling panel with a loose escutcheon through which Division 26 shall make interconnection to the evaporator coil (s) fan motors.

K. Interior/Exterior Wainscot

When specified, wainscot shall be FRP-X panels, 4'-0" (1260 mm) wide by 8'-0" (2440 mm) high. Exposed face of panels shall be clad with galvanized steel. Panels shall be applied in the field using a full bed of contact adhesive prior to the installation of the quarry tile top set base.

1. Wainscot panels shall be stopped short 1" (25 mm) from inside corners. The top edge and all exposed vertical edges shall have matching "J" end cap molding. Joints between panels shall have matching "H" divider molding. Molding shall be installed with silicone sealant per Division 7 and the manufacturer's direction to assure a moisture proof installation. Vertical molding shall NOT be run behind the quarry tile top set base. Height of tile base to be verified with General Contractor.
2. Corner guards shall be furnished on all outside corners. Corner guards shall set on top of the quarry tile base.
3. Trim for inside corners shall be 2" (50 mm) by 2" (50 mm) coved white stucco aluminum by height of wainscot from the top of the quarry tile base.
4. Manufacturer and color shall be the same as the FRP-X furnished under Division 9 for the building walls in the foodservice areas.
5. When applied inside the weatherproofing system use contact adhesives with a VOC content of 80g/L or less when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24).

L. Full Height Interior/Exterior Protection

When specified, full height protection shall be FRP-X panels, 4'-0" (1200 mm) wide by 8'-0" (2440 mm) high. Exposed face of panels shall be clad with galvanized steel. Panels shall be applied in the field using a full bed of contact adhesive prior to the installation of the quarry tile top set of base.

1. Top edge when not covered and exposed vertical edges shall have matching "J" end cap molding. Joints between panels shall have matching "H" divider molding. Molding shall be installed with silicone sealant per Division 7 and the manufacturer's directions to assure a moisture proof installation. Vertical molding shall not be run behind the quarry tile top set base. Height of the base to be verified with the General Contractor.
2. Trim for inside corners shall be 2" (50 mm) by 2" (50 mm) coved white stucco aluminum full height from the top of the quarry tile base.

3. At exterior when support of the end of the FRP-X panel is required due to the width of the space, a full height galvanized steel angle shall be fastened to the wall to support the free end of the panel. FRP-X shall be glued to angle.
4. Trim for inside corners shall be 2" (50 mm) x 2" (50 mm) covered white stucco aluminum by height of wainscot from the top of the quarry tile base.
5. Manufacturer and color shall be the same as the FRP-X furnished under Division 9 for the building walls in the foodservice area.
6. When applied inside the weatherproofing system use contact adhesives with a VOC content of 80g/L or less when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24).

M. Closure Panels

1. Closure panels shall be furnished and installed to close the space between the exterior top of the cold storage room and the finished ceiling of the building.
2. Panels to match exterior panel finish. Panels to be lift-out type with side turned in to form a pan. At ceilings, securely fasten an angle for panel to slip into. Channel and angle to match panel material.
3. When exterior finish is FRP-X, the closure panel shall be white stucco aluminum.
4. When the area does not have a finished ceiling, closure panels will not be required, unless otherwise specified or required by the health department.

N. Trim

1. Vertical trim strips and angles to match cold storage room exterior finish. Trim to be applied with adhesive tape and a minimum of exposed fasteners to fully seal cold storage room adjacent walls, etc.
2. The FRP-X paneling with a "J" end cap molding is to be extended past the end of the cold storage room wall to the building wall and caulked with silicone sealant per Division 7 as required.

O. Ramps and Sills

Ramps and sills when required shall be pre-fabricated 16 gauge stainless steel ramps with 14 gauge galvanized reinforcing and urethane foamed in place insulation. Wearing surface to have 4" (100 mm) wide non-skid strips. See specifications and drawings for size and shape. All door sections shall be provided with minimum 14-gauge stainless steel sill plate complete with heater cable as stated under door section. Sill to be either built into ramp/pre-fabricated floors or to be part of door section on insulated depressed building floors. Sills to be removable for replacement of heater cable.

P. Utility Penetrations

1. Provide openings in ceiling and wall panels to accommodate all electrical, refrigeration and drain lines.
2. Seal all openings with silicone sealant per Division 7 after lines have been run and before installation of escutcheons.

Q. Escutcheons

1. Provide sufficient quantity of 5" (127 mm) diameter blank stainless steel escutcheons to trim all interior and exposed exterior penetrations.
2. Provide cutting of proper size hole in blanks and panel penetrations.

R. Pressure Relief Vent

1. Pressure relief vent shall be factory installed at each low-temperature cold storage room door.
2. Pressure relief vent shall be electrically heated, 120 volt and have aluminum screen.

S. Corner Guards

1. Corner guards on the exterior outside corners shall be 4" (100 mm) x 4" (100 mm) x 48" (1200 mm) 16 gauge stainless steel secured to wall panels with a full bed of contact adhesive. When FRP-X is specified, corner molding shall be omitted behind the corner guard.
2. Corner guards on the interior outside corners shall be 2" (50 mm) x 2" (50 mm) by height of wainscot or 48" (1200 mm) high 18 gauge stainless steel secured to wall panels with a full bed of contact adhesive. When FRP-X is specified, outside corner moldings shall be omitted behind corner guards.
3. When applied inside the weatherproofing system use contact adhesives with a VOC content of 80g/L or less when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24).

T. Divider with Gate

Divider and gate when specified should be aluminum expand-x where indicated on drawings.

1. Panel mesh shall be flattened aluminum expand-x heliarc welded to aluminum frame.
2. Frame shall be 1-1/2" (38 mm) x 1-1/2" (38 mm) by 1/8" (3 mm) aluminum 6061-T6 angle. Frame shall have 3" space at bottom and 6" space at top.
3. Horizontal stiffeners shall be 1-1/2" (38 mm) by 1-1/2" (38 mm) x 1-1/8" (28 mm) aluminum angle.
4. Floor plates shall be 3" (76 mm) by 3" (76 mm) x 14" (356 mm) aluminum heliarc welded to angle posts.
5. Gate shall be of same construction as divider, 2'-10" (864 mm) wide with lock similar to that specified for insulated doors.

U. Rub Rails

Rub rails when specified shall be located where indicated on plans.

1. Rub rails shall be continuous lengths of 18 gauge stainless steel "V" shaped hat section secured to wall with two (2) faced tape and stainless steel sheet metal screws 18" (457 mm) O.C. Exposed ends shall be bevel cut, capped, welded, ground and polished.

V. Strip Curtain

Strip curtain when specified, shall be manufactured by Chase Industries with aluminum, 6" wide strips and 25% overlap.

W. Door Locking Bars

1. Door locking bars, when specified, shall be 1/8" (3 mm) by 2" (50 mm) stainless steel two piece, hinged and secured at each end with interior safety release. Bar shall swivel and where the ends meet in the center shall have a 2" (50 mm) long 90° "L" drilled to receive padlock, padlock by others.

2. When a door locking bar is specified, the latch specified in paragraph G.10.C shall be replaced with a Kason Model 577 polished chrome plated door pull.

X. Identification Signs

1. At exterior of each Cold Storage Room (s) provide and permanently affix engraved plastic name plates with maximum $\frac{3}{4}$ " (18 mm) high letters and number identifying each Cold Storage Room and Refrigeration Systems to match "as built" diagram. Name plate to be mounted with adhesive below respective digital thermometer alarm. A similar name plate with $\frac{1}{2}$ " (12 mm) high letters is to be installed in a like manner on the evaporator coil (s) at all other items having a remote Refrigeration System.
2. When applied inside the weatherproofing system use contact adhesives with a VOC content of 80g/L or less when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24).

2.8 REMOTE REFRIGERATION SYSTEMS

- A. All remote refrigeration systems shall be furnished and installed by one contractor, unless otherwise specified.
- B. Compressor and Condensing Units
 1. Units shall be factory assemblies complete with semi-hermetic air and water-cooled condenser, high-low pressure controls, suction accumulator on low temperature system, sight glass, liquid line dryer, suction and discharge service valves, liquid receiver, and electric control panel. The electrical control panel shall be furnished with magnetic motor starter, defrost timer clock, and contactors in accordance with "Refrigeration Schedule". Compressor capacities shall be based on Air Conditioning and Refrigeration Institute (A.R.I.) Standards.
 2. Capacities shall be based on the following:
 - a. Compartment temperature and evaporating temperature greater than 32° F (0° C.) 18 to 20 hours operation.
 - b. Compartment temperature greater than 32° F (0° C.) and evaporating temperature less than 32° F (0° C.) 16 hours operation.
 - c. Compartment temperature and evaporating temperature less than 32° F (0° C.) 18 hours operation.
 3. Condensing units shall be mounted on a steel base to effect a quiet operation. All rotating parts to be carefully balanced for minimum vibration and lubricated with forced or splash oil system. Receiver shall be sized for a complete pump down of the system and shall be shell type with fusible plug.
 4. Compressor units to be provided with suction and discharge back setting type service valves and standard machinery finish.
 5. Motors shall be single speed, maximum 1750 R.P.M. compound wound ball bearings or sleeve bearing. Double squirrel cage motors with high starting torque set and low starting current to be used in a 3-phase application.
 6. All machines to be equipped with quick acting type high-low pressure control switches having adjustable range and differential and high pressure cutout. Cutout to be automatic reset type. For air-cooled units the condenser shall be a standard manufactured part of the equipment. Condensing temperatures shall be based upon (100° F, 38° C.) ambient air.
 7. Other components and accessories, such as suction filter and crank case heater shall be furnished when specified in the itemized specifications.

C. Motor Starters - Contactors

1. All single-phase motors shall be provided with mounted and internally wired contactors, except where pre-wired units are furnished without contactors. Single-phase compressors shall be provided with built-in thermal and electrical overload protection.
2. All three phase motors shall be provided with magnetic type starters with quick trip overload elements matched for motor amperage except where overload protection is built into the compressor motor and the manufacturer supplies a contactor instead of a starter. Overload heater element shall be sized according to manufacturer's recommendations. Compressor motor starters shall be definite purpose starters with manual reset.
3. Starters shall be installed upon surfaces free from excessive vibrations.
4. Where starters are required for installation in a motor control center, make and model of control center shall be verified and starters provided to match.

D. Oil Separator

1. Provide oil separators, except when Compressor Manufacturer requires otherwise, 34° F, (1° C.) and below and install as near as possible to the compressor. The return line shall be connected to the top of the crankcase above the oil level. Where compressor does not have connection for oil return line from separator, connect to a tee in the suction line adjacent to the compressor. Exposed oil return line to be provided with shut-off valve of the packless stem type.

E. Compressor Racks

1. Racks shall be of the number of tiers and quantity to accommodate the number of condensing units specified for each rack assembly and allow for service clearance and ventilation.
2. Racks shall be fabricated with structural steel of size and quantity to properly support the equipment to be installed on the rack.
3. Racks shall be all welded construction with welds ground smooth.
4. After completion of fabrication the complete rack shall be cleaned, primed and painted with top quality oil base enamel.
5. Each rack shall be equipped with a pre-wired duplex outlet.
6. Racks shall be pre-wired to a circuit breaker panel and pre-plumbed to a header (when specified water cooled) requiring a single point electrical and plumbing connection.
7. Racks shall have UL or equivalent approval.

F. Coils and Cooling Units

1. Units shall be direct expansion type of size and design to effect required temperature, humidity and to suit application intent. Units shall be furnished and installed in accordance with the "Refrigeration Schedule".
2. Units shall be hung from the ceiling with ½" (12 mm) nylon rods with plated steel nuts and washers. Rods shall extend through ceiling to bracing adequate for the suspended weight. Bracing shall be furnished as required, penetrations shall be sealed and trimmed with escutcheon plates.
3. Units shall be installed tight to ceiling. All installations adjacent to walls shall be set out a minimum distance conforming to manufacturer's directions, to ensure proper air circulation and performance.

4. Units with fan or blower and motor shall have thermal overload protection and be wired as indicated I "Refrigeration Schedule".
 5. Defrost cycle shall be based on the following:
 - a. Coils for 32° F. (0° C.) and lower shall have an electric defrost controlled by a time clock mounted on the compressor rack.
 - b. Coils for 33° F. (0.6° C.) and 34° F. (1° C) shall have an air defrost controlled by a time clock mounted on the compressor rack.
 - c. Coils for temperature above 34° F. (1° C) shall have an air defrost in the off cycle controlled by proper sizing of the coil and the compressor.
 6. Location of coils shall be coordinated with shelving and floor sink locations. Where coils protrude into aisle ways clear to height to be minimum 6'-6".
 7. All coils for fabricated refrigerators/freezers shall be installed for accessibility and replacement.
- G. Penetration Sleeves and Plates
1. Service line penetrations of insulation to accommodate electrical conduit, refrigerant and drain lines shall be limited to a minimum with service stubbed through insulation or locations pre-determined by respective divisions.
 2. Where service lines penetrate insulated walls, the opening shall be packed with caulking, before trimming with escutcheon plate.
 3. All exposed ends of sleeves, both inside and outside of compartments, are to be trimmed with 24 gauge stainless steel escutcheon plates, furnished as blanks in which respective work divisions shall cut required line holes and install.
- H. Refrigerant Piping
1. Copper tubing for refrigerant piping shall conform to ASTM standard specifications, serial designation B-88. All piping shall be type "L" ACR hard copper or cleaned and sealed soft type "L" tubing, dry seal or equal as indicated. Forged or wrought copper fitting with sweat or soldered joints shall be used.
 2. Tubing shall be cut only with a tube cutter and sized with a sizing tool.
 3. Piping shall be exposed to view as required by the standard safety code for mechanical refrigeration.
 4. The liquid suction lines from condensing units to coil shall be sized and run as shown on the "Refrigeration Schedule" and Refrigeration Drawings.
 5. Piping run within cold storage rooms shall be finished with aluminum paint.
 6. For exposed areas, accessible furred ceiling spaces and in walls or excavated trench type installations, hard copper tubing shall be used. Exposed tubing shall be run in a manner to preclude damage by activities in the area; or shall be protected by conduit, furnished and installed as part of this contract. Conduit shall have water evacuated and both ends completely sealed.
 7. For piping run in conduit through inaccessible areas, such as under slab on grade, soft copper tubing shall be used. In lieu of large piping in conduit, especially vertical runs, random lines may be used; carefully fabricated and assembled to ensure equal pressure drop.
 8. Ends of lines shall be capped to prevent contamination and opened only at time of final connection.
 9. Suction lines shall be sized for a maximum pressure drop from evaporator to compressor 2 lbs. (0.9 kg.) for high and medium temperature systems, and of 1 lb. (0.45 kg.) for low temperature systems and shall allow gas velocities of not less than 750 FPM (3.8 M/sec) in horizontal runs and 1500 FPM (97.6 M/sec) in vertical risers. Liquid lines shall be sized for a maximum pressure drop of 3 lbs (1.36 kg.) from receiver to evaporator.

10. Tubing lines shall be graded or pitched to prevent trapping of oil. Suction lines shall pitch $\frac{1}{2}$ " (12 mm) / 10'-0" (3048 mm) minimum.

I. Joints and Connections

1. Fittings shall be long radius wrought copper only as manufactured by Mueller Brass Company.
2. Vertically run suction lines shall have oil "P" traps constructed of two (2) 45° ells and (1) 90° ell, or one (1) piece Mueller "P" trap, of the same size as the vertical lines.
3. $\frac{1}{8}$ " (3 mm) NPT by $\frac{1}{4}$ fl. half union for all suction and discharge service valves with $\frac{1}{4}$ fl. cap.
4. Reduction in piping size shall be made with a manufactured reducer coupling.
5. Flare nuts shall be short forged or frost proof.
6. All surfaces to be joined must be prepared and cleaned. When soldering stop of solenoid valves, wrap valves with moist fabric to absorb excessive heat. Stop valves shall be partly open. When soldering expansion valves or pressure regulating valves, remove power assembly, if necessary, to prevent damage by excessive heat.
7. Copper joints shall be made with Handy & Harmon "Sil-Fos" brazing alloy, "Phoson 15", "Silvaloy 15" or equal; melting point of 1185°-1350° F. (607° - 618° C.) silver content not less than 15%.
8. Copper to brass joints shall be made with Handy & Harmon "Easy Flo 45" brazing alloy "Silvaloy 45", Mueller 122" or equal; melting point of 1125°-1145° F. (607° - 618° C.) silver content not less than 45%.

J. Hangers and Supports

1. For all piping not run in conduit, provide adjustable hangers, anchors or straps as required. Hanger spacing shall not exceed 8'-0" (2400 mm).
2. Insulated copper piping shall be provided with approved type sleeves at hanger points.
3. All insulated copper piping shall be isolated from supports by means of felt wrapping or with "Trisolater" by Semco or approved equal.
4. Vertical piping shall be supported at intervals with spring type hangers or a substantial pipe at case of the pipe. All horizontal pipe runs connected to vertical risers must be adequately supported.
5. For suspended conduit, support shall be by means of hanger permitting screw adjustments. Sufficient hangers shall be used to provide support, allow expansion and limit vibration.

K. Piping Sleeves

1. Provide sleeves through walls which allow for fully insulated lines. Extend sleeves entirely through wall and dress each end with a chromium plated wall plate neatly fitted against the wall, securely fastened and sealed in place. All sleeves through wall shall be of standard weight steel pipe.
2. Piping lines and sleeves at wall or floor penetrations shall be caulked and made vermin proof at all locations.

L. Piping Insulation

1. Suction lines run in conduit shall be insulated according to ambient and humidity conditions to prevent condensation and freezing.
2. Refrigeration suction lines outside of refrigerated compartments, not run in conduit, shall be insulated back to compressors with Armstrong Armaflex AP foamed plastic

insulation or as determined by code. Thickness of material shall suit service, ambient and humidity conditions, to prevent condensation, minimum thickness $\frac{1}{2}$ " (15 mm).

3. Cold Storage Room freezer drain lines extended through adjacent cooler compartments shall be insulated with $\frac{1}{2}$ " (15 mm) minimum thickness of Armstrong Armaflex AP foamed plastic insulation to prevent condensation. Carefully seal end of insulation tight against cooler wall surface.
4. Piping for cooling water services or refrigerant piping exposed to freezing ambient temperatures shall be insulated with $\frac{1}{2}$ " (15 mm) thickness of Armstrong Armaflex AP foamed plastic insulation. Paint exterior installation with Armaflex paint.
5. Thickness of material shall suit service, ambient and humidity conditions to prevent condensation.
6. Joints shall be sealed with Armaflex 520 adhesive. Insulation shall be continuous through clamps. Provide additional insulation where suction lines must be run within 12" (300 mm) or less of water or underground waste lines.
 - a. When applied inside the weatherproofing system use contact adhesives with a VOC content of 80g/L or less when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24):
 1. Multipurpose Construction Adhesive: 70g/L
 2. Contact Adhesive: 80g/L
 3. Special Purpose Contact Adhesive: 250g/L

M. Heat Interchangers

All blower controls, unit coolers, plate type evaporators and other evaporators where specified, are to be provided with heat interchangers as manufactured by Dunham-Bush, Inc., with a capacity to match the condensing unit.

N. Temperature Control

1. Temperature control of cold storage rooms shall be by line voltage thermostats operating liquid line solenoids.
2. Temperature control for remote normal temperature refrigerator shall be by low-pressure switch setting.
3. Temperature in each cold storage room compartment shall be controlled by electric thermostat, Ranco No. 010-1408, located within compartment and sensing element positioned to avoid fan discharge air stream.

O. Valves and Accessories

1. All valves and controls shall be standard weight and suitable for service purpose intended, and subject to approval by the Designer.
2. Each system shall include condensing unit with standard valving, refrigerant piping, refrigerant, evaporator (s), liquid and suction line isolation valves within 5'-0" (1500 mm) of evaporators, thermostatic expansion valve for evaporator, heat exchanger, filter-dryer, liquid line solenoids for Cold Storage Rooms and liquid indicator.
3. Vibration eliminators on compressor suction and discharge lines, size same as piping, as manufactured by Anaconda.
4. Refrigerant shut-off valves shall be as manufactured by Henry or Superior Valve Company. Valves shall be placed and in liquid line for each condensing unit and in each liquid line to each evaporator.

5. Expansion valves shall be Sporlan, furnished and installed in the liquid line at the evaporator, unless provided with manufactured equipment. External equalizer expansion valves shall be provided for coils fitted with refrigerant distributor.
6. A Sporlan drier shall be provided at the compressor. Up to 3 HP shall be a Catch-All series; larger than 3 HP shall be angle replaceable cartridge series.
7. Each liquid line sight glass shall be Sporlan "See All" moisture and liquid indicator and shall be full line size.
8. Solenoid valves shall be Sporlan line voltage, manual lift stem type, to operate at maximum of 2 lbs. (0.9 kg.) pressure drop across the valve. Valves shall be full line size, using silver solder connection as applicable. A liquid line solenoid, normally closed, shall be used with temperature controller for each Cold Storage Room compartment coil on a system.
9. Include a suction line filter with access valve adjacent to compressor. Filter shall be a Superior "F" Series or equal.
10. EPR, CRT, and/or CDA valves shall be Alco or Sporlan.
11. Suction accumulators shall be Refrigeration Research 3700 series or Virginia VA series.
12. Discharge line mufflers shall be Refrigeration Research M-10 and M-15 or AC and RS S-6300 series.
13. Time clocks shall be Paragon.

P. Drain Lines

Type "L" copper coil drain lines extended to exterior of refrigerated compartments over floor sinks (drain) with "S" traps at termination ends. See Standard Detail RI-4-1.

1. Provide clean out "T" and cap at each change of direction in the lines. Provide individual drain lines for each coil unless otherwise specified. Drain lines shall be run tight to refrigeration compartment walls with minimum pitch of 2" (50 mm) per foot.
2. Drain lines inside low temperature compartments shall be equipped with drain line heaters and insulated with Armaflex ½" (12 mm) insulation. Drain lines in low-temperature compartments shall be extended into adjacent, medium or high temperature compartments to reduce length of drain line heater required.
3. Drain lines on the exterior of refrigerated compartment shall be painted with chrometone paint.

PART 3 EXECUTION

3.1 DELIVERY AND INSTALLATION

A. Delivery

1. The equipment shall be delivered and installed on schedule. Coordinate all work with the General Contractor and other divisions as required.
2. Extra charges resulting from special handling or shipment shall be paid by the Kitchen Equipment Contractor if insufficient time was allowed in placing factory orders to ensure normal shipment.

- B. The work shall be accomplished so as not to delay the project construction schedule, interfere or conflict with the work being performed by other contractors. Work shall be coordinated and integrated to prevent conflict of work necessitating changes to work already completed. Should conflicts occur, notify the owner for his coordination in its resolution.

- C. Verify all required field dimensions before fabrication.
- D. Include all alternations to walls, floors and ceiling necessary for work, except otherwise shown or specified, accomplished in a manner satisfactory to the Architect and the Designer. Holes through structural beams shall be prohibited unless written approval has been granted by the Architect.
- E. Cut holes in equipment for pipe, drains, electric outlets, etc, as required for this installation. Work shall conform to highest standards of workmanship and shall include welded sleeves, collars, ferrules or escutcheons.
- F. Repair all damage to the premises as a result of this installation.
- G. Remove daily all debris from the site related to this installation.
- H. Remove any plates, components or component covers installed at the factory before installing the FRP-X panels at cold storage rooms and reinstall them afterwards along with the items furnished loose for mounting on the exterior face of the wall panels.
- I. Space between all equipment to wall, ceiling, floors masonry pads, and adjoining units not portable and with enclosed bodies shall be completely sealed against entrance of food particles or vermin by means of trim strips, welding, soldering or mastic. Mastic shall be General Electric Silicone Construction Sealant Series SE1200 in appropriate color.
- J. All items shall be installed plumb, square, level and in proper elevation, plane location and in alignment with other work.
- K. Cold Storage Rooms
 - 1. The cold storage rooms shall be delivered and installed on schedule by factory supervised and approved installers. Coordinate the work with the General Contractor and other trades as necessary.
 - 2. Become fully familiar with the job site and the architectural drawings and specifications. Provide the necessary job site coordination with the various trades to insure job site conditions will meet the requirements of the cold storage rooms.
 - 3. Establish a time schedule with the General Contractor that will insure the job site coordination with the various trades to insure job site conditions will meet the requirements of the cold storage rooms.
 - 4. All work shall be designed and manufactured to comply with field conditions and fitted with proper joints and sections.
 - 5. During curing and cleaning of the wearing floors inside the cold storage rooms, the cold storage room doors shall be left open and the rooms well ventilated to prevent damage to the interior. "Keep Out" signs shall be posted at each open door.
 - 6. After the installation of the cold storage rooms and prior to the installation of the wearing floor has cured, the cold storage room doors are to be closed and locked.
 - 7. Where the floor is depressed or floorless, walls shall be anchored to the building floor with a concealed 18 gauge galvanized steel floor track with drive pins 2'-0" (600 mm) on center and sealed at interior and exterior edges with a bead of sealant.
- L. Refrigeration Systems

1. Refrigeration systems and connecting piping shall be installed as indicted in contract documents in a manner that provides complete and operational systems and eliminates any noise and vibration being transmitted to any part of the building.
2. Piping shall be installed to permit normal inspection, service, removal of the condensing units and their components and view of sight glasses and allow expansion and contraction without damage to the system.
3. Extreme care shall be taken to keep the entire system clean and dry.
4. Nitrogen gas shall flow through piping being welded to prevent scaling. The Owner or Designer shall have the option of cutting a maximum of three (3) welded fittings to inspect for the proper use of nitrogen. The Kitchen Equipment Contractor shall replace fittings at his cost where scaling is present.
5. Suction and discharge line vibration eliminators shall be furnished and installed parallel to the compressor shaft and secured at outlet end as required to eliminate vibration in rigid piping.
6. All refrigeration lines shall be factory extended to one end of the compressor rack in a neat and orderly manner and shall be supported and anchored with "Unistrut" or equal clamps and channels. Ends of lines shall be capped against contamination.
7. Compressors and all accessories on the compressor rack shall be factory mounted and pre-wired to a main circuit breaker control panel with individual circuit breakers wired to a main breaker disconnect requiring a single power connection. All wiring shall be run inside a code approved raceway.
8. Condenser water supply and return header shall be factory pre-plumbed using hard copper tubing with shut-off valves for supply and return for each.
 - a. Provisions shall be provided for connection to city water for emergency use.
 - b. Verify water system pressure and provide all necessary components to insure proper operation of the water cooled system and the return of the water to the re-circulating system.
9. If in the opinion of the Kitchen Equipment Contractor, additional ventilation is required to ensure correct operating temperatures, he shall so state in a letter to Owner and/or Designer for evaluation and decision before installation.

M. Refrigeration System Instructions and Identification

1. Kitchen Equipment Contractor shall at each component of every system identify it with the letter/number shown on the Refrigeration Schedule. The identification shall be with black paint, decal, or other approved permanent method. Plastic tape labels are unacceptable. Identification shall be in an easily seen location.

N. Refrigeration Piping Testing

1. Notify Owner and/or Designer in advance when a test is being made and ready for inspection.
2. Each system shall be pressure tested for leaks. Tests for R-404A refrigerant shall be 300 p.s.i. on the high side and 100 p.s.i. on the low side. All valves shall be fully open during last test.
3. Tests are to be accomplished as follows:
 - a. Charge the systems with refrigerant through the port of liquid shut-off valves of the receivers to a pressure of 10 to 20 p.s.i.
 - b. Add dry nitrogen, the supply of which shall be equipped with a pressure regulating valve to provide the specified pressure.
 - c. Carefully test all joints for leaks using either a Halide torch or an electronic leak detector.
4. The Owner or Designer shall approve all tests.

5. Precautions shall be taken to disconnect the low pressure controls for protection of the bellows during testing.

O. Refrigeration System Evacuation

1. Advise Owner and/or Designer when the evacuation of the system is to start, so the procedures can be checked.
2. Evacuation shall be an Airserco, Stroke KC8R or Robinaire, vacuum pump with an indicating gauge registering pressure in microns. Pump shall be connected to the system with a 5/8" (15 mm) O.D. line or larger.
3. Evacuate both high and low sides to 500 microns. Break the vacuum with refrigerant to 0 p.s.i. evacuate the high and low sides below 500 microns. Break the vacuum with refrigerant; evacuate high and low sides to 500 microns; and then break vacuum to 0 p.s.i. with the refrigerant to be used in the system.

3.2 START-UP & DEMONSTRATION

- A. All equipment under this section shall be cleaned and ready for operation at time building is turned over to the Owner.
- B. Provide a competent service representative to be present when installation is put into operation. He shall lubricate and put into proper operation all equipment and instruct the Owner's employees in the proper use and maintenance of all items in this contract and set up a maintenance schedule to be followed thereafter. Three (3) copies of the schedule shall be provided before final acceptance of the installation.
- C. Refrigeration System Start-up.
 1. Charge each system with the refrigerant specified in the Refrigeration Schedule.
 2. All systems and controls shall be set and checked for proper operation at temperatures specified in the Refrigeration Schedule.
 3. Check compressors for proper oil level. Refrigerant oil shall be Suniso 3G, inhibited only, delivered to job site in sealed containers. Oil shall be added to the system to maintain ¼" (6 mm) to ½" (12 mm) sight glass.
 4. Check all electrical circuits by Division 26 for compliance with the manufacturer's specifications. Division 26 shall make corrections to his wiring as required. The Kitchen Equipment Contractor shall be responsible for corrections in his wiring and/or components as required.
 5. The manufacturer's requirements for lubrication shall be checked and followed before the operation of fan and pump motors, and/or associated equipment.
 6. Furnish and install, where directed by the Owner, copies of the Refrigeration Schedule and Refrigeration Floor Plan, framed with a glass covering. The Refrigeration Floor Plan shall show the location of all ERP, CTR, and/or CDA valves, solenoid valves, and other controls for easy location and services.
 7. Provide a set of "As Built Drawings" to Owner upon completing the installation. Drawings shall include refrigeration line runs and wiring diagrams. Drawings shall be submitted in the form of reproducible sepia.
 8. Review the refrigeration systems, operation, maintenance, emergency procedures, and proper service procedures with the Owner's Engineering Staff. Provide a competent serviceman who shall remain for a minimum of eight (8) hours during the first day of operations.

- D. Where concrete has been poured inside a low temperature cold storage room it shall be allowed to cure twenty-eight (28) days, minimum seven (7) days before starting the refrigeration system. After the curing period the temperature shall be brought down in regulated stages. The temperature shall be brought down as follows: to 40° F. (5° C.) held twenty-four (24) hours; to 20° F. (-6° C.) held twenty-four (24) hours; and then to specified temperature.
- E. During start-up provide all required instruction for operation and maintenance of equipment, after one (1) year guarantee period.
- F. The fire suppression system shall be tested for the authorities in the Owner's presence. Certificates shall be obtained and provided to the Owner from the authorities and from the Fire Insurance Rating Bureau.

PART 4 - EQUIPMENT**4.1 REGULAR MANUFACTURED EQUIPMENT**

- A. Provide equipment with standard finishes and accessories unless specifically deleted or superseded by the contract documents.

4.2 FABRICATED EQUIPMENT

- A. Provide arrangement and configuration as shown on plans, elevations and standard detail drawings.

Foodservice Itemized Equipment

ITEM 1 - MOP SINK W/ SERVICE FAUCET (1 REQ'D) <By Plumbing Contractor >
Not In Contract
NIC

ITEM 1.1 - SHELVING, WALL-MOUNTED (1 REQ'D)
John Boos Model PB-MSS824 Dimensions: 8(w) x 24(d)
Utility Shelf, wall-mounted, 24"W x 8"D, 1-1/2" riser on sides & rear, includes hooks & (2) mop/broom holder with locking cam, 16/300 series stainless steel

ITEM 2.0 - WIRE SHELVING (5 REQ'D)
Winco Model VC-1836
Shelf, 36"W x 18"D, includes: (4) sleeve clips per shelf, wire, chrome plated finish, NSF (Qty Break = 2 each)
15 ea Model VC-1860 Shelf, 60"W x 18"D, includes: (4) sleeve clips per shelf, wire, chrome plated finish, NSF (Qty Break = 2 each)
5 ea Model VC-2430 Shelf, 30"W x 24"D, includes: (4) sleeve clips per shelf, wire, chrome plated finish, NSF (Qty Break = 2 each)
25 ea Model VC-2448 Shelf, 48"W x 24"D, includes: (4) sleeve clips per shelf, wire, chrome plated finish, NSF (Qty Break = 2 each)

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5 ea Model VC-2454 Shelf, 54"W x 24"D, includes: (4) sleeve clips per shelf, wire, chrome plated finish, NSF (Qty Break = 2 each)
44 ea Model VC-86P Shelf Post, 86"H, chrome plated, NSF (priced per each)

ITEM 3.0 - WALK-IN COOLER (1 REQ'D)

Custom Walk-in

5' - 10" x 11' - 2" x 8' - 0" rectangular indoor freezer/cooler combo

- 5' - 2" ID x 5' - 1" ID x 7' - 3 1/2" ID freezer (with floor)

- 5' - 2" ID x 5' - 1" ID x 7' - 3 1/2" ID cooler (with floor) (NSF Approved)

NOTE - Refrigeration equipment is included in the FOB price.

ITEM 3.1 - EVAPORATOR COIL (1 REQ'D) <Included>

Custom Refrigeration

Included with item #3.0

ITEM 3.2 - REMOTE CONDENSER UNIT (1 REQ'D) <Included>

Custom Refrigeration

Included with item #3.0

ITEM 4.0 - WIRE SHELVING (8 REQ'D)

Winco Model VEX-1448

Shelf, 48" x 14", includes (4) sleeve clips per shelf, wire, epoxy coated, green, NSF (Qty Break = 2 each)

4 ea Model VEX-1860 Shelf, 60" x 18", includes (4) sleeve clips per shelf, wire, epoxy coated, green, NSF (Qty Break = 2 each)

12 ea Model VEX-72P Shelf Post, 72"H, epoxy coated, green, NSF (priced per each)

ITEM 5.0 - WALK-IN FREEZER (1 REQ'D) <Included>

Custom Walk-in

Included with item #3.0

ITEM 5.1 - EVAPORATOR COIL (1 REQ'D) <Included>

Custom Refrigeration

Included with item #3.0

ITEM 5.2 - REMOTE CONDENSOR (1 REQ'D) <Included>

Custom Refrigeration

Included with item #3.0

ITEM 6.0 - WIRE SHELVING (8 REQ'D)

Winco Model VEX-1448

Shelf, 48" x 14", includes (4) sleeve clips per shelf, wire, epoxy coated, green, NSF (Qty Break = 2 each)

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- 4 ea Model VEX-1860 Shelf, 60" x 18", includes (4) sleeve clips per shelf, wire, epoxy coated, green, NSF (Qty Break = 2 each)
- 12 ea Model VEX-72P Shelf Post, 72"H, epoxy coated, green, NSF (priced per each)

ITEM 7.0 - POKER CHIP DOLLY (1 REQ'D) <By Owner>
Not In Contract
Provided by Owner

ITEM 8.0 - WATER HEATER (4 REQ'D) <By Plumber>
Not In Contract
Provided by Plumber

ITEM 9.0 - HAND SINK (1 REQ'D)
Advance Tabco Model 7-PS-20 Dimensions: 13(h) x 17.25(w) x 17.25(d)
Hand Sink, wall mounted, 14" wide x 10" front-to-back x 5" deep bowl, 20 gauge 304 stainless steel, with deck mounted fixed faucet, basket drain, NSF, cCSAus
1 ea Model 7-PS-17B Welded Side Splash, 7-3/4"H (installed height), both sides, for hand sinks with 10" x 14" bowl & deck mounted faucets

EYE WASH ATTACHMENT (1 REQ'D)
Advance Tabco Model K-170
Eye Wash Attachment

ITEM 10.0 - PRE-RINSE FAUCET ASSEMBLY (1 REQ'D)
T&S Brass Model B-0133
EasyInstall Pre-Rinse Unit, wall mount, base faucet, spring check cartridges & lever handles, 2" dia. flanges with 1/2" NPT female eccentric flanged inlets, 35-1/2"H, 15" overhang, 8-1/4" clearance, 18" riser, spray valve, flex stainless steel hose
1 ea Model B-0230-K Installation Kit , (2) 1/2" NPT nipples, lock nuts and washers, (2) short "El" 1/2" NPT female x male

ITEM 11.0 - SPARE NO. <Spare No.>

ITEM 12.0 - DISHWASHER, UNDERCOUNTER (1 REQ'D)
Hobart Model LXEC-3 Dimensions: 32.5(h) x 23.94(w) x 25.56(d)
LXe Dishwasher, undercounter, 23-15/16"W x 25-9/16"D x 32-1/2"H, low temperature chemical sanitizing, (34) racks/hr, fresh water rinse, .74 gal/rack, delime notification, auto chemical priming, service diagnostics, detergent, rinse aid & sanitizer pumps, 120v/60/1-ph, cULus, NSF, ENERGY STAR®
1 ea Standard warranty - 1-Year parts, labor & travel time during normal working hours
1 ea Model DWT-LXE Drain water tempering kit for LXe
1 ea On-site DWT installation by local Hobart Service Office (this price is available only if the local Hobart Service Office completes the installation of the dishwasher within a 50 mile radius & during normal business hours). Price is available only with machine purchase (if purchased separately local installation rates will apply)
1 ea Model PWRCORD-KIT-LXEC 1 ph power cord kit for LXeC

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1 ea Model PRESREG-3/40BR 3/4" brass pressure regulator
1 ea Model WTRHAM-ARREST Water hammer arrestor kit

ITEM 13.0 - DISHTABLE SORTING SHELF (1 REQ'D)

John Boos Model PB-SRW-42 Dimensions: 16(h) x 42(w) x 18(d)
Sorting Shelf, holds (2) racks, 42"W x 18"D x 16"H, wall mounted, solid, include: brackets, 18 ga./300 series stainless steel, NSF

ITEM 14.0 - RACK DOLLY (1 REQ'D)

Metro Model CB2121C Dimensions: 12.13(h) x 23.38(w) x 23.38(d)
Dolly, for Cup/Glass Rack, platform design, single stack, designed for 20" x 20" racks, all aluminum construction, with corner bumpers

ITEM 15.0 - THREE COMPARTMENT SINK (1 REQ'D)

Custom Stainless Steel

Custom Sink, three compartment, 132" x 27", 16 gauge type 304 stainless steel, (3) 18" x 20" x 12" bowls with lever waste brackets, (1) 18" x 20" scrap sink, left & right drainboards, rolled edge, 10" back & right splash with 8" OC faucet holes, stainless steel gussets, legs, side crossbracing & adjustable bullet feet, includes stainless steel basket drain, NSF
(1) s/s scrap basket

ITEM 15.1 - PRE-RINSE FAUCET ASSEMBLY, WITH ADD ON FAUCET (1 REQ'D)

Fisher Model 34444

Pre-Rinse Unit, 8" c/c backsplash mount, with spring action flexible gooseneck, wall bracket, Add-On-Faucet with 8" swing spout

1 ea Model 2400-2103 Elbow, 1/2" F x 1/2" F, 90°

ITEM 16.0 - OVERSHELF (1 REQ'D)

John Boos Model MENS36-P Dimensions: 36(w) x 12(d)

Cucina Mensola Shelf, wall-mount, 18/8 stainless steel, 12" W x 36" L, polished corners & edges, stainless steel utensil bar & (3) stainless steel hooks, KD

ITEM 17.0 - RANGE, 24", 4 FRENCH HOT PLATES (1 REQ'D)

Vulcan Model EV24S-4FP-480 Dimensions: 58(h) x 24(w) x 34(d)

Restaurant Range, electric, 24", (4) 2.0 kW French hot plates, 9-1/2" solid cast iron, infinite controls, standard oven, (1) rack, stainless steel front, sides, single-deck high shelf & 6" legs, 480v

1 ea 1 year limited parts & labor warranty, standard

1 ea 480v/60/3-ph, 13.0kW, 16.3 amps, direct wire, standard

1 ea Single deck stainless steel high shelf, standard

1 st Model CASTERS RR4 Casters (set of 4) (shipped in separate carton)

ITEM 18.0 - EXHAUST HOOD (1 REQ'D)

Accurex

Exhaust Only Wall Canopy Hood, 42" L x 48" W x 24" H

Performance Enhancing Lip (P.E.L.) for up to 31% Lower Exhaust Rates

Sloped Grease Trough with Enclosed Grease Cup per NFPA 96 Requirements

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Material - 430 SS Where Exposed
UL 710 Listed w/ out Exhaust Fire Damper
Filter - X-Tractor - Stainless Steel
Lights - Globe Light Fixtures (bulbs not included) (1)
Shipped Loose Exhaust Collar(s)
Factory Mounted Supply Collar(s)
Zero Clearance Top
Zero Clearance Front
Factory Mounted 3" Back Airspace
Factory Mounted 1" Left Zero Clearance Airspace with Finished End

Accessories:

Air Supply Plenum (ASP) on Front

1 ea Model CONSTANT VOLUME FAN CONTROL CENTER Constant Volume Fan Control Center, XFCC-1
UL Listed
Material - 300 SS Enclosure
Turn on Exhaust in Fire Mode
Thermal Overloads in Cabinet
Temperature Interlock with digital display and remote temperature adjustment
Automatically starts fans when cooking occurs in compliance with IMC codes
Temperature Interlock Sensors Installed (1)
Lights Out in Fire
Power For Shunt Trip

ITEM 18.0 - VENTLESS EXHAUST SYSTEM <OPTIONAL> (1 REQ'D)

Wells Model WVU-26 Dimensions: 80(h) x 31(w) x 42.5(d)

Universal Ventless Hood, 26" cooking zone, 3-stage filtration, (2) LED lights, stainless steel stand, 6" to 8" adjustable legs, 12.48/14.40 kW, 208/240v/60/1-ph, 6.0 amps, NEMA 6-15R, NSF, ETL (NON-RETURNABLE Item) (For replacement filters, this model requires (1) HEPA Charcoal Filter Pack (WL0107))

1 ea <Optional> OWNER RESPONSIBILITY: Before any Wells Mfg. Ventless unit can be powered up for the first time, the included UL300 Ansul fire suppression system must be charged with "Ansulex" and commissioned and tagged by a certified and locally licensed ANSUL Fire Suppression contractor. This commissioning is also the commencement of an agreement between the Ansul agent and the owner and cannot be consummated by Wells Mfg, its agents, dealers or service agencies. Cost will vary by individual Ansul agent and paid by the owner, not by Wells.

1 ea <Optional> NOTE: Before purchasing and installing this equipment, Wells Mfg recommends that operators apply for permits as required by local jurisdictional authorities. Required permits vary by jurisdiction and may include Electrical, Fire, Mechanical and Food Service. Permits are the responsibility of the operator and/ or its contractors.

1 ea <Optional> Note: Must specify voltage and phase

1 ea <Optional> Two year parts and one year labor warranty

ITEM 18.0 - FIRE SUPPRESSION SYSTEM <OPTIONAL> (1 REQ'D)

Wells

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Wall Mounted Enclosure - All Required System Parts Included
Stainless Steel Agent Tank Enclosures
Pre-piped Hood with Detection
Factory Coordinated Install
Metal Blow Off Caps
Permits and Puff (air) Test Included
Protects hood(s): HOOD #1 Section 1

Accessories:

Mechanical Shutoff Valve, 1.25" (Amerex)

ITEM 18.1 - EXHAUST FAN (1 REQ'D) <By Mechanical Contractor >
Not In Contract
Provided by Mechanical Contractor

ITEM 18.2 - MAKE -UP AIR FAN (1 REQ'D) <By Mechanical Contractor >
Not In Contract
Provided by Mechanical Contractor

ITEM 18.3 - FIRE SUPPRESSION SYSTEM (1 REQ'D)
Accurex
Wall Mounted Enclosure - All Required System Parts Included
Stainless Steel Agent Tank Enclosures
Pre-piped Hood with Detection
Factory Coordinated Install
Metal Blow Off Caps
Permits and Puff (air) Test Included
Protects hood(s): HOOD #1 Section 1

Accessories:

Mechanical Shutoff Valve, 1.25" (Amerex)

ITEM 18.4 - HOOD TRIM (1 REQ'D)
Custom Stainless Steel
18 ga S/S hood trim, 87" x 24" max high

ITEM 18.5 - WALL FLASHING (1 REQ'D)
Custom Stainless Steel
Wall Lining, 76" H x 87" W, 20 gauge type 430 stainless steel, flat, non-insulated

ITEM 19.0 - MICROWAVE OVEN (1 REQ'D)
ACP Model RCS10TS Dimensions: 13.75(h) x 22(w) x 19(d)
Amana® Commercial Microwave Oven, 1000 watts, 1.2 cu. ft. capacity, medium volume, capacity to program (100) menus, (5) power levels / (4) cooking stages, braille touch pads, non-removable air filter,

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side hinged door with tempered glass, accommodates 14" plate, stainless steel interior & exterior,
120v/60/1-ph, 1550 total watts, 13 amps, cord, NEMA 5-15P, cETLus
1 ea 3-year limited warranty (1 year full)

ITEM 19.1 - MICROWAVE OVEN, SHELF (1 REQ'D)

John Boos Model BMS2024 Dimensions: 15(h) x 24(w) x 20(d)

Microwave Shelf, wall mount, 24"W x 20"D x 15"H, 16 gauge 300 series stainless steel, Stallion safety edge front, NSF

ITEM 20.0 - REACH-IN UNDERCOUNTER REFRIGERATOR (1 REQ'D)

True Food Service Equipment Model TUC-27-ADA-HC Dimensions: 29.75(h) x 27.63(w) x 30.13(d)

ADA Compliant Undercounter Refrigerator, 33-38° F, stainless steel top & sides, (1) stainless steel door, (2) shelves, clear coated aluminum interior with stainless steel floor, 3" castors, front breathing, R290 Hydrocarbon refrigerant, 1/6 HP, 115v/60/1, 2.0 amps, NEMA 5-15P, 34" working height, cULus, UL EPH Classified, CE, MADE IN USA

1 ea Self-contained refrigeration standard

1 ea Warranty - 5 year compressor (self-contained only), please visit www.Truemfg.com for specifics

1 ea Warranty - 3 year parts and labor, please visit www.Truemfg.com for specifics

1 ea 3" castors, standard

ITEM 21.0 - WORK TABLE, WITH PREP SINK(S) (1 REQ'D)

Custom Stainless Steel

Prep Table, 96" W x 36" D, 16 gauge type 304 stainless steel top with 18" x 20" x 12" sink, 8" OC deck mount faucet holes, 4" backsplash, turns down 2" and kinked, 18 gauge type 304 stainless steel legs, gussets, side & rear crossbracing, fully welded, NSF

ITEM 21.1 - DECK MOUNT FAUCET (1 REQ'D)

T&S Brass Model B-0221-CC

Mixing Faucet, deck mount, 12" swing nozzle, 8" centers on deck faucet with 1/2" IPS CC male inlets, lever handles

1 cs Model B-0425-M Supply Nipple Kit, includes (1) 1/2" NPT x 2" long inlet supply nipple, (1) 1/2" longcock washer & (1) 1/2" longcocknut, brass (master carton of 2 units)

ITEM 22.0 - ICE CUBER WITH BIN (1 REQ'D)

Scotsman Model CU3030SA-1 Dimensions: 39(h) x 30(w) x 30(d)

Prodigy® Ice Maker With Bin, cube style, air-cooled, self-contained condenser, production capacity up to 250 lb/24 hours at 70°/50° (217 lb AHRI certified at 90°/70°), 110 lb bin storage capacity, Auto-alert™ indicator lights, front removable air filter, stainless steel finish, small cube size, includes 6" legs,

115v/60/1-ph, NSF, cULus, ENERGY STAR®

1 ea 3 year parts & labor warranties

1 ea 5 year parts on compressor & condenser

1 ea 5 year parts & labor on evaporator

ITEM 22.1 - WATER FILTRATION SYSTEM (1 REQ'D)

Everpure Model EV932401 Dimensions: 26.69(h) x 8.04(w) x 5.25(d)

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Insurice Single-i2000² System, 9,000 gallon capacity, 1.67 gpm flow rate, 0.5-micron precoat filtration, (1) I2000² cartridge, with self-contained scale inhibitor feed, for cubers up to 500 lbs/day or flakers up to 1,500 lbs/day, pressure gauge, flushing valve, NSF, ANSI

ITEM 23.0 - COFFEE BREWER (1 REQ'D) <By Owner>
Not In Contract
Provided by Owner

ITEM 24.0 - SPARE NO. <Spare No.>

ITEM 25.0 - BUFFET COUNTER (1 REQ'D) <By Millwork Contractor >
Not In Contract
Provided by Millwork Contractor

ITEM 25.1 - CABINET, WALL-MOUNTED (1 REQ'D) <By Millwork Contractor >
Not In Contract
Provided by Millwork Contractor

ITEM 26.0 - INDUCTION RANGE, BUILT-IN / DROP-IN (4 REQ'D)
Spring USA Model SM-261R Dimensions: 3.2(h) x 12.6(w) x 13.4(d)
MAX Induction™ Range, built-in, single, 12-3/5"W x 13-3/8"L x 3-1/5"H, 5mm tempered black-smoked glass cook top, SmartScan® technology includes: on/off control with knurled knob, on/pan present indicator lights, knob set thermostat control, cook/temp mode touch pad, over/under voltage protection standard, LED power/temp display (power level: 1-20 or temperature settings 110° - 400°), separate control panel with 43" cable, SmartScan™ technology, flush mountable heating unit, modular flanged sealed base, 6' power cord with standard plug, stainless steel, 208-240v/50-60/1-ph, 2600 watt, 11.8 amps, NEMA 6-20P, FCC, cETLus, ETL-Sanitation, NSF
4 ea 1 year parts & labor warranty

ITEM 27.0 - CHEESE WARMER (1 REQ'D) <By Owner>
Not In Contract
Provided by Owner

ITEM 28.0 - CEREAL DISPLAY (1 REQ'D) <By Owner>
Not In Contract
Provided by Owner

ITEM 29.0 - FOOD PAN WARMER/COOKER, COUNTERTOP (1 REQ'D)
Wells Model SC6411WA
(21794) Deluxe Package Round Soup Cooker/Warmer, countertop, electric, thermostatically controlled, 11 quart, stainless steel construction, package: 11 quart inset, lid & 8 oz ladle, UL
1 ea Limited 3 year parts & labor warranty, standard
1 ea Note: Must specify voltage and phase
1 ea 120v/60/1-ph, 8.3 amps, 1.0 kW, NEMA 5-15P

FOOD SERVICE DESIGN GROUP

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ITEM 30.0 - COLD FOOD WELL UNIT, DROP-IN, REFRIGERATED (1 REQ'D)

Wells Model RCP-300 Dimensions: 24.5(h) x 44.75(w) x 25.38(d)

Cold Food Well Unit, drop-in, self-contained refrigeration, (3) 12" x 20" pan capacity, on/off switch with individual thermostatic controls, insulated pan, 1" drain, stainless steel inner liner, top & flange, steel exterior body, R-134A refrigerant, 115v/60/1-ph, 5.5 amps, 1/4 HP, NEMA 5-15P, NSF, cULus

1 ea Note: Must specify voltage and phase

1 ea Warranty; 1 year parts and labor, standard

1 ea 6 ft Extended lead for remote mounting of on/off switch

1 ea Model 22109 Perforated Bottom Strainer Plate, 1" thick, for RCP-300 or ICP-300, two pieces

ITEM 30.1 - SNEEZE GUARD (1 REQ'D)

Custom Stainless Steel

Sneeze Guard, Self-Serve, 48" W, 1-1/2" x 1-1/2" square stainless steel posts with brushed finish, clear 1/4" tempered glass front, sides and top with polished edges, stainless steel glass clips, NSF

ITEM 31.0 - BUFFET COUNTER (1 REQ'D) <By Millwork Contractor >

Not In Contract

Provided by Millwork Contractor

ITEM 32.0 - JUICE DISPENSER (1 REQ'D) <By Owner>

Not In Contract

Provided by Owner

ITEM 33.0 - BUFFET COUNTER (1 REQ'D) <By Millwork Contractor >

Not In Contract

Provided by Millwork Contractor

ITEM 33.1 - WALL CABINETRY (1 REQ'D) <By Millwork Contractor >

Not In Contract

Provided by Millwork Contractor

ITEM 34.0 - TOASTER (1 REQ'D) <By Owner>

Not In Contract

Provided by Owner

ITEM 35 - ELECTRIC WAFFLE IRON (2 REQ'D) <By Owner>

Not In Contract

Provided by Owner

ITEM 36 - BUFFET WASTE CHUTE (1 REQ'D) <By Millwork Contractor >

Not In Contract

Provided by Millwork Contractor

FOOD SERVICE DESIGN GROUP

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ITEM 37 - TRASH CAN (1 REQ'D) <By Owner >
Not In Contract
Provided by Owner

ITEM 37.1 - TRASH CAN OPENING (1 REQ'D) <By Millwork Contractor >
Not In Contract
Provided by Millwork Contractor

ITEM 38 - SERVING COUNTER (1 REQ'D) <By Millwork Contractor >
Not In Contract
Provided by Millwork Contractor

ITEM 39.0 - AIRPOTS (1 REQ'D) <By Purveyor>
Not In Contract
Provided by Purveyor

ITEM 40.0 - REFRIGERATED MERCHANDISER (1 REQ'D)
Beverage Air Model MMR27HC-1-B Dimensions: 78(h) x 30(w) x 33.75(d)
MarketMax™ Refrigerated Merchandiser, reach-in, one-section, (1) double pane glass door, 27 cu. ft. capacity, electronic control, digital display, (5) epoxy coated steel shelves, LED interior lighting, self closing door with automatic hold-open feature, anti-microbial door handles, bottom-mounted refrigeration, black exterior, R290 Hydrocarbon refrigerant, 1/4 hp, UL, cULus, UL EPH Classified, MADE IN USA
1 ea 3 years parts & labor warranty (excludes maintenance items)
1 ea Self-contained refrigeration standard
1 ea Additional 2 yr compressor warranty, standard
1 ea 115v/60/1-ph, 5.8 amps, 8' cord, NEMA 5-15P, standard
1 ea NOTE: Sign Graphics are available when ordered with unit at no charge (excludes Got Milk Graphics)

ITEM 41.0 - FREEZER MERCHANDISER (1 REQ'D)
Beverage Air Model MMF27-1-B-LED Dimensions: 78(h) x 30(w) x 33.75(d)
MarketMax™ Freezer Merchandiser, reach-in, one-section, (1) triple pane glass door, 27 cu. ft. capacity, electronic control, digital display, (5) epoxy coated steel shelves, LED interior lighting, self closing door with automatic hold-open feature, anti-microbial door handles, bottom-mounted refrigeration, black exterior, 3/4 hp, UL, cULus, UL EPH Classified, MADE IN USA
1 ea 3 years parts & labor warranty (excludes maintenance items)
1 ea Self-contained refrigeration standard
1 ea Additional 2 yr compressor warranty, standard
1 ea 115v/60/1-ph, 13.8 amps, 8' cord, NEMA 5-20P, standard
1 ea NOTE: Sign Graphics are available when ordered with unit at no charge (excludes Got Milk Graphics)

ITEM 42.0 - CORNER GUARDS (8 REQ'D)
Custom Stainless Steel
Corner Guard, 2" W x 2" D x 48" H, 16 gauge stainless steel with kinked edges, NSF

ITEM 43.0 - GREASE INTERCEPTOR (1 REQ'D) <By Plumbing Contractor >
Not In Contract
Provided by Plumbing

ITEM 44.0 - GLASS DOOR MERCHANDISER (1 REQ'D)
True Model: GDM-7-MAR-1 Dimensions: 24"L x 24 3/4"D x 39 3/4"H
Self-contained refrigeration standard
115V/60/1-PH, 4.5 amps, 9' cord, NEMA 5-15P, standard

ITEM 45.0 - EMPLOYEE LOCKERS (1 REQ'D) <By Owner >
Not In Contract
Provided by Owner

ITEM 46.0 - AIR CURTAIN (1 REQ'D)
Berner Model AHC10-1036A
Architectural Series High Performance Air Curtain, 36" long, unheated, (1) 1/2 hp motor, three speed, for customer entrance door up to 10-feet high, anodized aluminum cover, wall mounting plate, .52 kW, cULus, MADE IN USA
1 ea Five year parts warranty (unheated units)
1 ea Model A 120v/60/1-ph
1 ea Model 9503SD020-P Automatic Door Switch, plunger type, activates air door when door opens, single phase only & max. amp draw of 20 amps
1 ea Satin anodized aluminum exterior finish, standard

ITEM 47.0 - MILLWORK DISPLAY (1 REQ'D) <By Millwork Contractor >
Not In Contract
Provided by Millwork Contractor

ITEM Z - WALK-IN INSTALLATION (1 REQ'D)
San Diego Restaurant Supply
Installation of all walk-in boxes. Receive the walk in cooler/ freezer from trucking company, unload, set in place, and install per manufactures directions.

ITEM Z-1 - REFRIGERATION INSTALLATION (1 REQ'D)
San Diego Restaurant Supply
Install factory built medium and low temp refrigeration systems. Start up and adjustment of equipment. SDRS will provide 35' line sets with all consumable components to complete the mechanical installation.

Options: Crane lift, 100' line sets

Exclusions: Permits, prevailing wages, condensate drains, crane lifts, roof curbs, roof jacks, electrical, roofing, fire proofing, concrete work, cores, overtime, seismic installation, seismic calculations, and or engineering calculations.

ITEM Z-2 - HOOD INSTALLATION (1 REQ'D)

San Diego Restaurant Supply

Installation of the following hoods: per this proposal to include, all material necessary to hang these hoods for a standard installation. Unistrut, and all thread only.

Does not include duct work, make-up air duct work, duct wrap, structural supports, seismic installation, mechanical of any kind, Oshpod installation, air balance reports, crane lift, roof curb installation, transporting goods to roof tops, roof penetrations, electrical connections, and or commissioning reports.

ITEM Z-3 - INSTALLATION OF S/S (1 REQ'D)

San Diego Restaurant Supply

Installation of custom stainless steel equipment to include, delivery set in place, anchoring curbs, field welding, floor anchoring, tack welding, level, trim, and final caulking. All included in this scope of work.

ITEM Z-4 - INSTALLATION OF BUYOUT EQUIPMENT (1 REQ'D)

San Diego Restaurant Supply

Installation of "buy out" equipment. Buyout installation is all cook line items, refers, slicers, mixers, shelving, uncrate, set in place, level, mount, and start up equipment.

ITEM Z-5 - PROJECT MANAGEMENT (1 REQ'D)

San Diego Restaurant Supply

Project management. All field coordination. Attend all M.E.P meetings. Coordinate SDRS sub contractors for installations of ansul system, walk in cooler/freezer installation and hood installation. Coordination of the entire project.

ITEM Z-6 - SHOP DRAWINGS (1 REQ'D)

San Diego Restaurant Supply

This includes shop drawings for the following custom walk-ins, custom millwork, custom stainless steel, and custom fixtures.

- Exclusions: electrical connections, electrical interlock connections, plumbing connections, plumbing condensate lines, plumbing drains, freezer condensate drain line heaters, any engineering drawings, any seismic calculations or engineered drawings, mechanical connections, mechanical interlocking connections, structural connections or bracing, structural calculations, union wages, union workers, prevailing wages, fire proofing, core, concrete work, roof curbs, roof jacks, overtime (Unless noted),permits, fees, cranes, storage, dumpsters, walk-in pit waterproofing, OSHPD installation, any seismic installations not noted on plans and written spec, any item not specified on equipment schedule or included in attached proposal.

- Wall Backing is the responsibility of the Owner/General Contractor. No warranty provided for installation of wall mounted items or any damage caused by failure due to equipment installed without proper wall backing.

-Goods held over 60 days subject to storage fees.

- This proposal includes special order items. No refunds, cancellations or exchanges on any special order item after customer approval.

-Where discrepancies exist between the written spec and design drawings, the written spec is followed and quoted.

- Union Labor and/or Prevailing Wage NOT included in bid (Advise if needed)

-NOTE: San Diego Restaurant Supply takes specific exception to any liability for losses due to microbial

matter, including molds, fungi, or bacteria.

-Owner assumes responsibility for design errors on custom equipment and layout not designed by Food Service Design Group or San Diego Restaurant Supply.

- Installation not included for any Exhaust Fans and/or MUA supply fans. SDRS to provide fans and curbs only if included in proposed pricing. Not to provide any electrical, ducting, penetrations, sealing, roofing, or installation. Installation to be done by Others (Mechanical Contractor). SDRS not responsible for getting equipment onto rooftop. No crane rental is included in price unless stated.

- ALTERNATE and/or OPTIONAL items are not included in the total.

- All work to take place during normal business hours Mon-Fri 7am to 4pm. Overtime and Weekend rates are NOT included.

- Any/All mechanical, electrical, and plumbing connections by Others.

-Prices quoted are based on the quantity specified/requested. Changes in quantity may result in higher item(s) pricing due to a loss in manufacturer quantity discount pricing.

The contract price is based upon manufacturer's prices as of the execution of this agreement. San Diego Restaurant Supply has no control over increases in these prices. Any significant price increases in items in this that occurs during this period of time between contract execution and substantial completion of the project , shall cause the contract price to be equitably adjusted by an amount reasonably necessary to cover any increase.

-See attached contract terms.

END OF SECTION