HMC ARCHITECTS
3546 Concours Street
Ontario, California 91764

September 10, 2010

Phase 2 - Modernization
Hunt Elementary School
San Bernardino City Unified School District
HMC #3137110-100

ADDENDUM NO. 2

The following changes, additions, or clarifications have been made to the original approved project Documents and shall be incorporated in the Bidder's bid amount. The Bidder shall acknowledge receipt of the Addendum in the BID FORM. All other aspects of the work from the original Documents shall remain unchanged. In case of conflict between the Drawings and Specifications and this Addendum, this Addendum shall govern. The Bidders shall be responsible for transmitting this information to all affected subcontractors and suppliers prior to the closing of bids.

PROCUREMENT AND CONTRACTING REQUIREMENTS

Item No. AD-2.1: Reference Section 00010 - Notice Inviting Bids

A. The date and time for the submittal of bids shall be revised to read:

"... not later than 2:00 p.m. on Friday, September 17, 2010."

Item No. AD-2.2: Reference Bid Cover Sheet

A. Delete Bid Cover Sheet originally issued. Substitute therefore Revised Bid Cover Sheet hereby issued.

Item No. AD-2.3: Reference Bid Form

A. Delete Bid Form originally issued. Substitute therefore Revised Bid Form hereby issued.

SPECIFICATIONS

Item No. AD-2.4: Reference Revised Sections

A. The following Revised Specification Section is hereby issued:

Section 11400, Food Service Equipment

Item No. AD-2.5: Reference Section 11400, Food Service Equipment (revised section listed above)

A. Revise Paragraph 3.03, FOOD SERVICE EQUIPMENT SCHEDULE as follows:

1. Item 24 - Remote Refrigeration System: Add KAIRAK as an acceptable manufacturer for the remote refrigeration system, Model #KMR-2FN.

2. Item 37 - Mobile Walk-In Cooler/Freezer Shelving: Change quantity to six (6) required; four (4) units at 48" long, one (1) unit at 60" long and one (1) unit at 36" long.

3. Item 38 - Mobile Wire Shelving Units: Change quantity to six (6) required in the Dry Storage Room, two (2) units at 60" long, and four (4) units at 48" long.

4. Items 46/47 - Mobile Stainless Steel Work Table with Drawer Assembly: Delete these equipment items as occurring along the West wall of the Cooler/Dry Storage Room.

5. Item 49 - Can Opener: Relocate to Item 61 Work Table. Revise manual can opener to be an electric can opener. Edlund Model #270 NSF.

6. Item 56 - Gas Double Convection Oven: Revise manufacturer and model no. to be "Blodgett, Model No. DFG 200". All other equipment specifications, features and accessories as described in Section 11400 shall apply for this item.

7. Item 70 - Hot Food Cabinet: Revise manufacturer and model no. to be "Bevles, Model No. HTSS74W12 with top mount heat system." All other equipment specifications, features and accessories as described in Section 11400 shall apply for this item.

8. Item 71 - Mobile Milk Cooler: Furnish and install one (1) Carrier Beverage-Air Mobile School Milk Cooler #ST58N-S, with 24 cu. ft. capacity, approximately 58" wide x 31" deep. Milk must be easily accessible to elementary school children at 34" AFF, (includes caster). With stainless steel exterior and corner bumpers, external thermostat, cylinder lock, keys to Owner, two-part hinged lid at front pulls back to allow children to reach in for the milk boxes. Milk must be easily accessible for elementary school-age children on heavy-duty polyurethane casters with brakes, NSF and UL rated, with standard parts and labor warranty. NEMA 5-15. Mobile Milk Cooler shall be located in the Multi-Purpose Room, on the Westerly wall, North of roll-up counter Door B1C.

DRAWINGS

Item No. AD-2.6: Reference Revised Drawings

A. The following Revised Drawings are hereby issued:

A1.1
C100
C200

Item No. AD-2.7: Reference New Drawings

A. The following New Drawings are hereby issued:

AD2-A01
A1.5
S4.1
S4.2
ESK-1 (Addendum No. 2)
ESK-2 (Addendum No. 2)
ESK-3 (Addendum No. 2)
ESK-4 (Addendum No. 2)
ESK-5 (Addendum No. 2)

Item No. AD-2.8: Reference Drawing C100 (issued as part of Addendum No. 2)

A. It shall be herein clarified that all necessary demolition and remodel scope of work shown to occur within the public right-of-way along Pumalo Street, including but not limited to: new sidewalks, new curb and gutters, new drive aprons, new street pavement, new curb ramps, shall be a part of this Base Bid Scope of Work. (New student drop-off turnout, new drive approaches, new sidewalk across campus frontage).

Item No. AD-2.9: Reference Drawing L-2, Construction Details

A. It shall be herein clarified that the rubber resilient paving note shown in the detail drawing shall reference the rubberized play surfacing tiles as indicated in the reference Note No. 2 on Drawing L-1.

Item No. AD-2.10: Reference Drawing A1.1 (previously issued as part of Addendum No. 1)

A. Drawing A1 - Demo Site Plan: The existing A.C. paving shown Westerly of Building C shall be removed to the extents as described in Addendum No. 1, Item AD-1.26A.

B. Drawing A10 - Remodel Site Plan: The existing gate occurring along the campus frontage on Pumalo Street, West of the outbound driveway, shall be replaced as a part of this project scope. Refer to attached Sketch AD2-A01 for installation requirements. The height of the gate shall be revised to be 4'-0" height.

C. Drawing A10 - Remodel Site Plan: The new A.C. paving shown Westerly of Building C shall be revised to new concrete pavement to the extents as described in Addendum No. 1, Item AD-1.26.B.

Item No. AD-2.11: Reference Drawing A1.3, Site Details

A. On Details A1, E4, E8, E11 and E15, Revise all wire mesh or metal mesh note references shown on these details to read as follows for the gate and fencing infill panels:

"Gate and fencing infill panels shall be constructed of welded steel bar grating with bearing bars spaced at 1-3/16" on center and cross bars at 4" on center. (Type W-19-4 by Grating Pacific). Bearing bar size shall be 1-1/2" x 3/16" and span between top, bottom, and intermediate fence rails as shown in the detail. Furnish end banding along each edge of the bar grating panels, typical all locations. All panels to be provided with a hot-dip galvanized finish after fabrication. Infill panel grating materials shall be as manufactured by Grating Pacific, Los Alamitos, CA (800) 321-4314 or McNichols Co., Los Angeles (562) 921-3344."

B. On Details E4, E8, E11 and E15, Revise vertical heights of swinging gates to be 7'-0" clear to underside of steel lintels. Revise overall vertical height of fencing panels to be 8'-0". Typical for all ornamental fencing/gate locations. Revise horizontal spacings between vertical posts to be 8'-0" on center in lieu of 6'-0" max.

C. On Details E4, E8, E11 and E15, The top rail, bottom rail, and intermediate steel support rail occurring at 37" above the bottom fence rail shall be 4" x 3" x 3/16", typical all location.

D. On Details E4, E8 and E11, It shall be herein clarified that the welding steel bar grating fence and gate panels shall extend completely between vertical and horizontal tube steel frames/rails. Where galvanized steel protective plates are shown to occur at gate panic hardware devices and on adjacent fence panels, those protective plates are to be welded over the bar grating panels.

E. On Details A1 and A4, Revise the overall depth of the footing from 36" to 48", and revise the two (2) 12" dimensions shown for the horizontal ties to read 18" spacing. Delete the vertical dimensions shown (h/3) and replace with 3'-4" (bottom dimension) and 4'-8" (top dimension).

F. On Drawing A8 - Fencing Plan, the 8'-0" high new chain link fencing and rolling driveway gates shown to occur along the school's South edge along Pumalo Street shall be reduced to 4'-0" height. It shall be herein clarified that this new chain link fencing/gates shall extend across the entire school's street frontage.

Item No. AD-2.12: Reference Drawing A2.0

A. Drawing K1 - Lunch Shelter Demolition Plan: It shall be herein clarified that the existing Lunch Shelter structure shall not be demolished, but shall be disassembled in good condition and turned over to the District. Contractor shall demolish the concrete slab and related structural footings occurring beneath the lunch shelter.

Item No. AD-2.13: Reference Drawing A2.1 (issued as a part of Addendum No. 1)

A. Drawing A1 - Building A Remodel Plan: Add 3'-0" wide x 7'-0" high exterior grade metal door, frame and hardware to the Western wall of Building A, North of the MDF enclosure A4. Contractor to remove existing window assembly and portion of lower wall framing/finishes and infill with new door and frame assembly. Infill remaining portion of window opening with 2 x 4 studs, and finish exterior with 7/8" thick cement plaster finish and interior wall with 5/8" Type X gypsum board. Paint new wall surfaces per painting specification.

B. Drawing A1: Provide custom-grade plastic laminate cabinetry conforming to Woodwork Institute construction requirements (latest edition) for all new casework conditions. All cabinet doors and drawers to be furnished with locks. The following WI casework units are to be utilized for these conditions:

Reception Counter in A1: Three (3) 32" wide x 24" deep x 40" high 102 base cabinet units. Provide continuous plastic laminate-covered countertop with 2" p. lam. edges all sides.

Workstations in A1: Provide each work station with a 24" long x 24" deep x 30" high 252, 24" long x 24" deep x 30" high 230, 24" long x 24" deep x 30" high 222 and 24" long x 24" deep x 30" high 223 base cabinets. Provide continuous one-piece plastic laminate countertop over base cabinet units in L-shape configuration as shown. Provide 2-1/2" deep Drawer Apron 291 at each corner unit at knee space.

Base Cabinets along West Wall of A1: Provide five (5) 36" wide x 24" deep x 30" high 222 base units.

Base/Upper Cabinets at A2 and A11: Provide one (1) 36" wide x 24" deep x 34" high base cabinet 154 and two (2) 24" wide x 24" deep x 34" high 222 cabinets. Uppers to be three (3) 28" wide x 15" deep x 24" high 312 units.

C. Drawing A9 - Building B Remodel Floor Plan, Revise dimension of new 2 x 4 stud wall location occurring at the West side of Cooler (B1B) and Dry Storage (B1A) from 13'-5" to 14'-11" dimension.

D. Drawing A9 - Building B Remodel Plan: Relocate the new hand wash sink shown occurring along the Easterly wall of the Kitchen (Food Service Item No. 76 on Drawing K100-K1 Plan) to the Westerly wall of the Kitchen, South of Door B1E. Contractor to connect to existing drainage and water piping occurring at same location.

E. On Remodel Keynote No. 25, Revise keynote to read as follows:

"25. (N) overhead coiling 1-1/2 hour fire rated roll-up stainless steel counter door assembly by Overhead Door Corporation, Model 641 Series, or approved equal."

Item No. AD-2.14: Reference Drawing A8.1

A. Door Schedule: The following doors shall be furnished with a 2'-0" wide x 2'-6" high glazing panel within the upper one-half of the door assembly. Glazing to be tempered glass. Doors A2, A7, A8, A9, A10, A11, A12, A13A and A13B.

B. Door Schedule: The following doors shall be furnished with a 4" wide x 2'-6" high glazing panel within the upper one-half of the door assembly and positioned above the lockset/lever hardware. Glazing to be laminated glass. Doors B8, B10, B1A and B1B.

C. Finish Schedule: It shall be herein clarified that all interior wall surfaces within Administration Building A (except Toilet Rooms and MDF Room) shall receive full-height tackable wall panels with fabric-wrapped finish. Material to be Koroseal Vinyl Product (washable) from their full product line, or by an approved equal manufacturer.

D. Finish Schedule: It shall be herein clarified that all interior wall surfaces within the Multi-Purpose Building and new offices within Building B shall receive full-height tackable walls panels with fabric-wrapped finish. Material to be a Koroseal Vinyl Product (washable) from their Ceres Product Line, or by an approved equal manufacturer.

Item No. AD-2.15: Reference Drawing S2.2

A. Foundation Plan - Building B: Revise "East-West" width of slab depression at walk-in cooler/freezer unit to be 14'-6" dimension. (Revised construction drawing to be issued prior to the start of construction.)

Item No. AD-2.16: Reference Drawing K500

A. On Drawing K1, Revise 13'-0" wide dimension shown for slab floor depression and width of walk-in cooler/freezer unit to read: 14'-6" dimension, revised construction drawing to be provided prior to start of construction.

Item No. AD-2.17: Reference Drawing MB-2.1, Building "B" Mechanical Demolition Floor Plan

A. Mechanical Demolition Notes: Add second sentence to Note No. 5 to read as follows:

"Contractor to protect mechanical unit during the removal process and turn over to District in functional/working condition."

Item No. AD-2.18: Reference Drawing E3.1 (previously issued as part of Addendum No. 1)

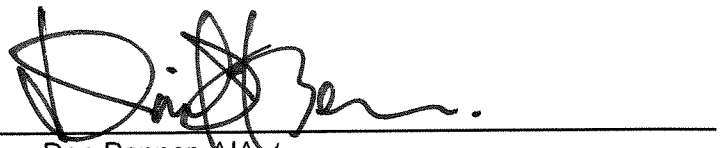
A. Drawing C - Building B Signal Plan: Two (2) data outlets shown at the Southwest corner of the Multi-Purpose Room and designated by Kitchen Equipment Schedule Symbol 75 shall be deleted. Floor mounted data outlet designated to serve Kitchen Equipment Item 64 (POS Station) shall move Southerly 7'-0" and Easterly 3'-0" and be a fully-recessed combination power, data and communications outlets as manufactured by Hubbell, System One Series.

B. Drawing E: The floor outlets shown within the Multi-Purpose Room for Kitchen Equipment Items 70 and 71 shall be deleted. The floor outlet location in the Multi-Purpose Room for Kitchen Equipment Item 64 shall be relocated to the South 7'-0" and to the East 5'-0". This floor outlet shall be a fully recessed combination power, data and communications outlet, as manufactured by Hubbell, System One Series.

Item No. AD-2.19: Reference Drawing ESK-1 (issued as part of Addendum No. 2)

A. Delete power poles shown and replace with fully recessed combination power, data and communications outlet by Hubbell, System One Series.

HMC ARCHITECTS

By 

Dan Benner, AIA
Principal-In-Charge

Bid Issuance Set

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

BID COVER SHEET

BID NO.:	F09-12	**BID DUE:**	Friday, September 17, 2010 at 2:00 pm

PROJECT NAME: Phase 2 Modernization Project – Hunt Elementary School

THE WORK UNDER THIS BID IS A PROJECT OF: Facilities Management Dept.

BID PACKAGE SUBMITTAL FROM:

BIDDER/ CONTRACTOR: _____

BIDDER TELEPHONE & CONTACT PERSON, E-MAIL _____

CONTENTS MUST INCLUDE: (Please Check Each Box)

- ☐ Bid Proposal Form

Attachments:

- ☐ 1 - Bidder's Noncollusion Affidavit
- ☐ 2 - Site Visit Certification
- ☐ 3 - Certification of Compliance with DVBE Policy
- ☐ 4 - Proposed Subcontractors
- ☐ 5 - Bid Bond Form
- ☐ 6 - Bidder References & Responsibility Information
- ☐ 7 - NOT USED
- ☐ 8 - Local Business Outreach Program Registration Form
  (NOTE: LBOP is voluntary – Not required with bid submission)

SUBMIT BID TO: **BID BOX - PURCHASING DEPARTMENT**
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
777 NORTH "F" STREET
SAN BERNARDINO, CA 92410

Each Bidder/Contractor must complete the information on this sheet and affix this sheet to the outside of their bid envelope by gluing or taping.

Bid Issuance Set

Bid Issuance Set

PROJECT NAME: Phase 2 Modernization Project, Hunt Elementary School
BID NUMBER: # F09-12

BID FORM

TO: **SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT**, acting by and through its Governing Board, herein called the "DISTRICT."

FROM: _____
(Proper Name of Bidder)

1. Pursuant to and in compliance with your Notice Inviting Bids and the other documents relating thereto, the undersigned Bidder, having familiarized himself/herself with the terms of the Contract and the Contract Documents, the local conditions affecting the performance of the Contract and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated, the Work of the Contract, including all of its component parts, and the furnishing of all materials and equipment required to be incorporated in and form a permanent part of the work; the furnishing of tools, equipment, supplies, transportation, utilities, facilities, labor, superintendence and services required to perform and complete the work; bonds, insurance and submittals; and including the assumption of all obligations, duties and responsibilities necessary to the successful completion of the Contract, including its acceptance by the DISTRICT, for the following Project:

   PROJECT NAME: Phase 2 Modernization Project, Hunt Elementary School
   (Bid #F09-12)

2. ADDENDA

   The undersigned has thoroughly examined any and all Addenda (if any) issued during the bid period and is thoroughly familiar with all contents thereof and acknowledges receipt of the following Addenda: *(Bidder to list all addenda)*

   Phase 2 Modernization Project, Hunt Elementary School
   (Bid #F09-12)

   ADDENDUM NO._____DATE ISSUED_____DATE RECEIVED_____

   ADDENDUM NO._____DATE ISSUED_____DATE RECEIVED_____

   ADDENDUM NO._____DATE ISSUED_____DATE RECEIVED_____

   ADDENDUM NO._____DATE ISSUED_____DATE RECEIVED_____

3. ALLOWANCES:

A1 Unforeseen Site Conditions $125,000

Additional effort, over and above contract work, due to existing soil conditions or obstructions encountered during trenching which are not readily discernable prior to excavation.

A2 Unforeseen Structural Repairs $125,000

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair, i.e. termite damage, dry rot, damaged bracing and repairs necessitated as a result of the certification investigation process or other. Repair will be forwarded to DSA, via field Change Directive, to document the repairs.

A3 Unforeseen Access Compliance Repairs $40,000

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair prior to installation of Access Compliance components. Repairs will be forwarded to DSA, via Field Change Directive, to document the repairs.

A4 Unforeseen Fire Alarm and Electrical $30,000

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair on order to install new fire alarm and electrical items. Repairs will be forwarded to DSA, via field Change Directive, to document the repairs.

4. **TOTAL COMBINED BASE BID PRICE (B) OF MODERNIZATIONS AND ALLOWANCES (A1-A4) at Hunt Elementary School**

_____

_____

Total Combined Base Bid Price (Sum of A1 + A2 + A3 + A4 + B):
(Numerical Value): $_____

5. TIME FOR COMPLETION: The aggregate sum total work of the Contractor comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within **Two Hundred Forty (240) consecutive calendar days**. Bidder acknowledges liability for liquidated damages in the amount as stipulated herein for each calendar day of delay.

6. DISTRICT'S RIGHT TO REJECT: It is understood that the DISTRICT reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of **One hundred and Twenty Days (120)**.

7. BID SECURITY: The required bid security in the amount of not less than ten percent (10%) of the bid is attached hereto.

8. PROPOSED SUBCONTRACTORS: The required list of proposed subcontractors is attached hereto. Bidder understands and acknowledges that all subcontractors providing goods and services in excess of $100,000.00 must be bonded in accordance with the Subletting and Subcontracting Fair Practices Act. (Refer to Notice Inviting Bids.)

9. NONCOLLUSION AFFIDAVIT: The required notarized Bidder's Noncollusion Affidavit is attached hereto.

10. SITE VISIT CERTIFICATION: The required Site Visit Certification is attached hereto.

11. DVBE CERTIFICATION: The required Certification of Compliance with DVBE Policy is attached hereto.

12. CRIMINAL BACKGROUND CHECK CERTIFICATION: The required Criminal Background Check Certification will be submitted prior to Contractor commencing work on the project in accordance with the Notice Inviting Bids.

13. FAITHFUL PERFORMANCE AND PAYMENT BOND: It is understood and agreed that if written notice of the acceptance of this bid is mailed, FAXED, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the DISTRICT a fully executed Form of Agreement (Contract) in the form attached hereto in accordance with the bid as accepted, and that it will also furnish and deliver to the DISTRICT six (6) executed copies of a Faithful Performance Bond and a separate Payment Bond as specified, and Certificates of Insurance, all within ten (10) calendar days after receipt of notification of the acceptance.
Bidder further agrees that the work under the Contract will be commenced by the Bidder, if awarded the Contract, on the date to be stated in the DISTRICT's "Notice to Proceed" and will be completed within the time specified in the Contract documents.

14. PROPER ADDRESS: Notice of Award of Contract or other correspondence should be addressed to the undersigned at the address stated below.

_____

_____

15. NAME(S) OF PRINCIPALS: Principals of the Bidder's company are:

_____

_____

_____

(IMPORTANT NOTICE: If Bidder is a corporation, state legal name of corporation, as well as names of the president, secretary treasurer, and general manager thereof; if a partnership, state true name of firm, also names of all individual partners composing firm; if an individual, state full name.)

16. The undersigned bidder declares that the bidder is licensed in the State of California as required by the Business and Professional Code in accordance with the act providing for registration of Contractors and the documentation of licensure is as follows:

	License No.	Classification	Expiration Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

If the bidder is a joint venture, each member of the joint venture must include the above information.

Bidder certifies that the above-mentioned license(s) entitle(s) Bidder to provide the work required by the Contract, that such license will be in full force and effect throughout the duration of work under this Contract, and that any and all subcontractors to be employed for the work will have appropriate licenses.

17. FORFEITURE OF SECURITY: In the event the Bidder to whom the Notice of Award of Contract is given fails or refuses to post the required bonds and return executed copies of the Form of Agreement with all required attachments within ten (10) calendar days from the date of the Notice of Award, the DISTRICT may declare the Bidder's bid deposit or bond forfeited as liquidated damages.

18. ASSIGNMENT OF RIGHTS, TITLE AND INTEREST IN CAUSES OF ACTION: Pursuant to Section 4552 of the Government code, in submitting a bid to the DISTRICT, the bidder offers and agrees that if the bid is accepted, it will assign to DISTRICT all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

19. IRCA: The bidder hereby certifies that it is, and at all times during the performance of work hereunder will be, in full compliance with the provisions of the Immigration Reform and Control Act of 1986 ("IRCA") in the hiring of its employees and the bidder shall indemnify, hold harmless and defend the DISTRICT against any and all actions, proceedings, penalties or claims arising out of the bidder's failure to comply strictly with the IRCA.

20. FINANCIAL STATEMENTS: It is understood and agreed that if requested by the DISTRICT, the Bidder will furnish a notarized financial statement, references and other information required by the DISTRICT sufficiently comprehensive to permit an appraisal of bidder's ability to perform the work of the Contract.

21. LIQUIDATED DAMAGES: The undersigned hereby warrants that all work shall be completed as soon as practicable but not later than **Two Hundred Forty (240) consecutive calendar days** from the date specified on the Notice to Proceed issued by the DISTRICT. Time is of the essence. The undersigned agrees that failure to complete the work or any scheduled activity within the time set forth herein will result in the imposition of liquidated damages for each consecutive calendar day of delay in the amount of **ONE THOUSAND DOLLARS ($ 1,000.00).**

22. CHANGE ORDER REQUESTS: Bidder understands and agrees that all change order requests must be submitted in the form set forth in the Contract Documents. The amount of allowable charges submitted pursuant to a change order shall be limited to the charges allowed by the Conditions of the Contract. Indirect costs, consequential and incidental costs, project management costs, extended home office and field office overhead, administrative costs and profit and other charges not specifically authorized by the Contract Conditions will not be allowed.

The undersigned declares and certifies under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

_____
Name of Corporation, Joint Venture, Partnership or Sole Proprietorship

_____
Address

Telephone:_____

_____
Proper Names of Bidder Empowered to Sign On Behalf of the Corporation, Joint Venture, Partnership or Sole Proprietorship

_____
Signature of Bidder

_____
Signature of Bidder (If more than one is required)

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his or her name and signature shall be placed above. If the bidder is a Joint Venture all individuals empowered by the Joint Venture Agreement must sign.

ATTACHMENTS TO BE COMPLETED AND SUBMITTED BY BIDDER:

To be submitted with Bid Form. Refer to Notice Inviting Bids.

1. Bidder's Noncollusion Affidavit
2. Site Visit Certification
3. Certification of Compliance with DVBE Policy
4. Proposed Subcontractors
5. Bid Bond Form
6. Bidder References and Responsibility Information
7. NOT USED
8. Local Business Outreach Program Registration Form, (Voluntary, Not Required with Bid Submission)

To be Submitted with Executed Contract (Agreement) by Successful Bidder:

1. Certificate Regarding Worker's Compensation
2. Drug-Free Work Place Certification
3. Statement of Intent to Meet DVBE Participation Goal
4. Faithful Performance Bond Form
5. Payment Bond Form
6. Vendor Tax Information
7. Certification of Non-Utilization of Asbestos Material
8. General Contractor Information
9. Contractor Prevailing Wage Compliance Certification
10. Guarantee
11. Criminal Records Checks Certification Forms

SECTION 11400

FOOD SERVICE EQUIPMENT

PART 1 - GENERAL

1.01 REFERENCE

Requirements in Addenda, Alternates, Conditions, and Division 1 collectively apply to this work.

1.02 ABBREVIATIONS

These abbreviations may be found in this Section or the Food Service Drawings. Abbreviations may or may not be capitalized, fully capitalized, or contain punctuation marks. Refer to Food Service Drawings for additional abbreviations.

A	Architectural Section
ABS	Acrylonitrobutadyne Styrene
ADA	Americans with Disabilities Act
AFF	Above Finished Floor
AGA	American Gas Association
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing Materials
BTU	British Thermal Unit
C	Centigrade Celsius
CFC	Chlorofluorocarbon
DA	Deductive Alternate
DB	Decibel
DSA	Department of State Architect
E	Electrical Section
F	Fahrenheit
FDA	Food and Drug Administration
FPM	Feet per Minute
FRP	Fiberglass Reinforced Plastic
GA	Gauge
HACCP	Hazard Analysis of Critical Control Points
HP	Horsepower
ID	Inside Diameter
KW	Kilowatts
LCD	Liquid Crystal Display
LED	Light Emitting Diode
M	Mechanical Section
MIN.	Minimum
MPH	Miles Per Hour
N/A	Not Applicable, or Not Available

NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIC	Not in Contract
NSF	National Sanitation Foundation
O.C.	On Center
O.D.	Outer Dimension
OSHA	Occupational Safety & Health Administration
PLF	Pounds Per Linear Foot
PRV	Pressure Reducing Valve
PSI	Pounds Per Square Inch
PVC	Polyvinylchloride
RPM	Revolutions per Minute
S/S	Stainless Steel
SMACNA	Sheet Metal & Air Conditioning Contractors National Association
UL	Underwriters' Laboratories, Inc.
USDA	United States Department of Agriculture
V	Volts
W	Watts
ø	Electrical Power Phase
°	Degree (Angle or Temperature)
OO	Owner Furnish, Owner Installed
OC	Owner Furnished, Contractor Installed
CC	Contractor Furnished, Contractor Installed
CO	Contractor Furnished, Owner Installed

1.03 SCOPE OF WORK

A. The work covered by this Section consists of furnishing all labor, equipment, appliances and materials, and performing all operations in connection with the furnishing and installation of all food service equipment, complete and in strict accordance with the Project Drawings and this Section.

B. In all cases where all or a part of an item of equipment or any related item is referred to herein in the singular number, it is intended that such reference apply to as many such shall apply to as many such items and/or parts as necessary to complete the installation.

If there is an Item discrepancy between Plans, Schedules or Equipment Specifications, the bid should be for the greater quantity and the greater quality of item(s).

C. Work of this Section includes, but is not limited to:

1. Timely delivery and installation. Contractor shall be responsible for coordinating the work with that of other Sections.

2. All work involved in making stands and supports for all equipment requiring them.

3. Cutting of equipment holes for pipes, drains, electrical outlets, etc., as required for this installation. The work shall conform to the highest standards of workmanship.

4. Repair of all damage to the premises as a result of this installation, and removal of all debris left by those engaged in this installation. Keep work area free from debris of all kinds, and when completed, leave the premises in a clean and finished condition.

5. All new food service equipment and fixtures.

6. All faucets and drains with tailpieces, and motor starters or switches are to be part of the equipment of this contract.

7. Service and maintenance contract for self-contained refrigerated equipment furnished under this Section, for one (1) year, after the date of substantial completion, for parts and labor, and five (5) years for parts, except when otherwise specified.

8. Plumbing and gas controls, valves, fittings, and wastes as integral parts of equipment, but not including rough-in connections or extensions.

9. Electrical controls, devices, wiring, conduits, switches, fixtures, and cords as integral part of equipment, serving beyond cut-out switches and receptacles provided.

10. Lamp bulbs for all equipment and fixtures, including exhaust hoods and walk-in refrigeration units, furnished as part of this Section.

11. All necessary metal backing in walls and ceiling for wall and ceiling mounted equipment.

12. Provide a competent service representative to be presented when installation is put into operation, and to remain on the premises at least three (3) days thereafter during working hours, except when otherwise specified.

13. Assure that all utilities are in full service, and that all equipment is operable at the time of final inspection.

14. Order and coordinate facility inspection by Environmental Health authorities and other jurisdictions responsible.

15. Clean, sanitize and have ready for operation all food service equipment and fixtures at the time of Environmental Health inspections and at time of turn over of facility to District.

D. Related work specified elsewhere:

1. Section 15 Mechanical Work: Water supply piping and final connections to equipment, including all valves, needed except as outlined in sub-paragraph above; floor drains, waste piping, indirect wastes, and final connections to equipment including all traps, valves, as required; ventilation duct work and final connections of same to equipment including items outlined in sub-paragraph above.

2. Section 16 Electrical Work: Electrical wiring and final connections to equipment and remote controls, including disconnect switches, etc., and conduits and pull boxes for refrigeration, and beverage and soda lines, but not including items outlined in sub-paragraph above.

3. General Construction Work: Reasonable openings and storage space to permit scheduled delivery of equipment; and installation of anchor bolts in concrete and masonry anchor bolts furnished under this section with template and/or layout drawings showing exact locations of anchor bolts.

4. Ventilation required by condensing units for walk-ins.

5. Toilet facilities, dressing rooms and lockers.

6. Fire resistant wall blocking for all wall mounted shelving, equipment, and counter top and dish table splashes, all wall mounted equipment, and fixtures requiring seismic restraints.

1.04 REQUIREMENTS OF REGULATORY AGENCIES

A. All work and materials shall be fully in accordance with the latest rules of the U.S. Public Health Service, National Fire Protection Association, current National Sanitation Foundation standards, and any local or state ordinances, Division of State Architect, the State Accident Commission's Safety Orders, O.S.H.A., 2001 Edition of the California Building Code and 2006 California Fire Code, refer to Sec. 0140 00,1.09,1., i., Environmental Protection Agency regulations, and any rules and regulations pertaining to adequate protection and/or guarding of any moving parts of equipment or otherwise hazardous locations or conditions. Comply with state and local guidelines and regulations for seismic restraint of food service equipment and fixtures.

1. Regulations, including building codes, steam codes, and all other codes applying to this jurisdiction shall be followed.

2. All manufactured items shall conform to current standards and revisions established by the National Sanitation Foundation, Ann Arbor, Michigan.

3. All electrical operated and/or heated equipment, fabricated or fabricated or otherwise shall conform to the latest standards of the National Electrical Manufacturers Association and the Underwriters' Laboratories, Inc., where applicable standards have been established by such agencies, or otherwise as acceptable to authorities having jurisdiction.

4. Where the drawings and specifications require larger sizes or higher standards than are required by the regulations, the drawings and specifications shall govern. Where regulations require larger sizes or higher standards than are required by the drawings and specifications, the regulations shall govern.

5. Procure all necessary certificates of acceptance or of completion required and issued by the state, municipality, or other authorities and deliver these to the Architect. The District may withhold any payments which may become due the Contractor until the necessary certificates are delivered.

   The Contractor shall obtain and pay for all inspection certificates and licenses required and necessary for the performance of the Work; and post all notices required by law and comply with all laws, ordinances and regulations bearing on the conduct of the Work as drawn and specified herein.

6. The Contractor shall pay all royalties and license fees and hereby covenants and agrees to save the District from the payment of any royalties, damages, losses or infringement of patents, materials, and methods used in the fabrication or manufacture of fixtures or equipment specified herein.

1.05 QUALIFICATIONS

A. The Food Service Equipment drawings indicate the general arrangement and location of kitchen equipment. Refer to Architectural and Structural drawings for exact building dimensions, and refer to Mechanical and Electrical drawings for general location of mechanical work.

B. The Contractor shall take field measurements and verify conditions at the site as needed.

C. Manufacturer's directions shall be followed in cases where the manufacturer of equipment used in the contract furnishes directions or drawings covering points not included or indicated on the drawings or specifications.

D. Dimensions shown on the drawings have been secured from available information, but the District assumes no responsibility for the accuracy of such measurements. All fabricators, contractors, and others utilizing the plans in connection with this project are responsible for and must verify the actual measurements with which they are concerned. Indicated plumbing and electrical information and rough-in of connections are for the sole purpose of indicating the requirements of fixtures and equipment and the District is not responsible for the engineering thereof, or for the plumbing or electrical fittings, work, and/or connections. The District assumes no responsibility for work done by contractors nor for changes made necessary by local building codes, ordinances, structural conditions or by the substitution or changes in equipment shown.

Contractor shall make allowances for elbows, traps, and other fittings and shall make final connections on the job, supplying all necessary valves, traps, steam traps, faucets and starting switches for motors, except where specifically noted in the specifications.

Reference is made to Notes which are a part of the drawings, and shall require that all fabricators, and other persons utilizing the drawings shall familiarize themselves with these notes before commencing any work. Any inconsistencies between the drawings and the Notes, or between the drawings, the Notes, the Specifications, and building codes or ordinances must be immediately called to the attention of the Architect in writing, so that any such inconsistencies can be resolved.

1.06 SUBMITTALS

A. Bids on items of standard manufactured equipment must be for equipment and fixtures of brand, size, capacity and specifications as found on the Drawings and Specifications. However, the bidder may also submit brands and models of equipment, other than those specified as an alternate, but only as an alternate. Bids with alternates must clearly state what is offered and must include operational data, specifications, shop drawings or manufacturers cut sheets, capacities and model numbers, with comparative costs, including installation, listed separately. Proposals for alternates must be delivered to District no later than ten (10) days prior to bid due date. No alternates will be considered after bid due date. Any additional costs incurred by other contractors, District, Architect or Consultant due to accommodating alternate equipment or fixtures shall be paid for by this Contractor.

B. Certain items of food service equipment and fixtures may be designated by District as Deductive Alternates.

C. Prepare and submit separate electrical and mechanical dimensioned rough-in drawings at 1/4"=1'-0" showing exact point of penetration of floors, walls, and ceilings for all services required to operate the equipment that the Contractor shall furnish, including the requirements for Contractor installed refrigerant and beverage pipe line runs. These drawings shall also show exact locations of final connections to equipment. Indicate floor drains, floor sinks, receptacles, lights, and other special conditions related to the equipment known to the Contractor but provided under other Section.

D. Prepare and submit separate dimensioned drawings showing the locations and size of all bases, openings in walls for equipment or operations, and critical dimensions. Drawings shall be drawn to a scale not less than 1/4"=1'-0".

E. Before starting fabrication of any custom fabricated food service equipment or fixtures, submit shop drawings for each item that is to be custom fabricated in the work of this Division. Shop drawings shall include large scale details of custom fabricated equipment, sizes and locations of mechanical and electrical services and curbs or other bases for all custom fabricated items.

Indicate sizes and location of anchor sleeves and other items required to be built into the work. Include sizes and locations of mechanical and electrical services for any District furnished equipment to be relocated under this contract.

Approval of shop drawings or schedules does not relieve the Contractor from the responsibility for deviations from the Drawings and Specifications unless he has in writing called attention to the deviations at the time of submission, nor shall it relieve him from responsibility for errors of any kind in shop drawings or schedules.

F. Furnish six (6) sets of submittal drawings as described in Paragraphs C, D and E, above.

G. Furnish six (6) sets of brochures for standard manufactured equipment specified herein. Such brochures shall be bound with an index sheet listing each brochure in the binder. Mark each sheet to indicate item number, accessories and finishes .

1.07 EQUIPMENT LIST APPROVAL

A. Products specified by naming only one manufacturer is intended to establish the standard required, and is not intended to limit the selection of equal products of other manufacturers.

B. When drawings are submitted for the purpose of showing the installation in greater detail, their approval shall not excuse the Contractor from requirements shown on the project drawings and in this project manual.

1.08 OPERATING INSTRUCTIONS AND MANUALS

A. The Contractor shall prepare a bound "Operating Instructions and Service Manual", three copies of which shall be furnished to District upon substantial completion of the work. Incorporate complete information, including but not limited to the following:

1. Part numbers of all replaceable items.

2. Manufacturer's cuts and rating tables.

3. Oiling, lubrication and greasing data.

4. Belt sizes, types and lengths.

5. Serial numbers of all principal pieces of equipment.

6. Installing and service representatives companies, names, addresses, and phone, e-mail and FAX numbers.

1.09 PRODUCT HANDLING

A. All equipment shall be delivered to the job in first class condition, free from any defects in manufacture or damage due to handling in shipping or delivery. Any items which are rejected because of any kind of damage or defect prior to acceptance must be removed and replaced without additional cost to the District.

B. Coordinate work with other Sections of the Specifications. If equipment is too large to be moved through the permanent openings in the building, the Contractor shall make arrangements to have suitable temporary openings provided at his expense, or he shall furnish his equipment in sub-assemblies which may be moved through the permanent openings and then assembled.

C. Contractor shall make provision for, pay for storage fees, and coordinate delivery with the respective trades of items delivered to the job site before and during installation. If receipt and storage cannot be arranged, all items must be received and accounted for by the Contractor.

1.10 SERVICE

Food service equipment and fixtures supplied and installed under this Section shall be supported by a service organization that is, in the opinion of the District, reasonably convenient to the site.

1.11 WARRANTIES

Provide a one (1) year general warranty for parts and labor for all food service equipment, custom fabrications and buy-outs. Additional warranties may be called out individually in the item specifications.

PART 2. - PRODUCTS

2.01 ELECTRICALLY HEATED EQUIPMENT

A. Wherever electrically heated equipment or thermostat controls for such equipment is specified, it shall be complete and of material, size, or rating as specified within the equipment item or details. All such equipment shall be of a nature and so installed as to be readily cleanable or made easily removable for cleaning.

B. Electrical appliance or heating elements with circuits of 120 volts shall not exceed 1650 watts, except as noted in the specifications.

2.02 SWITCHES, CONTROLS AND ELECTRICAL WORK

A. The Contractor shall supply on each motor driven appliance or electrically heated unit suitable control switch or starter of proper type in accordance with U.L. requirements. All other line switches, safety cut-outs, control panels, fuse boxes, other controls, fittings, and connections shall be furnished and installed under the Electrical Section except where specified to the contrary.

B. Contractor shall provide all equipment, internally wired to a junction box including push button switches, starters, and other apparatus, built into or forming an integral part of these items. Final connection to the lines shall be made under the Electrical Section from junction box.

C. Provide walk-in refrigerators and freezers with door operated switches with pilot lights.

D. Provide standard 3-prong plugs to fit "U" slot grounding type receptacles for all equipment items powered by 110-120 volts, single phase current, with suitable length 3-wire power cord.

E. The food service equipment manufacturer, supplier or their subcontractors shall be responsible for providing correct NEMA configurations to Contractor for all electrified food service equipment in advance of installation. Payment of all costs associated with any field changes will be the responsibility of the equipment manufacturer, supplier or their subcontractor. Consultant shall list NEMA configurations in Item Specifications when provided.

2.03 CONVENIENCE OUTLETS

Where receptacles are shown for custom fabricated fixtures, the Contractor shall supply cut-out and mount box integrally in place at location as shown on the drawings.

2.04 ELECTRIC MOTORS AND STARTERS

A. Quietness of operation of all equipment with motors is a requirement and the Contractor will be required to remove or repair any equipment producing objectionable noise.

B. Every motor larger than 1/4 HP shall be equipped with a motor starter with overload protection. If starters are not standard part of equipment, deliver starters to the job site separately for installation under the Electrical Section. For motors requiring automatic operation, the starters shall be automatic across and line type, General Electric #CCF7006, or equal, and push button station shall be included.

C. For motors 1/2 HP and larger not having automatic operation starters, starters shall be General Electric #CR062, or equal. Motors under 1/2 HP and not having automatic operation shall have General Electric #CR1061 starters or equal, enclosed type, for surface mounting. 120 volt motors shall have single pole starters. 208 volt, 3-phase motors shall have 3-pole starters.

D. Unless otherwise stated, all 1/2 HP or larger motors shall be 208 volts, 60 cycles, 3-phase. All motors smaller than 1/2 HP shall be 120 volts, 60 cycles, single phase.

2.05 CONNECTION TERMINALS

All equipment shall be complete with connection terminals as standardized by equipment manufacturers, except where specified to the contrary, for other Sections to make mechanical, electrical, ventilation and refrigeration connections, as required.

2.06 THERMOMETERS

All refrigerated equipment, fabricated and standard, shall be fitted with digital read out thermometers, or dial type thermometers with chrome plated bezels, as required by N.S.F.

Thermometers shall be adjustable and shall be calibrated after installation.

2.07 VENTILATION OF REFRIGERATED EQUIPMENT

Adequate air supply and exhaust shall be provided for all self-contained refrigeration condensing units, both fabricated and standard, as required for proper operation. If additional ventilation is required to insure correct operating temperatures, the Contractor shall comply, and at no additional cost to the District.

2.08 TRIMMING AND SEALING EQUIPMENT

A. Space between all units to walls, ceilings, floors, and adjoining units not portable and with enclosed bodies shall be completely sealed against entrance of food particles and vermin by means of trim strips, welding, soldering, or commercial joint material as suited to the nature of the equipment. Ends of hollow sections shall be closed.

B. Enclosed fixtures without legs and not mounted on bases shall be sealed water-tight to floor, except when specified to be portable.

C. Floor type drip pans and expansion joint material, for sealing pan edges with finish floor, shall be provided under this Section. Joint sealing materials shall be Weatherban two-part sealing compound as made by Minnesota Mining & Manufacturing Company. Color selected shall match grout of floor finish. Sealer shall be installed in accordance with manufacturer's directions and drawings.

2.09 LOCKS

Where specified or noted fixture doors and drawers shall be provided with cylinder locking type latches, keyed alike and master keyed to building standards

2.10 FABRICATED ITEMS

A. All custom fabricated items shall be manufactured by one company which has been approved by the District. All equipment shall have the same general style and appearance.

B. All custom fabricated items and equipment shall conform to current standards and revisions established by the National Sanitation Foundation, Ann Arbor, Michigan.

C. Stainless Steel

1. All stainless steel shall be U.S. standard type 304, 18-8, not over .013% maximum carbon. Exposed surfaces shall be polished to #4 finish.

2. Stainless steel tops shall be 14 gauge, unless otherwise specified.

3. Undershelves and enclosed base cabinets where exposed shall be 18 gauge stainless steel, unless otherwise specified.

4. Overshelves shall be 16 gauge stainless steel, unless otherwise specified.

D. Galvanized Iron

All galvanized iron shall be Armco or equal. Frame work of galvanized iron shall be welded construction. All welds shall be smooth, and where galvanizing has been burned off, the weld shall be touched up with a high-grade aluminum paint.

E. Legs and Cross-bracing

1. All legs shall be 1-5/8" o.d. stainless steel, unless otherwise specified. All cross-bracing shall be 1-5/16" o.d. stainless steel tubing, unless otherwise specified. All welds at cross-bracing shall be ground smooth. Legs shall be fitted with a stainless steel bullet type foot with not less than 3/4" height adjustment. Legs shall be fastened to equipment as follows:

- To sinks by means of enclosed gussets welded in place. Gussets shall be completely enclosed sanitary stainless steel, reinforced with bushings, and have set screws for securing legs.

- To metal tops and dish tables with enclosed gussets (as above) which shall be welded to a closed stainless steel hat channel section 14 gauge or heavier. Bracing shall be welded to underside of top.

- To wood or plastic top tables by means of welding enclosed (as above) to a closed stainless steel hat channel section anchored to top with screws through holes in flanges.

F. Gussets

Gussets shall be all stainless steel enclosed type having a minimum 3" diameter at top being continuously welded to frame members or sink bottom.

G. Sinks

1. Sink compartments shall have fully coved vertical and horizontal interior corners. Where one or more sink compartments are adjacent, partition shall be double thickness continuously welded where sheets join at top. Multiple compartment sinks shall be creased to insure complete drainage to waste opening. All sinks shall be 14 gauge polished stainless steel, installed in tops as an integral part of the fixture.

2. Where sink bowls are exposed, the exterior shall be polished to a #4 finish. Underside of sinks shall be sound deadened with NSF approved sound deadening material.

3 Undersides of sinks and drainboards shall be sound deadened with NSF approved sound deadening material, Component Hardware Group, Inc., #Q75-1366 or equal.

4. Provide custom fabricated sinks with twist handle waste outlets. Valves shall be chrome plated 2" size with 1-1/2" threaded adapter with tail piece. Die drawn insert type sinks shall have 3-1/2" basket type waste outlets. Do not provide overflows unless otherwise noted.

H. Faucets

All furnish faucets on all sinks, water stations, and other fixture brand shall be consistent throughout project as specified with each item. Faucets shall be as manufactured by T&S Brass Company, Fisher Manufacturing Co., Chicago Faucets, or approved equal.

Faucets for California

- Furnish faucets and pre rinse units on sinks, steamtables, bain maries, water stations and other equipment as shown on plans, details and specifications. Furnish water saving devices where required by local codes. All faucets intended to dispense water for human consumption shall be manufactured from pure stainless steel that contains no lead or brass in the water ways of the product. Finish shall be polished stainless steel. All faucets specified to have standard lever type handle with internationally coded handle identification buttons (hot and cold) and ADA easy turn stems. All faucets shall have internal stainless steel seats and stainless steel two part swivel stems. All plumbing fixtures shall be Certified ANSI / NSF 61 sec. 9 annex G, CSA Certified, AB 1953 Compliant and EPAct 2005 compliant.

- Pre rinse units shall have integral spring loaded check stems to prevent cross flow, stainless steel seats in control valve, hose equipped with three ply hydraulic type hose liner, spray valves shall be 1.1 GPM for water conservation, be fitted with backflow prevention device (where required), and furnished complete with nipples, lock nuts, washers for secure and proper installation.

I. Metal Tops

1. All metal tops shall be stainless steel, one-piece, welded construction, unless otherwise specified, reinforced on the under-side with closed stainless steel hat sections welded into place so tops can support heavy weights without deflection. Cross bracing shall not be more than 30" on center.

2. Apply to underside of all tops NSF approved sound-deadening material. Material shall be applied onto the surfaces after reinforcement sections have been fastened to top.

3. All seams and joints shall be shop welded or soldered as the nature of material may require. Welds shall be ground smooth and polished to match the original finish. Materials 18 gauge or heavier shall be welded. Field joints in tops, where required due to limitations, equipment sizes, or installation requirements, shall be made sanitary, tight, leak-proof, and without open seams. Except where field joints are called for specifically, join seams by welding or with properly designed draw fastening trim strips. Butt joints made by riveting straps and filling with solder will be not accepted.

   Lead solders may not be used where surface may come into contact with food.

4. Undersides of metal tops shall be sound deadened with NSF approved sound deadening material, Component Hardware Group, Inc., #Q75-1366 or equal.

J Sneeze Guards

Unless otherwise described in the Item specification, sneeze guards shall be "full service" type with offset service shelf, with brushed aluminum or stainless steel finish; and with end panels, both ends

K. Backsplashes, Edges and Ends

1. All backsplashes shall be 8" high, unless specified otherwise, with 2" return to wall on a 30° angle, and with a crimp at top to accept vinyl plastic sealing gasket, or fill with silicone sealant if backsplash is tight against the wall.

2. All marine edges shall be 5/8" deep with 1-3/4" facing with a 45° angle crimp. All rolled edges shall be 1-3/4" diameter except as detailed contrary with corners bullnosed. All bullnose edges shall be 1-3/4".

3. Ends of all fixtures, backsplashes, and shelves, shall be filled by forming the metal or welded sections, and finish entire rear of fixtures flush to walls or adjoining other equipment or fixtures. All welds shall be ground and polished smooth. All exposed areas of shelving, cabinets and under counters are to be smooth and sealed.

L. Dish tables

All dish tables, drain tables, backsplashes, and turned-up edges shall be radius bends in all horizontal and vertically coved at intersections. Rounded and coved corners or bends shall be 1/2" radius or larger and constructed in accordance with 2.10.I, Metal Tops, above.

M. Cabinet Bases

1. Enclosed cabinet type bases shall be made of formed steel sheets reinforced with formed steel sections to create a rigid structure. Steel shall be 18 gauge or heavier. Base shall be formed of sheets with front rails and mullions welded to appear as one piece construction. All exposed sections of exterior and interior shall be stainless steel. Unexposed sections to be galvanized steel unless specified otherwise.

2. Shelves in fixtures with enclosed bases shall be turned up on back and sides and feathered slightly to insure a tight fit to enclosure panels. Bottom shelves shall be made for easy removal unless otherwise noted. When enclosed base cabinets are specified below sinks and disposers, provide removable access panels with access to lever drain handles and louvers in access panels at disposer locations.

3. Shelves in fixtures with open bases shall be notched a full 90° and shall be removable and supported by cross structure.

N. Doors

1. Doors shall be stainless steel double pan type, unless otherwise specified. Outer pans shall be 18 gauge stainless steel, with corners welded, ground smooth, and polished. Inner pan shall be 20 gauge stainless steel fitted tightly into outer pan with a sound-deadening material such as Celotex used as a core, welded together, with seam solder filled.

2. Doors shall finish approximately 3/4" thick and shall be fitted with flush recessed type stainless steel door pulls. Where specified or detailed, remaining doors shall be single pan type reinforced and stiffened with closed hat sections.

3. Sliding doors shall be mounted on large ball bearing quiet rollers in 14 gauge metal overhead tracks and shall be removable without the use of tools. No bottom tracks.

4. Hinged doors shall be flush type mounted on heavy duty stainless steel piano hinges.

O. Drawers

1. All drawers shall have a removable 20 gauge stainless steel insert pan with coved corners, or a standard polyethylene insert if specified. Fronts shall be stainless steel double-cased, with recessed pulls. Mount drawers on 14 gauge interlocking channel supports with large size quiet ball bearing wheel suspension, and stops to prevent drawers from being pulled out of the fixture. Support slides shall be constructed so that drawers may be pulled out a minimum of 2/3 its length and support heavy loads without deflection. Drawers shall remove easily without the use of tools. Provide recessed flush type stainless steel pulls. Exposed drawers shall have a stainless steel enclosed frame housing which shall be mounted on the underside of the counter or table top. Drawers shall be self closing.

2. Drawers in refrigerated sections shall be removable type, perforated, mounted on large ball bearing wheels with bearing surface in flat tracks. Wheels to be similar to heavy duty roller skate wheels. Wheels to be stainless steel with corrosion resistant roller bearings, of long wearing materials, grease packed before assembly.

3. Unless otherwise specified, drawers shall include cylinder locks, keyed and master keyed alike.

P. Hardware

All hardware shall be manufactured of solid materials, and where exposed, cast bronze or brass, chrome plated, unless specified to the contrary. Locking hardware shall be keyed to building standard by the manufacturer. All hardware shall be identified with manufacturer's name and number so that broken parts can be easily replaced.

Q. Casters

Casters shall be non-marking, heavy duty, with ball bearing disc wheels and replaceable grease-proof rubber, neoprene or polyurethane tires. Wheels shall be 5" diameter, unless specified otherwise, with minimum tire tread width of 1-1/2", capacity 250-pounds, unless furnished as part of a standard manufactured item. Provide pressure type grease fittings, tread guards, and polished plated finish. Unless otherwise specified, casters shall be swivel-type, locking-type (or shown as "with brakes"). All four casters shall be so designated unless specification reads: two with brakes. No item shall be supplied, per this Section, without locking, or braked casters. Exception: Fixed casters, with brakes, shall be as specified.

R. Verifications

The Contractor shall verify size and position of all duct connections for hoods in this Contract with Mechanical Division before fabrication.

Where ware dispensers or carts are specified, the Contractor shall verify with the District make of ware, dimensions and weight before placing orders with manufacturers.

Lengths between walls for custom fabricated fixtures, and also ceiling heights, shall be verified. Verify location of remote located mechanical refrigeration compressor racks, and length of refrigerant line runs.

S. Fasteners

No exposed screw or bolt heads will be permitted on fixtures or installation materials, including wall flashing. Rivets, if specified, shall be counter-sunk flush and of the same material as the pieces being joined.

T. Wall Backing

It shall be the responsibility of the Contractor to furnish all embedded items and wall plates, restraining devices, and fittings as required to secure equipment and fixtures, whether for new equipment and fixtures furnished under this Section or existing equipment fixtures being reinstalled in the project as a part of this Work.

All wallbacking shall be fabricated of 16 gauge galvanized steel or wood, securely attached to stud with wall framing.

Wallbacking lengths shown on building works requirements are only minimums; always extend wallbacking to next stud over, and in each direction. See Drawings for details.

2.11 WALK-IN REFRIGERATORS AND FREEZERS

Walk-in refrigerators and freezers shall be manufactured and installed in accordance with NSF Standard 7, and must bear a NSF Certification Mark. The California Energy Commission has passed a new regulation that requires an "envelope" of insulation value around walk-in coolers and freezers. The insulation value required is R-28 for Coolers and R-36 for Freezers. This equates to 4" panels on coolers and 5" panels on freezers. The door(s) and walk-in floor are included in the "envelope" and all walk-ins must include an insulated floor.

A. Materials

1. Urethane foam insulation: Rigid, foamed-in-place CFC free polyurethane insulation, shall be expanded, 90% closed cell content, nominal density 2.2 lbs +0.1 per cubic foot. Dimensionally stable -100 F. to +200 F.

   Flammability characteristics per A.S.T.M. E-84-04A shall be less than 25 flame spread and less than 450 smoke density, in accordance with California Building Code Section 1712.

   Caution: Polyurethane foam may present a fire hazard in certain applications if exposed to fire and/or excessive heat, e.g., from welding and cutting torches in the presence of oxygen or air.

2. Classification: Class I, California Building Code Chapter 42, Table 42A. Class B, N.F.P.A. Pamphlet #101 Life Safety Code, Section 6 shall comply to State of California TD 1102.

3. Panel insulation shall be in full compliance with California Energy Commission (CEC) regulations. CEC current regulations require the refrigerator envelope insulation be R-28 or greater and freezer envelope insulation be R-36 or greater. The envelope of a walk-in refrigerator or freezer means the walls and ceiling adjacent to the ambient; doors and floors excluded from the requirement.

4. Aluminum sheets used as a fascia for wall and ceiling panels: Alloy 5052-H-24, not less than .040" thick.

5. Stainless steel sheets used as fascia for wall and ceiling panels: Austeritic 18-8, type 304, #4 finish, not less than 20 gauge.

6. Galvanized steel sheets used as fascia for wall and ceiling panels: Prime finish, 20 gauge, complying with A.S.T.M. A525 with G-90 coating or 26 guage galvalume.

7. The adhesion between urethane foam insulation and metal skins must be of greater strength than the foam as tested per ASTM D 1876-01 Standard Test Method for Peel Resistance of Adhesive (T-Peel Test). Evidence of sheet metal/insulation separation will result in rejection of panels.

B. Workmanship and Installation

1. All items shall be installed to plumb, square, level and in proper elevation, plane, location and in alignment with other work.

2. All work shall be designed and fabricated to suit field conditions and fitted with proper joints and intersections.

C. Panel Fabrication

1. Modular sandwich panels shall be 4" or 5" thick, as per itemized specification, 100% foamed-in-place urethane insulated core, without any wood or metal frame members.

2. The adhesion between urethane foam insulation and metal skins must be of greater strength than the foam as tested per ASTM D 1876-01 Standard Test Method for Peel Resistance of Adhesive (T-Peel Test). Evidence of sheet metal/insulation separation will result in rejection of panels.

3. Perimeter of sheet metal facings shall be flanged 1/2" to 3/4".

4. Corner panels shall be matching one-piece construction, including 1/2" radius at all inside vertical corners.

5. Partition panels shall be matching construction and fascia. Intersection of wall and partition panels shall be accomplished with T-shaped panels, matching corner panel construction.

6. Panel joints shall be sealed with polyvinylchloride (PVC) gaskets at interior and exterior panel edges, maintaining continuity. Gasketing shall be double bubble and attached to the flange of metal and foamed in place, not stapled.

7. Lateral alignment of adjoining panels shall be provided for by continuous urethane tongue and groove mating edges.

8. Panels shall be rigidly coupled by steel cam action locks, foamed-in-place, maximum 48" on centers. Lock ports shall be finished with PVC snap-in buttons. Where floor is depressed or floorless, wall panels shall be anchored to building floor with concealed galvanized steel floor track. Wall panels shall be sealed to building floor with continuous bead of approved sealant.

9. Maximum deflection of ceiling panels shall not exceed 1/240 of span under uniform loading of 20 lbs. per square foot. If the ceiling spans require a support system, Contractor shall submit details and structural calculation to Owner for approval prior to fabrication.

10. Indoor roof panel support shall use 14 gauge galvanized steel "Z" runner from wall panel to wall panel as required or approved equal. Attach manufacturer supplied roof hanger brackets on 23" centers with sheet metal screw to "Z" runner and rivet to flange of ceiling panel. Using 3/8" diameter all thread zinc plated steel rod attach to "Z" runner on 6'0" centers and attach to either structural ceiling with uni-strut and expansion anchors or structural beam with beam clamps. (see detail).

D. Panel Fascia

Exposed panel surfaces shall be clad with: (See Item Specifications for materials specified.)

1. Stucco embossed aluminum, .040" thick.

2. Flat stainless steel sheets, 20 gauge, type 304, #4 finish.

3. Prime galvanized steel sheets, 20 gauge

E. Exterior unexposed faces of wall and ceiling panels shall be clad with 20 gauge galvanized steel, or 040" stucco embossed aluminum (see item specification for materials specified.)

F. Depressed Sub-floors

Sub-floor Membrane: Asphalt emulsion shall be applied to clean, smooth concrete sub-floor. Cover with Alumiseal (0.00 perm, as determined by ASTM-E96-66) extending under wall panels, joints lapped 6" minimum.

Floor Insulation: After erection of wall panels, sub-floor shall be insulated with rigid board-form urethane insulation with properties equal to that specified for panels, joints staggered or splined. Total thickness of floor insulation shall be 4", or as shown on detail drawings.

Vapor Permeable Separation: 15 pound felt, protective slip sheet shall be applied over insulation; joints lapped 6", flashed up height of base. Wearing floor topping and cove base shall be furnished under another Section.

G. Walk-in Refrigerator and Freezer Doors: (See Item Specifications for materials specified.)

Cold Storage Hinged Doors with Cam Lift and Spring Assisted Self-closing Hinges:

Door sizes shall be as called for in the item specification or indicated on drawings, minimum size 36" x 84" High.

Gaskets shall be extruded PVC with corners vulcanized and continuous magnetic core mounted at sides and head of door jamb.

Sill wipers shall be extruded neoprene secured by removable stainless steel retainer strip and stainless steel fasteners.

Freezer thresholds shall be removable 1/8" thick stainless steel plate.

Walk-in refrigerators (coolers) and/or freezers shall have entry and exit door hardware that complies with all of the requirements of the 2007 California Building Code, Section 1133B.2.5.2 and maneuvering clearances at the exterior side, per Section 1133B.2.4.2. Each door shall have three (3) hinges, Kason #1256 or equal, cam lift, spring assisted, self-closing, zinc die cast, with polished chrome finish.

Door latches shall be Kason #1229C, or approved equal, with forged brass handle with polished chrome finish, inside safety release, and provision for padlock.

Door casings shall be raised ¾"; and 4" wide at sides and head, clad with 18 gauge stainless steel. Flush door and frame also accepted.

Door closer shall be Kason #1094 or equal, with chrome plated finish.

Hardware shall be mounted with reinforced steel tapping plates and machine screws.

Interior door mounted cart bumper bars shall be 4" x 2" aluminum bar 36" above finish floor or hat channel style 18 guage stainless steel.

Doors shall be flush in-fitting type, insulated with core same as specified under Materials. Ambient side of each freezer door perimeter and door jambs shall be provided with 115 volt, 240 watt electrical resistance heating element, including thermostatic control, factory wired to GS splice box located above door at interior face of wall panel.

Front, back and edges of doors shall be faced with type 304, #4 finish, 20 gauge stainless steel.

Cooler door vision panels shall be 15" x 20" (minimum) or 14" x 24" (300 square inches), hermetically sealed, triple-paned and, if called out, heated.

Freezer door vision panels shall be 15" x 20" (minimum) or 14" x 24" (300 square inches), hermetically sealed, triple-paned units, with electrically conducting, transparent tin coating on interior face of ambient pane connected to main door circuit and heated.

Kick plate, front and/or back faces, shall be stainless steel, 16 gauge type 304, #4 finish, 3'-0" high x full-width of each door.

If specified, door specification for Klear Sight doors is as follows. Project may include more than one type of door. Please confirm type and doors as shown on Details Sheets.

Klear Sight Door:

Entry door shall be Klear Sight door, opening 36" x 84".

- Viewing area shall be 24" x 48"
- Tempered Safety Glass, minimum 3 panes hermetically sealed glass
- Freezer doors and high humidity conditions require heated glass
- Protruding kick plate bumper at door bottom
- 2 Hinges 35-0082001
- 1 Hinge 35-0082000
- Door pull 35-0120002
- Dead bolt 35-0159445
- Door closer 35-01786K

Specifications:

Klear Sight Door opening size shall be 36" wide by 84" high. Viewing area of door shall be 24" x 48" and shall be full door thickness; minimum 3 panes tempered safety glass. Freezer doors shall have heated glass. Doors shall be flush; infitting style constructed of fiberglass reinforced plastic door perimeters and jamb. Metal, vinyl and PVC frames are not acceptable.

Doors and door frame shall have 1 ½" steps, providing an airtight flush fit. Doors shall be insulated with a full four inches (4") thick core of same insulation materials specified for the wall panels. Doors shall be finished with stainless steel interior and exterior. Each door shall be provided with a three-sided snap-in magnetic gasket and sweep gasket to seal the bottom of the door.

Doors shall be mounted with two 7" strap cam lift hinges and one 5" strap cam lift hinge, one door pull, one pinion shaft door closer in compliance with the Grade 1 requirements of ANSI standard A156.4. 6" high impact bumper, protruding 7/8" off face of door shall be mounted between bottom hinge and viewing area.

Freezer door jamb shall be provided with four sided heater cable with a stainless steel threshold and one heated air vent to equalize pressure between the interior compartment and exterior spaces.

If specified, door specification for Power or Manual Bi-Parting Sliding Door doors is as follows. Project may include more than one type of door. Please confirm type and doors as shown on Details Sheets.

POWER [HORIZONTAL] [BI-PART] SLIDING DOOR.
Manufacture: Edey or equal.

Where specified provide power horizontal bi-parting sliding door insulated with 4" thick foamed-in-place polyurethane (same as wall panels), sized for clear opening. See Details for exact sizes, if applicable.

All the doors to have 4" foamed-in-place polyurethane insulation. Hasp type locking device with inside safety release and power cut-off.

Door panel and track casing to be clad with 22 gauge stainless steel type304 #4 finish. Marine grade 1" plywood wall backing , on the panel interior, shall be provided for track casing. Through bolting of track casing is not acceptable.

Gaskets at sides and head to be adjustable bulb type, grease resistant neoprene rubber. Sweep sill gasket to be grease resistant, nylon reinforced neoprene rubber

Equip freezer doors with full perimeter heater cable requiring a separate 110V AC, single phase electric connection.

Power requirements are 110V-575V,1 phase, 60 cycle (one leg of 3 phase capped).

Provide dual speed operator. Brushless technology motor coupled to planetary gears in synthetic grease totally enclosed for life. Controller with overload protection provides smooth quiet operation with programmable acceleration and deceleration. Two remote pull cord stations for open/close controls. Controls to be dry contact (5V D.C.). NEMA 4 enclosures. Programmable obstruction sensing for safety. Roller chain (#40) drive enclosed inside removable chain guard. Operates on an average speed of 29" per second to open and 18" per second to close

Each door shall be complete with an interior manual release system run internally within the door section to a recessed mounted knob. Provide two (2) remote pull cord stations for open/close operations (heated at freezer interior) ,face pull handle, flush inside pull, two (2) heavy duty adjustable floor guides.

Door jambs at sides and head clad with 1/8" aluminum tread plate.

a. 1/8" Aluminum Tread Plate kick plates on interior and exterior of the door panel 48" high.

b. 15"x20" 3 pane view windows, heated at freezers. One per door panel.

c. Pedestrian Control Button on door for 30" opening with 15 second time delay close.

d. Door Control Stations: Two push button wall mounted stations. Control station inside freezer room to have a 10 watt heater.

e. Remote control unit.

NOTE. Some doors will require both pull cords and push buttons. Refer to pull switch mounting detail for switch and electric hook-up. This detail will also apply to wall push button controls.

MANUAL HORIZONTAL SLIDING DOOR.
Manufacture: Edey or equal.

Where specified provide manual horizontal bi-parting sliding door insulated with 4" thick foamed-in-place polyurethane (same as wall panels), sized for clear opening high.

Extruded aluminum door track with (2) heavy duty rollers mounted on solid aluminum carrier with Ultra High Molecular Weight Polyethylene (U.H.M.W.P.) rails to provide "down and in" seal and assure immediate gasket clearance upon opening. Stay roller assemblies (2) with hard plastic wheels. All hardware to have corrosion resistant coating.

Gasket at sides and top to be adjustable bulb type, grease resistant neoprene rubber. Sweep sill gasket to be grease resistant, nylon reinforced neoprene rubber.

Equip freezer doors with full perimeter heater cable requiring a separate 110V AC, single phase electric connection.

Door panel and track casing to be clad with 20 gauge stainless steel type304 #4. Marine grade plywood wall backing 1" shall be provided for track casing. Through bolting of track casing is not acceptable.

Door jambs at sides and head clad with 1/8" aluminum tread plate.

Provide 1/8" aluminum tread plate angle guards at interior jambs and head, exterior die cast chrome plated handle and a recessed interior pull handle, [15" x 20" triple pane view port heated at freezer], and floor guide with tight seal hardware for freezers. Door gasket includes resilient flexible vinyl double bubble at freezers and single bubble at coolers with locking radius corners mounted in continuous low conductive rigid PVC channel.

Provide provision for padlock (padlock by others) with interior safety release.

H. Strip Curtains

Provide Clear-Flex 2® doors as manufactured by Aleco, 2720 East Avalon Avenue, Muscle Shoals, AL 35661; ALECO Model # 440042, or equal, sized for plan (verify door dimensions). Strips to be 6" X .060" nylon reinforced formulation materials (for both freezers and coolers). One-piece, NSF certified, .125" thick MaxBlast™ Aluminum extrusion with bullets press-fitted are to be supplied. All necessary fasteners to install strip door will be included. Install on interior of compartment at doors opening to ambient temperatures, or as otherwise specified. Size and installation shall be as recommended by manufacturer for optimum service.

I. Light Fixtures and Switches

1. For walk-in refrigerators and freezer compartments only, conduit and wiring within wall panels, including boxes, light fixtures, switches and cover plates are a part of this Section.

2. Quantity of light fixtures shall be as indicated on lighting plan or specified herein.

3. Where specified, single lamp fixtures shall be UL Listed vapor proof, with one (1) 100 W incandescent lamp.

4. Where specified, 2-lamp fixtures shall be McPhilben #43-88, or equal, UL Listed, vapor proof, with two (2) 100 W incandescent lamps.

5. Where specified, 4' fluorescent low temperature fixture with #T8 double bulbs. Housing, fully gasketed for moisture proof operations, diffuser of shatterproof polycarbonate. Electric ballast for both coolers and freezers, T5HO, start -20° F. Kason model 1810FES0481 (amps .92 each).

6. Provide vapor-tight cast junction box and galvanized steel nipple terminated at exterior of roof panels. Factory install and wire interior and exterior companion 3-way press switches mounted in "FS" boxes adjacent to latch side of door opening.

7. Switch covers shall be gray Hypalon, weatherproof press switch plates. Pilot lights shall have unbreakable red plastic lens, embedded in Hypalon plates. Interior red shall be constant burning. Exterior red light shall be indicating.

8. Rigid conduit and wiring shall be run within wall panel insulation. Conduit shall be terminated in vapor-tight splice box mounted on exterior on ceiling.

9. Provide 1-1/4" diameter hole in ceiling panel through which power connections can be made under Electrical Section, to be field cut.

J. Fire Axes

1. If required by local Fire Code, each cold storage room shall include one (1) regulation fire axe, wall mounted, with stainless steel bracket near door at 48" above finish floor.

2. Blade of fire axe shall be plastic coated to prevent corrosion.

K. Digital Thermometers/Temperature Alarms

1. Provide every walk-in refrigerator and freezer compartment with one (1) NSF labeled Modularm Corp. #75, or Control Products #TAI-2000D, or equal, digital read-out thermometer with temperature alarm. Flush mount on outside face of room or rooms, preferably above or adjacent to exterior walk-in door. Provide probe(s) and dry contacts for remote notification. Range: -40° F. to +193° F. Mount probes in return air stream.

2. Caulk wall penetrations with approved silicone sealant.

L. Finish Trim

Finish tolerance gaps between walk-in refrigerator and freezer compartment walls and building walls with matching sheet metal trim furnished and installed under this Section.

When specified in item, provide 6" high 18 gauge stainless steel cove base trim, NSF Standards, as approved by Health Department, attached with #8 X 5/8" pan-head TEK screws at 21-inches on center, on both inside and outside surfaces where walls meet floor, unless otherwise called out in item specifications.

M. Enclosure Panels

Space between and top of cold rooms and finished ceiling shall be enclosed with removable access panels of same material as that of exposed fixture exterior.

N. Utility Penetrations

Penetrations at cold storage room wall and ceiling panels for electrical, drain and refrigeration lines provided by appropriate trade. For all electrical penetrations provide vapor tight cast junction box, galvanized steel nipple of appropriate length, and "EY" seal off (by electrical contractor) to terminate at exterior of roof panel.

O. Escutcheon Plates

1. Provide 5" diameter stainless steel escutcheon plates to be furnished by other Sections making wall and ceiling penetrations.

2. Each Section shall be responsible for cutting holes in blanks and sealing of their respective penetrations.

P. Vacuum Pressure Relief Vents

Provide walk-in freezer compartments with properly sized electrically heated screened aluminum vent for automatically equalizing room pressure with respect to ambient, and to also limit influx of ambient air during static periods.

Q. Personnel Alarm Systems

In coordination with Modularm Model #75, provide IP-1 Panic Alarm to be mounted on the interior of the compartment as a safety feature. Interconnecting conductors and conduit provided by Electrical Section.

R. Warranties

Walk-in refrigerators and freezers shall be warranted by the manufacturer for ten years (10) for parts and one (1) year for labor from date of acceptance by District. Written warranty shall be provided to District by manufacturer.

2.12 MECHANICAL REFRIGERATION SYSTEMS, REMOTE

A. Installation

1. Mechanical refrigeration system components shall be installed as located on the drawings or as specified, and shall be securely anchored. All mechanical refrigeration devices shall be installed in accordance with California Mechanical Code, Chapter 15.

   Furnish and install compressors, condensers, refrigerant gases, refrigerant piping, equipment rack(s), control valves, oil filters, dryers, sight glasses, solenoids, thermostats, crankcase heaters, pressure controls, oil separators, time clocks, drain line heaters, expansion valves, suction line accumulators, and all other components required for a complete, operating system.

   Compressors shall be as manufactured by Copeland Refrigeration Corp., or equal.

2. Install components and refrigerant piping so as to prevent noise and vibration being transmitted to any part of the building. Fit machinery with sound absorbing isolation bases; and provide vibration eliminators in suction lines as manufactured by American Vibration Eliminator Co., or equal.

3. Furnish and install Sequential Re-starter device, wheels-type, that can be set sequentially to restart a system after a power interruption, eliminating the possibility of tripped breakers during power restoration. This system will turn on portions of the system, one by one, via a system of electronic wheels that have electronic contacts.

B. Valves and Accessories

1. Valves shall be of standard weight and manufacture suitable for the service and purpose intended, and shall be subject to review and approval.

2. Refrigerant shut-off valves in the refrigerant piping shall be Henry, or equal, seal cap globe valves for lines size 7/8" outside diameter and larger, and packless diaphragm for smaller types. Valves shall be placed at each inlet and each outlet of a condensing unit, and in each liquid line and each suction branch to each blower coil (evaporator) within a compartment.

3. Expansion valves shall be as manufactured by Sporlan, or equal, and shall be provided under the Mechanical Section and placed in the refrigerant line at the point where the line enters the evaporator, except when the valve is furnished with evaporator under this Section.

4. Provide filter drier in the liquid lines located in the machine area. Filter dryers shall be as manufactured by Sporlan Valve Co., or equal.

5. Systems with compressor horsepower up to and including three (3) horsepower shall have filter dryers of "catch all" type.

6. Solenoid valves shall be as manufactured by Sporlan Valve Co., or equal, sized to operate at maximum of two pounds pressure drop across the valves for the capacity required. Solenoids shall be full refrigerant line size. A liquid line solenoid shall be used with temperature controller for each walk-in box or other field assembled equipment. Use silver solder where possible.

D. Refrigeration Piping

1. Copper tubing for use in refrigerant piping shall conform to ASTM standard specifications for copper refrigerant tubing, serial designation B-88. All pipes shall be type "L" hard or soft tubing as specified. Refrigerant piping shall be exposed to view as required by the American Standard Safety Code for mechanical refrigeration.

2. Use hard copper for exposed areas or accessible furred ceiling spaces. Exposed tubing shall be installed to avoid damage by activity in these areas; otherwise tubing shall be run in pipe or conduit, furnished and installed by Electrical Section.

3. Size suction lines to give minimum pressure drop from evaporator to machine of 2 lbs. for high temperature systems, and of 1 lb. for freezer systems, with gas velocities of not less than 750 f./in. horizontal runs and 1500 f./in. vertical risers. Liquid lines shall be sized to give maximum pressure drop of 3 lbs. from receiver to evaporator.

4. Grade tubing runs to prevent trapping of oil.

5. Secure refrigerant piping with "Unistrut" clamps install to conform with correct refrigerant piping practice.

E. Insulation of Refrigeration Lines

Refrigeration suction lines outside of refrigerated compartments, not run in conduit, shall be insulated back to compressors with Armstrong Arma-flex foamed plastic insulation, or equal, applied according to manufacturer's directions. Minimum thickness shall be 1" for medium and high temperature systems, and 1-1/2" for freezer systems. Completely seal all seams in refrigeration line insulation to prevent condensate accumulation. Insulation shall have a flame spread rating of 25 or less and a smoke developed rating of 50 or less as tested by ASTME 84-91A and CAN/ULC-S102 "Methods of Test for Surface Burning Characteristics of Building Materials".

F. Joints and Connections

1. Copper tubing joints in piping lines shall be made with Handy & Harmon "Sil-Fos" brazing alloy "Phozon 15", "Silvaloy 15", or equal. Melting point shall be between 1185 - 1300° F. Silver content shall be not less than 15%.

2. Copper to brass joints for piping and fittings shall be made with Handy & Harmon "Easy-Flow 45" brazing alloy, "Silvaloy 45", "Mueller 122", or equal. Melting point shall be between 1125 - 1145° F. Silver content shall be not less than 45%.

G. Refrigerant Gases

Refrigerant gas type shall be as approved for specific duty as of the date of installation of mechanical refrigeration systems, and as called out in the Item Specifications and Refrigeration Schedules.

H. Charging the System

Provide refrigerant specified, and oil, charge the several systems and run an operational check of three (3) days duration.

I. Testing and Dehydrating

All systems shall be subjected to a 25 inch vacuum for a period of 24 hours with a maximum decrease of 3 inch vacuum allowable. All liquid lines shall be subjected to 100 PSI. for a period of 24 hours with a maximum decrease of 3 PSI. allowable. For insulated lines, testing shall be done before insulation is installed.

J. Instructions and Diagrams

Provide all instructions required to the Plumbing and Electrical Sections for hook-up of machines and other items.

K. Evaporator Systems

1. Evaporators (blower or gravity coils) shall be as manufactured by Russell Coils, or equal, to hold -10° F., or 35-40° F and have pre-wired on/off disconnect switches for fans and heaters.

2. Provide inter-connecting piping as required.

3. Supply and install 1/2" nylon hanger rods for suspending blower coils (evaporators). Provide proper fastening to walk-in compartment ceiling or structure above as required.

4. Freezer compartment evaporators shall be furnished with built-in electric defrost heater, drain-pan heater, thermostat, and heat exchangers.

5. Provide drain lines for evaporators in freezers with defrost heaters.

L. Packaged Mechanical Refrigeration Systems (Racks)

Packaged and pre-assembled mechanical refrigeration systems shall be as manufactured by OmniTemp Refrigeration, Kairak, Inc., Master-Bilt or equal. Compressor and condenser unit package shall have factory mounted and pre-wired waterproof controls, complete with circuit breakers, and time clock controls wired for single point connection to main disconnect breakers. Power lines to panel, defrost control wiring between condensing unit panel and remote refrigeration equipment and evaporators shall be provided by Electrical Section, and shall be as recommended by system manufacturer. Minor modifications, if necessary to meet codes, shall be performed by the Electrical Section.

Packaged mechanical refrigeration racks shall be UL listed, and must bear the UL listing mark.

Contractor shall verify temperature and humidity requirements for each refrigerated compartment and fixture with the Owner.

M. Mechanical Refrigeration Systems Schedules & Notes

Contractor shall provide drawings labeled "R-1", etc., showing systems schedules, notes, specifications, system multiplexing scheme, and other data.

2.13 KITCHEN EXHAUST HOOD FIRE EXTINGUISHING SYSTEMS

Kitchen exhaust hood fire protection systems shall be furnished and installed as part of this Section. Refer to Part 4, Food Service Equipment Item Specifications, of this Section.

A. During installation, connect all hood duct collars to appropriate ceiling or wall ducts by welding (all).

B. Provide an air balancing test report by an independent testing agency.

PART 3 - INSTALLATION

3.01 Food service equipment shall be installed strictly in accordance with approved shop drawings and manufacturers' instructions.

A. Installation of all gas, electric and solid fuel cooking equipment shall comply with the applicable codes, regulations and approvals for each type, brand and model of such equipment specified, required by any and all agencies having jurisdiction. Compliance with all installation requirements shall be the sole responsibility of the Contractor.

B. Anchor bolts, sleeves and other items required to be built into masonry and concrete will be set under other Sections and shall be furnished promptly so they may be built in as the work progresses.

C. Provide mounting templates for equipment and fixtures requiring fasteners set into masonry or concrete.

D. Install equipment level, and securely fasten fixed equipment in place.

E. Install PRV (pressure reduction valve) for each piece of gas powered equipment.

F. Speedline Service equipment shall be provided with 90-degree angle plugs, unless otherwise called for in the item specification.

3.02 SEISMIC RESTRAINTS FOR FOOD SERVICE EQUIPMENT AND FIXTURES

A. Fixed equipment and fixtures shall be anchored and secured to building structural elements in accordance with the requirements of the 2001 Edition of the California Uniform Building Code and CCR Title 1624-A.

B. The Contractor shall provide necessary seismic engineering data to the District for food service equipment and fixtures.

C. All heavy and/or tall equipment must be installed to be seismically safe, installed on flanged or "seismic" legs or supports to protect employees and staff from the movement of equipment in the event of earth movement, unless otherwise specified (ex: on Swivel Casters with brakes. Note that casters must include at least two brakes per four casters; four brakes per six casters, etc.)

D. It shall be the responsibility of the Contractor to furnish all embedded items and wall plates, restraining devices, and fittings as required to secure equipment and fixtures, whether for new equipment and fixtures furnished under this Section or existing equipment fixtures being reinstalled in the project as a part of this Work.

E. A copy of "Guidelines for Seismic Restraints of Kitchen Equipment" shall be provided the contractor and kept on the job site at all times.

3.03 FOOD SERVICE EQUIPMENT SCHEDULE

Item	Description	Quantity
1	Spare Number	
2	Spare Number	
3	Air Screen	1 only
	Furnish and install one (1) Mars Air Doors NHV 42, 42 " long Air Curtains, NSF Models, Unheated, high-impact white PolyMars housing; with door-operated microswitche.	
4	Universal Tray Racks, Mobile	2 each
	Furnish and install two (2) Shammi Industries Sammons Equipment Mfg. Corp. #S-3131-R Aluminum Universal Angle heavy duty, adjustable roll-in slide racks - adjustable to hold different sized trays and pans. The slides are approximately 26" long X 6" wide, adjustable on 1 ½' centers; with deluxe, all-swivel, non-marking NSF approved 5" X 1-1/4" casters, welded to bottom channels and uprights, all with brakes.	
5	Shelving, Mobile	2 each
	Furnish and install two (2) InterMetro Super Erecta stainless steel wire dolly truck, model # N456JBR with Super Erecta Bright Shelves and Plated Posts, approximately 63" high posts, approximate overall height of units is to be 69", composed of four (4) 21" wide X 48" long wire shelves, mounted on two swivel, two brakes polyurethane non-marking heavy-duty casters. Include donut bumpers and plastic split sleeves.	

6 Corner Guards 3 each

Custom fabricate, furnish and install three (3) 14 gauge stainless steel corner guards, size and shape as shown on drawings and as specified herein:

Guards shall be approximately 48" X 2" X 2". Mount from top of finish floor cove base. Secure to wall with flat-head stainless steel screws and water resistant adhesive.

7 Spare Number

8 Spare Number

9 Spare Number

10 Stainless Steel Pot Sink Assembly 1 only

Custom fabricate, furnish and install one (1) stainless steel pot sink assembly, size and shapes as shown on the plans and as specified herein:

Fixture shall consist of the following (left to right): Approximately 171" long X 30" 14 gauge stainless steel drainboard section with 16 gauge stainless steel undershelf beneath which includes a 3-compartment stainless steel pot sink, 15" deep with lever wastes and two (2) ¾" T&S #B-291 pot sink faucets with 18" swing spouts and 4" wrists handles; then approximately 72" long section with 16 gauge stainless steel undershelf beneath and 52" X 6" X 4" deep trough at pass through opening, extend out 4" out opening; then table shall interface with Item 15 Warewasher left side as shown on plans. Table shall enter washer's left side, so adjust width/length of top at entry point (miter), as shown on the drawings. Top shall act as drainboard, so allow for slight incline to drain water back into dishwasher. Provide 20 gauge stainless steel back splash to wall at back and to end. Unit shall have 3" high rolled edges. Provide stainless cabinet with doors and locks at right end of fixture as shown on plans.

Seal assembly and backsplash to wall with water-proof silicone sealant. Top shall be reinforced on the underside with closed stainless steel hat sections welded into place, and with NSF approved sound deadening material. All Sinks in this project shall be fabricated as in Section 2.10, Part G.

11 Stainless Steel Overshelf 1 only

Custom fabricate, furnish and install stainless steel wall mounted overshelf shelf, size and shown on the drawings and as specified herein.

Shelf shall be 16 gauge stainless steel, approximately 42" long X 14" wide; with 14 gauge wall mounted brackets, mounted level, with top surface of shelf approximately 24" above prep sink unless otherwise shown on the K-Sheets.

12 Condensate Hood 1 only

Furnish and install one (1) Greenheck #GD2-5.75-S Condensate Single Baffle Hood (type II)full canopy type. Hood size shall be approximately 69" long X 48" wide (front to back at wall) X 24" high.

Drawings take precedence over written specification in every case, every item. Hood shall be constructed of a minimum 18 gauge Type 304 stainless steel with #4 finish. Hood shall be constructed using the standard seam method for optimum strength. Front, back and end panels shall have stamped vertical ribs, evenly spaced, to add additional strength and rigidity. All seams shall be welded tight. All exposed external welds shall be ground and polished to match the original finish of the metal. Includes factory installed exhaust plenum collar.

Install one(1) – CFL UL Listed light fixture, pre-wired to a junction box mounted to a junction box mounted on top of the field connection (refer to details on K-Sheet K700).

K-Sheet Drawings take precedence over Section 11400 Specifications as far as sizes and quantities for all items, inclusive.

13 Exhaust & Make-Up Air 1 only

In HVAC Section

14 S/S Trim 1 lot

Provide 20 gauge stainless steel enclosure panels, from top of hoods to ceiling and apply stainless steel trim to wall, enclosing and sealing area above hoods. Stainless steel panels and trim must match quality and finish of hood in appearance, including smooth welds and polished surfaces. Provide 20 gauge stainless steel wall flashing from top of floor cove base to underside of hoods, from left end of left hood - to right end of right hood, fully flashing the wall area beneath hood(s). Flashing should match appearance as closely as possible to that of hood and enclosure materials. Seams shall be welded liquid tight. Seal outside edges of flashing to wall, as indicated in Section 2 earlier in Section 11400 to prevent food particles, grease, water, etc. from getting behind the flashing.

15 Warewasher 1 only

Furnish and install one (1) Hobart #AM15T single tank, electric, chemical sanitizing dishwasher. Unit operates from left to right and includes the following features: Single point connection.

- 58 racks per hour – C44A
- 27" Door opening
- Timed wash cycles for 1, 2, 4, or 6- minutes

- Solid state, integrated controls with digital status indicators
- Self-draingin, high efficiency stainless steel pump and stainless steel impeller
- Stainless front panel, frame and legs
- Automatic fill
- Revolving, interchangeable upper and lower anti-clogging wash arms
- Door actuated start
- Sheet pan rack
- Straight-through installation
- Delime cycle
- Service Diagnostics
- Vent fan control
- Convertible hot water or low temp final rinse
- Booster heater control

Accessories

- ¾" Pressure regulator valve
- Peg Rack
- Combination Rack
- Sheet Pan Rack
- Flanged and seismic feet
- Delime notification
- Drain water tempering kit
- 70 degree rise Electric Booster Heater
- Single point connection

Standard Warranty.

16 Hose Reel with Spray 1 only

Furnish and install one (1) T&S Brass #B-1403 retractable hose reel with spray and mixing valve, 35 feet of 3/8" heavy duty hose, with adjustable hose bumper, 3/8" NPT female inlet, wall mount -- but may be adjusted to mount on ceiling or floor.

17 Garbage Disposer w/ Controls 1 only

Furnish and install one (1) Salvajor #200-CA-18-ARSS disposer, with 6-1/2" sink mount; #ARSS controller with automatic reversing; and mounting bracket.

18 Stainless Steel Soiled Dishtable 1 only

Custom fabricate, furnish and install one (1) L-shaped 14 gauge stainless steel(top) soiled dish table, size and shape as shown on the drawings and as described herein:

Table shall interface with Item #15, Warewasher as shown on the drawings. Table shall enter washer's right side, so adjust width/length of top at entry point (miter), as shown on the drawings. Top shall act as drainboard, so allow for slight incline to drain water back into dishwasher, with 18" X 20" long X 6" deep sink for Item 17 Disposer to attach. Leg mounted with 16 gauge stainless steel undershelf. Include 18" high backsplash and endsplash on rightmost end; marine front edge. Prepare wall and attach to wall with appropriate hardware.

19 Stainless Steel Wall Flashing 1 lot

Custom fabricate, furnish and install 20 gauge stainless steel wall flashing size and shape as shown on the drawings and as specified herein.

Apply wall flashing from top of finish floor cove base up wall to a height of approximately 8' AFF (above finish floor), approximately 288" (verify on K-sheets) along wall behind Item #10, Pot Sink and Item #18 Soiled Dish Table, beginning behind Item #10, Pot Sink, and extending along wall behind Item #18 and around corner. Trim off pass thru opening. Seal all seams to prevent water and food particles getting lodged between sheets of flashing. Weld (smooth) or use water-resistant sealant as defined in Part Two, Products, earlier in Section 11400.

20 Roll Down Door 1 only

In Architectural Section

21 Spare Number

22 Spare Number

23 Spare Number

24 Remote Refrigeration System 1 only

Furnish and install one (1) Omnitemp #WB2-AC-H-2-0-3 Air-Cooled, 60"x34"x33", 520 lbs., Remote Refrigeration System, with AVA2490ZXT compressor for Walk-In Freezer Item 26, RS70C1E-CAV compressor for Walk-In Cooler Item 32.

Connected Load – 17.4 Amps, Minimum 19.3 Amps, Fuse size 25.0 Amps. Electrical: 208-230V/3PH/60Hz.

Each compressor system is supplied with a crankcase heater and head pressure control factory installed. All evaporated coils are supplied with matching thermostats, solenoid valves and expansion valves factory installed. All compressors and condenser circuits are sized to operate 105 degrees F. Ambient Air Condition.

RACK SYSTEM:

The system shall be an "U.L. Listed" package system for outdoor installation. Pre-wired and pre-piped for single point connection. Internal pitch-pocket required for all electrical and refrigeration tubing inside the system directly, no external roof penetrations permitted. Flush mounted internal electrical panel. Rack constructed of 16 gauge (or heavier) formed sheet metal parts, housing must be 450 baked enamel stucco type (non smooth) finish and constructed to prevent any vibration noises.

AIR COOLED SYSTEM:

Air flow through the rack will pass 100% of the condenser air over all the compressors. No evaporative cooled air systems. Condenser will be a master circuited type with 3/8" rifled tubes and lanced finned type, maximum four (4) row thick core. All copper finned condenser for installation near ocean. If system is mounted inside of building, proper ventilation is required.

COMPRESSORS:

All systems will use R-404a refrigerant if available. Compressors and refrigeration piping will be installed in such a manner as to eliminate noise and vibration eliminators in refrigeration lines, as needed. Each compressor shall have a high-low automatic reset pressure control. All compressors over five (5) horsepower shall have an oil failure pressure control. Each compressor shall have all necessary breakers, wiring and controls for proper operation, a liquid line drier, sight glass properly sized for the compressor, suction line core drier and suction accumulator (low temp only). and crankcase heaters (on all compressors). A cold weather package will have temperature initiated fan cycling and fan speed controller, crankcase heaters and head master valves on each compressor. Heated cabinet for receivers used if ambient temperature is extreme.

Time clocks mounted and pre-wired at rack system unless noted on R-1 drawing. Capillary tubes on all controls shall be tightly wrapped and protected with silicone in a manner to eliminate excessive vibration and contact with other metals.

25 Remote Refrigeration System Pad — 1 only

Part of Architectural Section

For information only: Architect or GC to provide level platform at code height. Provide sheet metal cap (hat section) with water tight soldered joints. Provide pitch pocket in the platform with 2" high collar. Back fill opening with hot pitch after completion of Electrical and Refrigeration Piping. Allow 36" clear around Item #24, Omnitemp # WB2-AC-H-2-0-3 Air-Cooled System.

See Roof Platform Details on K-Sheets for actual sizes and any additional data.

26 Walk-In Freezer 1 only

Walk-in refrigerators and freezers shall be manufactured and installed in accordance with NSF Standard 7, and must bear a NSF Certification Mark. The California Energy Commission has passed a new regulation that requires an "envelope" of insulation value around walk-in coolers and freezers. The insulation value required is R-36 for Freezers. This equates to 5" panels on freezers. The walk-in Floor is included in the "envelope" and all walk-ins must include an insulated floor.

Walk-in freezer shall be manufactured and installed in accordance with the requirements and standards of the National Sanitation Foundation (NSF), and shall have the NSF Mark affixed to the product.

Furnish and install one (1) walk-in freezer, size and shape as shown on plans and as manufactured by Kool Star, Thermalrite, RMI Econocold, Pacific Refrigerator Co., or approved equal. Unit shall be approximately 9'-0" high clear from finished floor to finished ceiling, and be size as shown on the K- Sheets. Cooler shall be pre-fabricated sectional type, manufactured and installed in compliance with the requirements of the National Sanitation Foundation (NSF), 2006 rev. Edition of the Uniform
Building Code, with all in-force California amendments, and all other codes and regulations that may apply.

Refer to General Conditions of this Section. Nominal sized box will not be accepted.

Interior face of wall panels shall be clad with .040" stucco embossed aluminum. Interior face of ceiling panels shall be clad with 20 gauge
galvanized steel panels with baked-on white enamel or polyester finish, or .040" stucco embossed aluminum. Exterior exposed face of wall panels shall be clad with 20 gauge stainless steel. Exterior unexposed
face of wall and ceiling panels shall be clad with 20 gauge galvanized steel or .040" stucco embossed aluminum or stainless steel .
Inside finished ceiling shall be approximately 9'-0" above the finished floor or as shown on K-Sheets.

Provide 6" high Stainless Steel cove base, NSF standards, on interior and exterior of box, or as approved by Health Department, attached with #8 X 5/8" pan-head TEK screws at 21 inches-on-center.

Depressed sub-floor shall be continuous with that of Item #10, Walk-in Cooler.

Furnish floor depression insulation materials and coordinate with Architectural Section for installation.

Finish floor Shall be part of the Architectural Section.

Entry door shall be Klear Sight door, opening 36" x 84",' Viewing area shall be 24" x 48" and constructed with tempered safety glass, minimum 3 panes
hermetically sealed glass, freezer doors and high humidity conditions require
heated glass; protruding kick plate bumper at door bottom. Door shall include 2 hinges (#35-0082001) and I hinge (#35-0082000), door pull (#35-0120002),
deadbolt (#35-0159445) and closer (#35-01786K)

Klear Sight Door opening size shall be 36" wide by 84" high. Viewing area of door shall he 24" x 48" and shall be full door thickness, minimum 3 pane tempered safety glass. Freezer doors shall have heated glass. Doors shall be flush; infitting style constructed of fiberglass reinforced plastic door perimeters and jamb. Metal, vinyl and PVC frames are not acceptable. Doors and door frame shall have 1-1/2" stops. Doors shall be insulated with a full four inches (4") thick core of same insulation materials specified for the wall panels. Doors shall be finished with stainless steel interior and exterior. Each door shall be provided with a three-sided snap-in magnetic gasket and sweep gasket to seal the bottom of the door. Doors shall be mounted with two Kason #1256 and one Kason #1255 cam lift hinges, one Kason #911 door pull, one Norton model 7500 door closer, 4" high impact bumper, protruding 7/8" off face of door shall be mounted between
bottom hinge and viewing area. Freezer door jamb shall be provided with one four sided heater cable with a stainless steel threshold and one heated air vent to equalize pressure between the interior compartment and exterior spaces.

Provide Clear-Flex 2® doors as manufactured by ALECO, 2720 East Avalon Avenue, Muscle Shoals, AL 35661; ALECO Model #440042, sized for plan (verify door dimensions). Strips to be 6" X .060" nylon reinforced formulation materials (for both freezers and coolers). One piece, NSF certified, .125" thick MaxBullet™ aluminum extrusion with bullets press-fitted to be supplied. All necessary fasteners to install strip door will be included. Install on interior of compartment at doors opening to ambient temperatures, or as otherwise specified. Size and installation shall be as recommended by manufacturer for optimum service.

Provide ceiling mounted vapor-proof light fixtures as shown on electrical plan, each with two (2) 100W incandescent lamps, Cole or equal. Include freezer door activated blower coil switch; digital read-out thermometer; escutcheon plates; and heated vacuum pressure relief vent. Provide matching stainless steel trim strips and enclosure panels as necessary (verify finish ceiling height). Provide coil supports to hold weight of blower coils; utility penetrations; and fire axe if required by codes.

Manufacturer shall provide detail drawings and engineering data as required to show method of seismic restraint of panels at floor, and ceiling panels.

Fixture shall comply with the General Conditions of this Section.

27 Blower Coil (For Item 26) 1 only

Part of Item 24

28 Drain Line Heater (For Item 15) 1 only

Part of Item 5

29 Walk-In Freezer Door with Window & Heater (For Item 26) 1 only

Part of Item 26

30 Spare Number

31 Spare Number

32 Walk-In Cooler 1 only

Walk-in refrigerators and freezers shall be manufactured and installed in accordance with NSF Standard 7, and must bear a NSF Certification Mark. The California Energy Commission has passed a new regulation that requires an "envelope" of insulation value around walk-in coolers and freezers. The insulation value required is R-28 for Coolers. This equates to 4" panels on coolers. The walk-in Floor is included in the "envelope" and all walk-ins must include an insulated floor.

Walk-in cooler shall be manufactured and installed in accordance with the requirements and standards of the National Sanitation Foundation (NSF), and shall have the NSF Mark affixed to the product.

Furnish and install one (1) walk-in cooler, size and shape as shown on plans and as manufactured by Kool Star, Thermalrite, RMI Econocold, Pacific Refrigerator Co., or approved equal. Unit shall be approximately 9'-0" high clear from finished floor to finished ceiling, and be size as shown on the K- Sheets.
Cooler shall be pre-fabricated sectional type, manufactured and installed in compliance with the requirements of the National Sanitation Foundation (NSF), 2006 rev. Edition of the Uniform Building Code, with all in-force California amendments, and all other codes and regulations that may apply.
Refer to General Conditions of this Section. Nominal sized box will not be accepted.

Interior face of wall panels shall be clad with .040" stucco embossed aluminum. Interior face of ceiling panels shall be clad with 20 gauge galvanized steel panels with baked-on white enamel or polyester finish, or .040" stucco embossed aluminum. Exterior exposed face of wall panels shall be clad with 20 gauge stainless steel. Exterior unexposed face of wall and ceiling panels shall be clad with 20 gauge galvanized steel or .040" stucco embossed aluminum or stainless steel . Inside finished ceiling shall be approximately 9'-0" above the finished floor or as shown on K-Sheets.

Provide 6" high Stainless Steel cove base, NSF standards, on interior and exterior of box, or as approved by Health Department, attached with #8 X 5/8" pan-head TEK screws at 21 inches-on-center.

Finish floor shall be part of the Architectural Section.

Entry door shall be Klear Sight door, opening 36" x 84",' Viewing area shall be 24" x 48" and constructed with tempered safety glass, minimum 3 panes hermetically sealed glass, freezer doors and high humidity conditions require heated glass; protruding kick plate bumper at door bottom. Door shall include 2 hinges (#35-0082001) and I hinge (#35-0082000), door pull (#35-0120002), deadbolt (#35-0159445) and closer (#35-01786K)

Klear Sight Door opening size shall be 36" wide by 84" high. Viewing area of door shall he 24" x 48" and shall be full door thickness, minimum 3 pane tempered safety glass. Freezer doors shall have heated glass. Doors shall be flush; infitting style constructed of fiberglass reinforced plastic door perimeters and jamb. Metal, vinyl and PVC frames are not acceptable. Doors and door frame shall have 1-1/2" stops. Doors shall be insulated with a full four inches (4") thick core of same insulation materials specified for the wall panels. Doors shall be finished with stainless steel interior and exterior. Each door shall be provided with a three-sided snap-in magnetic gasket and sweep gasket to seal the bottom of the door. Doors shall be mounted with two Kason #1256 and one Kason #1255 cam lift hinges, one Kason #911 door pull, one Norton model 7500 door closer, 4" high impact bumper, protruding 7/8" off face of door shall be mounted between bottom hinge and viewing area. Freezer door jamb shall be provided with one four sided heater cable with a stainless steel threshold and one heated air vent to equalize pressure between the interior compartment and exterior spaces.

Provide Clear-Flex 2® doors as manufactured by ALECO, 2720 East Avalon Avenue, Muscle Shoals, AL 35661; ALECO Model #440042, sized for plan (verify door dimensions). Strips to be 6" X .060" nylon reinforced formulation materials (for both freezers and coolers). One piece, NSF certified, .125" thick MaxBullet™ aluminum extrusion with bullets press-fitted to be supplied. All necessary fasteners to install strip door will be included. Install on interior of compartment at doors opening to ambient temperatures, or as otherwise specified. Size and installation shall be as recommended by manufacturer for optimum service.

Provide ceiling mounted vapor-proof light fixtures as shown on electrical plan, each with two (2) 32W CFL lamps, Cole or equal. Include freezer door activated blower coil switch; digital read-out thermometer; escutcheon plates; and heated vacuum pressure relief vent. Provide matching stainless steel trim strips and enclosure panels as necessary (verify finish ceiling height). Provide coil supports to hold weight of blower coils; utility penetrations; and fire axe if required by codes.

Manufacturer shall provide detail drawings and engineering data as required to show method of seismic restraint of panels at floor, and ceiling panels.

Fixture shall comply with the General Conditions of this Section.

33 Blower Coil (For Item 32) 1 only

Part of Item 24

34 Thermostat 1 only

Part of Item 32

35 Walk-In Cooler Door with Window 1 only

Part of Item 32

36 Stainless Steel Trim (For Item 32) 1 lot

Provide matching stainless steel trim strips between boxes as necessary, and stainless steel enclosure panels as necessary, from top of boxes to ceiling (verify finish ceiling height). See Details on K-Sheets for any additional data not listed here.

37 Mobile Walk-In Cooler/Freezer Shelving 6 each

Furnish and Install a total of six (6) InterMetro Cold Storage Shelving Units with Metroseal finish, sized and quantity as follows:

- Four (4) #2148NK3 InterMetro shelving units, each 4 tiers high; each with 4 casters with brakes: and with Metroseal 3 finish: each unit includes 4 wire shelves and 4 Metro #63PK3 posts, and are approximately 24" wide X 48" long.
- Two (2) #2160NK3 InterMetro shelving units, each 4 tiers high; each with 4 casters with brakes: and with Metroseal 3 finish: each unit includes 4 wire shelves and 4 Metro #63PK3 posts, and are approximately 24" wide X 60" long.

38 Mobile Wire Shelving Units 5 each

Furnish and install:

- Four (4) InterMetro #456EBR 21" wide X 48" brite finish wire shelving units, each 4 teirs high with heavy duty polyurethane casters with brakes.
- One (1) InterMetro #466EBR 21" wide X 60" brite finish wire shelving units, each 4 teirs high with heavy duty polyurethane casters with brakes.

39 Dunnage Rack 1 only

Furnish and install one (1) InterMetro #HDP55k3 24" X 48" Dunnage Rack, 16-1/4" H 2,400 lb. maximum capacity.

40 Spare Number

41 Spare Number

42 Spare Number

43 Wall Mounted Hand Sink, ADA 1 only

Furnish and install one (1) Advanced Tabco #7-PS-25 ADA compliant Hand Sinks, constructed of 16 gauge, 304 stainless steel, wall mounted at 34" AFF, wheelchair accessible, with 10" splash on back and 12" high side splashes on both sides, attached to wall via stainless steel wall brackets, with T&S #B-0892 4" center-set gooseneck mixing faucets with aerators, P-traps, lever wastes, 4" wrist handles and overflows; NSF approved.

44 Soap and Paper Towel Dispensers 1 only

Part of Architectural Section

45 Stainless Steel Wall Flashing 1 lot

Custom fabricate, furnish and install one (1) lots of 20 gauge stainless steel wall flashing, size and shape as shown on the drawings and as specified herein:

Apply flashing from center of hand sinks to 18" each side of hand sink, and from top of finish floor cove base up wall to approximately 8' AFF (above finished floor), or as shown on the Plans.

46 Mobile Stainless Steel Worktable w/ Drawers and Access 2 each

Furnish and install a total of One (1) Advanced Tabco Premium Series Worktables. Top is furnished with 1 5/8" sanitary rolled rim edges. Finish sized and quantity as follows:

- Two (2) Advanced Tabco #SS-305, 60" long x 30" wide x 30" high with 14 gauge 304 series stainless steel top, 18 gauge stainless steel under shelf, 14 gauge stainless steel overshelf, 1 5/8" diameter tubular stainless steel legs with 5" casters with locks. Tables shall include 3 tier drawers #TA-38 with locks.

47 Drawer Assembly 3 each

Part of Item #46

48 Air Screen 1 only

Furnish and install one (1) Mars Air Doors NHV 48, 48" long Air Curtains, NSF Models, Unheated, high-impact white PolyMars housing; with door-operated microswitche.

49 Can Opener 1 only

Furnish and install one (1) Edlund #S-11C Manual Can Opener. Unit is NSF approved, constructed of stainless steel, with a cast stainless steel base. Unit shall have a clamping base, which will secure the can opener to the item 46 (work table) as shown on the plans.

50 Spare Number

51 Spare Number

52 Type 2 Exhaust Hood 1 only

Furnish and install one (1) Greenheck #XD2 Type 2 stainless steel continuous capture exhaust hood – shall be approximately 60" long, total approximate dimensions including both sections: approximately 60" long X 60" wide X 24" high. Fixture shall be canopy type hood constructed of continuously welded, 100% 18 gauge Type 304 stainless steel, liquid tight material, using no galvanized steel, including plenum areas, inclusive. Include 3" wide back integral air space.

Front, back and end panels shall have stamped vertical ribs, evenly spaced, to add additional strength and rigidity. All seams shall be welded tight. All exposed external welds shall be ground and polished to match the original finish of the metal. Back non-integral air space shall be 3" wide, with factory mounted duct collars, mesh filters included to cover duct openings.

Install four(4) – CFL UL Listed light fixtures, pre-wired to a junction box mounted to a junction box mounted on top of the field connection (refer to details on K-Sheet K700).

K-Sheet Drawings take precedence over Section 11400 Specifications as far as sizes and quantities for all items, inclusive.

53 Exhaust and Make-Up Air System 1 only

Part of HVAC Section

54 Stainless Steel Trim 1 lot

Provide 20 gauge stainless steel enclosure panels, from top of hoods to ceiling and apply stainless steel trim to wall, enclosing and sealing area above hoods. Stainless steel panels and trim must match quality and finish of hood in appearance, including smooth welds and polished surfaces. Provide 20 gauge stainless steel wall flashing from top of floor cove base to underside of hoods, from left end of left hood - to right end of right hood, fully flashing the wall area beneath hood(s). Flashing should match appearance as closely as possible to that of hood and enclosure materials. Seams shall be welded liquid tight. Seal outside edges of flashing to wall, as indicated in Section 2 earlier in Section 11400 to prevent food particles, grease, water, etc. from getting behind the flashing.

55 Stainless Steel Wall Flashing 1 lot

Custom fabricate, furnish and install 20 gauge stainless steel wall flashing, size and shape as shown on the drawings and as specified herein:

Apply flashing from top of finish floor cove base up wall to bottom of Item # 52, Hood, and from left to right edges of hood, covering completely wall beneath hood.

56 Gas Double Convection Oven 1 only

Furnish and install one (1) Montague #2-115A stacked double convection ovens; with vertical opening, side mounted doors; 115,000 BTU/HR; with all standard features; with stainless steel front and sides; each with electronic ignition; stainless steel flanged (seismic) legs; and gas turn-off valves.

Accessories include:

- Stainless steel (s/s) front, s/s left side, s/s right side, s/s top, and s/s flue deflector
- Full stainless steel oven lining interior
- Electronic ignition

57 Spare Number

58 Spare Number

59 Stainless Steel Prep Sink Assembly 1 only

Custom fabricate, furnish and install one (1) stainless steel prep sink assembly, size and shape as shown on the drawings and as specified herein:

Fixture shall be approximately 7'-0" long X 30" wide, and shall consist of the following (from right to left): A section of 14 gauge stainless steel drainboard countertop with a 16 gauge stainless steel undershelf beneath, then a single-compartment sink with one (1) T&S Brass #B-0231 faucets with wrist handles and 12" swing nozzles.

60 Stainless Steel Overshelf 1 only

Custom fabricate, furnish and install one (1) stainless steel overshelf, size and shape as shown on the drawings and as specified herein:

Overshelf shall each be approximately 48" long X 14" deep, constructed of 16 gauge stainless steel, and wall mounted on 14 gauge stainless steel brackets.

61 Mobile Stainless Steel Worktable w/ Drawers and Access 1 only

Furnish and install a total of One (1) Advanced Tabco Premium Series Worktables. Top is furnished with 1 5/8" sanitary rolled rim edges. Finish sized and quantity as follows:

- One (1) Advanced Tabco #TSS-306, 72" long x 30" wide x 30" high with 14 gauge 304 series stainless steel top, 1 5/8" diameter tubular stainless steel legs with 5" casters with locks. Tables shall include 3 tier drawers #TA-38 with locks.

62 Microwave (FUTURE) 1 only

Furnish and install one (1) Panasonic #NE-2180 Sonic Steamer® Microwave Oven. Unit has 2100 watts of power, with removable shelf, 16 programmable memory pads, dial timer, 5 power levels, see-thru drop down door, digital display, and is NSF listed. Cabinet is stainless steel, and inner dimensions are approximately 21-1/16" wide X 13" deep X 9-7/8" high.

63 Stainless Steel Serving Counter 1 only

Custom fabricate, furnish and install one (1) stainless steel counter, size and shape Shown on the drawings and as specified herein:

Stainless steel top serving counter shall consist of (from left to right, on kitchen side) 14 gauge stainless steel counter top which is secured between building walls, as shown on the drawings. Counter has serving ledge (on customer side) which extends 6 inches through window openings (windows are part of Architectural Section) and has closed ends and bottom filled with stainless steel filler, and is cantilevered over the base.

Counter shall be Leg Mounted. Provide electrical outlets to supply power to POS station connection – coordinate with electrical section for power and data lines locations.

Apply 20 gauge stainless steel trim to opening on corner surfaces from counter top, up and around across window and back down the other side to counter top, on customer and on kitchen sides. Metal tracks for roll-down door will be sandwiched between this front and rear trim.

64 POS Stations 2 each

Not in Contract

65 Roll Down Door 1 only

In Architectural Section

66 Spare Number

67 Hot Food Server 1 only

Furnish and install one (1) Delfield SE-H4 Mobile Heated Serving Counter (NSF Model).

Exterior Body: Open frame construction with 16 gauge stainless steel corners: 18-gauge stainless steel full bottom shelf and stainless steel C channel front and sides for optional accent panels.

Exterior Top: Constructed of 16 gauge stainless steel, welded, ground and polished into one integral unit. Top is fabricated with square exterior corners.

Heated Food Warmers: constructed of die-stamped stainless steel. Heated food warmers are insulated on bottom. Each heated food warmer is individually equipped with a heated element rated at 1000 watts for 120 volt or 208/230 volt, 60 hertz, single pahse service and wired to an adjustable control switch and indicator light in the control panel. Heated food warmers are interwired to a maximum 10' long cord with a grounded plug for 120 vold or 208/230 volt, 60 hertz, single phase electrical service.

Casters: units are mounted on 5" diameter swivel casters with non-marking plyolefin tires and plate brakes. Overall height of caster assembly is 6".

Accessories:

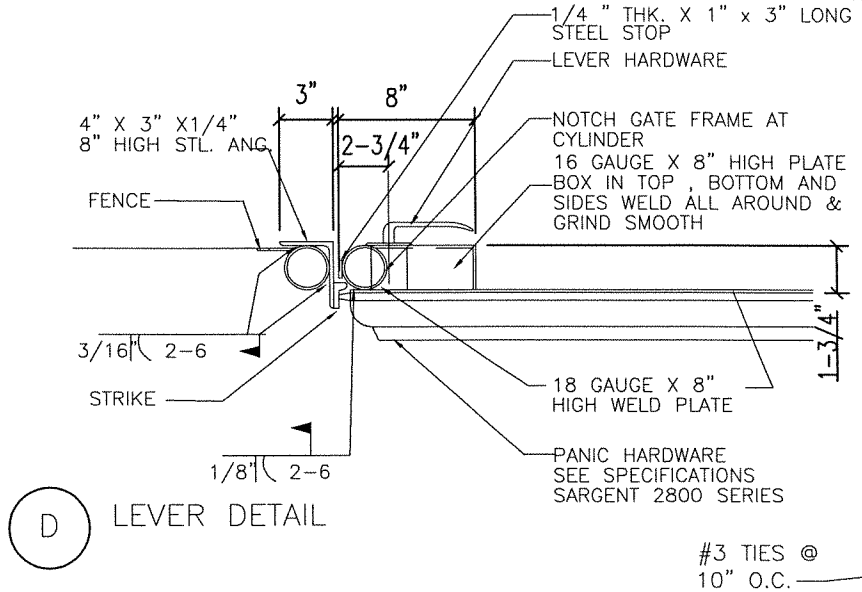
- 10" stainless steel fold-down tray slides on each side.
- 10" stainless steel over shelf

68	Tray Slides	2 each
	Part of Item 67	
69	Stainless Steel Overshelf	1 only
	Part of Item 67	
70	Hot Food Cabinet	1 only

Furnish and install one (1) Carter-Hoffmann #PH1810 Heated Cabinets, mobile, insulated, bottom-mount forced-air heat systems; each with universal slides to hold twenty-four (24) 12" X 20" or twelve (12) 18" X 26" pans at 3-1/2" spacing, slides adjustable in 1-1/2" increments, stainless steel construction, on 5" heavy duty polyurethane swivel casters, with brakes.

71	Spare Number	
72	Spare Number	
73	Spare Number	
74	Convenience Outlets	6 each
	In Electrical Section	
75	Data Line	5 each
	In Electrical Section	
76	Telephone Line	3 each
	In Electrical Section	

END OF SECTION



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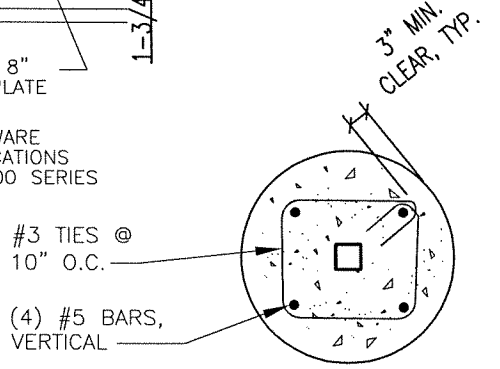

SECTION – B
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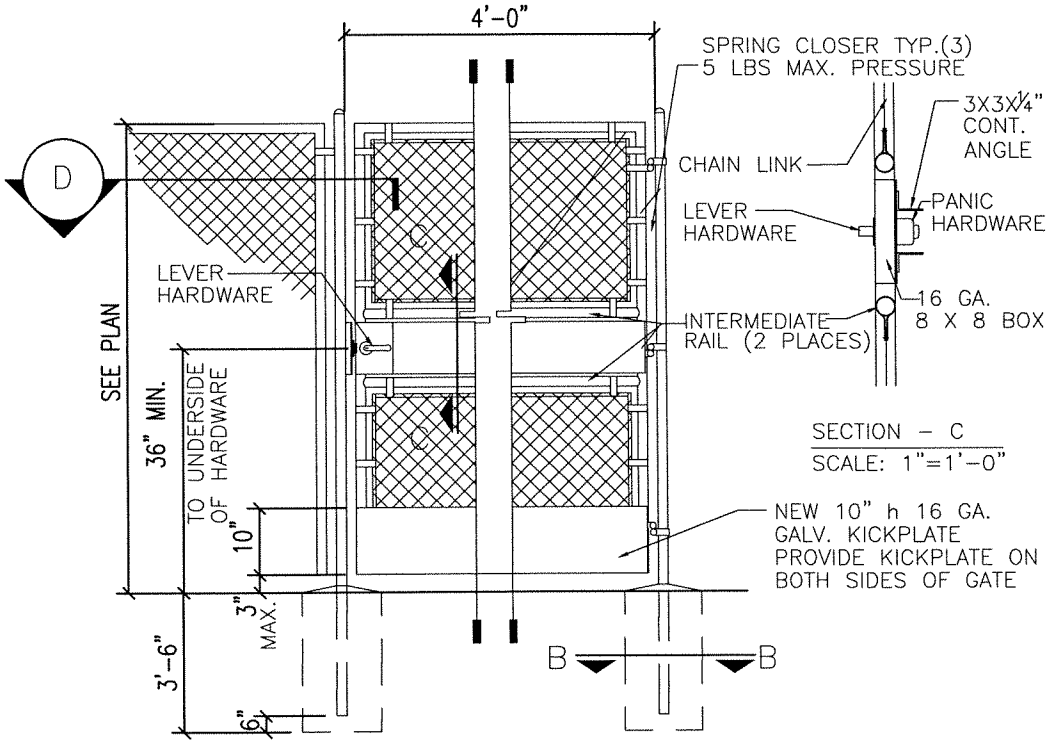


SECTION – C
SCALE: 1"=1'–0"

Architect Seal

LICENSED ARCHITECT
CHRISTOPHER RICHARD TAYLOR
NO. C-19759
REN. 02-24-11
STATE OF CALIFORNIA

Title
CHAIN LINK GATE

This Drawing applies to the following:
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
HUNT ES MODERNIZATION PROJECT - PHASE 2
1342 PUMALO STREET, SAN BERNARDINO, CALIFORNIA, 92404

☐ A#04-
FILE NO. 36-55

IB
FCD
CD

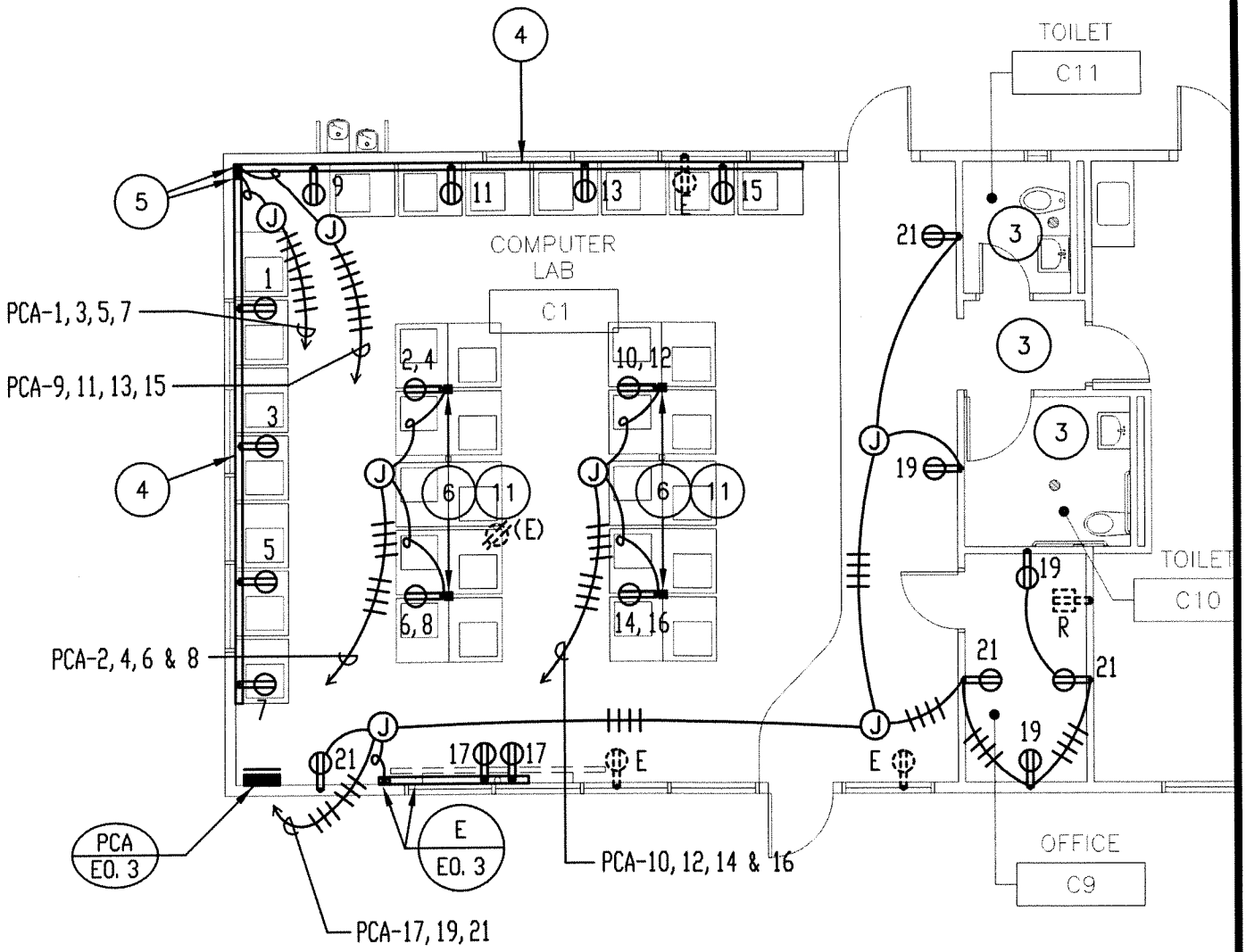
HMC ARCHITECTS
Architecture Interiors Planning
3546 CONCOURS STREET
ONTARIO, CALIFORNIA 91764
Telephone: 909. 989. 9979
Fax: 909. 483. 1400

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

Scale: NTS
Date: 9/09/10
Reference Dwg No: 3137110
Drawing No.: AD2-A01

File Name: C:\DGN\3137\110\Add Service\PH2 Addendum1\AD2-A01.dwg Sep 09,2010-11:44am

Bid Issuance Set



(6) PROVIDE A TWO COMPARTMENT VERTICAL POWER POLE +6" ABOVE CEILING WITH 4-125 VOLT, 20AMP DUPLEX RECEPTACLE OUTLETS ON SIDE AND 4 DOUBLE COMPUTER OUTLETS ON OPPOSITE SIDE AND CONNECT TWO DUPLEX RECEPTACLES OUTLETS PER 20 AMP CIRCUIT AS REQUIRED.

(11) REFER TO DETAIL "F" SHEET E2.1 FOR CONDUIT SLEEVES CONTINUATION FOR DATA AND TELECOMMUNICATION CABLES.

REGISTERED PROFESSIONAL ENGINEER STEPHEN R. ZACEK No. E 10372 Exp. 09-30-12 ELECTRICAL STATE OF CALIFORNIA

FBA ENGINEERING
Consulting Engineers
3420 Irvine Avenue
Newport Beach, California 92660-3189
T: 949 852 9995 F: 949 852 1657
FBAengr.com
FBA # 215045

REFERENCE SHEET E0.3

DRAWING TITLE: ROOM C1 POWER PLAN

Scale: NONE -

LICENSED ARCHITECT CHRISTOPHER RICHARD TAYLOR NO. C-19759 REN. 2-29-11 STATE OF CALIFORNIA

HMC
Architecture Interiors Planning
HMC GROUP
3270 INLAND EMPIRE BLVD
ONTARIO, CALIFORNIA 91764
Telephone: 909.989.9979
Fax: 909.483.1402

FILE NO. 00-000
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. 04-
AC ____ FLS ____ SS ____
DATE

Project: Hunt Elementary School
Phase II Modernization

Address: 777 North "F" Street
San Bernardino, CA 92410

Project No: 3137 110

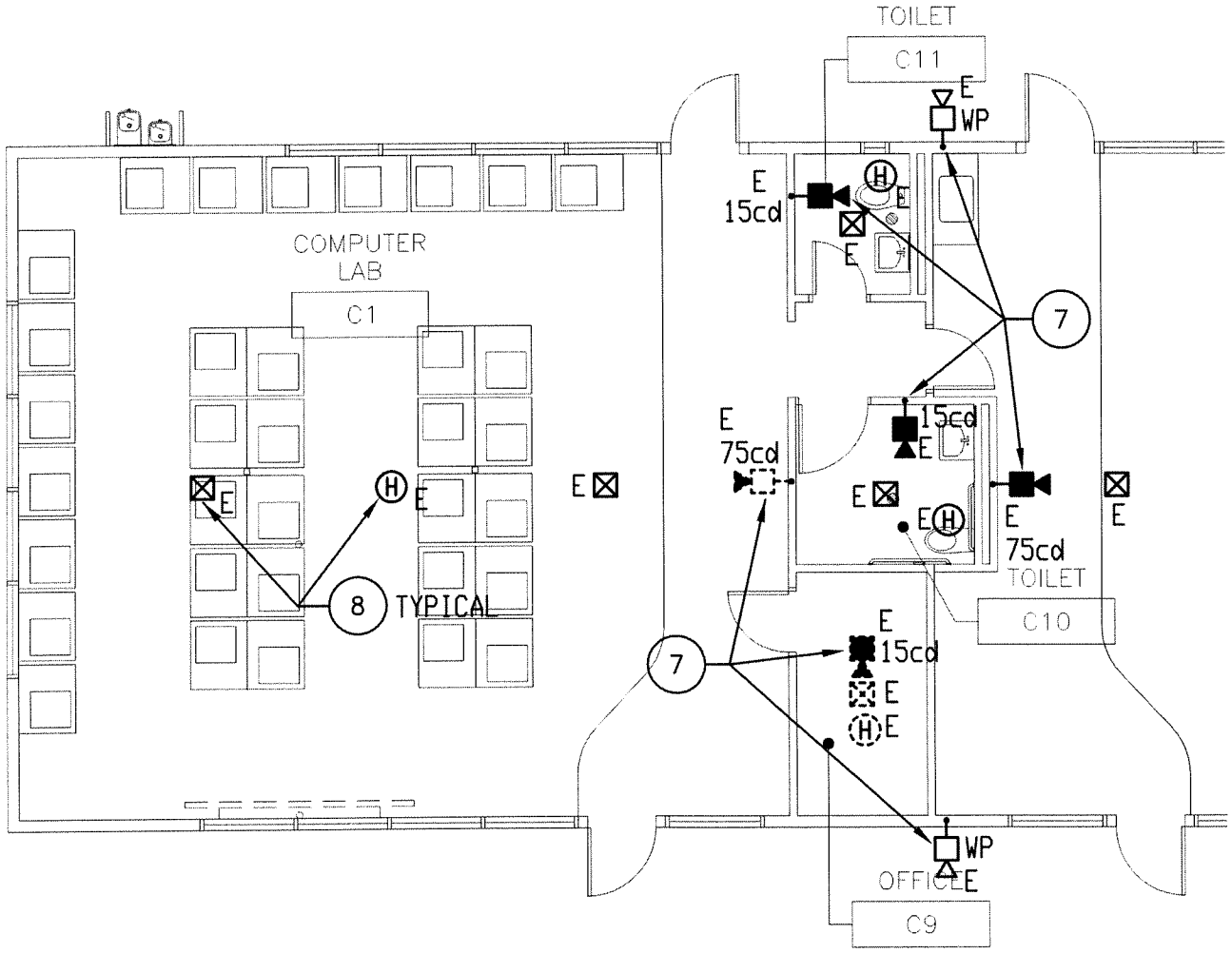
Date: 9-8-10

Drawing No: ESK-1

Filename: I:\215\045\PHASE 2\E0.3_215045.dwg (BNguyen)
Dinscale 1=1(PS) Date: SEP 08, 2010 Time: 3:50 PM
Xrefs: huntCinew, HUNT-TB full

ADDENDUM NO. 2

Bid Issuance Set



REFERENCE SHEET E0.3

REGISTERED PROFESSIONAL ENGINEER
STEPHEN R. ZAJICEK
No. E 10372
Exp. 09-30-12
ELECTRICAL
STATE OF CALIFORNIA

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Newport Beach, California 92660-3189
T: 949 852 9995 F: 949 852 1657
FBAengr.com
FBA # 215045

DRAWING TITLE: ROOM C1 FIRE ALARM PLAN

Scale: NONE -

LICENSED ARCHITECT
CHRISTOPHER RICHARD TAYLOR
NO. C-19759
REN. 2-29-11
STATE OF CALIFORNIA

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FILE NO. 00-000
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OFFICE OF REGULATION SERVICES
APPL. 04-
AC ____ FLS ____ SS ____
DATE ____

Project: Hunt Elementary School
Phase II Modernization

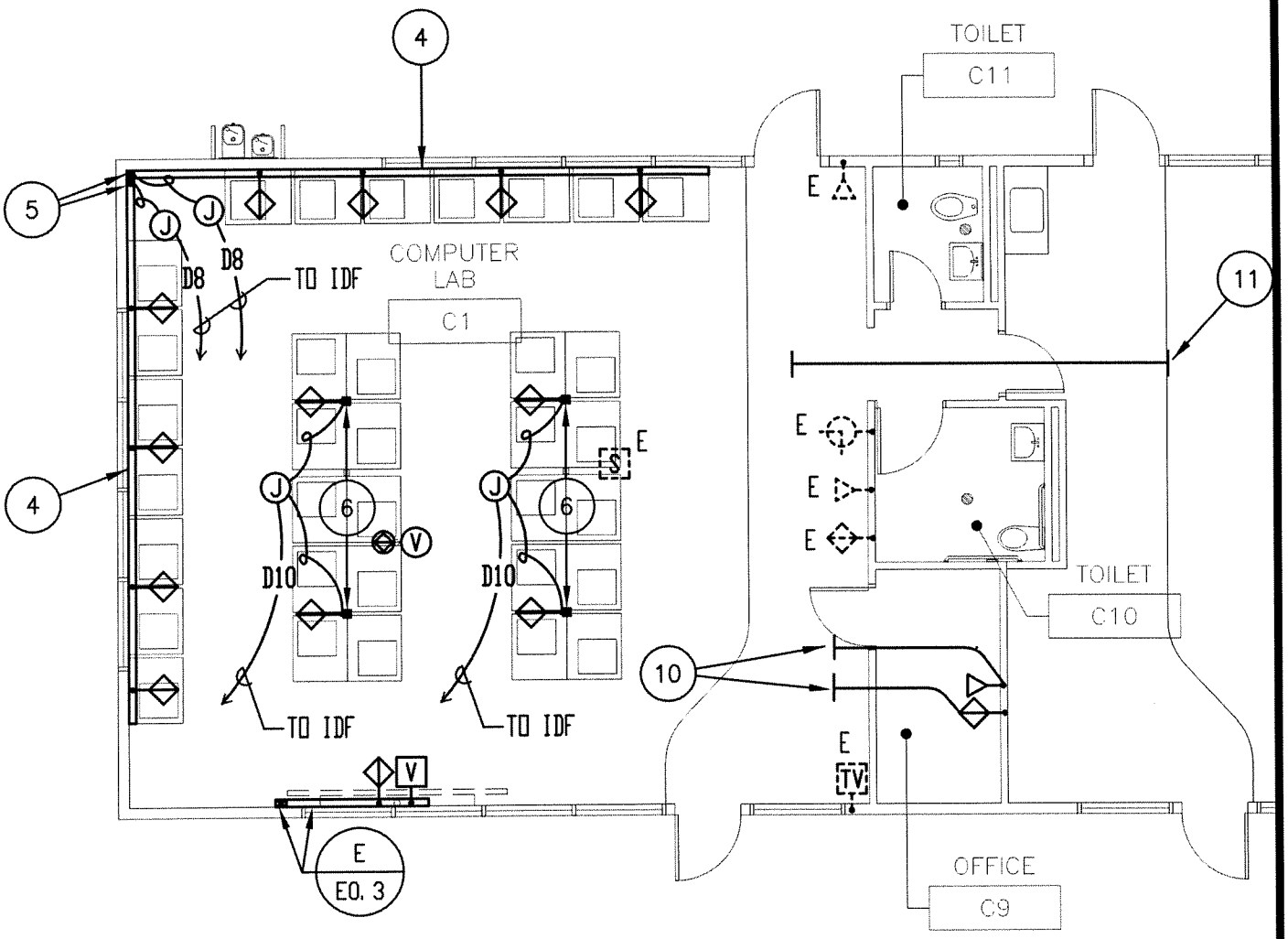
Address: 777 North "F" Street
San Bernardino, CA 92410

Project No: 3137 110

Date: 9-8-10

Drawing No: ESK-2

ADDENDUM NO. 2
Bid Issuance Set



(10) STUB 3/4"C.O. INTO ACCESSIBLE CEILING SPACE FOR DATA AND TELEPHONE CABLES.

(11) REFER TO DETAIL 'F' SHEET E2.1 FOR CONDUIT SLEEVES CONTINUATION FOR DATA AND TELECOMMUNICATION CABLES.

REGISTERED PROFESSIONAL ENGINEER
STEPHEN R. ZAJICEK
No. E 10372
Exp. 09-30-12
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STATE OF CALIFORNIA

FBA ENGINEERING
Consulting Engineers
3420 Irvine Avenue
Newport Beach, California 92660-3189
T: 949 852 9995 F: 949 852 1657
FBAengr.com
FBA # 215045

REFERENCE SHEET E0.3

DRAWING TITLE: ROOM C1 SIGNAL PLAN

Scale: NONE -

LICENSED ARCHITECT
CHRISTOPHER RICHARD TAYLOR
NO. C-19759
REN. 2-29-11
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HMC
Architecture Interiors Planning
HMC GROUP
3270 INLAND EMPIRE BLVD
ONTARIO, CALIFORNIA 91764
Telephone: 909.989.9979
Fax: 909.483.1402

FILE NO. 00-000
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. 04-
AC ____ FLS ____ SS ____
DATE ____

Project: Hunt Elementary School
Phase II Modernization

Address: 777 North "F" Street
San Bernardino, CA 92410

Project No: 3137 110

Date: 9-8-10

Drawing No: ESK-3

Filename: I:\215\045\PHASE 2\E0.3_215045.dwg (BNguyen)
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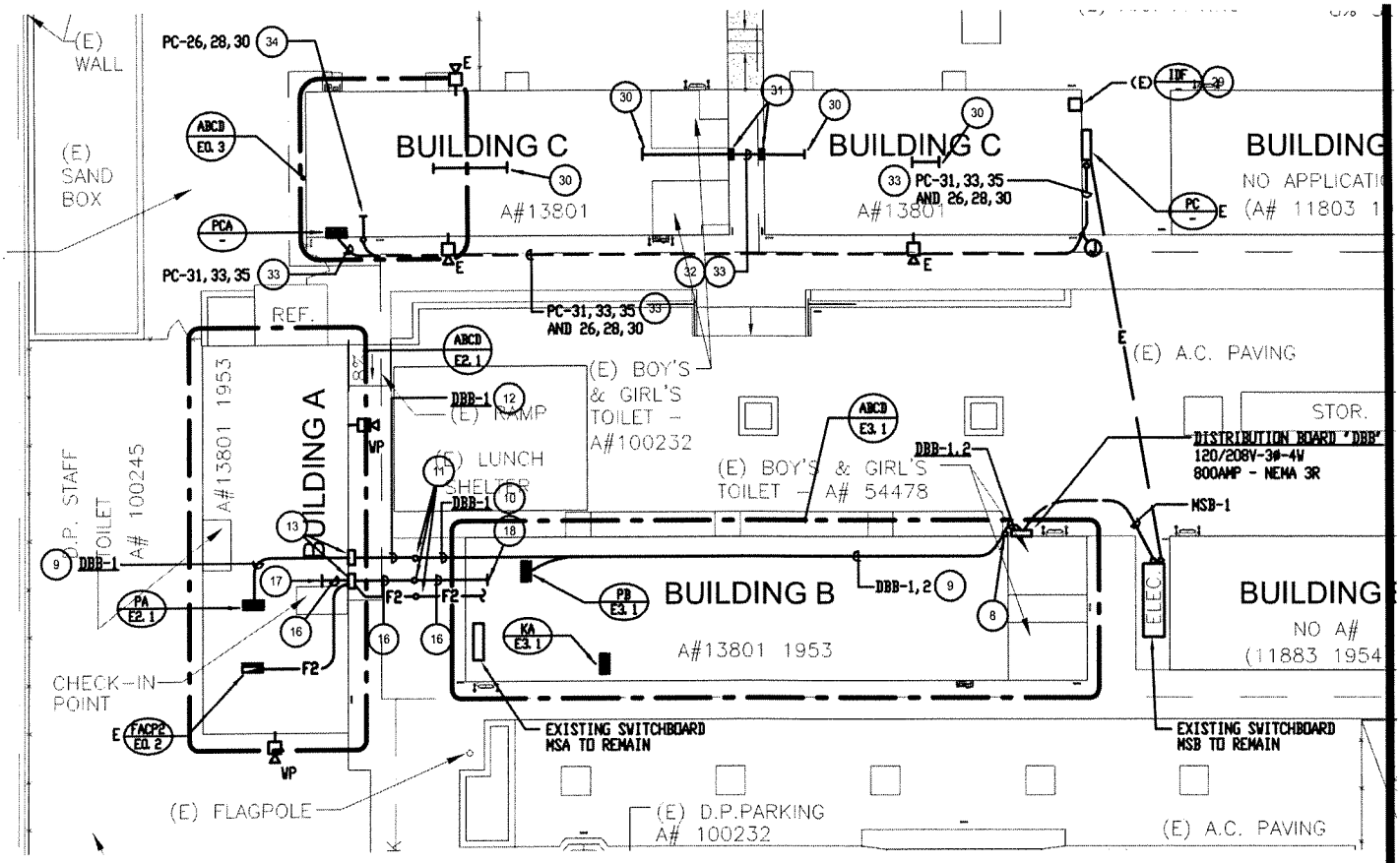
Xrefs: HuntCtnew, HUNT-TB full

ADDENDUM NO. 2
Bid Issuance Set



(9) ROUTE CONDUIT EXPOSED BELOW COVER AND INTO WALL AS REQUIRED.

(14) PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE MATCH A. I. C. RATING OF DEVICES CURRENTLY USED. PROVIDE ALL REQUIRED MOUNTING HARDWARE.

(31) PROVIDE 18" SQUARE X 6" DEEP NEMA 3R ENCLOSURE ON WALL 6" BELOW COVER FOR COMPUTER DATA CONDUITS AS SHOWN.

(32) PROVIDE 4-2" CONDUIT FOR COPPER CABLES.

(33) RROUTE CONDUIT BELOW COVER TO AN EXTERIOR WALL, EXPOSED ON WALL AS SHOWN.

(34) RUN CONDUIT TO ROOF FOR ROOF MOUNTED HVAC UNIT.

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REFERENCE SHEET E2.1

DRAWING TITLE: PARTIAL SITE PLAN

Scale: NONE -

LICENSED ARCHITECT CHRISTOPHER RICHARD TAYLOR NO. C-19759 REN. 2-24-11 STATE OF CALIFORNIA

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Project: Hunt Elementary School Phase II Modernization

Address: 777 North "F" Street San Bernardino, CA 92410

Project No: 3137 110

Date: 9-8-10

Drawing No: ESK-4

ADDENDUM NO. 2

Bid Issuance Set

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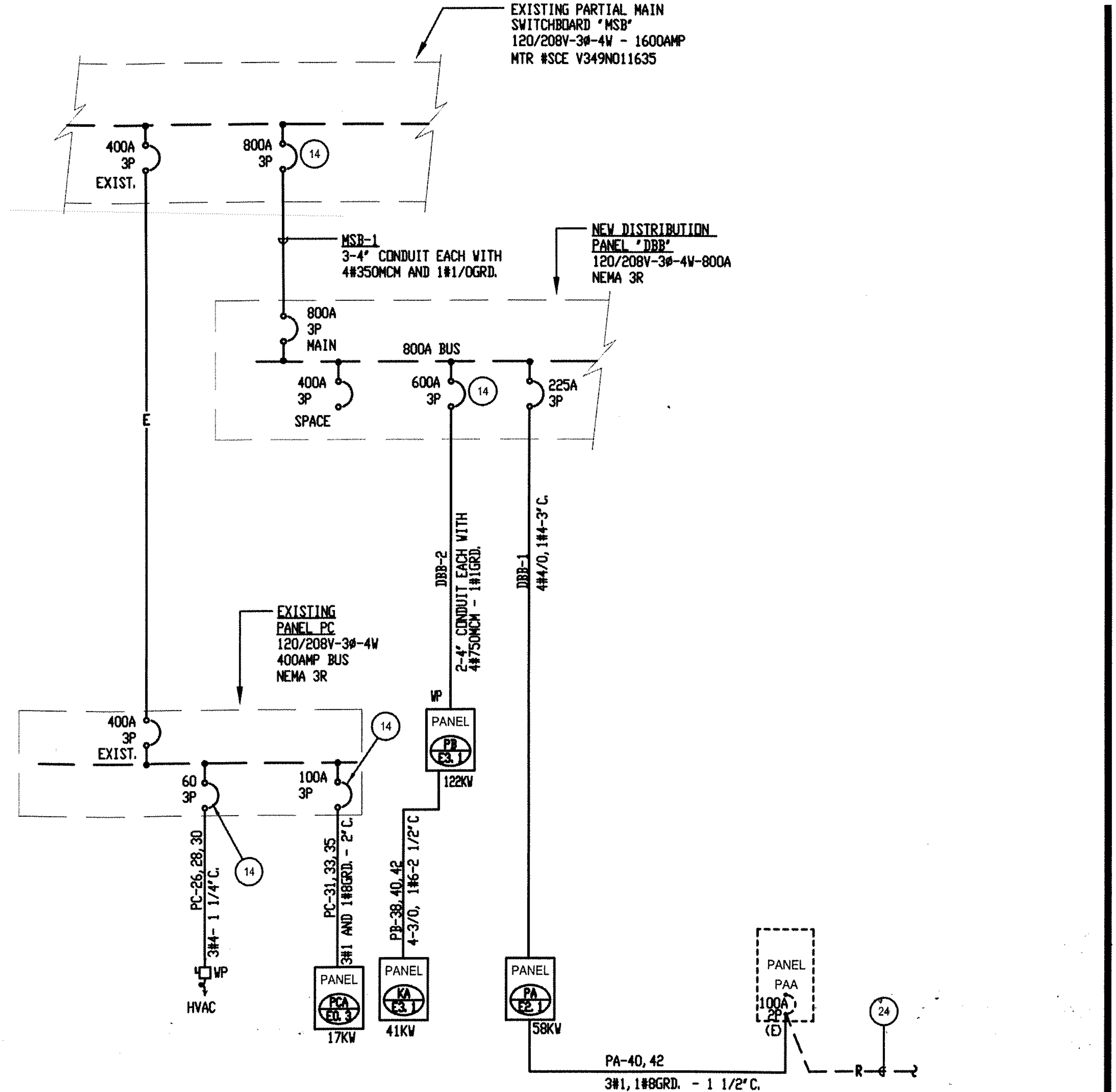
Xrefs: SITE PLAN, HUNT-TB full, huntA-new



REGISTERED PROFESSIONAL ENGINEER
STEPHEN R. ZAJICEK
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ELECTRICAL
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REFERENCE SHEET E2.1

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DRAWING TITLE: PARTIAL SINGLE LINE DIAGRAM	Scale: NONE	-

LICENSED ARCHITECT
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Project: Hunt Elementary School
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Address:
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San Bernardino, CA 92410

Project No: 3137 110

Date: 9-8-10

Drawing No: ESK-5

ADDENDUM NO. 2

Bid Issuance Set

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1=1(PS) Date: SEP 08, 2010 Time: 4:01 PM
SITE PLAN, HUNT-TB full, huntA-new