### **GENERAL NOTES**

1. CONTRACTORS SHALL VERIFY ALL DIMENSIONS WITH CONDITIONS AT THE JOB SITE BEFORE PROCEEDING WITH ANY WORK. CONTRACTORS SHALL NOTIFY PROJECT DESIGNER IF EXISTING CONDITIONS DIFFER FROM THOSE ON

2. ALL DIMENSIONS SHALL BE AS INDICATED ON DRAWINGS OR AS CLARIFIED BY PROJECT DESIGNER. UNDER NO CIRCUMSTANCES SHALL DIMENSIONS BE DETERMINED BY SCALING THE DRAWINGS

3. ANY ERRORS, OMISSIONS, OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT DESIGNER PRIOR TO COMMENCEMENT OF WORK. 4. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES. ORDINANCES. AND THE HIGHEST STANDARDS OF THE

5. ALL WORK SHALL BE DONE IN A SAFE, ORDERLY MANNER WITHOUT DAMAGE TO OTHER PARTS OF THE PREMISES

6. NO MATERIALS CONTAINING ASBESTOS MAY BE USED.

### CODE COMPLIANCE

CITY OF SAN PABLO MUNICIPAL CODE 2022 CBC, CALIFORNIA BUILDING CODE 2022 CMC, CALIFORNIA MECHANICAL CODE 2022 CEC, CALIFORNIA ELECTRICAL CODE 2022 CPC, CALIFORNIA PLUMBING CODE 2022 CFC, CALIFORNIA FIRE CODE 2022 CCR, CALIFORNIA CODE OF REGULATIONS, TITLE 24 2022 CALIFORNIA GREEN BUILDING STANDARD CODE 2022 CALIFORNIA ENERGY CODE

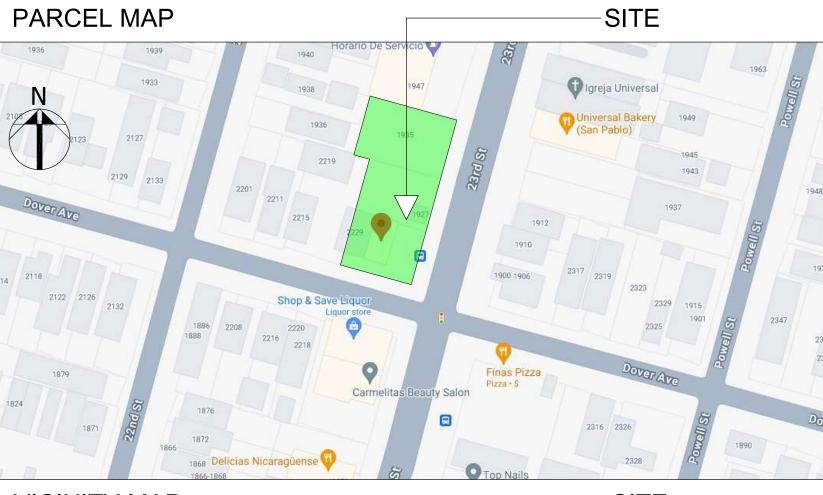
### DEFERRED SUBMITTAL

1. DETACHED KITCHEN AND CENTRAL KITCHEN HOOD FIRE SPRINKLER SYSTEM

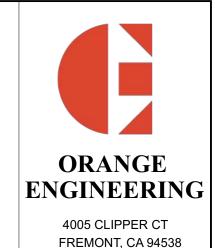
2. DETACHED KITCHEN BUILDING FIRE SPRINKLER SYSTEM

### FOOD MENU FOR DETACHED KITCHEN





### CENTRAL KITCHEN TI & DETACHED KITCHEN CONVERSION **2229 DOVER AVE &** 1927 23RD ST, SAN PABLO, CA 9480



TEL (408) 888-7836



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PATH OF EGRESS

**ADA & DETIALS** 

ADA & DETIALS

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FOUNDATION & ROOF FRAMING PLAN-SAMLL KITCHEN

PROPOSED FLOOR PLANS - DETACHED KITCHEN

**ARCHITECTRUAL** 

A 2.0

A 2.1

A 2.1

A 3.0

A 4.0

A 5.0

A 6.0

A 7.0

A 7.1

A 7.2

A 7.3

A 8.0

A8.1

C 1.0

SN1.0

S1.0

S2.0

S3.0

SD.0

M000

M001

M002

M100

M101

M200

M201

M202

M203

M204

M205

M206

M207

TM00

TM01

TM02

TM03

M000

M100

P000

P001

P002

P100

P200

TP00

E000

E001

E002

E100

E200 E201

TE00

**ELECTRICAL** 

PLUMBING

**STRUCTURAL** 

**MECHANICAL** 

SCOPE OF WORK

. CONVERT EXISTING 1,386 SF UNCONDITIONED CMU EXTERIOR WALL WAREHOUSE TO CONDITIONED CENTRAL KITCHEN THAT PREPARE SALSA AND MEAT FOR LOCAL CHAIN RESTAURANT.

CENTRAL KITCHEN TENANT IMPROVEMENT (2229 DOVER

2. NEW FINISHES FOR THE WORK AREA AND ADA 3. NEW PLUMBING, ELECTRICAL AND MECHANICAL WORKS.

4. NEW EQUIPMENT FOR THE WORK AREA. 5. ADA IMPROVEMENTS FOR THE RESTROOM. DETACHED KITCHEN CONVERTION (1927 23RD ST)

ROOM TO NEW 734 SF DETACHED TAKE OUT FOOD KITCHEN WITH WORK AREA AND AN ADA RESTROOM. 2. NEW FINISHES FOR THE WORK AREA AND ADA

3. NEW PLUMBING, ELECTRICAL AND MECHANICAL WORKS. I. NEW EQUIPMENT FOR THE WORK AREA. 5. ADA IMPROVEMENTS FOR THE RESTROOM

DESIGN BY: ORANGE ENGINEERING **CONTACT LIST** 

**PROJECT ADDRESS** 2229 DOVER AVE SAN PABLO, CA 9480 OWNER: ORANGE ENGINEERING LLC 2229 DOVER AVE REVIEW BY: SAN PABLO, CA 9480 CELL: (408) 888-7836

NAN@ORENGR.COM **DESIGNERR:** ORANGE ENGINEERING LLC 4005 CLIPPER CT FREMONT, CA 94538 (408)888-7836 XIN@ORENGR.COM

XIANLI@ORENGR.COM

EMAIL ADDRESS: XIN@ORENGR.COM,

(N) CENTRAL KITCHEN -PRIVATE SERVICE:

(N) DETACHED KITCHEN(OUTDOOR DINNING):

(E) THAI RESTAURANT (PUBLIC AREA):

WAREHOUSE (UNCONDITIONED):

TOTAL BUILDING FOOTPRINT:

DETACHED KITCHEN (CONDITIONED):

PROPERTY INFORMATION CENTRAL KITCHEN **ZONING:** SP1 2229 AN P/ 411-201-014 APN: OCCUPANCY: OCCUPANY LOAD: EMPLOYEE NUMBER: 10 AM TO 6 PM OPERATION HOURS: TYPE OF CONSTRUCTION: NO FIRE SPRINKLERS: 4,125 SF LOT SIZE: 24 **EXISTING PARKING:** 20 PROPOSED PARKING REQUIRED PARKING ANALYSIS: 1384/300=5 (N) CENTRAL KITCHEN -PRIVATE SERVICE: 375/50=8 (E) THAI RESTAURANT (PUBLIC AREA): (N) DETACHED KITCHEN(OUTDOOR DINNING): 200/50=4 PROJECT NUMBER **EXISTING** PROPOSED **TOTAL** WAREHOUSE (UNCONDITIONED): 1,384 SF -1,384 SF 0 SF +1,384 SF CENTRAL KITCHEN (CONDITIONED) 0 SF 1,384 SF SUBMITTAL 2,590 SF TOTAL BUILDING FOOTPRINT: 2,590 SF **NO CHANGE** 12/10/24 **DETACHED KITCHEN CONVENTION** ZONING: 411-201-013 APN: OCCUPANCY: OCCUPANCY LOAD: EMPLOYEE NUMBER REVISION 11 AM TO 10 PM **OPERATION HOURS** TYPE OF CONSTRUCTION: V-B DELTA DATE DESCRIPTION FIRE SPRINKLERS: YES LOT SIZE: 4,125 SF 24 **EXISTING PARKING:** PROPOSED PARKING 20 **REQUIRED PARKING ANALYSIS:** 17

1384/300=5

375/50=8

200/50=4

**EXISTING** 

192 SF

192 SF

0 SF

PROPOSED

-192 SF

+734 SF

+542 SF

0 SF

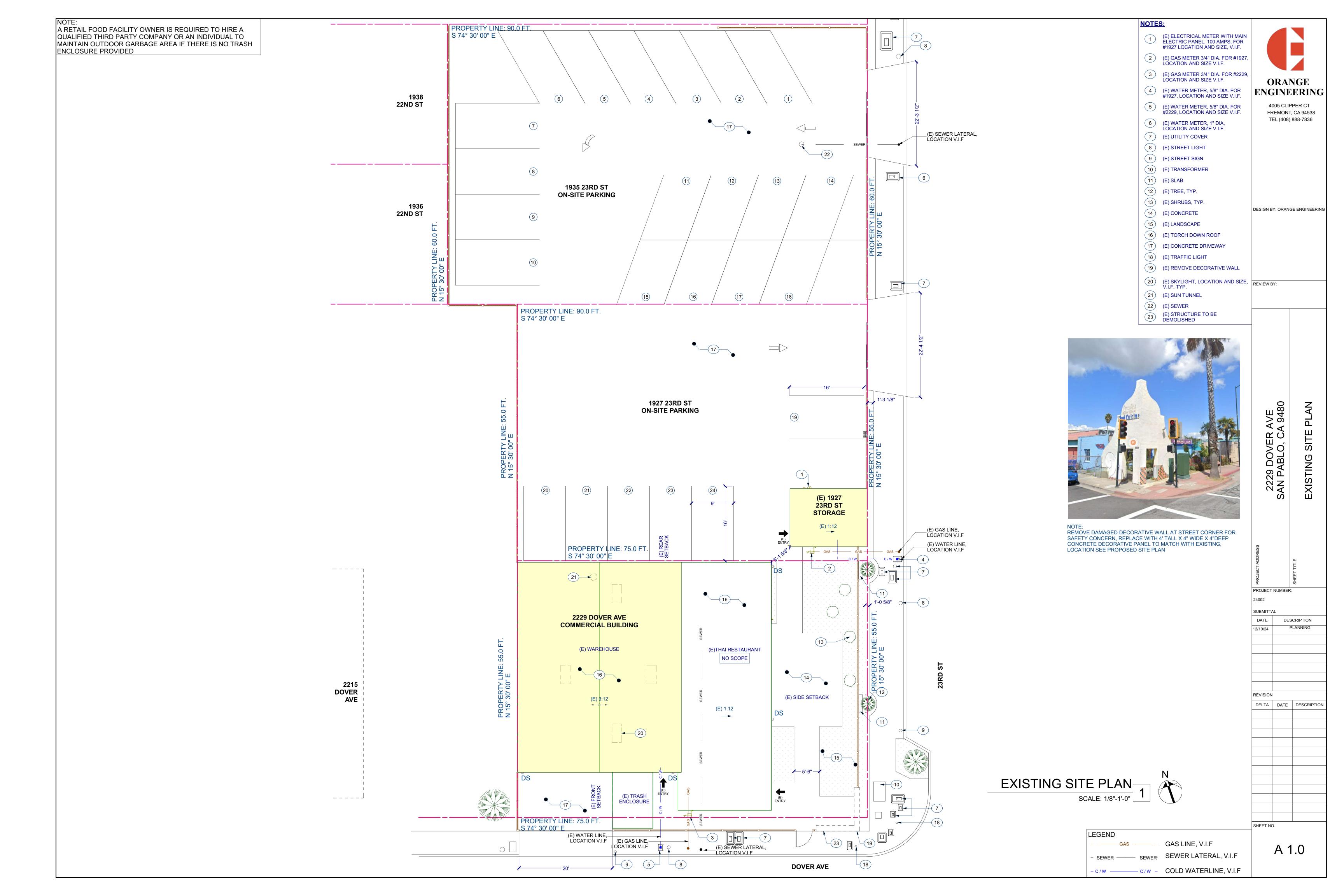
734 SF

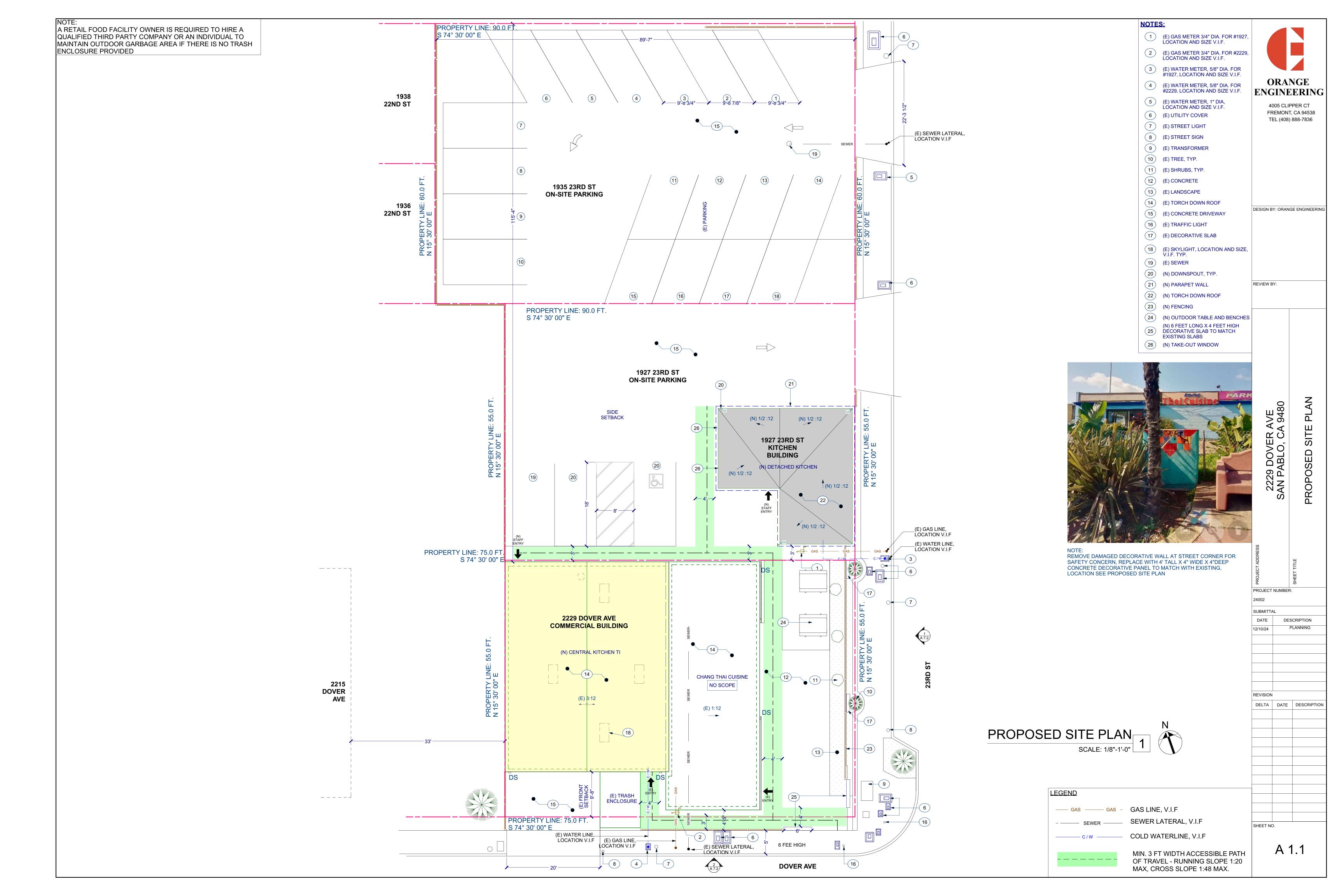
734 SF

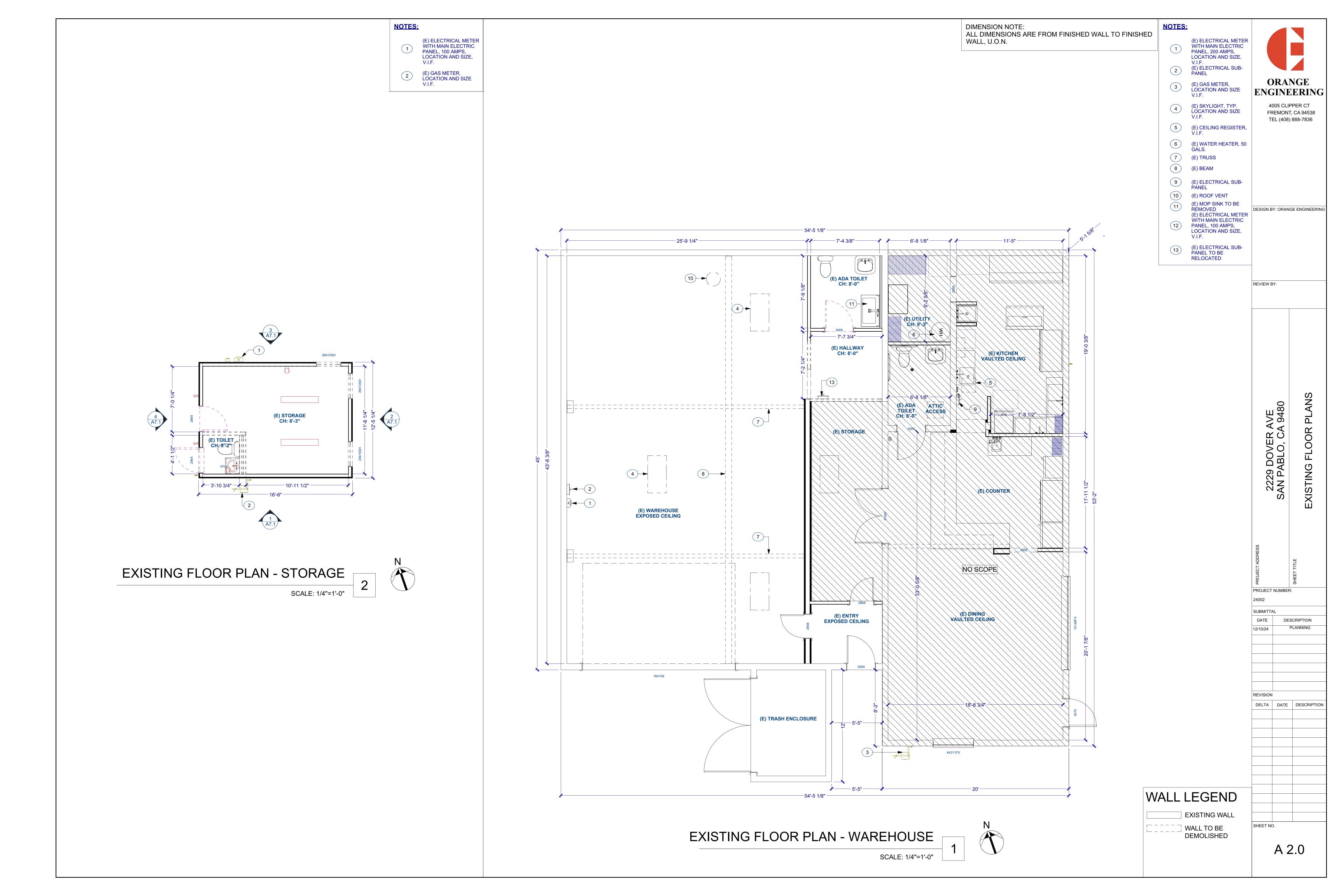
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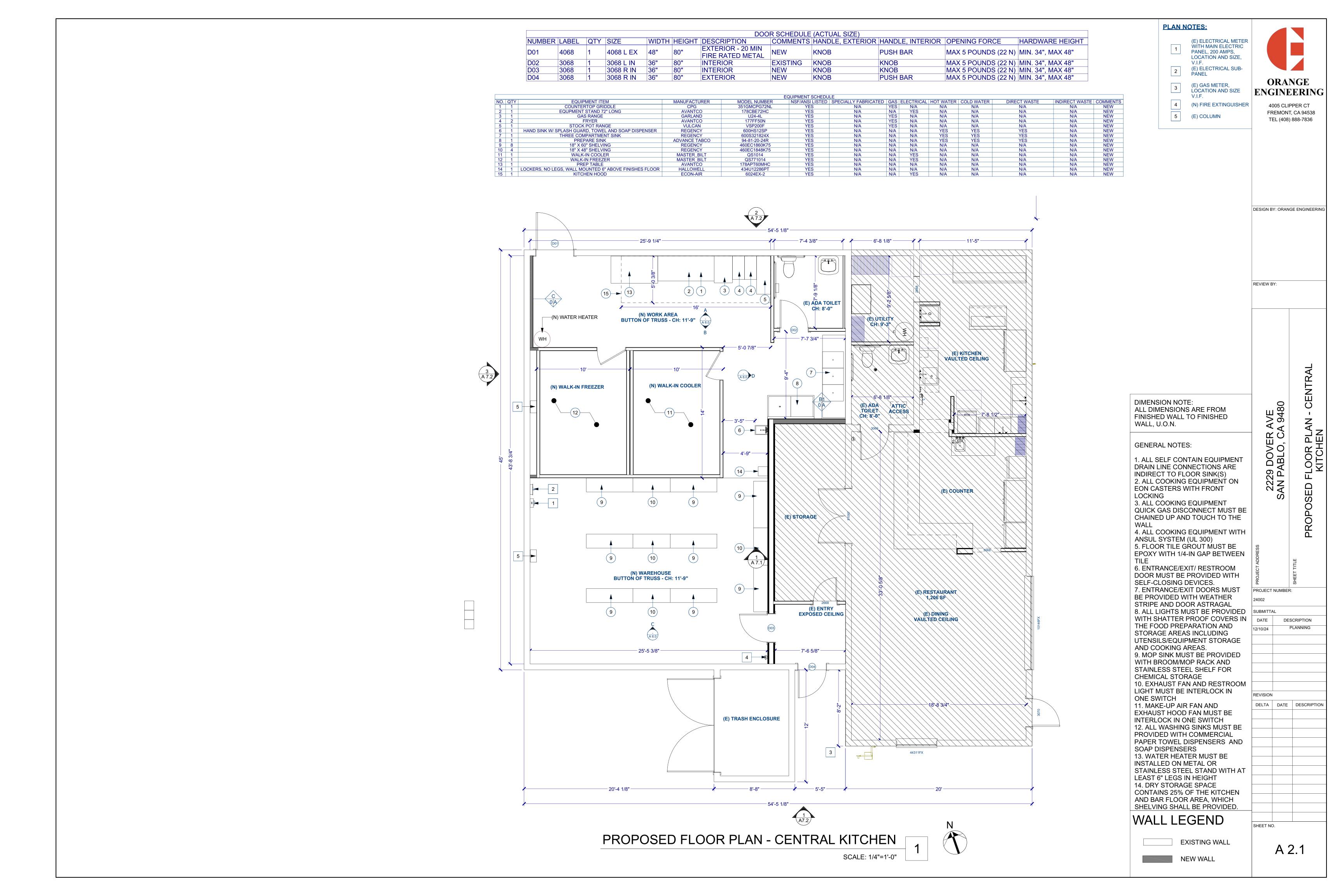
DESCRIPTION

PLANNING





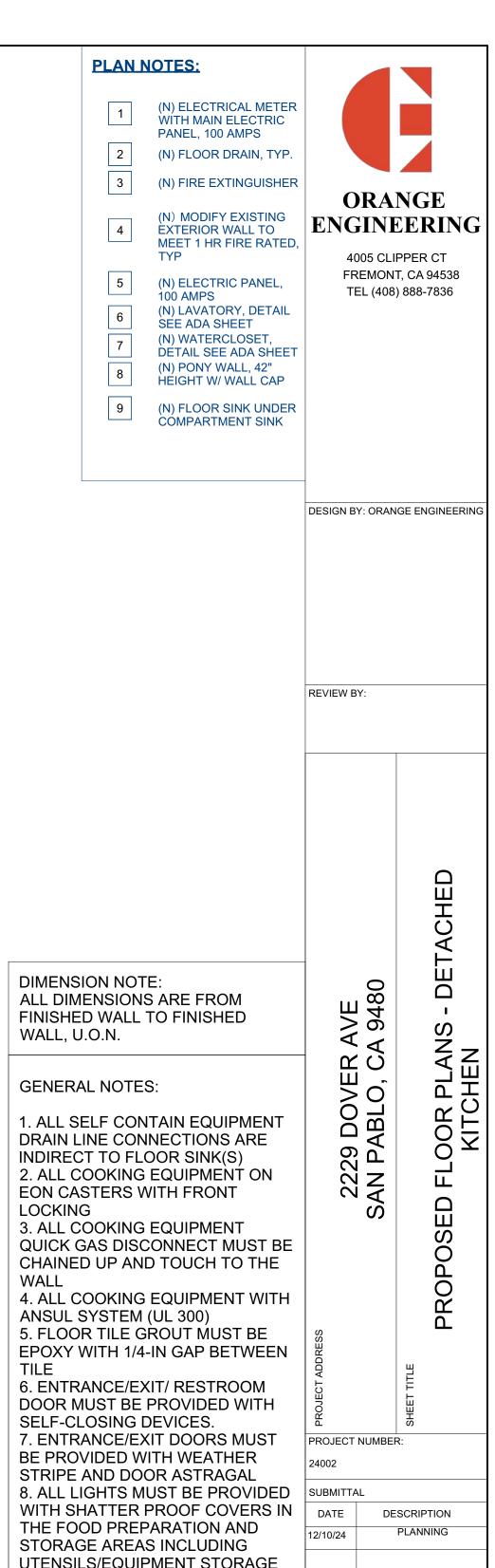


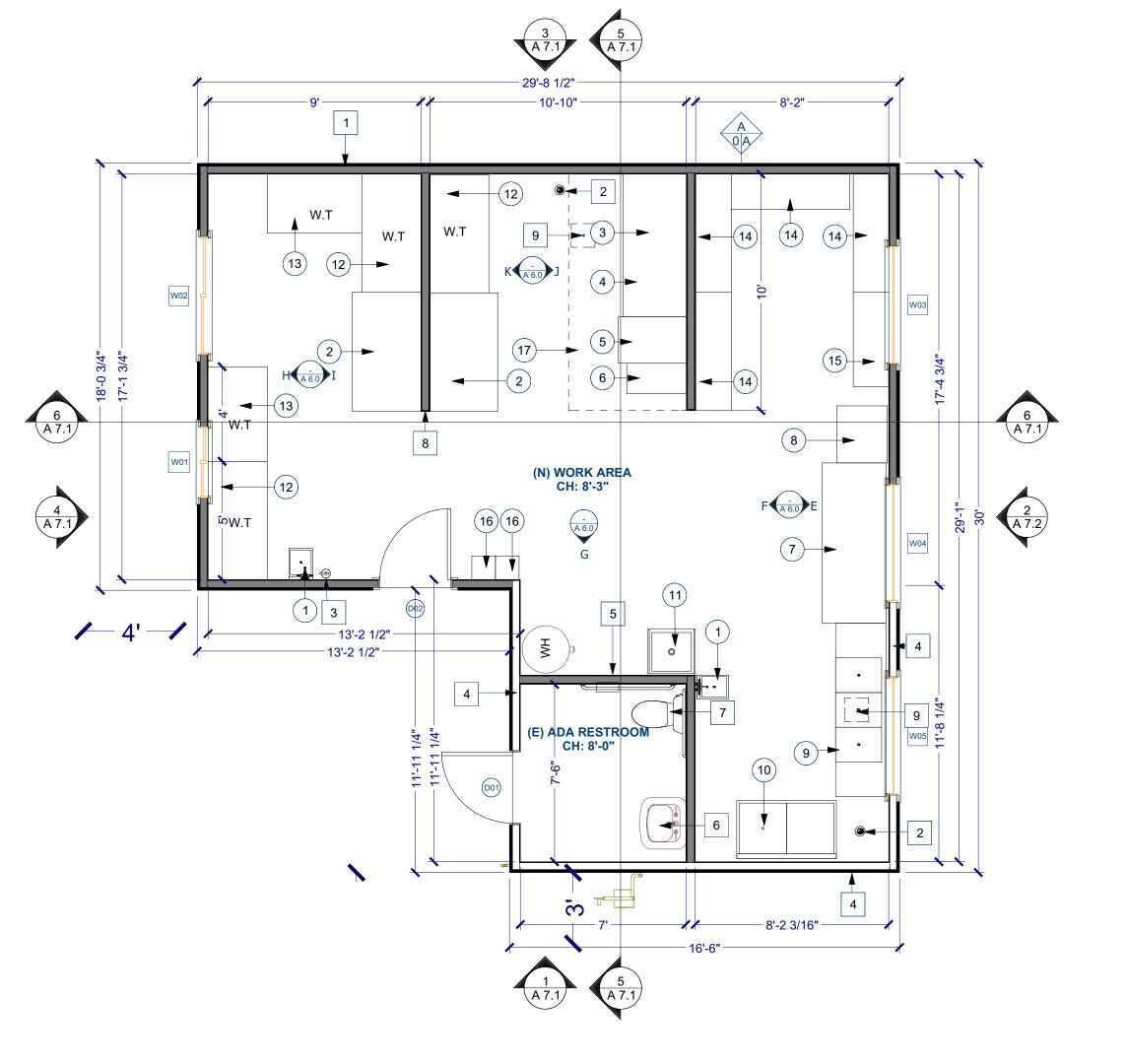


|       |                                                        | ·            |              | <b>EQUIPMENT SCHEDU</b> | LE                   |     |                   |           |            |              |                |         |
|-------|--------------------------------------------------------|--------------|--------------|-------------------------|----------------------|-----|-------------------|-----------|------------|--------------|----------------|---------|
| . QTY | EQUIPMENT ITEM                                         | MANUFACTURER | MODEL NUMBER | NSF/ANSI LISTED         | SPECIALLY FABRICATED | GAS | <b>ELECTRICAL</b> | HOT WATER | COLD WATER | DIRECT WASTE | INDIRECT WASTE | COMMENT |
| 2     | HAND SINK W/ SPLASH GUARD, TOWEL AND SOAP DISPENSER    | REGENCY      | 600HS12SP    | YES                     | N/A                  | N/A | N/A               | YES       | YES        | YES          | N/A            | NEW     |
| 2     | SANDWICH PREP TABLE                                    | AVANTCO      | 178APT60MHC  | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | COUNTERTOP GRIDDLE                                     | CPG          | 351GMCPG72NL | YES                     | N/A                  | YES | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | CHEF BASE                                              | AVANTCO      | 178CBE72HC   | YES                     | N/A                  | N/A | YES               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | GAS RANGE                                              | GARLAND      | U24-4L       | YES                     | N/A                  | YES | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | FRYER                                                  | AVANTCO      | 177FF50N     | YES                     | N/A                  | YES | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | 3 DOOR REFRIGERATOR                                    | AVANTCO      | 178SS3RHC    | YES                     | N/A                  | N/A | YES               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | 1 DOOR FREEZER                                         | AVANTCO      | 178A19FHC    | YES                     | N/A                  | N/A | YES               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | 3 COMPARTMENT SINK                                     | REGENCY      | 600S3162018G | YES                     | N/A                  | N/A | N/A               | YES       | YES        | YES          | N/A            | NEW     |
| 1     | PREPARE SINK                                           | REGENCY      | 60S1242424XL | YES                     | N/A                  | N/A | N/A               | YES       | YES        | YES          | N/A            | NEW     |
| 1     | MOP SINK                                               | REGENCY      | 600SM24246   | YES                     | N/A                  | N/A | N/A               | YES       | YES        | YES          | N/A            | NEW     |
| 3     | 30" X 60" WORKING TABLE                                | REGENCY      | 600T3060G    | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 2     | 30" X 48" WORKING TABLE                                | REGENCY      | 600T3048G    | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 4     | 18" X 60" SHELVING                                     | REGENCY      | 460EC1860K75 | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | 18" X 48" SHELVING                                     | REGENCY      | 460EC1848K75 | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 2     | LOCKERS, NO LEGS, WALL MOUNTED 6" ABOVE FINISHES FLOOR | HALLOWELL    | 434U12286PT  | YES                     | N/A                  | N/A | N/A               | N/A       | N/A        | N/A          | N/A            | NEW     |
| 1     | KITCHEN HOOD                                           | ECON-AIR     | 6024EX-2     | YES                     | N/A                  | N/A | YES               | N/A       | N/A        | N/A          | N/A            | NEW     |

|        | DOOR SCHEDULE (ACTUAL SIZE) |     |           |       |        |                                 |          |                  |                  |                     |                   |
|--------|-----------------------------|-----|-----------|-------|--------|---------------------------------|----------|------------------|------------------|---------------------|-------------------|
| NUMBER | LABEL                       | QTY | SIZE      | WIDTH | HEIGHT | DESCRIPTION                     | COMMENTS | HANDLE, EXTERIOR | HANDLE, INTERIOR | OPENING FORCE       | HARDWARE HEIGHT   |
| D01    | 3064                        | 1   | 3064 R EX | 36"   | /h"    | EXTERIOR 20 MIN FIRE RATED DOOR | NEW      | LEVER            | LEVER            | MAX 5 POUNDS (22 N) | MIN. 34", MAX 48" |
| D02    | 3068                        | 1   | 3068 R EX | 36"   | 80"    | EXTERIOR                        | NEW      | LEVER            | PUSH BAR         | MAX 5 POUNDS (22 N) | MIN. 34", MAX 48" |

|        | NEW WINDOW SCHEDULE (ACTUAL SIZE) |     |        |                  |        |           |              |                     |
|--------|-----------------------------------|-----|--------|------------------|--------|-----------|--------------|---------------------|
|        |                                   |     | NEW W  | <u>/INDOW SC</u> | HEDULE | (ACTUAL S | SIZE)        |                     |
| NUMBER | LABEL                             | QTY | SIZE   | WIDTH            | HEIGHT | BOTTOM    | DESCRIPTION  | <b>EXISTING/NEW</b> |
| W01    | 3036LS                            | 1   | 3036LS | 36"              | 42"    | 39"       | LEFT SLIDING | NEW                 |
| W02    | 5036LS                            | 1   | 5036LS | 60"              | 42"    | 39"       | LEFT SLIDING | NEW                 |
| W03    | 5020FX                            | 1   | 5020FX | 60"              | 24"    | 61"       | FIXED GLASS  | NEW                 |
| W04    | 5020FX                            | 1   | 5020FX | 60"              | 24"    | 61"       | FIXED GLASS  | NEW                 |
| W05    | 5020FX                            | 1   | 5020FX | 60"              | 24"    | 61"       | FIXED GLASS  | NEW                 |

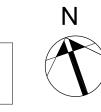




PROPOSED FLOOR PLAN - DETACHED KITCHEN

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

1



| 5. FLOOR TILE GROUT MUST BE        | PROJECT ADDRESS |                | ш.          |
|------------------------------------|-----------------|----------------|-------------|
| EPOXY WITH 1/4-IN GAP BETWEEN TILE | DOR             |                | ш           |
| 6. ENTRANCE/EXIT/ RESTROOM         | Y Y             |                | SHEET TITLE |
| DOOR MUST BE PROVIDED WITH         | ) JEC           |                | H           |
| SELF-CLOSING DEVICES.              | J.R.C           |                | HS.         |
| 7. ENTRANCE/EXIT DOORS MUST        | PROJECT         | NUMBER         |             |
| BE PROVIDED WITH WEATHER           |                 | NOMBER         | •           |
| STRIPE AND DOOR ASTRAGAL           | 24002           |                |             |
| 8. ALL LIGHTS MUST BE PROVIDED     | SUBMITTA        | AL.            |             |
| WITH SHATTER PROOF COVERS IN       | DATE            | DES            | CRIPTION    |
| THE FOOD PREPARATION AND           |                 |                | PLANNING    |
| STORAGE AREAS INCLUDING            | 12/10/24        |                | LAMMO       |
| UTENSILS/EQUIPMENT STORAGE         |                 |                |             |
| AND COOKING AREAS.                 |                 |                |             |
| 9. MOP SINK MUST BE PROVIDED       |                 |                |             |
| WITH BROOM/MOP RACK AND            |                 |                |             |
| STAINLESS STEEL SHELF FOR          |                 |                |             |
| CHEMICAL STORAGE                   |                 |                |             |
| 10. EXHAUST FAN AND RESTROOM       |                 |                |             |
| LIGHT MUST BE INTERLOCK IN         | DEVICION        |                |             |
| ONE SWITCH                         | REVISION        |                |             |
| 11. MAKE-UP AIR FAN AND            | DELTA           | DATE           | DESCRIPTION |
| EXHAUST HOOD FAN MUST BE           |                 |                |             |
| INTERLOCK IN ONE SWITCH            |                 |                |             |
| 12. ALL WASHING SINKS MUST BE      |                 |                |             |
| PROVIDED WITH COMMERCIAL           |                 |                |             |
| PAPER TOWEL DISPENSERS AND         |                 |                |             |
| SOAP DISPENSERS                    |                 |                |             |
| 13. WATER HEATER MUST BE           |                 |                |             |
| INSTALLED ON METAL OR              |                 |                |             |
| STAINLESS STEEL STAND WITH AT      |                 |                |             |
| LEAST 6" LEGS IN HEIGHT            |                 |                |             |
| 14. DRY STORAGE SPACE              |                 |                |             |
| CONTAINS 25% OF THE KITCHEN        |                 |                |             |
| AND BAR FLOOR AREA, WHICH          |                 |                |             |
| SHELVING SHALL BE PROVIDED.        |                 |                |             |
|                                    |                 |                |             |
| WALL LEGEND                        | SHEET NO        | <u> </u>       |             |
|                                    | OHLLING         | J.             |             |
| EVICTING MALL                      |                 |                |             |
| EXISTING WALL                      |                 | ۸ (            | ) 1         |
|                                    |                 | A <sub>2</sub> | <b>4.</b> I |
| NEW WALL                           |                 |                |             |
|                                    |                 |                |             |
|                                    |                 |                |             |
|                                    |                 |                |             |

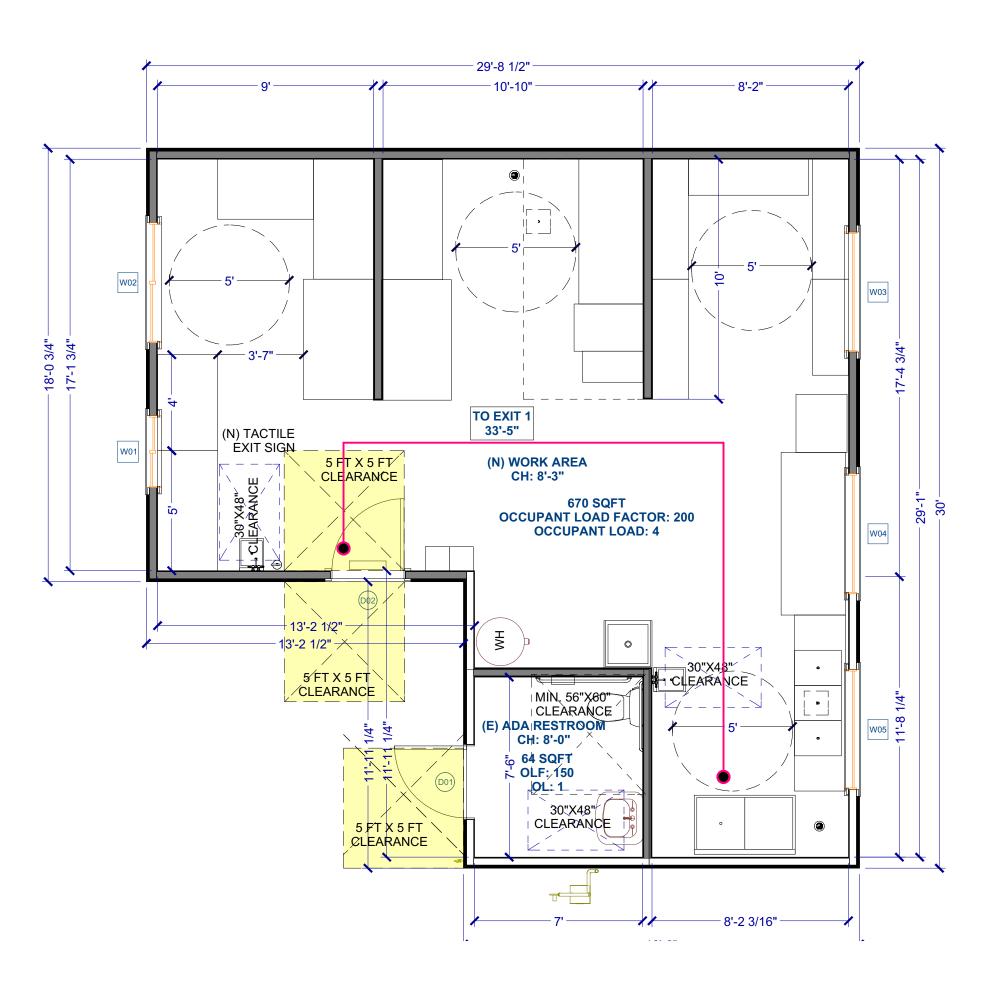
| DETACHED KICHEN OCCUPANT LOAD CALCULATION |           |                      |               |               |  |  |  |  |
|-------------------------------------------|-----------|----------------------|---------------|---------------|--|--|--|--|
| ROOM                                      | AREA (SF) | OCCUPANT LOAD FACTOR | OCCUPANT TYPE | OCCUPANT LOAD |  |  |  |  |
| WORKING AREA                              | 670       | 200                  | В             | 4             |  |  |  |  |
| RESTROOM                                  | 64        | 150                  | В             | 1             |  |  |  |  |
|                                           |           |                      |               | TOTAL 5       |  |  |  |  |

Number of required exits: 1
Number of provided exits: 1

Number of occupants using exit 1: 5

Provided min. egress width: 36"

Required common path of travel: 100'
Required exit acess travel distance (with sprinkler): 300'
Provided path of travel from furthest point to exit 1: 33'5"

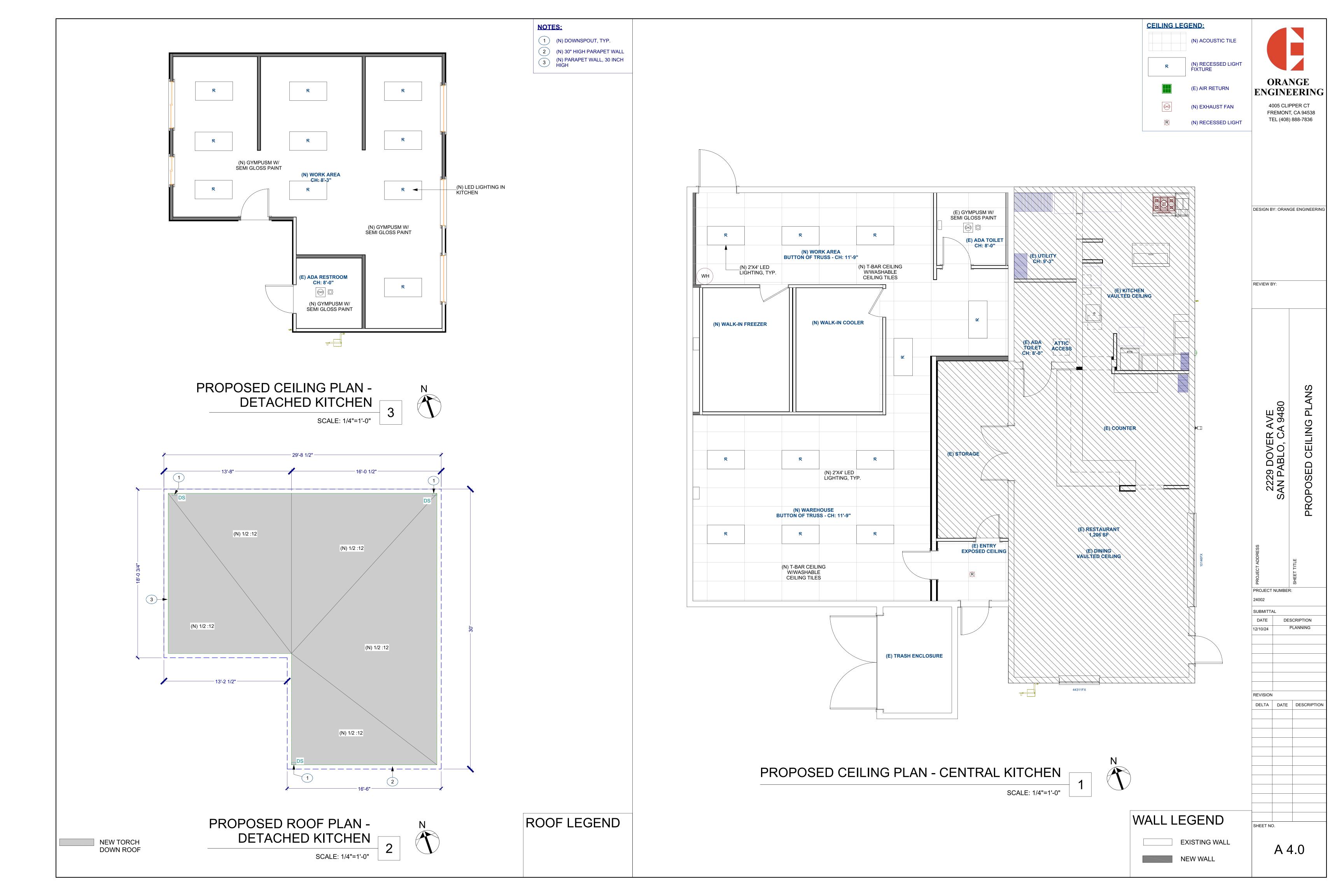


PROPOSED PATH OF EGRESS - DETACHED KITCHEN

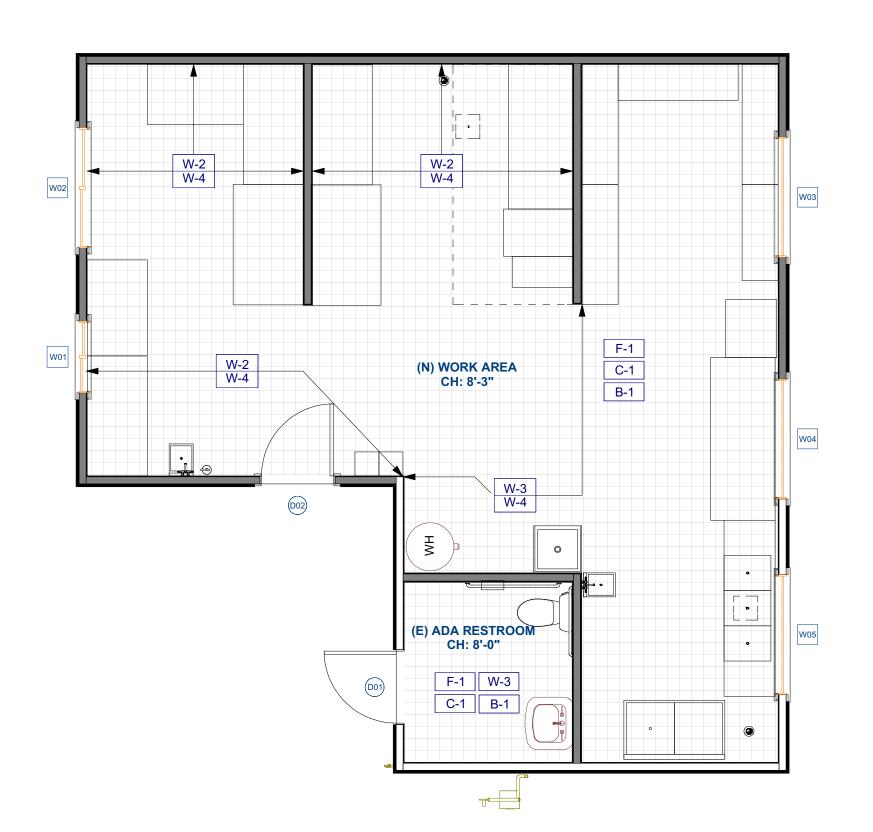
SCALE: 1/4"=1'-0"



| ROOM                                       | AREA (SF) OCCUPANT                          |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CUPANT LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NOTES                                          |                         |          |
|--------------------------------------------|---------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------|----------|
| WORKING AREA                               | 729                                         | 200                                                              | В                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (N) ILLUMINATED EXIT SIGN WITH EMERGENCY LIGHT |                         |          |
| STORAGE<br>WALK-IN FREEZE                  |                                             | 300<br>300                                                       | B<br>B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                                              |                         |          |
| WALK-IN COOLE                              | 22 92 HARDESON                              | 300                                                              | В                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                                              |                         |          |
| RESTROOM                                   |                                             | 150                                                              | В                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ]                                              | ORAN                    | NGE      |
|                                            |                                             |                                                                  | ТОТА                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | L 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                | ENGINE                  |          |
|                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LEGEND                                         | 4005 CLIPI              | PER CT   |
|                                            |                                             | Number of                                                        | of required exits:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                | FREMONT,<br>TEL (408) 8 |          |
|                                            |                                             | Number o                                                         | f provided exits:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ACCESSIBLE LANDING                             |                         |          |
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|                                            |                                             | ed Separation of exit (w/o sp<br>s distance is more than 1/2     | 1.94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | f the space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                |                         |          |
| 5 FT X 5 FT<br>CLEARANCE                   | OCCUPANT LOAD<br>OCCUP                      | 70 SQFT<br>FACTOR: 150<br>PANT LOAD: 1                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
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| 5 FT X 5 FT (N) TACTILE                    |                                             | 18/18                                                            | CLEARAN(                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
| CLEARANCE EXIT SIGN                        |                                             | (E) ADA 1                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
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| BUTTON OF                                  | TRUSS - CH: 11'-9"                          | CLEARANCE                                                        | (E) UTILITY<br>CH: 9'-3'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
| OCCUPANT                                   | 45 SQFT<br>LOAD FACTOR: 200                 |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A MANAGER AND A |                                                |                         |          |
| Occur                                      | PANT LOAD: 4                                |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
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| (AD MALE IN EDEETED                        | N) WALK-IN COOLER                           | ∠ <del>-</del>                                                   | ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                | AVE<br>\ 94             | Ċ.       |
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| (N) WAR                                    | EHOUSE                                      |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                | SUBMITTAL               |          |
| BUTTON OF TR                               | JSS - CH: 11'-9"                            |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                | DATE DESC               | CRIPTION |
|                                            |                                             |                                                                  | 33,1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | (E) RESTAUR<br>1,206 SF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CANT                                           | 12/10/24 PI             | LANNING  |
|                                            | POET                                        | (E) EN                                                           | IRY TO THE TOTAL PROPERTY OF THE TOTAL PROPE |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
| 547 S<br>OCCUPANT LOA                      | AD FACTOR: 200                              | EXPOSED (                                                        | CEILING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (E) DINING<br>VAULTED CEI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | GILING X                                       |                         |          |
| OCCUPAN                                    | I LUAD: 3                                   | 1 CLEARA                                                         | NCE \ \ \ \ \ \ \                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ////////////                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4100 A                                         |                         |          |
| TO EXIT 1                                  |                                             |                                                                  | (N) ILLUMINA<br>SIGN(CEILIN)<br>MOUNTED)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | $\mathcal{G}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                |                         |          |
| 83'                                        | ' ∕CLEAF                                    | (5 FT X 5 FT6 1) ANCE CLEARANCE                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                | REVISION                |          |
|                                            | <u> </u>                                    |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                | DELTA DATE              | DESCR    |
|                                            | (N) TAC                                     | TILE (N) TACT                                                    | ILE CONTRACTOR OF THE PROPERTY |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
|                                            | ÉXIT                                        | SIGN EXIT S                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         |          |
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|                                            |                                             | 5 FT X                                                           | NCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -48 8 3/2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                         |          |
|                                            | (E) TRAS                                    | SH ENCLOSURE 2                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                |                         | _        |
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| 20'-4 1/8"                                 | <b>———</b>                                  |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>———</b>                                     | SHEET NO.               |          |
| DDUDUCEL                                   | PATH OF EGF                                 | PESS - CENTE                                                     | λη κιτομε                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N                                              | ^ ^                     | $\sim$   |
| FNOFUSEL                                   | , I A I I OF EGR                            | COO - OLIVIP                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _ I N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                | A 3                     | U.       |
|                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1/                                             |                         |          |

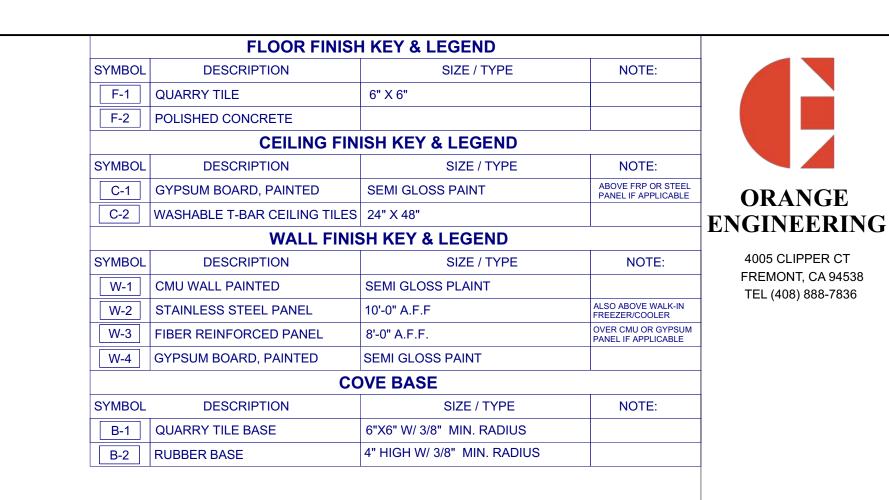


| FLOOR FINISH                 | KEY & LEGEND                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| DESCRIPTION                  | SIZE / TYPE                                                                                                                                                                                                                                                                    | NOTE:                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |
| QUARRY TILE                  | 6" X 6"                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| POLISHED CONCRETE            |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| CEILING FIN                  | ISH KEY & LEGEND                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| DESCRIPTION                  | SIZE / TYPE                                                                                                                                                                                                                                                                    | NOTE:                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |
| GYPSUM BOARD, PAINTED        | SEMI GLOSS PAINT                                                                                                                                                                                                                                                               | ABOVE FRP OR STEEL<br>PANEL IF APPLICABLE                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| WASHABLE T-BAR CEILING TILES | 24" X 48"                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| WALL FINIS                   | SH KEY & LEGEND                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| DESCRIPTION                  | DESCRIPTION SIZE / TYPE                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| CMU WALL PAINTED             | SEMI GLOSS PLAINT                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| STAINLESS STEEL PANEL        | 10'-0" A.F.F                                                                                                                                                                                                                                                                   | ALSO ABOVE WALK-IN<br>FREEZER/COOLER                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |
| FIBER REINFORCED PANEL       | 8'-0" A.F.F.                                                                                                                                                                                                                                                                   | OVER CMU OR GYPSUM<br>PANEL IF APPLICABLE                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| GYPSUM BOARD, PAINTED        | SEMI GLOSS PAINT                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| CC                           | OVE BASE                                                                                                                                                                                                                                                                       | -                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
| DESCRIPTION                  | SIZE / TYPE                                                                                                                                                                                                                                                                    | NOTE:                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |
| QUARRY TILE BASE             | 6"X6" W/ 3/8" MIN. RADIUS                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| RUBBER BASE                  | 4" HIGH W/ 3/8" MIN. RADIUS                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
|                              | DESCRIPTION  QUARRY TILE  POLISHED CONCRETE  CEILING FIN  DESCRIPTION  GYPSUM BOARD, PAINTED  WASHABLE T-BAR CEILING TILES  WALL FINIS  DESCRIPTION  CMU WALL PAINTED  STAINLESS STEEL PANEL  FIBER REINFORCED PANEL  GYPSUM BOARD, PAINTED  CC  DESCRIPTION  QUARRY TILE BASE | QUARRY TILE  POLISHED CONCRETE  CEILING FINISH KEY & LEGEND  DESCRIPTION  SIZE / TYPE  GYPSUM BOARD, PAINTED  WASHABLE T-BAR CEILING TILES  WALL FINISH KEY & LEGEND  DESCRIPTION  DESCRIPTION  SIZE / TYPE  CMU WALL PAINTED  SEMI GLOSS PLAINT  STAINLESS STEEL PANEL  10'-0" A.F.F  FIBER REINFORCED PANEL  B'-0" A.F.F.  GYPSUM BOARD, PAINTED  COVE BASE  DESCRIPTION  SIZE / TYPE  QUARRY TILE BASE  6"X6" W/ 3/8" MIN. RADIUS |  |  |  |



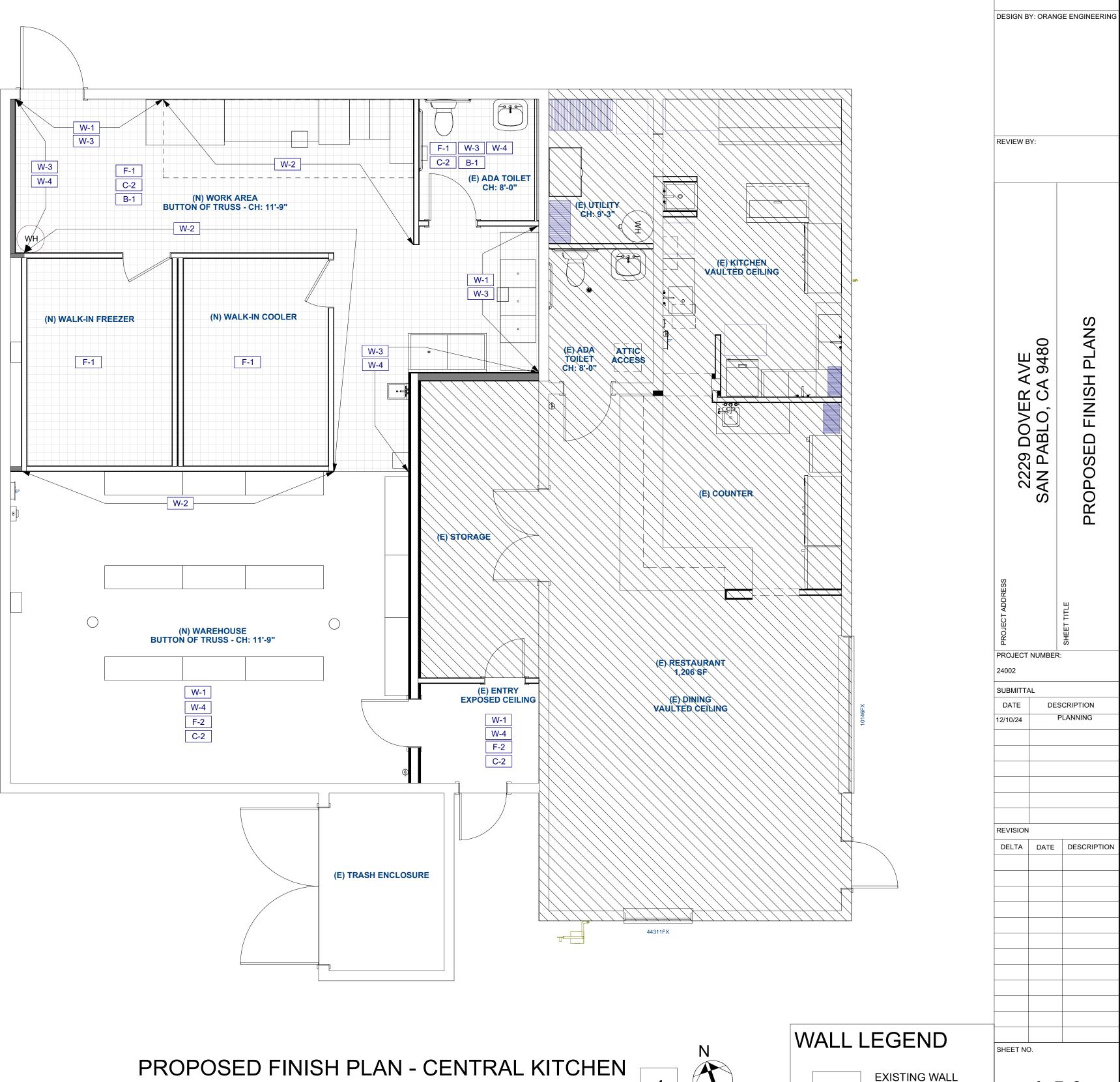
PROPOSED FINISH PLAN - DETACHED KITCHEN

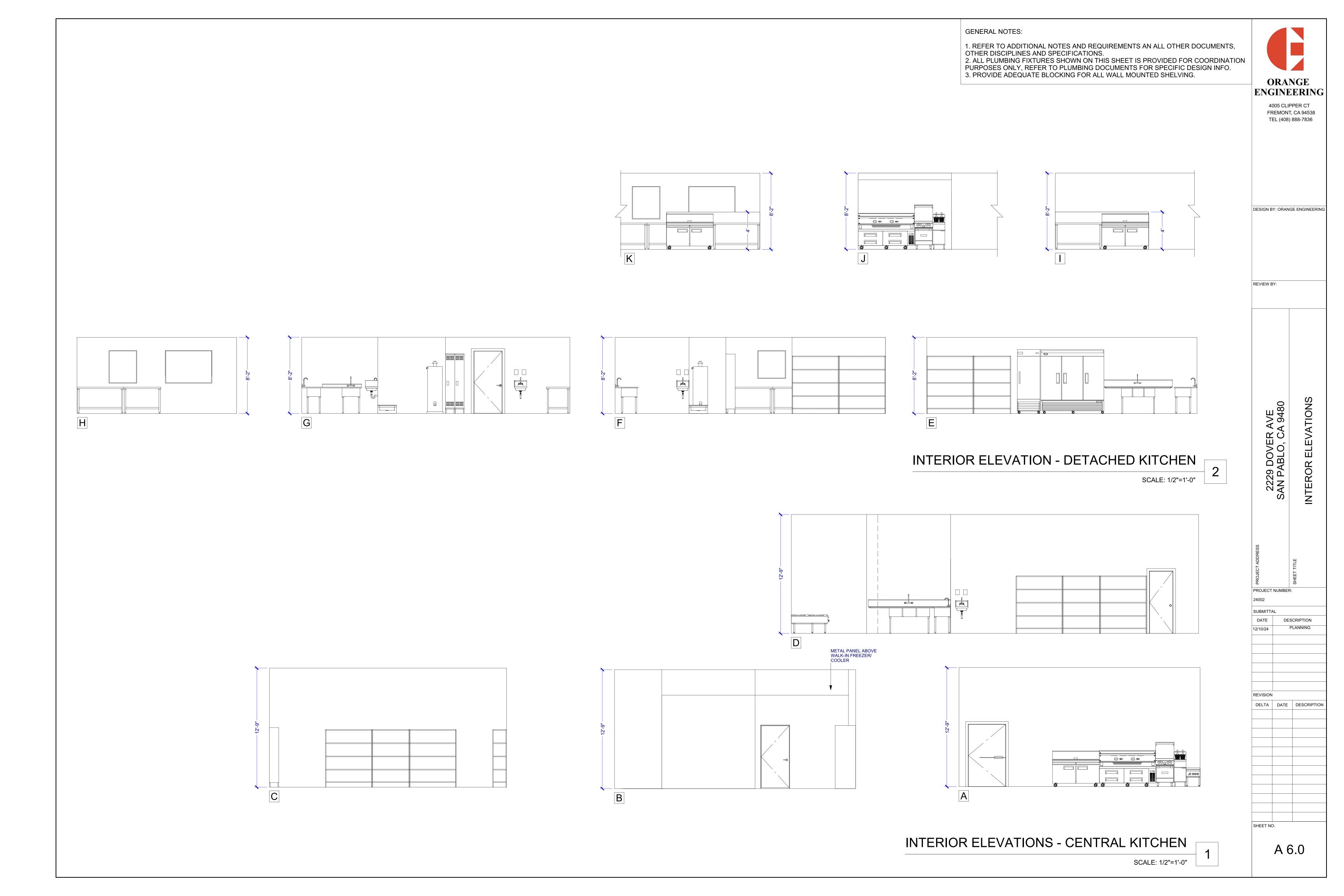


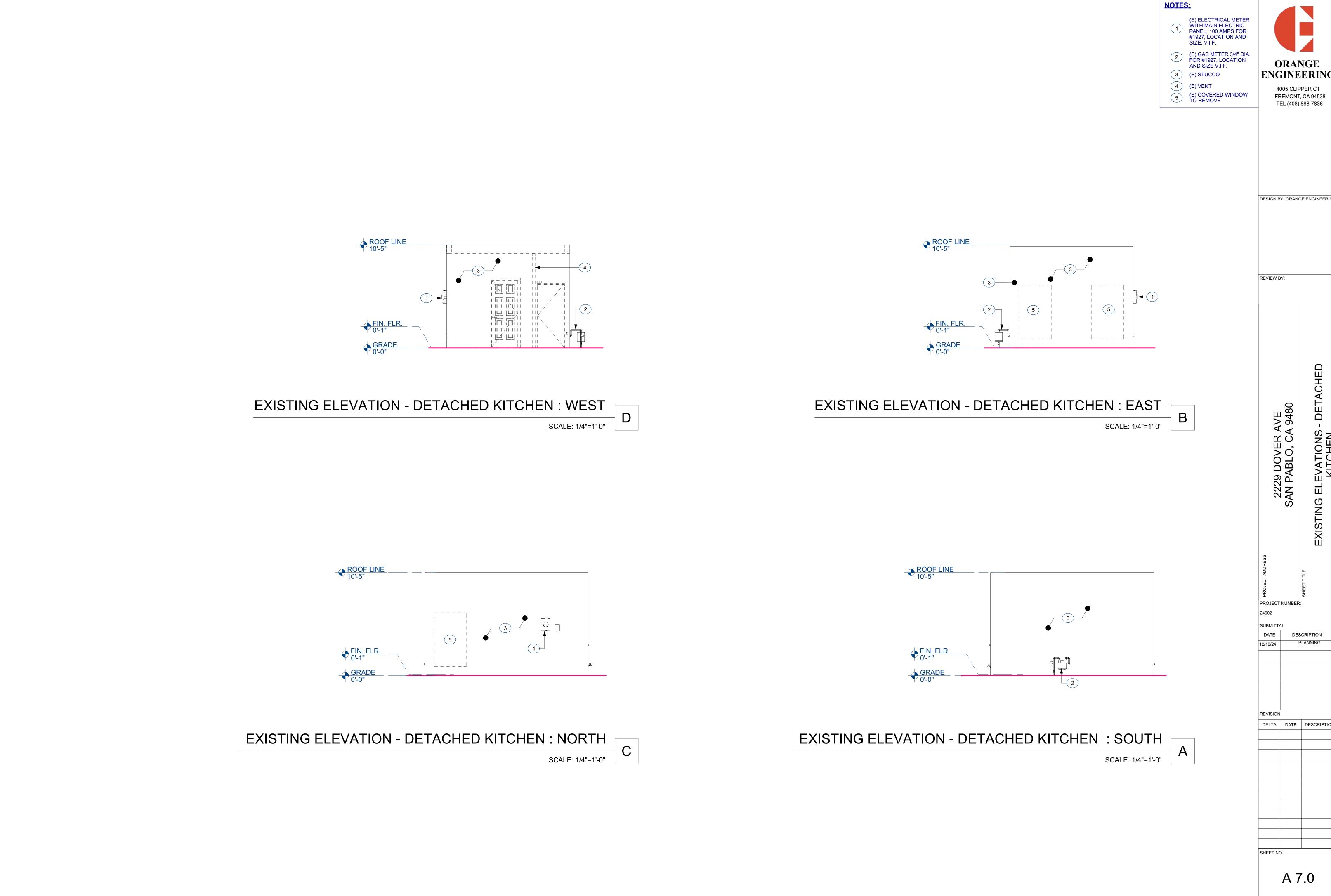


**EXISTING WALL** 

A 5.0

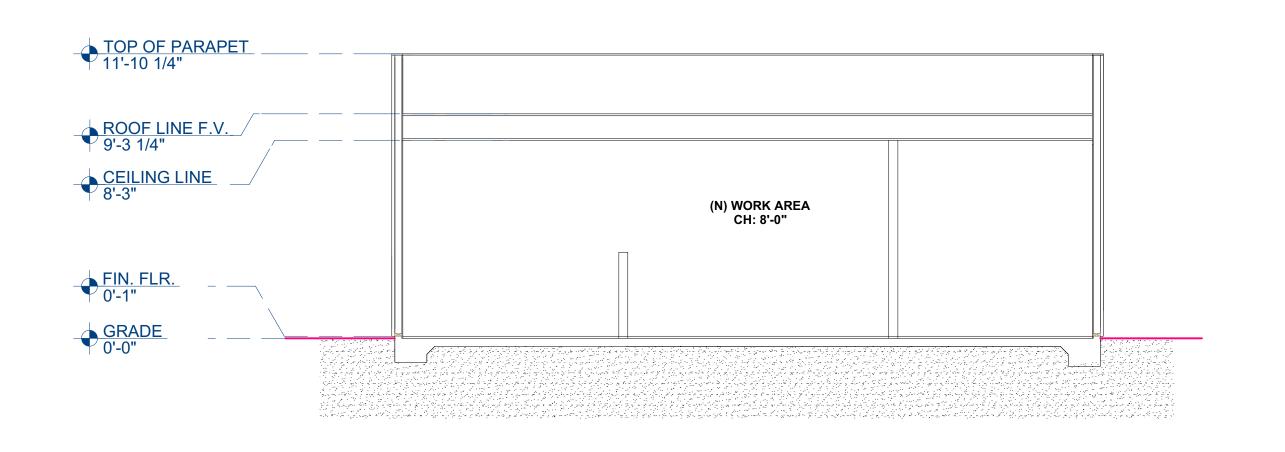






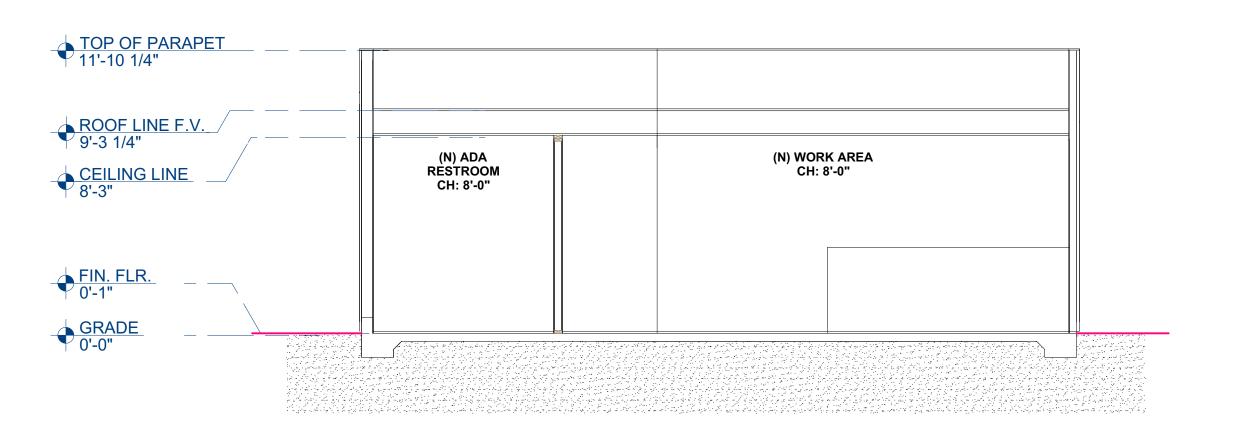
**ENGINEERING** 

DESIGN BY: ORANGE ENGINEERING



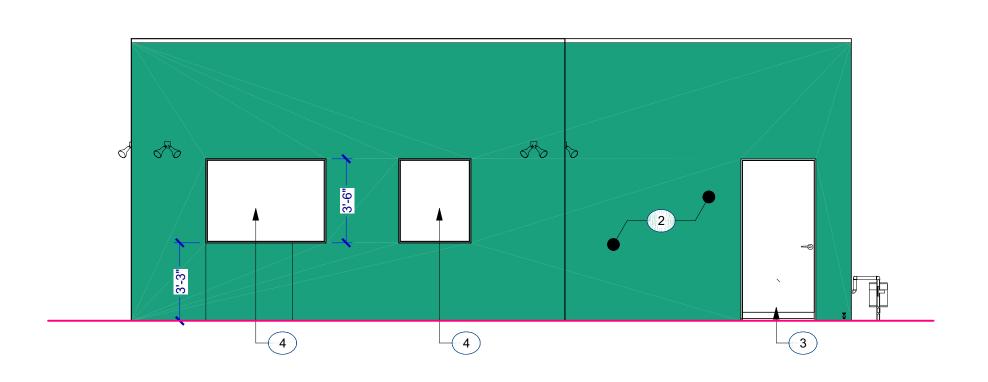
PROPOSED SECTION - KITCHEN : TRANSVERSE

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



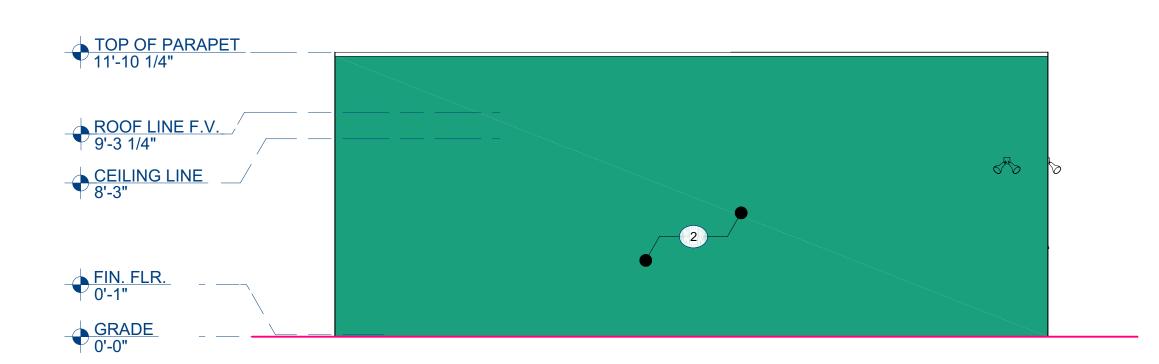
PROPOSED SECTION - KITCHEN : LONGITUDINAL

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



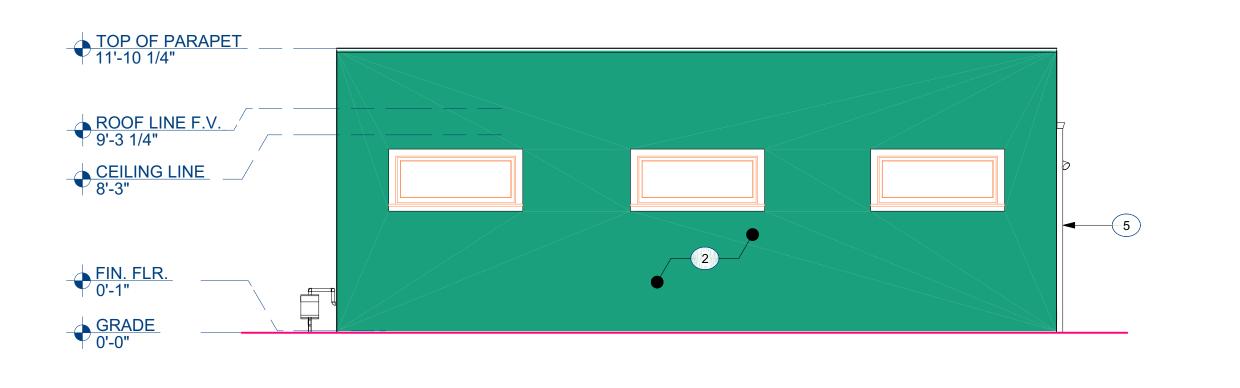
PROPOSED ELEVATION - DETACHED KITCHEN : WEST

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



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

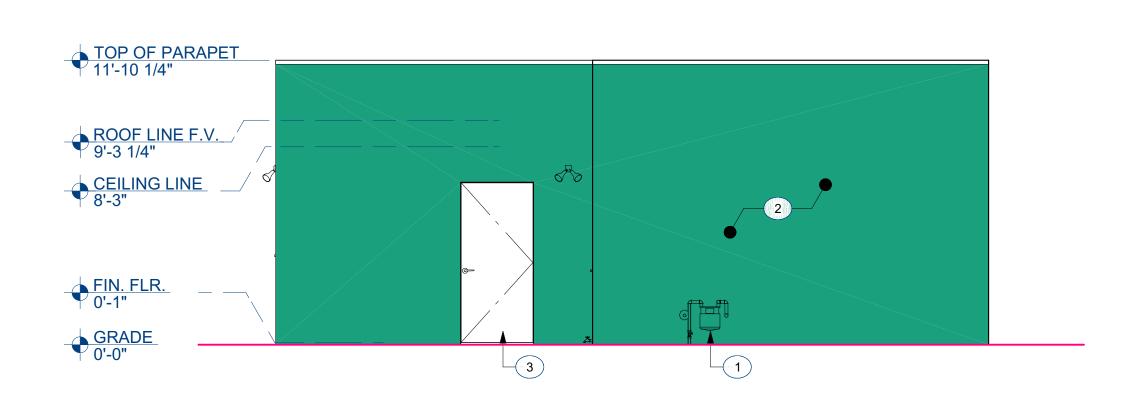
PROPOSED ELEVATION - DETACHED KITCHEN : NORTH



PROPOSED ELEVATION - DETACHED KITCHEN : EAST

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

3



PROPOSED ELEVATION - DETACHED KITCHEN : SOUTH

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

ORANGE ENGINEERING

4005 CLIPPER CT FREMONT, CA 94538 TEL (408) 888-7836

REVIEW BY:

(E) GAS METER 3/4" DIA.
FOR #1927, LOCATION
AND SIZE V.I.F.
(N) 3 COAT STUCCO
SYSTEM 7/8" MINIMUM
THICKNESS 2X LAYER
OF GRADE D PAPER,
COLOR MATCH WITH
LOGO BACKGROUND
GREEN

(N) DOOR

3 (N) DOOR
4 (N) WINDOW OPENING
(N) DOWNSPOUT TO
CONNECT TO STORM
DRAIN, TYP.

PROPOSED ELEVATIONS & SECTIONS

PROPOSED ELEVATIONS & SECTIONS

DETACHED KITCHEN

24002

SUBMITTAL

DATE DESCRIPTION

12/10/24 PLANNING

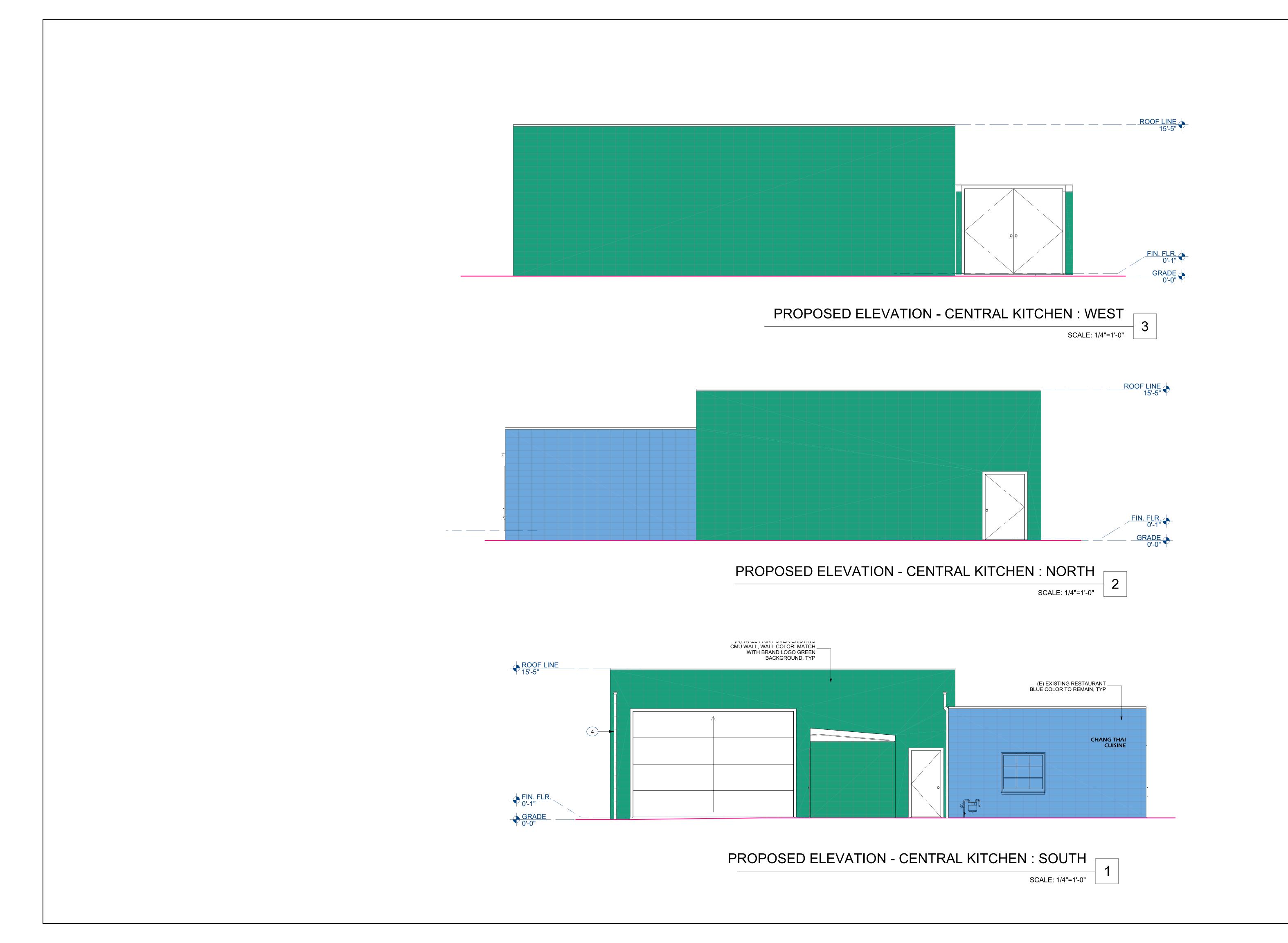
REVISION

DELTA DATE DESCRIPTION

ELTA DATE DESCRIPTION

SHEET NO.

A 7.1



ORANGE ENGINEERING 4005 CLIPPER CT FREMONT, CA 94538 TEL (408) 888-7836

DESIGN BY: ORANGE ENGINEERING

PROPOSED ELEVATIONS & SECTIONS CENTRAL KITCHEN 2229 DOVER AVE SAN PABLO, CA 9480

PROJECT NUMBER: SUBMITTAL

DESCRIPTION PLANNING 12/10/24

A 7.2



ORANGE ENGINEERING 4005 CLIPPER CT FREMONT, CA 94538 TEL (408) 888-7836

DESIGN BY: ORANGE ENGINEERING

REVIEW BY:

AVE A 9480

2229 DOVER AVE SAN PABLO, CA 9480

TITLE

PROJECT NUMBER:

Z
MITTAL
TE DESCRIPTION
//24 PLANNING

REVISION

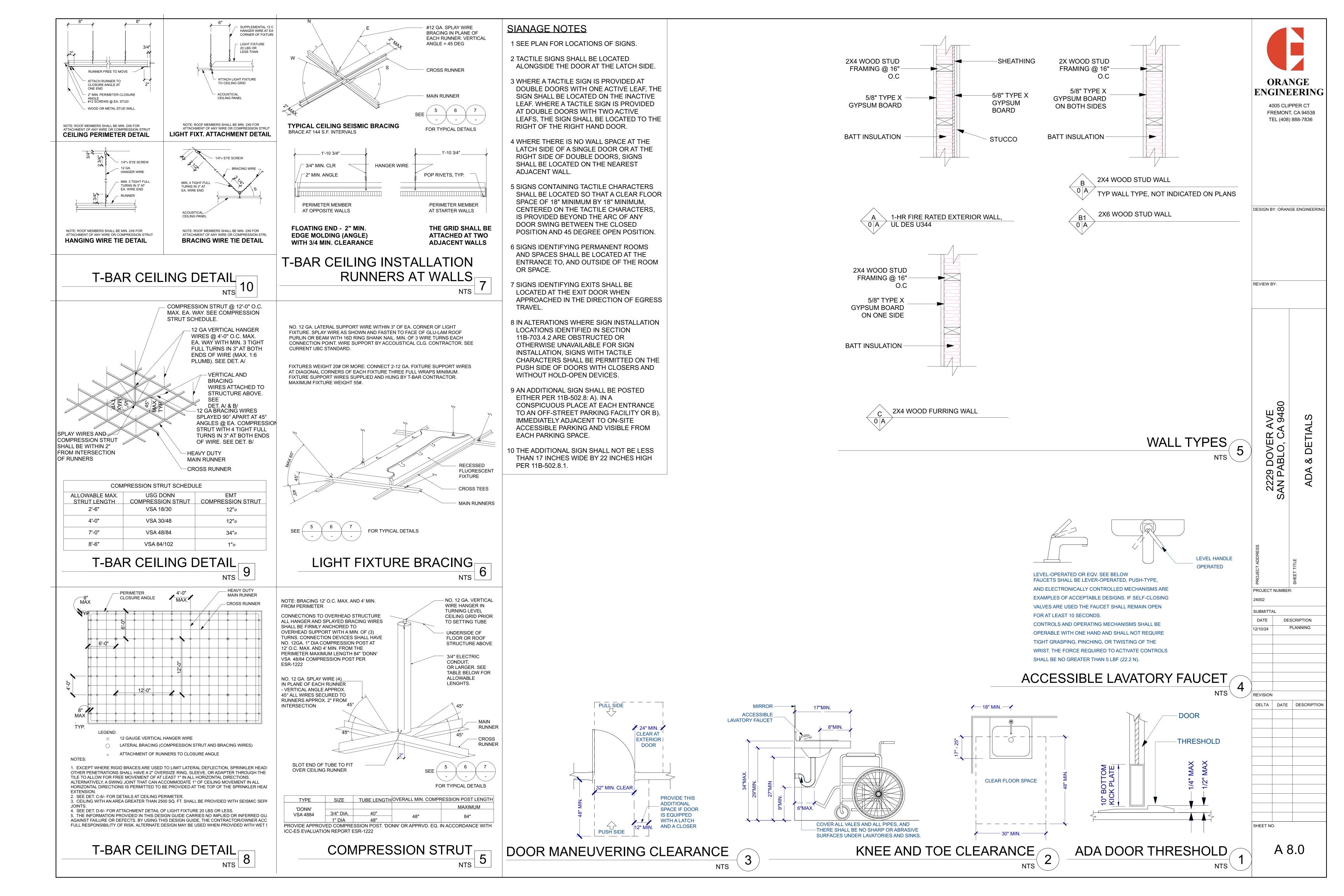
DELTA DATE DESCRIPTION

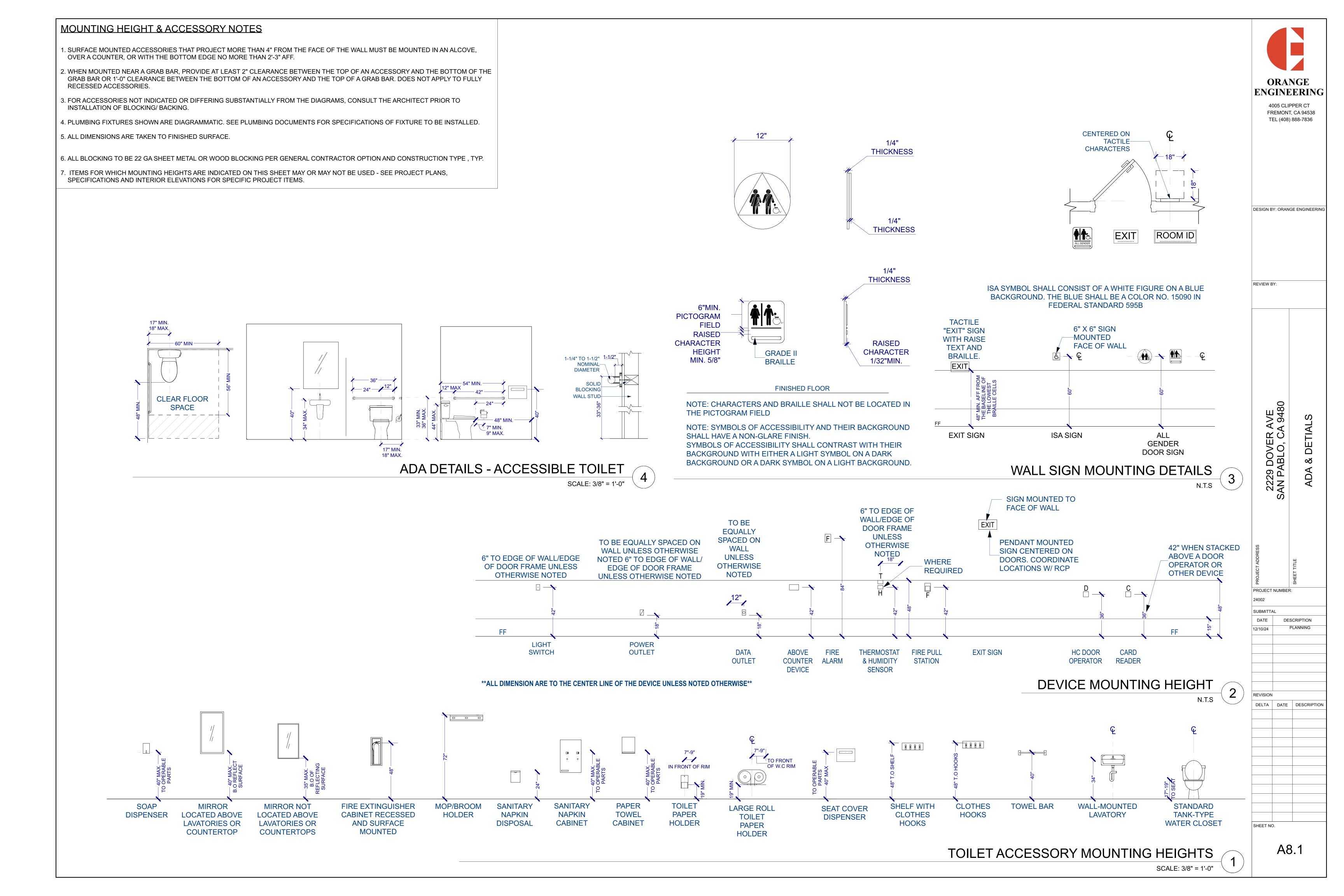
DELTA DATE DESCRIPTIO

SHEET NO.

SCALE: 1/2"=1'-0"

A 7.3





### Clean Bay Blue Print

Make sure your crews and subs do the job right!

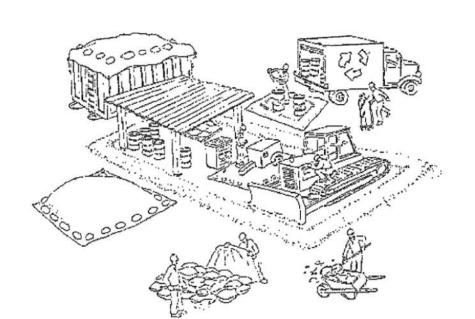
Runoff from streets and other paved areas is a major source of pollution and damage to creeks and the San

and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local

creeks. Following these guidelines and the project specifications will ensure your compliance with City of

Francisco Bay. Construction activities can directly affect the health of creeks and the Bay unless contractors





### Materials storage & spill cleanup

### Non-hazardous materials management

✓ Sand, dirt, and similar materials must be stored at least 10 feet (3 meters) from catch basins. All construction material must be covered with a tarp and contained with a perimeter control during wet weather or when rain is forecasted or when not actively being used within 14 days.

- ✓ Use (but don't overuse) reclaimed water for dust control as needed.
- Sweep or vacuum streets and other paved areas daily. Do not wash down streets or work areas with water!
- Recycle all asphalt, concrete, and aggregate base material from demolition activities Comply with **City of San Pablo** Ordinances for recycling construction materials, wood, gyp board, pipe, etc.
- ✓ Check dumpsters regularly for leaks and to make sure they are not overfilled. Repair or replace leaking dumpsters promptly.
- Cover all dumpsters with a tarp at the end of every work day or during wet weather.

### Hazardous materials management

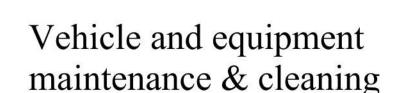
- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state, and federal regulations.
- ✓ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecasted.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecasted within 24 hours.
- ✓ Be sure to arrange for appropriate disposal of all hazardous wastes.

### Spill prevention and control

- ▶ Keep a stockpile of spill cleanup materials (rags, absorbents, etc. ) available at the construction site at all times.
- When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- Dispose of all containment and cleanup materials properly.
- Report any hazardous materials spills immediately! Dial 911

### Construction Entrances and Perimeter

- ✓ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ➤ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking.



**San Pablo** requirements.

Inspect vehicles and equipment for leaks

frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.

- Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✓ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets,
- ✓ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.

storm drains, or creeks.



### Earthwork & contaminated soils

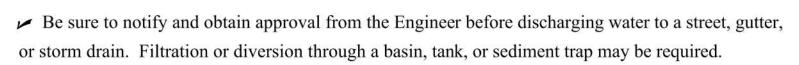
- ✓ Keep excavated soil on the site where it will not collect in the street.
- ✓ Transfer to dump trucks should take place on the site, not in the street.
- ✓ Use fiber rolls, silt fences, or other control measures to minimize the flow of silt off the site.



- ✓ Earth moving activities are only allowed during dry weather by permit and as approved by the City Inspector in the Field.
- ✓ Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- ✓ If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fastgrowing grasses as soon as possible. Place fiber rolls down-slope until soil is secure.
- ✓ If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call the Engineer for help in determining what should be done, and manage disposal of cntaminated soil according to their instructions.

### Dewatering operations

- ✓ Effectively manage all run-on, all runoff within the site, and all runoff that discharges from the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance.
- ✓ Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.



✓ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the Engineer to determine what testing is required and how to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

### Saw cutting

✓ Always completely cover or barricade storm drain inlets when saw cutting. Use

filter fabric, catch basin inlet filters, or sand/gravel bags to keep slurry out of the storm drain system.

- ✓ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!)
- ✓ If saw cut slurry enters a catch basin, clean it up immediately.

### Paving/asphalt work



- ✓ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ▶ Protect gutters, ditches, and drainage courses with sand/gravel bags, or earthen berms.
- ✓ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- ✓ Do not use water to wash down fresh asphalt concrete pavement.

### Concrete, grout, and mortar storage & waste disposal

- ✓ Store concrete, grout, and mortar under cover, on pallets, and away from drainage areas. These materials must never reach a storm drain.
- ✓ Wash out concrete equipment/trucks off-site or into contained washout areas that will not allow discharge of wash water onto the underlying soil or onto the surrounding areas.



Collect the wash water from washing exposed aggregate concrete and remove it for appropriate disposal off site.

### Painting

hazardous waste.

- ✓ Never rinse paint brushes or materials in a gutter or street! Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink.
- ▶ Paint out excess oil-based paint before cleaning brushes in thinner. Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as

### Landscape Materials

- Contain, cover, and store on pallets all stockpiled landscape materials (mulch, compost, fertilizers, etc.) during wet weather or when rain is forecasted or when not actively being used within 14 days.
- ✓ Discontinue the application of any erodible landscape material within 2 days of forecasted rain and during wet weather.

For references and more detailed information: www.cleanwaterprogram.org www.cabmphandbooks.com

TEL (408) 888-7836 DESIGN BY: ORANGE ENGINEERING REVIEW BY: 2229 SAN PA PROJECT NUMBER: SUBMITTAL DESCRIPTION PLANNING DELTA DATE DESCRIPTION

C 1.0

Storm drain polluters may be liable for fines of \$10,000 or more per day!

BEFORE STARTING WORK. NOTIFY THE ENGINEER IMMEDIATELY OF ANY 2. NAILS: COMMON WIRE UNLESS OTHERWISE NOTED. EDGE SEE NAILING DISCREPANCIES.

- 2. CONFLICTS: NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS IN CASE OF CONFLICT.
- 3. SUBSTITUTIONS: PROVIDE MANUFACTURER'S APPROVED PRODUCT EVALUATION REPORTS ICC REPORTS AND A LIST OF ALL PROPOSED SUBSTITUTIONS TO THE ENGINEER FOR REVIEW AND WRITTEN APPROVAL BEFORE FABRICATION.
- 4. SIMILAR WORK: WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN ON THE DRAWINGS
- 5. PIPES, DUCTS, SLEEVES, CHASES, ETC.: SHALL NOT BE PLACED IN SLABS, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY SHOWN. OBTAIN PRIOR WRITTEN APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.
- 6. EXCAVATIONS: LOCATE AND PROTECT UNDERGROUND OR CONCEALED CONDUIT, PLUMBING OR OTHER UTILITIES WHERE NEW WORK IS BEING PERFORMED.
- 7. CONSTRUCTION LOADS: MATERIALS SHALL BE EVENLY DISTRIBUTED IF PLACED ON FRAMED FLOORS OR ROOFS. LOADS SHALL NOT EXCEED THE ALLOWABLE LOADING FOR THE SUPPORTING MEMBERS AND THEIR
- 8. CONSTRUCTION METHODS AND PROJECT SAFETY: THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. NEITHER THE OWNER NOR ARCHITECT/ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALI SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY
- 9. CHANGES TO THE DRAWINGS: OBTAIN PRIOR WRITTEN APPROVAL

### REINFORCED CONCRETE MATERIALS:

...ASTM C-150 TYPE II AGGREGATE.....ASTM C-33 STANDARD WEIGHT REINFORCEMENT......ASTM A-615 GRADE 60 TYPICAL ANCHOR BOLTS......ASTM A-307 HOOKED ANCHOR BOLTS ANCHOR BOLTS......ASTM A-307 HEADED MACHINE BOLTS

AND HEALTH STANDARDS, LAWS AND REGULATIONS.

2. CONCRETE STRENGTHS: THE CONCRETE STRENGTHS SHOWN IN THE FOLLOWING TABLE ARE THE MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS; AND THE AGGREGATE (AGG) SHOWN IS THE MAXIMUM SIZE. CONCRETE SHALL BE STANDARD WEIGHT CONCRETE (145 PCF).

| ITEM OF                | STRENGTH         | AGG     | SLUMP              |
|------------------------|------------------|---------|--------------------|
| CONSTRUCTION           | (PSI)            | (IN)    | (IN)               |
| FOUNDATIONS            | 2,500            | 1 1/2   | 4                  |
| POUR IN PLACE WALL     | 2,500            | 1 1/2   | 4                  |
| SLABS-ON-GRADE         | 2,500            | 1       | 4                  |
| (DESIGN STRENGTH BASEI | O ON 2,500 PSI N | NO SPEC | CIAL INSPECTION IS |

- A) THE WEIGHT PERCENTAGE OF SULFATE STRENGTH(PSI)
- > 2.0 B) SHOTCRETE CONCRETE STRENGTH = 4000 PSI MIN.
- 3. REINFORCEMENT:

PROVIDED)

- A) DETAILING, FABRICATION AND PLACING: SHALL CONFORM TO AND ACI 318. B) MINIMUM CONCRETE COVER:
- CAST AGAINST & EXPOSED TO EARTH ... EXPOSED TO EARTH OR WEATHER. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
- SLABS, WALLS, JOISTS. BEAMS, COLUMNS (TIES, STIRRUPS, SPIRALS)......1-1/2" C) CHAIRS, SPACERS AND SAND PLATES: AS REQUIRED TO MAINTAIN CONCRETE COVER.
- D) VERTICAL REINFORCEMENT: SHALL BE DOWELED TO SUPPORTING MEMBERS WITH THE SAME SIZE AND SPACING OF REINFORCEMENT AS SHOWN IN THE DRAWINGS AND GENERAL NOTES.
- E) SPACING: CLEAR DISTANCE BETWEEN PARALLEL REINFORCEMENT IN A LAYER SHALL NOT BE LESS THAN 1-1/2 TIMES THE NOMINAL DIAMETER OF THE REINFORCEMENT, OR 1-1/3 TIMES MAXIMUM SIZE AGGREGATE, NOR
- LESS THAN 1-1/2". F) TACK WELDING, WELDING, HEATING OR CUTTING OF BARS: NOT PERMITTED U.O.N.
- G) SLAB CORNERS: PROVIDE 2-#4 X 4'-0" AT RE-ENTRANT CORNERS AND
- EACH CORNER OF RECTANGULAR HOLES IN SLABS. PLACE BARS DIAGONALLY. H) SPLICES (STANDARD LAPS): LAP SPLICE PER DETAIL 13/SD1.0. STAGGER
- BOTTOM SPLICES AT LEAST 5'-0" FROM SPLICES IN OTHER BOTTOM REINFORCEMENT. STAGGER SPLICES FOR TOP REINFORCEMENT SIMILARLY. 4. ANCHOR BOLTS, DOWELS AND HOLD DOWN ANCHORS: SECURELY HELD IN PLACE PRIOR TO FOUNDATION INSPECTION BY THE BUILDING OFFICIAL AND
- OBSERVATION BY THE ENGINEER. 5. PIPES, SLEEVES AND DUCTS: NOT TO BE PLACED IN WALLS, BEAMS, SLABS,
- FOOTINGS OR COLUMNS UNLESS SPECIFICALLY DETAILED. CHAMFER: 3/4 INCH ON EXPOSED CORNERS. 7. ADMIXTURES: REVIEWED BY THE ENGINEER. CALCIUM CHLORIDE OR ADDED
- CHLORIDES ARE NOT PERMITTED. 8. CONSTRUCTION JOINTS: ACI 117.9 & 6.4, 1/4 INCH AMPLITUDE MINIMUM OR
- EYED JOINTS PER PLAN. LOCATION OF JOINTS TO BE REVIEWED BY THE ENGINEER. WAIT 48 HOURS BETWEEN POURS. 9. SLAB-ON-GRADE JOINTS: LOCATION OF ALL CONSTRUCTION, CONTROL AND
- WEAKENED PLANE JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO THE PLACING OF REINFORCEMENT. MAXIMUM SPACING 15 FEET ON CENTER.
- 10. ACTUAL DIMENSIONS: SLAB, WALL, BEAM AND COLUMN DIMENSIONS SHOWN ARE ACTUAL DIMENSIONS NOT NOMINAL DIMENSIONS (i.e. A 4 INCH
- SLAB IS 4 INCHES THICK, NOT 3-1/2 INCHES.) 11. CONCRETE CURING: ACI 318
- 12. VIBRATION: ALL CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.

1. LVL - LAMINATED VENEER LUMBER SHALL BE 2.0E MICROLLAM LVL.

### PSL - PARALLEL STRAND LUMBER SHALL BE 2.0E PARALLAM PSL. 3. LSL - LAMINATED STRAND LUMBER SHALL BE 1.3E TIMBERSTRAND FOR STUDS, RIM BOARDS AND BLOCKING, 1.55E TIMBERSTRAND FOR JOIST, BEAMS AND HEADERS.

I-JOIST SHALL BE APA PERFORMANCE RATED MANUFACTURED IN CONFORMANCE WITH PRI-400, PERFORMANCE STANDARD FOR APA EWS. I-JOIST FLANGES TO HAVE MINIMUM WIDTH OF 1 1/2" 7 MINIMUM THICKNESS OF 1 5/16". WEBS TO BE PLYWOOD OR OSB WITH MINIMUM THICKNESS OF 3/8". FOR ONE HOUR CONSTRUCTION, PRI-50 JOISTS ARE REQUIRED AT 24" OC. MAX., SEE ESR-1405. PROPER STORAGE, HANDLING AND INSTALLATION SHALL BE FOR THESE PLANS AND MANUFACTURER'S RECOMMENDATIONS.

### 1. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS 1. GRADE STAMPED DOUGLAS FIR/LARCH (SEE LUMBER GRADES).

| <ol> <li>THE SPACING CENTER TO CENTER OF NAILS IN THE DIRECTION OF STREE</li> <li>SHALL NOT BE LESS THAN THE REQUIRED PENETRATION. HOLES FOR NAWHERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED TO A IAME</li> </ol> |   | 111 | TE BELOW.                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|-----------------------------------------------------------------|
|                                                                                                                                                                                                                          | ; | 3.  | THE SPACING CENTER TO CENTER OF NAILS IN THE DIRECTION OF STRES |
| WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED TO A IAME                                                                                                                                                           | 4 | 4.  | SHALL NOT BE LESS THAN THE REQUIRED PENETRATION. HOLES FOR NAI  |
|                                                                                                                                                                                                                          |   | W   | HERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED TO A IAMET  |

- 5. ANCHOR BOLTS (FOUNDATION ANCHOR BOLTS): PROVIDE 5/8 INCH DIAMETER ANCHOR OR MACHINE BOLTS WITH A MINIMUM OF 7 INCHES PENETRATION IS MEASURED INTO THE PIECE RECEIVING THE NAIL POINT. 1-1/2 EMBEDMENT INTO THE CONCRETE AND WITHIN 12 INCHES OF EACH END OF EACH PLATE. SPACE ANCHORS AT 48 INCHES ON CENTER U.O.N. ANCHORS SHALL BE LOCATED A MAXIMUM OF 2 INCHES FROM THE FACE OF STUD RECEIVING WOOD STRUCTURAL PANELS. ANCHOR BOLT HOLES 1/32 TO 1/16 INCH LARGER THAN THE ANCHOR BOLT DIAMETER. HOLES MORE THAN 1/16 INCH LARGER THAN THE ANCHOR BOLT SHALL BE EPOXY FILLED UNDER THE 2. FASTENER SCHEDULE FOR STRUCTURAL MEMBERS - THE CONNECTIONS CONTINUOUS SUPERVISION OF A LICENSED SPECIAL INSPECTOR.
- 6. BOLTS: NOT LESS THAN 7 BOLT DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER. BOLT HOLES 1/32 TO 1/16 INCH LARGER THAN THE BOLT DIAMETER. ALL NUTS SHALL BE TIGHTENED WHEN INSTALLED AND RE-TIGHTENED AT THE COMPLETION OF WORK OR BEFORE ROOF CLOSING IN. THREAD PROJECTION SHALL BE 1/16 INCH MINIMUM
- BEYOND THE NUT. BOLTS IN SPECIFIED SLOTTED HOLES SHALL BE CENTERED IN THE SLOT UON.
- 7. LAG SCREW CLEARANCE & LEAD HOLES SHALL BE BORED AS FOLLOWS: THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% OF THE SHANK DIAMETER AND A 1. LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION
- 8. SQUARE STEEL PLATE WASHERS (PW): ANCHOR BOLTS, BOLTS, LAGS AND 3. CL'G. JOIST ATTACHED TO PARALLEL RAFTER(HEEL JOINT), FACE NAIL PER NUTS, NOTED PW, SHALL BE SQUARE STEEL PLATE WASHERS:

| • | ,          | ,      |                                      |         |
|---|------------|--------|--------------------------------------|---------|
|   | BOLT DIA   | M TH   | ICKNESS                              | SIZE    |
|   | (IN)       | (IN)   | (IN)                                 |         |
|   | 1/2        | 1/4    | 3 X 3                                |         |
|   | 5/8        | 1/4    | 3 X 3                                |         |
|   | 3/4        | 5/16   | 3 X 3                                |         |
|   | 7/8        | 5/16   | 3 X 3                                |         |
|   | 1          | 3/8    | $3 \frac{1}{2} \times 3 \frac{1}{2}$ |         |
|   | CUT STEEL  | WASHEF | RS: FOR BOL                          | TS, LAG |
|   | ED ANAINIO |        | TODO DED                             |         |

SMALLER THAN THAT OF THE NAIL

- GS AND NUTS, UON.
- 10. FRAMING CONNECTORS: PER MANUFACTURER'S APPROVED PRODUCT 1. STUD TO STUD (NOT AT BRACED WALL PANELS),FACE NAIL .......16d @24" O.C. EVALUATION REPORTS ICC APPROVED AND INSTALLED ACCORDINGLY. SIZE AND NUMBER OF NAILS TO BE MAXIMUM SPECIFIED BY THE MANUFACTURER
- 11. NAILED/SCREWED HOLD DOWN ANCHORS: INSTALL PER MANUFACTURER'S APPROVED ICC PRODUCT EVALUATION REPORT. INSTALL HOLD DOWNS 1/2 INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING ANCHOR BOLT. THE HOLD DOWN SHALL BE INSTALLED TIGHT TO THE HOLD DOWN POST WITHOUT FILLERS OR DAPPING. DO NOT BEND HOLD DOWN ANCHORS
- 12. BOLTED HOLD DOWN ANCHORS: INSTALL PER MANUFACTURER'S APPROVED ICC PRODUCT EVALUATION REPORT. INSTALL HOLD DOWNS 1/2 INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING ANCHOR BOLT. TIGHTEN HOLD DOWN ANCHOR BEFORE TIGHTENING POST BOLTS. USE EXTRA CARE IN BORING THE POST BOLT HOLES (1/32 TO 1/16 LARGER THAN THE BOLT DIAMETER). THE HOLD DOWN SHALL BE INSTALLED TIGHT TO THE
- HOLD DOWN POST WITHOUT FILLERS OR DAPPING. THE POST BOLTS SHALL NOT BE COUNTERSUNK INTO THE HOLD DOWN POST UON. DO NOT BEND HOLD DOWN ANCHORS. 13. PRESERVATIVE TREATED WOOD: WOOD EXPOSED TO THE WEATHER:
- FOUNDATION PLATES ON CONCRETE SLABS, FOUNDATIONS WHICH ARE IN DIRECT CONTACT WITH EARTH SHALL BE TREATED WOOD WITH PRESERVATIVE RETENTION AS REQUIRED FOR USE. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4. 14. TOP PLATES: TWO PIECES, SAME SIZE AS STUDS, STAGGER SPLICE 4'-0"
- MINIMUM. CENTER SPLICES OVER STUDS. SPLICE WITH 12-16d MINIMUM UON. 15. FULL-DEPTH SOLID BLOCKING OR CROSS BRACING: INSTALLED AT 4. 2" SUBFLOOR TO JOIST OR GIRDER, FACE NAIL INTERVALS NOT EXCEEDING 8 FEET FOR ALL JOISTS AND RAFTERS 2x12 AND
- 16. SOLID BLOCKING: TWO INCH FULL WIDTH BLOCKING (FIRE STOPS) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10-FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL
- 17. CUTTING AND NOTCHING: DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE SHOWN IN THE DETAILS. HOLES THROUGH PLATES, STUDS AND DOUBLE PLATES IN WALLS SHALL FOLLOW DETAIL 5/SD1.0, THE MEMBER WIDTH AND SHALL BE LOCATED IN THE CENTER OF THE MEMBER. 18. PARTITIONS: DOUBLE JOISTS UNDER PARTITIONS PARALLEL TO JOISTS AND
- PROVIDE SOLID BLOCKING UNDER PARTITIONS PERPENDICULAR TO JOISTS. 19. END SUPPORT: ROOF AND FLOOR JOISTS OVER 4 INCHES DEEP SHALL HAVE THEIR ENDS HELD IN POSITION WITH EITHER:
- FULL DEPTH SOLID BLOCKING; NAILED BRIDGING;

FINISH GRADE

FLOOR

- NAILING OR BOLTING TO OTHER FRAMING MEMBERS; OR
- APPROVED JOIST HANGERS. 20. HOT DIPPED ZINC-COATED GALVANIZING: ALL EXPOSED STEEL TIMBER HARDWARE, FASTENERS AND CONNECTORS.
- 21. FASTENERS FOR PRESERVATIVE TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL
- **LUMBER GRADES DOUGLAS FIR/LARCH** COMPLY WITH PS 20, AMERICAN SOFTWOOD LUMBER STANDARD AND STANDARD THE HEADS ARE FLUSH WITH THE SURFACE OF THE PANEL. FIELD NAILING (FN) GRADING RULES FOR WESTERN LUMBER. 19% MAXIMUM MOISTURE CONTENT AT
- TIME OF PLACEMENT. DIMENSION LUMBER: BLOCKING (2" TO 4" THICK, 2" TO 4" & NONBEARING STUDS WIDE; STANDARD)
- (10' MAXIMUM) DIMENSION LUMBER: BEARING
- (2" TO 4" THICK, 2" TO 4" STUDS JOISTS & RAFTERS WIDE; NO. 2)
- DIMENSION LUMBER: JOISTS AND RAFTERS
- (2" TO 4" THICK, 5" AND STUDS, BLOCKING, WIDER; NO. 2) BEAMS AND STRINGERS:
- (5" AND THICKER, WIDTH MORE THAN 2" GREATER THAN THICKNESS; NO. 1) POSTS AND TIMBERS:

(4" AND 6", AND LARGER, WIDTH NOT MORE THAN 2" GREATER THAN THICKNESS;

VERTICAL

WITHOUT

W/O

| NO.2)                |                                        |                                                       |                                            | WALL STUDS                                                  | <u>TABLE</u> | •            |                               |                              |                       |                                                                                 |                       |  |
|----------------------|----------------------------------------|-------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|--------------|--------------|-------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------|-----------------------|--|
| 6. H                 | OLD DOWN POSTS:                        | (NO. 2)                                               |                                            | TRIB WIDTH = 10 FT, ROOF DL= 20, LL= 20, FLOOR DL=15, LL=40 |              |              |                               |                              |                       |                                                                                 |                       |  |
| ABBRE\               | <u>VIATION:</u><br>AND                 | FTG.                                                  | FOOTING                                    |                                                             |              | MAX. SPACING |                               |                              |                       |                                                                                 |                       |  |
| ARCH.<br>BLDG.       | ARCHITECTURAL<br>BUILDING              | GLB<br>JST                                            | GLU-LAM BEAM JOIST MACHINE BOLT            | STUD SIZE                                                   | STUD HEIGHT  | 1 STORY      | 2 ST<br>2 <sub>ND</sub> LEVEL | ORY<br>1 <sub>ST</sub> LEVEL | 3 <sub>RD</sub> LEVEL | 3 STORY                                                                         | 1 <sub>ST</sub> LEVEL |  |
| BM.<br>BOT.<br>CONC. | BEAM BOTTOM CONCRETE                   | M.B.<br>MIN.<br>No. or #                              | MINIMUM<br>NUMBER                          | 2X4                                                         | 10'-0"       | 16" O.C.     | 16" O.C.                      | 16" O.C.                     | 16" O.C.              | 16" O.C.                                                                        | N/A                   |  |
| CONT.<br>DBL.        | CONTINUOUS<br>DOUBLE                   | O.C.<br>REF.                                          | ON CENTER<br>REFERENCE                     | 2X4                                                         | 12'-0"       | 16" O.C.     | 16" O.C.                      | 12" O.C.                     | 16" O.C.              | 16" O.C. N/A 12" O.C. N/A 16" O.C. 16" O.C. 16" O.C. 12" O.C. 16" O.C. 16" O.C. |                       |  |
| DET.<br>DIA.<br>DIM. | DETAIL<br>DIAMETER<br>DIMENSION        | SIM.<br>SQ.                                           | SIMILAR<br>SQUARE                          | 3X4                                                         | 12'-0"       | 16" O.C.     | 16" O.C.                      | 16" O.C.                     | 16" O.C.              | 16" O.C.                                                                        | 16" O.C.              |  |
| EA.<br>E.E.          | EACH<br>EACH END                       | ACH STAGG. STAGGERED  ACH END STD. STANDARD STI STEEL |                                            | 2X6                                                         | 12'-0"       | 16" O.C.     | 16" O.C.                      | 16" O.C.                     | 16" O.C.              | 16" O.C.                                                                        | 12" O.C.              |  |
| E.F.<br>EL.<br>E.N.  | EACH FACE<br>ELEVATION<br>EDGE NAILING | T.&B.<br>THK.                                         | TOP & BOTTOM<br>THICK                      | 2-2X4                                                       | 12'-0"       | 16" O.C.     | 16" O.C.                      | 16" O.C.                     | 16" O.C.              | 16" O.C.                                                                        | 16" O.C.              |  |
| EQ.<br>E.S.<br>E.W.  | EQUAL<br>EACH SIDE<br>EACH WAY         | TYP.<br>U.O.N.                                        | TYP. TYPICAL U.O.N. UNLESS OTHERWISE NOTED | 2-2X6                                                       | 12'-0"       | 16" O.C.     | 16" O.C.                      | 16" O.C.                     | 16" O.C.              | 16" O.C.                                                                        | 16" O.C.              |  |
| L.VV.                |                                        |                                                       |                                            |                                                             |              |              |                               |                              |                       |                                                                                 |                       |  |

\*LOWER STUDS MUST BE INLINE WITH UPPER STUDS \*2X BLOCKING BETWEEN STUDS AT 4'-6" O.C.

DIAMETER

0.148

0.203

END, TOE NAIL

INCHES

PENETRATION REQUIRED FOR THE NAIL SPECIFIED.

FLAT BLOCKING TO TRUSS AND WEB FILLER, FACE NAIL

CL'G. JOIST LAPS OVER PARTITIONS(NO THRUST), FACE NAIL.

CL'G. JOIST TO TOP PLATE, EACH JOIST, TOENAIL

5. RAFTER OR ROOF TRUSS TO TOP PLATE, TOENAIL

CONTINUOUS HEADER TO STUD, TOENAII

TOP PLATE TO TOP PLATE, FACE NAIL.

9. STUD TO TOP OR BOTTOM PLATE, TOENAIL

BOTTOM STAGGERED ON OPPOSITE SIDES.

WOOD STRUCTURAL PANELS (PANEL

**SERVICE REPORT NER-108** 

WITH 3x BLOCKING

SHALL BE MAINTAINED.

DISTANCES ARE MAINTAINED.

JOIST TO BAND JOIST OR RIM JOIST, END NAIL.

(EXTERIOR EXPOSURE AT BALCONIES AND DECKS)

2. WALL PANELS.....OSB OR STRUCTURAL I, 15/32 INCH 32/16

3. ROOF PANELS.....OSB OR STRUCTURAL I, 15/32 INCH 36

FACE NAIL

BLOCKING:

GLUING.

10. STUD TO TOP OR BOTTOM PLATE, END NAIL.

12. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL

13. 1"x6" SHEATHING TO EACH BEARING, FACE NAIL.

JOIST TO SILL, TOP PLATE OR GIRDER, TOENAIL.

1"X6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL

14. 1"x8" AND WIDER SHEATHING TO EACH BEARING, FACE NAIL.

BRACED WALL PANELS), FACE NAIL

4. COLLAR TIE TO RAFTER, FACE NAIL

PENETRATION

**INCHES** 

1-7/8

INCHES OF PENETRATION FOR 10d AND 16d NAILS IS ACCEPTABLE FOR TOP

PLATES AND DOUBLED 2X MEMBERS. WHERE THE NAIL PENETRATION WILL BE

LISTED ARE THE MINIMUM PERMISSIBLE. USE COMMON WIRE NAILS FOR ALL

NAILED CONNECTIONS. WHERE POSSIBLE, NAILS DRIVEN PERPENDICULAR TO

THE GRAIN SHALL BE USED INSTEAD OF TOE NAILS. SEE THE DRAWINGS FOR

1. CL'G. JOIST/RAFTER/TRUSS TO TOP PLATE/OTHER FRAMING BELOW, EACH

BLOCKING (NOT AT THE WALL TOP PLATE) TO RAFTER OR TRUSS, EACH END,

ROOF FATHERS TO RIDGE VALLEY OR HIP RAFTERS OR RIDGE BOARD, TOENAIL

2. STUD TO STUD & ABUTTING STUDS AT INTERSECTING WALL CORNER, FACE

BUILT-UP HEADER(2" TO 2" HEADER), EACH EDGE, FACE NAIL......16d @16"O.C.

TOP PLATE TO TOP PLATE(AT END JOISTS), EACH SIDE OF END JOINT, FACE

BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT

BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING ), FACE NAIL

11. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL..........2-16d

RIM /BAND JOIST/ BLK'G TO TOP PLATE/SILL/OTHER FRAMING BELOW,

2"PLANKS(PLANK & BEAM - FLOOR&ROOF), EACH BEATING, FACE NAL......2-16d

6. BUILT-UP GIRDERS AND BEAM.2" LUMBER LAYERS.FACE NAIL AT TOP AND

BUILT-UP GIRDERS AND BEAM,2" LUMBER LAYERS, EACH SPLICE , FACE NAIL

LEDGER STRIP SUPPORTING JOISTS OR RAFTERS, EACH JOIST OR RAFTER,

9. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS, EACH END, TOENAIL

1. REFERENCES: PS1, PS2, APA STANDARD PRP-108, NATIONAL EVALUATION

4. FLOOR PANELS.....STURD-I-FLOOR, SANDED 19/32 INCH 20 OC, T&G

A) WALLS: ALL UNSUPPORTED PANEL JOINTS SHALL BE BLOCKED SOLID

B) FLOORS & ROOFS: WHERE NOTED ON THE DRAWINGS, ALL SUPPORT

PANEL JOINTS SHALL BE BLOCKED SOLID WITH 3x4 FLAT BLOCKING.

6. NAILING: COMMON WIRE NAILS. PANEL NAILS SHALL BE DRIVEN SO THAT

SHALL BE 12 INCHES ON CENTER AND THE MINIMUM PANEL EDGE DISTANCES

7. MACHINE NAILING: SUBJECT TO A SATISFACTORY JOB SITE

DEMONSTRATION FOR THIS PROJECT AND REVIEW BY THE ENGINEER. THE USE

OF MACHINE NAILING IS SUBJECT TO CONTINUED SATISFACTORY

PERFORMANCE. PANEL NAILS SHALL BE DRIVEN SO THAT THE HEADS ARE

FLUSH WITH THE SURFACE OF THE PANEL AND THE MINIMUM PANEL EDGE

8. GLUED FLOORS: FIELD GLUE TO ALL SUPPORTS AND T&G EDGES PER APA,

9. WOOD STRUCTURAL PANELS (PANELS): WHERE ADJACENT WALLS ARE

PANELED, PANELS SHALL BE INSTALLED OVER AND UNDER OPENINGS.

AFG-01. FRAMING SHALL BE FREE OF SURFACE MOISTURE & DEBRIS PRIOR TO

BLOCKING (NOT AT THE WALL TOP PLATE) TO RAFTER OR TRUSS, END NAIL .

1. ALL NAILING SHALL BE COMMON WIRE NAILS AND FOLLOW THIS TABLE:

1. All structural steel materials and construction shall conform to the requirements specified in Building Code, Chapter 22 & Reference. 2. Steel shall be primed with a rust resistance primer & should conform to ASTM A36 (fy=36 ksi) as a minimum, unless otherwise noted. All W

Steel pipe shall conform to ASTM A53, Grade B (Fy=35 ksi).

4. Round HSS tubing shall conform to ASTM A500 Grade B (Fy=42 ksi)

5. Rectangular and square HSS tubing shall conform to ASTM A500, Grade B (Fy=46 ksi).

6. HP sections shall conform to ASTM A572, Grade 50 (Fy=50 ksi).

All structural welding procedures and materials shall conform to Building Code, Section 2204.1. All welding shall be by the shield metal arc welding process or the submerged arc welding process using E7OXX-low hydrogen electrodes, unless otherwise noted.

. All bolts for connections of steel members shall conform to Building Code, Section 2204.2 & ASTM A325N, unless otherwise noted. Holes for bolts should be drilled or punched & shall be 1/16" larger than bolt diameter. LESS THAN SPECIFIED, INCREASE NAIL LENGTH (SIZE) TO OBTAIN THE 9. Prefabricated steel moment frames per manufacturer. Steel moment frame manufacturer shall submit shop drawing, design calculations, and

> approved moment frame test report (ICC, IAMPO, or test per Appendix S of AISC SEISMIC PROVISION) to E.O.R. for review. 10. All shop welding and fabrication must be done in a shop approved by a special inspection agency which is approved by the Building Official. All field welding must be performed by a certified welder and a special inspector shall continuously inspect all structural field welding. Both shall be

approved by the Building Official.

All concrete masonry materials and construction shall be in accordance with Building Code, Chapter 21.

- 2. All materials making up finished concrete masonry construction shall conform to standards required by Building Code Sec. 2103. Mortar shall be type M or S as applicable and conforming with ASTM C270 and shall be proportioned per Article 2.1 & 2.6A of Specification for Masonry Structures (TMS 602-13/ACI 530.1-13/ASCE 6-13).
- Grout shall comply with Article 2.2 & 2.6 of TMS 602-13/ACI 530.1-13/ASCE 6-13 and shall attain a minimum compression strength at 28 days of 2000 psi or the required compression, f'm, whichever is greater. The compressive strength of grout shall be determined in accordance with ASTM
- Concrete masonry units shall conform to ASTM C90 for load bearing concrete masonry units. Concrete brick shall conform to ASTM C55, Specifications for Concrete Building Brick.
- Grade N concrete bricks are for use as architectural veneer and facing, limited to in exterior walls.
- Grade S concrete bricks are for general use where moderate strength and resistance to frost action and moisture penetration is required. The specified compressive strength of masonry, f'm, shall be 2000 psi, unless noted otherwise.
- Special inspection for concrete masonry construction shall be carried out in accordance with Building Code Section 1704 and requirements in Special Inspection tables on sheet SN1.0. Masonry compressive strength, I'm shall be verified by Unit strength method or Prism test method prior to and during construction as described in Building Code, Section 2105.

### 6. ROOF FATHERS TO RIDGE VALLEY OR HIP RAFTERS OR RIDGE BOARD.END

.16d @16" O.C.

.16d @16"O.C.

.16d @16"O.C.

...2-16d @16"O.C.

..8d @ 6" O.C.

..20d @32" O.C.

..2-16d

..3-16d

- STRUCTURAL WET-MIX SHOTCRETE SHALL BE ALLOWED WHEN SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS AND WHERE THE OWNER, CONTRACTOR AND CONCRETE SUPPLIER COMPLY WITH THESE PROCEDURES, IN ADDITION TO THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE (CBC) SECTION 1913.
- LIMITATIONS:
- A) STRUCTURAL WET-MIX SHOTCRETE SHALL NOT BE PLACED WHERE THE STREAM FROM THE NOZZLE CANNOT DIRECTLY IMPINGE ON THE SURFACE ON WHICH THE SHOTCRETE IS TO BE PLACED. WHERE CONDITIONS PRECLUDE THE POSSIBILITY OF OBTAINING CORES FROM THE STRUCTURE, THIS METHOD SHALL NOT BE USED.
- THAT ADEQUATE ENCASEMENT OF LARGER BARS WILL BE ACHIEVED. C) LAP SPLICES OF REINFORCING BARS SHALL UTILIZE NONCONTACT LAP SPLICES UNLESS IT CAN BE DEMONSTRATED BY

B) THE MAXIMUM SIZE OF REINFORCEMENT SHALL BE #5 BARS UNLESS IT CAN BE DEMONSTRATED BY PRE-CONSTRUCTION TESTS

- PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF BARS WILL BE ACHIEVED, AND PROVIDED THAT THE SPLICE IS ORIENTED SO THAT A PLANE THROUGH THE CENTER OF THE LAPPED BARS IS PERPENDICULAR TO THE SURFACE OF THE SHOTCRETE. D) SHOTCRETE SHRINKAGE SHALL BE LIMITED TO 0.06 PERCENT AT THREE MONTHS AS DETERMINED BY ASTM C157.
- E) SHOTCRETE MAY ONLY BE APPLIED TO TIED COLUMNS WHERE THE SPACING OF THE REINFORCING STEEL IS THE SAME AS FOR WALLS UNLESS IT CAN BE DEMONSTRATED BY PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF THE BARS USED IN THE DESIGN CAN BE ACHIEVED
- 3. INSPECTION A) SHOTCRETE REQUIRES CONTINUOUS INSPECTION BY A REGISTERED DEPUTY
- B) CONTINUOUS INSPECTION SHALL BE PROVIDED FOR THE PLACEMENT OF ALL REINFORCING STEEL, THE PLACEMENT OF SHOTCRETE AND THE ASSEMBLY,
- SHOOTING, TESTING AND DISASSEMBLY OF PRE-CONSTRUCTION TEST PANELS
- 4. PRE-CONSTRUCTION TEST:
- A) TEST PANELS SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSE AS POSSIBLE. PANEL THICKNESS AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONGESTED AREA SPECIFIED IN STRUCTURAL DESIGN. MULTIPLE TEST PANELS MAY BE NECESSARY TO PROVIDE A COMPLETE REPRESENTATION OF THE ACTUAL CONDITIONS WHERE SHOTCRETE IS TO BE USED. B) THE TEST PANELS SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME EQUIPMENT AND NOZZLEMAN, AND WITH THE SAME
- CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT. C) THE TEST PANELS SHALL BE CURED, THEN DISASSEMBLED, EXAMINED, SAWED AND/OR CORE DRILLED AT THE DISCRETION OF
- THE STRUCTURAL ENGINEER AND NSPECTOR, AND TESTED PRIOR TO COMMENCEMENT OF SHOTCRETE WORK. D) TEST PANELS SHALL BE A MINIMUM OF 4 FEET SQUARE.
- MATERIALS: A) CEMENT SHALL COMPLY WITH ASTM C150, TYPE I OR TYPE II LOW ALKALI.
- B) AGGREGATE HALL BE NORMAL WEIGHT COMPLYING WITH ASTM C33. OMBINED AGGREGATE GRADATION SHALL MEET ACI 506R, TABLE 1.1. RADATION NO. 2.
- C) WATER SHALL BE CLEAN AND POTABLE D) ADD WATERPROOFING ADMIXTURE PER WATERPROOFING CONSULTANT'S RECOMMENDATIONS AT PERIMETER RETAINING WALLS.
- CONDITIONS: A. FLASH COATS AND FINISH COATS ARE NOT PERMITTED UNLESS FULL DESIGN THICKNESS IS ACHIEVED WITHOUT CONSIDERING THE
- FLASH COAT OR FINISH COAT. B. MINIMUM SLUMP SHALL BE 1 1/2" AND MAXIMUM SLUMP SHALL BE 2 1/2". SLUMP SHALL BE MEASURED AT THE POINT OF DISCHARGE FROM THE MIXER, EXCEPT THE BUILDING INSPECTOR MAY REQUIRE SLUMP TESTS AT THE DISCHARGE POINT WHERE WATER MAY
- C. A CAPABLE NOZZLEMAN'S HELPER WITH AN AIR BLOW PIPE SHALL BE PROVIDED TO ASSIST THE NOZZLEMAN IN KEEPING ALL REBOUND BUILD-UP OUT OF THE WORK.
- D. ADDITIONAL WORKERS MAY BE REQUIRED TO TAKE THE REBOUND FROM THE WORK IF THE REBOUND CANNOT BE REMOVED BY THE
- E. NO KEY WAYS OR EMBEDMENTS SHALL BE PLACED IN THE FRONT FACE THAT WILL INTERFERE WITH THE STREAM FROM THE NOZZLE. F. THE CONTRACTOR AGREES TO PROVIDE A DESIGNATED LIAISON BETWEEN HIS CREW, THE DEPUTY INSPECTOR AND THE
- GOVERNING AGENCY. G. THE DEPUTY INSPECTOR SHALL BE INTERVIEWED AND APPROVED BY GOVERNING AGENCY PRIOR TO INSPECTING WORK AT THE JOB SITE. ONE DEPUTY INSPECTOR SHALL BE ASSIGNED TO EACH NOZZLE.
- H. RIGID OR OTHER APPROVED BACKING SHALL BE PLACED AGAINST THE EARTH WHERE THERE IS ANY POTENTIAL OF SOIL BEING DISLODGED IN SUFFICIENT QUANTITY TO DAMAGE THE SHOTCRETE DURING THE APPLICATION OF THE SHOTCRETE. RIGID OR OTHER APPROVED NON-ORGANIC BACKING SHALL BE USED TO BRIDGE VOIDS IN THE EMBANKMENT.
- I.IN THE EVENT THAT A PREVIOUSLY PRESUMED SOLID EMBANKMENT SHOULD SLOUGH OR SHED DIRT IN SUFFICIENT QUANTITY TO DAMAGE THE CONCRETE, THE WET-MIX SHOTCRETE PLACEMENT WORK IN THAT AREA SHALL CEASE UNTIL RIGID BACKING IS INSTALLED AND CONTAMINATED SHOTCRETE IS REMOVED. J. TO REDUCE THE POSSIBILITY OF LAMINATIONS, SECTIONS SHOULD BE GUNNED TO THEIR FULL DESIGN THICKNESS IN ONE LAYER
- BY BENCH OR SHELF SHOOTING. K. THE HEIGHT OF A LAYER SHALL NOT EXCEED 3 FEET AND SUCCEEDING LAYERS SHALL NOT BE PLACED IN LESS THAN 3 HOURS. NO SLOUGHING OR SAGGING SHALL BE PERMITTED. WHEN SPECIFICALLY DESIGNED BY THE ENGINEER OF RECORD THAT A SUCCEEDING
- LAYER IS TO BE PLACED IN LESS THAN 3 HOURS, A LESSER TIME MAY BE APPROVED BY THE GOVERNING AGENCY DETAILS OF COLD JOINTS, INCLUDING SLOPE OF JOINTS, SHALL BE SHOWN ON THE APPROVED PLANS. WHEN SHOOTING UP TO THE UNDERSIDE OF EXISTING CONCRETE, THE LAST 2 INCHES SHALL BE DRY PACKED OR AN APPROVED METHOD OF DRY PNEUMATIC CONCRETE USED. EXCEPTION: PROVIDED THE DETAIL OF THE JOINT IS SLOPED SO THAT THE CLOSURE OF THE COLD JOINT
- COLD JOINT HAVE TAKEN THEIR INITIAL SET, THE JOINT CLOSURE MAY BE MADE WITH WET-MIX SHOTCRETE.  $_{ extsf{T}}$  M. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE IN A MANNER THAT PREVENTS ANY MOVEMENT DURING THE APPLICATION OF THE SHOTCRETE.

MADE WITH STRUCTURAL WET-MIX SHOTCRETE DOES NOT SAG AWAY FROM THE UPPER SURFACE AND PROVIDED BOTH SIDES OF THE

N. CONCRETE OR MASONRY TO RECEIVE SHOTCRETE SHALL HAVE THE ENTIRE SURFACE THOROUGHLY CLEANED AND ROUGHENED AND JUST PRIOR TO RECEIVING SHOTCRETE, SHALL BE THOROUGHLY CLEANED OF ALL DEBRIS, DIRT AND DUST. CONCRETE AND MASONRY SHALL BE WETTED BEFORE SHOTCRETE IS DEPOSITED, BUT NOT SO WET AS TO OVERCOME SUCTION. SAND USED FOR SANDBLASTING SHALL BE CLEAN, SHARP AND UNIFORM IN SIZE, WITH NO PARTICLES THAT WILL PASS A 50-MESH SCREEN.

| SN1.0 | GENERAL NOTE                                     |
|-------|--------------------------------------------------|
| S1.0  | FOUNDATION & CEILING FRAMING PLAN-CENTRAL KITCHE |
| S2.0  | ROOF PLAN-CENTRAL KITCHEN                        |
| S3.0  | FOUNDATION & ROOF FRAMING PLAN-SAMLL KITCHEN     |
| SD1.0 | DETAILS                                          |
|       |                                                  |
|       |                                                  |
|       |                                                  |
|       |                                                  |
|       |                                                  |
|       |                                                  |
|       |                                                  |
|       |                                                  |

### PROJECT DESIGN DATA

GOVERNING CODE: 2022 CALIFORNIA BUILDING CODE (CBC)

STRUCTURAL DESIGN LOADS: 1. ROOF LOADS: DEAD LOAD 15 PSF LIVE LOAD 20 PSF CEILING LOADS: (ATTICS WITHOUT STORAGE) DEAD LOAD. LIVE LOAD . 10 PSF . FLOOR LOADS: DEAD LOAD. . 15 PSF LIVE LOAD 40 PSF I. DECK LOADS: DEAD LOAD. . 15 PSF

LIVE LOAD.

WIND SPEED 92 MPH RISK CATEGORY II, EXPOSURE C, WIND PRESSURE MIN 16 PSF USED Kh=0.85, Kzt=1, Kd=0.25, I=1

### 1. SEISMIC BASE SHEAR FOR LIGHT-FRAME WALLS SHEATHED WITH WOOD STRUCTURAL SYSTEM = 0.186W (ALLOWABLE STRESS DESIGN)

 FOUNDATION MATERIAL: SEE REINFORCED CONCRETE 2. MINIMUM FOUNDED DEPTH & WIDTH OF FOOTINGS: BELOW ROUGH PAD GRADE. BELOW LOWEST ADJACENT FINISHED GRADE..

RISK CATEGORY: II  $S_S = 2.164$   $S_1 = 0.834$   $C_S = 0.266$ 

SEISMIC DESIGN CATEGORY: E  $S_{DS} = 1.731$   $S_{D1} = 0.945$   $\rho = 1.3$ 

FV= 1.7 R= 6.5 (LIGHT-FRAME WALLS SYSTEM)

- BASE OF FOOTINGS & SLABS: SEE PLAN 4. ALLOWABLE SOIL PRESSURES:
- DL + LL LOAD.. .1,500 PSF ALL LOAD (WIND/SEISMIC) FORCES... ..2,000 PSF 5. ROOF AND AREA DRAINAGE: SHALL BE DIRECTED AWAY FROM THE
- 6. BACK FILL: EXCAVATIONS SHALL BE PROPERLY BACKFILLED. BACK FILL FOR WALLS SHALL BE PERVIOUS MATERIAL. DO NOT PLACE BACK FILL BEHIND WALLS BEFORE THEY HAVE ATTAINED THEIR DESIGN STRENGTH. SHORE AND PROTECT WALLS FROM LATERAL LOADS UNTIL THE SUPPORTING MEMBERS

60 PSF

### SPECIAL INSPECTION REQUIREMENTS

ARE IN PLACE HAVE DEVELOPED SPECIFIED STRENGTHS.

SPECIAL INSPECTION REQUIREMENTS

- 1. SPECIAL INSPECTION AGENCY EMPLOYED BY THE OWNER. REPORTS: PREPARED AND SIGNED BY THE INSPECTOR, SUBMITTED TO THE BUILDING OFFICIAL AND THE ENGINEER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN, IF NOT CORRECTED, TO THE BUILDING OFFICIAL AND THE
- CERTIFICATION: INSPECTOR MUST BE CITY CERTIFIED BY THE BUILDING OFFICIAL TO PERFORM THE TYPES OF INSPECTIONS SPECIFIED. RESPONSIBILITY: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO
- INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
- SPECIAL INSPECTIONS REQUIRED FOR THE FOLLOWING ITEM. (A) SHEAR WALLS WITH NAILING 4" SPACING OR LESS

(B) EXPANSION BOLT INSTALLATION

DATE: 10/11/24 JOB NO. **SS24805** 

**ORANGE** 

**ENGINEERING** 

4005 CLIPPER CT

FREMONT, CA 94538

TEL (408) 888-7836

No. C92766

|MM/DD/YY|CITY SUBMITTAL

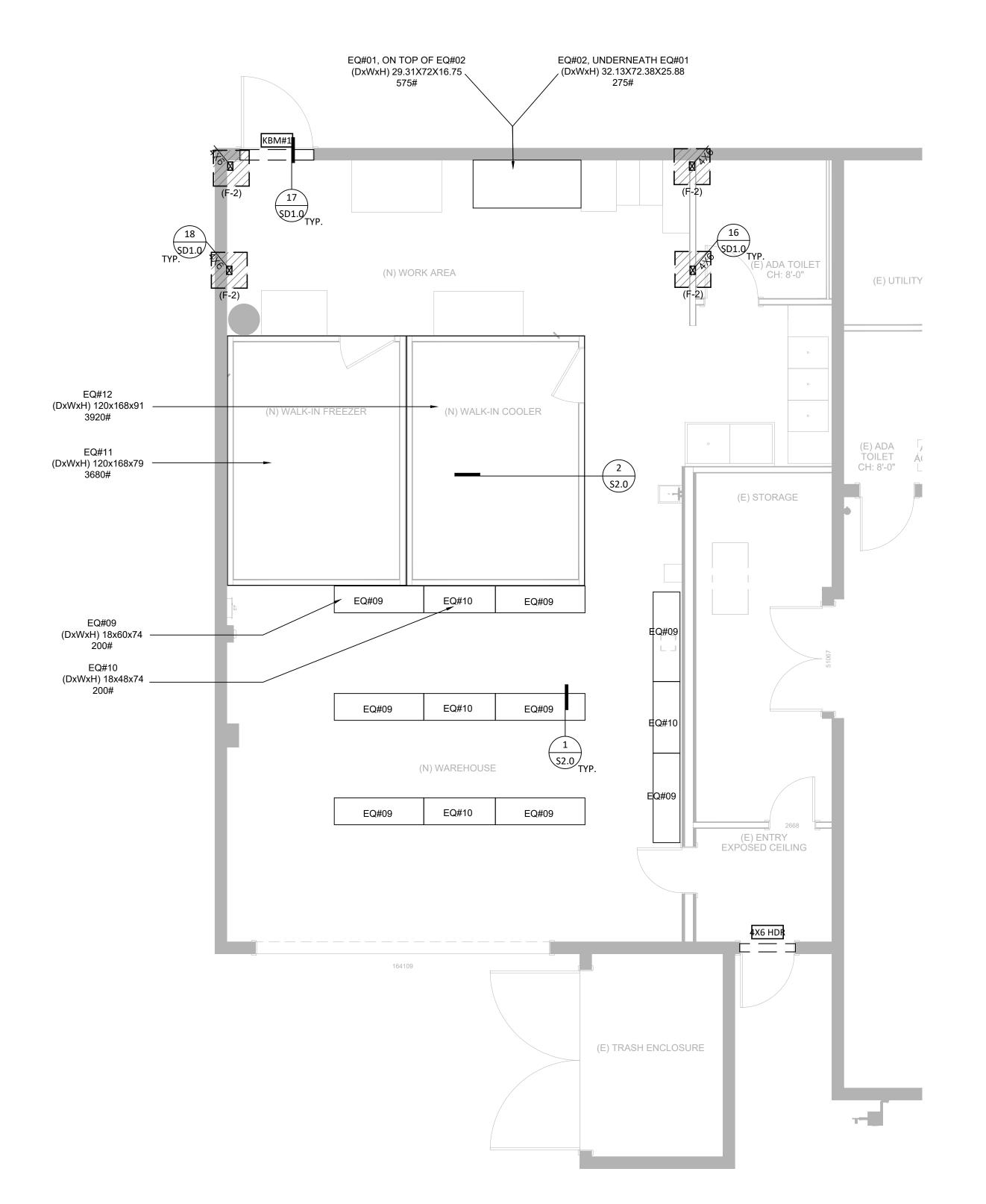
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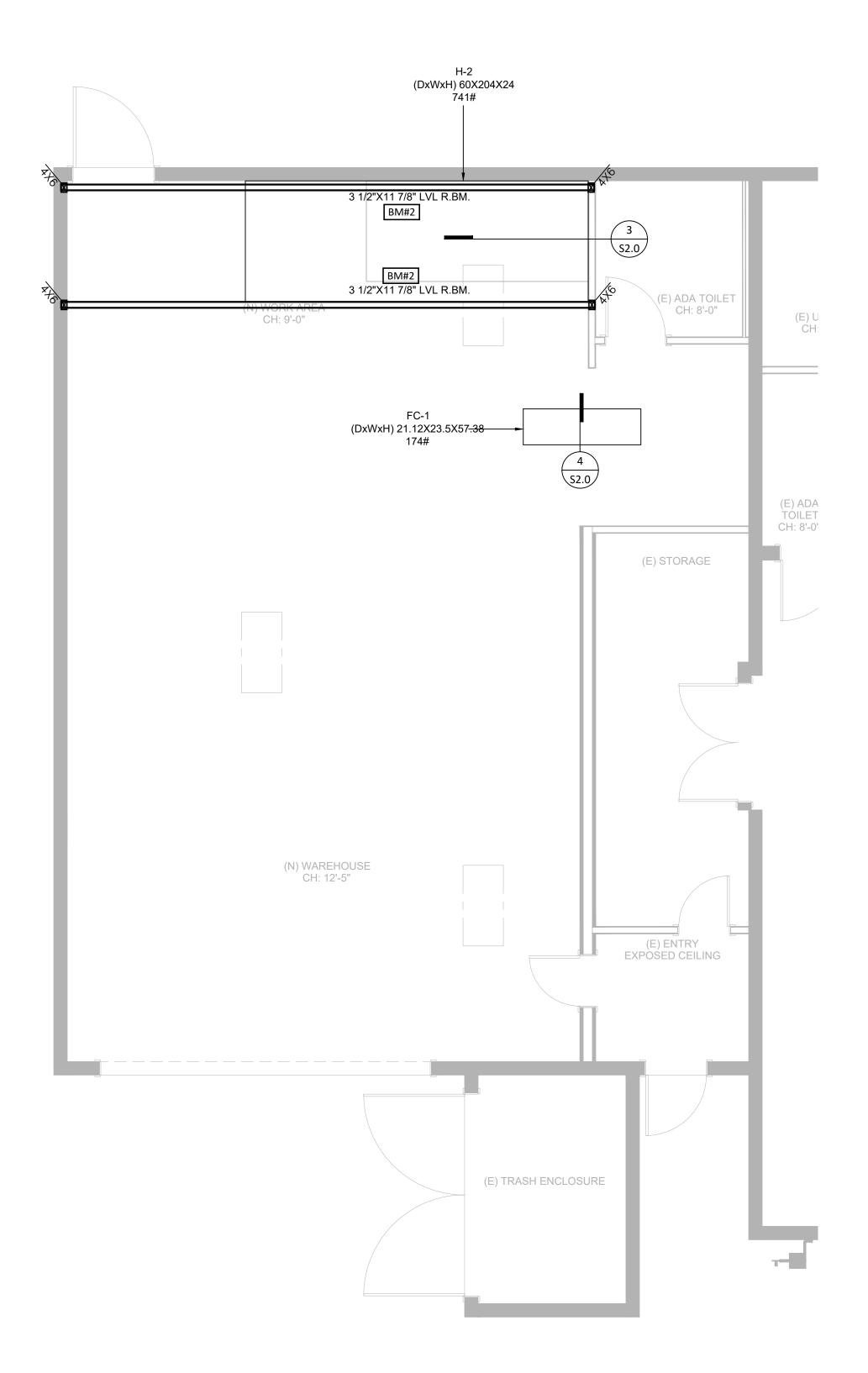
SHEET NAME.

DRAWN BY:

**GENERAL NOTES** 

|         | EQUIPMEN <sub>u</sub> † | BRAND AND Model                        | D (in) | W (in) 🔻 | H (in)        | Weight (lb)     | ▼ Location |
|---------|-------------------------|----------------------------------------|--------|----------|---------------|-----------------|------------|
|         | EQ#01                   | COOKING PERFORMANCE GROUP GM-CPG-72-NL | 29.31  | 72.00    | <b>1</b> 6.75 | 575             | FLOOR      |
|         | EQ#02                   | AVANTO CBE-72-HC 72"                   | 32.13  | 72.38    | 25.88         | 275             | FLOOR      |
|         | EQ#09                   | REGENCY 18" x 60" x 74"                | 18.00  | 60.00    | 74.00         | 200.00          | FLOOR      |
|         | EQ#10                   | REGENCY 18" x 48" x 74"                |        | 48.00    | 74.00         | 200             | FLOOR      |
| CENTRAL | EQ#11                   | MASTER BILT QS1014                     | 120.00 | 168.00   | 79.00         | CAL TBD         | FLOOR      |
| KITCHEN | EQ#12                   | MASTER BILT QS771014                   | 120.00 | 168.00   | 91.00         | CAL TBD         | FLOOR      |
|         | MUA-2                   | ECON-AIR A2-20D                        | 38.00  | 99.00    | 37.00         | 553             | ROOF       |
|         | HP-1                    | TRANE 4TWR7048                         | 37.25  | 34.25    | 45.13         | 292.00          | ROOF       |
|         | FC-1                    | TRANE TEM8A0C48                        | 21.13  | 23.5     | 57.38         | 174.00          | CEILING    |
|         | H-2                     | ECON-AIR 6024 EX-2                     | 60.00  | 191.00   | 24.00         | 74 <b>1</b> .00 | CEILING    |





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

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

### SYMBOLS LEGEND

WOOD POST WOOD POST ABOVE DIRECTION OF JOISTS

SHEAR PANEL LENGTH AND SCHEDULE

SHEAR PANEL LENGTH AND SCHEDULE

DETAIL

BEAM NUMBER, REFER TO E.O.R. CALCULATIONS

CALIFORNIA FRAMING PAD FOOTING

— — (E) FOUNDATION

(N) FOUNDATION

### FOUNDATION NOTES

1. CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

PLAN SHOWS STRUCTURAL SLAB, WALLS, ABOVE FOUNDATION. ARCHITECTURAL BACKGROUND INDICATES NON-STRUCTURAL

CONFIRM ALL BACKGROUND INFORMATION WITH CURRENT ARCHITECTURAL DRAWINGS.

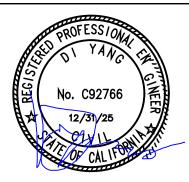
2. SEE STRUCTURAL SPECIFICATIONS ON SHEET SN1

| ANCHOR SCHEDULE (ANCHOR AT EACH LEG)(ESR-4266) |                   |           |                   |  |  |  |  |  |
|------------------------------------------------|-------------------|-----------|-------------------|--|--|--|--|--|
| EQ#                                            | ANCHOR TYPE       | EMBEDMENT | TOTAL # OF ANCHOR |  |  |  |  |  |
| EQ#1 & 2                                       | 3/8" HILTI KB-TZ2 | 2"        | 4                 |  |  |  |  |  |
| EQ#09                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 |  |  |  |  |  |
| EQ#10                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 |  |  |  |  |  |
| EQ#11                                          | 1/4" HILTI KH-EZ  | 1-5/8"    | 16                |  |  |  |  |  |
| EQ#12                                          | 1/4" HILTI KH-EZ  | 1-5/8"    | 16                |  |  |  |  |  |
| H-2                                            | 1/2" LAG SCREW    | 3"        | 4                 |  |  |  |  |  |
| MUA-2                                          | 3/8" LAG SCREW    | 2.5"      | 6                 |  |  |  |  |  |
| HP-1                                           | 1/2" LAG SCREW    | 2.5"      | 4                 |  |  |  |  |  |



**ENGINEERING** 

4005 CLIPPER CT FREMONT, CA 94538 TEL (408) 888-7836



## **ADDITIC**

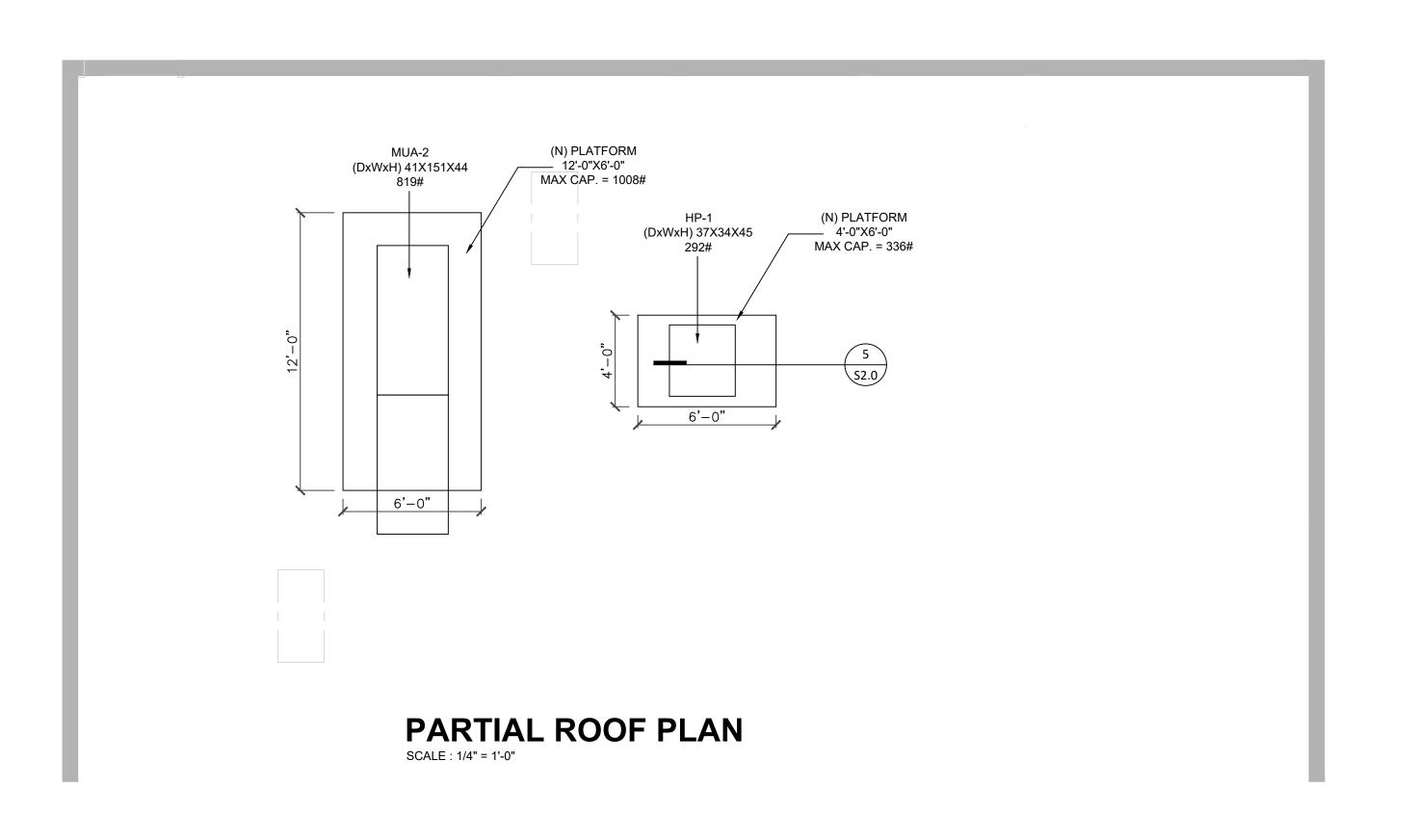
DATE: 10/11/24 JOB NO. **SS24805** 

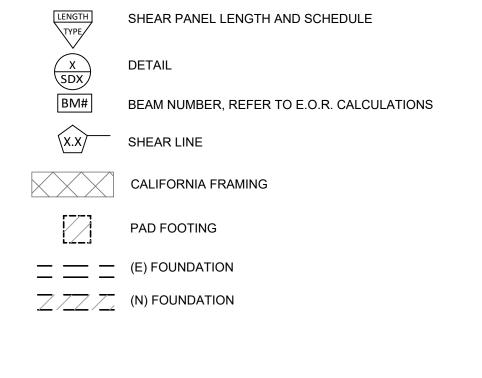
ISSUE & REVISION MM/DD/YY CITY SUBMITTAL

SHEET NAME.

FOUNDATION &
CEILING PLAN CENTRAL KITCHEN

SHEET NO. **\$1.0** 





### FOUNDATION NOTES

SYMBOLS LEGEND

DIRECTION OF JOISTS

WOOD POST

WOOD POST ABOVE

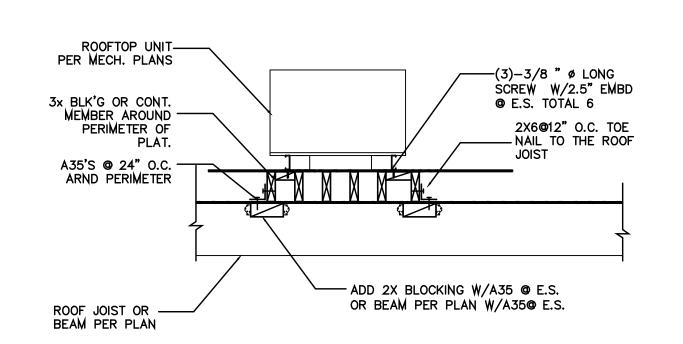
SHEAR PANEL LENGTH AND SCHEDULE

- CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
- PLAN SHOWS STRUCTURAL SLAB, WALLS, ABOVE FOUNDATION.

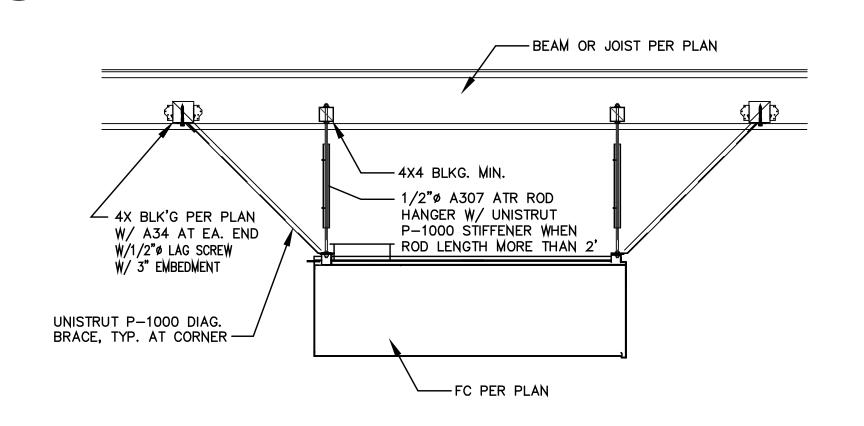
  ARCHITECTURAL BACKGROUND INDICATES NON-STRUCTURAL

  WALLS
- WALLS

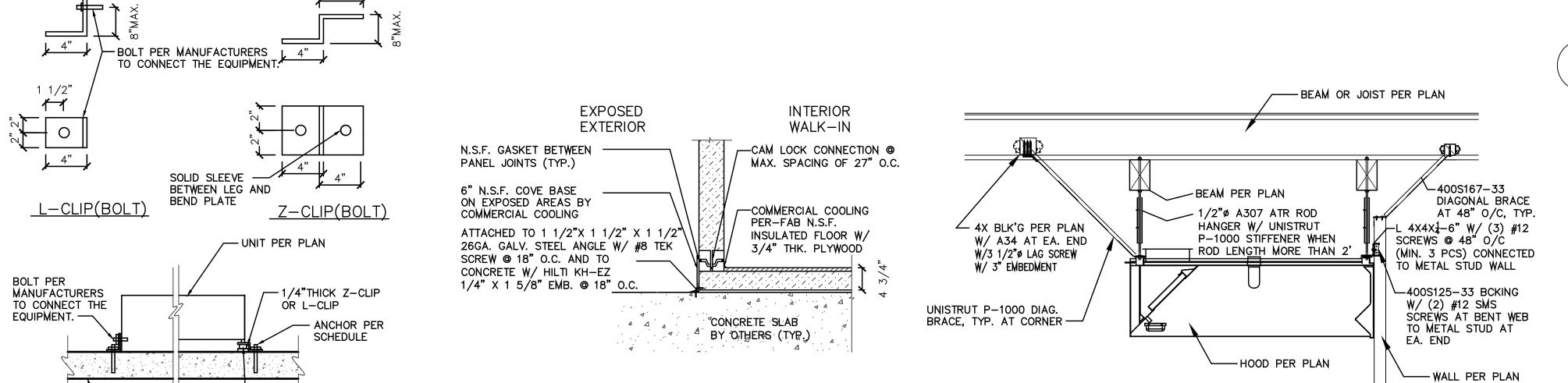
  CONFIRM ALL BACKGROUND INFORMATION WITH CURRENT ARCHITECTURAL DRAWINGS.
- 2. SEE STRUCTURAL SPECIFICATIONS ON SHEET SN1



### 800F EQUIPMENT CONNECTION



HANGING CONNECTION DETAIL



WALK-IN CONNECTION DETAIL

**HOOD CONNECTION DETAIL** 

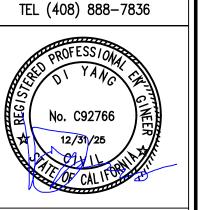
SOLID SLEEVE

**UNIT ON SLAB CONNECTION DETAIL** 

(E) 5"CONC. SLAB, FIELD VERIFIED

BETWEEN LEG AND BEND PLATE ORANGE
ENGINEERING

4005 CLIPPER CT
FREMONT, CA 94538



## TI & ADDITION 2229 DOVER AVE SAN PARI O CA 94800

DATE: 10/11/24

JOB NO. SS24805

ISSUE & REVISION

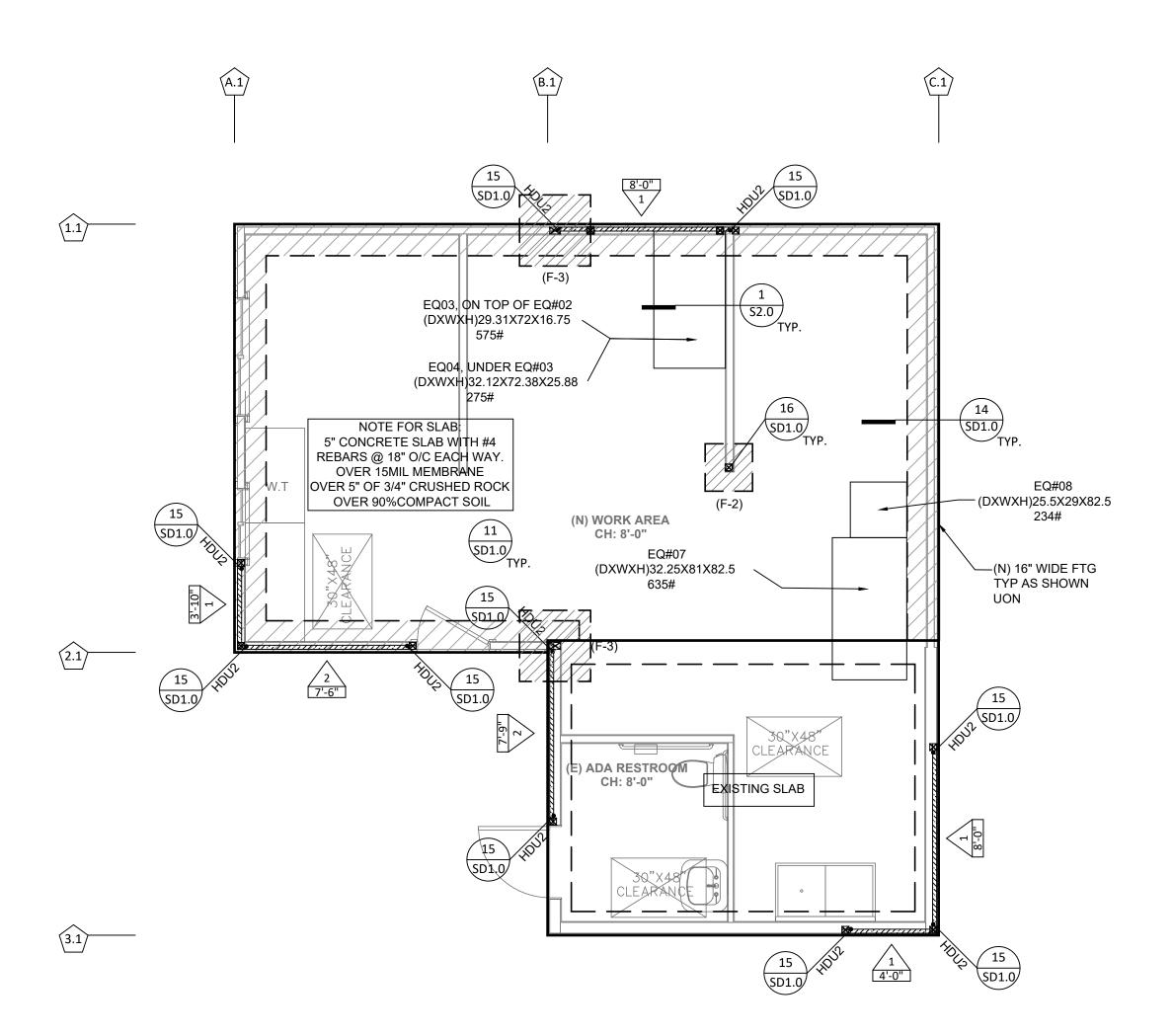
MM/DD/YY CITY SUBMITTAI

SHEET NAME.

ROOF PLAN CENTRAL KITCHEN

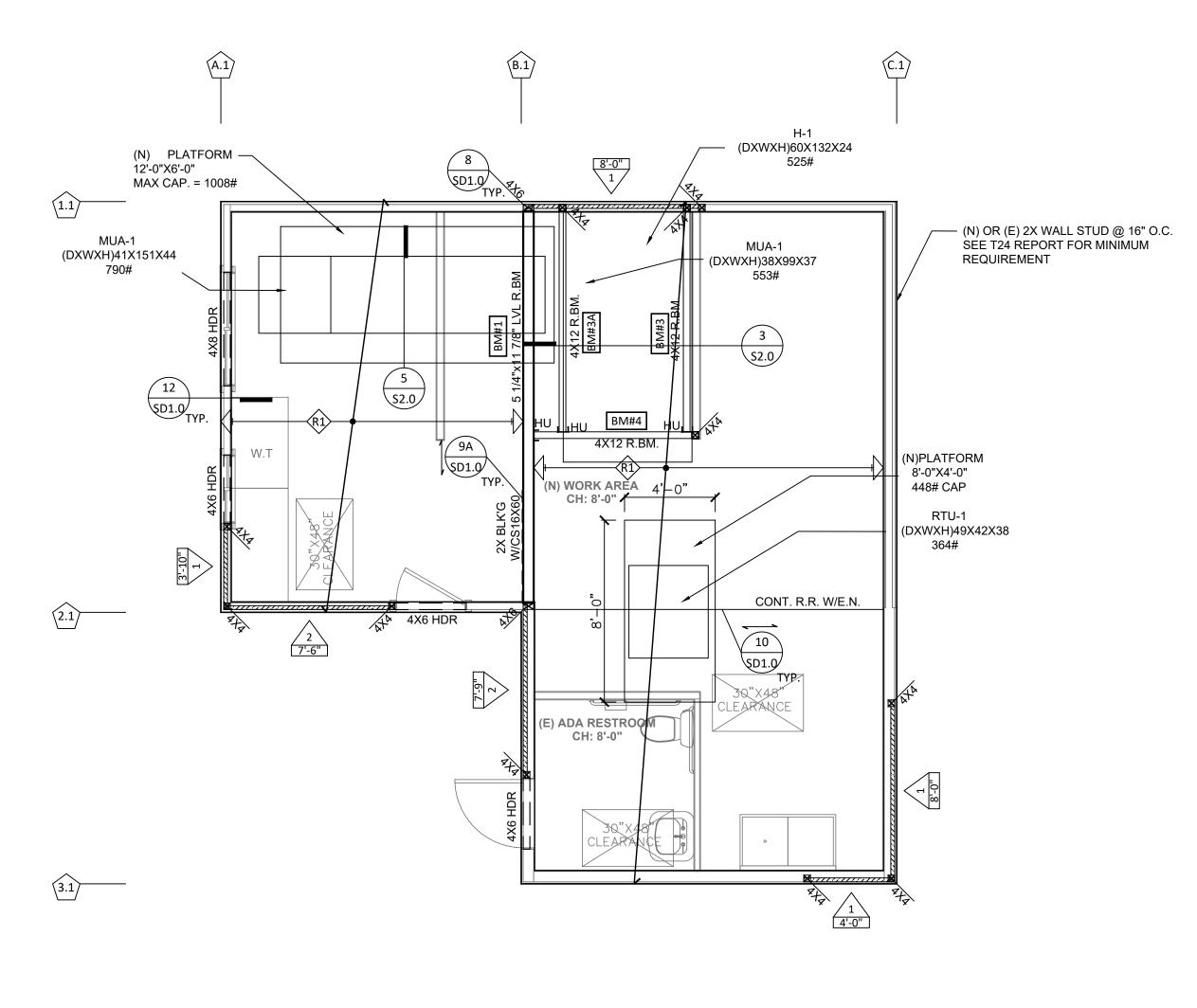
\$10.00 S10.00 S1

|         | EQUIPMEN | BRAND AND Model                        | D (in) | W (in) - | H (in) | Weight (lb) | Location |
|---------|----------|----------------------------------------|--------|----------|--------|-------------|----------|
|         | EQ#03    | COOKING PERFORMANCE GROUP GM-CPG-72-NL | 29.31  | 72.00    | 16.75  | 575         | FLOOR    |
|         | EQ#04    | AVANTO CBE-72-HC 72"                   | 32.13  | 72.38    | 25.88  | 275         | FLOOR    |
|         | EQ#07    | AVANTO SS-3R-HC                        | 32.25  | 81.00    | 82.50  | 635.00      | FLOOR    |
| SAMLL   | EQ#08    | AVANTO A-19F-HC                        | 25.50  | 29.00    | 82.50  | 234.00      | FLOOR    |
| CITCHEN | EQ#15    | REGENCY 18" x 60" x 74"                | 18.00  | 60.00    | 74.00  | 200.00      | FLOOR    |
| KITCHEN | EQ#16    | REGENCY 18" x 48" x 74"                | 18.00  | 48.00    | 74.00  | 200         | FLOOR    |
|         | H-1      | ECON-AIR 6024 EX-2                     | 60.00  | 120.00   | 24.00  | 525.00      | CEILING  |
|         | MUA-1    | ECON-AIR A2-20D                        | 38.00  | 190.00   | 44.00  | 692.00      | ROOF     |
|         | RTU-1    | TRANE 4WCC4036A                        | 49.00  | 42.00    | 38.00  | 364.00      | ROOF     |



### **FOUNDATION PLAN**

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



### **ROOF FRAMING PLAN**

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

| ANCHOR SCHEDULE (ANCHOR AT EACH LEG)(ESR-4266) |                   |           |                   |             |  |  |  |  |
|------------------------------------------------|-------------------|-----------|-------------------|-------------|--|--|--|--|
| EQ#                                            | ANCHOR TYPE       | EMBEDMENT | TOTAL # OF ANCHOR | HANGER ROD# |  |  |  |  |
| EQ#3&4                                         | 3/8" HILTI KB-TZ2 | 2"        | 4                 | NA          |  |  |  |  |
| EQ#07                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 | NA          |  |  |  |  |
| EQ#08                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 | NA          |  |  |  |  |
| EQ#15                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 | NA          |  |  |  |  |
| EQ#16                                          | 3/8" HILTI KB-TZ2 | 2"        | 4                 | NA          |  |  |  |  |
| H-1                                            | 1/2" LAG SCREW    | 3"        | 4                 | 4           |  |  |  |  |
| MUA-1                                          | 3/8" LAG SCREW    | 2.5"      | 6                 | NA          |  |  |  |  |
| RTU-1                                          | 3/8" LAG SCREW    | 2.5"      | 4                 | NA          |  |  |  |  |
|                                                |                   |           |                   |             |  |  |  |  |

|       | PAD FOOTING SCHEDULE                                          |     |     |              |  |  |  |  |  |  |
|-------|---------------------------------------------------------------|-----|-----|--------------|--|--|--|--|--|--|
| MARK  | MARK FOOTING SIZE 1-STORY THICKNESS 2-STORY THICKNESS REINFOR |     |     |              |  |  |  |  |  |  |
| (F-1) | 1'-6" x 1'-6"                                                 | 18" | 24" | 3-#4 EA. WAY |  |  |  |  |  |  |
| (F-2) | 2'-0" x 2'-0"                                                 | 18" | 24" | 4-#4 EA. WAY |  |  |  |  |  |  |
| (F-3) | 3'-0" x 3'-0"                                                 | 18" | 24" | 4-#5 EA. WAY |  |  |  |  |  |  |
| (F-4) | 4'-0" x 4'-0"                                                 | 18" | 24" | 6-#5 EA. WAY |  |  |  |  |  |  |
| (F-5) | 5'-0" x 5'-0"                                                 | 18" | 24" | 7-#5 EA. WAY |  |  |  |  |  |  |
|       |                                                               |     |     |              |  |  |  |  |  |  |

| HANGER SCHEDULE (U.N.O.)               |               |                     |  |  |  |  |
|----------------------------------------|---------------|---------------------|--|--|--|--|
| SUPPORTED MEMBER SIZE                  | HANGER        | MIN. POST SIZE REQ. |  |  |  |  |
| 2X RAFTERS, DBL. RAFTERS               | LSSJ, LSSR    |                     |  |  |  |  |
| 2X CEILING / FLOOR JOISTS, DBL. JOISTS | LUS, HU       |                     |  |  |  |  |
| TJI FLOOR I-JOISTS                     | ITS           |                     |  |  |  |  |
| 4X BEAM SAWN LUMBER                    | HU            | 4X4 DF#2            |  |  |  |  |
| 6X BEAM SAWN LUMBER                    | HU            | 4X6 DF#2            |  |  |  |  |
| 3 1/2" WIDE ENGINEERED BEAM            | HHUS          | 4X4 DF#2            |  |  |  |  |
| 5 1/4" WIDE ENGINEERED BEAM            | HHUS          | 4X6 DF#2            |  |  |  |  |
| 7" WIDE ENGINEERED BEAM                | HGUS          | 6X6 DF#1 / 4X8 DF#1 |  |  |  |  |
| 1 3/4" MICROLAM                        | LSU, HU       | 2-2X4 DF#2          |  |  |  |  |
| TRUSS HANGERS                          | USE MANUF. SI | UPPLIED HANGERS     |  |  |  |  |

| HANGER SCHEDULE (U.N.O.)  |               |                     |  |  |  |  |
|---------------------------|---------------|---------------------|--|--|--|--|
| MEMBER SIZE               | HANGER        | MIN. POST SIZE REQ. |  |  |  |  |
| , DBL. RAFTERS            | LSSJ, LSSR    |                     |  |  |  |  |
| FLOOR JOISTS, DBL. JOISTS | LUS, HU       |                     |  |  |  |  |
| IOISTS                    | ITS           |                     |  |  |  |  |
| VN LUMBER                 | HU            | 4X4 DF#2            |  |  |  |  |
| VN LUMBER                 | HU            | 4X6 DF#2            |  |  |  |  |
| NGINEERED BEAM            | HHUS          | 4X4 DF#2            |  |  |  |  |
| NGINEERED BEAM            | HHUS          | 4X6 DF#2            |  |  |  |  |
| INEERED BEAM              | HGUS          | 6X6 DF#1 / 4X8 DF#1 |  |  |  |  |
| LAM                       | LSU, HU       | 2-2X4 DF#2          |  |  |  |  |
| SERS                      | USE MANUF. SI | JPPLIED HANGERS     |  |  |  |  |

|                                              | PLYWOOD SHEAR WALL SCHEDULE |            |                        |        |                          |          |          |                   |                   |          |                    |          |        |        |
|----------------------------------------------|-----------------------------|------------|------------------------|--------|--------------------------|----------|----------|-------------------|-------------------|----------|--------------------|----------|--------|--------|
| EDGE NAILING FDN. SILL PLATE ANCHOR BOLT SPA |                             | LT SPACING | A35/LTP4 CLIPS SPACING |        | PLATE CONNECTION NAILING |          |          |                   | CAPACITY (PLF)    |          |                    |          |        |        |
| MARK                                         | TYPE                        | SPACING    | 1 SIDE                 | 2 SIDE | 1 SIDE                   | 2 SIDE   | 1 SIDE   | 2 SIDE            | 1 SIDE            | RIM/BLKG | 2 SIDE             | RIM/BLKG | 1 SIDE | 2 SIDE |
| X'-X"                                        | 1                           | 6" O.C.    | 2x                     |        | 32" O.C.                 |          | 16" O.C. |                   | 16d @ 6" O.C.     | 2x       |                    |          | 310    |        |
| X'-X"<br>2                                   | 2                           | 4" O.C.    | 2x                     | 3x     | 24" O.C.                 | 12" O.C. | 12" O.C. | 12" O.C. EA. SIDE | 16d @ 4" O.C.     | 3x       | SDS @ 6" O.C.      | 3x       | 460    | 920    |
| X'-X"                                        | 3                           | 3" STAGG.  | 3x                     | 3x     | 16" O.C.                 | 8" O.C.  | 9" O.C.  | 9" O.C. EA. SIDE  | (2) 16d @ 6" O.C. | 3x       | (2) SDS @ 10" O.C. | 4x       | 600    | 1200   |
| X'-X"<br>4                                   | 4                           | 2" STAGG.  | 3x                     | 3x     | 12" O.C.                 | 6" O.C.  | 6" O.C.  | 6" O.C. EA. SIDE  | SDS @ 6" O.C.     | 3x       | (2) SDS @ 6" O.C.  | 4x       | 770    | 1540   |

1. ALL SHEAR PANEL SHALL BE 1/2" OSB OR CDX PLYWOOD. ALL FIELD NAILING SHALL BE 10d @ 12" O.C.

b. SIMPSON RETROFIT FOUNDATION PLATES URFP/FRFP PER MANUFACTURE'S RECOMENDATION.

d. IN NON-P.T. SLABS, 5/8Ø" EXPENSION BOLT W/ 2 3/4" MIN. EMBEDMENT W/ MINIMUM 9" EDGE DISTANCE.

2. STUDS SHALL BE 2X4 MINIMUM AND SPACED @ 16" O.C. MAXIMUM. U.N.

c. 5/8Ø" x 7" SIMPSON TITEN HD.

- 3. INTERIOR SHEAR WALLS SHALL BE EXTENDED THROUGH THE ATTIC TO THE ROOF SHEATHING.
- NAILS SHALL BE COMMON NAILS, PLACED AT LEAST 1/2" FROM PANEL EDGES AND AT LEAST 1/2" FROM THE EDGE OF CONNECTION MEMBER OF ALL PANELS.
- . NAILS SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHEN NAIL SPACING IS 3" OR LESS O.C. (MINIMUM SPACING BETWEEN NAIL LINES IS 1/2") 6. NAILS FOR PRESERVATIVE-TREATED WOOD SHALL BE HOT-DIP GALVANIZED.
- '. SDS DENOTES 1/4"Ø SDS WOOD SCREWS WITH 2" MINIMUM PENETRATION INTO FRAMING BELOW. ROWS OF SDS SHALL BE STAGGERED 1/2" APART.
- 8. ALL ANCHOR BOLTS SHALL HAVE 3"SQ.x1/4" W/ 11/16"x1 3/4"DIAGONAL SLOT \*USE STD. CUT WASHER O/ PLATE WASHERS. USE 3"x4 1/2" AT 6" THICK SHEAR WALL. PLATE WASHER. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGED OF THE SILL PLATE ON THE SIDE WITH SHEATHING. a. 5/8Ø" A.B. W/ x 7" MINIMUM EMBEDMENT INTO CONCRETE. OR

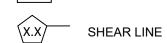
SYMBOLS LEGEND

WOOD POST ABOVE DIRECTION OF JOISTS

SHEAR PANEL LENGTH AND SCHEDULE

SHEAR PANEL LENGTH AND SCHEDULE DETAIL

BEAM NUMBER, REFER TO E.O.R. CALCULATIONS



CALIFORNIA FRAMING

PAD FOOTING

— — (E) FOUNDATION (N) FOUNDATION

### FRAMING NOTES

2 X 12 ROOF RAFTERS @ 16" O.C.

### FOUNDATION & FRAMING NOTES

- 1. CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
- PLAN SHOWS STRUCTURAL WALLS, ROOF LINES ABOVE FOUNDATION. ARCHITECTURAL BACKGROUND INDICATES NON-STRUCTURAL
- CONFIRM ALL BACKGROUND INFORMATION WITH CURRENT ARCHITECTURAL DRAWINGS.
- 2. SEE STRUCTURAL SPECIFICATIONS ON SHEET SN1.0.
- 3. NEW STEM WALL FTG. SHALL BE 16" WIDE CONT. FTG. W/ (2)-#4 T&B & #3 VERT @ 24" O.C. TYP.
- 4. PROVIDE 2x SOLID BLOCKING @ 8' OC BETWEEN FL JOIST TYP.
- 5. ALL FLOOR USE 3/4" PLYWOOD T&G WITH 10d@ 6" O.C. EDGE NAILS 10" O.C. FIELD NAILS TYP AT FLOOR AREA GLUED AND NAILED.
- 6. PROVIDE FLOOR PLYWOOD EDGE NAILS FULL LENGTH AT ALL SHEAR WALL LINE.
- 7. FL JST, GIRDER W/ HUTF HGR AT END TO WALL SILL PL TYP.
- 8. HOLDOWNS SHOULD BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- 9. ALL HOLDOWNS REQUIRED 4x4 MINIMUM POST.
- 10. FULL HEIGHT STUDS SHALL BE USED ON EXTERIOR WALLS OF ROOM WITH VAULTED CEILINGS. 2x6 STUD @ 16" O.C. FOR 12'-0" OR MORE
- 11. ALL ROOF USE 1/2" OSB PLYWOOD WITH 10d @ 6" OC EDGE NAILS AND 12" OC FIELD NAILS UNBLOCKED TYPICAL.
- 12. ALL FLOOR 3/4" PLYWOOD T&G WITH 10d@ 6" OC EDGE NAILS 10" OC FIELD NAILS TYP AT FLOOR AREA GLUED AND NAILED.
- 13. PROVIDE SIMP. CS16x30" @ SIDE OF EXTERIOR WALL & SHEAR WALL WHERE TOP PLATES SPLICED OR CONNECTED TO BM TYP AS SHOWN.
- 14. ALL BEAM TO BEAM SUPPORT USE HANGER PER HANGER SCHEDULE.
- 15. PROVIDE SIMP. CS16x30"MIN @ SIDE OF EXTERIOR WALL & SHEAR WALL WHERE TOP PLATES SPLICED OR CONNECTED TO BM TYP.
- 16. PROVIDE PC4 CAP & BC4 BASE TYP AT EA END OF DROPPED FLOOR
- BM EXTEND POST DOWN TO FOUNDATION. 17. SOLID BLOCKING SHALL BE PROVIDED AT ALL HORIZONTAL JOINTS
- OCCURRING IN BRACED WALL PANELS. 18. ALL BEAMS PROVIDE 4x BEAM WIDTH POST.

PRIOR TO CALLING FOR FOUNDATION INSPECTION.

- 19. ALL EXTERIOR WALLS AND WOOD FRAMED CHIMNEYS MUST BE
- SHEATHED WITH SHEAR PANEL U.N. 20. PLYWOOD OF ALL INTERIOR SHEAR WALL TO BE EXTENDED UP TO
- 21. THE NEW FOUNDATION TYPE MUST MATCH EXISTING FOUNDATION,
- REPORT TO ENGINEER OF RECORD IF IT IS DIFFERENT. 22. HOLDOWN ANCHOR BOLT TO BE SET AND POSITIONED IN PLACE

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**ORANGE** 

**ENGINEERING** 

4005 CLIPPER CT FREMONT, CA 94538

TEL (408) 888-7836

No. C92766

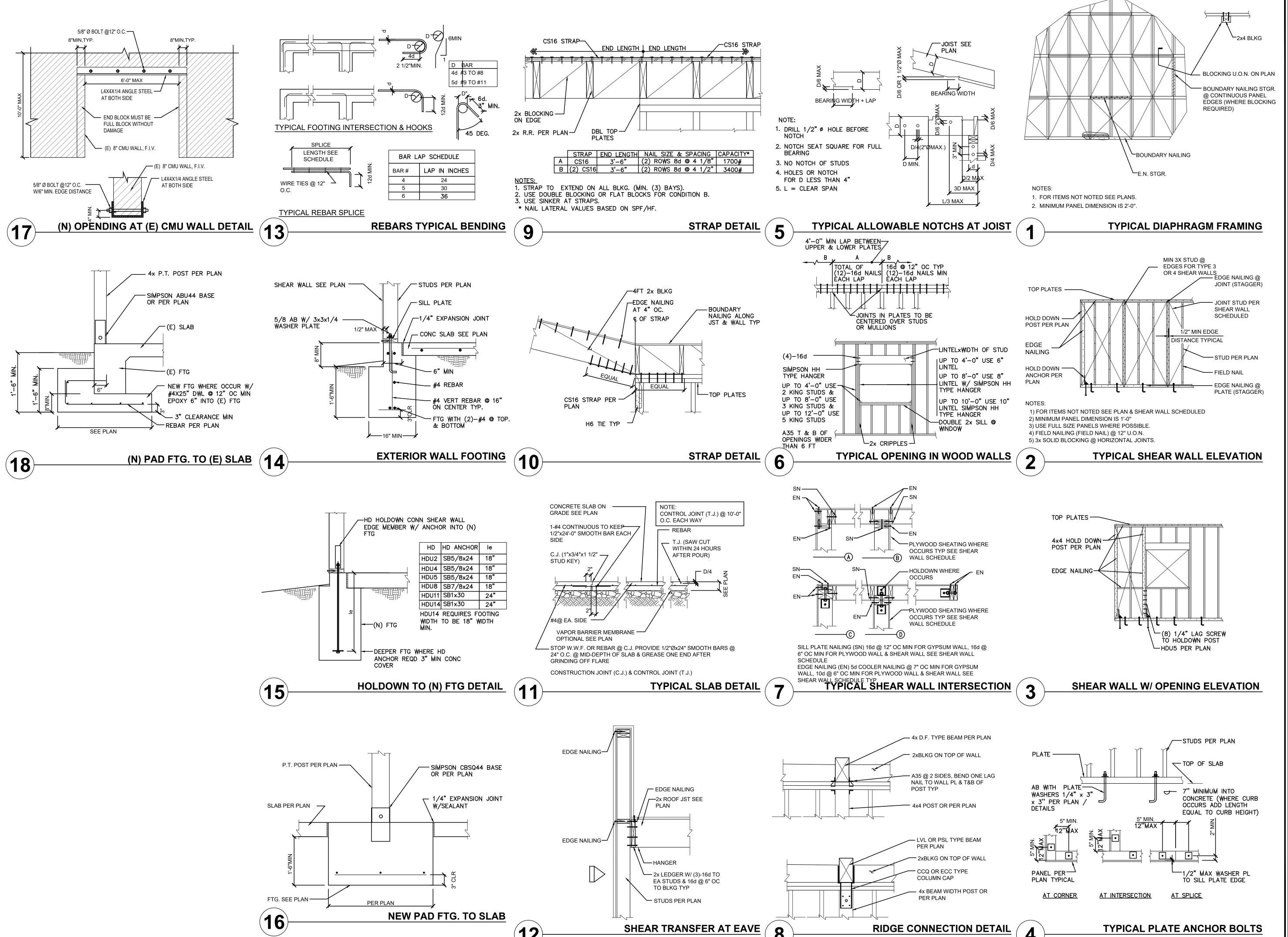
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SHEET NAME.

**FOUNDATION & ROOF PLAN** 

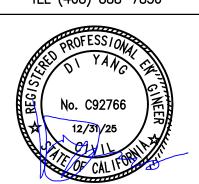
- SAMLL KITCHEN

**S3.0** 



**ORANGE ENGINEERING** 

> 4005 CLIPPER CT FREMONT, CA 94538 TEL (408) 888-7836



4806 

DATE: 10/11/24 JOB NO. SS24805

ISSUE & REVISION MM/DD/YY CITY SUBMITTAL

**DETAILS** 

SHEET NO.

SHEET NAME.

**SD1.0** 

| M000 | MECHANICAL NOTES            |
|------|-----------------------------|
| M001 | MECHANICAL SCHEDULES        |
| M002 | MECHANICAL DETAILS          |
| M100 | MECHANICAL PLAN             |
| M101 | MECHANICAL PLAN - ROOF PLAN |
| M200 | HOOD INFORMATION            |
| M201 | HOOD INFORMATION            |
| M202 | HOOD INFORMATION            |
| M203 | HOOD INFORMATION            |
| M204 | HOOD INFORMATION            |
| M205 | HOOD INFORMATION            |
| M206 | HOOD INFORMATION            |
| M207 | HOOD INFORMATION            |
| TM00 | MECHANICAL TITLE 24 - 1     |
| TM01 | MECHANICAL TITLE 24 - 2     |
| TM02 | MECHANICAL TITLE 24 - 3     |
| TM03 | MECHANICAL TITLE 24 - 4     |
|      |                             |

SCOPE OF WORK

PROVIDE DUCTWORKS AND AIR DEVICES THROUGHOUT THE SPACE.

EXISTING COMMERCIAL TENANT IMPROVEMENT.

PROVIDE NEW HVAC UNITS.

### A MAINTENANCE LABEL SHALL BE AFFIXED TO MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED TO THE OWNER PER

**HVAC SPECIFICATIONS** 

### STANDARDS.

CONCEALED SPACES, CIRCULATION AIR

INSULATED WIRES, PLASTIC TUBING OR PIPING, PIPE INSULATION, CONDENSATE PAN INSULATION, WOOD, PVC, ABS AND OTHER PLASTICS) TO BE IN CONCEALED SPACES USED TO CONVEY CIRCULATING AIR SUPPLY. WHEN COMBUSTIBLE MATERIAL IS TO BE LOCATED IN THE ABOVE SPACES, IT SHALL BE APPROVED FOR SUCH INSULATION.

### INSULATION OF DUCTS

PORTIONS OF SUPPLY-AIR AND RETURN-AIR DUCTS CONVEYING HEATED OR COOLED AIR LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-8:

OUTDOORS; OR

- IN A SPACE BETWEEN THE ROOF AND AN INSULATED CEILING; OR
- IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES; OR
- 4. IN AN UNCONDITIONED CRAWL SPACE; OR
- IN OTHER UNCONDITIONED SPACES.

PORTIONS OF SUPPLY-AIR DUCTS THAT ARE NOT IN ONE OF THESE SPACES. INCLUDING DUCTS BURIED IN CONCRETE SLAB, SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 OR BE ENCLOSED IN DIRECTLY CONDITIONED SPACE. SEALING

TRANSVERSE SUPPLY DUCTS, TAPED OR SEALED WITH MASTIC EXCEPT FOR DUCTS EXPOSED TO CONDITIONED SPACE, WHERE DUCT STATIC PRESSURE EXCEEDS 3/4" WATER, LONGITUDINAL JOINTS, TAPED OR SEALED WITH MASTIC.

### INSPECTION

INSPECTION TO BE MADE AND DUCTWORK APPROVED BEFORE COVERING WITH INSULATION.

### PIPE INSULATION

SPACE-CONDITIONING AND SERVICE WATER-HEATING SYSTEM SHALL BE INSULATED IN ACCORDANCE WITH THE FOLLOWING TABLE:

| PIPE INSULATION THICKNESS |                                                                    |               |                           |              |              |          |                 |  |  |  |
|---------------------------|--------------------------------------------------------------------|---------------|---------------------------|--------------|--------------|----------|-----------------|--|--|--|
| FLUID                     | CONDUCTIVITY                                                       | INSULATION    | NOMINAL PIPE DIAMETER (") |              |              |          |                 |  |  |  |
|                           | RANGE<br>(BTU-"/HR PER                                             |               | <1                        | 1 TO<br><1.5 | 1.5 TO<br><4 | 4 TO <8  | 8 AND<br>LARGER |  |  |  |
| (°F)                      | SQFT/°F)                                                           | TEMP. (°F)    | INSUL                     | ATION T      | HICKNES      | S REQUIR | ED (")          |  |  |  |
| SPAC                      | SPACE HEATING, HOT WATER SYSTEMS AND SERVICE WATER HEATING SYSTEMS |               |                           |              |              |          |                 |  |  |  |
| 350<                      | 0.32-0.34                                                          | 250           | 4.5                       | 5.0          | 5.0          | 5.0      | 5.0             |  |  |  |
| 251-350                   | 0.29-0.31                                                          | 200           | 3.0                       | 4.0          | 4.5          | 4.5      | 4.5             |  |  |  |
| 201-250                   | 0.27-0.30                                                          | 150           | 2.5                       | 2.5          | 2.5          | 3.0      | 3.0             |  |  |  |
| 141-200                   | 0.25-0.29                                                          | 125           | 1.5                       | 1.5          | 2.0          | 2.0      | 2.0             |  |  |  |
| 105-140                   | 0.22-0.28                                                          | 100           | 1.0                       | 1.5          | 1.5          | 1.5      | 1.5             |  |  |  |
|                           | SPACE COOLIN                                                       | G SYSTEMS (CH | ILLED WA                  | ATER, REI    | FRIGERA      | NT AND B | RINE)           |  |  |  |
| 40-60                     | 0.21-0.27                                                          | 7 75 NONRES 0 |                           | S 0.5        | 1.0          | 1.0      | 1.0             |  |  |  |
|                           |                                                                    |               | RES                       | 0.75         |              |          |                 |  |  |  |
| <40                       | 0.20-0.26                                                          | 50            | 1.0                       | 1.5          | 1.5          | 1.5      | 1.5             |  |  |  |
| EX                        | EXCEPTIONS:                                                        |               |                           |              |              |          |                 |  |  |  |

- (1) FACTORY-INSTALLED PIPING WITHIN SPACE CONDITIONING EQUIPMENT: (2) PIPING THAT CONVEYS FLUIDS THAT HAVE A DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60 DEGREES AND 105 DEGREES FAHRENHEIT
- (3) WHERE THE HEAT GAIN OR HEAT LOSS TO OR FROM PIPING WITHOUT INSULATION WILL NOT INCREASE BUILDING SOURCE ENERGY USE; (4) PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION, METAL PIPING THAT PENETRATES METAL FRAMING SHALL USE GROMMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING.

### TEMPERATURE CONTROLS

EACH HVAC SYSTEM SHALL BE PROVIDED WITH AT LEAST ONE AUTOMATIC TEMPERATURE CONTROL DEVICE FOR THE REGULATION OF TEMPERATURE THESE AUTOMATIC TEMPERATURE CONTROL DEVICES SHALL BE CAPABLE OF BEING SET TO MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55 DEGREES F TO 85 DEGREES F, SHALL BE CAPABLE OF OPERATING THE SYSTEM HEATING AND/OR COOLING IN SEQUENCE.

EXCEPT AS ALLOWED, THESE CONTROLS SHALL BE ADJUSTABLE TO PROVIDE A DEAD BAND OF 5 DEGREES F BETWEEN FULL HEATING AND FULL COOLING. CONTROLS SHALL HAVE THE CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE NO MORE THAN 70 DEGREES F AND OF TERMINATING ALL COOLING AT A TEMPERATURE NOT LESS THAN 78 DEGREES F.

**DUCT GAUGE SELECTIONS** 

MINIMUM THICKNESS

ALUMINUM (INCHES)

MINIMUM THICKNESS

GAUGE/INCHES)

26/.022

26/.022

24/.023

2022 BUILDING ENERGY EFFICIENCY STANDARDS

GALVANIZED IRON (U.S.

HEATING AND AIR CONDITIONING UNITS NOT EXCEEDING 2000 CFM OR ONE INCH

WATER GAUGE (WG) POSITIVE OR NEGATIVE PRESSURE. DUCT FITTINGS SHALL

BE CONSTRUCTED OF MATERIAL NOT LESS THAN THE GAUGE OF THE DUCT.

CONSTRUCTED TO THE GAUGING REQUIREMENTS OF ANSI SMACNA 006-2006

MECHANICAL CODE

DUCTWORK AND FITTINGS LARGER THAN TWENTY INCHES SHALL BE

FOR GALVANIZED STEEL (SMACNA TABLE 1-4/E5)

HVAC DUCT CONSTRUCTION STANDARDS.

DUCT DIAMETER

(INCHES)

31-36

FOOTNOTES:

2022 CMC

LESS THAN 12

MAXIMUM 1" W.G. STATIC POSITIVE AND NEGATIVE

### ALL WORK SHALL CONFORM TO MECHANICAL CODE, BUILDING CODE AND

**HVAC GENERAL NOTES** 

- ALL OTHER APPLICABLE CITY CODES AND REGULATIONS.
- CONTROL LOW VOLTAGE WIRING BY MECHANICAL CONTRACTOR AND CONDUIT BY ELECTRICAL CONTRACTOR.

THE CONTRACTOR SHALL PAY FOR ALL PERMITS AND FEES.

- CONDENSATE DRAIN PIPING AND FINAL CONNECTION TO UNIT BY PLUMBING CONTRACTOR
- G.C. TO VERIFY CURRENT ELECTRICAL POWER CONDITION IN FIELD BEFORE PURCHASING ANY MECHANICAL EQUIPMENT
- CONTRACTOR TO VERIEY MECHANICAL HEATING FOUIPMENT TO BE CONFORM TO LOCAL EPA STANDARD BEFORE PURCHASING EQUIPMENT.
- ACCURATE AS-BUILT DRAWINGS SHALL BE MADE DURING CONSTRUCTION AND SUBMITTED FOR APPROVAL UPON COMPLETION OF INSTALLATION.
- THE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR SIZE AND LOCATION OF DUCTWORK ROOF OPENINGS AND WITH ELECTRICAL CONTRACTOR FOR ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT AND ARCHITECTURAL DRAWINGS FOR AIR DISTRIBUTION
- THE CONTRACTOR SHALL SUBMIT BID BASED ON THE DRAWINGS AND ALTERNATE FOR COST SAVING. THESE DRAWINGS ARE FOR BIDDING
- ). THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION AND SERVICES NECESSARY FOR COMPLETION OF THE WORK. ALL MATERIALS AND WORK SHALL COMPLY WITH APPLICABLE CODES AND GOVERNING REGULATIONS AND MEET THE APPROVAL OF THE LOCAL JURISDICTION.
- 1. TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MATERIALS BEFORE, DURING AND AFTER INSTALLATION. IN THE EVENT OF DAMAGE, IMMEDIATELY REPAIR ALL DAMAGED AND DEFECTIVE WORK TO THE APPROVAL OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
- 2. THESE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH ALL OTHER TRADES. THIS INCLUDES COORDINATING THE LOCATION AND SIZE OF ALL OPENINGS. LOCATIONS OF EQUIPMENT PADS AND CHANGES OF ELEVATIONS OF DUCTWORK, PIPING AND OTHER EQUIPMENT.
- 3. ANY MATERIAL, ARTICLE OR PIECE OF EQUIPMENT OTHER THAN THAT INDICATED SHALL NOT BE USED UNLESS APPROVED IN WRITING BY THE ENGINEER AND ANY CHANGES IN MECHANICAL, ELECTRICAL AND/OR OTHER SYSTEMS REQUIRED DUE TO SUCH SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR; AND AT NO ADDITIONAL COST
- . THE CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT AND INFORM THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.
- 5. CONTRACTOR TO VERIFY ADEQUATE PLUMBING CONNECTIONS ARE READILY AVAILABLE FOR EVAPORATIVE COOLERS AND GAS HEATING SYSTEMS BEFORE PURCHASING EQUIPMENT.
- 6. COORDINATE ENTIRE INSTALLATION OF THE H.V.A.C. SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
- WARRANTIES: 1-YEAR WARRANTY FOR EQUIPMENT, 5-YEAR COMPRESSORS. REFER TO CONSTRUCTION CONTRACT FOR OTHER APPLICABLE
- 8. EQUIPMENT SPECIFICATION AND INTERLOCK DIAGRAM SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PURCHASE OF EQUIPMENT FOR INSTALLATION.
- 9. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
- 20. HEATING, VENTILATING, AND AIR-CONDITIONING SYSTEMS SHALL BE BALANCED BY A LICENSED T&B CONTRACTOR IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS (CMC 314.1): AABC NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE
- ACCA MANUAL B ASHRAE 111
- NEBB PROCEDURAL STANDARDS FOR TESTING ADJUSTING BALANCING OF ENVIRONMENTAL SYSTEMS SMACNA HVAC SYSTEMS TESTING, ADJUSTING AND BALANCING
- 1. PROVIDE FILTER FOR AIR CONDITIONING AND/OR AIR SIDE UNITS AS REQUIRED PER ASHRAE AND MECHANICAL CODE.
- 2. THERMOSTAT SHALL BE 24 VOLT, ONE STAGE HEATING AND ONE OR TWO STAGE COOLING WITH MATCHING SUBBASE AND TAMPER PROOF COVER.
- 23. CONDENSATE PIPING SHALL BE SIZED IN ACCORDANCE WITH MECHANICAL
- 24. AUTOMATIC FIRE DAMPER REQUIREMENTS ARE AS FOLLOWS: PROVIDE AUTOMATIC FIRE DAMPERS AT ALL PENETRATIONS

CA GREEN BUILDING NOTES

IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR

EFFICIENCY OF 30% BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS

IMMEDIATELY PRIOR TO OCCUPANCY. APPLIES TO ADDITIONS OR

FILTERS WITH A MERV OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE

5.504.3 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL

COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED

AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE

AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE

ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND

OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR

OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDES AT

FOR MECHANICALLY OR NATURALLY VENTILATED SPACES IN BUILDINGS,

ENERGY CODE AND CHAPTER 4 OF CCR, TITLE 8, OR THE APPLICABLE

MEET THE MINIMUM REQUIREMENTS OF SECTION 120.1 OF THE CALIFORNIA

INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT

INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT

CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING,

PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE

IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY

5.504.1 TEMPORARY VENTILATION:

**EQUIPMENT DURING CONSTRUCTION:** 

DEBRIS WHICH MAY ENTER THE SYSTEM.

5.506.1 OUTSIDE AIR DELIVERY:

LOCAL CODE, WHICHEVER IS MORE STRINGENT.

5.508.1.1. CHLOROFLUOROCARBONS (CFCs):

5.504.5.3 FILTERS:

LEAST A MERV OF 13.

DO NOT CONTAIN CFCs.

DO NOT CONTAIN HALONS.

5.508.1.2. HALONS:

OF FIRE-RATED CEILINGS AND WALLS THROUGHOUT. CONTRACTOR SHALL COORDINATE WITH FIRE-RATED CEILING AREAS AND WALLS AS INDICATED ON ARCHITECTURAL OMISSIONS ON THE DRAWINGS. SEE SPECIFICATIONS.

### DRAWINGS. THIS NOTE SHALL TAKE PRECEDENCE OVER ANY LOCATION OF FIRE-RATED CEILINGS AND WALLS ARE AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

### CONDENSATE WASTE SHALL CONNECT INDIRECTLY TO THE DRAINAGE SYSTEM THROUGH AN AIR GAP OR AIR BREAK TO PROPERLY TRAPPED AND VENTED RECEPTORS, DRY WELLS, OR THE TAILPIECE OF A PLUMBING

- WHERE CONDENSATE WASTE FROM AIR CONDITIONING COILS DISCHARGES BY DIRECT CONNECTION TO A LAVATORY TAILPIECE OR TO AN APPROVED ACCESSIBLE INLET ON A BATHTUB OVERFLOW, THE CONNECTION SHALL BE LOCATED IN AN AREA CONTROLLED BY THE SAME PERSON CONTROLLING THE AIR-CONDITIONED SPACE.
- THE REFRIGERATION EQUIPMENT REFRIGERANT SERVICE PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING TYPE TAMPER RESISTANT CAPS OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS BY A MEANS ACCEPTABLE TO THE ENFORCING AGENCY.
- THE HEATING AND COOLING DUCT SYSTEM IS SIZED IN ACCORDANCE WITH
- G.C. TO VERIFY SUFFICIENCY OF DUCT SPACE BEFORE PURCHASING ANY MECHANICAL EQUIPMENT.
- DUCTWORK SHALL BE INSULATED OR LINED AS NOTED ON DRAWINGS. ALL DUCTWORK EXPOSED ON ROOF SHALL BE INTERNALLY LINED UNLESS OTHERWISE INDICATED OR SPECIFIED. ALL DUCT SIZES ARE SHEET METAL
- CONNECT MAIN DUCT TO AIR CONDITIONING UNIT WITH WEATHERPROOF FLEXIBLE CONNECTION. SUN SHIELD OVER ENTIRE FLEXIBLE CONNECTIONS REQUIRED IF FLEXIBLE CONNECTION IS EXPOSED TO

SIZES. ALL DUCT JOINTS SHALL BE SEALED PER SPECIFICATIONS.

- ALL LINED DUCT DIMENSIONS ARE NET CLEAR DIMENSION AFTER LINING HAS BEEN INSTALLED.
- ALL DUCTWORK SIZE SHOWN ON PLAN ARE INTERIOR DIAMETER. CONTRACTOR SHALL ADD INSULATION THICKNESS INTO CONSIDERATION BEFORE INSTALLATION.
- DUCTS SHALL BE SUPPORTED WITH 1" WIDE 16-GAUGE HANGER STRAPS. AND SHALL BE SPACED AT NO MORE THAN 7'-0" ON CENTERS AND SHALL BE SECURED TO STRUCTURAL MEMBER. EXPOSED DUCTWORK ON ROOF SHALL BE SUPPORTED BY GALVANIZED STEEL ANGLE & SHALL BE PER LOCAL CODE.
- EXACT CEILING SPACE AND INTERCHANGE THE DUCT SIZE TO FIT THE CEILING SPACE WITHOUT ADDITIONAL FEE CHARGE. ALL FACTORY-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181

SECTION AREAS ARE EQUIVALENT. CONTRACTOR IS TO VERIFY THE

ROUND AND RECTANGULAR DUCTWORK ARE INTERCHANGEABLE IF CROSS

- FOR DUCTS AND CLOSURE SYSTEMS, INCLUDING COLLARS, CONNECTIONS, AND SPLICES, AND BE LABELED AS COMPLYING WITH UL
- INSTALL VOLUME CONTROL DAMPERS AT EACH SUPPLY DIFFUSER TO AFFORD COMPLETE CONTROL OF THE AIR FLOW IN THE VARIOUS DUCT SYSTEMS. INSTALL SPLITTER DAMPER AT DUCT TAKEOFFS AND DAMPER AS REQUIRED.
- COORDINATE THE LOCATION OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS.
- 40. ALL CEILING DIFFUSERS ARE 4-WAY UNLESS OTHERWISE NOTED.
- OTHERWISE NOTED PER CODE. EXHAUST TERMINATION SHALL BE MINIMUM 10'-0" AWAY OR 3'-0" ABOVE

PROVIDE BACK-DRAFT DAMPER FOR ALL EXHAUST AIR DUCT UNLESS

- FROM ANY FRESH AIR INTAKE, OPERABLE WINDOWS, DOORS AND 10'-0" MINIMUM ABOVE GRADE.
- PROVIDE ALL FRESH AIR INTAKES AND EXHAUST OUTLETS WITH HOOD, 1/2" GALVANIZED MESH SCREENS AND OUTSIDE AIR BACK-DRAFT DAMPERS.
- ALL HVAC UNITS OR SYSTEMS SERVING A COMMON AIR SPACE MUST BE INTERCONNECTED TO SHUT DOWN IMMEDIATELY UPON ALARM CONDITION FROM DUCT DETECTORS (OR FIRE ALARM SYSTEM WHEN USING AREA SMOKE DETECTORS IN LIEU OF DUCT DETECTORS) WITHOUT INTERFERENCE FROM EMS OR ANY OTHER SYSTEMS. ALL CONTROL RELAYS USED FOR SHUT DOWN MUST BE APPROVED BY STATE OR LOCAL JURISDICTION FOR RELEASING SERVICE.
- PURCHASING PARTY SHALL ENSURE THE MOTOR SPECS PRIOR TO ORDERING EXHAUST SYSTEM TO ENSURE THE PANEL IS BUILT CORRECTLY.
- REDWOOD SLEEPER OR PLATFORM FOR ROOF MOUNTED UNIT, DUCT PENETRATION. CUTTING AND PATCHING BY GENERAL CONTRACTOR, UNLESS OTHERWISE NOTED ON PLAN.
- 42" MINIMUM GUARDS TO BE PROVIDED WHEN ROOF MOUNTED OR ROOF ACCESS EQUIPMENT THAT REQUIRE SERVICE ARE LOCATED WITHIN 10' OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30" ABOVE THE ROOF SURFACE.
- CONTRACTOR SHALL SUBMIT A COMPLETE BALANCE REPORT FOR APPROVAL. SYSTEMS AIR BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCE CONSULTANT. A CERTIFIED AABC OR NEBB. THE REPORT SHALL INCLUDE THE FOLLOWING:
  - AIR QUANTITIES AT EACH REGISTER. STATIC PRESSURE READINGS AT INLET AND DISCHARGE OF EACH AIR HANDLING SYSTEM AND AT INLET OF EACH
  - EXHAUST AIR SYSTEM. COOLING AND HEATING SUPPLY AND RETURN AIR TEMPERATURES AT EACH AIR CONDITIONING UNIT.

### CA TITLE 24 NOTES

### ADIMINISTRATIVE REQUIREMENTS:

- THE PERSON WITH OVERALL RESPONSIBILITY FOR CONSTRUCTION OR THE PERSON RESPONSIBLE FOR THE INSTALLATION OF REGULATED FEATURES. MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES SHALL POST, OR MAKE AVAILABLE WITH THE BUILDING PERMIT(S) ISSUED FOR THE BUILDING THE REQUIRED INSTALLATION CERTIFICATE(S) FOR FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OR PART 6. SUCH INSTALLATION CERTIFICATE(S) SHALL BE MADE AVAILABLE TO THE ENFORCEMENT AGENCY FOR ALL APPROPRIATE INSPECTIONS. THESE CERTIFICATES SHALL
  - A.1. IDENTIFY FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REQUIRED TO VERIFY COMPLIANCE WITH THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6. A.2. INCLUDE A STATEMENT INDICATING THAT THE FEATURES. MATERIALS, COMPONENTS, OR MANUFACTURED DEVISE CONFORM TO THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6 AND THE REQUIREMENTS FOR SUCH FEATURES. MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES
  - GIVEN IN THE PLANS AND SPECIFICATIONS APPROVED BY THE LOCAL ENFORCEMENT AGENCY A.3. STATE THE NUMBER OF THE BUILDING PERMIT UNDER WHICH

THE CONSTRUCTION OR INSTALLATION WAS PERFORMED.

- WITHIN 90 DAYS AFTER ISSUANCE OF CERTIFICATE OF OCCUPANCY RECORD DRAWINGS SHALL BE PROVIDED TO THE OWNER. IF A BUILDING DESIGN FEATURE, MATERIAL, COMPONENT OR MANUFACTURED DEVICE IS CHANGED BEFORE FINAL CONSTRUCTION AND INSTALLATION, SUCH THAT THE BUILDING MAY NO LONGER COMPLY WITH PART 6, THE BUILDING MUST BE BROUGHT INTO COMPLIANCE, AND SO INDICATED ON AMENDED PLANS AND CERTIFICATE OF COMPLIANCE(S) THAT SHALL BE SUBMITTED FOR
- THE BUILDER SHALL PROVIDE THE BUILDING OWNER OR THE PERSON(S) RESPONSIBLE FOR BUILDING MAINTENANCE (IN CASE OF MULTI-TENANT OR CENTRALLY OPERATED BUILDINGS) AT OCCUPANCY THE FOLLOWING:
  - C.1. OPERATING INFORMATION: THE APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, COMPONENTS. AND MECHANICAL DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO OPERATE THEM **EFFICIENTLY**
  - C.2. MAINTENANCE INFORMATION: REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE OPERATION AND MAINTENANCE MANUAL
  - C.3. VENTILATION INFORMATION: A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEMS ARE DESIGNED TO PROVIDE TO EACH

### MANDATORY MEASURES:

- (IF APPLICABLE) MANUFACTURED FENESTRATION AND EXTERIOR DOORS SHALL MEET ALL LISTED REQUIREMENTS IN SEC 10-111-(A) UNDER SECTION 110.6(A) OF PART 6. TEMPORARY LABELS FOR MANUFACTURED FENESTRATION SHALL HAVE A CLEARLY VISIBLE TEMPORARY LABEL AND SHALL COMPLY WITH LABELING REQUIREMENTS OF NFRC 700. NO OTHER VALUES FOR U-FACTOR, SHGC, VT AND AIR LEAKAGE ARE ALLOWED ON THE TEMPORARY LABEL ATTACHED TO THE MANUFACTURED FENESTRATION PRODUCT OR EXTERIOR DOOR.
- (IF APPLICABLE) RATED FENESTRATION SHALL HAVE A PERMANENT LABEL CONSISTENT WITH THEIR RATING AND CERTIFICATION THAT IS FITHER A STAND-ALONE LABEL, AN EXTENSION OR TAB OF AN EXISTING PERMANENT CERTIFICATION LABEL BEING USED BY THE MANUFACTURER/RESPONSIBLE PARTY, OR A SERIES OF MARKS OR ETCHINGS ON THE PRODUCT.
- JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED. GASKETED, WEATHER STRIPPED, OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION.
- ALL INSULATING MATERIAL SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME-SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF THE CBC.
- NON-CENTRALIZED ENERGY MANAGEMENT SYSTEMS SHALL HAVE SETBACK THERMOSTATS; CAPABLE TO PROGRAM TEMPERATURE SETPOINTS FOR AT LEAST FOUR PERIODS WITHIN A 24-HR. PERIOD.
- ALL RECIRCULATED AIR OR OUTDOOR AIR SUPPLIED TO OCCUPIABLE SPACES IS FILTERED (MINIMUM MERV 13) BEFORE PASSING THROUGH ANY AIR CONDITIONING COMPONENT: THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SEC. 120.1 (C), OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE ONE-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY
- ALL MECHANICAL VENTILATION AND SPACE-CONDITIONING SYSTEMS SHALL BE DESIGNED WITH DUCTWORK, DAMPERS, AND CONTROLS WHICH ALLOWS OUTSIDE AIR RATES TO BE OPERATED AT THE LARGER OF (1) THE MINIMUM LEVELS SPECIFIED IN SECTION 120.1(C)3 OR (2) THE RATE REQUIRED FOR MAKE-UP OF EXHAUST SYSTEMS THAT ARE REQUIRED FOR AN EXEMPT OR COVERED PROCESS, FOR CONTROL OF ODORS, OR FOR THE REMOVAL OF CONTAMINANTS WITHIN THE SPACE. MEASURED OUTSIDE AIR RATES OF CONSTANT AND VARIABLE VOLUME MECHANICAL VENTILATION SYSTEMS SHALL BE WITHIN 10% OF OUTSIDE AIR RATE SHOWN ON TABLE 120.1-A.
- THE THERMOSTATIC CONTROLS FOR HVAC SYSTEMS SHALL BE CAPABLE OF BEING SET LOCALLY OR REMOTELY BY TO CONTROL COMFORT HEATING DOWN TO 55 °F OR LOWER AND COOLING UP TO 85°F OR HIGHER. THE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A DEAD BAND RANGE OF AT LEAST 5 °F WITHIN WHICH HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCE TO A MINIMUM.
- OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUTDOWN.
- AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS, INCLUDING, BUT NOT LIMITED TO, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR-HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS OR PLENUMS, SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF CHAPTER 6 CMC CODE AND ANSI/SMACNA -006-2006 HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE. SUPPLY-AIR DUCTS CONVEYING HEATED OR COOLED AIR SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (R-8 IN UNCONDITIONED SPACE), UNLESS DUCTS ARE IN CONDITIONED SPACE.
- MAXIMUM LENGTH OF FLEXIBLE DUCT AND CONNECTORS SHALL NOT BE MORE THAN 5 FEET. FLEXIBLE DUCTS SHALL NOT BE USED IN LIEU OF RIGID
- EACH SPACE-CONDITIONING SYSTEM SHALL BE INSTALLED WITH CONTROLS (1) CAPABLE OF AUTOMATICALLY SHUTTING OFF THE SYSTEM DURING PERIODS OF NON-USE AND SHALL HAVE (A) 4-HR TIMER OR; (B) OCCUPANCY SENSORS OR; (C) AUTO TIME SWITCH CONTROLS AND ACCESSIBLE MANUAL OVERRIDE FOR UP TO 4-HRS. (2) AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN SETBACK THERMOSTAT SETPOINTS FOR MECHANICAL HEATING AND COOLING. (3) MULTIPURPOSE, CLASSROOMS CONFERENCE, CONVENTION, AUDITORIUM AND MEETING CENTER ROOMS OF CERTAIN SIZE WHICH DO NOT HAVE PROCESSES OR OPERATIONS THAT GENERATE DUSTS, FUMES, VAPORS OR GASSES SHALL BE EQUIPPED WITH OCCUPANT SENSOR(S) TO ACCOMPLISH THE FOLLOWING DURING UNOCCUPIED PERIODS (A) AUTOMATICALLY SETUP THE OPERATING COOLING TEMPERATURE SET POINT BY 2°F OR MORE AND SETBACK THE OPERATING HEATING TEMPERATURE SET POINT BY 2°F OR MORE AND; (B) AUTOMATICALLY RESET THE MINIMUM REQUIRED VENTILATION RATE WITH AN OCCUPANT SENSOR VENTILATION CONTROL DEVICE ACCORDING TO SECTION 120.1(C)5. (4) HOTEL AND MOTEL GUEST ROOMS SHALL HAVE CAPTIVE CARD KEY CONTROLS, OCCUPANCY SENSING CONTROLS, OR AUTOMATIC CONTROLS SUCH THAT, NO LONGER THAN 30 MINUTES AFTER THE GUEST ROOM HAS BEEN VACATED, SETPOINTS ARE SETUP AT LEAST +5°F (+3°C) IN COOLING MODE AND SET-DOWN AT LEAST -5°F (-3°C) IN HEATING MODE.

### S M

CHECKED: R.C. DATE: SCALE: 10/08/2024 SHEET TITLE:

**MECHANICAL** 

NOTES

### PLOT DATE: 12/10/2024 10:47:08 AM

| TYPE # |              | AIF    | R DEVI             | CE SCHE                   | DULE                       |         |
|--------|--------------|--------|--------------------|---------------------------|----------------------------|---------|
| MARK   | FACE<br>SIZE | TYPE   | MOUNTING<br>TYPE   | DIRECTION                 | MANUF.                     | NOTES   |
| S-1    | 24X24        | SUPPLY | SURFACE/<br>LAY-IN | PERFORATED                | CAPTIVEAIRE<br>(OR EQUIV.) | 1,2,3,4 |
| S-2    | 12X12        | SUPPLY | SURFACE/<br>LAY-IN | 4-WAY                     | TITUS<br>(OR EQUIV.)       | 1,2,3,4 |
| S-3    | 1            | SUPPLY | WALL<br>MOUNTED    | 1-WAY                     | TITUS<br>(OR EQUIV.)       | 1,2,3,4 |
| S-4    | 24X24        | SUPPLY | DROP FACE          | EVAPORATIVE<br>COOLER BOX | TRUAIR (OR<br>EQUIV.)      | 1,2,3,4 |
| R-1    | -            | RETURN | SURFACE/<br>LAY-IN | 1-WAY                     | TITUS<br>(OR EQUIV.)       | 1,2,3   |
|        |              |        | •                  | ·                         | ·                          |         |

### NOTES:

PROVIDE NECESSARY MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED.

 ALL AIR DEVICES SHALL HAVE MANUFACTURER-APPLIED STANDARD WHITE FINISH UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR RCP

- COORDINATION.

  3. AIR DEVICE SHALL BE OF STEEL CONSTRUCTION.
- 4. AIR DEVICE SHALL BE INSTALLED COMPLETE WITH MANUFACTURER AVAILABLE MOLDED INSULATION BACKING. FIELD-FABRICATED INSULATION BACKING IS NOT ALLOWED UNLESS FIRST APPROVED BY THE OWNER'S CONSTRUCTION MANAGER.

|        |                                                                                                                                                           |        | SP       | LIT SY | STEM   | OUTDO  | OOR HE | EAT PU      | MP SC | HEDUL | .E      |        |       |                          |  |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|--------|--------|--------|--------|-------------|-------|-------|---------|--------|-------|--------------------------|--|
| EQ     | MARK MANUFACTURER MODEL NOMINAL TONS COOLING CAPACITY (BTUH) HEATING CAP. (BTUH) HEATING CAP. (BTUH) BEER2 HSPF2 WEIGHT (LBS) DIMENSIONS (HxWxD) (INCHES) |        |          |        |        |        |        |             |       |       |         |        |       |                          |  |
| #/     | Wizarara                                                                                                                                                  | WINTER | MODEL    | TONS   | TH     | SH     | (BTUH) | V/PH/HZ     | MCA   | MOCP  | SEER2   | 110112 | (LBS) | (INCHES)                 |  |
| HP -   | 1                                                                                                                                                         | TRANE  | 4TWR7048 | 4      | 47,500 | 35,800 | 48,500 | 208 / 1 /60 | 27    | 45    | 12 / 16 | 8.1    | 292   | 45-1/8 X 34-1/4 X 37-1/4 |  |
| NOTES: | TES:                                                                                                                                                      |        |          |        |        |        |        |             |       |       |         |        |       |                          |  |
| 1      | 1 INSTALL OUTDOOR UNIT WITH DISCONNECT SWITCH AND ALL WEATHERPROOF GFCI.                                                                                  |        |          |        |        |        |        |             |       |       |         |        |       |                          |  |
| 2      | 2 INSTALL PER MANUFACTURER'S MANUAL.                                                                                                                      |        |          |        |        |        |        |             |       |       |         |        |       |                          |  |

|                                                                       |                                                                                                                              |              | SPLIT SYS | STEM IND | DOOR | FAN CC | IL SCH     | HEDUL | E      |                       |  |  |  |  |  |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|----------|------|--------|------------|-------|--------|-----------------------|--|--|--|--|--|
| EQ<br>#                                                               | MARK                                                                                                                         | MANUFACTURER | MODEL     | TYPE     | CFM  |        | ELECTRICAL |       | WEIGHT | DIMENSIONS<br>(HxWxD) |  |  |  |  |  |
| #/                                                                    | # WARK MARK WARD ACTURER WOODE THE CTW (LBS) (INCHES)                                                                        |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |
| FC -                                                                  | FC - 1 TRANE TEM8A0C48 MULTI-<br>POSITIONAL 1,600 208 / 1 / 60 7 15 174 57-3/8 X 23-1/2 X 21-1/8                             |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |
| NOTES:                                                                |                                                                                                                              |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |
| 1                                                                     | 1 THERMOSTATS INSTALLED AT 48"AFF.                                                                                           |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |
| 2 EXTEND CONDENSATE DRAIN DIRECTLY TO A LOCAL CODE APPROVED RECEPTOR. |                                                                                                                              |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |
| 3                                                                     | PROVIDE STANDARD THROWAWAY CONSTRUCTION FILTERS OF MERV 13. MECHANICAL CONTRACTOR SHALL FURNISH AND FIELD INSTALL NEW FILTER |              |           |          |      |        |            |       |        |                       |  |  |  |  |  |

|         | PACKAGED ROOFTOP HEAT PUMP UNIT SCHEDULE        |                 |                |                 |                               |              |          |          |          |       |        |              |                    |                  |          |           |          |
|---------|-------------------------------------------------|-----------------|----------------|-----------------|-------------------------------|--------------|----------|----------|----------|-------|--------|--------------|--------------------|------------------|----------|-----------|----------|
| EQ MARK | MAKE &<br>MODEL                                 | NOMINAL<br>TONS | COOLING<br>(BT | CAPACITY<br>UH) | HEATING<br>CAPACITY<br>(BTUH) | HSPF/<br>COP | SUPPL    | Y FAN    |          | POWEF | R SUPF | PLY          | EER/ SEER/<br>IEER | WEIGHT<br>(LBS.) | UNIT [   | DIMENSIO  | NS (IN.) |
|         | (EQUIV.<br>ACCEPTABLE)                          |                 | TH             | SH              |                               |              | CFM      | HP       | VOLT     | PH    | HZ     | MCA/<br>MOCP |                    |                  | Н        | W         | D        |
| RTU - 1 | 4WCC4036A HSPF2 13.4SEER2                       |                 |                |                 |                               |              |          |          |          |       |        |              |                    |                  |          |           |          |
| NOTES:  |                                                 |                 |                |                 |                               |              |          |          |          |       |        |              |                    |                  |          |           |          |
| 1       | INSTALL WITH I                                  | DISCONNEC       | T SWITCH A     | AND ALL WE      | ATHERPROC                     | OF GFCI.     |          |          |          |       |        |              |                    |                  |          |           |          |
| 2       | THERMOSTATS                                     | INSTALLED       | AT 48"AFF      | W/ REMOTE       | SENSORS.                      |              |          |          |          |       |        |              |                    |                  |          |           |          |
| 3       | PROVIDE STANI<br>OCCUPANCY (IN                  | _               |                |                 | _                             | OF MERV      | 13. MECH | IANICAL  | CONTRA   | CTOR  | SHALL  | FURNISH /    | AND FIELD INST     | ALL NEW FII      | TER PRIC | OR TO BUI | LDING    |
| 4       | EXTEND CONDE                                    | ENSATE DRA      | AIN DIRECTL    | Y TO A LOC      | CAL CODE AF                   | PPROVED      | RECEPT   | OR.      |          |       |        |              |                    |                  |          |           |          |
| 5       | PROVIDE REMO                                    | TE ALARM I      | NDICATORS      | FOR THE S       | SUPPLY AIR                    | SMOKE D      | ETECTOR  | RS CLEAF | RLY LABE | LED A | S TO F | UNCTION A    | AND UNIT SERV      | ED.              |          |           | _        |
| 6       | DUCT SMOKE D<br>LED LIGHT INDIC<br>COMPLETE SHU | CATOR ARE       | TO BE PRO      | VIDED ON T      | HE WALL AT                    | NO GRE       | ATER THA | AN 6 FEE | T FOR AL | L DUC | T DETI | ECTORS. D    | UCT DETECTO        |                  |          |           |          |
| 7       | EACH COOLING<br>MODULATING O<br>AND DIAGNOST    | UTSIDE-AIR      | AND RETU       |                 |                               |              |          |          |          |       |        |              |                    |                  |          |           | ECTION   |

| FAN SCHEDULE                      |                                                                          |          |               |        |          |         |                 |               |             |                          |         |  |  |
|-----------------------------------|--------------------------------------------------------------------------|----------|---------------|--------|----------|---------|-----------------|---------------|-------------|--------------------------|---------|--|--|
| EQ MARK                           | EQUIP.                                                                   | CFM      | SP.<br>(W.G.) | RPM    | HP       | FLA     | MOTOR<br>(ELEC) | SONES<br>(DB) | WT<br>(LBS) | MANUFACTURER & MODEL NO. | REMARKS |  |  |
| EF - 1                            | EF - 1 RESTROOM EXH 80 0.1" - 7.6W 0.1 120 / 1 0.3 12.5 BROAN XB80 1,2,3 |          |               |        |          |         |                 |               |             |                          |         |  |  |
| REMARKS:                          |                                                                          |          |               |        |          |         |                 |               |             |                          |         |  |  |
| 1                                 | EQUIVALENT ACCEPT                                                        | ABLE.    |               |        |          |         |                 |               |             |                          |         |  |  |
| 2 INSTALL WITH BACK DRAFT DAMPER. |                                                                          |          |               |        |          |         |                 |               |             |                          |         |  |  |
| 3                                 | ELECTRICALLY INTER                                                       | LOCKED W | ITH LIGHT     | SWITCH | WITH MAN | IUAL OV | ER-RIDE S\      | WITCH.        |             |                          |         |  |  |

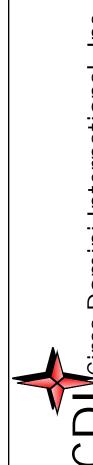
|          | KITCH                                                                                                                                                                        | EN E       | XHAU          | ST F    | AN/M      | AKE | -UP A           | AIR SC        | HED         | ULE                      |         |  |  |  |  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------|---------|-----------|-----|-----------------|---------------|-------------|--------------------------|---------|--|--|--|--|
| EQ MARK  | EQUIP.                                                                                                                                                                       | CFM        | SP.<br>(W.G.) | RPM     | HP        | FLA | MOTOR<br>(ELEC) | SONES<br>(DB) | WT<br>(LBS) | MANUFACTURER & MODEL NO. | REMARKS |  |  |  |  |
| KEF - 1  | KITCHEN HOOD EXH<br>FAN                                                                                                                                                      | 2750       | 0.75          | 1045    | 1.5       | 6.6 | 208 /3          | 12.4          | 178         | CAPTIVEAIRE<br>DU180HFA  | 1,2,3   |  |  |  |  |
| KEF - 2  | FAN DU240HFA                                                                                                                                                                 |            |               |         |           |     |                 |               |             |                          |         |  |  |  |  |
| MAU - 1  | KITCHEN MAKE-UP AIR 2750 0.5 1134 1.0 3.8 208/3 11.5 790 CAPTIVEAIRE A2-20D 1,3,4                                                                                            |            |               |         |           |     |                 |               |             |                          |         |  |  |  |  |
| MAU - 2  | KITCHEN MAKE-UP<br>AIR                                                                                                                                                       | 4400       | 0.375         | 1569    | 3.0       | 9.5 | 208 /3          | 20.7          | 819         | CAPTIVEAIRE<br>A2-20D    | 1,3,4   |  |  |  |  |
| REMARKS: |                                                                                                                                                                              |            |               |         |           |     |                 |               |             |                          |         |  |  |  |  |
| 1        | EQUIVALENT ACCEPT                                                                                                                                                            | ABLE.      |               |         |           |     |                 |               |             |                          |         |  |  |  |  |
| 2        | KITCHEN HOOD EXHA                                                                                                                                                            | UST FAN; H | IOOD CON      | TRUCTIO | N: 430SS. |     |                 |               |             |                          |         |  |  |  |  |
| 3        | INTERLOCK EXHAUST FAN AND MAKE-UP FAN AIR FAN WITH HOOD CONTROL AND EMERGENCY SHUT-OFF. EXHAUST & MAKE-UP AIR SYSTEMS ARE ELECTRICALLY INTERLOCKED WITH ONE ELECTRIC SWITCH. |            |               |         |           |     |                 |               |             |                          |         |  |  |  |  |
| 4        | PROVIDE ROOF CURB                                                                                                                                                            | AND ROOF   | JACK AS       | REQUIRE | D.        |     |                 |               |             |                          |         |  |  |  |  |

|                 | CEN        | ITRAL KITCHEN | VENTILATIO   | ON SCHEDULI  | Ē             |                |              |
|-----------------|------------|---------------|--------------|--------------|---------------|----------------|--------------|
| Room            | AREA       | DCV           | OSA RE       | QUIRED       | EX            | HAUST REQUIRED |              |
|                 | AREA(S.F.) |               | RATE(CFM/SF) | REQUIRED CFM | RATE(CFM/SF)  | REQUIRED CFM   | PROVIDED CFM |
| KITCHEN         | 405        | NO            | 0.15         | 60.75        | 0.7           | 283.5          | 4400         |
| WALK-IN COOLER  | 140        | NO            | 0            | 0            | 0             | 0              | 0            |
| WALK-IN FREEZER | 140        | NO            | 0            | 0            | 0             | 0              | 0            |
| WAREHOUSE       | 619        | NO            | 0.15         | 92.85        | 0             | 0              | 0            |
| ADA TOILET      | 65         | NO            | 0            | 0            | 70 / WC or UR | 70             | 80           |
| TOTAL REQUIRED: | -          | •             | •            | 153.6        |               | -              | •            |
| TOTAL PROVIDED: |            |               |              | 4700         |               |                |              |

|       | AIR BALANCE SCHEDULE CALCULATION-CENTRAL KITCHEN |            |            |             |          |  |  |  |  |  |  |  |  |
|-------|--------------------------------------------------|------------|------------|-------------|----------|--|--|--|--|--|--|--|--|
| UNIT  | OUTSIDE AIR                                      | RETURN AIR | SUPPLY AIR | EXHAUST AIR | PRESSURE |  |  |  |  |  |  |  |  |
| FC-1  | 300                                              | 1300       | 1600       |             | 300      |  |  |  |  |  |  |  |  |
| EF-1  |                                                  |            |            | 80          | -80      |  |  |  |  |  |  |  |  |
| MAU-2 | 4400                                             |            | 4400       |             | 4400     |  |  |  |  |  |  |  |  |
| KEF-2 |                                                  |            |            | 4400        | -4400    |  |  |  |  |  |  |  |  |
| TOTAL | 4700                                             | 1300       | 6000       | 4480        | 220      |  |  |  |  |  |  |  |  |

|                 | SI         | MALL KITCHEN | VENTILATIO   | N SCHEDULE   | <b>=</b>      |                |              |
|-----------------|------------|--------------|--------------|--------------|---------------|----------------|--------------|
| Room            | AREA       | DCV          | OSA RE       | QUIRED       | EX            | HAUST REQUIRED |              |
|                 | AREA(S.F.) |              | RATE(CFM/SF) | REQUIRED CFM | RATE(CFM/SF)  | REQUIRED CFM   | PROVIDED CFN |
| WORK AREA       | 670        | NO           | 0.15         | 100.5        | 0.7           | 469            | 2750         |
| ADA RESTROOM    | 64         | NO           | 0            | 0            | 70 / WC or UR | 70             | 80           |
| TOTAL REQUIRED: |            |              |              | 100.5        |               |                |              |
| TOTAL PROVIDED: |            |              |              | 3050         |               |                |              |

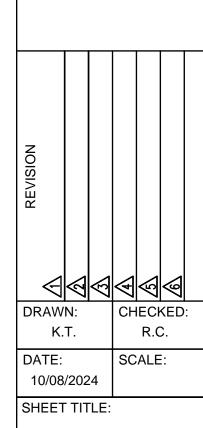
|       | AIR BALANCE SCHEDULE CALCULATION-SMALL KITCHEN             |     |      |      |       |  |  |  |  |  |  |  |  |  |  |
|-------|------------------------------------------------------------|-----|------|------|-------|--|--|--|--|--|--|--|--|--|--|
| UNIT  | NIT OUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR PRESSURE |     |      |      |       |  |  |  |  |  |  |  |  |  |  |
| RTU-1 | 300                                                        | 900 | 1200 |      | 300   |  |  |  |  |  |  |  |  |  |  |
| EF-1  |                                                            |     |      | 80   | -80   |  |  |  |  |  |  |  |  |  |  |
| MAU-1 | 2750                                                       |     | 2750 |      | 2750  |  |  |  |  |  |  |  |  |  |  |
| KEF-1 |                                                            |     |      | 2750 | -2750 |  |  |  |  |  |  |  |  |  |  |
| TOTAL | 3050                                                       | 900 | 3950 | 2830 | 220   |  |  |  |  |  |  |  |  |  |  |





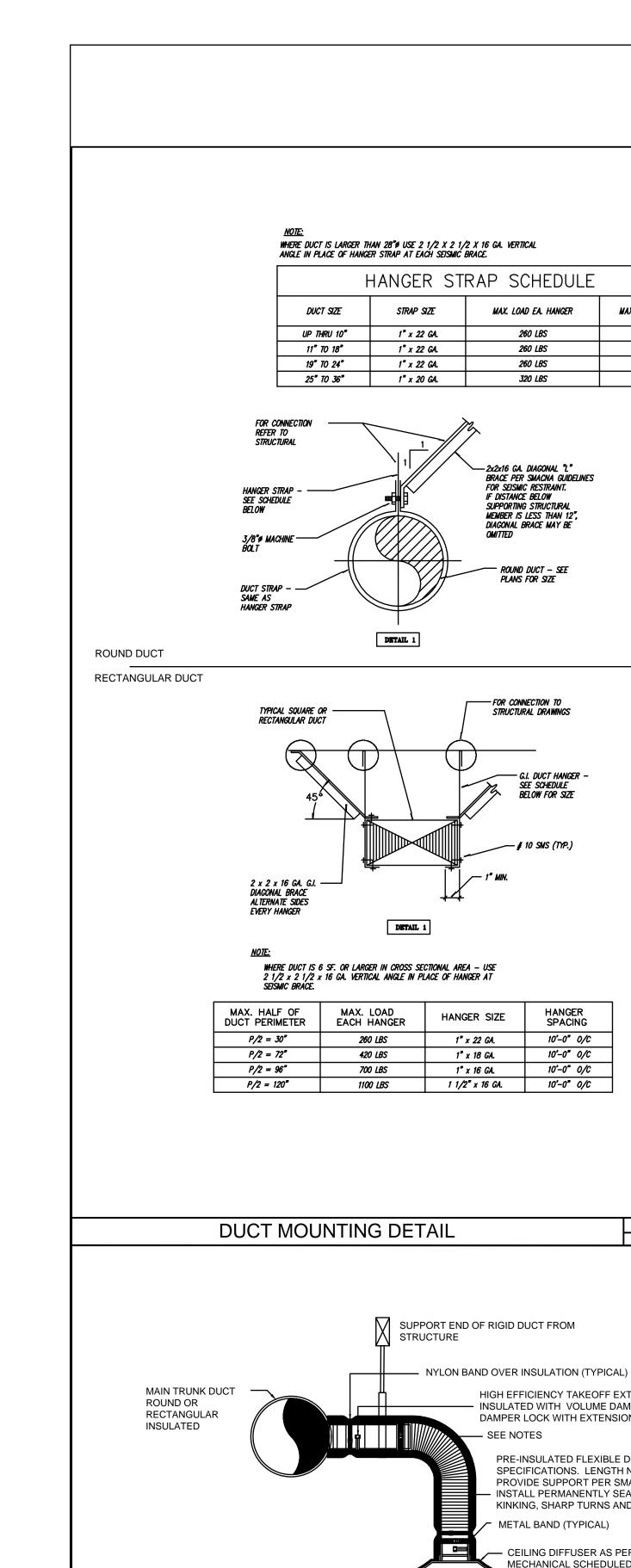
# TO KITCHEN CONVERSION

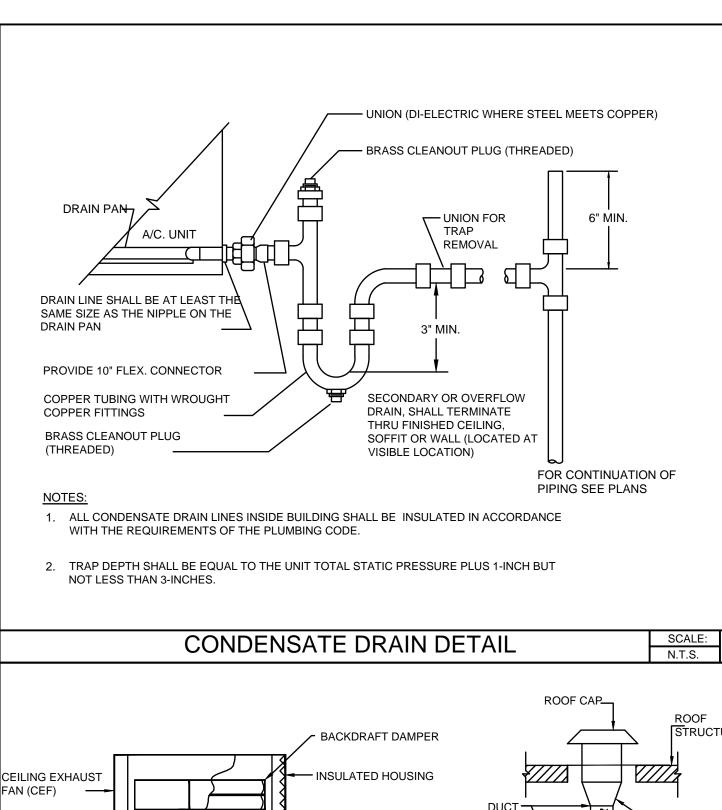
2229 DOVER AVE SAN PABLO, CA 94800



M001

MECHANICAL SCHEDULES





MAX. SPACING

10'-0"

10'-0"

10'-0"

10'-0"

260 LBS

320 LBS

10'-0" O/C

10'-0" O/C

10'-0" O/C

10'-0" O/C

HIGH EFFICIENCY TAKEOFF EXTERNALLY

KINKING, SHARP TURNS AND SAGS.

- CEILING DIFFUSER AS PER MECHANICAL SCHEDULED

PRE-INSULATED FLEXIBLE DUCTWORK. SEE SPECIFICATIONS. LENGTH NOT TO EXCEED 5'-0"

PROVIDE SUPPORT PER SMACNA STANDARDS. INSTALL PERMANENTLY SEALED TO PREVENT

SCALE: N.T.S.

· INSULATED WITH VOLUME DAMPER AND

DAMPER LOCK WITH EXTENSION

METAL BAND (TYPICAL)

NOTE: EXTEND HARD METAL DUCT SO THAT MAXIMUM FLEXIBLE DUCT LENGTH

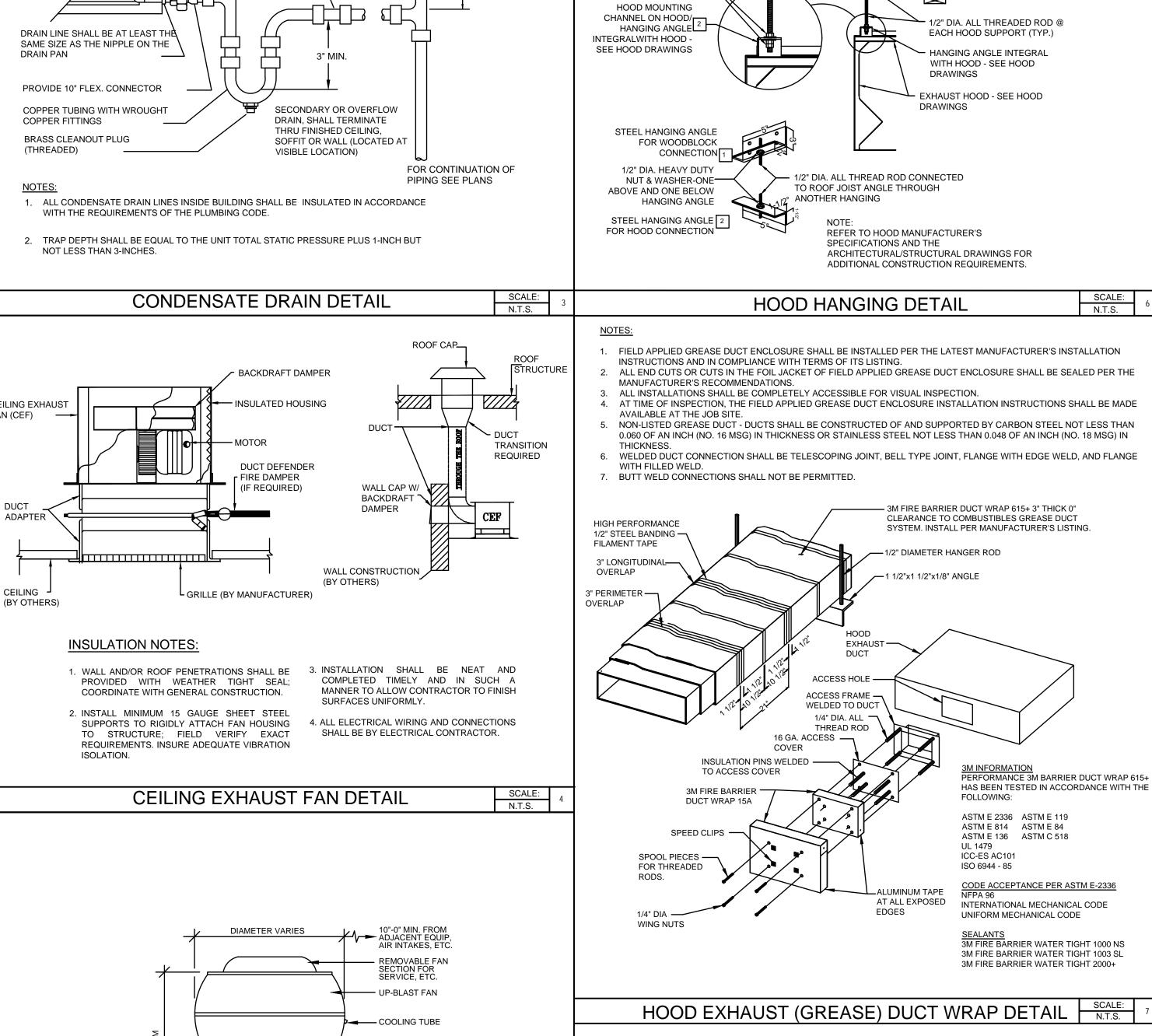
TO KEEP FLEXIBLE DUCT WITHIN 5'-0" LENGTH LIMITATION.

CEILING DIFFUSER DETAIL

DOES NOT EXCEED 5'-0". PROVIDE RIGID 90° ELBOW WHERE REQUIRED

SUPPORTING STRUCTURAL MEMBER IS LESS THAN 12".

DIAGONAL BRACE MAY BE



- PROVIDE MFR.

— AIR VELOCITY THROUGH DUCT NOT LESS THAN 1500 C.F.M.

WIRING SHALL BE OUTSIDE DUCT. COMPLY NAT'L ELEC. CODE & N.F.P.A.

**EXHAUST FAN DETAILS** 

SEALANT @ HOOD FOR DUCT WRAP

CURB OR NON-COMBUSTIBLE FIELD

SCALE: N.T.S.

1/2" DIA. ALL THREADED ROD @ \_\_\_\_\_ EACH HOOD SUPPORT (TYP.)

**NUT & LOCK NUT** 

W/WASHERS (TYP.)

2"x3"x5" LG.

STEEL HANGING 1

ANGLE W/(4) 16d

CONNECTION . W/WASHERS (TYP.)

NUT & LOCK NUT

CONNECTION

- NEW 4x4 @ EA. HANGER

W/ "LUS44" EA. END AND

- (E) ROOF SHTG.

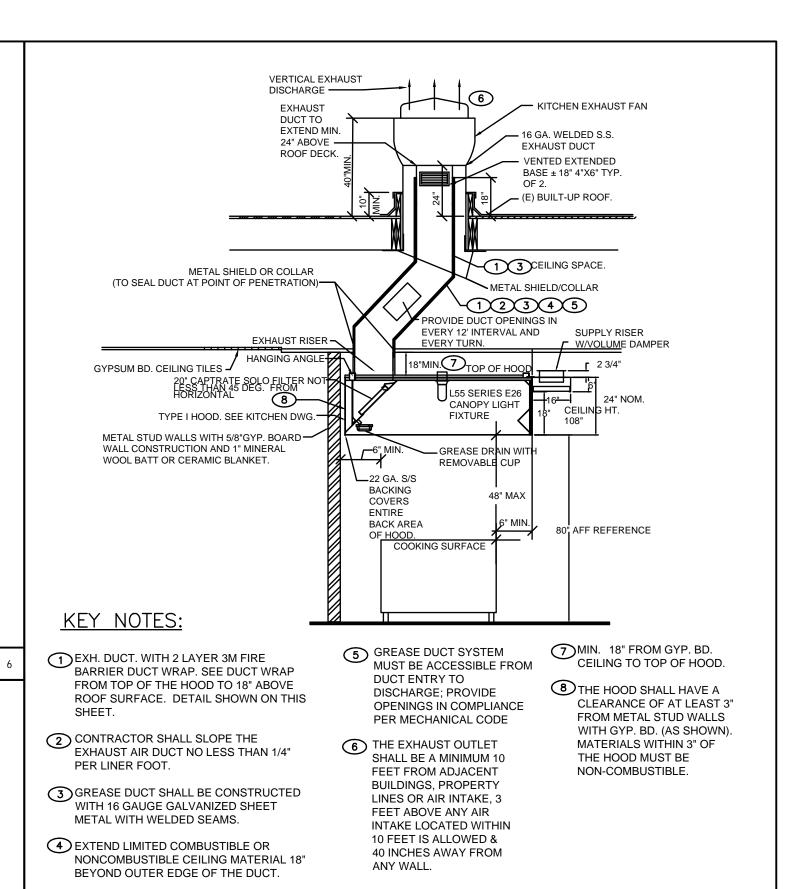
NEW 2x6x48" LG. W/ 12d

\_ AT 6" O.C W/ NAILS NOT LOCATED WITHIN 3" OF PIN.

(E) TRUSS MEMBER (TJI)

SPLICE SHALL BE LOCATED

MIDWAY BETWEEN BLKG., TYP.



LISTED GREASE HOOD ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH

EXTINGUISHING SYSTEM IS ACTIVATED UNLESS SHUTDOWN IS REQUIRED AS A

KITCHEN HOOD SECTION DETAIL

THE TERMS OF THEIR LISTING AND THE MANUFACTURER'S INSTALLATION

THE HOOD EXHAUST FAN SHALL CONTINUE TO OPERATE AFTER THE

INSTRUCTIONS.



M002

**MECHANICAL** 

**DETAILS** 

SHEET TITLE:





CONVERSION KITCHEN STORAGE

9 DOVER AVE I PABLO, CA 94806

CHECKED:

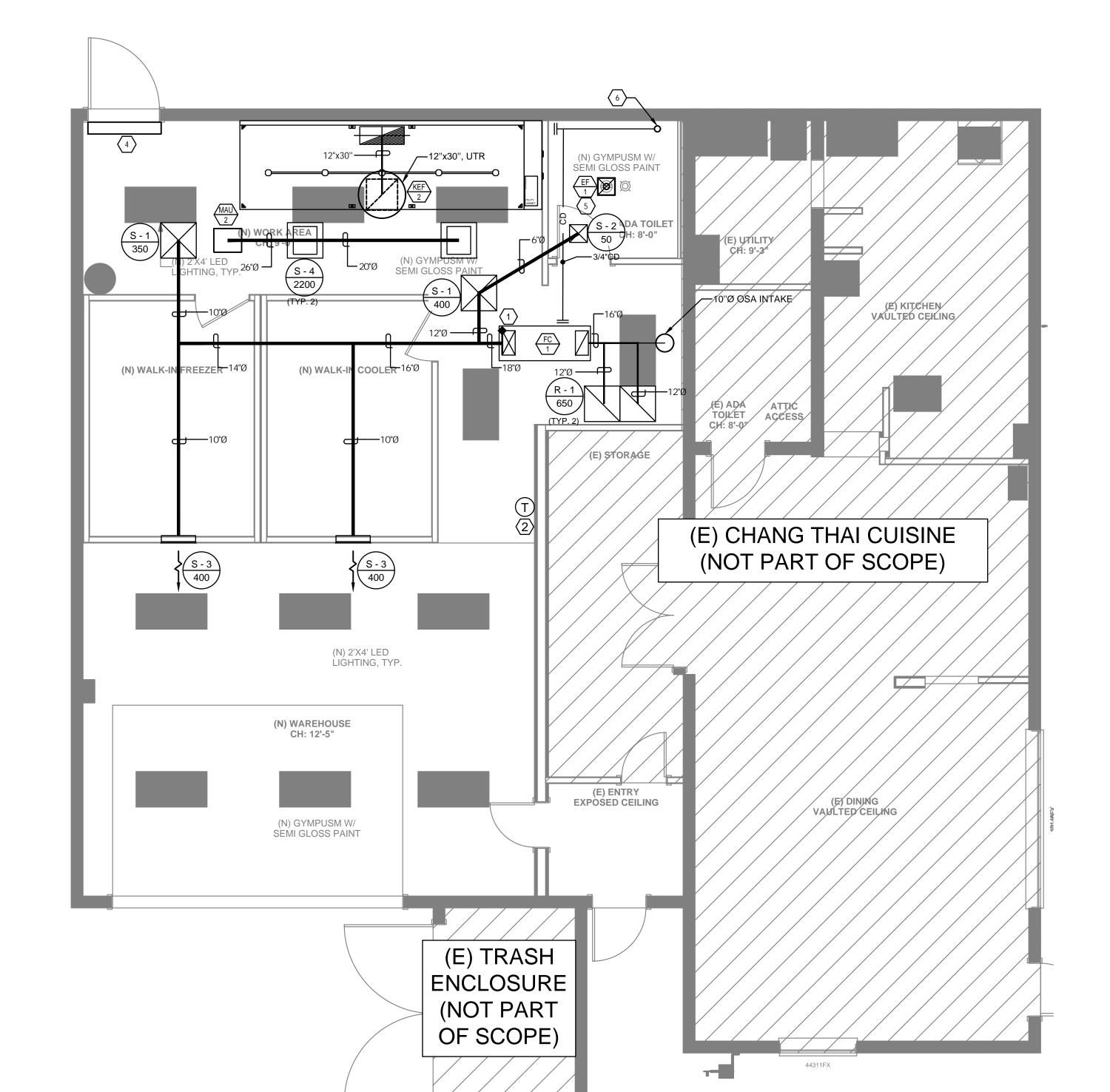
K.T. R.C. SCALE:

10/08/2024 1/4" = 1'-0"

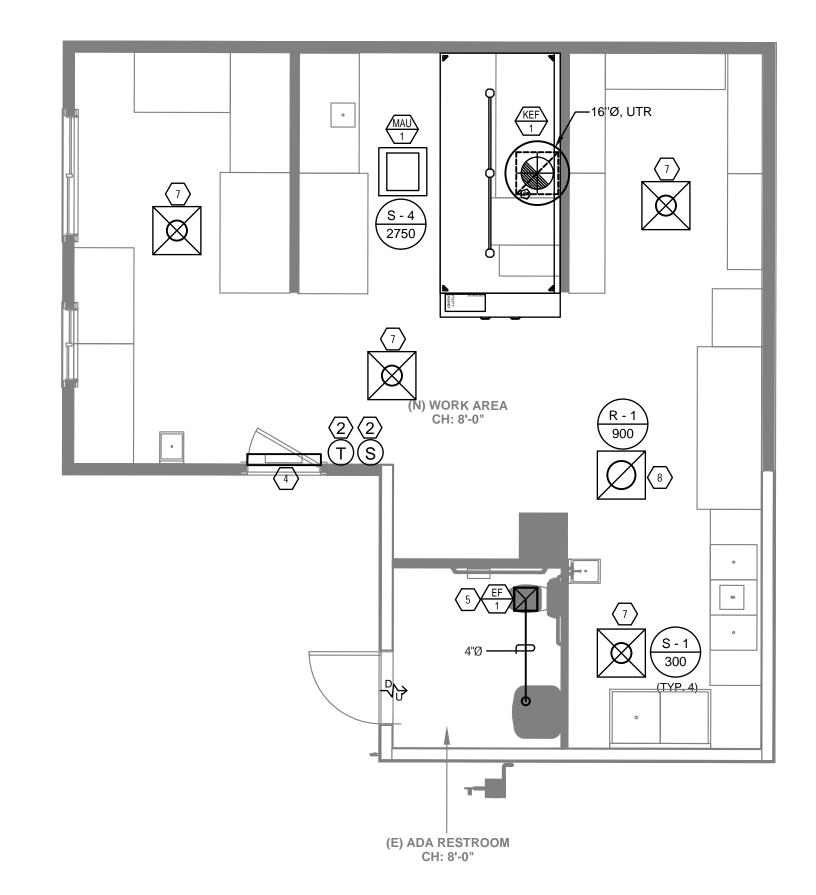
SHEET TITLE:

MECHANICAL PLAN

M100



**CENTRAL KITCHEN** 



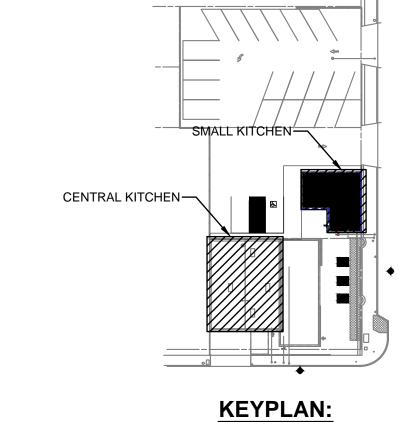
**SMALL KITCHEN** 

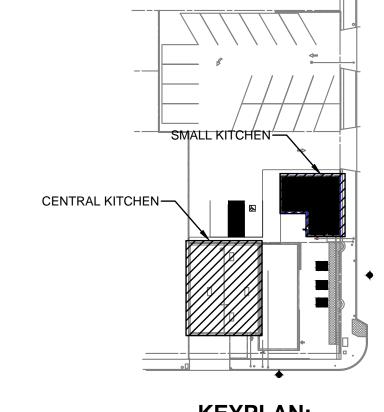
### # KEYED PLAN NOTES:

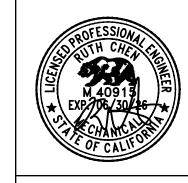
- 1. INSTALL DUCT SMOKE DETECTOR ON SUPPLY SIDE PLENUM.
- 2. INSTALL PROGRAMMABLE THERMOSTAT 48"AFF AND MOUNT REMOTE SENSORS HIGH ON WALL.
- 3. TYPE 1 HOOD; KITCHEN HOOD MUST OVERHANG MIN. 6" FROM EDGES OF KITCHEN EQUIPMENT BELOW. MAINTAIN GREASE DUCT SLOPE OF MIN 2%.
- 4. INSTALL AIR CURTAIN AT DELIVERY DOOR. THE AIR CURTAIN SHALL PROVIDE A DOWNWARD-OUTWARD FLOW NOT LESS THAN 8" WIDE NOZZLE AND AN AIRFLOW NOT LESS THAN 1600 FPM ACROSS THE ENTIRE OPENING AT A POINT MEASURED 3' ABOVE THE FLOOR. THE AIR CURTAIN MUST BE ON AUTOMATICALLY WHEN THE DOOR IS OPENED.
- 5. 4" EXHAUST VENT TO ROOF.
- 6. CONDENSATION PIPE DISCHARGE BY DIRECT CONNECTION TO LAV TAILPIECE.
- 7. SUPPLY DUCT FROM ABOVE.
- 8. RETURN DUCT FROM ABOVE.

### **GENERAL NOTES:**

- IF DRAWINGS ARE INCORRECT FROM THE ACTUAL SITE CONDITION, CONTRACTOR SHALL NOTIFY ENGINEER(S) AND PROVIDE INFORMATION REFLECTING ACTUAL CONDITIONS.
- ENVIRONMENTAL EXHAUST TERMINATION TO BE MINIMUM 3 FEET FROM A PROPERTY LINE, 10 FEET FROM A FORCED AIR INLET, AND 3 FEET FROM OPENINGS INTO THE BUILDING.







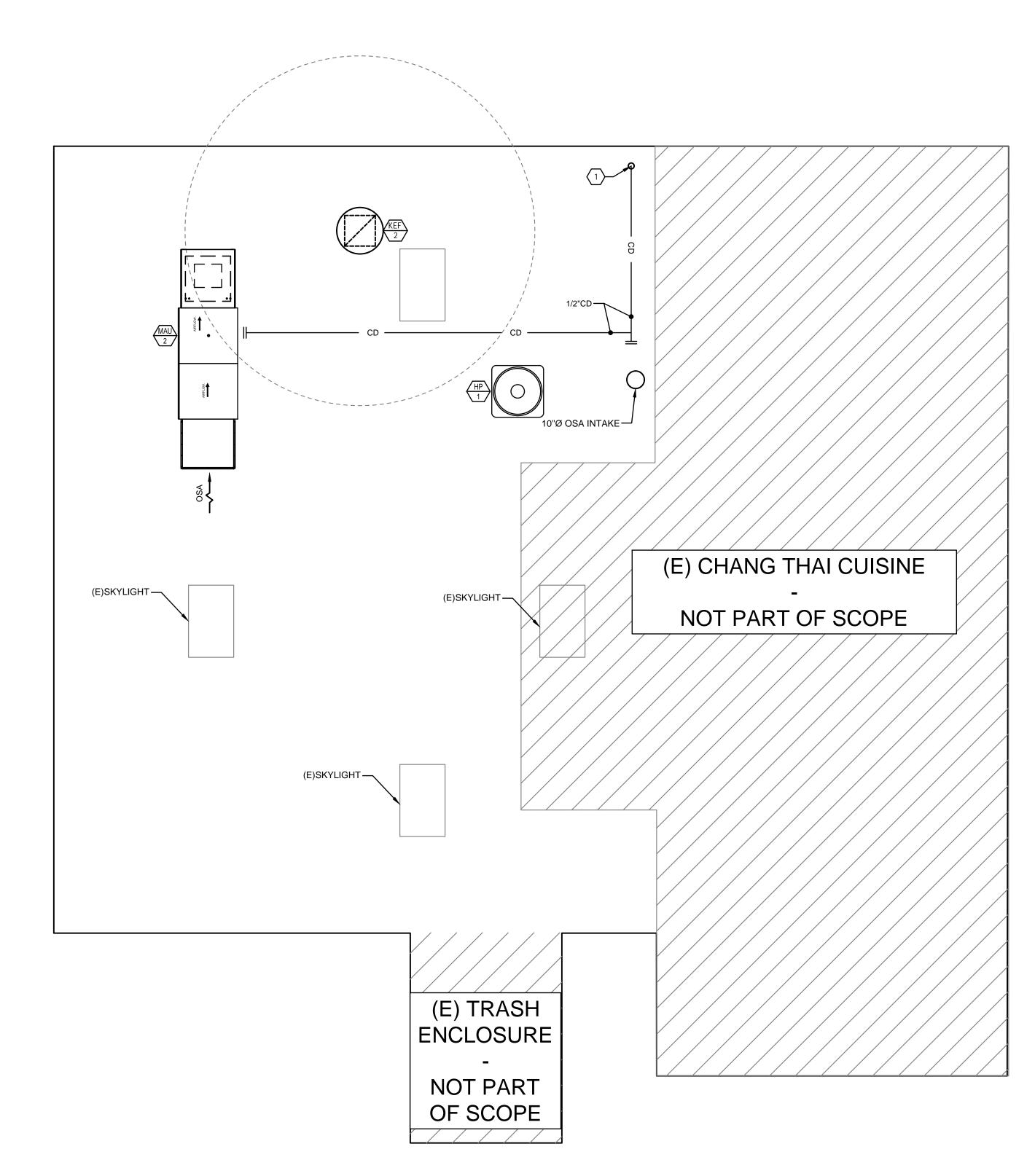
CONVERSION KITCHEN

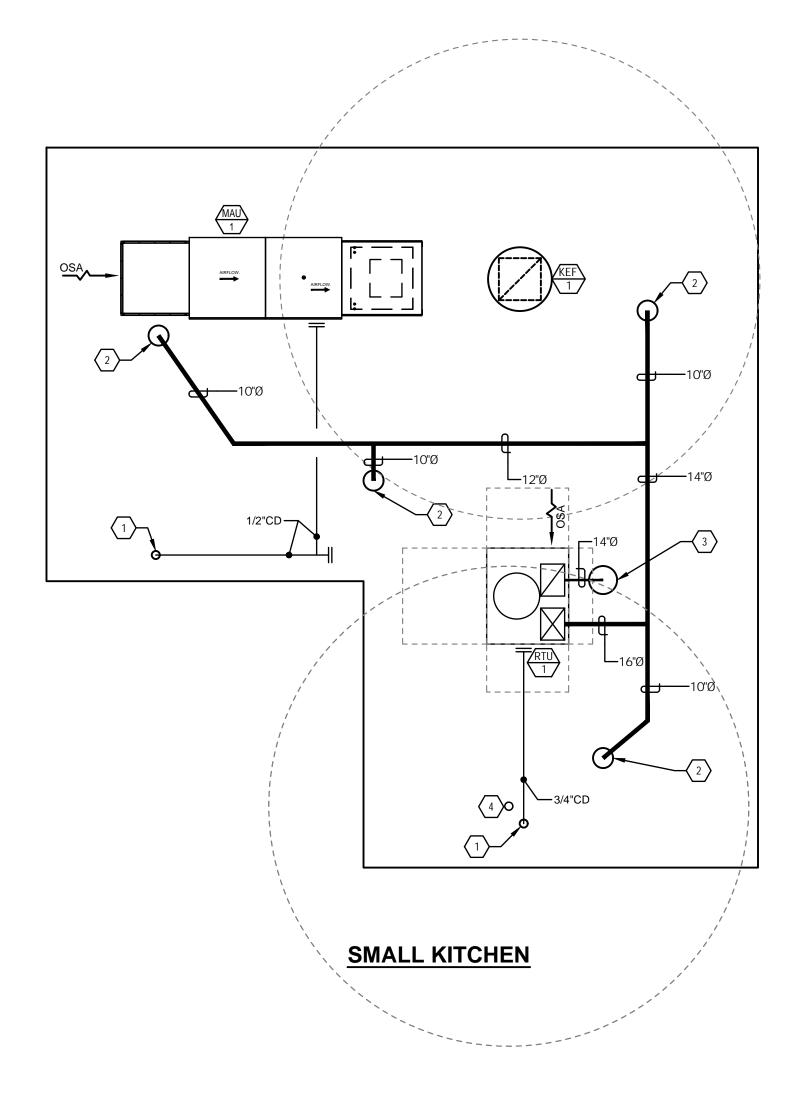
RAWN: CHECKED: R.C. K.T. SCALE:

10/08/2024 1/4" = 1'-0" SHEET TITLE:

MECHANICAL PLAN - ROOF PLAN

M101





**CENTRAL KITCHEN** 

### # KEYED PLAN NOTES:

- CONDENSATION PIPE DISCHARGE BY DIRECT CONNECTION TO LAV TAILPIECE. CONDENSATE DRAIN SLOPE AT MIN. 1%.
- 2. SUPPLY DUCT DOWN TO BELOW.
- 3. RETURN DUCT DOWN TO BELOW.
- 4. EXHAUST TERMINATION. MINIMUM 3 FEET FROM A PROPERTY LINE, 10 FEET FROM A FORCED AIR INLET, AND 3 FEET FROM OPENINGS INTO THE

### **GENERAL NOTES:**

IF DRAWINGS ARE INCORRECT FROM THE ACTUAL SITE CONDITION, CONTRACTOR SHALL NOTIFY ENGINEER(S) AND PROVIDE INFORMATION REFLECTING ACTUAL CONDITIONS.

### TIOOD INTEODIATION TODICALOAFOA

|      |       | <u>ORMATION</u><br> | /            | <del>07001</del> | MAX     |          |           |        |         |       |      |            | UST PL  |      |      |         |               | HOOD C | ONFIG |
|------|-------|---------------------|--------------|------------------|---------|----------|-----------|--------|---------|-------|------|------------|---------|------|------|---------|---------------|--------|-------|
| HOOD | TAG   | MODEL               | MANUFACTURER | LENGTH           | COOKING | TYPE     | APPLIANCE |        | TOTAL   |       |      |            | RISER(S | S)   |      |         | HOOD          | END TO |       |
| NO   | ""    | 6024                |              | 22.101.1         | TEMP    |          | DUTY      | CFM/FT | EXH CFM | WIDTH | LENG | HEIGHT     | DIA     | CFM  | VEL  | SP      | CONSTRUCTION  | END    | ROW   |
| 1    | H-1   | 6024                | ECON-AIR     | 10' 0"           | 600     | 1        | HEAVY     | 275    | 2750    |       |      | 4"         | 16"     | 2750 | 1970 | -0.551" | 430 SS        | ALONE  | ALONE |
| ľ    | []- I | EX-2                | ECON-AIR     | 10 0             | DEG     | ı        | TILAVI    | 213    | 2730    |       |      | 4          | 10      | 2730 | 1970 | -0.551  | WHERE EXPOSED | ALONE  | ALONE |
| 2    | H-2   | 6024                | ECON-AIR     | 16' 0"           | 600     | ı        | HEAVY     | 275    | 4400    | 12"   | 30"  | <b>4</b> " |         | 4400 | 1760 | -0.617" | 430 SS        | ALONE  | ALONE |
|      | 11-2  | EX-2                | LOON-AIK     | 10 0             | DEG     | <u>'</u> | TILAVI    | 213    | 4400    | 12    | 50   | 7          |         | 4400 | 1700 | -0.017  | WHERE EXPOSED | ALONE  | ALONE |

### PATENT NUMBERS

EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C

| H00  | D INF            | ORMATION                |                  |                          |     |                |       |          |             |      |                    |             |          |      |           |
|------|------------------|-------------------------|------------------|--------------------------|-----|----------------|-------|----------|-------------|------|--------------------|-------------|----------|------|-----------|
|      |                  |                         | FILTER(S)        |                          |     | LIGHT(S)       |       |          |             |      | UTILITY CABINET(S) |             |          | FIRE | HOOD      |
| HOOD | TAG              |                         |                  |                          |     |                | WIRE  |          |             | FI   | RE SYSTEM          | ELECTRICAL  | SWITCHES |      | 1 HANGING |
| NO   | 170              | TYPE                    | QTY HEIGHT LENGT | H EFFICIENCY @ 7 MICRONS | QTY | TYPE           | GUARD | LOCATION | SIZE        | TYPE | SIZE               | MODEL#      | QUANTITY |      | WEIGHT    |
| 1    | H <sub>-</sub> 1 | SS BAFFLE WITH HANDLES  | 7 20" 16"        | 30%                      | 3   | L55 SERIES E26 | NO    | RIGHT    | 12"x60"x24" |      |                    | SC-31111002 | 1 LIGHT  | NO   | 525       |
| '    | 11-1             | 33 BAIT EL WITTTIANDELS | 7 20 10          | 3076                     | 3   | LOS SENIES EZO | NO    | KIOITI   | 12 100 124  |      |                    | 30-31111002 | 1 FAN    |      | LBS       |
| 2    | H-2              | SS BAFFLE WITH HANDLES  | 12 20" 16"       | 30%                      | 5   | L55 SERIES E26 | NO    | RIGHT    | 12"x60"x24" |      |                    | SC-31111002 | 1 LIGHT  | NO   | 741       |
|      | П-2              | 33 DAFFLE WITH HANDLES  | 12 20 16         | 30%                      | ) 3 | LOO SERIES E20 | INO   | KIGHI    | 12 XOU X24  |      |                    | 30-31111002 | 1 FAN    | INO  | LBS       |

### HOOD OPTIONS

| HOOD<br>NO | TAG | OPTION                                                   |
|------------|-----|----------------------------------------------------------|
| 1          | H-1 | LEFT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED. |
| ı          | П-1 | LEFT WALL AS END PANEL.                                  |
| 2          | H-2 | STRUCTURAL FRONT PANEL.                                  |

### CLEARANCE TO COMBUSTIBLES

| SURFACE | *CLEARANCE                                    |
|---------|-----------------------------------------------|
| TOP     | 18"                                           |
| FRONT   | 0"                                            |
| BACK    | 18"                                           |
| LEFT    | 0"                                            |
| RIGHT   | 0"                                            |
| TOP     | 18"                                           |
| FRONT   | 0"                                            |
| BACK    | 18"                                           |
| LEFT    | 18"                                           |
| RIGHT   | 0"                                            |
|         | TOP FRONT BACK LEFT RIGHT TOP FRONT BACK LEFT |

- \*0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

HORIZONTAL RUNS.

**OUTER SHELL.** 

S GREASE DUCT & CHIMNEY SPECIFICATIONS:

PROVIDE GREASE DUCT EQUAL TO ECON-AIR MODEL "EDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "EDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "EDW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER

THE MANUFACTURES INSTALLATION GUIDE.

PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "EDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO ECON-AIR MODEL "EDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS

**SIGNATURE** 

YOUR TITLE \_

ECON-AIR RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

### **HVAC DISTRIBUTION NOTE**

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

### **VERIFY CEILING HEIGHT**

\_\_\_' - \_\_\_"

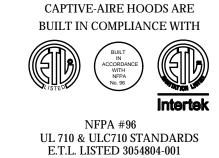
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

| CUSTOMER APPROVAL TO             | MANUFACTURE: |
|----------------------------------|--------------|
| APPROVED AS NOTED                |              |
| APPROVED WITH NO EXCEPTION TAKEN |              |
| REVISE AND RESUBMIT              |              |

FOR QUESTIONS, CALL THE CAPTIVE-AIRE SYSTEMS CENTRAL CALIFORNIA OFFICE

Region 91

8 ADRIAN COURT **BURLINGAME, CA 94010** PHONE: (415) 956-2200 EMAIL: REG91@CAPTIVEAIRE.COM





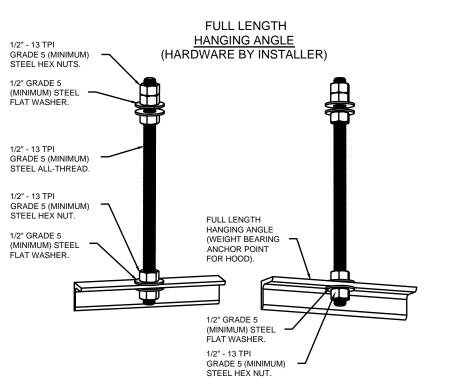
### **HANGING ANGLE** (MINIMUM) STEEL STEEL ALL-THREAD. 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHER. (WEIGHT BEARING ANCHOR POINT (MINIMUM) STEEL FLAT WASHER. GRADE 5 (MINIMUM)

HOOD CORNER

### ASSEMBLY INSTRUCTIONS

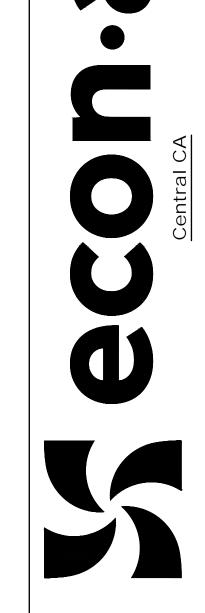
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

STEEL HEX NUTS.



### ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57



REVISIONS

Pablo,

2229

DWG.#:

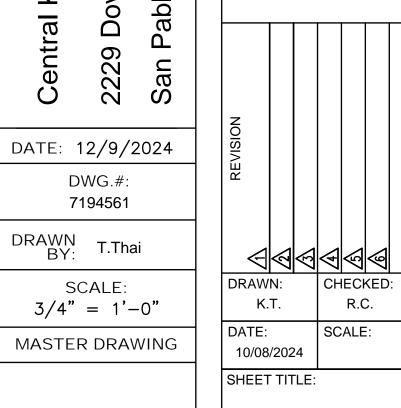
7194561

SCALE:

3/4" = 1'-0"

SHEET NO.

DRAWN BY: T.Thai

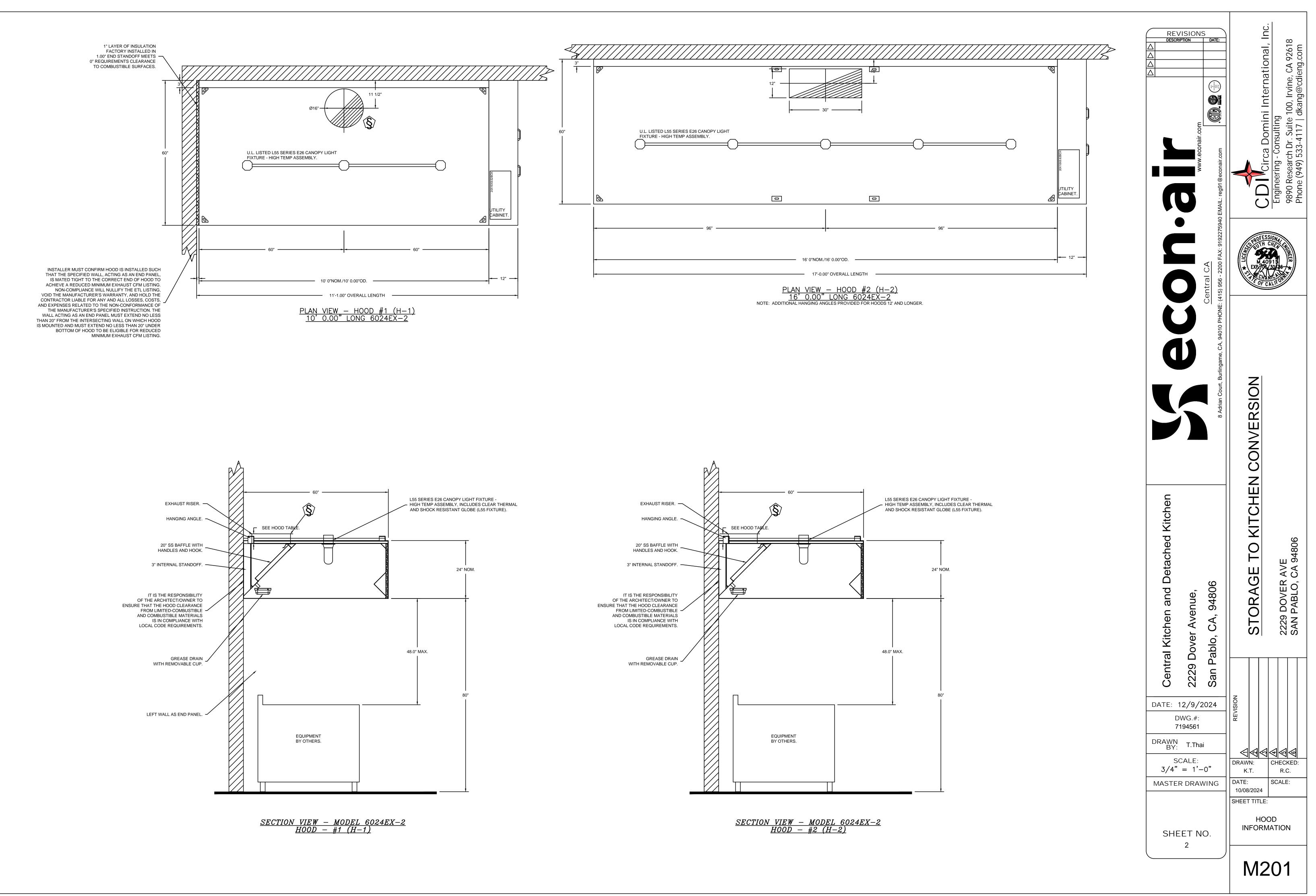


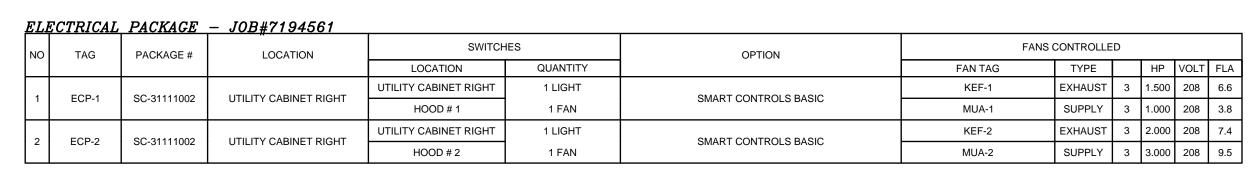
INFORMATION

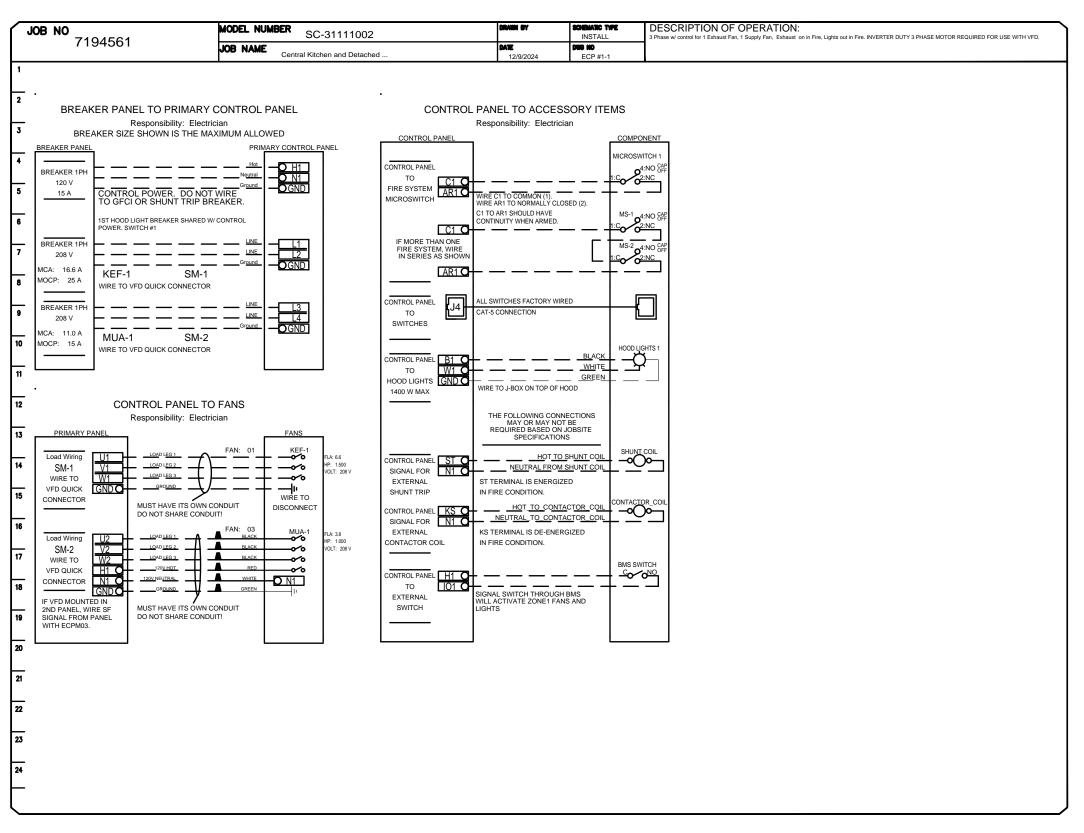
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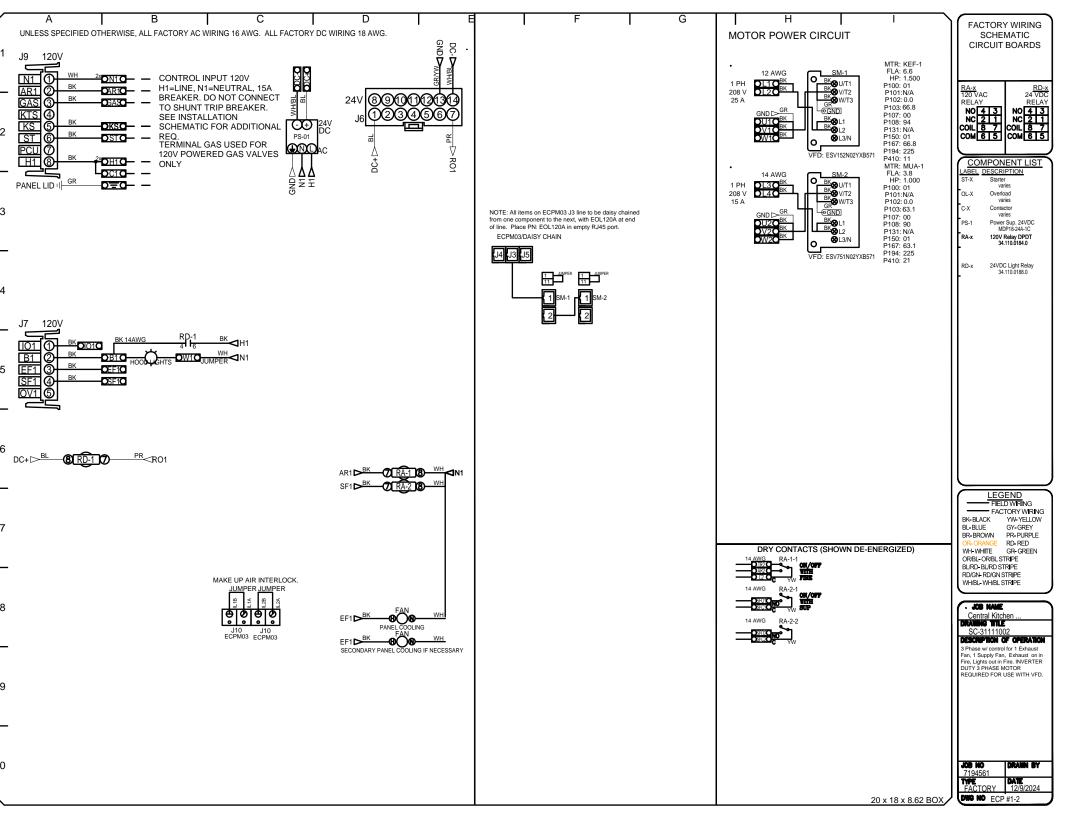
HOOD

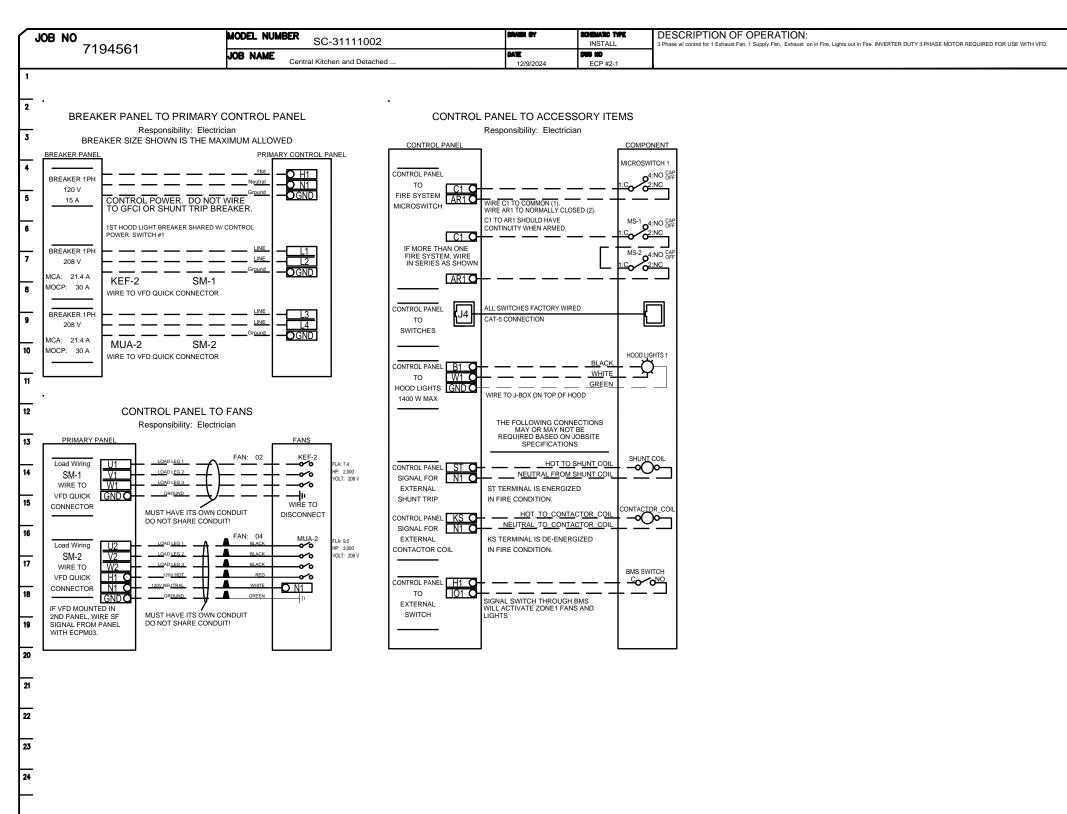
PLOT DATE: 12/10/2024 10:47:33 AM

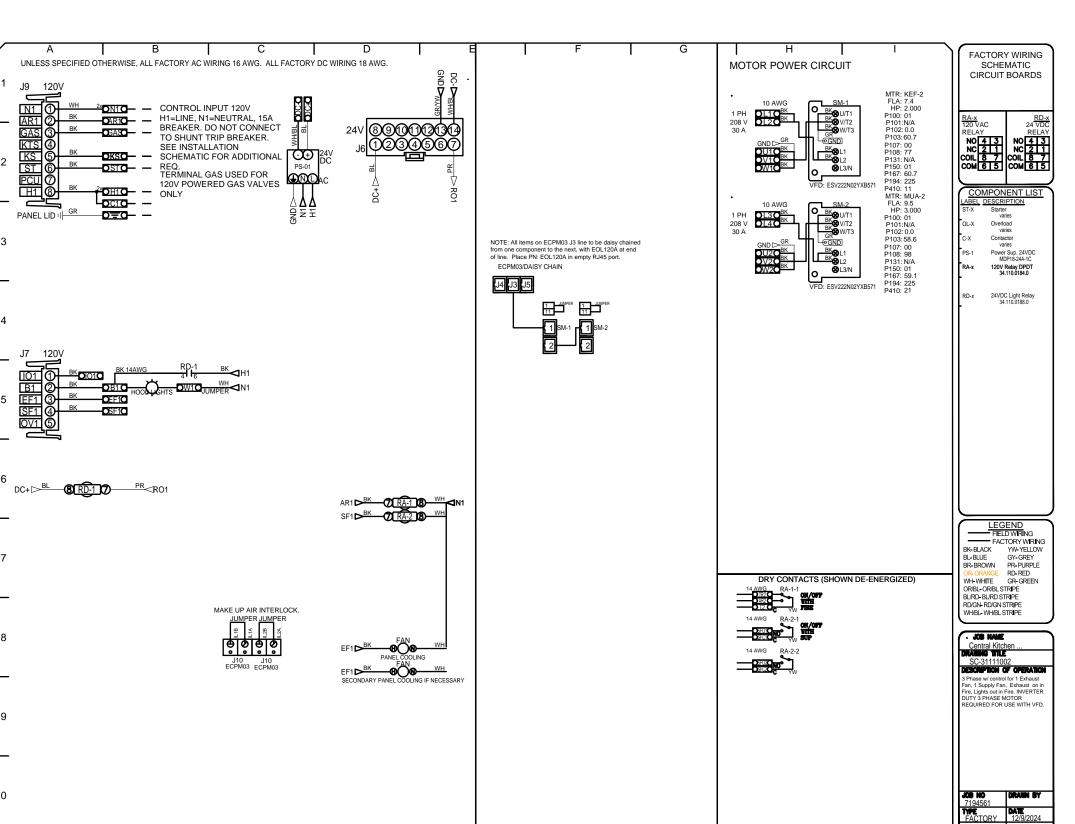


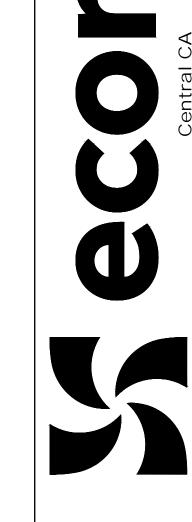














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Avenue,

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DATE: 12/9/2024

DRAWN BY: T.Thai

DWG.#: 7194561

SCALE:

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MASTER DRAWING

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Kitchen

Central

E 94806 A A S DOVER PABLO, ( 2229 SAN 44444 DRAWN: CHECKED: K.T. R.C. DATE: SCALE: 10/08/2024 SHEET TITLE: HOOD

M202

INFORMATION

| <u>EXH</u>        | AUST  | FAN               | INFORMATION - JOB#71 | <i>94561</i> |         |            |              |     |        |             |            |        |       |        |       |      |                 |       |              |               |
|-------------------|-------|-------------------|----------------------|--------------|---------|------------|--------------|-----|--------|-------------|------------|--------|-------|--------|-------|------|-----------------|-------|--------------|---------------|
| FAN<br>UNIT<br>NO | TAG   | QTY               | FAN UNIT MODEL#      | MANUFACTUF   | RER CFM | ESP        | R            | RPM |        | OTOR<br>NCL | HP         | ВНР    | PHASE | VOLT   | ΓFLA  |      | SCHAF<br>'ELOCI |       | WEIG<br>(LBS |               |
| 1                 | KEF-1 | 1                 | DU180HFA             | CAPTIVEAIR   | RE 2750 | 0.750      | ) 10         | 045 | ODP,P  | REMIUM      | 1.500      | 0.8150 | 3     | 208    | 6.6   |      | 635 FP          | М     | 178          | ,             |
| 2                 | KEF-2 | 1                 | DU240HFA             | CAPTIVEAIR   | RE 4400 | 1.000      | ) 7          | 799 | TEFC,F | PREMIUM     | 2.000      | 1.4960 | 3     | 208    | 7.4   | 1    | 000 FF          | PM    | 335          | ,             |
| MUA               | FAN   | $\overline{INFO}$ | RMATION - JOB#719456 | 1            | •       | •          |              | •   |        |             |            |        |       | •      | •     |      |                 |       |              | -             |
| FAN<br>UNIT<br>NO | TAG   | QTY               | FAN UNIT MODEL#      | BLOWER       | HOUSING | MIN<br>CFM | DESIG<br>CFM |     | ESP    | RPM         | MOT<br>ENC |        | НР    | ВНР    | PHASE | VOLT | FLA             | MCA   | МОСР         | FLOW<br>(Gal/ |
| 3                 | MUA-1 | 1                 | A2-20D               | 20MF-2-MOD   | A2      | 1500       | 2750         | ) ( | 0.500  | 1134        | ODP,PR     | EMIUM  | 1.000 | 0.8240 | 3     | 208  | 3.8             | 4.8A  | 15A          | 3.9           |
| 4                 | MUA-2 | 1                 | A2-20D               | 20MF-2-MOD   | A2      | 1500       | 4400         | ) ( | ).375  | 1569        | ODP,PR     | EMIUM  | 3.000 | 2.2460 | 3     | 208  | 9.5             | 11.9A | 20A          | 6.1           |
| $\overline{FAN}$  | OPTIC | ONS               |                      | •            |         |            |              | •   | •      |             |            | •      |       |        |       |      | •               |       | •            |               |
| FAN               |       |                   |                      |              |         |            |              |     |        |             |            |        |       |        |       |      |                 |       |              |               |

12.4 12.7

EVAP COOLEREVAP COOLEREVAP COOLEREVAP COOLERENTERING DBENTERING WBLEAVING DBLEAVING WBTEMPTEMPTEMP

70.0°F

71.0°F

63.0°F

63.0°F

WEIGHT

790

819

63.0°F

63.0°F

11.5

20.7

| FAN               | OPTION | VS  |                                                                                                      |
|-------------------|--------|-----|------------------------------------------------------------------------------------------------------|
| FAN<br>UNIT<br>NO | TAG    | QTY | DESCRIPTION                                                                                          |
|                   |        | 1   | GREASE BOX                                                                                           |
| 1                 | KEF-1  | 1   | FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS                          |
|                   |        | 1   | 2 YEAR PARTS WARRANTY                                                                                |
|                   |        | 1   | GREASE BOX                                                                                           |
| 2                 | KEF-2  | 1   | FAN BASE CERAMIC SEAL - DU/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS                          |
|                   |        | 1   | 2 YEAR PARTS WARRANTY                                                                                |
|                   |        | 1   | SIZE 2 UNTEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS                                    |
|                   |        | 1   | EVAPORATIVE COOLER WIRING HARNESS                                                                    |
| 3                 | MUA-1  | 1   | SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY |
|                   |        | 1   | 2 YEAR PARTS WARRANTY                                                                                |
|                   |        | 1   | SIZE 2 UNTEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS                                    |
|                   |        | 1   | EVAPORATIVE COOLER WIRING HARNESS                                                                    |
| 4                 | MUA-2  | 1   | SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY |
|                   |        | 1   | 2 YEAR PARTS WARRANTY                                                                                |

| $\mathbf{r}$ $\mathbf{\lambda}$ $\mathbf{\lambda}$ | ACCESSORIES                           | ۲ |
|----------------------------------------------------|---------------------------------------|---|
| I. AIV                                             | AUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU | , |

| FAN<br>UNIT | TAG   |               | EXHAUST           |               |                   | SUPF              | PLY                 |               |
|-------------|-------|---------------|-------------------|---------------|-------------------|-------------------|---------------------|---------------|
| NO          | TAG   | GREASE<br>CUP | GRAVITY<br>DAMPER | WALL<br>MOUNT | SIDE<br>DISCHARGE | GRAVITY<br>DAMPER | MOTORIZED<br>DAMPER | WALL<br>MOUNT |
| 1           | KEF-1 | YES           |                   |               |                   |                   |                     |               |
| 2           | KEF-2 | YES           |                   |               |                   |                   |                     |               |
| 3           | MUA-1 |               |                   |               |                   |                   |                     |               |
| 4           | MUA-2 |               |                   |               |                   |                   |                     |               |

### CURB ASSEMBLIES

| NO | ON<br>FAN | TAG   | WEIGHT | ITEM | SIZE                                          |
|----|-----------|-------|--------|------|-----------------------------------------------|
| 1  | # 1       | KEF-1 | 43 LBS | CURB | 26.500"W X 26.500"L X 20.000"H VENTED HINGED. |
| 2  | # 2       | KEF-2 | 43 LBS | CURB | 31.500"W X 31.500"L X 20.000"H VENTED HINGED. |
| 3  | # 3       |       | 55 LBS | CURB | 31.000"W X 31.000"L X 20.000"H.               |
|    | # 3       |       |        | RAIL | 4.000"W X 4.000"L X 36.000"H.                 |
|    | # 3       |       |        | RAIL | 4.000"W X 4.000"L X 36.000"H.                 |
| 4  | # 4       |       | 55 LBS | CURB | 31.000"W X 31.000"L X 20.000"H.               |
|    | # 4       |       |        | RAIL | 4.000"W X 4.000"L X 36.000"H.                 |
|    | # 4       |       |        | RAIL | 4.000"W X 4.000"L X 36.000"H.                 |

| FAN         | <u>SOUND</u> | DATA    |      |                  |               | ,                |       |        |        |              |        |       |       |       |
|-------------|--------------|---------|------|------------------|---------------|------------------|-------|--------|--------|--------------|--------|-------|-------|-------|
| FAN<br>UNIT | TAG          | MOTOR - |      | SOUND DATA       |               |                  |       |        | OCTAV  | /E BAND SOUN | D DATA |       |       |       |
| NO          | TAG          | WOTOR   | LWA  | SONES<br>@ 5 FT  | DBA<br>@ 5 FT | DISTANCE<br>(FT) | 63 HZ | 125 HZ | 250 HZ | 500 HZ       | 1 KHZ  | 2 KHZ | 4 KHZ | 8 KHZ |
| 1           | KEF-1        | EXHAUST | 75.8 | 12.3986241189282 | 64.3          | 5                | 75    | 83.1   | 80.5   | 71.5         | 67.6   | 65.1  | 58.5  | 52.1  |
| 2           | KEF-2        | EXHAUST | 76.1 | 12.6592984451801 | 64.6          | 5                | 75.4  | 87.4   | 78.9   | 70.2         | 68.1   | 64.8  | 59.9  | 55.6  |
| 3           | MUA-1        | SUPPLY  | 74.7 | 11.4879083956192 | 63.2          | 5                | 72.6  | 80.2   | 74.8   | 72.2         | 68.6   | 65.9  | 62.6  | 58.7  |
| 4           | MUA-2        | SUPPLY  | 83.2 | 20.7140519087911 | 71.7          | 5                | 78.2  | 85.9   | 81.9   | 81.5         | 77.5   | 74.3  | 71.2  | 67.6  |



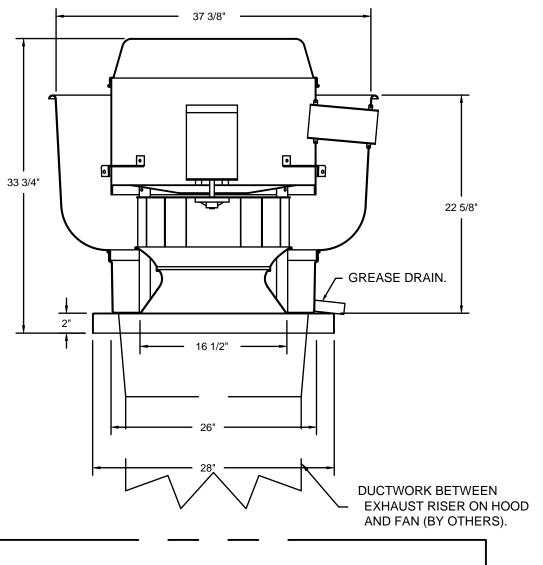
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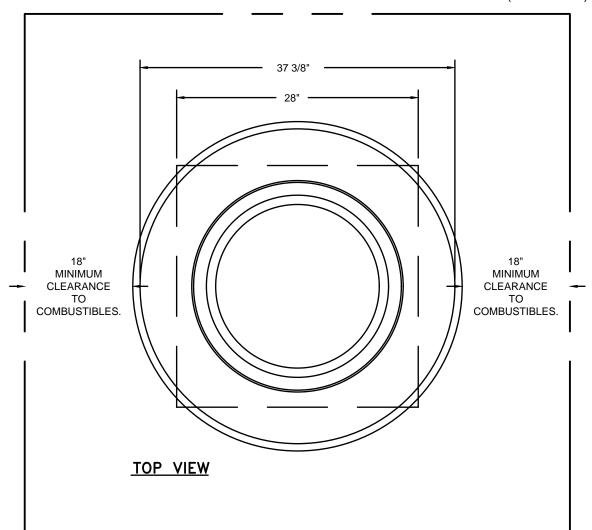
STORAGE

2229 DOVER AVE SAN PABLO, CA 94806

SCALE:

### FAN #1 DU180HFA - EXHAUST FAN (KEF-1)





### FEATURES:

### - DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).

- ROOF MOUNTED FANS. - RESTAURANT MODEL. - UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL. - INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE). - HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING. - NEMA 3R SAFETY DISCONNECT SWITCH.

### NORMAL TEMPERATURE TEST EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH

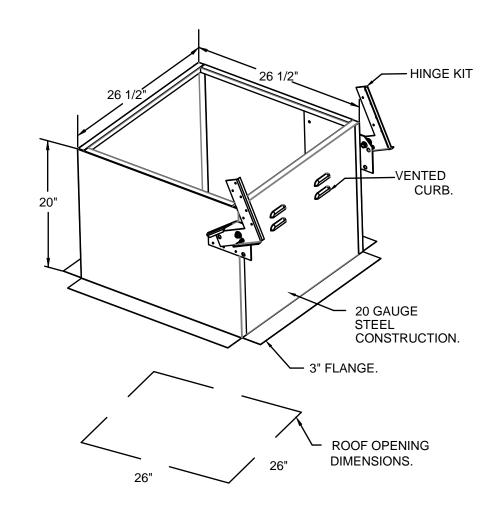
### ABNORMAL FLARE-UP TEST

WOULD CAUSE UNSAFE OPERATION.

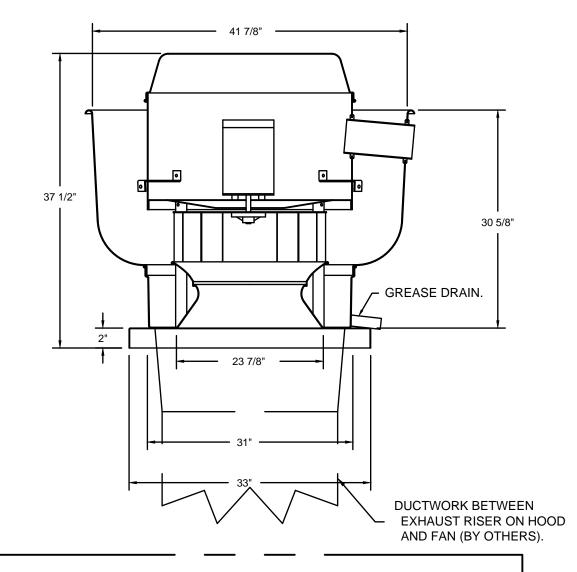
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

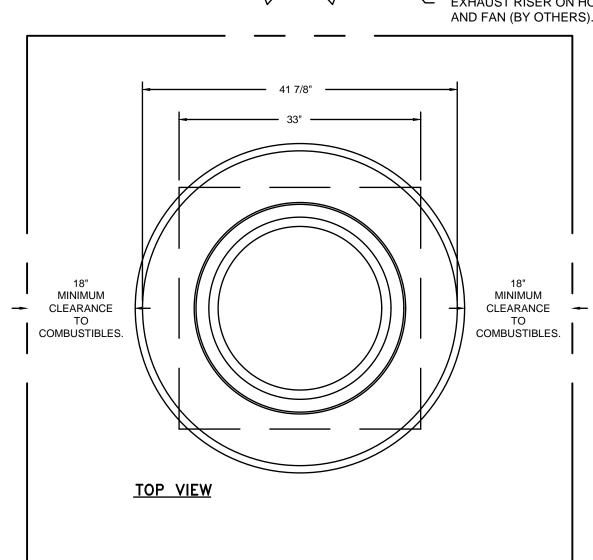
### <u>OPTIONS</u>

- GREASE BOX. - FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE - 2 YEAR PARTS WARRANTY.



### FAN #2 DU240HFA - EXHAUST FAN (KEF-2)





### **FEATURES**:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS). - ROOF MOUNTED FANS. - RESTAURANT MODEL. - UL705 AND UL762 AND ULC-S645 - VARIABLE SPEED CONTROL. - INTERNAL WIRING. - THERMAL OVERLOAD PROTECTION (SINGLE PHASE). - HIGH HEAT OPERATION 300°F (149°C).

- GREASE CLASSIFICATION TESTING. - NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

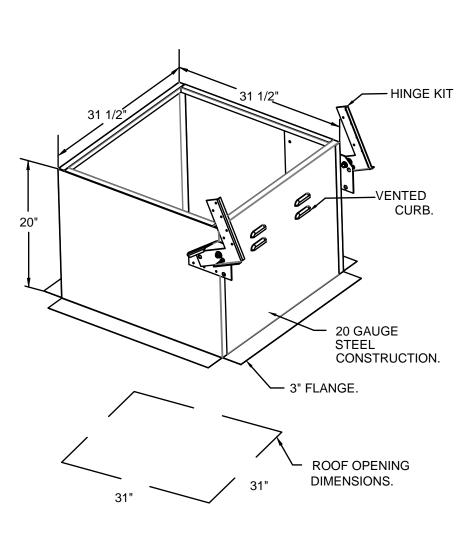
### EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS

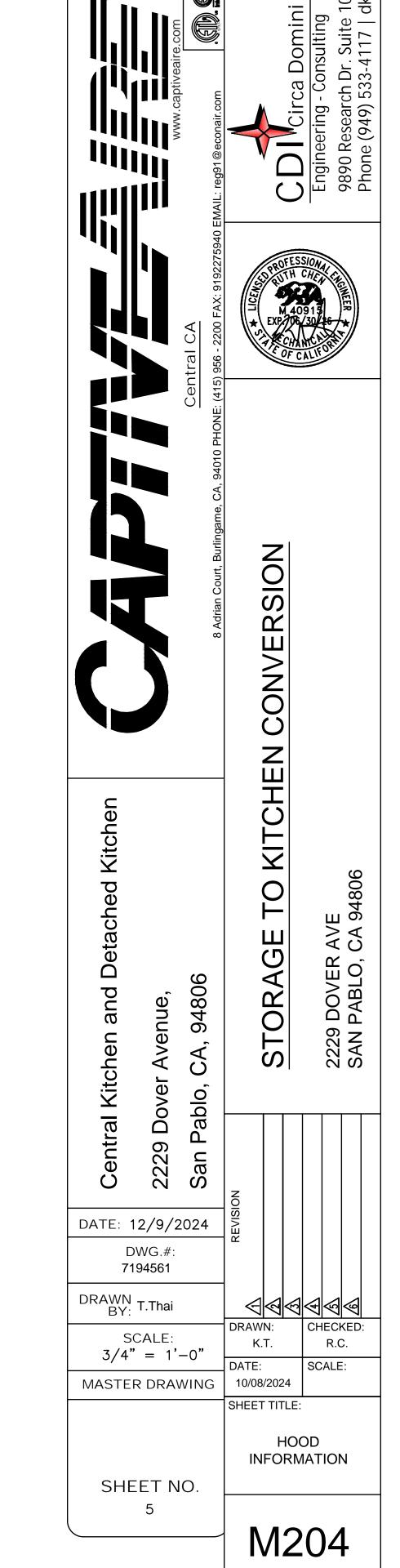
AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

### <u>OPTIONS</u>

ABNORMAL FLARE-UP TEST

- GREASE BOX. - FAN BASE CERAMIC SEAL -DU/DR240HFA - INSTALLED AT PLANT -FOR GREASE DUCTS. - 2 YEAR PARTS WARRANTY.





REVISIONS DESCRIPTION DATE: FAN #3 A2-20D - SUPPLY FAN (MUA-1)

1. UNTEMPERED SUPPLY UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN IN SIZE #2 HOUSING.

2. EVAP COOLER (LPD CELDEK) & V-BANK WITH 2" TA-13 FILTERS-OUTDOOR.

3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.

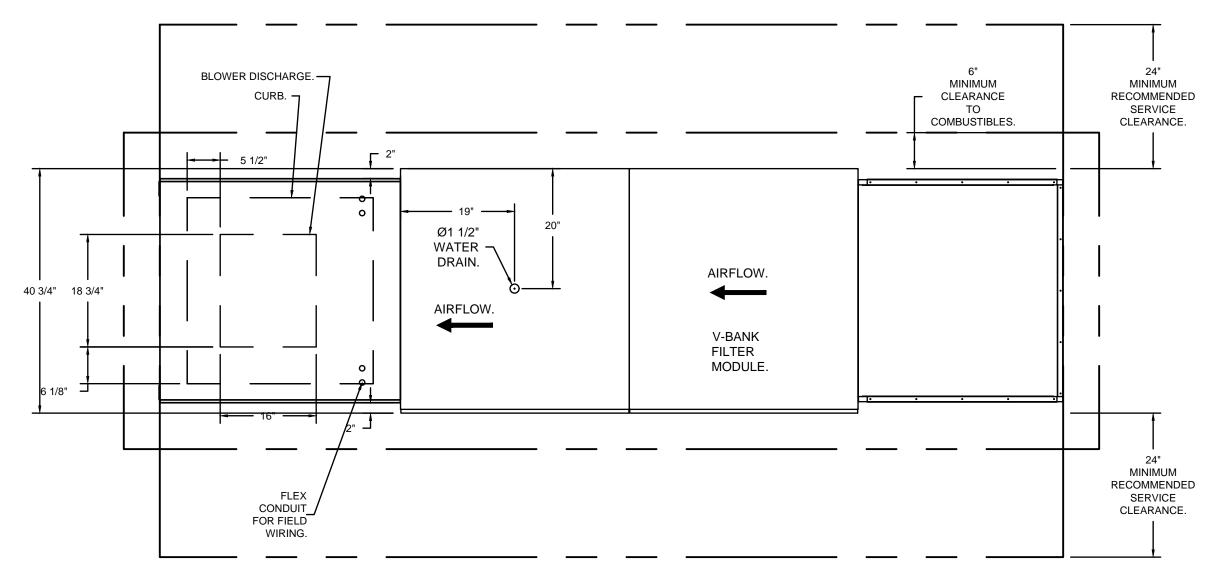
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 UNTEMPERED DIRECT DRIVE AHUS.

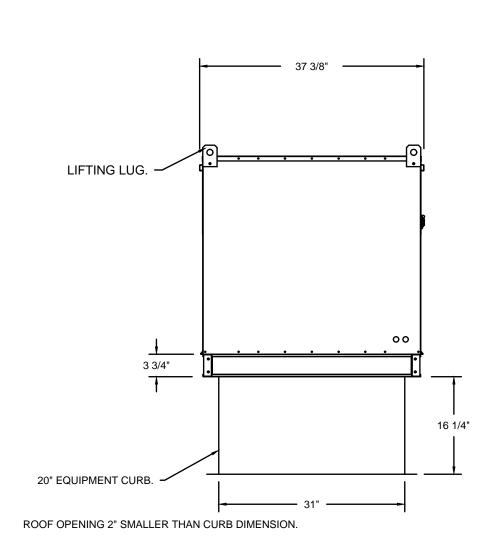
5. 120V WIRING CONNECTION TO ENERGIZE EVAPORATIVE COOLERS FROM UNTEMPERED SUPPLY FANS.

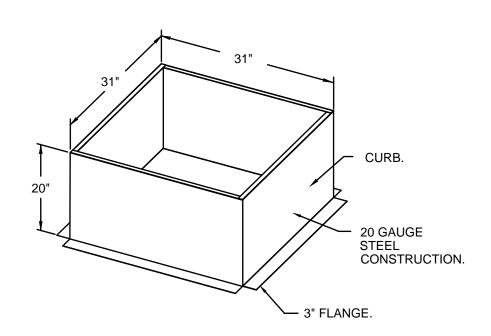
6. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
7. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/EVAP SECTION).

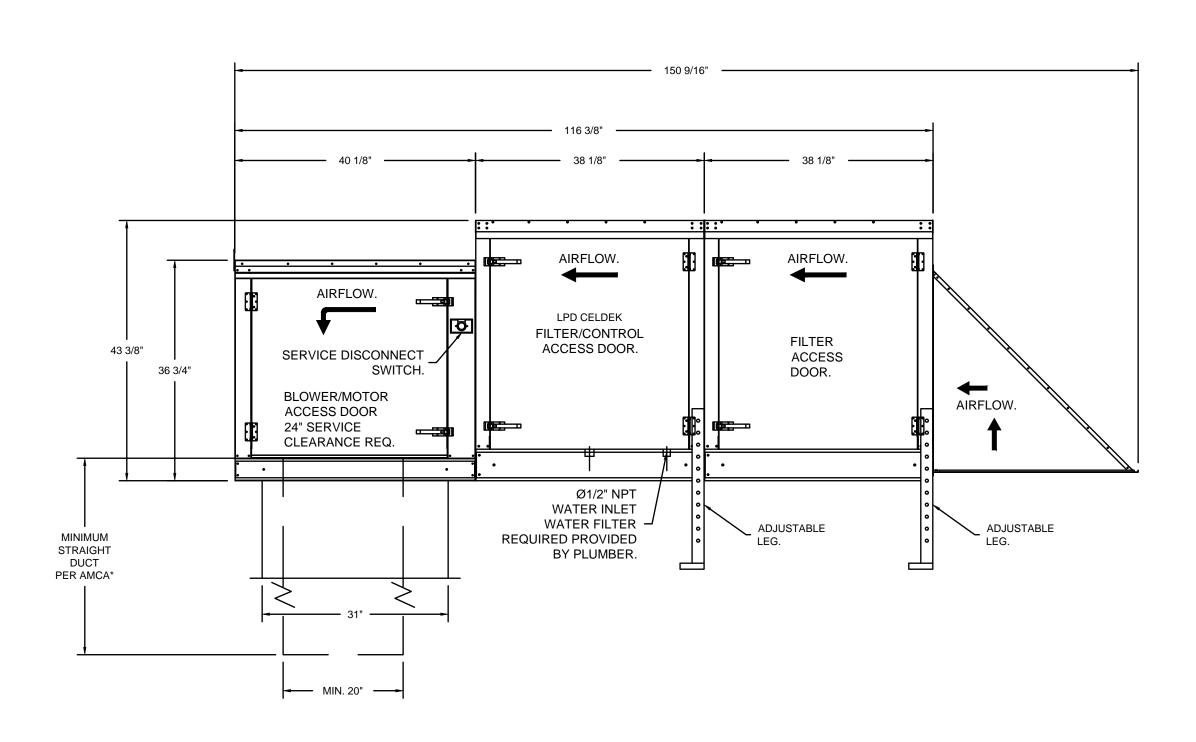
\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

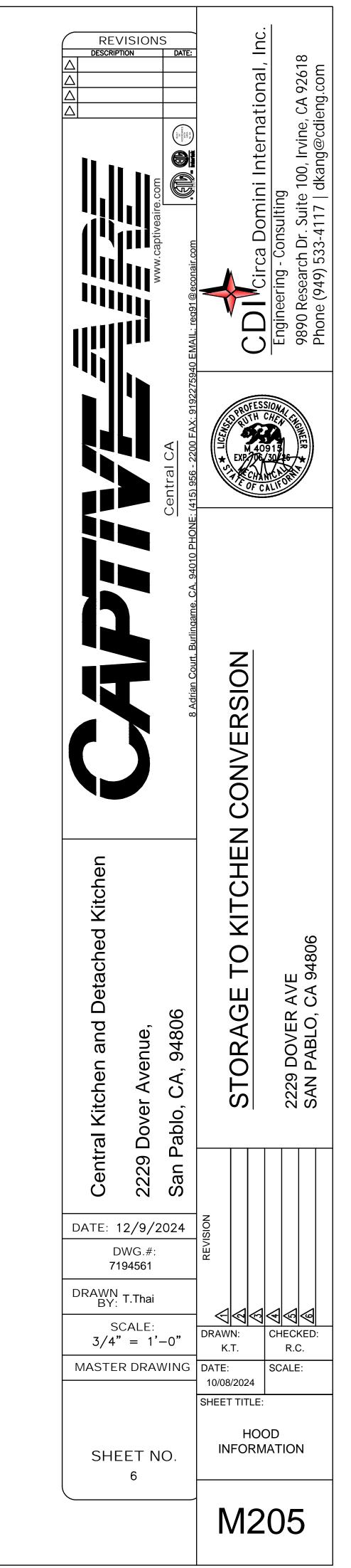












FAN #4 A2-20D - SUPPLY FAN (MUA-2)

1. UNTEMPERED SUPPLY UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN IN SIZE #2 HOUSING. 2. EVAP COOLER (LPD CELDEK) & V-BANK WITH 2" TA-13 FILTERS-OUTDOOR.

3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.

4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 UNTEMPERED DIRECT DRIVE AHUS.

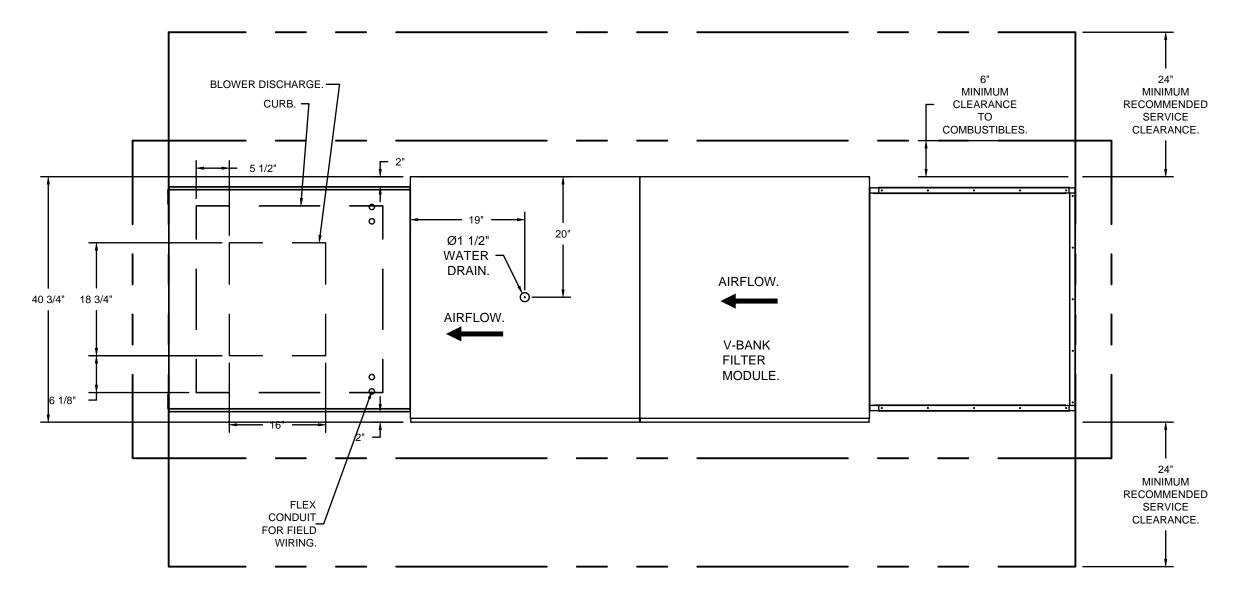
5. 120V WIRING CONNECTION TO ENERGIZE EVAPORATIVE COOLERS FROM UNTEMPERED SUPPLY FANS.

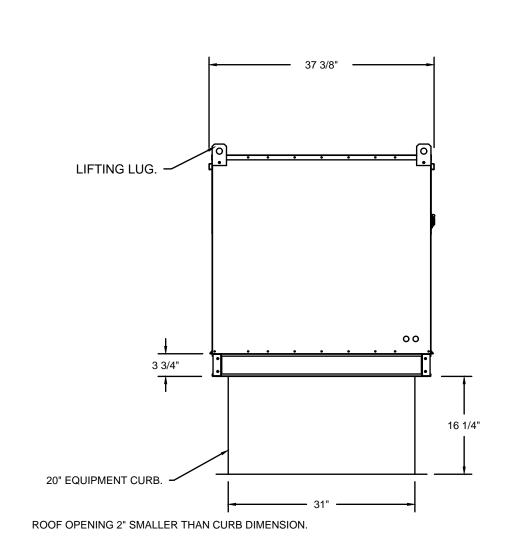
6. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.

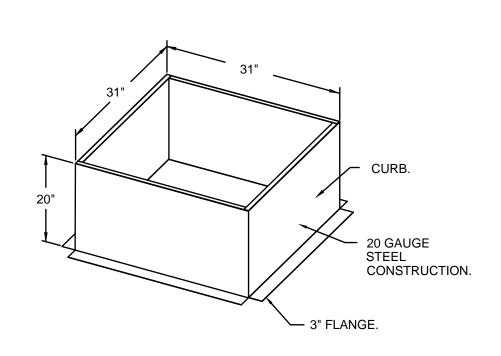
7. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/EVAP SECTION). 8. 2 YEAR PARTS WARRANTY.

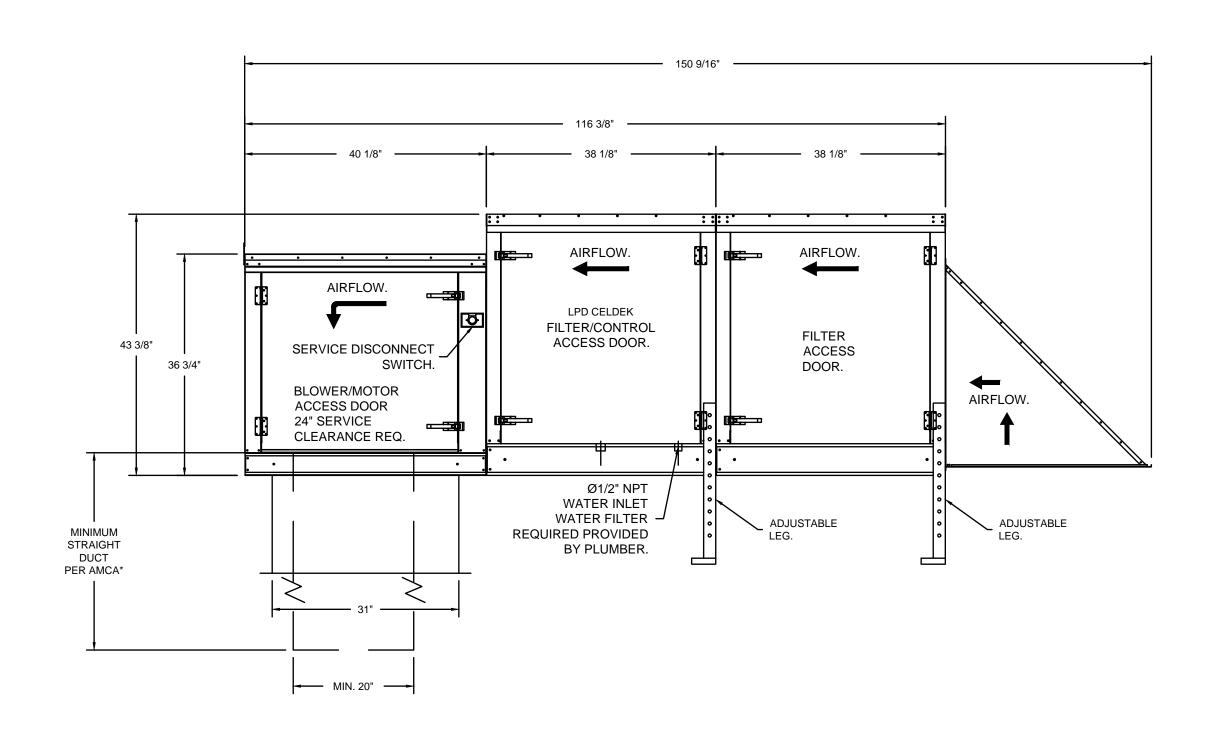
\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

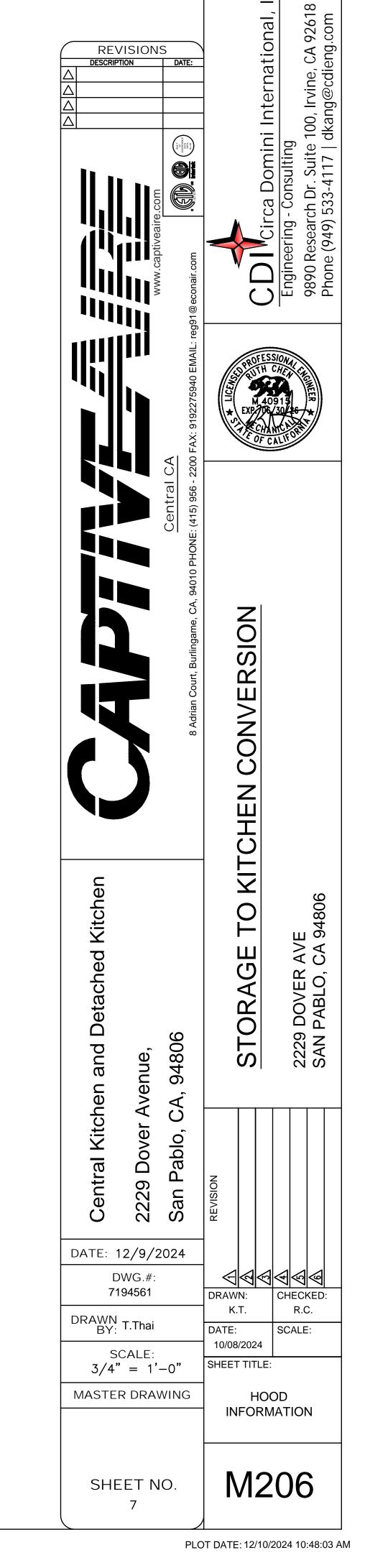


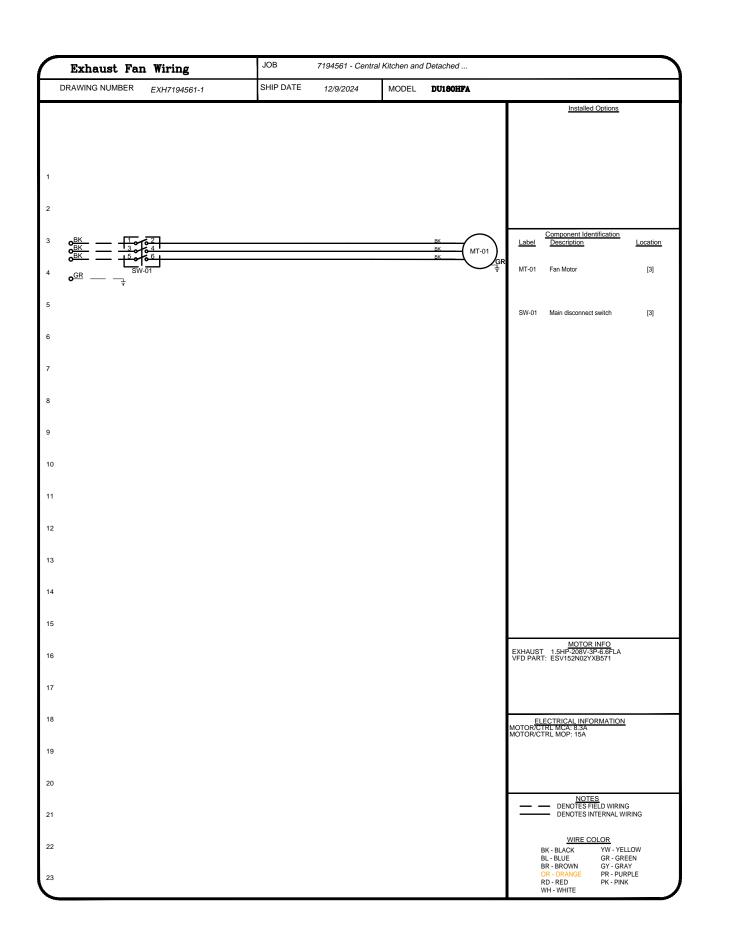


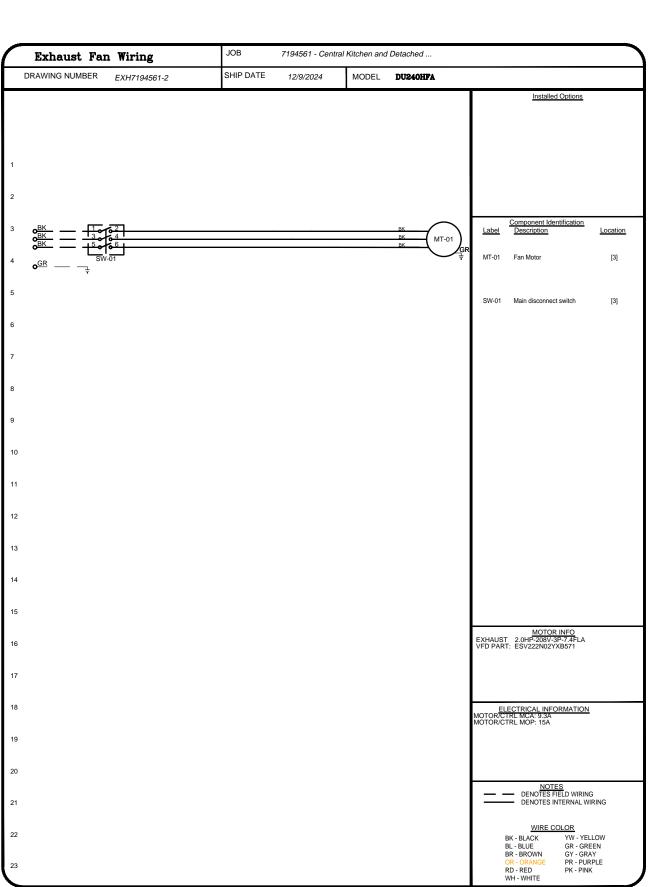


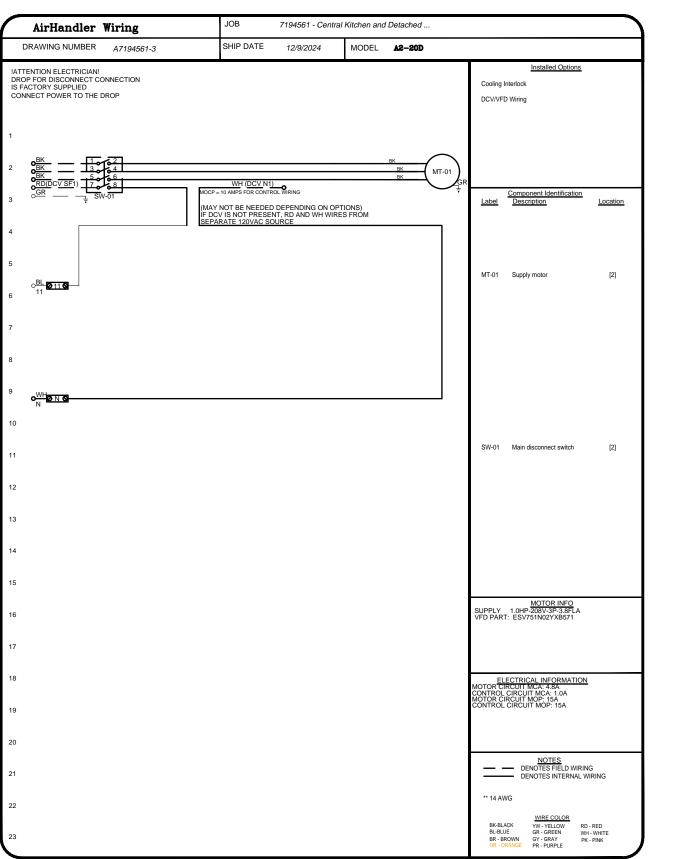


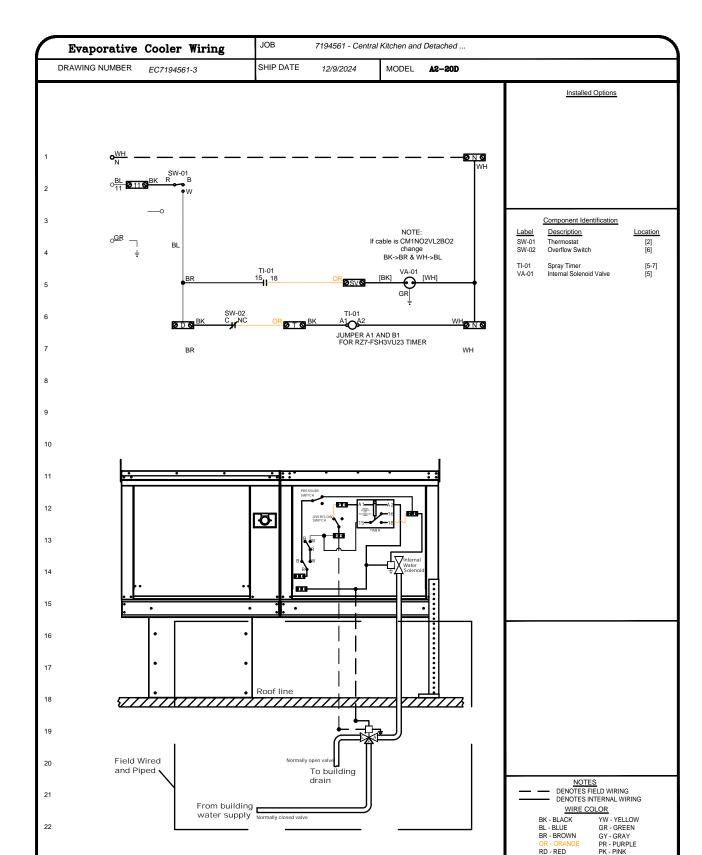


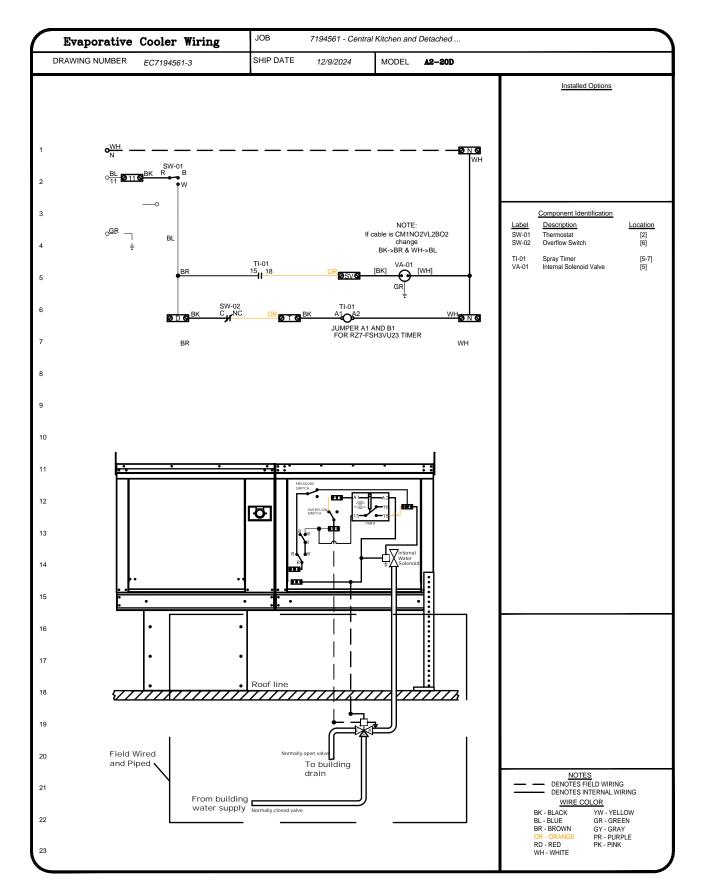






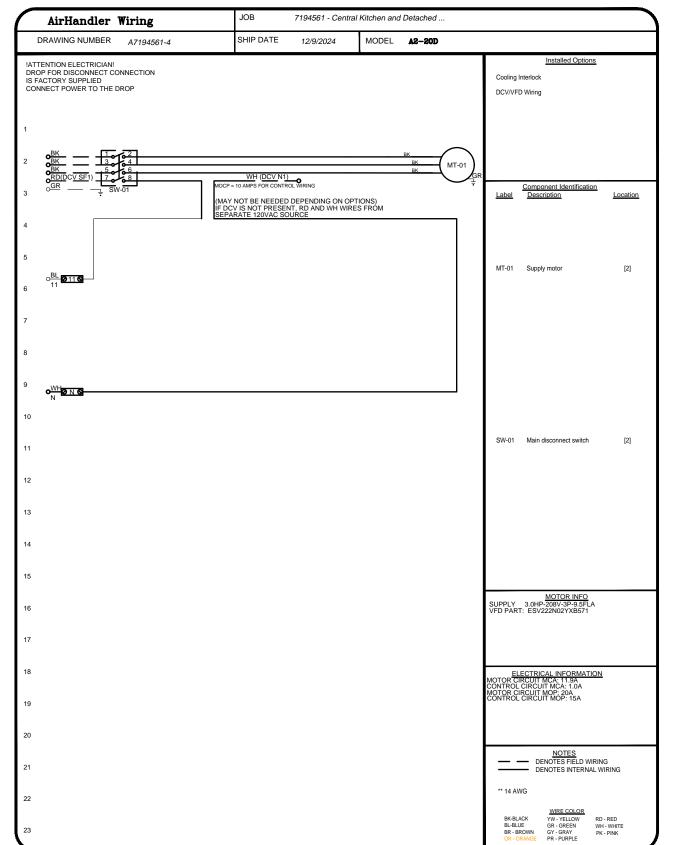


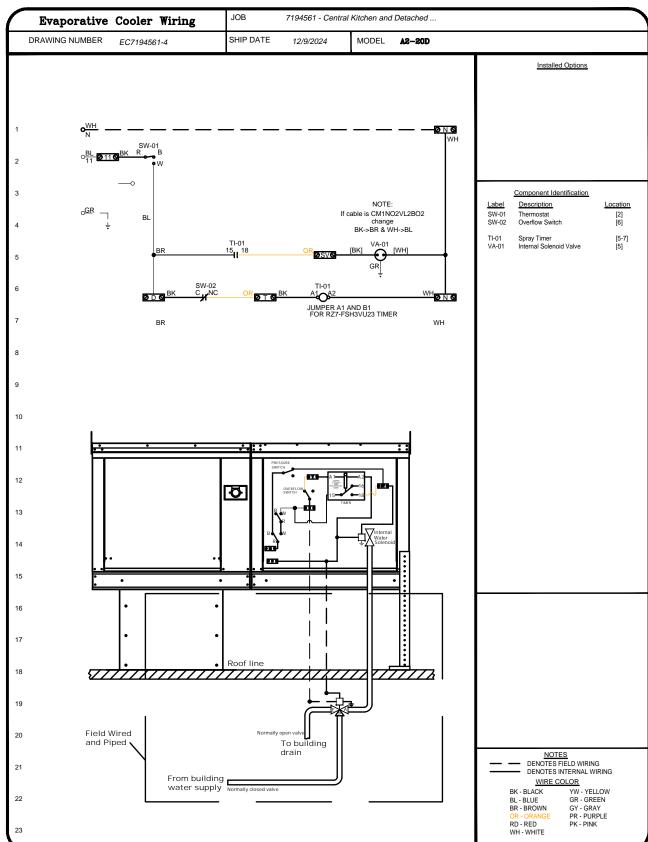






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CALIFORNIA ENERGY COMMISSION

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Documentation Software: Energy Code Ace

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STATE OF CALIFORNIA **Mechanical Systems** 

CERTIFICATE OF COMPLIANCE

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| The state of the s |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                   | C. COMPLIANCE RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| A. GENERAL INFORMATION 01 Project Location (city)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SAN PABLO 04 Total Conditioned Floor                                                                                                                                                                                                                                                                                                              | Area 1386                                                                                                                                                                                                                                                                                                                                                                         | Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table so NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 02 Climate Zone 03 Occupancy Types Within Project:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3 05 Total Unconditioned Floo<br>06 # of Stories (Habitable A                                                                                                                                                                                                                                                                                     | - CO                                                                                                                                                                                                                                                                                                                                           | 01 02 03 04 05 06 07 08 System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Restaurant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                   | ·                                                                                                                                                                                                                                                                                                                                                                                 | Summary 110.1, AND Pumps 140.4(k), AND 110.2, 120.2, AND 120.2, 120.2, AND 120.3, AND 12 |
| B. PROJECT SCOPE  This table includes mechanical systems or component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | s that are within the scope of the permit application and are demonstr                                                                                                                                                                                                                                                                            | rating compliance using the prescriptive nath outlined in                                                                                                                                                                                                                                                                                                                         | 170.2(c) 4  140.4(e),                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 140.4, 170.2(b) or 141.0(b)2 and 180.2(b)2 for altera<br>01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                   | 03                                                                                                                                                                                                                                                                                                                                                                                | Yes AND AND Yes AND Yes AND Yes AND Yes AND E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Air System(s)  ☑ Heating Air System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Wet System Components  Water Economizer                                                                                                                                                                                                                                                                                                           | Dry System Components  Air Economizer                                                                                                                                                                                                                                                                                                                                             | Mandatory Measures Compliance (See Table Q for Details)  COMPLIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cooling Air System  Mechanical Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pumps  System Piping                                                                                                                                                                                                                                                                                                                              | ☐ Electric Resistance Heat ☐ Fan Systems                                                                                                                                                                                                                                                                                                                                          | D. EXCEPTIONAL CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical Controls (existing to remain, or new)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | altered Cooling Towers                                                                                                                                                                                                                                                                                                                            | ☐ Ductwork (existing to remain, altered or new)                                                                                                                                                                                                                                                                                                                                   | This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Chillers  Boilers                                                                                                                                                                                                                                                                                                                                 | ✓ Ventilation     ✓ Zonal Systems/ Terminal Boxes                                                                                                                                                                                                                                                                                                                                 | The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | *                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                   | E. ADDITIONAL REMARKS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                   | This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                   | F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Space Conditioning System Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Generated Date/Time:                                                                                                                                                                                                                                                                                                                              | Documentation Software: Energy Code Ace                                                                                                                                                                                                                                                                                                                                           | Generated Date/Time: Documentation Software: En                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CA Building Energy Efficiency Standards - 2022 Nonreside                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Report Version: 2022.0.000 Schema Version: rev 20220101                                                                                                                                                                                                                                                                                           | Compliance ID: 231624-1224-0009<br>Report Generated: 2024-12-03 23:08:20                                                                                                                                                                                                                                                                                                          | CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 2316 Schema Version: rev 20220101 Report Generated: 2024-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| STATE OF CALIFORNIA  Mechanical Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                   | CALIFORNIA ENERGY COMMISSION                                                                                                                                                                                                                                                                                                                                                      | STATE OF CALIFORNIA  Mechanical Systems  CALIFORNIA ENERGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CERTIFICATE OF COMPLIANCE Project Name: CENTRAL KITCHEN IMPROVEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Report Page:                                                                                                                                                                                                                                                                                                                                      | NRCC-MCH-E<br>(Page 4 of 9)                                                                                                                                                                                                                                                                                                                                                       | CERTIFICATE OF COMPLIANCE Project Name: CENTRAL KITCHEN IMPROVEMENT Report Page:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Date Prepared:                                                                                                                                                                                                                                                                                                                                    | 2024-12-04T02:09:17-05:00                                                                                                                                                                                                                                                                                                                                                         | Date Prepared: 2024-12-041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| H. FAN SYSTEMS & AIR ECONOMIZERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | H 4 - H 4                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                   | I. SYSTEM CONTROLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | escriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3                                                                                                                                                                                                                                                                          | 3, and 170.2(c)4A for fan systems. Fan systems serving only                                                                                                                                                                                                                                                                                                                       | This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requireme 141.0(b)2E 180.2(b)2 for altered space conditioning systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | all Serving Not Serving Fan                                                                                                                                                                                                                                                                                                                       | Site Site                                                                                                                                                                                                                                                                                                                                                                         | 01 02 03 04 05 06 07 08 09                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| System Name HP-1 Quantit y 1 Fan System Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | New Zoning other systems Units Dwelling Dwelling Units System Airflow (cfm)                                                                                                                                                                                                                                                                       | 1,600 Elevation 8 Economizer Temperatu re                                                                                                                                                                                                                                                                                                                                         | System Name    Conditione d Floor Area Being   Thermostats   Shut-Off Controls   Solation Zone   Demand Response   Temp.   Window Interlocks per Direct D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 01 02 03 04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 05 06 07 08 Allowance                                                                                                                                                                                                                                                                                                                             | 09 10 11                                                                                                                                                                                                                                                                                                                                                                          | System Name Zoning Served (ft <sup>2</sup> )   120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2   120.2(e) & 160.3(a)2D   120.2(e) & 160.3(a)2D   160.3(a)2E   160.3(a)2B   160.3(a)2B   170.2(c)4D   140.4(n) & 170.2(c)4D   (DDC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Fan Name 0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Water Fan                                                                                                                                                                                                                                                                                                                                         | Design Fan Motor Electrical                                                                                                                                                                                                                                                                                                                                                       | HP-1 Single zone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| or Item Tag Qty Componen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Component (%)  Gauge (w.g)  Component Allowance (watt/cfm)                                                                                                                                                                                                                                                                                        | Design Electrical Input Power Method Nameplate Horsepower Power                                                                                                                                                                                                                                                                                                                   | <sup>1</sup> FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are no                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| HP-1 Supply 1 None used                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                   | (kW)  Manufacturer provided 0.5                                                                                                                                                                                                                                                                                                                                                   | have setback thermostats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The Land of the Care Care Care Care Care Care Care Car                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   | Fan System Flortrical                                                                                                                                                                                                                                                                                                                                                             | J. VENTILATION AND INDOOR AIR QUALITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Supply Fan Base Exhuast/Return/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Relief/Transfer Fan Base Fan System Allowance                                                                                                                                                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Supply Fan Base Exhuast/Return/ Allowance (watt/cfm) Allowa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | nce(watt/cfm) (kW) <sup>3</sup>                                                                                                                                                                                                                                                                                                                   | Input Power (kW) 0.5                                                                                                                                                                                                                                                                                                                                                              | This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of tapplication need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be application of the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the calculations can be applied by the calculations of the c |
| Supply Fan Base Allowance (watt/cfm)  FOOTNOTES: Fans serving spaces with design backg. Low-turndown single-zone VAV fan system must be design backg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | round noise goals below NC35 capable of and configured to reduce airflow to 50 percent of                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                   | d:t24refnolink/]160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can in a spreadsheet.  O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Supply Fan Base Allowance (watt/cfm)  FOOTNOTES: Fans serving spaces with design backg. Cow-turndown single-zone VAV fan system must be design airflow and use no more than 30 percent of the design load served by the equipment shall have fixed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | round noise goals below NC35 capable of and configured to reduce airflow to 50 percent of e design wattage at that airflow. No more than 10 percent of the loads.                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                   | d:t24refnolink/]160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can in a spreadsheet.  O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Supply Fan Base Allowance (watt/cfm)  FOOTNOTES: Fans serving spaces with design backg Low-turndown single-zone VAV fan system must be elesign airflow and use no more than 30 percent of the design load served by the equipment shall have fixed Fan system allowance includes fan system base allow Filter pressure loss can only be counted once per fan accomplex Fan System means a fan system that combinations, or both. Formputer room economizers must meet requirement document  Fan Energy Index (FEI)  O1  Name or Item Tag  HP-1  CA Building Energy Efficiency Standards - 2022 Nonresident STATE OF CALIFORNIA  Mechanical Systems  CERTIFICATE OF COMPLIANCE  Project Name: CENTRAL KITCHEN IMPROVEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | round noise goals below NC35 rapable of and configured to reduce airflow to 50 percent of e design wattage at that airflow. No more than 10 percent of the loads.  vance. system. Ines a single cabinet fan system with other supply fans, exhaust ats of 140.9(a) and will be documented on the NRCC-PRC-E    Q2                                 | O3 FEI 1 Documentation Software: Energy Code Ace Compliance ID: 231624-1224-0009 Report Generated: 2024-12-03 23:08:20  CALIFORNIA ENERGY COMMISSION NRCC-MCH-E (Page 7 of 9)                                                                                                                                                                                                     | d:t24refnolink/1160.2, 160.3(a)3D, 170.2(a)4A, 170.2(a)4A of high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can in a spreadsheet.  01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Supply Fan Base Allowance (watt/cfm)  FOOTNOTES: Fans serving spaces with design backg Cow-turndown single-zone VAV fan system must be edesign airflow and use no more than 30 percent of the design load served by the equipment shall have fixed for system allowance includes fan system base allowance includes fan system base allowance on the counted once per fan for some fans, or both.  Computer room economizers must meet requirement document  Fan Energy Index (FEI)  O1  Name or Item Tag  HP-1  CA Building Energy Efficiency Standards - 2022 Nonresider  STATE OF CALIFORNIA  Mechanical Systems  CERTIFICATE OF COMPLIANCE  Project Name: CENTRAL KITCHEN IMPROVEMENT  M. COOLING TOWERS  This section does not apply to this project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | round noise goals below NC35 rapable of and configured to reduce airflow to 50 percent of edesign wattage at that airflow. No more than 10 percent of the loads. vance. system. nes a single cabinet fan system with other supply fans, exhaust tts of 140.9(a) and will be documented on the NRCC-PRC-E    Q2                                    | O3 FEI 1 Documentation Software: Energy Code Ace Compliance ID: 231624-1224-0009 Report Generated: 2024-12-03 23:08:20  CALIFORNIA ENERGY COMMISSION NRCC-MCH-E (Page 7 of 9)                                                                                                                                                                                                     | dr.24refnolink/J160.2, 160.3(a)30, 170.2(a)4N, 370.2(a)40 for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can in a spreadsheet.    O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Supply Fan Base Allowance (watt/cfm)  1 FOOTNOTES: Fans serving spaces with design backg 2 Low-turndown single-zone VAV fan system must be elesign airflow and use no more than 30 percent of the design load served by the equipment shall have fixed 3 Fan system allowance includes fan system base allowance includes fan system base allowance on only be counted once per fan 5 Complex Fan System means a fan system that comb fans, or both. 6 Computer room economizers must meet requirement document Fan Energy Index (FEI)  O1  Name or Item Tag  HP-1  CA Building Energy Efficiency Standards - 2022 Nonresider  STATE OF CALIFORNIA  Mechanical Systems  CERTIFICATE OF COMPLIANCE  Project Name: CENTRAL KITCHEN IMPROVEMENT  M. COOLING TOWERS  This section does not apply to this project.  N. DECLARATION OF REQUIRED CERTIFICATES OF Selections have been made based on information profiles the documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the buildings  NRCI-MCH-O1-E - Must be submitted for all buildings  O. DECLARATION OF REQUIRED CERTIFICATES OF Selections have been made based on information profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/profilese documents must be provided to the building   | round noise goals below NC35 rapable of and configured to reduce airflow to 50 percent of e design wattage at that airflow. No more than 10 percent of the loads.  vance.  system.  Ines a single cabinet fan system with other supply fans, exhaust ats of 140.9(a) and will be documented on the NRCC-PRC-E    Q2                               | Input Power (kW)  O.3  FEI  1  Documentation Software: Energy Code Ace  Compliance ID: 231624-1224-0009 Report Generated: 2024-12-03 23:08:20  CALIFORNIA ENERGY COMMISSION  NRCC-MCH-E  (Page 7 of 9)  2024-12-04T02:09:17-05:00  Changed, please explain why in Table E Additional Remarks.  ficiency-4  Systems/Spaces To Be Field  Verified                                   | dt24refpolink/]160_2, 160_3(p)30, 170.2(p)4N, 170.2(p) |
| Supply Fan Base Allowance (watt/cfm)  1 FOOTNOTES: Fans serving spaces with design backg 2 Low-turndown single-zone VAV fan system must be edesign airflow and use no more than 30 percent of the design load served by the equipment shall have fixed 3 Fan system allowance includes fan system base allow 4 Filter pressure loss can only be counted once per fan 5 Complex Fan System means a fan system that comb fans, or both. 6 Computer room economizers must meet requirement document Fan Energy Index (FEI)  O1  Name or Item Tag  HP-1  CA Building Energy Efficiency Standards - 2022 Nonresided STATE OF CALIFORNIA  Mechanical Systems  CERTIFICATE OF COMPLIANCE  Project Name: CENTRAL KITCHEN IMPROVEMENT  M. COOLING TOWERS  This section does not apply to this project.  N. DECLARATION OF REQUIRED CERTIFICATES OF Selections have been made based on information profiles and the building in https://www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/programs-and-topics/profiles/www.energy.ca.gov/prog   | round noise goals below NC35 rapable of and configured to reduce airflow to 50 percent of edesign wattage at that airflow. No more than 10 percent of the loads. vance. system. nes a single cabinet fan system with other supply fans, exhaust tts of 140.9(a) and will be documented on the NRCC-PRC-E    Q2                                    | O3 FEI 1 Documentation Software: Energy Code Ace Compliance ID: 231624-1224-0009 Report Generated: 2024-12-03 23:08:20  CALIFORNIA ENERGY COMMISSION NRCC-MCH-E (Page 7 of 9) 2024-12-04T02:09:17-05:00  changed, please explain why in Table E Additional Remarks. ficiency-4  Systems/Spaces To Be Field Verified  conjunction with MCH-07-A                                    | dt24refpolink/]160_2, 160_3(p)30, 170.2(p)4N, 170.2(p) |
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| Supply Fan Base Allowance (watt/cfm)  POOTNOTES: Fans serving spaces with design backg low-turndown single-zone VAV fan system must be design airflow and use no more than 30 percent of the design load served by the equipment shall have fixed la fan system allowance includes fan system base allow filter pressure loss can only be counted once per fan complex Fan System means a fan system that comb fans, or both. Computer room economizers must meet requirement document  Fan Energy Index (FEI)  O1  Name or Item Tag  HP-1  CA Building Energy Efficiency Standards - 2022 Nonresiden  STATE OF CALIFORNIA  Mechanical Systems  CERTIFICATE OF COMPLIANCE  Project Name: CENTRAL KITCHEN IMPROVEMENT  M. COOLING TOWERS  This section does not apply to this project.  N. DECLARATION OF REQUIRED CERTIFICATES Of Selections have been made based on information pro These documents must be provided to the building in https://www.energy.ca.gov/programs-and-topics/prof  NRCI-MCH-01-E - Must be submitted for all buildings in https://www.energy.ca.gov/programs-and-topics/prof  NRCA-MCH-02-A - Outdoor Air must be submitted for Supply Fan VFD Acceptance (if applicable) since testin NRCA-MCH-03-A - Constant Volume Single Zone HVA Systems are included in the scope, permit applicant s NRCA-MCH-05-A - Air Economizer Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | round noise goals below NC35 rapable of and configured to reduce airflow to 50 percent of edesign wattage at that airflow. No more than 10 percent of the loads. vance. system.  Interest a single cabinet fan system with other supply fans, exhaust to of 140.9(a) and will be documented on the NRCC-PRC-E    O2                               | O3 FEI 1 Documentation Software: Energy Code Ace Compliance ID: 231624-1224-0009 Report Generated: 2024-12-03 23:08:20  CALIFORNIA ENERGY COMMISSION NRCC-MCH-E (Page 7 of 9) 2024-12-04T02:09:17-05:00  changed, please explain why in Table E Additional Remarks. ficiency-4  Systems/Spaces To Be Field Verified  conjunction with MCH-07-A  plume Single Zone HVAC HP-1  HP-1 | dt24refnolin/)[502, 160.3(p)30, 170.2(p)4M, 170.2(p)4M |

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Report Version: 2022.0.000

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ONVERS KITCHEN

: AVE CA 94806

MECHANICAL TITLE 24 - 1

K.T.

10/08/2024

SHEET TITLE:

DATE:

CHECKED:

SCALE:

R.C.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Schema Version: rev 20220101

SHEET HILE.

MECHANICAL TITLE 24 - 2

TM01

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Note: If any cell on this  | table says "COMPLIES with Exceptional Conditions" refer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | clicked above and compliance demonstrated within this table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      | S) (= 20)                                                                                                  |
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The information provided on this Certificate of Compliance is true and correct.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                      |                                                                                                            |
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The building design features or system design features identified on this Certific                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      |                                                                                                            |
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I understand that a completed signed copy of this Certificate of Co</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                      |                                                                                                            |
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                                                                                                                                                                                                                                               | Compliance ID: 231624-1224-0010                                                                                | CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Report Version: 2022.0.000                                | Compliance ID: 231624-1224-0010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| Mechanical Systems  CERTIFICATE OF COMPLIANCE  This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.  Project Name: NEW DETACHED KITCHEN CONVERSION  Report Page: (Page 1 of 9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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2024-12-04T02:10:13-05:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| Project Address: 2229 DOVER AVE., SAN PABLO, CA 94806 Date Prepared: 2024-12-04T02:10:13-05:00  A. GENERAL INFORMATION  O1 Project Location (city) SAN PABLO 04 Total Conditioned Floor Area 749  O2 Climate Zone 3 05 Total Unconditioned Floor Area 0  O3 Occupancy Types Within Project: 06 # of Stories (Habitable Above Grade) 1  • Restaurant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | C. COMPLIANCE RESULTS  Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.  O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)  Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)  01 02 03 04 05 06 07 08 09 10 11  Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2  Smallest Size Available¹ 140.4(a) and 170.2(c)3aii  Equipment Type per Tables 110.2 and Title 20  Total Sensible Per Design Rated Heating Per Design (LBBs/ft) (LBB |
| B. PROJECT SCOPE  This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b)2 and 180.2(b)2 for alterations.  O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 170.2(c)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RTU-1 Unitary Heat Pumps Air-cooled, pkg (1phase) Yes 32.6 32.6 0 25.06 35.8 32.6 35.8  **FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.  **It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.  **If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.  **Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).  **Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)  **O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Generated Date/Time:  CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance  Report Version: 2022.0.000 Schema Version: rev 20220101  STATE OF CALIFORNIA  Mechanical Systems  CALIFORNIA ENERGY COMMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Space Conditioning System Information  01 02 03 04 05 06  System Name Quantity System Serving System Status Space Type Utilizing Recovered Heat  RTU-1 1 Single zone New/ Addition All Other Occupancies   Generated Date/Time: Documentation Software: Energy Code Ace  CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2024-12-03 23:09:16  STATE OF CALIFORNIA  Mechanical Systems  CALIFORNIA ENERGY COMMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | G. PUMPS  This section does not apply to this project.  Generated Date/Time: Documentation Software: Energy Code Ace  CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0008 Schema Version: rev 20220101 Report Generated: 2024-12-03 23:09:16  STATE OF CALIFORNIA  Mechanical Systems  CALIFORNIA ENERGY COMMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CERTIFICATE OF COMPLIANCE  Project Name: NEW DETACHED KITCHEN CONVERSION  Report Page: (Page 4 of 9)  Date Prepared: 2024-12-04T02:10:13-05:00  H. FAN SYSTEMS & AIR ECONOMIZERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CERTIFICATE OF COMPLIANCE  Project Name: NEW DETACHED KITCHEN CONVERSION  Report Page: (Page 5 of 9)  Date Prepared: 2024-12-04T02:10:13-05:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CERTIFICATE OF COMPLIANCE  Project Name: NEW DETACHED KITCHEN CONVERSION  Report Page: (Page 6 of 9)  Date Prepared: 2024-12-04T02:10:13-05:00  L. DISTRIBUTION (DUCTWORK and PIPING)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| H. FAR YST ENDS & RIE CONOMICES   This table is used to demonstrate compliance with prescriptive requirements found in 140-4(c), 140-4(e), 140-4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.    System   RTU-1   Quantit   1   Fan System   Status   New   System   all   Serving   Systems   Not Serving   Systems   1,200   Slewation   8   Economizer   Temperature   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,0 | This table is used to demonstrate compliance with mandatory controls in 110,2 and 120,2 and prescriptive controls in 140,4(f) and (n), 170,2(c)4D 170,2( | L IDINIBIOUT INDUCTION DOLL WORK and PIPMOJ  This toble is used to show compliance with mandatory pipe insulation requirements found in 120.4(a) for duct sealing.  Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for notations review. Insulation covering fulled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class I waper retarder. All penetrations and joints of which shall be sealed.    Note                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| M. COOLING TOWERS  This section does not apply to this project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Q. MANDATORY MEASURES DOCUMENTATION LOCATION  This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DOCUMENTATION AUTHOR'S DECLARATION STATEMENT  I certify that this Certificate of Compliance documentation is accurate and complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION  Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4  Form/Title  NRCI-MCH-01-E - Must be submitted for all buildings  O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE  Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4  Form/Title  NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A  Supply Fan VFD Acceptance (if applicable) since testing activities overlap.  NRCA-MCH-03-A - Constant Volume Single Zone HVAC OFF. This form does not automatically move to "Yes'. If Constant Volume Single Zone HVAC  Systems are included in the scope, permit applicant should move this form to "Yes".  NRCA-MCH-03-A - A lite Economizer Controls  RTU-1  NRCA-MCH-03-A - A late Teconomizer Controls  P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION  There are no NRCV forms required for this project.                                                                                                                                                                                                                                                                                                                                                                                            | Compliance with Mandatory Measures documented through MCH No Plan sheet or construction document location  Mandatory Measures Note Block  O3  Plan sheet or construction document location  Mandatory Measure Plan sheet or construction document location  Heating Equipment Efficiency per 110.1  N/A  Cooling Equipment Efficiency per 110.1  N/A  Duct Insulation per 120.4  Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)  N/A  Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)  N/A  Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)  N/A  Mo01  Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2  KITCHEN EQUIPMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Documentation Author Name: RXTH CHEN Company: CDI Signature Date: 12/04/2024 Address: 9890 RESEARCH DR. STE 100 Cary/State/Zip: IRVINE, CA, 92618 Phone:  RESPONSIBLE PERSON'S DECLARATION STATEMENT Lentify the following under penalty of perjury, under the laws of the state of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Profussions Code of accept responsibility for the building design or system design identified on this Certificate of Compliance (responsibile designer) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of the 28, Part 1 and Part 4 of the California Code of Republicance of Compliance and law of the 18 certificate of the 18 certificate of Compliance and law of the 18 certificate of 18  |

Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: 231629-1224-0008 Report Generated: 2024-12-03 23:09:16 Report Version: 2022.0.000 Schema Version: rev 20220101

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Compliance ID: 231629-1224-0008 Report Generated: 2024-12-03 23:09:16

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A CHAMCA OF CALIFORNIA

O KITCHEN CONVERSION

STORAGE TO KITCHEN
2229 DOVER AVE
SAN PABLO, CA 94806

NOISINAL CHECKED R.C.

DRAWN: CHECKED R.C.

DATE: R.C.

10/08/2024

SHEET TITLE:

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MECHANICAL TITLE 24 - 3

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CALIFORNIA ENERGY COMMISSION

|   | REVISION        |                 |            |                |          |          |
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|   |                 |                 | IAN<br>E 2 |                |          |          |

RTIFICATE OF COMPLIANCE roject Name: NEW DETACHED KITCHEN CONVERSION piect Name: NEW DETACHED KITCHEN CONVERSION (Page 2 of 9 (Page 3 of 9) This document is used to demonstrate compliance with mandatory requirements in 110.8(g) and 120.7(b)/ 160.1 for newly constructed nonresidential, hotel/ motel, multifamily and mixed-use buildings, and 141.0(b)1/180.2 for alterations, related to roof, wall and floor assemblies. It is also used to demonstrate compliance with prescriptive requirements in 140.3/ 2024-12-08T22:28:39-05:0 2024-12-08T22:28:39-05:0 170.2 for newly constructed buildings, and 141.0/180.1/180.2 for additions and alterations, related to roof, wall, floor, door, fenestration and daylighting requirements. Project Name: NEW DETACHED KITCHEN CONVERSION (Page 1 of 9 2229 DOVER AVE., SAN PABLO, CA 94806 Date Prepared: 2024-12-08T22:28:39-05:00 Project Address: B. PROJECT SCOPE ROOF ASSEMBLY SCHEDULE FOOTNOTE: Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on table K with fenestration. ramed Roof Assembli A. GENERAL INFORMATION <sup>2</sup>Roof recovers and replacements must also check "Roof Assembly" box and document compliance with insulation requirements in Table F. Roof recoats may document compliance with Include Framed Roof Assemblies in Area-Weighted Average U-factor Calculation<sup>1</sup> SAN PABLO 01 Project Location (city) 05 # of Stories (Habitable Above Grade 94806 06 Total Conditioned Floor Area (ft²) 749 Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only) Tag/Plan Detail ID 03 Climate Zone 7 Total Unconditioned Floor Area (ft²) C. COMPLIANCE RESULTS Nonresidential, ROOF ROOF Relocatable 1 CZ Occupancy Types Within Project: (select all that apply): If one occupancy esults in this table are automatically calculated from data input and calculations in Tables F through L. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer constitutes >= 80% of the conditioned floor area, the entire building Project includes unconditioned enclosed space(s) > 5,000 ft<sup>2</sup> under a roof with a ceiling o Table D. Exceptional Conditions for guidance or see the applicable table referenced below. envelope may be designed to comply with the provisions of that occupancy height of at least 15 ft.1 Opaque Envelope Components Cavity Daylighting Spaces > How Design Roof Type & **Compliance Results** per 100.0(f). U-factor was nsulation per | Insulation per | Performance Thermal U-factor per Design Net Area4 ft 5,000ft<sup>2</sup> Roof Assembly Roofing Materials Walls Floors Frame Material Depth determined Design<sup>2</sup> Unit Design<sup>2</sup> Performance Restaurant 04 08 per JA4 (See Table I) (See Table J) COMPLIES with Exceptional <sup>1</sup> FOOTNOTE: Enclosed spaces > 5,000 ft<sup>2</sup> directly under roof with ceiling height > 15 ft in climate zones 2 through 15 are required to meet the minimum daylighting requirements Approved ROOF RAFTER 0.034 U-factor defined in 140.3(c)/ 170.2(b). Compliance with 140.3(c)/ 170.2(b) is documented in Table L. This is the only prescriptive requirement which applies to unconditioned spaces. Conditions 0.034 FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with othe B. PROJECT SCOPE oof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C. For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck. This table specifies project envelope components within the permit application demonstrating compliance using the prescriptive paths outlined in 140.3/170.2 and 141.0(a)1/180.1 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form. If "R-value" is shown in cell 13 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C and 141.0(b)1 and 2/180.2 for additions and alterations. Additional documentation for any assembly complying using "Approved Software" or "Other per JA4.1.2.1" to calculate design thermal performance may be requested by the plans Roof area minus any fenestration/ skylight area My project consists of (check all that apply) G. RATED ROOFING MATERIAL (COOL ROOF Walls Exterior Opaque Doors E. ADDITIONAL REMARKS Fhis table demonstrates compliance with prescriptive roof material requirements in 140.3(a)1A/ 170.2(a)1A for new construction, 141.0(a)/ 180.1 for additions, and 141.0(b)2B/ 180.2 ☐ One or more enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15ft Floors Fenestration/ Glazed Doors or alterations. Roof recovers and replacements must also document compliance with insulation requirements in Table F. Roof recoats may document compliance with roof material only This table includes remarks made by the permit applicant to the Authority Having Jurisdiction. Walls **Exterior Opaque Doors**  $\square$  One or more enclosed spaces > 5,000 ft<sup>2</sup> directly under roof with ceiling height > 15ft F. ROOF ASSEMBLY SCHEDULE Roof ☐ Addition is <=700 ft<sup>2</sup> Required Minimum Designed Material Fenestration/ Glazed Doors This table demonstrates compliance for prescriptive roof assembly requirements in 140.3(a)1B/ 170.2(a)1B for new construction, 141.0(a)/ 180.1 for additions, or 141.0(b)2Biii/ 180.2 Roof Material Description/ Status Occupancy Type Compliance Method R-value of ☐ Addition is >700 ft<sup>2</sup> Material Performance Detail ID Performance for alterations, ☐ Alteration of conditioned space Roof Assembly Walls ndicate roof types included in the project: | | Framed ☐ Metal Panels ☐ Metal Building  $\Box$  One or more enclosed spaces > 5,000 ft<sup>2</sup> directly under roof with ceiling height > 15ft and lighting system installed for the first time Fenestration Generated Date/Time: Generated Date/Time: Documentation Software: Energy Code Ace Generated Date/Time: Documentation Software: Energy Code Ace Documentation Software: Energy Code Ace CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41 Schema Version: rev 2022010 Report Generated: 2024-12-08 19:28:41 Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41 STATE OF CALIFORNIA STATE OF CALIFORNIA **Envelope Component Approach Envelope Component Approach Envelope Component Approach** CALIFORNIA ENERGY COMMISSION CALIFORNIA ENERGY COMMISSION CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE ERTIFICATE OF COMPLIANCE RTIFICATE OF COMPLIANCE oject Name: NEW DETACHED KITCHEN CONVERSION (Page 4 of 9 ect Name: NEW DETACHED KITCHEN CONVERSION (Page 5 of 9 oject Name: NEW DETACHED KITCHEN CONVERSION (Page 6 of 9 2024-12-08T22:28:39-05:0 2024-12-08T22:28:39-05:0 2024-12-08T22:28:39-05:0 G. RATED ROOFING MATERIAL (COOL ROOF) K. FENESTRATION AND GLAZED DOOR SCHEDULE I. FLOOR ASSEMBLY SCHEDULE Reflectance 0.63 Reflectance 0.63 ertical Fenestration and Glazed Doors- Total Building & West Facing Area (New Construction & Additions Only) Aged solar This section does not apply to this project ROOF ROOF New To Be Determined reflectance and Emittance 0.75 Emittance 0.75 thermal emittance Gross Exterior Wall Area Display Perimeter Length<sup>2</sup> Vertical Fenestration Area per Design J. EXTERIOR DOOR SCHEDULE Elevation Item Tag/ Description Drientation (Azimuth This table demonstrates compliance with prescriptive exterior door requirements in 140.3(a)7/ 170.2(a)4 for new construction or additions. Doors which are being replaced (alteration H. WALL ASSEMBLY SCHEDULE West Facing do not need to be documented in this table because there are no Title 24, Part 6 requirements that apply. Exterior doors separate conditioned space from unconditioned space or from This table demonstrates compliance with prescriptive wall assembly requirements in 140.3(a)/170.2(a) for new constructions, 141.0(a)/180.1 for additions and 141.0(b)1B/180.2 for mbient air. Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on Table K with fenestration per Table B. Total Vertical Fenestration (ft<sup>2</sup>) per design- All Maximum Allowed Vertical Fenestration (ft<sup>2</sup>) All Orientations Orientations ramed Mass (new only) Concrete Sandwich Panel (new only) SIPS CICF (new only) Maximum Allowed Vertical Fenestration (ft<sup>2</sup>)-Total Vertical Fenestration (ft<sup>2</sup>) per design- West Tag/Plan Detail ID Name/Description Occupancy Type Door Type Door Insulation U-factor per Design West Facing Illowed U-facto 1 FOOTNOTES: Wall types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and should be DOOR SCHEDULE OOTNOTES: Orientation between 226 deg and 315 deg are considered "West Facing". A diagram has been provided in the Nonresidential Compliance Manual for visual reference. per JA4 0.2 Swinging clicked above and compliance demonstrated within this table. Do not include demising walls per 140.3(a)5 Includes glazed door fenestration area. K. FENESTRATION AND GLAZED DOOR SCHEDULE Framed Walls □ Calculate Area-Weighted Average U-factor for Metal Framed Walls¹ This table demonstrates compliance with prescriptive fenestration requirements in 140.3(a)5/ 170.2(a)3 for new constructions, 141.0(a)/ 180.1 for additions, or 141.0(b)2A/ 180.2 for Vertical Fenestration And Glazed Doors- U-factor, Solar Heat Gain Coefficient (RSHGC/ SHGC), Visible Transmittance (VT) Iterations. Exterior doors that are more than 25% glass in area are considered Glazed Doors and should be documented on this table with fenestration. Include Wood Framed Walls in Area-Weighted Average U-factor Calculation □ Calculate Area-Weighted Average U-factor for Vertical Fenestration and Glazed Doors¹ Indicate fenestration types included in the project:¹ ☐ Vertical (alterations) ☐ Vertical (new) ☐ Glazed Doors (new only) Calculate Area-Weighted Average (R)SHGC for Vertical Fenestration and Glazed Doo FOOTNOTES: Fenestration types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and Cavity Thermal ☐ Calculate Area-Weighted Average VT for Vertical Fenestration and Glazed Doors Tag/Plan Detail Occupancy & Location/Fire Frame Material, hould be clicked above and compliance demonstrated within this table. U-factor was nsulation per | Insulation per | Performance | Thermal J-factor per Design Vertical Fenestration And Glazed Doors- U-factor, Solar Heat Gain Coefficient (RSHGC/ SHGC), Visible Transmittance (VT) Spacing & Depth Status Rating Design Design Unit Performance 10 | 11 | 12 | 13 per JA4 0.102 Product Product Calculation Method for J-factor/ (R)SHGC VT Compliance od 1/2" gyp 1 Product Performance Area fi Occupancy & Status Performance R-13 Relocatable 1 JA4 Tables None U-factor 0.11 WALL Exterior wall Detail ID Type ompliance Method Method OC 2x4 Performance Values per Design Software Unit Performance per Design NFRC Certified U-factor (max) 0.36 0.36 1FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal framed walls may not be combined with other Nonresidential, WINDOW Fixed window Table 140.3-B/C/D (R)SHGC (max) 0.25 0.25 wall types. Wood framed walls are combined with SIPS, spandrel & curtain, metal panel and straw bale wall types. The area-weighted compliance option is not available for alterations 140.3-B/C/D Overhang/ Slats used for Relocatable 1 CZ: : New VT (min) 0.42 demonstrating compliance with R-values in Table 141.0-C. If "R-value" is shown in cell 10 as the Thermal Performance Unit, the R-value shown here is for cavity insulation per 141.0(b)1B. <sup>3</sup> Wall area minus any fenestration area Generated Date/Time Documentation Software: Energy Code Ace Generated Date/Time: Documentation Software: Energy Code Ace Generated Date/Time: Documentation Software: Energy Code Ace CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 Report Generated: 2024-12-08 19:28:41 Schema Version: rev 2022010: Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41 Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41 STATE OF CALIFORNIA STATE OF CALIFORNIA STATE OF CALIFORNIA **Envelope Component Approach Envelope Component Approach Envelope Component Approach** CALIFORNIA ENERGY COMMISSION CALIFORNIA ENERGY COMMISSION CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE CERTIFICATE OF COMPLIANCE CERTIFICATE OF COMPLIANCE roject Name: NEW DETACHED KITCHEN CONVERSION Report Page: (Page 7 of 9 ect Name: NEW DETACHED KITCHEN CONVERSION Report Page: (Page 8 of 9) Project Name: NEW DETACHED KITCHEN CONVERSION (Page 9 of 9) 2229 DOVER AVE., SAN PABLO, CA 94806 Date Prepared: 2024-12-08T22:28:39-05: 2024-12-08T22:28:39-05:0 Project Address: 2024-12-08T22:28:39-05:0 K. FENESTRATION AND GLAZED DOOR SCHEDULE DOCUMENTATION AUTHOR'S DECLARATION STATEMENT M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION certify that this Certificate of Compliance documentation is accurate and complete. FOOTNOTES: If any individual fenestration product is non-compliant, products may show compliance using an area-weighted calculation. Chromogenic glazing is not included in Selections have been made based on information provided in this document. If any selection have been changed by the permit applicant, an explanation should be included in Table E area-weighted calculations. Area-weighted calculation shown in separate area-weighted table below. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online The NA6 Default Calculation can only be used for alterations or dwelling units in buildings with <= 3 habitable stories. Alterations are limited to 200ft<sup>2</sup> of site built glazing and dwelli RUTH CHEN units are limited to 250ft<sup>2</sup> or 5% of conditioned floor area. If the fenestration does not meet these conditions, the only options for determining fenestration values are NFRC Certification ignature Date: 12/09/2024 Form/Title NRCI-ENV-01-E - Must be submitted for all buildings IRVINE.CA.92618 3 Overhangs must extend past the left and right window the same distance as the depth of the overhang or greater to show an affect on the RSHGC. If an overhang does not meet this quirement, the affect of the overhang will be ignored. RESPONSIBLE PERSON'S DECLARATION STATEMENT Projecting includes casement and awning windows. tify the following under penalty of perjury, under the laws of the State of California N. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE The information provided on this Certificate of Compliance is true and correct. l am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, form user must provide an explanation in Table E L. DAYLIGHT IN LARGE ENCLOSED SPACES The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirement litional Remarks. These documents must be provided to the building inspector during construction and can be found online at of Title 24, Part 1 and Part 6 of the California Code of Regulations. his table demonstrates compliance with prescriptive daylight zone requirements in 140.3(c)/ 170.2(b) for new construction, additions, or alterations which install a new lighting syster https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4. Individuals who perform the field testing and The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, vithin climate zones 2-15. Enclosed space greater than 5,000 ft2 and under a roof with at least a 15 ft ceiling height must be included in the table. verification work, and provide the information required for completion of the fenestration Certificate of Acceptance documentation are not required to be licensed professionals. plans and specifications submitted to the enforcement agency for approval with this building permit application. 01 Plan Sheet Showing Daylit Zones: lowever, the person who signs the Certificate of Acceptance document to certify compliance with the acceptance requirements shall be licensed as specified in Standards Section I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 10-103(a)4 and NA7.3.1 02 04 05 06 07 08 09 esponsible Designer Name: Systems/Spaces To Be Field Form/Title RUTH CHEN Verified Alternate Compliance with 140.3(c) Compliance with with Primary NRCA-ENV-02-F must be submitted for all new, added or altered site built fenestration 140.3(c)1/170.2(b) 140.3(c)4/ 170.2(b) Sidelit Skylight 9890 RESEARCH DR. STE 100 Total Area of Space o 170.2(b) per Design Area per Required Minimum (ft²) Design¹ Minimum (ft²) Daylit Area per Design (ft²) Space Name Compliance Method Skylight Area O. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION Skylight Weighted to Skylit Daylit to Skylit Daylit Zone Area Average VT<sup>2</sup> Zone Area Ratio There are no forms required for this project. FOOTNOTES: Any area which falls within the Skylit Daylit Zone may not be double counted for the Primary Sidelit Daylit Zone <sup>2</sup> May be calculated by Table K Fenestration Schedule Must be at least 3% to comply with 140.3(c)4/170.2(b). <sup>4</sup> Must be at least 1.5% to comply with 140.3(c)4/ 170.2(b) Generated Date/Time Generated Date/Time Documentation Software: Energy Code Ace Generated Date/Time: Documentation Software: Energy Code Ace Documentation Software: Energy Code Ace CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Compliance ID: 231629-1224-0009 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: 231629-1224-0009 Schema Version: rev 2022010: Report Generated: 2024-12-08 19:28:41 Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41 Schema Version: rev 20220101 Report Generated: 2024-12-08 19:28:41

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

**Envelope Component Approach** 

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

Envelope Component Approach

STATE OF CALIFORNIA

**Envelope Component Approach** 

| PI                       | LUMBING  | LEGEND                          |
|--------------------------|----------|---------------------------------|
| SYMBOL                   | ABBR.    | DESCRIPTION                     |
| GW                       | GW       | GREASE WASTE BELOW FLOOR        |
|                          | S OR W   | SOIL OR WASTE BELOW FLOOR       |
|                          | CWV      | COMBINATION WASTE & VENT BELOW  |
|                          | V        | VENT                            |
|                          | CW       | DOMESTIC COLD WATER             |
|                          | HW       | DOMESTIC HOT WATER              |
| HWR                      | HWR      | DOMESTIC HOT WATER RETURN       |
| GAS                      | G        | LOW PRESSURE GAS                |
| CD                       | CD       | PRIMARY CONDENSATE DRAIN        |
| xss                      | XSS      | EXISTING WASTE/SANITARY SEWER   |
| XGW —                    | XGW      | EXISTING GREASE WASTE           |
| XCW                      | XCW      | EXISTING COLD WATER             |
| xg                       | XG       | EXISTING GAS                    |
| XHW                      | XHW      | EXISTING HOT WATER              |
|                          | FW       | FILTERED WATER                  |
| <b>≱</b> ⊦               | T&P      | TEMPERATURE & PRESSURE          |
|                          | WCO      | WALL CLEANOUT                   |
| —ф—                      | FCO/COTG | FLOOR CLEANOUT/CLEANOUT TO GRAD |
| <del>фф</del>            | DCO      | DOUBLE CLEANOUT                 |
| ×                        | SOV      | COLD WATER SHUT-OFF VALVE       |
|                          | GSOV     | GAS SHUT-OFF VALVE              |
|                          | C.V.     | CHECK VALVE                     |
| ×                        | PRV      | PRESSURE REDUCING VALVE         |
|                          | BLV      | BALANCING VALVE                 |
| -XXX                     | BFP      | BACKFLOW PREVENTER              |
|                          | GSOV     | AUTOMATIC GAS SHUT-OFF VALVE    |
| <del></del> <del>\</del> | SOC      | SHUT-OFF COCK (GAS)             |
|                          | TMV      | TEMPERATURE MIXING VALVE        |
| <u> </u>                 | VTR      | VENT TO ROOF                    |
| •                        | POC      | POINT OF CONNECTION             |
| 0                        | CP       | RECIRCULATION PUMP              |
| -+                       | НВ       | HOSE BIBB                       |
| $\exists$                | CW       | COLD WATER STUB-IN              |
| $\exists$                | HW       | HOT WATER STUB-IN               |
|                          | (N)      | NEW                             |
|                          | (E)      | EXISTING                        |
|                          | (R)      | RELOCATED, EXISTING             |
|                          | CFH      | CUBIC FEET PER HOUR             |
|                          | DN       | DOWN                            |
|                          | FF       | FINISHED FLOOR ELEVATION        |
|                          | FLR      | FLOOR                           |
|                          | IE       | INVERT ELEVATION                |
|                          | NTS      | NOT TO SCALE                    |
|                          | W/       | WITH                            |

|          | PIPE      | E M     | ATE | ERI | AL S | SCF | HEC                                        | UL                                     | Ε  |                                          |
|----------|-----------|---------|-----|-----|------|-----|--------------------------------------------|----------------------------------------|----|------------------------------------------|
| SERVICE: | Sen Sala  | THE LOS |     |     |      | "M  | May 20 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | /× | CO<br>SECONDARY<br>SECONDARY<br>REMARKS: |
| DOMESTIC | INSIDE    | •       | ٥   |     |      |     |                                            |                                        |    |                                          |
| WATER    | OUTSIDE   | 0       |     |     |      |     |                                            |                                        |    |                                          |
| SANITARY | INSIDE    |         |     |     |      | 0   |                                            |                                        |    |                                          |
| WASTE    | OUTSIDE   |         |     |     |      | 0   |                                            |                                        |    |                                          |
| SANITARY | CONCEALED |         |     |     |      | 0   |                                            |                                        |    |                                          |
| VENT     | EXPOSED   |         |     |     |      | 0   |                                            |                                        |    |                                          |
| INDIRECT | INSIDE    |         |     |     |      | 0   |                                            |                                        |    | *USE COPPER                              |
| WASTE    | INSIDE*   |         |     | ۰   |      |     |                                            |                                        |    | TYPE "M" FOR<br>CONDENSATE               |
| NATURAL  | INSIDE    |         |     |     |      |     | 0                                          |                                        |    |                                          |
| GAS      | OUTSIDE   |         |     |     |      |     | 0                                          |                                        |    |                                          |
| NOTE:    |           |         |     | •   |      |     |                                            |                                        |    |                                          |

E:
ABS AND PVC INSTALLATIONS ARE LIMITED TO NOT MORE THAN TWO STORIES OF

AREAS OF RESIDENTIAL ACCOMMODATION.

2. ABS/PVC VENT TERMINATIONS UP THROUGH THE ROOF EXPOSED TO SUNLIGHT ARE REQUIRED TO BE PROTECTED BY WATER BASED SYNTHETIC LATEX PAINTS.

|                                      | SHEET INDEX                                                                                                                |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| P000<br>P001<br>P002<br>P100<br>P200 | PLUMBING NOTES & SCHEDULES PLUMBING DETAILS & CALCULATION PLUMBING SPECIFICATION SHEETS WASTE & VENT PLAN WATER & GAS PLAN |
| TP00                                 | TITLE 24                                                                                                                   |

#### SCOPE OF WORK

- EXISTING RESTAURANT TENANT IMPROVEMENT.
- PROVIDE NEW PLUMBING FIXTURES/CONNECTIONS THROUGHOUT THE SPACE.
- EXISTING WATER HEATER TO BE RE-USED & NEW WATER HEATERS TO BE INSTALLED.

#### **GENERAL NOTES**

- 1. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- 2. THE PLUMBING SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL CONFORM TO THE 2022 CPC AND AUTHORITIES HAVING JURISDICTION. IN CASE OF CONFLICTS WITH CODES, DRAWINGS, OR SPECIFICATIONS, THE MOST STRINGENT SHALL
- 3. THE DRAWINGS WERE PREPARED WITH THE BEST STRUCTURAL AND ARCHITECTURAL INFORMATION AVAILABLE. IT IS UNDERSTOOD THAT EQUIPMENT LOCATIONS AND ROUTING OF PIPING MAY VARY FROM THAT SHOWN ON THE PLANS AS CONSTRUCTION PROCEEDS. IT IS THE CONTRACTORS RESPONSIBILITY TO:

MAKE VARIATIONS FROM THE PLANS NECESSARY.

- a. NOTIFY THE MECHANICAL ENGINEER OF CONSTRUCTION RESTRAINTS WHICH
- b. COMPLETE ALL WORK INCLUDING THE VARIATIONS WITHOUT CHARGING EXTRAS TO THE BID CONTRACT. COMPLETION OF WORK MEANS THE JOB IS WORKING AND MEETS ALL CITY, COUNTY AND UNIFORM MECHANICAL, PLUMBING AND BUILDING CODE REQUIREMENTS.
- 4. THESE DRAWINGS DO NOT INCLUDE ALL NECESSARY SAFETY REQUIREMENTS. CONTRACTOR TO COMPLY TO THE SAFETY REQUIREMENTS SET FORTH BY THE LOCAL AUTHORITIES HAVING JURISDICTION.
- 5. THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY. THEY ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT MANY OFFSETS, BONDS, UNIONS, SPECIFIC FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED.
- 6. THE PLUMBING CONTRACTOR SHALL PROVIDE THE WATER, SEWER AND STORM DRAIN SYSTEMS AND CONNECT TO EACH DESIGNATED POINT OF CONNECTIONS 5'-0" OUTSIDE OF THE BUILDING. ALL SEWER SYSTEM SHALL MEET THE REQUIRED INVERT ELEVATION SHOWN ON THE CIVIL DRAWINGS. PIPING BEYOND THIS POINT IS SPECIFIED UNDER ANOTHER SECTION OF THE SPECIFICATION AND SHALL BE AS SHOWN ON THE CIVIL DRAWINGS.
- 7. THE OWNER SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTION AND SHALL MAKE APPLICATION FOR SERVICE AND PERMITS AND SHALL PAY ALL FEES AND CHARGES INCLUDING THE COST OF VAULTS AND METERS.
- ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT, MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING, SKYLIGHT, ETC.
- 9. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING ACCESS PANELS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN AND ELECTRICAL
- 10. COORDINATE ALL LOCATIONS, SIZES AND ELEVATIONS OF ALL SLEEVES THROUGH WALLS, BEAMS, SLABS AND FOOTING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS. ALL PIPES SLEEVING THROUGH FOOTINGS SHALL HAVE A SLEEVE DIAMETER OF TWO PIPE SIZES OVER THE PIPE PASSING THROUGH THE FOOTING.
- 11. CONTRACTOR MUST NOT CUT, RELOCATE, COMPROMISE, DAMAGE OR OTHERWISE ALTER THE ROOF STRUCTURE. THE JOISTS WHICH OCCUR THROUGHOUT ALL THE MECH. BAY AREAS LIKE WISE MUST NOT BE ALTERED.
- 12. BEFORE FABRICATION OR INSTALLATION, THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED UNDER ANOTHER SECTION OF SPECIFICATIONS. EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED IN FIELD.
- 13. CONNECTION BETWEEN INCOMPATIBLE MATERIALS ABOVE GRADE AND INSIDE BUILDING SHALL BE MADE WITH TWO (2) DIELECTRIC UNIONS SEPARATED BY A TWELVE INCH (12") SECTION OF RED BRASS PIPE.
- 14. ALL FLOOR AND WALL PENETRATIONS MUST BE SEALED WATERTIGHT AND VERMIN PROOF.
- 15. ALL EXTERIOR GAS COCKS, WATER SHUTOFF VALVES AND/OR SEWER CLEAN OUTS BELOW GROUND SHALL BE INSTALLED IN YARD BOXES WITH THE COVERS CONSPICUOUSLY MARKED "GAS", "WATER", AND "SEWER" RESPECTIVELY.
- 16. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS.

- 17. SEE ARCHITECTURAL DRAWINGS FOR HANDICAP FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSULATE ALL EXPOSED HOT WATER AND DRAIN PIPING BELOW HANDICAP LAVATORIES AND SINKS WITH INSULATING TAPE AND OFFSET P-TRAP AGAINST WALL. ALL FLUSH VALVES FOR HANDICAP SHALL BE LOCATED ON HANDICAP WHEELCHAIR ACCESS SIDE OF STALL.
- 18. ALL WASTE, SOIL AND VENT PIPING SHALL SLOPE AT 2% UNLESS OTHERWISE INDICATED.
- 19. ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS SHALL BE INSTALLED BEHIND AN ACCESS PANEL.
- 20. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BASE BID. HE SHALL FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS AND FUTURE WORK TO BE DONE. HE SHALL INCLUDE ALL HIS SITE INFORMATION AND CONDITIONS WITHIN HIS BASE BID. HE SHALL BE RESPONSIBLE FOR COMPLETE AND FULLY FUNCTIONING PLUMBING SYSTEMS.
- 21. PLUMBING CONTRACTOR SHALL COORDINATE COMPLETE PLUMBING INSTALLATION AND REQUIREMENTS PRIOR TO BASE BID WITH ALL LOCAL DISTRICTS AND GOVERNING AUTHORITIES. INCLUDE ALL FINDINGS WITHIN THE BASE BID.
- 22. PROVIDE RECIRCULATION PUMP FOR HOT WATER WHEN THE HOT WATER PIPE IS

24. ALL PLUMBING, AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING

- 23. PROVIDE TRAP SEAL PRIMER FOR FLOOR DRAIN SUBJECT TO INFREQUENT USE.
- STRUCTURE TO AS GREAT EXTENT AS POSSIBLE. ALL EXPOSED CONDUITS, PLUMBING, ETC. SHALL BE INSTALLED AT LEAST 6" OFF FLOOR AND 3/4" FROM WALLS USING STANDOFF BRACKETS.
- 25. PLUMBING OR PIPING CANNOT BE INSTALLED ACROSS ANY AISLE WAY, TRAFFIC AREA OR DOOR OPENING.
- 26. MULTIPLE RUNS OR CLUSTERS OF PIPELINES SHALL BE FURRED IN OR ENCASED IN AN APPROVED SEALED ENCLOSURE.
- 27. APPROVED BACKFLOW PREVENTION DEVICES SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD BETWEEN THE POTABLE WATER SUPPLY AND A SOURCE OF CONTAMINATION. HOSES SHALL NOT BE ATTACHED TO A FAUCET
- 28. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING

OR HOSE BIBB UNLESS AN APPROVED BACKFLOW PREVENTER IS PROVIDED.

- 29. EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX (6) INCHES ABOVE THE FLOOD-LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
- 30. EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET FROM, OR AT LEAST 3 FEET FROM, OR NOT LESS THAN 3 FEET ABOVE, ANY OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE, OR VENT SHAFT, OR NOT LESS THAN 3 FEET IN EVERY DIRECTION FROM

ANY LOT LINE.

- 31. FIELD VERIFY ALL EXISTING PLUMBING CONDITIONS AND EXISTING/NEW HVAC PLUMBING CONNECTIONS PRIOR TO BIDDING AND START OF WORK.
- 32. IN THE EVENT THAT THE PLANS DO NOT REPRESENT FIELD CONDITIONS, CONTACT THE OWNER, ARCHITECT, OR DESIGNATED ENGINEER DESIGNER PRIOR TO START OF
- 33. CAP ALL DOMESTIC WATER PIPING THAT IS SERVING A PLUMBING FIXTURE THAT IS BEING DEMOLISHED.
- 34. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE. CONTRACTOR SHALL PROVIDE A SIGNED WRITTEN DECLARATION TO THE INSPECTOR AT TIME OF INSPECTION THAT POTABLE WATER SYSTEM HAS BEEN DISINFECTED.
- 35. EXISTING BUILDING SEWERS AND BUILDING DRAINS MAY BE USED IF SUCH SEWERS HAVE BEEN PROPERLY MAINTAINED AND FOUND UPON EXAMINATION AND TEST PERFORMED BY THE OWNER OR OWNER'S DESIGNATED AGENT THAT THEY ARE IN WORKING CONDITION AND FREE FROM ANY DEFECT
- 36. CLEANOUTS SHALL BE INSTALLED AS PER SEC. 707.0 & 719.0 OF THE PLUMBING CODE.

#### PLUMBING FIXTURE SCHEDULE VENT WASTE DESCRIPTION MARK ITEM HW CW ZURN Z415B W/SEDIMENT BUCKET. TRAP PRIMER CONNECTION WHERE REQUIRED BY CODE. FLOOR DRAIN EQUIVALENT FIXTURE ACCEPTABLE. ZURN Z-1901, 12" SQUARE TOP, HALF GRATE COVER AND 8" DEEP WITH DOME STRAINER. FLOOR SINK FS FOUIVALENT FIXTURE ACCEPTABLE. (E)WH EXISTING XG50T09HN38U2 GAS WATER HEATER TO REMAIN. 50 GAL. 38,000 BTUH INPUT. WATER HEATER 3RADFORD WHITE ULG2PDV50H503N LIGHT DUTY COMMERICAL GAS TANK TYPE WATER HEATER. 48 GAL. 50.000 BTUH INPUT, EXPANSION TANK (ZURN MODEL XT-8, 2.1 GAL, INSTALLED WITH WATER WATER HEATER 3/4" HEATER. INSTALL 3" POWER DIRECT VENT TO ROOF PER MANUFACTURER'S INSTRUCTIONS. EQUIVALENT FIXTURE ACCEPTABLE. 38 BRADFORD WHITE ULG2PDV50H503N LIGHT DUTY COMMERICAL GAS TANK TYPE WATER HEATER. GAL. 50.000 BTUH INPUT, EXPANSION TANK (ZURN MODEL XT-8, 2.1 GAL, INSTALLED WITH WATER WATER HEATER 3/4" HEATER. INSTALL 3" POWER DIRECT VENT TO ROOF PER MANUFACTURER'S INSTRUCTIONS. EQUIVALENT FIXTURE ACCEPTABLE. JENSEN PRECAST 1500 GALLON GREASE INTERCEPTOR. MODEL JP1500G. INSTALL WITH SAMPLE GREASE INTERCEPTOR BOX PER MANUFACTURER'S INSTRUCTIONS. EQUIVALENT FIXTURE ACCEPTABLE. ZURN Z1441 WALL CLEANOUT W/SMOOTH ACCESS COVER EQUIVALENT FIXTURE ACCPETABLE WCO WALL CLEANOUT FLOOR CLEANOUT LINE SIZE ZURN Z1400-B FLOOR CLEANOUT EQUIVALENT FIXTURE ACCEPTABLE. FCO

#### PLUMBING SPECIFICATION

#### 1. CLEANOUTS

- PROVIDE CLEANOUTS WITH BRASS SCREW PLUG AT ALL CHANGES OF DIRECTION TO PERMIT ROUTING OF ALL SEWERS. ALL CLEAN OUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEAN OUT LOCATIONS OF EQUIPMENT, CABINETS, ETC., WITH THE ARCHITECT PRIOR TO ANY INSTALLATION.
- VALVES EVERY PLUMBING FIXTURE SHALL BE INDEPENDENTLY VALVED.
- TESTING
   ALL SEWERS AND WATER PIPING SHALL BE PROPERLY TESTED TO THE
   SATISFACTION OF THE ARCHITECT AND THE LOCAL BUILDING INSPECTOR.
- 4. EXCAVATION AND BACK FILLING
  TRENCHES SHALL BE BACK FILLED AND SETTLED BY PUDDLING. NO PIPE SHALL
  BE LESS THAN 12" BELOW FINISH GRADE.
- 5. PIPING SUPPORTS
  ALL PIPING TO BE SUPPORTED WITH HANGERS AND BRACKETS WHICH PROVIDE ISOLATION FROM FRAMING. CONTACT BETWEEN PIPE AND SUPPORT TO BE LINED

#### PIPE INSULATION

SPACE-CONDITIONING AND SERVICE WATER-HEATING SYSTEM SHALL BE INSULATED IN ACCORDANCE WITH THE FOLLOWING TABLE:

|         |                  | PIPE INSU     | JLATION T | HICKNES      | S            |          |                 |
|---------|------------------|---------------|-----------|--------------|--------------|----------|-----------------|
| FLUID   | CONDUCTIVITY     | INSULATION    |           | NOMINA       | L PIPE DI    | AMETER   | (")             |
| TEMP.   | (= : = : : = : : |               | <1        | 1 TO<br><1.5 | 1.5 TO<br><4 | 4 TO <8  | 8 AND<br>LARGER |
| (°F)    | SQFT/°F)         | TEMP. (°F)    | INSUL     | ATION TH     | HICKNESS     | REQUIR   | ED (")          |
| SPACE   | HEATING, HOT     | WATER SYSTE   | MS AND S  | SERVICE V    | WATER H      | EATING S | YSTEMS          |
| 350<    | 0.32-0.34        | 250           | 4.5       | 5.0          | 5.0          | 5.0      | 5.0             |
| 251-350 | 0.29-0.31        | 200           | 3.0       | 4.0          | 4.5          | 4.5      | 4.5             |
| 201-250 | 0.27-0.30        | 150           | 2.5       | 2.5          | 2.5          | 3.0      | 3.0             |
| 141-200 | 0.25-0.29        | 125           | 1.5       | 1.5          | 2.0          | 2.0      | 2.0             |
| 105-140 | 0.22-0.28        | 100           | 1.0       | 1.5          | 1.5          | 1.5      | 1.5             |
|         | SPACE COOLIN     | G SYSTEMS (CH | ILLED WA  | TER, REI     | RIGERA       | NT AND B | RINE)           |
| 40-60   | 0.21-0.27        | 75            | NONRE     | ES 0.5       | 1.0          | 1.0      | 1.0             |
|         |                  |               | RES       | 0.75         |              |          |                 |
| <40     | 0.20-0.26        | 50            | 1.0       | 1.5          | 1.5          | 1.5      | 1.5             |

#### EXCEPTIONS

(1) FACTORY-INSTALLED PIPING WITHIN SPACE CONDITIONING EQUIPMENT; (2) PIPING THAT CONVEYS FLUIDS THAT HAVE A DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60 DEGREES AND 105 DEGREES FAHRENHEIT:

(3) WHERE THE HEAT GAIN OR HEAT LOSS TO OR FROM PIPING WITHOUT INSULATION WILL NOT INCREASE BUILDING SOURCE ENERGY USE;
(4) PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE

(4) PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. METAL PIPING THAT PENETRATES METAL FRAMING SHALL USE GROMMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING.

#### NONRESIDENTIAL NOTES

LAVATORIES IN RESTROOMS OF PUBLIC FACILITIES SHALL BE EQUIPPED WITH OUTLET DEVICES THAT LIMIT THE FLOW OF HOT WATER TO A MAXIMUM OF 0.5 GPM OR WITH SELF-CLOSING FAUCETS THAT LIMIT DELIVERY TO A MAXIMUM OF 0.2 GALLONS OF HOT WATER FOR RECIRCULATING SYSTEMS, AND SHALL BE EQUIPPED WITH DEVICES THAT LIMIT THE OUTLET TEMPERATURE TO A MAXIMUM OF 110 °F.

#### CA GREEN BUILDING NOTES

5.303.2 PLUMBING FIXTURES SHALL MEET THE MAXIMUM FLOW RATE VALUES SHOWN IN TABLES A5.303.2.2.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:

5.303.3.1 WATER CLOSETS. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER SENSE SPECIFICATION FOR TANK-TYPE TOILETS.

NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.

5.303.3.2 URINALS. THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.4.1 NONRESIDENTIAL LAVATORY FAUCETS. LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI.

5.303.4.2 KITCHEN FAUCETS. KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

5.303.6 PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE 2022 CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1401.1 OF THE 2022 CALIFORNIA PLUMBING CODE AND IN CHAPTER 6 OF THIS CODE.

# FO KITCHEN CONVERSION

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C.K.

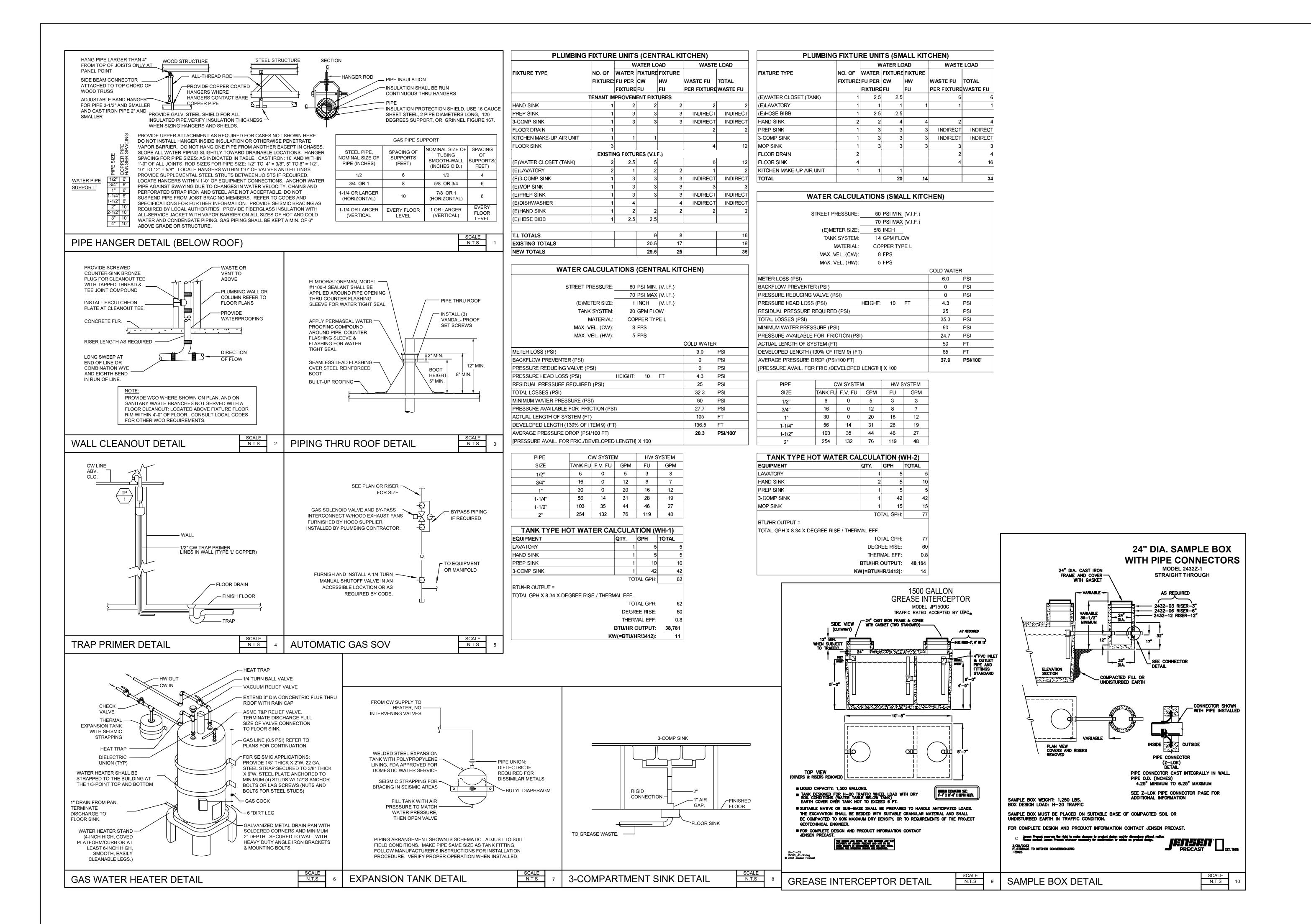
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10/08/2024

SHEET TITLE:

PLUMBING NOTES

& SCHEDULES





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DRAWN: CHECKED: H.D. C.K.

SCALE: 10/08/2024 N.T.S. SHEET TITLE:

PLUMBING DETAILS & CALCULATION

P001

# Light-Duty Commercial Ultra Low NOx Power Direct Vent Gas Water Heater

The FVIR Eco-Defender Safety System® Models Feature:

■ Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices—Ensures proper air to gas ratio for reduction of NOx generated by the combustion process.

■ Closed Combustion Venting System—Power Direct Vent closed combustion system utilizes external air for combustion and exhausts directly to the outside through a separate two-pipe system. The equivalent feet of intake venting cannot be greater than the equivalent feet of exhaust venting.

■ Bradford White ICON System®—Intelligent gas control with spark to pilot ignition system eliminates the constant burning pilot. This results in savings of pilot gas during standby periods (120 VAC).

Enhanced Performance—Proprietary algorithms provide enhanced First Hour Rating and tighter temperature differential.
 Advanced Temperature Control System—Microprocessor constantly monitors and controls burner operation to maintain consistent and accurate water temperature levels.

start-up and provides ten different diagnostic codes to assist in troubleshooting.

- Pilot On Indication—Flashing green LED provides positive indication that pilot is on.

- Separate Immersed Thermowell—High-strength advanced polymer composite thermowell provides isolation between electric temperature sensor and surrounding

- Intelligent Diagnostics—An exclusive green LED light prompts the installer during

water. No need to drain the tank when removing gas valve.

Cast Aluminum Air Intake Boot—A cast molded air intake boot design provides

exceptional durability during installation and operation.
 Flammable Vapor Sensor—Electronic sensor prevents burner operation if flammable vapors are detected. The sensor will also prevent operation if there is ongoing flammable vapors burning inside the combustion chamber.

■ Factory-Installed Hydrojet® Total Performance System—Sediment reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.

■ Vitraglas® Lining—An exclusively engineered enamel formula that provides superior tank protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600°F (871°C).

Optional Concentric Vent Kit Termination—Concentric termination fitting provides for only one exit opening through a wall or roof. (Subtract 10ft. (3m) for intake pipe and 10ft. (3m) for exhaust pipe when calculating total vent length.)

Horizontal and Vertical Venting—PVC, ABS, or CPVC (Maximum equivalent vent length for each pipe on reverse side).
 Insulation System—2" (51mm) Non-CFC foam insulation covers the sides and top of the

■ Insulation System—2" (51mm) Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.

■ Water Connections—3/4" (19mm) NPT factory-installed true dielectric fittings.
■ Side Connections—3/4" (19mm) NPT tappings allow easy connections for space heating applications (Potable water only).

■ Factory-Installed Heat Traps—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.

Protective Magnesium Anode Rod.T&P Relief Valve—Installed.

Low Restrictive Brass Drain Valve—Durable tamper proof design.

Low Restrictive Brass Drain Valve—Durable tamper proof design.
 Complies with the latest Ultra Low NOx requirement (10 ng/J NOx limit).

# ALEX CERTIFIED W

Photo is of

ULG2PDV50H503N

FEATURING:

3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts
For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA, Canada, and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,684,821; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,132; 7,599,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,621,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012. Defender Safety System®, Vitraglas® and Hydrojet® are registered trademarks of Bradford White® Corporation.

Power Direct Vent Gas Water Heater

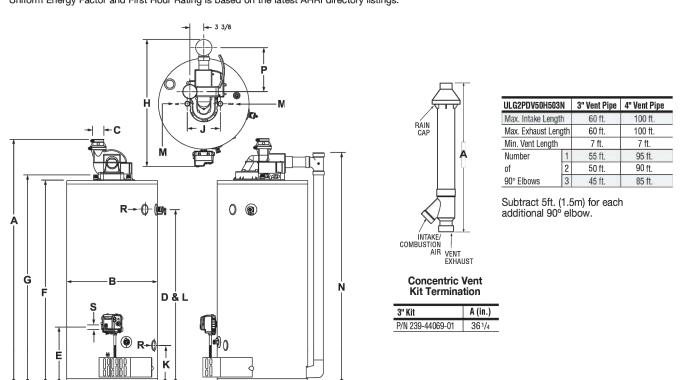
| Power Di        | rect V                                              | ent                        | Mod                      | lels                                 |                                      |                                          |                                        |                   | <u></u>                              |                                                | Meet or<br>78% Red                              |                                         |                                       |                                                      | ent standar                                   | d) C.E.(                         | C. Listed                                  |
|-----------------|-----------------------------------------------------|----------------------------|--------------------------|--------------------------------------|--------------------------------------|------------------------------------------|----------------------------------------|-------------------|--------------------------------------|------------------------------------------------|-------------------------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------------------|-----------------------------------------------|----------------------------------|--------------------------------------------|
| Model<br>Number | Nominal<br>Gal.<br>Capacity<br>U.S. Imp<br>Gal. Gal |                            | ed<br>ge<br>ne B         | TU/Hr.                               | First<br>Hour<br>Rating<br>(Gal.)    | Uniform<br>Energy<br>Factor              | Recov<br>100°F<br>U.S.<br>GPH          |                   |                                      | Model<br>Number                                | Nominal<br>Liter<br>Capacity                    | DOE<br>Rate<br>Stora<br>Volun<br>(Liter | d<br>ge<br>ne k                       | W Ra                                                 | rst<br>our Unifor<br>ting Energ<br>ers) Facto | m<br>y                           | ecovery at<br>6°C Rise*<br>Liters/<br>Hour |
| ULG2PDV50H503N  | 48 40                                               | 46                         | 5                        | 0,000                                | 82                                   | 0.68                                     | 48                                     | 40                | ULG                                  | 2PDV50H503N                                    | 182                                             | 172                                     | 1-                                    | 4.7 3                                                | 11 0.68                                       |                                  | 182                                        |
| Model<br>Number | A<br>Floor to<br>Exhaust<br>Conn.<br>in.            | B<br>Jacket<br>Dia.<br>in. | C<br>Vent<br>Size<br>in. | D<br>Floor to<br>T&P<br>Conn.<br>in. | Floor to<br>Gas<br>Conn.<br>in.      | F<br>Floor to<br>Top of<br>Heater<br>in. | G<br>Floor to<br>Water<br>Conn.<br>in. | H<br>Depth<br>in. | J<br>C/L of<br>Water<br>Conn.<br>in. | K<br>Floor to<br>Space Heating<br>Inlet<br>in. | L<br>Floor to<br>Space Heating<br>Outlet<br>in. | M<br>Water<br>Conn.<br>NPT<br>in.       | N<br>Floor to<br>Air<br>Intake<br>in. | P<br>C/L Distanc<br>From Intak<br>to Exhaust<br>in.  | e Heating                                     | S<br>Gas<br>Conn.<br>Size<br>in. | Approx.<br>Shipping<br>Weight<br>Ibs.      |
| ULG2PDV50H503N  | 675/16                                              | 22                         | 3 or 4                   | 52 1/4                               | 137/8                                | 5911/16                                  | 6115/16                                | 3111/16           | 11                                   | 153/4                                          | 521/4                                           | 3/4                                     | 63 7/8                                | 91/4                                                 | 3/4                                           | 1/2                              | 201                                        |
| Model<br>Number | A<br>Floor to<br>Exhaust<br>Conn.<br>mm.            | B<br>Jacket<br>Dia.<br>mm. | C<br>Vent<br>Size<br>mm. | D<br>Floor to<br>T&P<br>Conn.<br>mm. | E<br>Floor to<br>Gas<br>Conn.<br>mm. | F<br>Floor to<br>Top of<br>Heater<br>mm. | G<br>Floor to<br>Water<br>Conn.<br>mm. | H<br>Depth<br>mm. | J<br>C/L of<br>Water<br>Conn.<br>mm. | K<br>Floor to<br>Space Heating<br>Inlet<br>mm. | L<br>Floor to<br>Space Heating<br>Outlet<br>mm. | M<br>Water<br>Conn.<br>NPT<br>mm.       | N<br>Floor to<br>Air<br>Intake<br>mm. | P<br>C/L Distanc<br>From Intake<br>to Exhaust<br>mm. | Heating                                       | S<br>Gas<br>Conn.<br>Size<br>mm. | Approx.<br>Shipping<br>Weight<br>kg.       |

 ULG2PDV50H503N
 1708
 559
 76or102
 1327
 352
 1516
 1573
 805
 279
 400
 1327
 19
 1622
 235
 19
 13
 91

 Available in Natural Gas only. For 5 year models change suffix from "3" to "5".

 \* Based on manufacturer's rated recovery efficiency.

110 VAC Required for Power Venting / 110 VAC, 60Hz., 3.1 Amperes.
Uniform Energy Factor and First Hour Rating is based on the latest AHRI directory listings.



#### Meets NAECA Requireme

All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All water connections are 3/4" NPT (19mm). All gas connections are 1/2" (13mm). All models design-certified by CSA International (formerly AGA/CGA), to meet ANSI standard Z21.10.1 and neak performance rated

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

Suitable for Water (Potable) Heating and Space Heating. Toxic chemicals, such as those used for boiler treatment, shall NEVER be introduced into this system. This unit may NEVER be connected to any existing heating system or component(s) previously used with a non-potable water heating appliance.

#### - BRADFORD WHITE IS -

AM<sup>™</sup> RICAN STRONG.

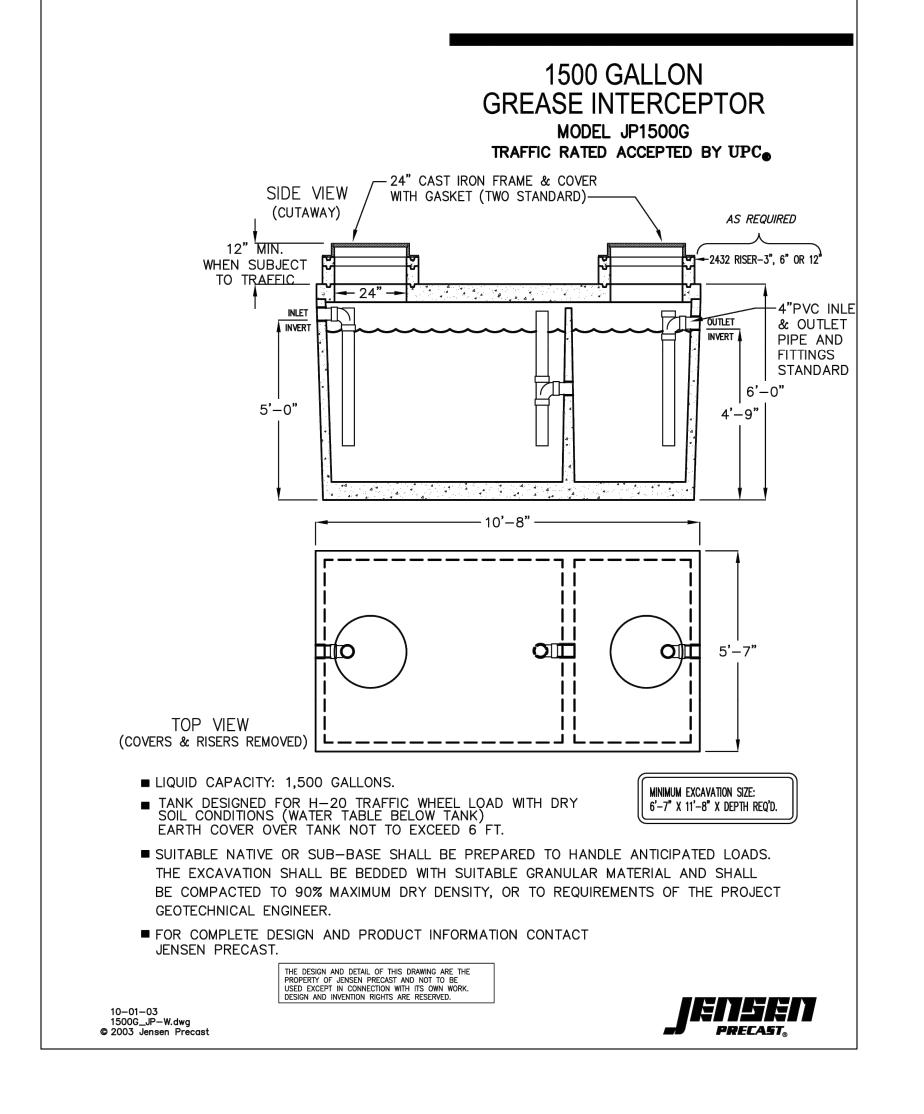
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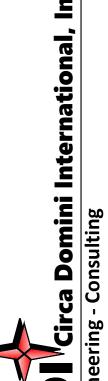
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24/7 Technical Support: 800-334-3393 ■ Email techserv@bradfordwhite.com

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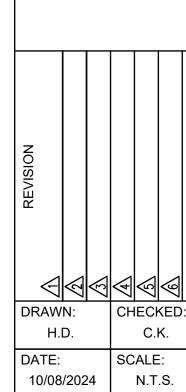




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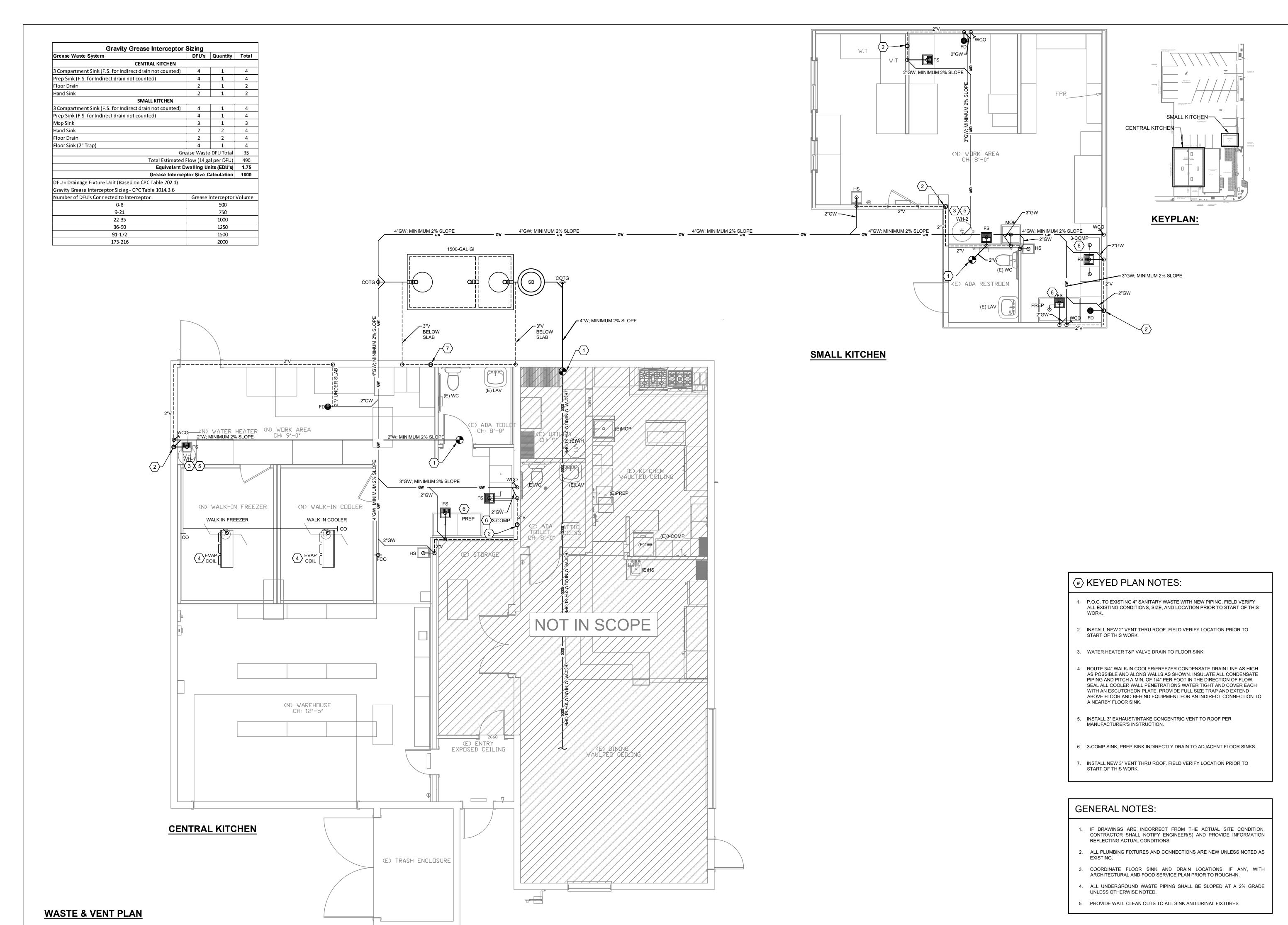
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SHEET TITLE:

PLUMBING SPECIFICATION SHEETS

P002



P100

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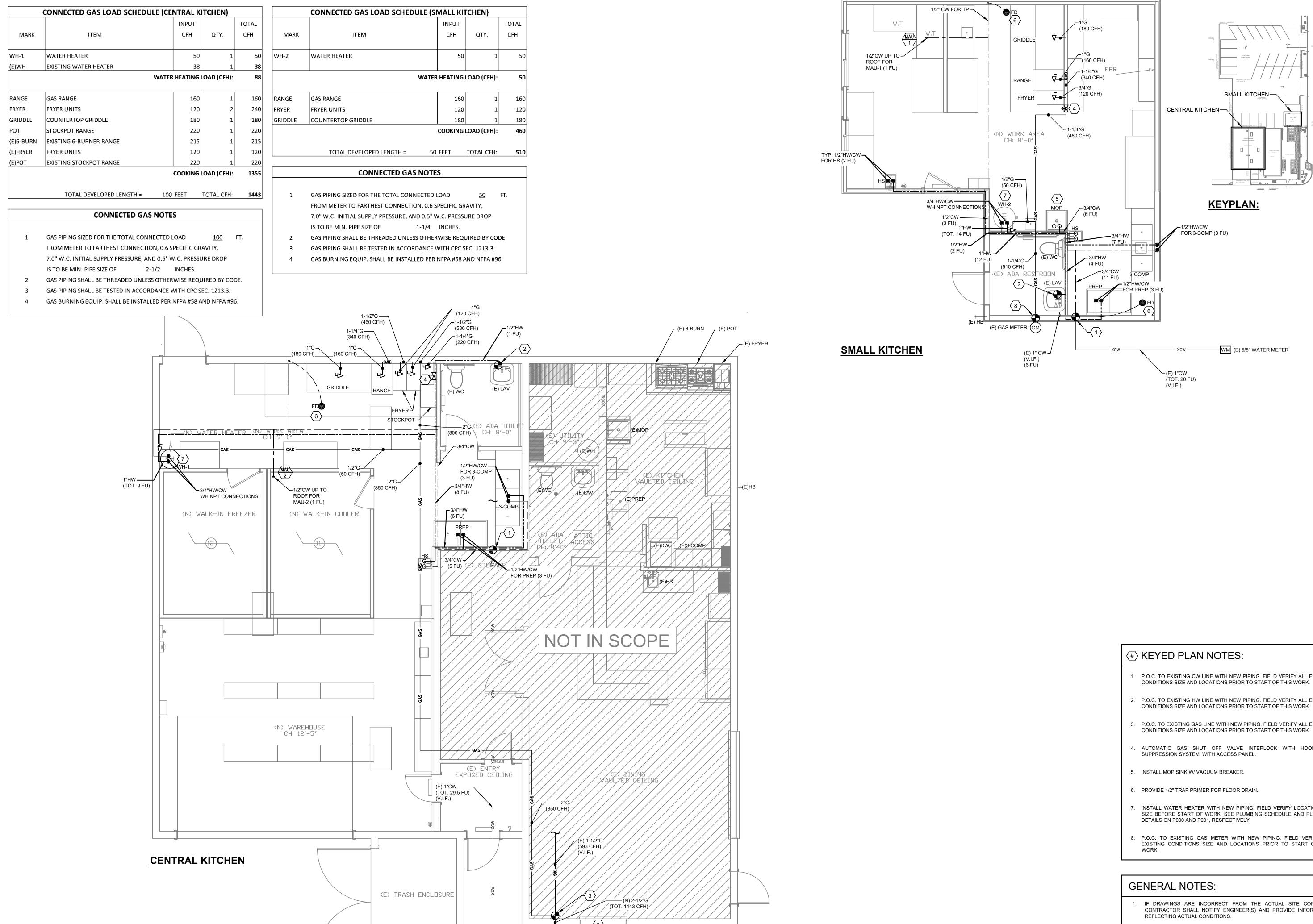
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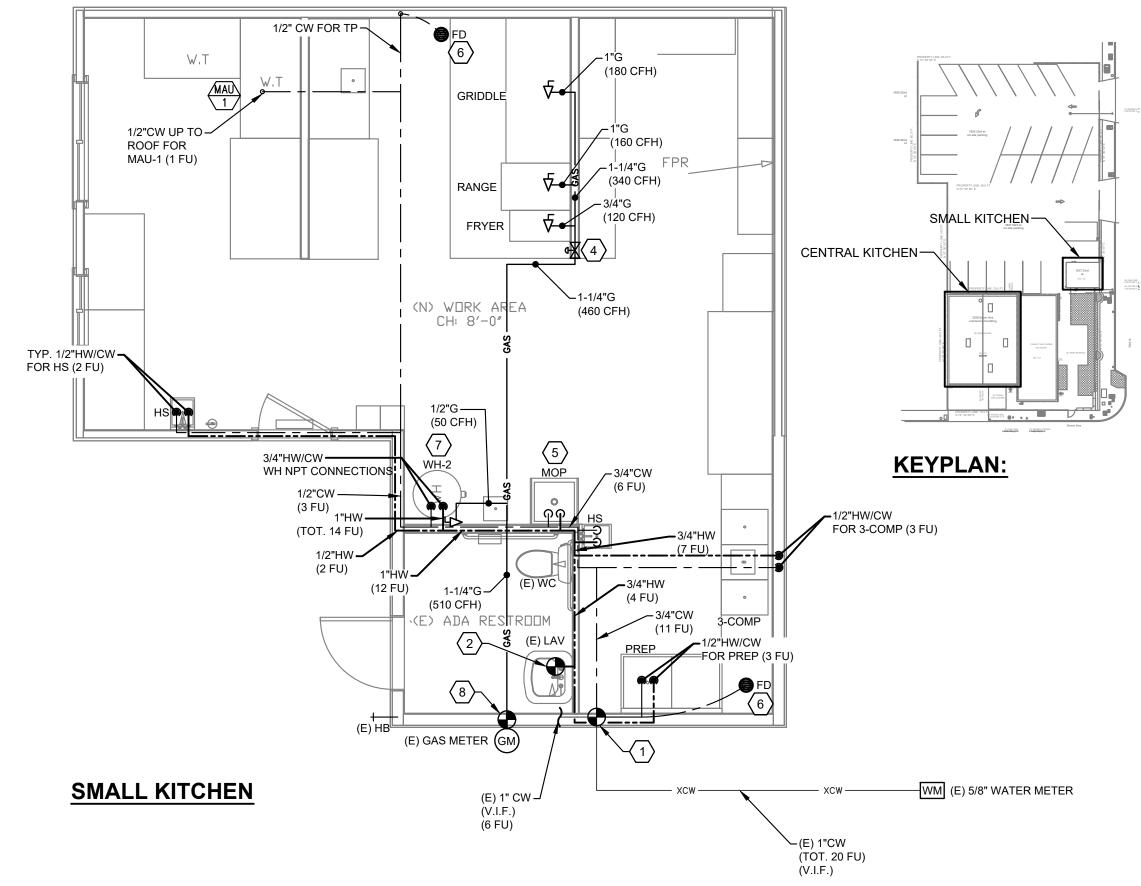
SHEET TITLE:

WASTE & VENT PLAN



(E) WATER METER

**WATER & GAS PLAN** 



ONVERSION KITC

- . P.O.C. TO EXISTING CW LINE WITH NEW PIPING. FIELD VERIFY ALL EXISTING CONDITIONS SIZE AND LOCATIONS PRIOR TO START OF THIS WORK.
- 2. P.O.C. TO EXISTING HW LINE WITH NEW PIPING. FIELD VERIFY ALL EXISTING CONDITIONS SIZE AND LOCATIONS PRIOR TO START OF THIS WORK
- 3. P.O.C. TO EXISTING GAS LINE WITH NEW PIPING. FIELD VERIFY ALL EXISTING
- 4. AUTOMATIC GAS SHUT OFF VALVE INTERLOCK WITH HOOD FIRE
- SUPPRESSION SYSTEM, WITH ACCESS PANEL.
- 5. INSTALL MOP SINK W/ VACUUM BREAKER.
- 6. PROVIDE 1/2" TRAP PRIMER FOR FLOOR DRAIN.
- INSTALL WATER HEATER WITH NEW PIPING. FIELD VERIFY LOCATION AND SIZE BEFORE START OF WORK. SEE PLUMBING SCHEDULE AND PLUMBING DETAILS ON P000 AND P001, RESPECTIVELY.
- 8. P.O.C. TO EXISTING GAS METER WITH NEW PIPING. FIELD VERIFY ALL EXISTING CONDITIONS SIZE AND LOCATIONS PRIOR TO START OF THIS
- 1. IF DRAWINGS ARE INCORRECT FROM THE ACTUAL SITE CONDITION, CONTRACTOR SHALL NOTIFY ENGINEER(S) AND PROVIDE INFORMATION
- 2. ALL PLUMBING FIXTURES AND CONNECTIONS ARE NEW UNLESS NOTED AS



CHECKED: H.D. C.K. SCALE: 10/08/2024 1/4" = 1'-0" SHEET TITLE:

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| ompliance<br>Mandatory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| ompliance<br>Mandatory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| ompliance<br>Mandatory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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the<br>not be requi<br>plugs, wrap<br>ng members<br>all not be req<br>Reference Re<br>of wall insula<br>ation for the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| ompliance<br>Mandatory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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Piping that made with the metal framing. net for compliance with Quality sulation, shall not be required to 3-A (see below) per 120.3:                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| ompliance<br>Mandatory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| 13  14  15  Fluid Terr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | is used to deme is demonstra y Pipe Insulat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | For syst  For sy | compliance for requirements 1 ccupancies ems serving dwe penetrates metansulation shall a ping installed insulation Install ping surrounder ave pipe insulations serving nor decirculating systhe first 8 ft of helipes that are expensed with a cover shable casing or Conductivity Range (Btu-in per hour per ft per °F)  0.22 - 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| 13  14  15  Fluid Terr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | is used to deme is demonstrate is demonstrate y Pipe Insulat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | For syst  For sy | compliance for requirements 1 ccupancies ems serving dwelliping that pene benetrates metansulation shall a piping installed insulation Install piping surrounderave pipe insulations serving nor Recirculating systhe first 8 ft of helipes that are exponshall be protected with a cover shable casing or Conductivity Range (Btu-in per hour per ft per °F)  0.22 - 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| 13  14  15  Fluid Tem  CA Building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | is used to deme is demonstra y Pipe Insulat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | For syst  For sy | compliance for requirements 1 ccupancies ems serving dwelliping that pene benetrates metansulation shall a piping installed insulation Install piping surrounderave pipe insulations serving nor Recirculating systhe first 8 ft of helipes that are exponshall be protected with a cover shable casing or Conductivity Range (Btu-in per hour per ft per °F)  0.22 - 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| 13  14  15  Fluid Tem  CA Building  CATE OF CALL  COMEST  FORESTIFICATI  TO JECT Name  | is used to deme is used to deme is demonstrate is demonstrate.  Pipe Insulate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | For syst  For syst  Insulating the instant on the i | compliance for requirements 1 ccupancies ems serving dwelliping that pene benetrates metansulation shall a piping installed insulation Install piping surrounderave pipe insulations serving nor Recirculating systhe first 8 ft of helipes that are exponshall be protected with a cover shable casing or Conductivity Range (Btu-in per hour per ft per °F)  0.22 - 0.28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalton (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13  14  15  Fluid Tem  CA Building  CATE OF CALL  COMEST  FORESTIFICATI  TO JECT Name  | is used to deme is used to deme is demonstrate is demonstrate.  Pipe Insulate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | For syst  For syst  Insulating the instant on the i | compliance for requirements 1 ccupancies ems serving dwe penetrates metansulation shall a proper insulation Install proper insulation Install proper insulation Install proper insulation insulation Install proper insulation insulation Install proper insulation Install proper insulation insulation Install proper insulation insulation Install proper insulation insulation Install proper insulation in the properties i | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalton (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13  14  15  Fluid Tem  ATE OF CALL  COMMENT  FOR TOPICS AND  CONTROL  CONTR | g Energy Efficients of COMPLIAI inc: STORAGINES: 2229 DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | For syst  Insulation be install anon-cru  Heatin  NCE  SE TO KITC  VER AVE  STHOR'S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | compliance for requirements 1 ccupancies ems serving dwe proper that pene penetrates metansulation shall a proper serving insulation Install proper serving nor secirculating system in shall be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  0.22 - 0.28  CHEN CONVERSION SAN PABLO, CASSEL PABLO, | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framing in interior or exterior walls shalton (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13  14  15  Fluid Terr  Tate OF CALL  COMEST  FORTIFICATI  Toject Nam  Toject Add  Certify the commentation of the commentatio | g Energy Efficients STORAGINESS: 2229 DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ronstrate rated with ion All O  For syst  For  | compliance for requirements 1 ccupancies ems serving dwe proper that pene penetrates metansulation shall a proper serving insulation Install proper serving nor secirculating system in shall be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  0.22 - 0.28  CHEN CONVERSION SAN PABLO, CASSEL PABLO, | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framing interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13 14 15 CA Building CATE OF CALL COMEST ERTIFICATI TOJECT Add COCUME Certify the coumentatic david Kange                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | g Energy Efficients STORAGINESS: 2229 DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ronstrate rated with ion All O  For syst  For  | compliance for requirements 1 ccupancies ems serving dwe proper that pene penetrates metansulation shall a proper serving insulation Install proper serving nor secirculating system in shall be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  0.22 - 0.28  CHEN CONVERSION SAN PABLO, CASSEL PABLO, | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13  14  15  Fluid Terr  CA Building  CATE OF CALL  COMEST  FOCUME  TOJECT Nan  TOJECT Add  COCUME  Courtify the count of t | g Energy Efficients STORAGITESS: 2229 DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ronstrate rated with ion All O  For syst  For  | compliance for requirements 1 ccupancies ems serving dwe proper that pene penetrates metansulation shall a proper serving insulation Install proper serving nor secirculating system in shall be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  0.22 - 0.28  CHEN CONVERSION SAN PABLO, CASSEL PABLO, | elling units, pipe insulation metrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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| 13  14  15  Fluid Terr  CA Building  CATE OF CALL  COMEST  FOCUME  TOJECT Nam  TOJECT Add  COCUME  COC | g Energy Efficients STORAGE IFORNIA EIC Water EIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ronstrate rated with ron All O  For syst  For  | compliance for requirements 1 ccupancies ems serving dwe propension of the penetrates metansulation shall a principal insulation Install principal insulation Insula | elling units, pipe insulation matrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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| TATE OF CALL DOMEST ERTIFICATI Toject Nam roject Add OCUME certify the ocumentatic avid Kang ompany: ddress: ity/State/Zip ESPONS certify the for 1. T 2. I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | g Energy Efficients and the state of the sta | For syst  For syst  Insulation  For syst  For  | compliance for requirements 1 ccupancies ems serving dwe proper that pene penetrates metansulation shall a proper surrounder the first 8 ft of head of head of the first 8 ft of head of h | elling units, pipe insulation metrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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| TATE OF CALL  OCH Building  CATE OF CALL  OCH Building  CA | g Energy Efficients  IFORNIA  IE OF COMPLIAN  IN STORAGE  IRES: 2229 DO  INTATION AU  hat this Cert  on Author Name:  B IBLE PERSON  collowing under preparation per                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ronstrate ated with ion All O  For syst  For s | compliance for requirements 1 ccupancies ems serving dwe piping that pene penetrates metansulation shall a piping installed insulation Install piping surrounded have pipe insulations serving nor Recirculating system first 8 ft of his pipes that are exponshall be protected with a cover shable casing on Conductivity Range (Btu-in per hour per fiper °F)  O.22 - O.28  CARATION STATE COMPLIANCE OF THE NUMBER OF THE PROPERTY OF THE  | elling units, pipe insulation metrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchedion.  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| TATE OF CALL  OOMEST  Fluid Tem  CA Building  CATE OF CALL  OOMEST  For CALL  OOMEST  Fluid Tem  Cate of CALL  OOMEST  Cate of Cat | g Energy Efficient  are is demonstrate  y Pipe Insulat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | For syst  Insulation be instal non-cru  Insulation be instal non-c | compliance for requirements 1 ccupancies ems serving dwe piping that pene penetrates meta insulation shall a piping installed insulation Install piping surrounded aver pipe insulations serving nor decirculating system first 8 ft of highest hat are expensionally be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  O.22 - O.28  CARATION STALE CONVERSION SAN PABLO, CASSION SAN PABLO, CASSI | elling units, pipe insulation metrates framing members shall I framing shall use grommets, but securely against all framin interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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I ir esponsible I company: ddress:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | g Energy Efficient  apperature Ran  105-140  IFORNIA  ICC Water ICC  BE OF COMPLIAN  The: STORAGE  Tress: 2229 DO  NTATION AUT  That this Cert  Ton Author Name:  Be of Compliant  The information pame eligible under pame eligible under properature in the information pame eligible under properature in the pame eligible under properature in the properature | For syst  Insulation be instal non-cru  Insulation be instal non-c | compliance for requirements 1 ccupancies ems serving dwe piping that pene penetrates meta insulation shall a piping installed insulation Install piping surrounded aver pipe insulations serving nor decirculating system first 8 ft of highest hat are expensionally be protected with a cover shable casing or conductivity Range (Btu-in per hour per ft per °F)  O.22 - O.28  CARATION STALE CONVERSION SAN PABLO, CASSION SAN PABLO, CASSI | elling units, pipe insulation materates framing members shall I framing shall use grommets, but securely against all framing in interior or exterior walls shalt ation (QII) as specified in the ed with a minimum of 1 inchestion.  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Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: 208657-1024-0003 Report Generated: 2024-10-03 10:58:37

| CERTIFICATE OF COMPLIANCE Project Name: STORAGE TO 2229 DOVER AVE, SAN PABLO, O |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| e 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7                                         | System Name  07 08  Name or Item Tag  Commercial Ga Storage Water Heater  1FOOTNOTE: In systems >= 1 average. 2FOOTNOTE: Compliant equiphttps://cacertappliances.ene  Water Heating Equipment A  Yes  18 19 20 21  STATE OF CALIFORNIA  Domestic Water Heat  CERTIFICATE OF COMPLIANCE  Project Name: STORAGE TO 2229 DOVER AVE, SAN PABLO,  I. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  II. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  DIAMETER AND A STATE OF COMPLIANCE A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  J. DECLARATION OF REQUIPMENT A  NRCI-PLB-E - Must be submit I  NRCI-PLB-E - Must be su | System Name WH Exception to 140.5(c 170.2(d)3)  07 08 09  Name or Item Tag Equipment Type Volume (gal) Capacity (Btu/h)  WH Storage Water 48 50,000  Proof Not Heater 48 50,000  Proof Not Heater 48 50,000  Proof Not Heater 48 Storage Water 48 St | System Name WH Exception to 140.5(c)/ Exceptions Do Not Apply  07 08 09 10  Name or Equipment Type (gal) Rated Input Capacity (Btu/h) Hour Rating (FHR)  Commercial Gas Storage Water Heater  1-FOOTNOTE: In systems >= 1MMBtu/h with multiple units, gas water heater average.  1-FOOTNOTE: Compliant equipment may be found in the Modernized Appliantitys://cacertoppliances.energy.ca.gov/Pages/Search/AdvancedSearch.asp  Water Heating Equipment All Occupancies  Yes No Applicable  18 | System Name WH Exception to 140.5(c)/ 170.2(d)3 Exceptions Do Not Apply Division Do Not Division | System Name  WH Exception to 140.5(c)/ 170.2(d)3  Gas Service Water Heating System System 170.2(d)3  O7 08 09 10 10 11 12  Name or Item Tag Equipment Type Volume (gal) (Btu/h) (FiR) (FiR)  Name or Item Tag Equipment Type Volume (gal) (Btu/h) (FiR) (FiR) (FiR) (Fir) (FiR)  Commercial Gas Storage Water 48 50,000 0.8 0.8 0.8  WH Storage Water 48 50,000 0.8 0.8 0.8  "FOOTNOTE: In systems >= 1MMBtu/h with multiple units, gas water heaters with input capacity > 100,000 average.  "FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (https://cocertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx  Water Heating Equipment All Occupancies  Water Heating Equipment All Occupancies  No Applicable  18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | System WH Exception to 140.5(c)/ Exceptions Do                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | System Name Will Exception to 140.5(c)/ Not Apply  To 08 9 10 11 12 13 14 Name or Equipment Type (gal) (gal) (gal) (gal) (gBul/h) (FHR) (Gal) (gBul/h) (FHR) (GHR) |

STATE OF CALIFORNIA

CONVERSION KITCHEN STORAGE

2229 DOVER AVE SAN PABLO, CA 94806

H.D. C.K. SCALE: 10/08/2024 N.T.S. SHEET TITLE: TITLE 24

TP00

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

#### DIVISION 16 - ELECTRICAL

# SECTION 16000 BASIC ELECTRICAL REQUIREMENTS

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- 1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS, APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 16.
- 2. THE CONTRACTOR FOR THIS DIVISION OF WORK IS REQUIRED TO READ THE SPECIFICATIONS AND REVIEW DRAWINGS FOR ALL DIVISIONS OF WORK AND IS RESPONSIBLE FOR THE COORDINATION OF THIS WORK AND THE WORK OF HIS SUBCONTRACTORS WITH ALL DIVISIONS OF WORK. IT IS THIS CONTRACTORS RESPONSIBILITY TO PROVIDE HIS SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
- 3. THIS ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE COMPLETION AND INSPECTION OF THIS WORK TO COMPLY WITH TENANT/ARCHITECT'S SCHEDULE AND THE PROJECT COMPLETION DATE.
- 4. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY DISCREPANCIES OR ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF HIS WORK.
- 5. REFER TO RESPONSIBILITY SCHEDULE FOR INFORMATION IN REGARD TO RESPONSIBILITY OF WORK OR ITEMS WHICH MAY AFFECT THE BID.

#### B. GENERAL REQUIREMENTS

- 1. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD OR ARCHITECTS SHALL BE PROVIDED BY THIS CONTRACTOR. CLOSELY COORDINATE THE ENTIRE INSTALLATION WITH THE LANDLORD AND ARCHITECTS, AS REQUIRED.
- 2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED AND INSTALLED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK, AND WHICH IS USUALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE FURNISHED AND INSTALLED AS PART OF THE CONTRACT.
- 3. WHERE THE DRAWINGS OR SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODES OR THE LANDLORD'S TENANT CRITERIA, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE SYSTEM WITH THE MORE STRINGENT REQUIREMENTS AS DESIGNED AND DESCRIBED ON THESE DRAWINGS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 4. ALL WORK IN THIS SECTION SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING, AND REPAIRING. THIS CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT SERVICE ACCESS
- 5. ALL WORK SHALL BE PERFORMED IN A NEAT PROFESSIONAL MANNER USING GOOD CONSTRUCTION PRACTICES.
- 6. UNLESS SPECIFICALLY NOTED OTHERWISE, MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW, UNDERWRITERS LABORATORIES LISTED AND LABELED AND SIZED IN CONFORMITY WITH REQUIREMENTS OF STATE AND LOCAL CODES, WHICHEVER IS MORE STRINGENT.
- 7. THIS CONTRACTOR SHALL DO ALL CUTTING, CHASING AND CHANNELING REQUIRED FOR ANY WORK UNDER THIS DIVISION. CUTTING SHALL HAVE PRIOR APPROVAL BY THE ARCHITECTS AND THE LANDLORD. ALL PATCHING SHALL BE BY G.C. AND SHALL MATCH THE SURROUNDING SURFACES.
- 8. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

#### C. TEMPORARY LIGHT AND POWER

- THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING AND RELATED GROUND FAULT INTERRUPTION PROTECTION FOR LIGHT AND POWER FOR ALL CONTRACTORS AND SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY WIRING.
- 2. THE GENERAL CONTRACTOR SETS UP ALL ELECTRICAL UTILITIES IN THE NAME OF THE TENANT. TENANT PAYS FOR ALL UTILITIES THROUGHOUT CONSTRUCTION.

#### D. CODE

1. ALL WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE'S, COUNTY'S, CITY'S AND LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. THIS CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. THIS CONTRACTOR SHALL INCLUDE ANY CHANGES REQUIRED BY CODES IN THE BID AND IF THESE CHANGES ARE NOT INCLUDED IN THE BID, THEY MUST BE QUALIFIED AS A SEPARATE LINE ITEM IN THE BID. AFTER CONTRACT IS AWARDED, CHANGE ORDERS FOR INCREASED COSTS DUE TO CODE ISSUES WILL NOT BE ACCEPTED BY OWNER, UNLESS ALLOWANCES HAVE PREVIOUSLY BEEN AGREED UPON.

#### E. LICENSES, PERMITS, INSPECTIONS & FEES

- 1. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO HIS WORK.
- 2. FURNISH TO ARCHITECTS ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT COMPLETION OF PROJECT

#### F. TRADE NAMES, MANUFACTURERS AND SHOP DRAWINGS

- 1. WHERE TRADE NAMES AND MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE USED AS A MINIMUM FOR THE BASE BID. MANUFACTURERS CONSIDERED AS AN EQUAL OR BETTER IN ALL ASPECTS TO THAT SPECIFIED WILL BE SUBJECT TO APPROVAL IN WRITING BY ARCHITECTS/ENGINEERS THROUGH SHOP DRAWING SUBMITTAL PROCESS FOR ACCEPTANCE PRIOR TO INSTALLATION. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE REPLACED AT THE CONTRACTOR'S
- 2. GENERAL CONTRACTOR SHALL SUBMIT ONLY SUBSTITUTION REQUESTS TO ARCHITECTS/ENGINEERS FOR APPROVAL. SUBMISSIONS SHALL BE MADE EARLY ENOUGH IN PROJECT TO ALLOW FOUR (4) WORKING DAYS FOR ARCHITECTS/ENGINEERS REVIEW WITHOUT CAUSING DELAYS OR CONFLICTS TO THE JOB'S PROGRESS. SUBMITTALS SHALL BEAR THE STAMP AND/OR THE SIGNATURE OF THE GENERAL CONTRACTOR AND THE SUB-CONTRACTOR SHOWING THAT HE HAS REVIEWED AND CONFIRMED THAT THE SUBMITTALS ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS OR INDICATE WHERE EXCEPTIONS HAVE BEEN TAKEN.

#### G. <u>GUARANTEE</u>

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A 12 MONTH GUARANTEE TO TENANT FROM THE DATE OF ACCEPTANCE. THIS CONTRACTOR SHALL WARRANTY THE INSTALLATION OF THIS EQUIPMENT AND WILL BE RESPONSIBLE FOR ANY DAMAGE AND/OR MALFUNCTION CAUSED BY THE INSTALLATION. THIS CONTRACTOR SHALL NOT BEAR ADDITIONAL WARRANTIES BEYOND A COMPLETE WORKING SYSTEM.

# H. RECORD DRAWINGS

- 1. THIS CONTRACTOR SHALL MAINTAIN ONE SET OF DRAWINGS ON THE JOB SITE UPDATED WEEKLY TO RECORD ALL DEVIATIONS FROM CONTRACT DRAWINGS, SUCH AS:
- a. LOCATION OF CONCEALED CONDUIT AND EQUIPMENT.
- b. REVISIONS, ADDENDUMS, AND CHANGE ORDERS.
- c. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.
- 2. AT COMPLETION OF THE PROJECT AND BEFORE FINAL APPROVAL, THIS CONTRACTOR SHALL MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND CERTIFY THE ACCURACY OF EACH PRINT BY SIGNATURE THEREON. FAILURE TO KEEP THESE RECORDS WILL ALLOW TENANT/ARCHITECTS TO DIRECT THE GENERAL CONTRACTOR TO PROVIDE THESE RECORDS AT HIS EXPENSE PRIOR TO FINAL PAYMENT.

#### I. <u>DISCREPANCIES IN DOCUMENTS</u>

1. DRAWINGS (PLANS, SPECIFICATIONS, AND DETAILS) ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION AND INTENT OF THE ELECTRICAL SYSTEMS. WHERE DRAWINGS, EXISTING SITE CONDITIONS, SPECIFICATIONS OR OTHER TRADES CONFLICT OR ARE UNCLEAR, ADVISE THE GENERAL CONTRACTOR IN WRITING, PRIOR TO SUBMITTAL OF BID. THE GENERAL CONTRACTOR IS RESPONSIBLE TO ADVISE PROJECT MANAGER, IN WRITING, OF VARIATIONS TO CONTRACT DOCUMENTS PRIOR TO SUBMISSION OF BID. OTHERWISE, TENANT/ARCHITECT'S INTERPRETATION OF CONTRACT DOCUMENTS OR CONDITIONS SHALL BE FINAL WITH NO ADDITIONAL COMPENSATION PERMITTED.

TENANT/ARCHITECTS AND THE LANDLORD ONE WEEK PRIOR TO ANY SHUT DOWN OF THE ELECTRICAL SYSTEM.

#### J. PHASING REQUIREMENTS

THIS CONTRACTOR IS TO INCLUDE IN HIS BID ALL NECESSARY SERVICE REQUIRED TO KEEP THE OPERATING PHASE OF THE STORE'S ELECTRICAL SERVICE IN OPERATION. CONTRACTOR MUST SCHEDULE IN WRITING WITH

#### K. <u>DEMOLITION</u>

1. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING WORK AND THE DEMOLITION PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE WITH THE GENERAL CONTRACTOR ANY EXISTING EQUIPMENT REQUIRED TO BE LEFT INTACT.

**ELECTRICAL SPECIFICATIONS (AS APPLICABLE)** 

2. THIS CONTRACTOR SHALL INCLUDE, AND WILL BE HELD RESPONSIBLE FOR, THE REMOVAL OF ALL EXISTING ELECTRICAL EQUIPMENT, CONDUITS, ETC. NOT TO BE REUSED ON THIS PROJECT, UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR MUST VERIFY WITH THE LANDLORD ALL PRESUMED ABANDONED EQUIPMENT PRIOR TO REMOVAL. ALL EXTRANEOUS ITEMS IN THE SPACE OR ON THE ROOF NOT APPLICABLE TO THE NEW WORK MUST BE REMOVED AND ROOF/WALL/FLOOR PATCHED/REPAIRED TO MATCH EXISTING STRUCTURE. EXISTING ABANDONED CONDUIT OR EQUIPMENT IN THE FLOOR, EMBEDDED IN CONCRETE OR OTHERWISE INACCESSIBLE ARE TO BE CUT OFF AND SEALED BELOW OR WITHIN FLOOR OR WALL LEVEL WHEN THEY ARE NOT TO BE REUSED IN THIS PROJECT. IF REQUIRED BY LANDLORD OR CODES, ABANDONED CONDUIT MUST BE REMOVED TO POINT OF ORIGIN. CONFIRM THE EXTENT OF DEMOLITION PRIOR TO BID AND INCLUDE IN BID PROPOSAL.

#### L. <u>SLEEVES</u>

- 1. THIS CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH IT'S RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2" ABOVE THE FLOOR. CONTRACTOR MUST COORDINATE THROUGH THE LANDLORD ANY CORE DRILLING OR CUTTING OF OPENINGS IN MASONRY FLOORS OR WALLS.
- 2. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THEIR FIRE RATING.
- 3. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS, AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL PIPING, SLEEVES SHALL BE NO. 22 U.S.G. GALVANIZED STEEL MINIMUM.

#### M. <u>HANGERS</u>

- 1. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS ANGLE IRON, BANDS, C-CLAMPS WITH RETAINING CLIPS, CHANNELS, HANGER RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK.
- 2. HANGERS SHALL BE FASTENED TO BUILDING STEEL, CONCRETE, OR MASONRY, BUT NOT TO PIPING. HANGING FROM METAL DECK IS NOT PERMITTED. HANGERS MUST BE ATTACHED TO UPPER CHORD OF BAR JOIST. WHERE INTERFERENCES OCCUR, AND IN ORDER TO SUPPORT DUCTWORK OR PIPING, THE CONTRACTOR MUST INSTALL TRAPEZE TYPE HANGERS OR SUPPORTS WHICH SHALL BE LOCATED WHERE THEY DO NOT INTERFERE WITH ACCESS TO FIRE DAMPERS, VALVES, AND OTHER EQUIPMENT. HANGER TYPES AND INSTALLATION METHODS ARE ALSO SUBJECT TO LANDLORD CRITERIA.
- 3. HANGERS AND PIPING OF DISSIMILAR METALS SHALL BE DIELECTRICALLY SEPARATED.

#### N. FINAL ELECTRICAL INSPECTIONS

1. ASIDE FROM NORMAL INTERIM INSPECTIONS OF WORK IN PLACE, TENANT/ARCHITECTS MAY HAVE AN INDEPENDENT ELECTRICAL CONTRACTOR INSPECT THE FINISHED ELECTRICAL INSTALLATION UPON COMPLETION FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODES. THE INSTALLING CONTRACTOR WILL BE RESPONSIBLE TO BRING ALL ITEMS REPORTED BY THE INDEPENDENT ELECTRICAL CONTRACTOR UP TO PLANS AND SPECIFICATION REQUIREMENTS.

#### END OF SECTION 16000

#### SECTION 16050

#### BASIC ELECTRICAL MATERIAL AND METHODS

#### A. CONTRACTOR NOTES

- 1. IT IS CONTRACTOR/ELECTRICIANS' RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITION AND SHALL NOTIFY EOR(S) ANY DISCREPANCIES WITH THE PLAN THAT IMPACTS ON THE BID PRIOR TO BIDDING.
- 2. THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
- a. A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM INCLUDING THE INSTALLATION OF SAFETY AND DISCONNECT SWITCHES, MOTOR STARTERS AND LIGHTING. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO INCLUDE IN HIS BID FOR PROVIDING SERVICE EQUIPMENT NECESSARY FOR TIE-IN TO LANDLORD'S DISTRIBUTION EQUIPMENT OR TO OBTAIN SERVICE FROM LOCAL UTILITY COMPANY. REFER TO ELECTRICAL RESPONSIBILITY SCHEDULE AND ELECTRICAL POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- b. CONTRACTOR MUST ALSO INCLUDE IN BID ALL NECESSARY MATERIALS REQUIRED TO COMPLETE THE SYSTEM INCLUDING, BUT NOT LIMITED TO, FEEDERS, BRANCH CIRCUITS, JUNCTION BOXES, OUTLET BOXES, WIRING DEVICES. COVER PLATES. CONDUITS. ETC.
- c. METERING AND CURRENT TRANSFORMERS AS REQUIRED BY DRAWINGS, UTILITY COMPANY, AND/OR LANDLORD.
- d. THE WIRING OF MECHANICAL EQUIPMENT AS OUTLINED ON THE BID SET DRAWINGS AND IN THE SPECIFICATIONS. WORK SHALL INCLUDE WIRING OF ALL STARTERS, DISCONNECTS, AND POWER WIRING OF MECHANICAL EQUIPMENT EXCEPT AS SPECIFICALLY NOTED OTHERWISE. ALL LOW VOLTAGE (24 VOLT) EMS TEMPERATURE CONTROL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR UNLESS NOTED SPECIFICALLY ON DRAWING.
- e. INSTALLATION OF LIGHT FIXTURES AND LAMPS AS SHOWN ON THE DRAWINGS INCLUDING ALL DEVICES, EQUIPMENT, ETC. REQUIRED FOR MOUNTING.
- f. A COMPLETE CONDUIT SYSTEM FOR TELEPHONE/DATA INCLUDING BRANCH CONDUITS, OUTLET BOXES, PULL WIRES, GROUND CONDUCTORS, COVER PLATES, ETC. OR AS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
- g. A COMPLETE EMERGENCY AND EXIT LIGHTING SYSTEM AS SHOWN ON THE DRAWINGS.
- h. TEMPORARY SERVICE AS INDICATED IN THE SPECIFICATIONS, INCLUDING ITS REMOVAL.
- i. FINAL CONNECTIONS TO ALL SIGNS, CORNICE LIGHTING, CASE LIGHTING, ETC. AS SHOWN ON DRAWINGS.
- j. IF INDICATED ON DRAWINGS, INSTALLATION AND WIRING OF SPEAKERS, AMPLIFIERS, CONDUIT AND FINAL CONNECTIONS FOR SOUND SYSTEM AS SHOWN.
- k. SMOKE/FIRE ALARM WIRING, DEVICES AND CONDUIT, AS SHOWN OR DESCRIBED ON DRAWINGS OR AS NECESSARY TO MEET LANDLORD, STATE, LOCAL, INSURANCE AND FIRE DEPARTMENT REQUIREMENTS.
- I. INSTALLATION OF CONDUITS STUBBED TO ABOVE CEILING FOR HVAC. ALSO, ANY ADDITIONAL CONDUIT FOR HVAC CONTROL EQUIPMENT WHERE PLENUM RATED CABLES ARE NOT PERMITTED.
- m. BALANCING LOADS.
- n. AS-BUILTS, PANEL DESCRIPTION AND CIRCUIT BREAKER SPECIFIC LABELING.
- 3. THE FOLLOWING ITEMS OF ELECTRICAL CONSTRUCTION ARE NOT INCLUDED IN THIS CONTRACT:
- a. TELEPHONE INSTRUMENTS AND WIRING UNLESS NOTED OTHERWISE
- b. DATA CABLE WIRING UNLESS NOTED OTHERWISE.
- 4. BEFORE STARTING WORK, THIS CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, FIRE PROTECTION, MECHANICAL AND PLUMBING PLANS, SHOP DRAWINGS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE ELECTRICAL SYSTEM, MATERIALS AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

#### B. <u>CONDUIT</u>

- 1. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS SERVING ALL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, LIGHTING, RECEPTACLES, HEATING, AIR CONDITIONING, PLUMBING EQUIPMENT, TELEPHONE, DATA, SPEAKERS, SECURITY, PAGER, TRAFFIC COUNTING SYSTEM AND ELECTRICAL EQUIPMENT.
- 2. ALL CONDUITS SHALL BE GALVANIZED IMC OR EMT UNLESS OTHERWISE SPECIFIED IN SPECIFICATIONS OR ON DRAWINGS. ALL CONDUIT IS TO BE UL LABELED. EMT CONNECTORS SHALL BE STEEL COMPRESSION OR SET SCREW TYPE. CONDUIT UNDER SLAB ON GRADE SHALL BE RIGID STEEL, OR SCHEDULE 40 PVC WITH RIGID STEEL ELLS WHERE PERMITTED BY LANDLORD OR CODE. EMT FOR WET LOCATIONS TO BE PERMITTED ONLY WHEN ALL SUPPORTS, BOLTS, STRAPS, SCREWS AND SO FORTH ARE CORROSION-RESISTANT MATERIALS PER 358.10.

#### 3. MINIMUM SIZE OF CONDUIT SHALL BE:

- a. MAIN FEEDER CONDUIT 2" OR LARGER FOR ALL APPLICATIONS.
- b. 1/2" FOR INDIVIDUAL LIGHTING FIXTURE CONNECTIONS OR TO INDIVIDUAL LIGHT SWITCHES (IF ACCEPTABLE BY THE LANDLORD AND LOCAL CODE OFFICIALS) AND 3/4" FOR ALL OTHER LOCATIONS.

- c. IF HVAC CONTROL WIRING IS REQUIRED TO BE RUN IN CONDUIT, IT SHALL BE A MINIMUM OF 3/4", UNLESS NOTED OTHERWISE ON DRAWINGS.
- d. ALL IN/UNDER FLOOR CONDUIT SHALL BE OF MINIMUM 3/4" SIZE.
- 4. SUPPORT ALL CONDUIT, INCLUDING SEISMIC AND SWAY BRACING, IN ACCORDANCE WITH THE NEC AND LOCAL CODES.
- 5. GENERALLY, ALL CONDUIT SHALL BE CONCEALED EXCEPT FOR UNFINISHED AREAS, SUCH AS EQUIPMENT ROOMS. EXPOSED CONDUIT SHALL BE ALLOWED ONLY AS NOTED ON PLAN AND AS APPROVED BY PROJECT MANAGER. PAINTING OF CONDUITS, NOTED ON DRAWINGS OR SPECIFICATIONS WILL BE BY GENERAL CONTRACTOR.
- 6. FLEXIBLE METAL CONDUIT OR MC TYPE CABLE:
  - a. FLEXIBLE CONDUIT OR MC TYPE CABLE SHALL BE USED FOR THE FOLLOWING APPLICATIONS ONLY:
  - FINAL CONNECTIONS TO MOTORS.
  - 2. FINAL CONNECTIONS INTO AND OUT OF THE TRANSFORMER.
  - 3. FINAL CONNECTIONS TO VIBRATING EQUIPMENT.
  - 4. INTER-CONNECTIONS BETWEEN ALL LIGHT FIXTURES AND HOME RUNS TO PANELS WHERE CODE ALLOWS.

6. IN WALLS (FOR LIGHT SWITCHES AND 120 VOLT POWER RECEPTACLES AND HVAC CONTROL EQUIPMENT).

- 5. FINAL CONNECTIONS WHERE RIGID CONDUIT IN NOT PRACTICAL.
- b. FLEXIBLE METAL CONDUIT OR MC TYPE CABLE MUST BE THE SAME SIZE AS THE IMC OR EMT CONDUIT TO WHICH IT IS CONNECTED. BOTH THE FLEXIBLE METAL CONDUIT AND IT'S FITTINGS ARE TO BE LISTED FOR
- c. THE USE OF ROMEX, BX, ETC. IS PERMITTED ONLY IN RESIDENTIAL CONSTRUCTION NOT HIGHER THAN THREE

GROUNDING. A GREEN GROUNDING CONDUCTOR SHALL BE INSTALLED. ALL CONNECTORS ARE TO BE OF A

- d. CONNECTION TO ANY OUTDOOR EQUIPMENT MUST BE WEATHERPROOF.
- 7. PROVIDE PULL-WIRE IN ALL EMPTY CONDUITS EXCEPT AS NOTED OTHERWISE ON DRAWINGS.
- 8. HOME RUNS AND MAIN CONDUIT RUNS ARE TO BE HELD TIGHT TO STRUCTURE ABOVE OR AS REQUIRED TO ALLOW PROPER SERVICE ACCESS AND OTHER TRADES WORK. CONDUIT MUST BE TRAPEZED TO ALLOW 3 FEET MINIMUM CLEARANCE ABOVE CEILING.
- 9. ALL CONDUITS MUST BE SIZED PER NEC AND LOCAL CODES.
- 10. ALL SENSORMATIC WIRING MUST BE PLACED IN CONDUIT (PVC PIPE NOT PERMITTED).

#### OUTLET BOXES

- ALL OUTLET BOXES SHALL BE GALVANIZED PRESSED STEEL OF THE STANDARD KNOCKOUT TYPE. NO ROUND OUTLET BOXES SHALL BE PERMITTED UNLESS INDICATED AND FOR LIGHTING THAT REQUIRE SUCH CONFIGURATION. CONCEALED BOXES SHALL NOT BE LESS THAN 4" SQUARE AND 1 1/2" DEEP, WITH PLASTER RINGS.
- 2. ALL KNOCKOUT BOXES, UPON WHICH LIGHTING FIXTURES ARE TO BE INSTALLED, SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS.
- 3. EXTERIOR BOXES SHALL BE CAST RUST-RESISTING METAL WITH GASKETED COVERS.
- 4. INSTALL BOXES RIGIDLY FROM BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF THE CONDUIT SYSTEM. ALSO PROVIDE SUITABLE BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF FLOORS, CEILINGS, WALLS ETC. ALL OUTLET BOXES TO BE PROVIDED WITH CADDY "QUICK-MOUNT BOX SUPPORT" TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.
- 5. UNLESS OTHERWISE NOTED ON DRAWINGS OR OTHERWISE REQUIRED BY THE NATIONAL ELECTRICAL CODE, HANDICAP CODES OR LOCAL CODES, OUTLET HEIGHTS SHALL BE AS FOLLOWS:
- a. SWITCH HEIGHT 48" FROM FINISHED FLOOR TO TOP OF OUTLET.
- b. CONVENIENCE OUTLETS:

MOUNTED ON WALL NO MORE THAN 48-INCHES, MEASURED FROM TO TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING AND; NO LESS THAN 15-INCHES, MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING, TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM UNLESS OTHERWISE INDICATED OR HORIZONTALLY MOUNTED IN BASEBOARD BENEATH CABINETS, AS SHOWN ON DRAWINGS. OR AS REQUIRED BY LOCAL CODES. SEE DRAWINGS.

c. TELEPHONE OUTLETS SHALL BE LOCATED AS NOTED ON DRAWINGS.

#### D. JUNCTION AND PULL BOXES

- 1. THE PLANS INDICATE ONLY SCHEMATIC ROUTINGS FOR CONDUIT RUNS. THIS CONTRACTOR SHALL FURNISH AND INSTALL ADDITIONAL BOXES WHERE REQUIRED BY FIELD CONDITIONS OR BY CODE.
- 2. BOXES AND COVERS SHALL BE GALVANIZED STEEL OF CODE GAUGE SIZE.
- 3. INSTALL BOXES RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE AND SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM.
- 4. ARRANGE CIRCUITS TO AVOID THE USE OF JUNCTION BOXES IN INACCESSIBLE LOCATIONS. THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILINGS SHOULD BE LIMITED TO LOCATIONS NEAR ACCESS FRAMES USED FOR DIFFUSERS AND RETURN AIR GRILLES OR ACCESS PANELS AS LOCATED ON PLANS.
- 5. JUNCTION AND PULL BOXES MUST BE LABELED WITH CIRCUIT NUMBER IDENTIFICATION AND SYSTEM TYPE ON COVER.

#### E. <u>WIRING</u>

- CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER AND THE AWG SIZE AND TYPE AS SHOWN ON DRAWINGS. MINIMUM WIRE SIZE #12. THE CONDUCTORS SHALL BE 600 VOLT INSULATION, TYPE THW, THWN OR THHN.
- . MINIMUM WIRE SIZE 20 AMP BRANCH CIRCUIT SHALL BE AWG LISTED SIZE PER DISTANCE SHOWN BELOW.
- DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FURTHEST OUTLET.

  a. #12 LESS THAN 100 FEET
- b. #10 BETWEEN 100-150 FEET
- c. #8 BETWEEN 150 250 FEET
- d. #6 OVER 250 FEET
- 3. ON ALL 20 AMP BRANCH CIRCUITS, CONDUCTORS LARGER THAN #10 AWG SHALL BE REDUCED TO #10 AWG WITHIN 10 FEET OF PANEL BOARD AND DEVICE IN JUNCTION BOXES ON RATED TERMINAL STRIPS.
- 4. CONDUCTORS MAY BE STRANDED FOR SIZES #10 AWG AND LARGER. CONDUCTORS SIZE #12 SHALL BE SOLID (NOT STRANDED).
- 5. ALUMINUM CONDUCTORS ARE NOT PERMITTED, EXCEPT AT SERVICE ENTRANCE, WHERE REQUIRED BY LANDLORD. CONDUCTOR CONNECTION MUST BE PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR MUST OBTAIN WRITTEN PERMISSION FROM GENERAL CONTRACTOR AND PROJECT MANAGER WHEN USED.

6. ALL WIRING (120V AND ABOVE) SHALL BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL LOW

7. THE USE OF SHARED NEUTRALS IS REQUIRED FOR LIGHTING CIRCUITS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. ALL OTHER EQUIPMENT REQUIRING A NEUTRAL

VOLTAGE WIRING CONDUIT REQUIREMENTS TO BE COORDINATED WITH OWNER.

CONDUCTOR SHALL HAVE A DEDICATED FULL SIZE NEUTRAL.

- 8. THE USE OF ROMEX, BX, ETC. IS PERMITTED ONLY IN RESIDENTIAL CONSTRUCTION NOT HIGHER THAN THREE
- 9. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCKTIGHT" FOR #6 AWG AND LARGER.
- 10. ALL WIRING TO BE COLOR-CODED AS FOLLOWS:

120/208 VOLT SYSTEM

NEUTRAL - WHITE

PHASE A OR L1 - BLACK

PHASE B OR L2 - RED

PHASE C OR L3 - BLUE

GROUND - GREEN

277/480 VOLT SYSTEM

NEUTRAL - GRAY

PHASE A OR L1 - BROV

PHASE B OR L2 - ORAN

PHASE C OR L3 - YELLO

GROUND - GREEN

PHASE A OR L1 - BROWN
PHASE B 0R L2 - ORANGE
PHASE C OR L3 - YELLOW
GROUND - GREEN WITH YELLOW TRACER

SPECIAL NEMA RECEPTACLE. SEE EQUIPMENT PLAN/INSTALLATION MANUAL FOR SPECS AND DETAILS. O Ю 🛈 COMBINATION TELEPHONE, DATA AND CABLE OUTLET AT +18" U.O.N. PROVIDE 1/2"C.O. STUBBED TO ACCESSIBLE CEILING SPACE TELEPHONE OUTLET; CAT5E CABLE. RJ11 TERMINATION MOUNTED AT +18" PROVIDE 1/2"C.O. STUBBED TO ACCESSIBLE CEILING SPACE DATA OUTLET; CAT5E CABLE, RJ45 TERMINATION MOUNTED AT +18" U.O.N. PROVIDE 1/2"C.O. STUBBED TO ACCESSIBLE CEILING SPACE CABLE OUTLET; RG-6 COAXIAL CABLE. MOUNTED AT +18" U.O.N. PROVIDE 1/2"C.O. STUBBED TO ACCESSIBLE CEILING SPACE LIGHTING FIXTURE WITH 90 MIN. EMER. BATTERY PACK OR ON INVERTER SEE LIGHT FIXTURE SCHEDULE FOR DETAILS AND SPECS CONDUIT STUB OUT, 3/4" MINIMUM - SEE PLANS FOR NOTES CONDUIT CONCEALED ABOVE CEILING OR IN WALLS A-1 HOME RUN TO PANEL "A", CIRCUITS #1 GROUND CONNECTOR ELECTRICAL PANEL. REFER TO PANEL SCHEDULE FOR DETAILS. MAIN SWITCHBOARD OR POWER DISTRIBUTION BOARD. VERIFY DIMENSION WITH VENDOR/MANUFACTURER. DENOTES EQUIPMENT #1, SEE EQUIPMENT SCHEDULE FOR THE DETAILS AND EXACT SPECIFICATIONS. INDICATES PLAN NOTE NUMBER "1", SEE PLAN DENOTES MECHANICAL EQUIPMENT #1 SEE MECHANICAL DRAWINGS FOR THE DETAILS AND SPECIFICATIONS. SINGLE POLE SWITCH AT 48" U.O.N. THREE-WAY SWITCH AT +48" U.O.N. MANUAL MOTOR STARTER DIMMER SWITCH/DIMMING WALL CONTROL STATION AT +48" U.O.N. THREE-WAY DIMMER SWITCH AT +48" U.O.N. OCCUPANCY AUTOMATIC WALL SWITCH SENSOR WITH SINGLE LEVEL SWITCHING AT +48" U.O.N./MANUFACTURER TO BE DETERMINED VACANCY AUTOMATIC WALL SWITCH SENSOR WITH SINGLE LEVEL SWITCHING AT +48" U.O.N./MANUFACTURER TO BE DETERMINED OCCUPANCY SENSOR SINGLE POLE SWITCH WITH DIMMER CONTROL FEATURE AT +48" U.O.N./MANUFACTURER TO BE DETERMINED CEILING MOUNTED OCCUPANCY SENSOR MANUFACTURER TO BE DETERMINED CEILING MOUNTED VACANCY SENSOR MANUFACTURER TO BE DETERMINED CEILING MOUNTED DAYLIGHT SENSOR MANUFACTURER TO BE DETERMINED HARD WIRED, WITH BATTERY BACKUP, SMOKE DETECTOR/CARBON MONOXIDE DETECTOR/MULTI-PURPOSE S C S/C CARBON MONOXIDE & SMOKE DETECTOR. 다 타 NON-FUSED/FUSED SWITCH, SIZE AS SHOWN IN THE PLAN MOTOR OUTLET - IDENTIFICATION EXHAUST AIR GRILLE - REFER TO MECHANICAL PLAN TIME CLOCK WITH MANUAL BY-PASS SWITCH SEE LIGHTING CONTROL DIAGRAM FOR DETAILS GAS SOLENOID-SEE PLUMBING PLAN FOR EXACT LOCATION. ABBREVIATION FOR NEW / EXISTING / RELOCATED SYMBOL NOTES SYMBOL LIST SHOW IN FOR GENERAL REFERENCE ONLY. A PRESENCE OF A SYMBOL DOES NOT IMPLY ITS USE ON THIS PROJECT. REFER TO DRAWING FOR SPECIFIC SYMBOLS USED. SHEET INDEX ELECTRICAL SPECIFICATION

**ELECTRICAL SYMBOLS LIST** 

GROUND FAULT INTERRUPTING PROTECTED CIRCUIT DUPLEX RECEPTACLE AT + 18" U.O.N.

DESCRIPTION

DOUBLE DUPLEX RECEPTACLE AT + 18" FOR WALL MOUNTED U.O.N.

PROVIDE GFCI BREAKER INSTEAD OF GFCI OUTLET AS NECESSARY

DUPLEX RECEPTACLE AT +18" FOR WALL MOUNTED U.O.N.

DUPLEX RECEPTACLE WITH USB 2.0 PORT

CLG. WALL FLR.

E000 ELECTRICAL SPECIFICATION
E001 SINGLE LINE DIAGRAM/ DETAILS
E002 PANEL SCHEDULES
E100 LIGHTING PLAN
E200 POWER PLAN
E201 POWER PLAN - ROOF
TE00 TITLE24 - INDOOR

EXISTING COMMERCIAL TENANT IMPROVEMENT.

DRAWN: CHECKED
H.N. J.L.

DATE:

10/08/2024

SHEET TITLE:

national

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SCOPE OF WORK

PROVIDE NEW LIGHTING FIXTURES/CONNECTIONS TO THE RENOVATED AREAS.

PROVIDE NEW POWER FIXTURES/CONNECTIONS TO THE RENOVATED AREAS.

EXISTING MAIN SERVICE/METER EQUIPMENT AND INSTALLATION OF NEW DISTRIBUTION EQUIPMENT

SPECIFICATION

**ELECTRICAL** 

\_000

SCALE:

N.T.S.

PLOT DATE: 12/10/2024 9:25:51 AM

# LIGHTING FIXTURE SCHEDULE LAMP VOLT WATT

| TYPE | DESCRIPTION                                                                                                        | LAMP | VOLT | WATT |
|------|--------------------------------------------------------------------------------------------------------------------|------|------|------|
| L1   | 2X4 LED TROFFER LIGHT, DIMMABLE<br>LITHONIA 2GTL4 SERIES OR APPROVED EQUAL                                         | LED  | 120  | 36   |
| L2   | LED SURFACE MOUNTED CAN LIGHT, DIMMABLE<br>WAC LIGHTING FM-616G2 SERIES OR APPROVED EQUAL                          | LED  | 120  | 16   |
| EE   | LIGHT FIXTURE WITH 90 MINUTES EMERGENCY BATTERY PACK VERIFY WITH MANUFACTURER FOR OPTION/INVERTER IF NOT AVAILABLE |      | 120  |      |
| Х    | LED EXIT SIGN WITH 90 MINUTES BATTERY PACK LITHONIA EXR LED M6 OR EQUIVALENT                                       |      | 120  |      |

COPPER

- FIXTURE SHALL HAVE MIN, OF 10 YEARS MANUFACTURER WARRANTY ON ALL COMPONENTS. FIXTURES SHALL HAVE APPROPRIATE U.L. LABEL (i.c., DAMP OR WET) AS REQUIRED BY CODES AND ORDINANCES. FIXTURES SHALL INCLUDE ALL ACCESSORIES FOR INSTALLATION ACCORDING TO MANUFACTURER'S SHOP
- DRAWINGS AND AS REQUIRED BY CODES AND LOCAL ORDINANCES. PRIOR TO ORDERING ANY LIGHTING EQUIPMENT, THE CONTRACT OR SHALL COORDINATE ALL FIXTURE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND CEILING CAVITY DEPTHS.
- ALL LAMPS SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE ATTACHED FIXTURE SCHEDULE AND SPECIFICATIONS. ENSURE COMPATIBILITY BETWEEN FIXTURE, LAMP(S) AND BALLAST(S). 6. CONTRACTOR SHALL VERIFY FIXTURE VOLTAGES AND CEILING TRIM COMPATIBILITY PRIOR TO ORDERING
- PROVIDE APPROVED FIRE-RATED ENCLOSURES FOR ALL LIGHTING FIXTURES LOCATED IN FIRE-RATED CEILINGS. LIGHTING FIXTURE CATALOG NUMBERS ARE SERIES TYPE ONLY. PROVIDE ALL NECESSARY HARDWARE AS
- REQUIRED BY THE SPECIFICATIONS, DRAWINGS, AND PROJECT CONDITIONS FOR A COMPLETE INSTALLATION. ALL FIXTURES SHALL BE ORDERED WITH APPROPRIATE BALLAST(S) THAT HAVE U.L. AND CBM LABELS. PROVIDE
- MULTIPLE BALLASTS FOR DUAL-LEVEL SWITCHING AND WIRING AS INDICATED ON THE PLANS. 10. ENSURE COMPATIBILITY OF ALL LIGHTING SYSTEM COMPONENTS, ESPECIALLY DIMMED SYSTEMS. FIXTURES, LAMPS, BALLAST(S), AND DIMMING SYSTEMS/INDIVIDUAL CONTROLS MUST BE FACTORY CERTIFIED COMPATIBLE
- FOR FULL RANGE OF DIMMING COMPATIBILITY. 11. LIGHTING FIXTURE MANUFACTURER & MODEL IS FOR REFERENCE ONLY. FIXTURE SHALL BE SELECTED BY ARCHITECT. POWER AND QUALITY SHALL BE SPECIFICATION GRADE.

120V, SINGLE POLE, MAX 3% VOLTAGE DROP

LENGTH OF RUN

150'

200'

100'

50'

12

12

14

12

# SINGLE LINE DIAGRAM NOTES

LEADING TO OUTSIDE. [2022 CBC 1013.4]

INSTALLED INTEGRAL TEST SWITCHES.

[2022 CBC 1013.1]

AMP LOAD

15 AMP

20AMP

CONTRACTOR/ELECTRICIAN TO FIELD VERIFY ACTUAL SITE CONDITION /EXACT SERVICE ENTRANCE AND SHALL NOTIFY EOR(S) ANY DISCREPANCY WITH THE PLAN PRIOR TO BIDDING. CONTRACTOR TO VERIFY ALL EQUIPMENT DIMENSIONS AND CLEARANCES WITH FIELD CONDITION PRIOR TO ORDERING EQUIPMENT. ALL EQUIPMENT TO BE LISTED BY A RECOGNIZED TESTING AGENCY.

TERMINALS TO BE RATED FOR ALUMINUM AND COPPER WIRE. CONTRACTOR TO OBTAIN A FAULT CURRENT LETTER FROM UTILITY COMPANY PRIOR TO PURCHASE OF ANY EQUIPMENT (IF ANY) FOR AIC

**EMERGENCY EXIT ILLUMINATION NOTES** 

FIXTURES WITH 90 MIN. EMERGENCY BATTERY BACKUP SHALL BE WIRED

AHEAD OF ANY CONTROL IN COMPLIANCE WITH [2022 CEC 700.12(I)(2)(3)(A)]. THE MEANS OF EGRESS SERVING A ROOM OR SPACE SHALL BE ILLUMINATED

AT ALL TIMES THAT THE ROOM OR SPACE IS OCCUPIED. [2022 CBC 1008.2]

THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE

BATTERIES, UNIT EQUIPMENT OR AN ONSITE GENERATOR. [2022 CBC 1008.3.4]

EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL

ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FC, AND A MIN AT

ANY POINT OF 0.1 FC MEASURED ALONG THE PATH OF EGRESS AT FLOOR

LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FC

AVERAGE AND A MIN AT ANY POINT OF 0.06 FC AT THE END OF THE

EMERGENCY LIGHTING TIME DURATION. A MAX-TO-MIN ILLUMINATION

UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED. [2022 CBC 1008.3.5]

EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT

SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGN

PLACEMENT SHALL BE SUCH THAT ANY POINT IN AN EXIT ACCESS CORRIDOR

OR EXIT PASSAGEWAY IS WITHIN 100 FT OR THE LISTED VIEWING DISTANCE OF THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.

TACTILE EXIT SIGNS SHALL BE PROVIDED WITH APPROPRIATE WORDS AT

EXIT DOORS LEADING TO ENCLOSED EXIT STAIRWAYS AND EXIT DOORS

EMERGENCY LIGHTING UNITS SHALL BE EQUIPPED WITH FACTORY

VERIFICATION. EQUIPMENT CUT SHEETS AND FAULT CURRENT LETTER TO BE PROVIDED UPON INSPECTION. IF APPLICABLE, ALL NEW CIRCUIT BREAKERS INSTALLED ON EXISTING

PANEL/SWITCHBOARD SHALL MATCH THE HIGHEST EXISTING AIC RATED BREAKER WITHIN THAT PANEL/BOARD. INSPECTOR TO VERIFY HIGHEST AIC RATING AT THE SITE.

6. MAIN SERVICE DISCONNECT AMPERAGE MUST BE PERMANENTLY MARKED

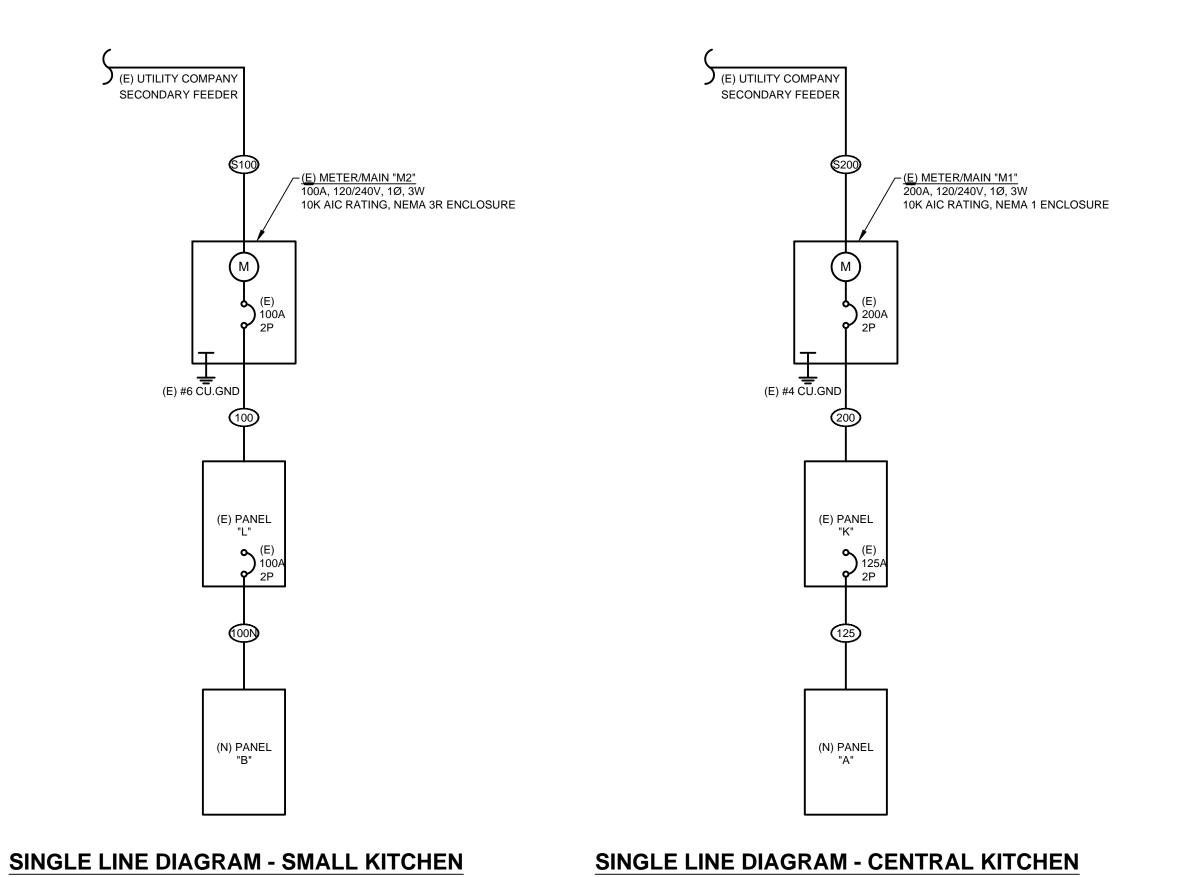
ALL SYSTEM TO BE FULLY RATED SYSTEM. IF SYSTEM IS SERIES RATED, ALL COMPONENTS MUST BE FROM THE SAME MANUFACTURER. LISTED BREAKER COMBINATIONS SHALL BE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION UPON REQUEST.

8. IF APPLICABLE, ALL EQUIPMENT LABELED/IDENTIFIED AS EXISTING, ARE SUBJECT TO FIELD VERIFICATION.

9. ARC-FLASH HAZARD WARNING FIELD MARKING TO BE PROVIDED ON ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANEL BOARDS, METER SOCKET ENCLOSURES AND MCC THAT ARE IN OTHER THAN DWELLING UNITS. [2022 CEC 110.16, 110.21(B)]

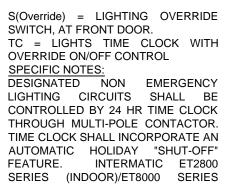
10. SERVICE EQUIPMENT SHALL BE FIELD MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT. [2022 CEC 110.24]

FEEDER CHART # (E)/(N) FEEDER SIZE S200 3#3/0 MID-SPAN DROP (BY UTILITY) (E) 3#1 MID-SPAN DROP (BY UTILITY) S100 (E) (E) 200 3#3/0, #6GND- 2"C 3#1/0, #6GND- 1 1/2"C 125 100 (E) 3#1, #8GND- 1 1/2"C 3#1, #8GND- 1 1/2"C 100N (E) FEEDERS TO BE FIELD VERIFIED AND REMAIN AS-IS U.O.N.

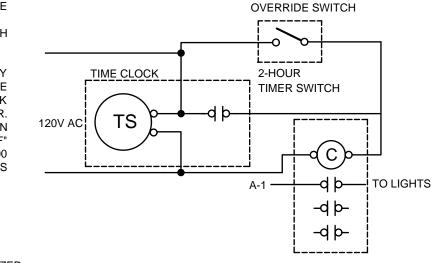


SINGLE LINE DIAGRAM

#### COPPER 10 10 30 AMP 100 AMP COPPER 2/0 1/0 2/0 100 AMP ALUMINUM 1/0 4/0 300 COPPER 3/0 3/0 500 200 AMP 300 ALUMINUM 250 250 600 900 200 AMP THE MAXIMUM COMBINED VOLTAGE DROP ON BOTH INSTALLED FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS TO THE FARTHEST CONNECTED LOAD OR OUTLET SHALL NOT EXCEED 5 PERCENT.

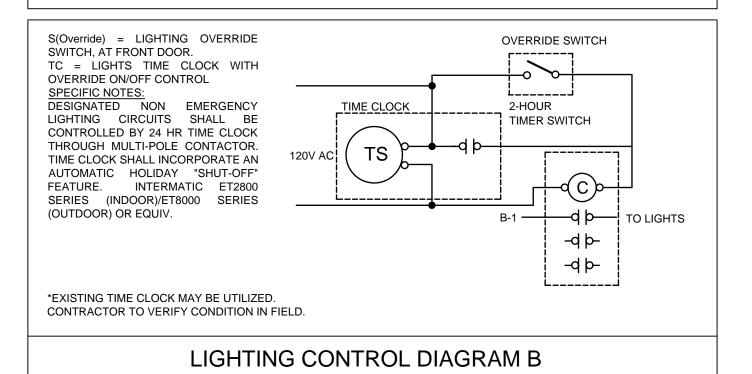


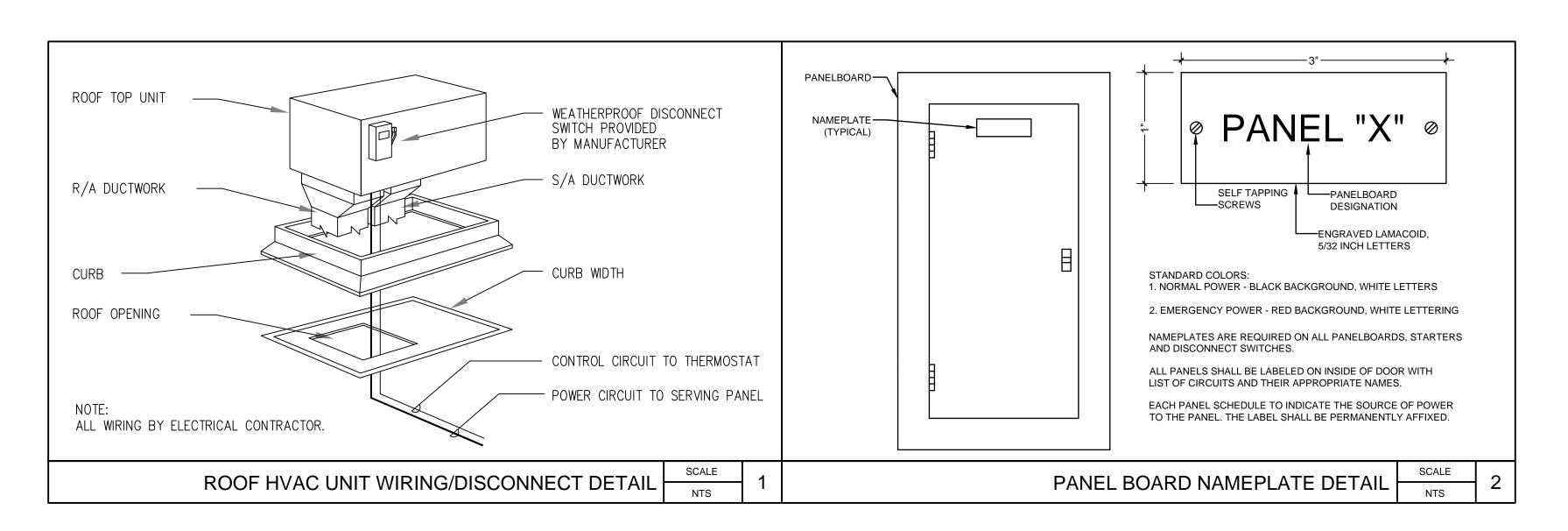
(OUTDOOR) OR EQUIV.

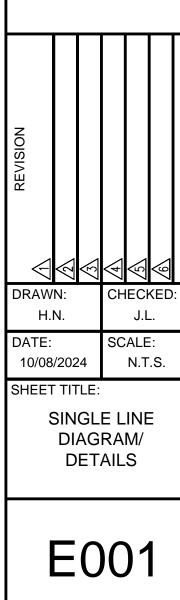


\*EXISTING TIME CLOCK MAY BE UTILIZED. CONTRACTOR TO VERIFY CONDITION IN FIELD.

#### LIGHTING CONTROL DIAGRAM A







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PLOT DATE: 12/10/2024 9:25:52 AM

| VOLTO 400/040V               | DILAG | - 1 |       |       | CHODE   | CID | CLUIT | DATINIO  | . 10000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |      | MAIN THESE SHIPY              |
|------------------------------|-------|-----|-------|-------|---------|-----|-------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------|-------------------------------|
| VOLTS:120/240V               | PHAS  |     |       |       |         |     |       | RATING   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |      | MAN: LUGS ONLY                |
| MOUNTING: SURFACE            | WRE   | : 3 |       | I=    | 1       |     | _     | EMA 1 RA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         | I.   | BUSSING: 200A MIN.            |
| LOAD                         |       | *   |       | B-VA  | BKR     | CI  |       | BKR      | A-VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | B-VA                                    | *    | LOAD                          |
| LIGHT LOAD.1                 |       | L   | 425   |       | 20/1    | 1   | 2     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |      |                               |
| LIGHT LOAD.2                 |       | L   |       | 525   | 20/1    | 3   | 4     | 20/1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1080                                    | R    | CONV.RECEPT.1                 |
| MOTOR LOAD.1                 |       | M   | 800   |       | 20/1    | 5   | 6     | 20/1     | 720                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |      | CONV.RECEPT.2                 |
| MOTOR LOAD.2                 |       | M   |       | 800   | 20/1    | 7   | 8     | 20/1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 660                                     | С    | CONT.LOAD.1                   |
| PANEL "A"                    |       | Р   | 13669 |       | 125/2   | 9   | 10    | 20/1     | 660                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         | С    | CONT.LOAD.2                   |
|                              |       | Р   |       | 11662 |         | 11  | 12    | 15/1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 500                                     |      | NON.CONT.LOAD.                |
|                              |       |     |       |       |         | 13  | 14    | 100/2    | 4105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 111111111111111111111111111111111111111 |      | PANEL LOAD.                   |
|                              |       |     |       |       |         | 15  | 16    |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3992                                    | Р    |                               |
|                              |       |     |       |       |         | 17  | 18    | 30/2     | 2054                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |      | KEF-2                         |
|                              |       |     |       |       |         | 19  | 20    | 9444     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2054                                    | М    |                               |
| PHASE TOTALS:                |       |     | 22433 | 21273 | 43706   | =TC | TAL   | CONNE    | CTED LC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DAD,VA (F                               | OF   | R DEMAND LOAD SEE BELOW)      |
| PHASE AMPERES:               |       |     | 186.9 | 177.3 |         |     |       |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |      |                               |
| *DEMAND LOAD CALCULATION:    |       |     |       |       |         |     |       |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NOTES:                                  |      |                               |
| L=LIGHTING LOADS:            |       |     | 1.25  | X     | 1505    |     | =     | 1881     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - EMPT                                  | YL   | OAD: SPACE                    |
| C=CONTINUOUS LOADS, OTHER:   |       |     | 1.25  | X     | 1720    |     | =     | 2150     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - SHADE                                 | ED ( | GRAY TEXT: EXISITNG TO REMAIN |
| M=MOTOR LOADS (INCL LGST):   |       |     | 1.00  | X     | 27668   |     | =     | 27668    | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| LARGEST, VA:                 |       |     | 0.25  | X     | 5184    |     | =     | 1296     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| R=RECEPTACLES: 1ST 10K:      |       |     | 1.00  | X     | 3420    |     | =     | 3420     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| BALANCE:                     |       |     | 0.50  | X     | 0       |     | =     | 0        | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| K=KITCHEN LOADS: QTY:        | 0     |     | 1.00  | X     | 0       |     | =     | 0        | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| N=NONCONTINUOUS LOADS, OTHER | :     |     | 1.00  | X     | 9393    |     | =     | 9393     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |      |                               |
| (P=PANEL, INCL. IN ABOVE)    |       | -   |       |       | ID LOAD |     | =     | 45808    | AND ADDRESS OF THE PARTY OF THE |                                         |      | //PERES                       |

| VOLTS:120/240V                | PHASE: 1 |          |       | SHORT   | CIRC | CUIT | RATING | 10000/             | 4          | MAIN: LUGS ONLY                  |
|-------------------------------|----------|----------|-------|---------|------|------|--------|--------------------|------------|----------------------------------|
| MOUNTING: SURFACE             | WRE: 3   |          |       |         |      |      | MN.    | BUSSING: 100A MIN. |            |                                  |
| LOAD                          | *        | A-VA     | B-VA  | BKR     | СТ   | СТ   | BKR    | A-VA               | B-VA       | * LOAD                           |
| CONVRECEPT.1                  | R        | 720      |       | 20/1    | 1    | 2    | 20/1   | 625                |            | L LIGHT LOAD.1                   |
| CONVRECEPT.2                  | R        |          | 720   | 20/1    | 3    | 4    | 20/1   |                    | 200        | L LIGHT LOAD.2                   |
| MOTOR LOAD.                   | N        | 800      |       | 15/1    | 5    | 6    | 100/2  | 8998               |            | P PANEL "B"                      |
|                               |          |          |       |         | 7    | 8    |        |                    | 8397       | P                                |
| PHASE TOTALS:                 |          | 11143    | 9317  | 20460   | =TO  | TAL  | CONNEC | CTED LC            | DAD, VA (F | FOR DEMAND LOAD SEE BELOW)       |
| PHASE AMPERES:                |          | 92.9     | 77.6  |         |      |      |        |                    | 100        |                                  |
| *DEMAND LOAD CALCULATION:     | 1977     |          |       |         |      |      |        |                    | NOTES:     |                                  |
| L=LIGHTING LOADS:             |          | 1.25     | X     | 1190    | :    | = 1  | 1488   | VA                 | - EMPTY    | Y LOAD: SPACE                    |
| C=CONTINUOUS LOADS, OTHER:    |          | 1.25     | X     | 500     |      | =    | 625    | VA                 | - SHADE    | ED GRAY TEXT: EXISITNG TO REMAIN |
| M=MOTOR LOADS (INCL LGST):    |          | 1.00     | X     | 12074   |      | =    | 12074  | VA                 |            |                                  |
| LARGEST, VA:                  |          | 0.25     | X     | 0       | 8    | =:   | 0      | VA                 |            |                                  |
| R=RECEPTACLES: 1ST 10K:       |          | 1.00     | X     | 4860    |      | = 1  | 4860   | VA                 |            |                                  |
| BALANCE:                      |          | 0.50     | X     | 0       |      | =    | 0      | VA                 |            |                                  |
| K=KITCHEN LOADS: QTY:         | 0        | 1.00     | X     | 0       |      |      | 0      | VA                 |            |                                  |
| N=NONCONTINUOUS LOADS, OTHER: |          | 1.00     | X     | 1836    | •    | =    | 1836   | VA                 |            |                                  |
| (P=PANEL, INCL. IN ABOVE)     | TOT      | AL N.E.C | DEMAN | ID LOAD |      | =    | 20883  | VA =               | 87.0       | AMPERES                          |

| VOLTS:120/240V PHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |          | o o     |         |      |      | "A"    |          |            |       |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------|---------|------|------|--------|----------|------------|-------|--------------------------|
| Programme and the company of the control of the con | ASE: 1 |          |         | SHORT   | CIRC | CUIT | RATING | : 10000A | ١          |       | MAIN: LUGS ONLY          |
| MOUNTING: SURFACE WIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RE: 3  |          |         |         |      | 100  |        | ATED MIN | 5          | 555   | BUSSING: 125A MIN.       |
| LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | *      | A-VA     | B-VA    | BKR     | CT   | СТ   | BKR    | A-VA     | B-VA       | *     | LOAD                     |
| WAREHOUSE/ KITCHEN LIGHTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | L      | 355      |         | 20/1    | 1    | 2    | 20/1   | 500      |            | 1     | 15. HOOD CONTROL SYSTEM  |
| WH-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | С      |          | 200     | 20/1    | 3    | 4    | 20/1   |          | 316        | N     | 2.72" CHEF BASE          |
| SPARE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |          |         | 20/1    | 5    | 6    | 20/1   | 288      |            | М     | AIR CURTAIN              |
| ROOF RECEPT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | R      |          | 360     | 20/1    | 7    | 8    | 20/1   |          | 500        | _     | ROLL-UP DOOR             |
| KITCHEN RECEPT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | R      | 540      |         | 20/1    | 9    | 10   | 20/1   | 480      |            | N     | 13. PREP.TABLE           |
| SPARE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |          |         | 20/1    | 11   | 12   | 20/1   |          |            |       | SPARE                    |
| WAREHOUSE RECEPT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R      | 720      |         | 20/1    | 13   | 14   | 20/1   | 100      |            |       | WC LIGHTS                |
| T/C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | С      |          | 200     | 20/1    | 15   | 16   | 20/1   |          | 500        |       | WC EVAP.                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 17   | 18   | 20/2   | 1884     |            | М     | 11. WC CU                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 19   | 20   | 7.07.  |          | 1884       | M     | 50000                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 21   | 22   | 20/1   | 100      |            |       | WF LIGHTS                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 23   | 24   | 20/1   |          | 500        | М     | WF EVAP.                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 25   | 26   | 20/2   | 1884     |            | M     | 12. WF CU                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 27   | 28   |        |          | 1884       | M     |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 29   | 30   | 20/1   | 1500     |            | М     | FREEZER DOOR HEATER      |
| MAU-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | М      |          | 2054    | 30/2    | 31   | 32   |        |          |            |       |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | M      | 2054     |         |         | 33   | 34   |        |          |            |       |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         | 3,      | 35   | 36   | 45/2   |          | 2592       |       | HP-1                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 37   | 38   | 112    | 2592     |            | 10000 |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 39   | 40   | 15/2   |          | 672        | M     | FC-1                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |         |         | 41   | 42   |        | 672      |            | М     |                          |
| PHASE TOTALS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        | 13669    | 11662   | 25331   | =TO  | TAL  | CONNE  | CTED LC  | DAD, VA (F | OF    | R DEMAND LOAD SEE BELOW) |
| PHASE AMPERES:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        | 113.9    | 97.2    |         |      |      |        |          |            |       |                          |
| *DEMAND LOAD CALCULATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |          |         |         |      |      |        |          | NOTES:     |       |                          |
| L=LIGHTING LOADS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | 1.25     | X       | 555     | =    | =    | 694    | VA       | - EMPT     | L     | DAD: SPACE               |
| C=CONTINUOUS LOADS, OTHER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | 1.25     | X       | 400     | =    | =    | 500    | VA       |            |       |                          |
| M=MOTOR LOADS (INCL LGST):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | 1.00     | X       | 21960   | =    | =    | 21960  | VA       |            |       |                          |
| LARGEST, VA:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        | 0.25     | X       | 5184    | =    | =    | 1296   | VA       |            |       |                          |
| R=RECEPTACLES: 1ST 10K:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        | 1.00     | X       | 1620    | =    | =    | 1620   | VA       |            |       |                          |
| BALANCE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | 0.50     | X       | 0       | =    |      | 0      | VA       |            |       |                          |
| K=KITCHEN LOADS: QTY: 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        | 1.00     | X       | 0       |      | =    | 0      | VA       |            |       |                          |
| N=NONCONTINUOUS LOADS, OTHER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        | 1.00     | X       | 796     | ŧ    |      | 796    | VA       |            |       |                          |
| (P=PANEL, INCL. IN ABOVE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TOTA   | AL N.E.C | . DEMAN | ID LOAD | Ξ    | =    | 26866  | VA =     | 111.9      | AN    | //PERES                  |

|                               |      |          |         | PAN    | ١E   | L     | "B"    | Ĭ                 |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|------|----------|---------|--------|------|-------|--------|-------------------|------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOLTS:120/240V PHASE          | Ξ: 1 |          |         | SHORT  | CIRC | CUIT  | RATING | 6: 10000 <i>A</i> | 4          |      | MAIN: LUGS ONLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MOUNTING: SURFACE WRE:        | 3    |          |         | ENCLO  | SUR  | E: NE | MA1R   | ATED MIN          | ٧.         |      | BUSSING: 100A MIN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| LOAD                          | *    | A-VA     | B-VA    | BKR    | СТ   | СТ    | BKR    | A-VA              | B-VA       | *    | LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| WORK AREA/RESTRM LIGHTS       | L    | 365      |         | 20/1   | 1    | 2     | 20/1   | 576               |            | N    | 2. SANDWCH PREP.TABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SPARE                         |      |          |         | 20/1   | 3    | 4     | 20/1   |                   | 316        | N    | 4. 72" CHEF BASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SPARE                         | 1    |          |         | 20/1   | 5    | 6     | 20/1   | 404               |            | N    | 7.3 DOOR REF.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ROOF RECEPT.                  | R    |          | 360     | 20/1   | 7    | 8     | 20/1   |                   | 288        | М    | AIR CURTAIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WH-1                          | С    | 200      |         | 20/1   | 9    | 10    | 20/1   | 300               |            | С    | T/C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| KITCHEN RECEPT.1              | R    |          | 360     | 20/1   | 11   | 12    | 20/1   |                   | 1000       | М    | 17. KITCHEN HOOD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| KITCHEN RECEPT.2              | R    | 900      |         | 20/1   | 13   | 14    | 20/1   | 540               |            | N    | 8.1 DOOR FREEZER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| KITCHEN RECEPT.3              | R    |          | 1080    | 20/1   | 15   | 16    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| KITCHEN RECEPT.4              | R    | 720      |         | 20/1   | 17   | 18    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 19   | 20    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 21   | 22    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 23   | 24    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 25   | 26    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 27   | 28    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 29   | 30    |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 31   | 32    | 15/2   |                   | 1056       | М    | MAU-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               |      |          |         |        | 33   | 34    |        | 1056              |            | М    | And the second s |
|                               |      |          |         |        | 35   | 36    | 40/2   |                   | 2342       |      | RTU-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               |      |          |         |        | 37   | 38    |        | 2342              |            | М    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                               |      |          |         |        | 39   | 40    | 25/2   |                   | 1595       |      | KEF-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               |      |          |         | 13-    | 41   | 42    |        | 1595              |            | М    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PHASE TOTALS:                 |      | 8998     | 8397    | 17395  | =TO  | TAL   | CONNE  | CTED LC           | DAD, VA (F | OF   | R DEMAND LOAD SEE BELOW)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| PHASE AMPERES:                |      | 75.0     | 70.0    | N.     |      |       |        |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DEMAND LOAD CALCULATION:      |      |          |         |        |      |       |        |                   | NOTES:     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| _=LIGHTING LOADS:             |      | 1.25     | X       | 365    |      | =     | 456    | VA                | - EMPT     | Y LC | OAD: SPACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| C=CONTINUOUS LOADS, OTHER:    |      | 1.25     |         | 500    |      | =     | 625    |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| M=MOTOR LOADS (INCL LGST):    |      | 1.00     |         | 11274  |      | = 1   | 11274  | VA                |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| LARGEST, VA:                  |      | 0.25     |         | 4684   |      | =     | 1171   | VA                |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| R=RECEPTACLES: 1ST 10K:       |      | 1.00     |         | 3420   |      | =     | 3420   |                   |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| BALANCE:                      |      | 0.50     | 5.00    | 0      |      | =     |        | VA                |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| K=KITCHEN LOADS: QTY: 0       |      | 1.00     | X       | 0      |      | =     | 0      | VA                |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| N=NONCONTINUOUS LOADS, OTHER: |      | 1.00     |         | 1836   |      | =     | 1836   | VA                |            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| P=PANEL, INCL. IN ABOVE)      | TOTA | AL N.E.C | . DEMAN | D LOAD | - 4  | =     | 18782  | VA =              | 78.3       | AN   | MPERES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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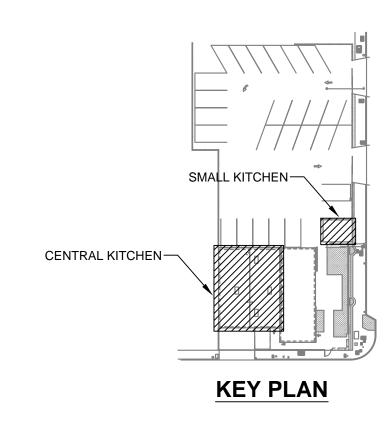
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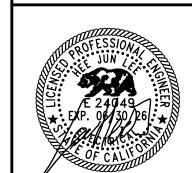
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PANEL SCHEDULES





Domini International,

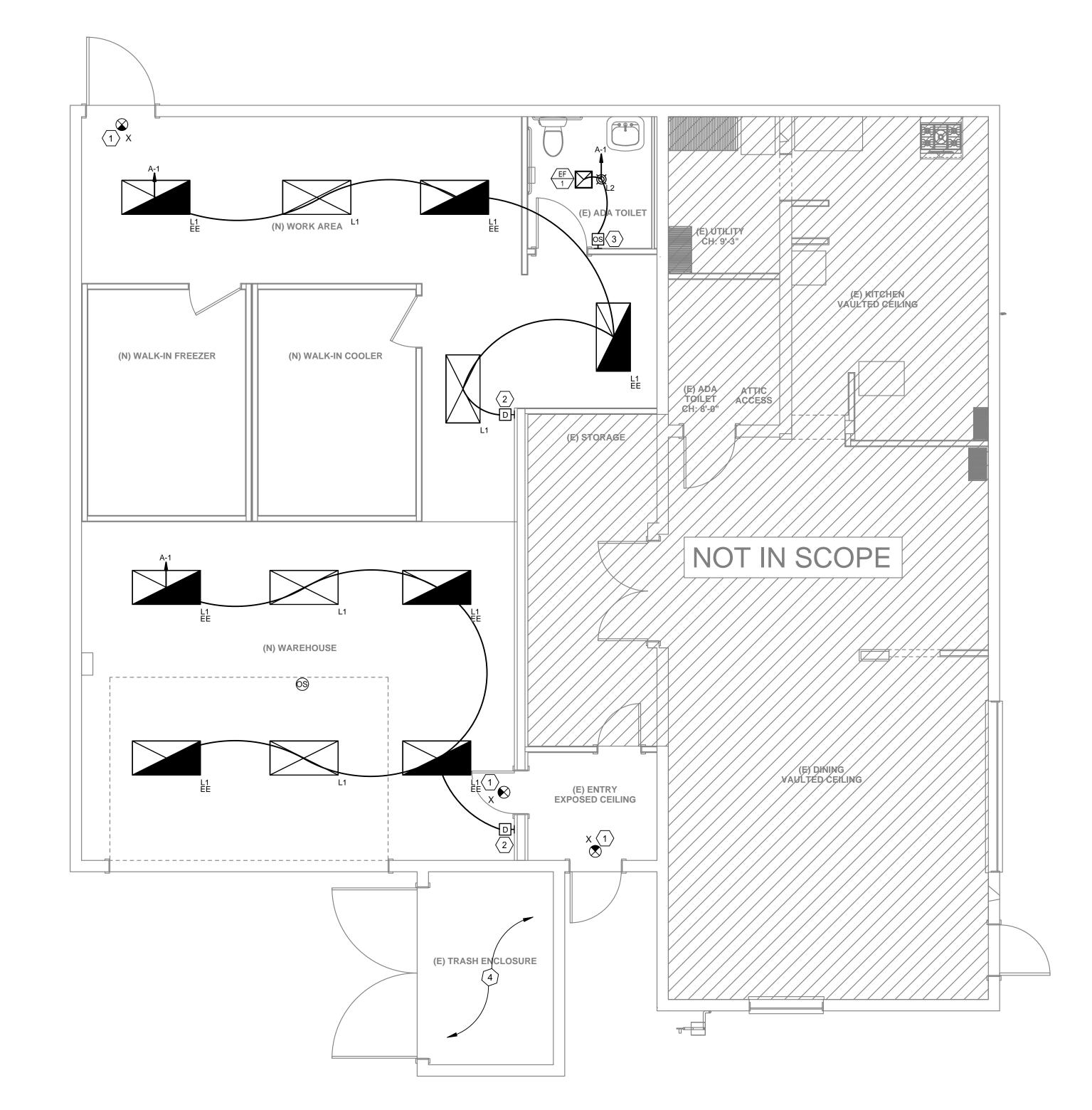
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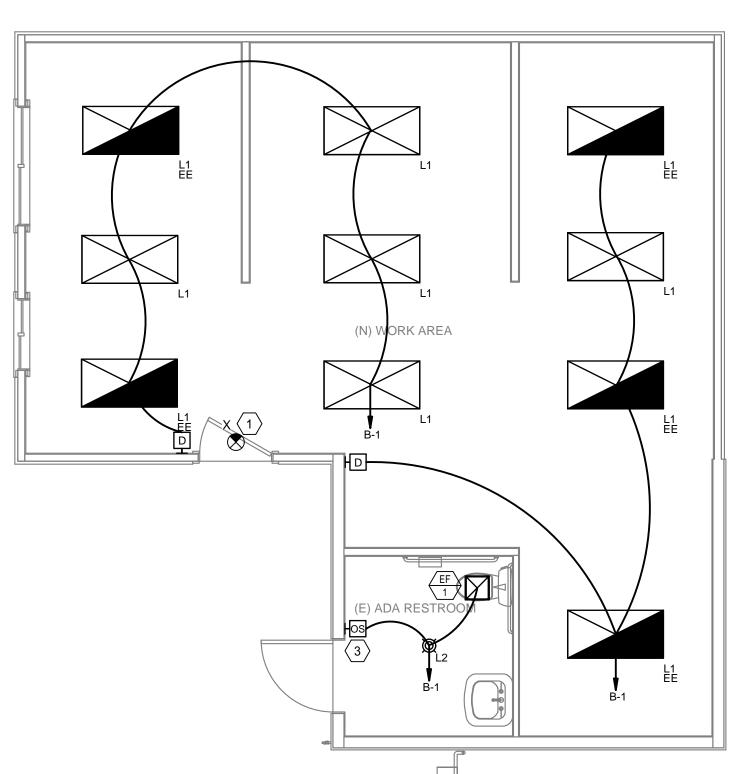
SCALE: 1/4" = 1'-0" 10/08/2024

LIGHTING PLAN

E100



**LIGHTING PLAN - CENTRAL KITCHEN** 



**LIGHTING PLAN - SMALL KITCHEN** 

#### DAYLIGHT CONTROL EXCEPTION NOTES:

DAYLIGHT CONTROL: COMBINED TOTAL GENERAL LIGHTING POWER IN PRIMARY/SECONDARY SIDELIT DAYLIT ZONE IS LESS THAN 120 WATTS. NO DAYLIGHT CONTROL REQUIRED. [2022 CENC130.1(D)EXCEPTION(3)]

#### (#) KEYED PLAN NOTES:

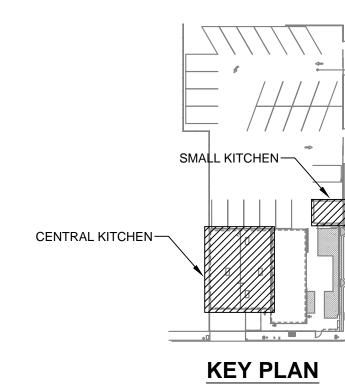
MOTOR SWITCH IF NOT PLUG/BUILT-IN.

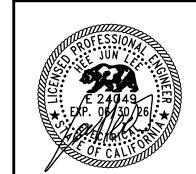
NOT IN SCOPE.

- EMERGENCY/NL AND EXIT FIXTURES TO BE CONNECTED TO NEARBY ROOM LIGHTING CIRCUIT AHEAD OF LOCAL SWITCH. [2022 CEC 700.12(I)(2)(3)(A)].
- 2. CONTRACTOR TO VERIFY FINAL LOCATION OF SWITCH/DIMMER/CONTROL PACK WITH THE ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- . INTERLOCK RESTROOM LIGHT WITH EXHAUST FAN AND PROVIDE MANUAL
- I. ALL EXISTING LIGHTING/CONTROL FIXTURES IN THIS AREA TO REMAIN U.O.N.

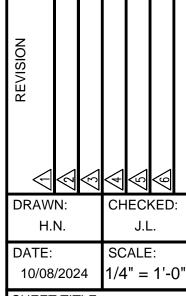
# **GENERAL NOTES:**

- 1. ELECTRICAL EQUIPMENT SHALL BE LISTED BY U.L. OR CITY RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE CITY DEPARTMENT.
- 2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE [2022 CEC].
- 3. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED. [2022 CEC TABLE 310.16]
- 4. CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE [2022 CEC ANNEX C].
- 5. CONTRACTOR/ELECTRICIAN TO FIELD VERIFY ACTUAL SITE CONDITION /EXACT SERVICE ENTRANCE AND SHALL NOTIFY EOR(S) ANY DISCREPANCY WITH THE PLAN PRIOR TO BIDDING.
- 6. ALL ITEMS LABELED/IDENTIFIED AS EXISTING (IF ANY) ARE SUBJECT TO FIELD VERIFICATION. VERIFY EXISTING CONDITION AND RE-USE. IF NOT EXISTING, PROVIDE PER PLAN.
- 7. OBTAIN APPROVAL ON LOCATION OF SWITCH/DIMMER/SENSOR WITH
- ARCHITECT/OWNER AT SITE PRIOR TO ROUGH-IN. 8. SIGNAGE WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL.
- 9. REFER TO EMERGENCY EXIT ILLUMINATION NOTES FOR EMERGENCY LIGHTING REQUIREMENTS.
- 10. IN OFFICES 250 SQUARE FEET OR SMALLER, MULTIPURPOSE ROOMS OF LESS THAN 1,000 SQUARE FEET, CLASSROOMS OF ANY SIZE, CONFERENCE ROOMS OF ANY SIZE, AND RESTROOMS OF ANY SIZE, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS TO AUTOMATICALLY SHUT OFF ALL OF THE LIGHTING IN 20 MINUTES OR LESS AFTER THE
- CONTROL ZONE IS UNOCCUPIED. [2022 CENC 130.1(C)(5)] A. IN AREAS W/ MULTI-LEVEL LIGHTING CONTROLS, THE OCCUPANT SENSING CONTROLS SHALL FUNCTION AS A PARTIAL-ON OCCUPANT SENSING CONTROLS CAPABLE OF AUTOMATICALLY ACTIVATING
- BETWEEN 50 AND 70 PERCENT OF CONTROLLED LIGHTING POWER B. IN AREAS W/O MULTILEVEL LIGHTING CONTROLS, THE OCCUPANT SENSING CONTROLS SHALL FUNCTION AS A VACANCY SENSING CONTROLS, WHERE ALL LIGHTING RESPONDS TO A MANUAL ON INPUT
- 11. IN AISLE WAYS AND OPEN AREAS IN WAREHOUSES, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL INDEPENDENTLY CONTROL LIGHTING IN EACH AISLE WAY, AND SHALL NOT CONTROL LIGHTING BEYOND THE AISLE WAY BEING CONTROLLED BY THE SENSOR. [2022 CENC 130.1(C)(6)(A)]





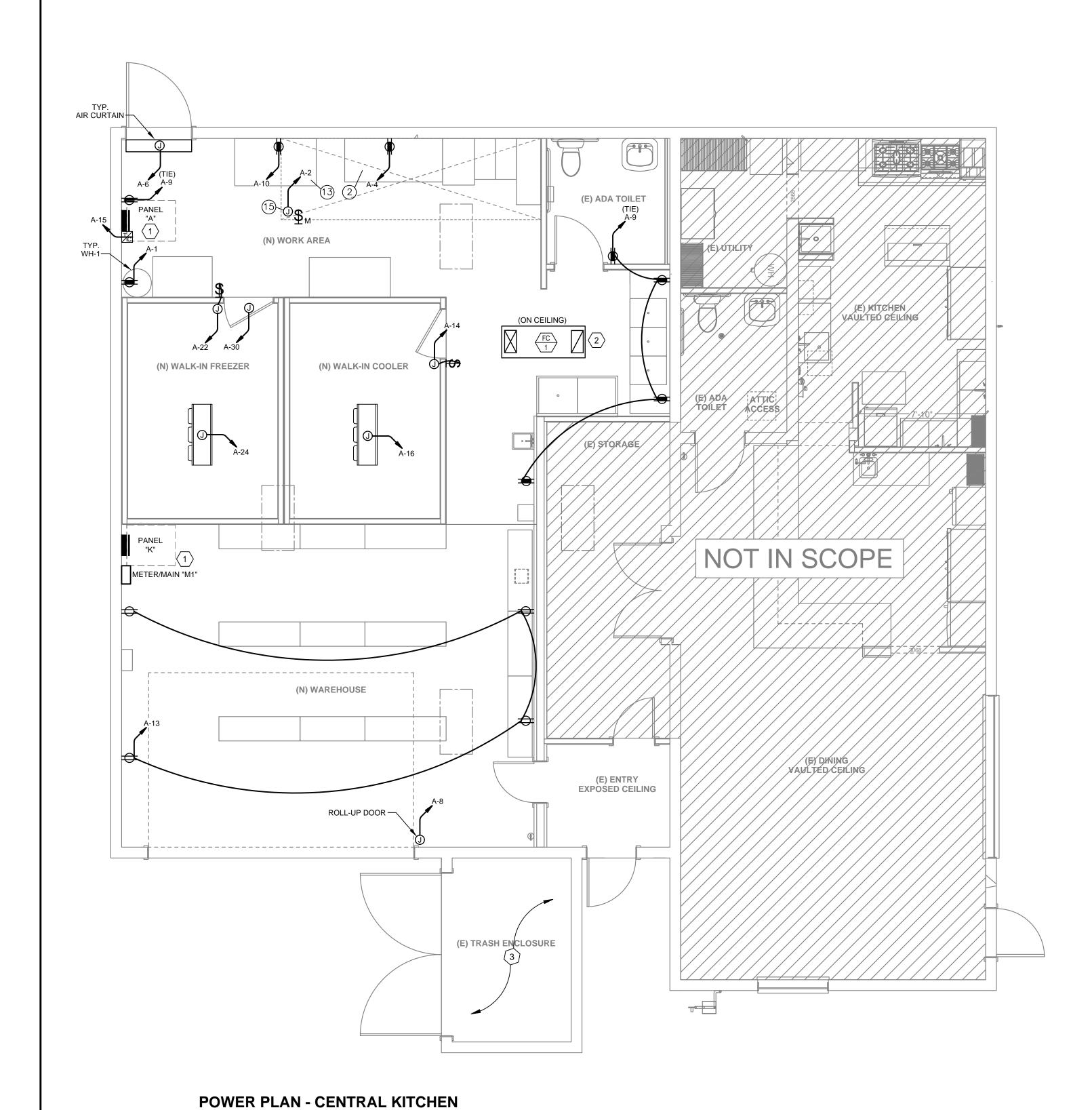
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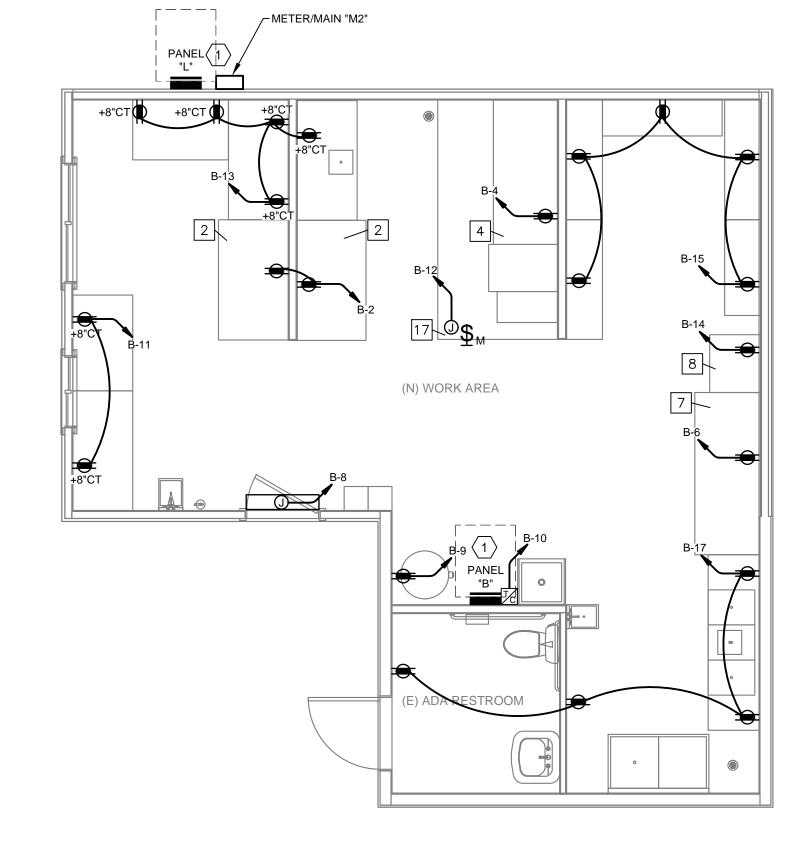


SHEET TITLE:

POWER PLAN

E200





# **POWER PLAN - SMALL KITCHEN**

| EQUIPMENT | CIRCUIT<br>DESIGNATION | VOLT/PHASE | FEEDER              | DISCONNECT   |
|-----------|------------------------|------------|---------------------|--------------|
| FC-1      | A-40/42                | 240V/1PH   | 3#12, #12GND- 3/4"C | 15AF/30AS/2P |

- PROVIDE OVERCURRENT PROTECTION AND BRANCH CIRCUITS PER UL LISTED REQUIREMENTS FOR EQUIPMENT SERVED. REFER TO MANUFACTURER DATA AND EQUIPMENT CUT-SHEETS FOR ROUGH-IN LOCATIONS OF ELECTRICAL CONNECTIONS AND INTERCONNECTIONS FOR ALL EQUIPMENT. COORDINATE EXACT NAMEPLATE DATA OF EQUIPMENT BEING INSTALLED WITH MECHANICAL
- SWITCHES USED AS DISCONNECTING MEANS SHALL BE LOCATED WITHIN SIGHT OF EQUIPMENT. PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- . ADJUST SIZE OF CONDUCTORS AS NEEDED COMPENSATE FOR VOLTAGE DROP.
- 5. IF EXISTING UNITS ARE RE-USED, EXISTING DISCONNECT/FUSE/BREAKER TO BE RE-USED OR REPLACED WITH SAME RATING. VERIFY EXISTING CONDITION IN

# HVAC SYSTEM CONNECTION SCHEDULE

#### MECHANICAL EQUIPMENT NOTES:

- NON-FUSED DISCONNECT IS ACCEPTABLE INSTEAD OF SPECIFIED FUSE TYPE.
- VOLTAGE DROP SHALL <u>NOT</u> EXCEED 3% FOR BRANCH CIRCUITS.
- 4. REFER TO MECHANICAL PLAN FOR MORE INFO.

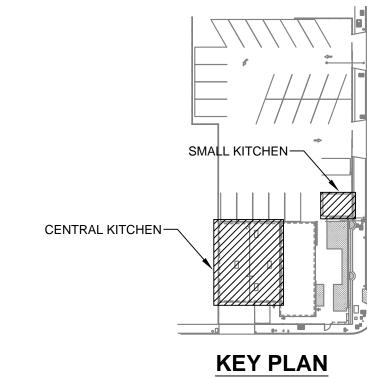
# (#) KEYED PLAN NOTES:

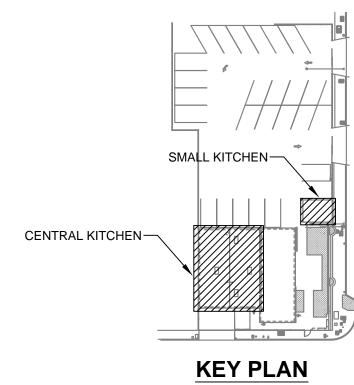
- 1. VERIFY/COORDINATE EXACT LOCATION FOR ELECTRICAL EQUIPMENTS AND PROVIDE/MAINTAIN MINIMUM CLEARANCE. [2022 CEC 110.26]
- 2. REFER TO MECHANICAL PLAN AND HVAC SYSTEM CONNECTION SCHEDULE FOR EXACT LOCATIONS, SPECS AND INSTALLATION REQUIREMENTS.
- 3. ALL EXISTING EQUIPMENT/POWER DEVICES IN THIS AREA TO REMAIN U.O.N.

# **GENERAL NOTES:**

NOT IN SCOPE.

- 1. ELECTRICAL EQUIPMENT SHALL BE LISTED BY U.L. OR CITY RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE CITY
  - DEPARTMENT. 2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE [2022 CEC].
- 3. WIRE SIZE SHALL NOT BE LESS THAN CORRESPONDING CIRCUIT BREAKER RATING AS REQUIRED. [2022 CEC TABLE 310.16]
- 4. CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE [2022 CEC ANNEX C].
- 5. CONTRACTOR/ELECTRICIAN TO FIELD VERIFY ACTUAL SITE CONDITION /EXACT SERVICE ENTRANCE AND SHALL NOTIFY EOR(S) ANY DISCREPANCY WITH THE PLAN PRIOR TO BIDDING.
- 6. ALL ITEMS LABELED/IDENTIFIED AS EXISTING (IF ANY) ARE SUBJECT TO FIELD VERIFICATION. VERIFY EXISTING CONDITION AND RE-USE. IF NOT EXISTING,
- COORDINATE LOCATIONS/HEIGHTS OF RECEPTACLES FOR ELECTRICAL DEVICES WITH ARCHITECT AND EQUIPMENT VENDER PRIOR TO ROUGH-IN.
- 8. ALL NEW ELECTRICAL EQUIPMENT (IF ANY) DIMENSIONS TO BE VERIFIED WITH EQUIPMENT MANUFACTURER/VENDER PRIOR TO PURCHASE.
- 9. GFCI PROTECTION: ALL 125V THROUGH 250V RECEPTACLES SUPPLIED BY 1-PHASE BRANCH CIRCUITS, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY 3-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE FOLLOWING LOCATIONS SHALL HAVE GFCI PROTECTION FOR PERSONNEL. [2022 CEC 210.8(B)]
- A. BATHROOMS B. KITCHENS OR AREAS WITH A SINK AND PREM. PROVISION FOR COOKING
- C. ROOFTOPS/OUTDOORS D. SINKS - WITHIN 6FT FROM THE TOP INSIDE EDGE OF THE SINK E. GARAGES, UNFINISHED AREAS OF BASEMENTS OR SIMILAR AREAS
- 10. FOR ALL PERMANENTLY CONNECTED APPLIANCES RATED OVER 300VA, THE CIRCUIT BREAKER CAPABLE OF BEING LOCKED IN THE OPEN POSITION SHALL BE PROVIDED UNLESS LOCATION OF THE BREAKER IS WITHIN THE SIGHT OR SEPARATE DISCONNECTING MEANS IS PROVIDED. [2022 CEC 110.25, 422.31(B)]
- 11. VERIFY ALL KITCHEN EQUIPMENT (IF ANY) INSTALLATION REQUIREMENTS AND POWER CONNECTION TYPE WITH KITCHEN EQUIPMENT SUPPLIER AND MANUFACTURER SPEC SHEET PRIOR TO ROUGH-IN.







Domini International, Inc



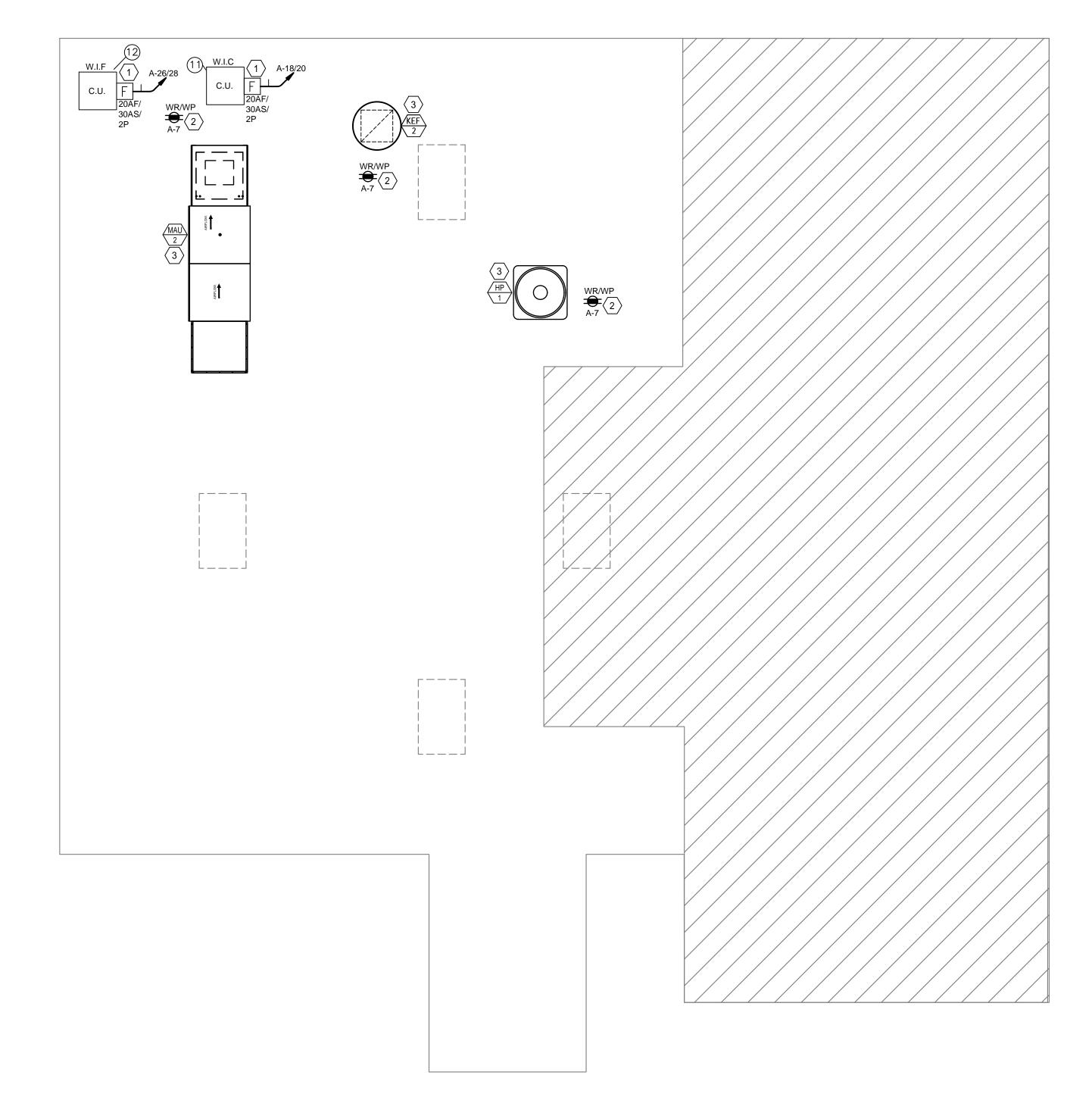
CONVERSION

DRAWN: CHECKED: SCALE:

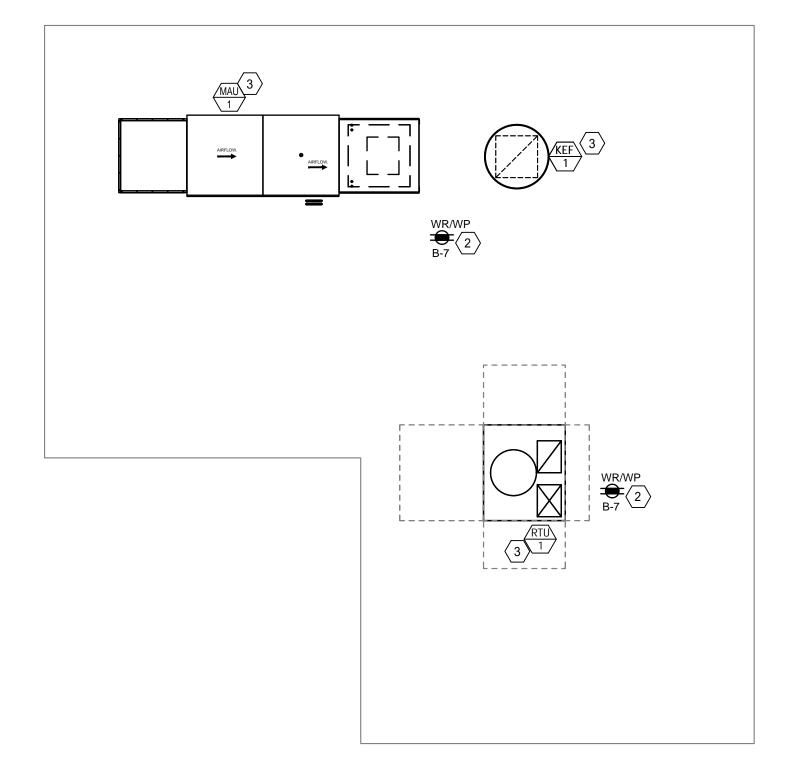
1/4" = 1'-0" 10/08/2024 SHEET TITLE:

POWER PLAN -

E201



POWER PLAN - ROOF - CENTRAL KITCHEN



**POWER PLAN - ROOF - SMALL KITCHEN** 

# HVAC SYSTEM CONNECTION SCHEDULE

| EQUIPMENT | CIRCUIT<br>DESIGNATION | VOLT/PHASE | FEEDER              | DISCONNECT   |
|-----------|------------------------|------------|---------------------|--------------|
| RTU-1     | B-36/38                | 240V/1PH   | 3#8, #10GND- 3/4"C  | 40AF/60AS/2P |
| KEF-1     | B-40/42                | 240V/1PH   | 3#10, #10GND- 3/4"C | 25AF/30AS/2P |
| MAU-1     | B-32/34                | 240V/1PH   | 3#12, #12GND- 3/4"C | 15AF/30AS/2P |
| MAU-2     | A-31/33                | 240V/1PH   | 3#10, #10GND- 3/4"C | 30AF/30AS/2P |
| HP-1      | A-36/38                | 240V/1PH   | 3#6, #10GND- 1"C    | 45AF/60AS/2P |
| KEF-2     | K-18/20                | 240V/1PH   | 3#10, #10GND- 3/4"C | 30AF/30AS/2P |

#### MECHANICAL EQUIPMENT NOTES:

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- SWITCHES USED AS DISCONNECTING MEANS SHALL BE LOCATED WITHIN SIGHT OF EQUIPMENT. PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. NON-FUSED DISCONNECT IS ACCEPTABLE INSTEAD OF SPECIFIED FUSE TYPE.
- ADJUST SIZE OF CONDUCTORS AS NEEDED COMPENSATE FOR VOLTAGE DROP. VOLTAGE DROP SHALL <u>NOT</u> EXCEED 3% FOR BRANCH CIRCUITS.
- 4. REFER TO MECHANICAL PLAN FOR MORE INFO.
- 5. IF EXISTING UNITS ARE RE-USED, EXISTING DISCONNECT/FUSE/BREAKER TO BE RE-USED OR REPLACED WITH SAME RATING. VERIFY EXISTING CONDITION IN

#### # KEYED PLAN NOTES:

- 1. VERIFY EXACT ELECTRICAL INSTALLATION REQUIREMENTS WITH MANUFACTURER AND PROVIDE PER RECOMMENDATION.
- 2. PROVIDE GFCI/WATERPROOF/WEATHER RESISTANT RECEPTACLE WITHIN 25FT OF HEATING, AC, AND REFRIGERATION EQUIPMENT.
- 3. REFER TO MECHANICAL PLAN AND HVAC SYSTEM CONNECTION SCHEDULE FOR EXACT LOCATIONS, SPECS AND INSTALLATION REQUIREMENTS.

# **GENERAL NOTES:**

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- 4. CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE [2022 CEC ANNEX C].
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- B. KITCHENS OR AREAS WITH A SINK AND PREM. PROVISION FOR COOKING C. ROOFTOPS/OUTDOORS D. SINKS - WITHIN 6FT FROM THE TOP INSIDE EDGE OF THE SINK E. GARAGES, UNFINISHED AREAS OF BASEMENTS OR SIMILAR AREAS
- 10. FOR ALL PERMANENTLY CONNECTED APPLIANCES RATED OVER 300VA, THE CIRCUIT BREAKER CAPABLE OF BEING LOCKED IN THE OPEN POSITION SHALL BE PROVIDED UNLESS LOCATION OF THE BREAKER IS WITHIN THE SIGHT OR SEPARATE DISCONNECTING MEANS IS PROVIDED. [2022 CEC 110.25, 422.31(B)]
- 11. RECEPTACLES OF 15 AND 20 AMPERES, 125 AND 250 VOLTS INSTALLED IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF (WP) AND IS LISTED/IDENTIFIED AS "EXTRA DUTY". THE RECEPTACLES SHALL BE GFCI PROTECTED. [CEC 2022 210.8(B)(4), 406.9(B)]

Circa Domini International, neering - Consulting

Research Dr. Suite 100, Irvine, CA 9261



STORAGE TO KITCHEN CONVERSION

2229 DOVER

NOISINABA

DRAWN:
H.N.

CHECKED:
J.L.

DATE:
10/08/2024

SHEET TITLE:

TITLE24 - INDOOR

TEOO

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California

1. The information provided on this Certificate of Compliance is true and correct.

of Title 24, Part 1 and Part 6 of the California Code of Regulations.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

plans and specifications submitted to the enforcement agency for approval with this building permit application.

inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder/prov

I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)

9890 RESEARCH DR. SUITE 100 License: E24049

The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirement

The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations,

I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable

Generated Date/Time:

Report Version: 2022.0.000

Schema Version: rev 20220101

Documentation Software: Energy Code Ace

Compliance ID: 231634-1024-0003 Report Generated: 2024-10-08 20:30:34