

DOCUMENT 00911

**ADDENDUM NUMBER 1**

Issued: December 1, 2011

**Service Center Relocation  
(2025 Aviation Boulevard)**

FROM: Sonoma County Water Agency  
404 Aviation Blvd.  
Santa Rosa, CA 95403-9019

TO: Prospective Bidders

This Addendum forms a part of and modifies the Project Manual dated November 2011. Bidder shall acknowledge receipt of this Addendum in the space provided in Document 00400 (Bid Form).

Modified text is indicated as follows: Double-underline designates text to be inserted; ~~strikethrough~~ designates text to be deleted.

Addendum Number 1 consists of 11 pages (size 8 1/2" x 11") and 15 revised Drawings.

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**I. General Changes**

A. No changes.

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**II. Changes to Prior Addenda**

A. N/A.

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**III. Changes to Introductory Information and Bidding Requirements**

A. Document 00411 (Bond Accompanying Bid):

1. Modify second paragraph as follows:  
WHEREAS, the said Principal is submitting a Bid for Owner Contract Number 0-706-7 #01A, Service Center Relocation (2025 Aviation Boulevard).
2. Bidder shall use the revised Document 00411 (Bond Accompanying Bid) attached, marked "\*\*\* Addendum No. 1 - 12/1/11 \*\*\*" in its Bid.

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**IV. Changes to Contracting Requirements**

A. No changes.

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**V. Changes to Conditions of the Contract**

A. No changes.

## VI. Changes to Specifications

### A. Section 01200 (Price and Payment Procedures):

1. Modify Paragraph 1.7 E.5., as follows:
  5. As soon as practicable after approval of each Application for Payment for progress payments, Owner will pay to Contractor in manner provided by law, an amount equal to ~~90~~95 percent of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents, provided that payments may at any time be withheld if, in judgment of Owner, Work is not proceeding in accordance with Contract, or Contractor is not complying with requirements of Contract, or to comply with stop notices or to offset liquidated damages accruing or expected.

### B. Section 01320 (Progress Schedules and Reports):

1. Delete Paragraphs 1.1 A.1 and 1.1 A.2 in their entirety (renumber remaining paragraph accordingly):
  - ~~1. Development of schedule, cost, and resource loading of the Progress Schedule, monthly payment requests, and Project status reporting requirements of the Contract Documents shall employ scheduling as required in this Section 01320.~~
  - ~~2. The Schedule shall be cost loaded based on Schedule of Values as approved by Owner.~~
2. Modify Paragraph 1.5 D.1 as follows:
  1. ~~If accepted, percent complete shown in monthly update will be basis for Application for Payment by Contractor.~~ The schedule update shall be submitted as part of Contractor's Application for Payment.

### C. Section 02821 (Chain Link Fence and Gates):

1. Insert the following after Paragraph 2.2 C as Paragraph 2.2 D (renumber remaining paragraphs accordingly):
 

D. Gate Frame: Schedule 40, NPT, 1½" outside diameter

### D. Section 05500 (Metal Fabrication):

1. Insert the following after Paragraph 1.1 A.1 as Paragraph 1.1 A.2:
 

2. Wash pad drainage grate
2. Insert the following after Paragraph 2.1 A as Paragraph 2.1 B:
 

B. Wash pad drainage grate:

  1. Bearing bars: 1 ½" x 3/8" mild steel placed at 15/16" on center
  2. Cross bars: 4" on center
  3. Ends: banded with 1 ½" x 3/8" mild steel bars
  4. Finish: hot-dipped galvanized

### E. Section 06200 (Finish Carpentry and Millwork):

1. Modify Paragraph 1.1 A.2 as follows:
  2. New trim, casing, and base boards ~~to replace missing or damaged millwork.~~

### F. Section 06410 (Casework and Solid Surfacing Fabrications):

1. Modify Article 2.4 title as follows:
 

**2.4 SOLID SURFACE MATERIALS COUNTERTOPS**

## G. Section 09900 (Paints and Coatings):

1. Delete Paragraph 1.1 A.3 in its entirety:
  3. ~~Filter Building recycled water pipe banding paint~~

## H. Section 13120 (Pre-Engineered Metal Building):

1. Modify Article 1.7, Warranty, as follows:
  - A. Provide manufacturer's standard warranty for the following:
    1. ~~25~~20-year structural
    2. ~~25~~20-year weather tightness
    3. ~~25~~20-year exterior coating
    4. 3-year material and workmanship
2. Insert the following after Paragraph 2.1 A.6 (renumber remaining paragraph accordingly):
  7. Star Building Systems
  8. Metallic Building Company
  9. Frontier Steel Buildings Corp.
3. Insert the following after Paragraph 2.2 B.3.a as 2.2 B.4:
  4. Soffit panels: Solid, 24-gage minimum
4. Modify Paragraph 2.3 A.1.a as follows:
  - a. Roll-formed, ~~16~~24-gage galvanized steel sheets with fasteners and joint sealant
5. Insert the following after Paragraph 2.5 B.2 as 2.5 B.3:
  3. Metal Framing finish coat systems:
    - a. Exposed: 0.8-mil PVF<sub>2</sub> (polyvinylidene fluoride) finish coat, total of 1 mil dry film thickness
    - b. Non-exposed: 0.2 mil corrosion resistant primer baked on
6. Modify Paragraph 2.5 E as follows:
  - E. Color and Gloss:
    1. Exterior:
      - a. Roof: Terra Brown, low-gloss fluoropolymer coating, or similar as approved by Owner
      - b. Wall panels: Country Wheat, low-gloss fluoropolymer coating, or similar as approved by Owner
      - c. Gable trim, eave trim, gutter, downspouts: Country Wheat, low - gloss fluoropolymer coating, or similar as approved by Owner

## I. Section 15300 (Automatic Fire Sprinklers):

1. Modify Paragraph 1.3 B.1 as follows:
  1. ~~All pieces of e~~Equipment used in modifying and supplementing the existing for new fire sprinkler system.
2. Delete Paragraph 1.4 B.2 in its entirety (renumber remaining paragraphs accordingly):
  2. ~~Modify the existing fire sprinkler system to meet the needs of the tenant improvements as required for this project.~~
3. Modify Paragraph 2.1 B as follows:
  - B. Sprinklers
    1. ~~Match existing sprinkler heads~~Tyco Series TY-FRB.
    2. Or Approved Equal.

## J. Section 15400 (Plumbing):

## 1. Modify Paragraph 2.5 E as follows:

E. Accessible shower stalls, ~~including ADA accessible accessories~~ (accessories by others, such as shower curtains and rods):

1. Best Bath Systems Model LCS6333A75B
2. Or Approved Equal

## K. Section 15838 (Power Ventilators):

## 1. Delete Paragraph 1.1.A.3 in its entirety:

~~3. Fan coil units.~~

## 2. Delete Paragraph 2.3, Fan Coil Unit, in its entirety (renumber remaining paragraphs accordingly):

~~2.3 FAN COIL UNIT~~~~A. Manufacturers~~

- ~~1. Trane~~
- ~~2. Nailor~~
- ~~3. Or Approved Equal~~

~~B. Horizontal Cabinet Base Construction: The basic unit shall include a chassis, coil, fan wheel, fan casing, fan board and motors and a positively sloped (multi plane), non-corrosive main drain with closed cell insulation. Provide thermoplastic auxiliary drain pan. Fan board assembly and both drain pans are to be removable. The fan board assembly to include a quick disconnect motor plug. The chassis structural frame shall be constructed of 18ga. galvanized steel, acoustically and thermally insulated with closed cell insulation. The bottom panel shall be fabricated from 16 ga. galvanized steel. All other panels shall be fabricated from 18 ga. galvanized steel. Side panels shall be removable for piping access. The hinged access door shall be flush with the unit.~~

~~C. Unit Flush: All cabinets shall be cleaned, bonderized, phosphatized and painted with one of six decorator colors. Standard finish to meet ASTM B117 specifications (salt spray test).~~

~~D. Fan: The galvanized steel fan wheel shall be centrifugal forward curved and double width. Fan wheels and housings shall be corrosion resistant. Fan housings shall be constructed of formed sheet metal.~~

~~E. Coil: All water coils shall be burst tested at 450 PSIG (air) and leak tested at 100 PSIG (air under water). Maximum main coil working pressure shall be 300 PSIG. Maximum entering water temperature shall be 200 degrees F (93 degrees C). Tubes and U bends shall be 3/8" (10 mm) O.D. copper. Fins to be aluminum and shall be mechanically bonded to the copper tubes. Fan coil connections shall be 5/8" (16 mm) O.D. copper tubing.~~

~~1. Recycled water from the Waste Water Treatment Plant will be used instead of chilled water. The water will be used after the A-7 Post Microfiltration process at the Plant. Recycled water samples identify the following properties:~~

- ~~a. Calcium \_\_\_\_\_ 30 mg/l~~
- ~~b. Iron \_\_\_\_\_ ND (not detected)~~
- ~~c. Magnesium \_\_\_\_\_ 18 mg/l~~
- ~~d. Bicarbonate Alkalinity as CaCO<sub>3</sub> \_\_\_\_\_ 120 mg/l~~
- ~~e. Carbonate Alkalinity as CaCO<sub>3</sub> \_\_\_\_\_ ND~~
- ~~f. Hydroxide Alkalinity as CaCO<sub>3</sub> \_\_\_\_\_ ND~~

g.	<del>Residual Chlorine</del>	<del>2.1 mg/l</del>
h.	<del>Total Alkalinity as CaCO<sub>3</sub></del>	<del>120 mg/l</del>
i.	<del>Ammonia as NH<sub>3</sub></del>	<del>7.2 mg/l</del>
j.	<del>Carbon Dioxide, Free</del>	<del>20 mg/l</del>
k.	<del>Hardness, Total</del>	<del>148 mg/l</del>
l.	<del>Hydroxide</del>	<del>ND</del>
m.	<del>pH</del>	<del>7.09</del>
n.	<del>Total Dissolved Solids</del>	<del>230 mg/l</del>
o.	<del>Total Suspended Solids</del>	<del>ND</del>
p.	<del>Langelier Index</del>	<del>0.87</del>

~~F. Thermostat:~~

- ~~1. Fan speed control~~
- ~~2. Fan on auto switch.~~
- ~~3. Exposed temperature set point.~~
- ~~4. Exposed temperature indication.~~
- ~~5. Deg F indication.~~
- ~~6. Occupancy Sensor with "short vacancy" and "long vacancy" settings.~~

~~G. Accessories:~~

- ~~1. Front bar grille supply~~
- ~~2. Piping package with 2-way modulating main control valve~~
- ~~3. Manual air vent~~
- ~~4. 1" throw away filter~~

3. Delete Paragraph 3.4 B in its entirety:

~~B. Adjust flow rate at fan coil unit to match schedule.~~

L. Section 15940 (Mechanical Control Sequence):

1. Delete Paragraph 1.1 A.2 in its entirety (renumber remaining paragraphs accordingly):

~~2. Fan Coil Unit~~

2. Delete Paragraph 1.7 in its entirety (renumber remaining paragraph accordingly):

~~1.7 FAN COIL UNIT SEQUENCE~~

~~A. Fisheries 132 Daytime Operation~~

- ~~1. Normal condition: Fan Coil shall be disengaged, motorized water valves closed.~~
- ~~2. Unit shall cycle between cooling or fan only as required by occupants. Motorized water valve to be opened in cooling mode only.~~
- ~~3. Temperature sensor to come integral with occupancy sensor. Occupancy sensor to come with "short vacancy" setting and "long vacancy" setting.~~
- ~~4. Fan coil shall be off during off hour and weekends. Fan coils shall only come on if occupancy is sensed.~~

~~B. Fan coil shall be off during off hour and weekends. Fan coils shall only come on if occupancy is sensed.~~

M. Section 15950 (Testing, Adjusting, and Balancing of HVAC Systems):

1. Modify Paragraph 1.4 B.3.1 as follows:

~~1. Data for heat pumps, and fan coil unit, including manufacturer's name, type, size, and fittings.~~

2. Modify Paragraph 1.4 B.5 as follows:

~~5. Heat Pump and Fan Coil Unit Test Reports:~~

- 3. Modify Paragraph 1.4 B.6.a.1 as follows:
  - 1. System and heat pump, ~~fan coil unit~~ or exhaust fan number.
- N. Section 15990 (Commissioning of HVAC Systems):
  - 1. Modify Paragraph 3.2 A.2.a. as follows:
    - a. Once deficiencies have been corrected, operate HVAC systems for 5 days continuously to confirm no cumulative affects occur. Systems to be tested include, but are not limited to, heat pumps, ~~fan coils and accessories~~, duct work, dampers, existing recycled water pumps, control systems, make up water, and all ancillary systems.

**VII. Changes to Drawings**

- A. Drawing Number S4:
  - 1. Change Detail #9 to read Detail #1:
- B. Drawing Number A-2:
  - 1. Modify Door Schedule, Room # 128, as follows:

Room#	Door#	Width	Height	Type	Hardware Group
128	128-1	3'	7'	<del>M/PH/FL</del> <u>M/PH</u>	Group 7

- C. Drawing Number A-4:
  - 1. Insert the following as NOTE #3:  
3. Ventilate attic space per Building Code
- D. Drawing Number A-6:
  - 1. Delete and replace with attached Drawing number A-6 marked "12-01-11, ADDENDUM No. 1."
- E. Drawing Number A-7:
  - 1. Delete and replace with attached Drawing number A-7 marked "12-01-11, ADDENDUM No. 1."
- F. Drawing Number P-2:
  - 1. Delete and replace with attached Drawing number P-2 marked "12-01-11, ADDENDUM No. 1."
- G. Drawing Number E-211:
  - 1. Delete and replace with attached Drawing number E-211 marked "12/01/11, ADDENDUM NO. 1."
- H. Drawing Number E-212:
  - 1. Delete and replace with attached Drawing number E-212 marked "12/01/11, ADDENDUM NO. 1."
- I. Drawing Number E-213:
  - 1. Delete and replace with attached Drawing number E-213 marked "12/01/11, ADDENDUM NO. 1."
- J. Drawing Number E-221:
  - 1. Delete and replace with attached Drawing number E-221 marked "12/01/11, ADDENDUM NO. 1."

- K. Drawing Number E-222:
1. Delete and replace with attached Drawing number E-222 marked "12/01/11, ADDENDUM NO. 1."
- L. Drawing Number E-603:
1. Delete and replace with attached Drawing number E-603 marked "12/01/11, ADDENDUM NO. 1."
- M. Drawing Number E-604:
1. Delete and replace with attached Drawing number E-604 marked "12/01/11, ADDENDUM NO. 1."
- N. Drawing Number M0.00:
1. Delete and replace with attached Drawing number M0.00 marked "12/01/11, ADDENDUM NO. 1."
- O. Drawing Number M0.10:
1. Delete and replace with attached Drawing number M0.10 marked "12/01/11, ADDENDUM NO. 1."
- P. Drawing Number M2.10:
1. Delete and replace with attached Drawing number M2.10 marked "12/01/11, ADDENDUM NO. 1."
- Q. Drawing Number M2.20:
1. Delete and replace with attached Drawing number M2.20 marked "12/01/11, ADDENDUM NO. 1."
- R. Drawing Number M4.20:
1. Delete and replace with attached Drawing number M4.20 marked "12/01/11, ADDENDUM NO. 1."

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**VIII. Question(s)/Answer(s)**

- A. Owner's responses to Bidder questions shall be for the purposes of interpretation and clarification of the Contract Documents only, and shall not be construed as changing, superseding, or contradicting any express term in the Contract Documents. If any Bidder believes that a response to a question warrants a change in any term in the Contract Documents, the Bidder shall so request the change be made in writing addressed to Owner and received no later than the latest date for submitting Bidder questions. In the absence of a change in any term of the Contract Documents, the express terms of the Contract Documents shall have precedence. Bidder questions are listed below verbatim.
- B. C.L.Y. Inc.:
1. Section 13120, paragraph 2.1 - is Star Building Systems considered an approved manufacturer? Please visit [www.starbuildings.com](http://www.starbuildings.com) for information on the company. Star is one of the top three manufacturers in the US and is located in Oklahoma City, OK with a local plant in Atwater, CA.  
Owner's response: Answered in this Addendum above.
  2. Section 13120, paragraph 1.7 calls for a 25 year warranty. Most manufacturers offer 20 year warranties. Are 20 year warranties acceptable?  
Owner's response: Answered in this Addendum above.

3. Section 13120, paragraph 2.5.E.1 Finishes calls for specific panel colors. Are standard color offerings from a manufacturer's standard color selection deemed acceptable?

Owner's response: Answered in this Addendum above.

C. Helmer & Sons, Inc.:

1. I am not following the details on the electrical sheets. For example, sheet 32 (E213), there is a detail 1/E5.1, there is no E 5.1.

Owner's response: Answered in this Addendum above.

2. At the (E) building, room 107, sheet A-6 shows 7 lockers and one bench, is this new? What about the other lockers that are shown in this room (A-7), are these to be new lockers or are they (E) to remain?

Owner's response: Answered in this Addendum above.

3. Room 105 shows only three lockers and one bench (A-7), I am assuming these are new lockers and bench.

Owner's response: Answered in this Addendum above.

4. Does the (E) exterior portion of the building get painted?

Owner's response: Bid per Bid Documents.

[The exterior of the existing building does not get painted.]

5. Is there any fire extinguishers in the (E) building. Do not see any on the plans, plans only show FE in the new building.

Owner's response: Bid per Bid Documents.

[There are no fire extinguishers required in the existing building.]

6. Is there a signage schedule, spec do not have information if there are additional signage? Or is the signage only at the restrooms. Please advise.

Owner's response: Bid per Bid Documents.

[No signage schedule is provided. See Section 10440 (Interior Signage), details, and electrical Drawings for sign requirements.]

7. For the pre-engineered building are we to assume that the subcontractor (Manufacture) will include all interior metal framing and doors and hardware? And the GC will do the finish work inside of the building.

Owner's response: Bid per Bid Documents.

8. Sheet 4, under notes, #3, "provide 1 1/2" schedule...under driveways and sidewalks", can you provide locations at the sidewalks and driveways.

Owner's response: Bid per Bid Documents.

9. At the wash pad (detail AA/A12), provided a section cut of the trench drain, is the a spec for the grate?

Owner's response: Answered in this Addendum above.

D. Midstate Construction:

1. The metal grate shown in the Wash Pad Section A-A on sheet A-12 is not called out. Please provide specifications for this metal grate.

Owner's response: Answered in this Addendum above.

2. There are no specifications for the Toilet and Bath Accessories nor the shower curtains and rods. Please confirm that this work is to be by the owner.

Owner's response: Answered in this Addendum above.

3. It appears that the lockers in room 105 and the benches in 105 and 107 are new. However it looks like the lockers in room 107 are existing to remain. Please confirm this.

Owner's response: Answered in this Addendum above.

4. Specification section 06 410- Casework and Solid Surfacing Fabrication contains specs for both laminate countertops as well as solid surface countertops. As there are no details or callouts for the countertops in the plans, please confirm that solid surface countertops are desired.

Owner's response: Answered in this Addendum above.

5. The elevations of the upper cabinets on plan sheet A-6 appear to be showing the doors as glass. The specifications for the casework do not address any glass. Please clarify the door material for the upper cabinets.

Owner's response: Answered in this Addendum above.

6. The door schedule on sheet A-2 notes door 128-1 as full louvered. Please confirm that the women's restroom door is to be full louvered.

Owner's response: Answered in this Addendum above.

7. Specification section 06 200- Finish Carpentry and Millwork calls for new trim, casing, baseboards, and to replace missing or damaged millwork. The plans do not provide details or call outs for locations for any of this work. Please provide details and locations if this work is to apply to this job.

Owner's response: Answered in this Addendum above.

8. Sheet 52 references a cut detail of 1 S4. There is no detail 1 on sheet S4. Please provide this detail.

Owner's response: Answered in this Addendum above.

9. Please clarify the pipe size and weight for the gate frames on the double drive gates shown on sheet A-9.

Owner's response: Answered in this Addendum above.

E. Lunardi Electric, Inc.:

1. On sheet E-212, panel A1 has a sheet note 1 referring to changing this panel to a new one, but on sheet E-601 and E-602 this panel is shown as existing and not being replaced. Please let me know if it will be new or existing. Also, this panel is a 2 section panel A1 and A2.

Owner's response: Answered in this Addendum above.

F. Harold Metal Construction:

1. Section 13120 para 2.3.A.1 calls out for 16 ga gutter. However, the existing buildings have a std 26 or 24 ga gutter. Is 16 ga correct?

Owner's response: Answered in this Addendum above.

2. What type and gage of soffit panels are required?

Owner's response: Answered in this Addendum above.

3. Is finished painting required for the meal building framing?

Owner's response: Answered in this Addendum above.

G. Pacific Mountain Contractors of CA, Inc.:

1. Upon review of the project documents for the Service Center Relocation Project, it appears as though the intent of section 00700-9.1.B is to have the General Contractor act as a co-guarantor on warranties provided by material manufacturers if the warranties extend beyond one year. Can you please confirm that this is indeed the intent of this paragraph? Because elements of the job, particularly the metal building, will require up to 25-year standard warranties, we would like to request that the obligation to act as a co-guarantor on extended warranties be relieved if the intent section 00700-9.1.B is in fact to establish as much. Thank you for you time and consideration of this matter.

Owner's response: Bid per Bid Documents.

[Refer to Document 00700 (General Conditions), including, but not limited to, Paragraph 9.1.B.]

END OF DOCUMENT

\*\*\* Addendum No. 1 - 12/1/11 \*\*\*

DOCUMENT 00411

**BOND ACCOMPANYING BID**

KNOW ALL BY THESE PRESENTS:

That the undersigned \_\_\_\_\_ [Name of Contractor] as Principal and the undersigned as Surety are held and firmly bound unto the SONOMA COUNTY WATER AGENCY, a public agency of the State of California ("Owner"), as obligee, in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) lawful money of the United States of America being at least ten percent (10%) of the aggregate amount of said Principal's base Bid, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is submitting a Bid for Owner Contract Number 0-706-7 #01A, Service Center Relocation (2025 Aviation Boulevard).

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by the said Principal be accepted and the Contract be awarded to said Principal and said Principal shall within the required periods enter into the Contract so awarded and provide the required Construction Performance Bond, Construction Labor and Material Payment Bond, insurance certificates, and all other endorsements, forms, and documents required under Document 00200 (Instructions to Bidders), then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, in \_\_\_\_\_, California.

(Corporate Seal)

By

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

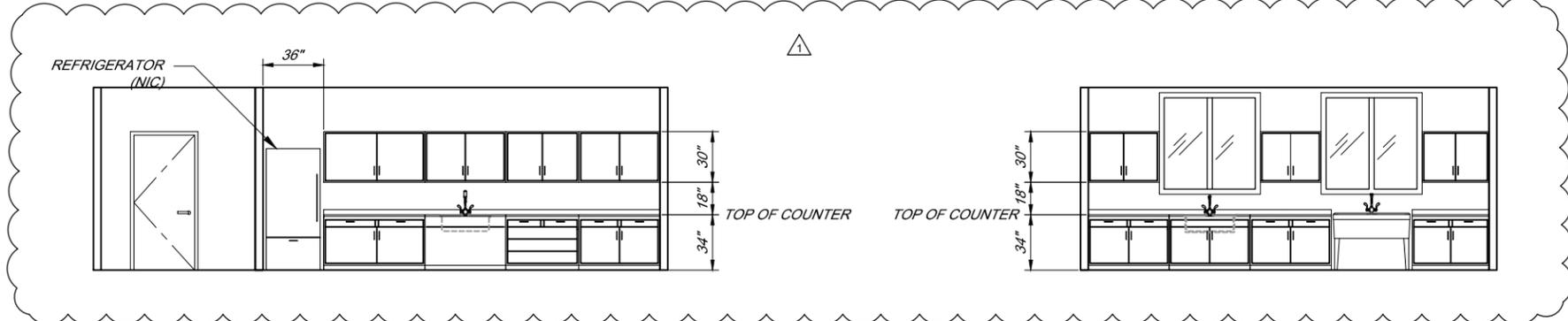
(Corporate Seal)

By

\_\_\_\_\_  
Attorney in Fact

(Evidence of execution shall be provided by Notarial Acknowledgement of the same, in accordance with California Civil Code section 1189, as amended January 1, 2008.)

END OF DOCUMENT

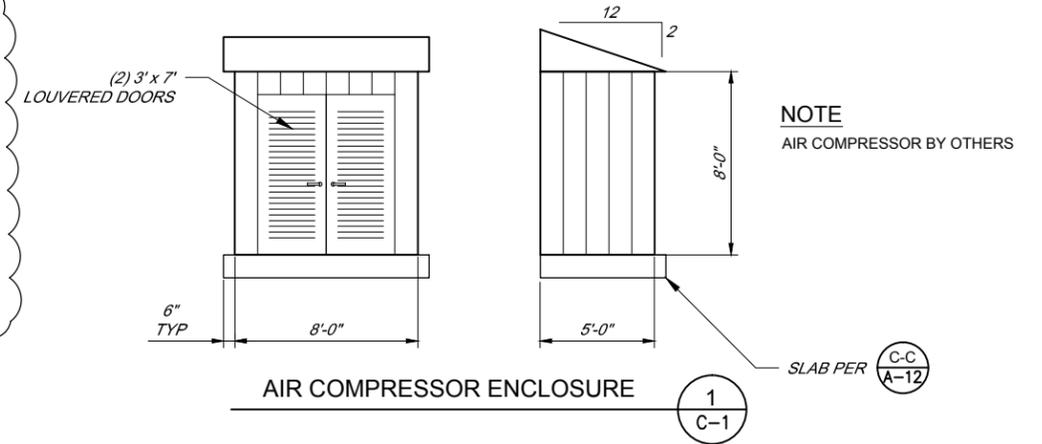


Room 125 - LUNCH ROOM - LOOKING NORTH

Room 132 - FISHERIES - LOOKING WEST

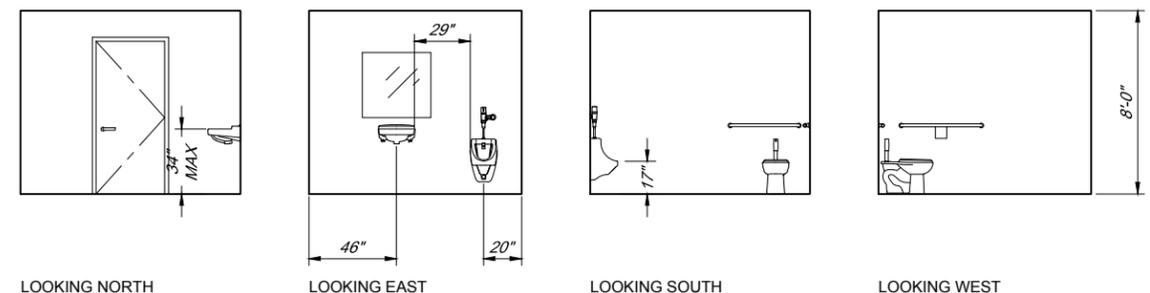
**NOTES**

1. PROVIDE ADA CLEAR SPACE UNDER SINKS.
2. ACTUAL CABINET DIMENSIONS PER APPROVED SHOP DRAWING SUBMITTED.

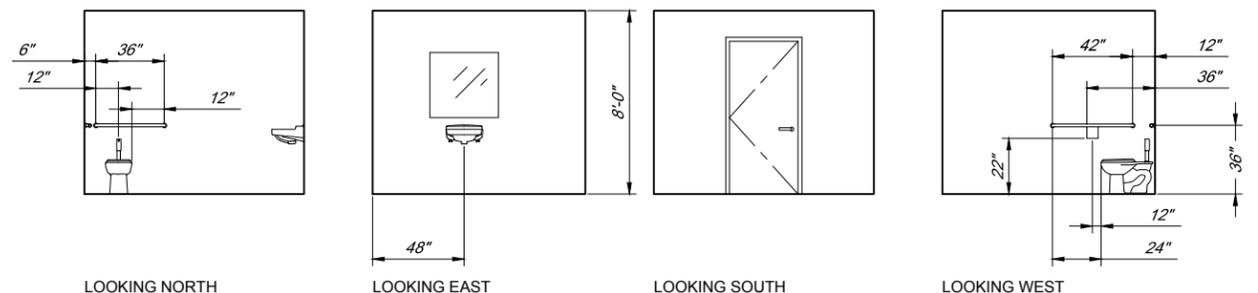


AIR COMPRESSOR ENCLOSURE

NOTE  
AIR COMPRESSOR BY OTHERS  
SLAB PER C-C A-12  
1  
C-1



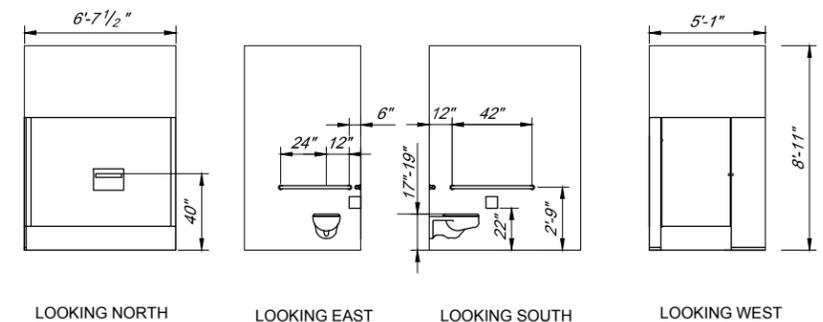
Room 127 - MEN'S RESTROOM



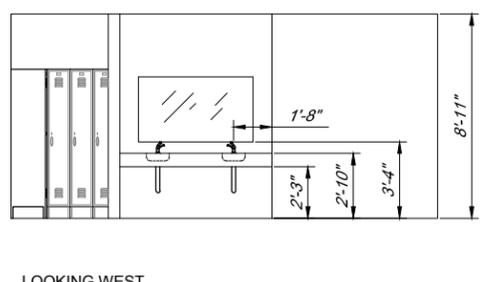
Room 128 - WOMEN'S RESTROOM

**NOTE**

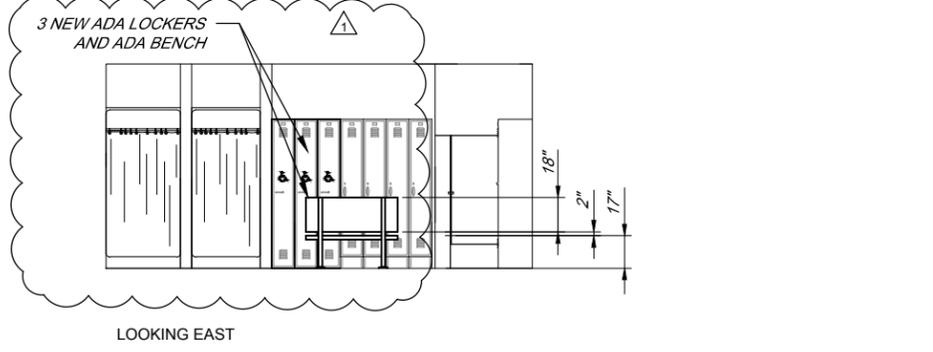
DIMENSIONS SHOWN FOR DETAILS IN ROOM 127 AND ROOM 128 ARE TYPICAL AND ONLY SHOWN IN ONE OF THE DETAILS FOR CLARITY.



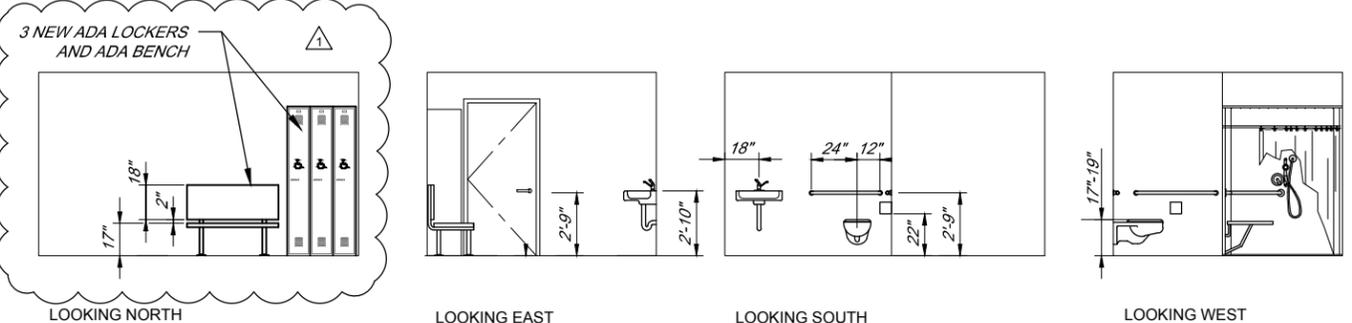
Room 106 - MEN'S BATHROOM REMODEL ADA Stall



Room 106 - MEN'S BATHROOM REMODEL ADA Counter and Sinks



Room 107 - MEN'S BATHROOM REMODEL ADA Bench and Lockers



Room 105 - WOMEN'S BATHROOM REMODEL ADA Shower and Toilet



\\sd-data\proj\general\all\_Facilities\office-sites\7449\_Fleet\_ALW-TPV7449\_Re-Bid\7449\_InterAndExterElevations\_Adden-1.dwg

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

NO.	DATE	REVISION	BY
1	12-01-11	ADDENDUM No.1	

SONOMA COUNTY WATER AGENCY

SCALE: NTS DATE: 09-21-11

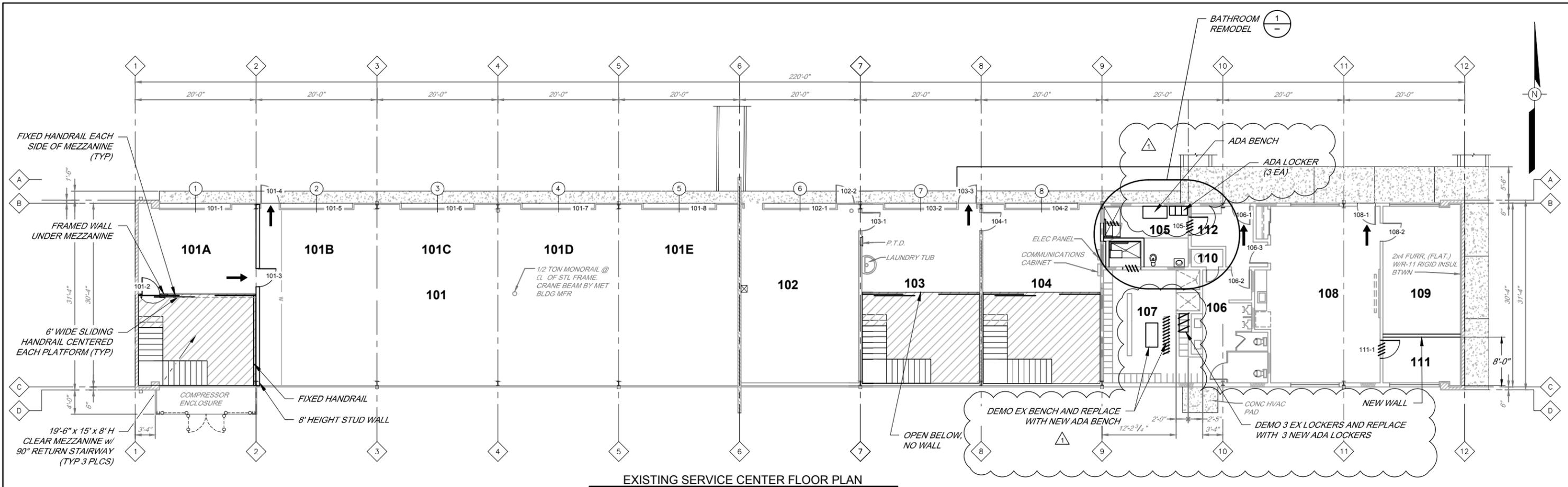
DRAWN: SMP & JLW

REVIEWED: *[Signature]*

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)  
INTERIOR AND EXTERIOR BUILDING ELEVATION  
DETAILS

FILE NAME: 7449\_InterAndExterElevations\_Adden-1.dwg  
CONTRACT NUMBER: 0-706-7 #01A

DRAWING NUMBER: A-6 SHEET 15 OF 56



EXISTING SERVICE CENTER FLOOR PLAN  
SCALE: 1/8" = 1'-0"

**DOOR SCHEDULE**

Room #	Door #	Width	Height	Type	Finish	Hardware Group
101	101-1	12'	14'	GD	Pre-Finish	Note 2
101	101-2	3'	7'	MPH	Pre-Finish	Group 3
101	101-3	3'	7'	M/PH	Pre-Finish	Group 3
101	101-4			Existing Door	Note 4	Group 3
101	101-5	12'	14'	GD	Pre-Finish	Note 2
101	101-6	12'	14'	GD	Pre-Finish	Note 2
101	101-7	12'	14'	GD	Pre-Finish	Note 2
101	101-8	12'	14'	GD	Pre-Finish	Note 2
102	102-1			Not in Contract		
102	102-2			Existing Door	Note 4	Group 3
103	103-1			Existing Door	Note 4	Group 3
103	103-2			Not in Contract		
103	103-3			Existing Door	Note 4	Group 3
104	104-1			Existing Door	Note 4	Group 1
104	104-2			Not in Contract		
105	105-1	3'	7'	MPH	Paint	Group 7
106	106-1			Existing Door	Note 4	Group 3
106	106-2			Existing Door	Note 4	Group 1
106	106-3			Existing Door	Note 4	Group 1
108	108-1			Existing Door	Note 4	Group 3
108	108-2			Existing Door	Note 4	Group 1
111	111-1	3'	7'	M/PH	Paint	Group 1

**DOOR LEGEND**

M	Metal
PH	Pre-hung door
W	Wood
GD	Commercial Garage Door (glass paneled similar to new building garage doors)
Paint	General paint color Benjamin Moore #2142-60 November Rain, Paint glossy sheen

**DOOR NOTES**

- All doors to be hung with swing as shown on drawing
- See specifications
- Field Verify overhead door sizing
- Existing door to remain. Change out Hardware

**FINISH SCHEDULE**

Room #	Floor	Ceiling	N-Wall	S-Wall	E-Wall	W-Wall	GA-214 ***	Ceiling
101	Existing	UNF	GYP/P1**	GYP/P1**	Existing Block	Existing Block	2	15
105	VCT	GYP/P2	GYP/P2/B1	GYP/P2/B1	GYP/P2/B1	GYP/P2/B1	5	8
106	Existing	Existing	Existing/P1	Existing/P1	Existing/P1	Existing/P1	3	8
107	Existing	Existing	Existing/P1	Existing/P1	Existing/P1	Existing/P1	3	8
108	Existing	Existing	Existing/P1	Existing/P1	Existing/P1	Existing/P1	3	8
109	Existing	Existing	Existing/P1	GYP/P 1/B1	Existing/P1	Existing/P1	3	8
110	Existing	Existing	Existing/P1	Existing/P1	Existing/P1	Existing/P1	3	8
111	Existing	Existing	GYP/P 1/B1	Existing/P1	Existing/P1	Existing/P1	3	8
112	Existing	Existing	Existing/P1	Existing/P1	Existing/P1	Existing/P1	3	8

- \* Reference fire wall detail 3 on sheet A13. Wall and gyp to extend full height to roof.
- \*\* Wall and gyp to extend full height to roof soffit.
- \*\*\* All walls with finish level of 3 to be textured.

**FINISH LEGEND**

P1	Paint 1: General Paint Color Benjamin Moore #2142-60 November Rain, Paint 2: Eggshell Sheen Typical Throughout
P2	Paint 2: Benjamin Moore #2129-50 Winter Lake, Paint Eggshell Sheen Typical Throughout
GYP	Gypsumboard
B1	Wallbase: Burke Burkebase Rubber Wall Base - Color 208, Light Grey 4" H Covered base @ hard floor surface
TS	Transition Strip, wherever necessary between two different types of flooring.
VCT	Vinyl Tile: Mannington commercial Essentials Vinyl Composition Tile, color 141 "cool white", size 12" x12", gauge 1/8"

**FINISH NOTES**

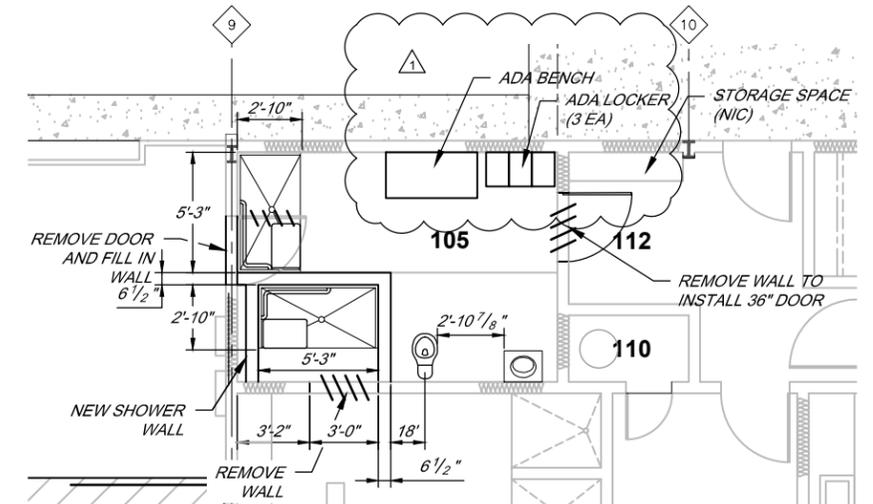
- FLOOR AND CEILING, PATCH TO MATCH EXISTING.
- CERAMIC TILE, PATCH TO MATCH EXISTING.
- EXISTING WALLS TO BE PATCHED AS REQUIRED AND PAINTED.
- ROOM 105 REMOVE EXISTING GYPSUM.

**ROOM KEY**

ROOM No	DESCRIPTION
101	FLEET
102	FISHERIES SUPPLY
103	SMP STORAGE
104	SMP STORAGE
105	WOMEN'S RESTROOM/LOCKER
106	MEN'S RESTROOM
107	MEN'S LOCKERS
108	SMP SUPPLY ROOM
109	SMP SUPPLY ROOM
110	UTILITY CLOSET
111	STORAGE
112	MUD ROOM

**HARDWARE SCHEDULE**

Group 1	Passage, Hinge, Closure
Group 2	N/A
Group 3	Lockset, Hinge, Closure, Seal
Group 4	Lockset, Hinge, Closure, Smoke Seal
Group 5	N/A
Group 6	N/A
Group 7	Pushbutton Latch Set, Hinge, Closure
Group 8	Inside Panic Hardware (Exit Door), Lockset, Hinge, Closure, Seal



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

**NOTES:**

- REPLACE ALL OVERHEAD DOORS IN ROOMS 101A THRU 101E PER SPECS
- INSULATE ROOM 101 WITH R-19 WALLS AND CEILING
- ALL WORK TO MEET CURRENT ADA STANDARDS
- FOR MEZZANINE DETAILS SEE SPECIFICATIONS.

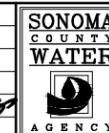
**LEGEND**

- DENOTES EXIT DIRECTION



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

NO.	DATE	REVISION
1	12-01-11	ADDENDUM No.1



SCALE:	AS SHOWN	DATE:	09-21-11
DRAWN:	SMP	REVIEWED:	[Signature]

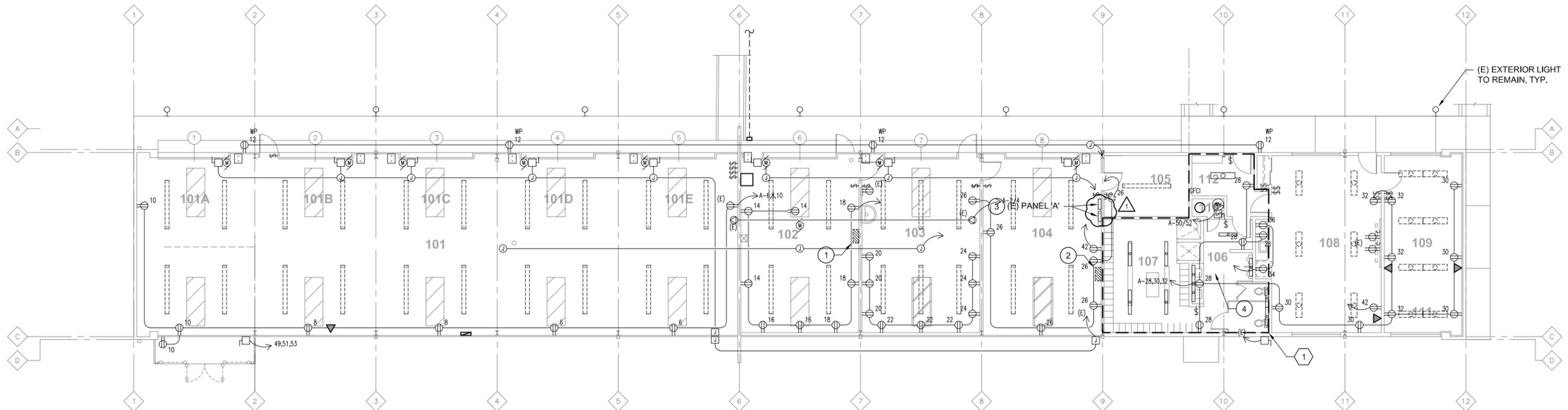
SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)  
**EXISTING SERVICE CENTER FLOOR PLAN AND FINISH SCHEDULE**



KEYNOTES	
1.	(E) LIGHT FIXTURES IN THIS AREA TO REMAIN.

DEMOLITION NOTES	
1.	DISCONNECT AND REMOVE (E) SUMP PUMP CONTROL PANEL AND APPURTENANCES.
2.	DISCONNECT AND REMOVE (E) LEAK DETECTION PANEL. REMOVE POWER CONDUIT & WIRING BACK TO RECEPTACLE BELOW.
3.	SEE SINGLE LINE DIAGRAM ON E-601 FOR MODIFICATIONS TO (E) PANEL.
4.	DISCONNECT AND REMOVE (E) HVAC UNIT POWER CIRCUIT. MARK (E) BREAKER "SPARE"

SHEET GENERAL NOTES	
1.	CONTRACTOR TO DETERMINE EXTENT OF (E) CONDUIT AND WIRING SUITABLE FOR REUSE. SEE LIGHTING PLAN AND POWER PLAN FOR ADDITIONAL INFORMATION.
2.	ALL FINISHES REMOVED FOR INSTALLATION OF ELECTRICAL WORK SHALL BE REPLACED TO MATCH EXISTING.
3.	DISCONNECT AND REMOVE ELECTRICAL ITEMS ON THIS PLAN DENOTED BY THE DEMOLITION LINETYPE (DASHED). IDENTIFY AND PRESERVE EXISTING CONDUIT, WIRING, JUNCTION BOXES, ETC. WHICH MAY BE REUSED TO FEED (N) LIGHTING FIXTURES AND DEVICES. REMOVE CONDUIT, WIRING, ETC. THAT SERVE THE DEMOLISHED ITEMS AND WILL NOT BE REUSED. ALSO REMOVE CONDUIT, WIRING, ETC. WHICH MAY NOT NECESSARILY BE INDICATED ON THE DRAWINGS THAT IS IN THE PATH OF DEMOLITION OR NEW CONSTRUCTION.

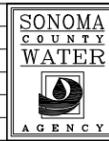


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**WINZLER & KELLY**

1	12/01/11	ADDENDUM NO. 1	CAR
NO.	DATE	REVISION	BY



SCALE:	1/8" = 1'-0"	DATE:	9/28/2011
DRAWN:	SMG		
REVIEWED:			

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)	
SERVICE CENTER DEMOLITION PLAN	
FILE NAME: 7449_E-211.dwg	DRAWING NUMBER: E-211
CONTRACT NUMBER: 0-706-7 #01A	SHEET 30 OF 56

**SHEET SPECIAL SYMBOLS**

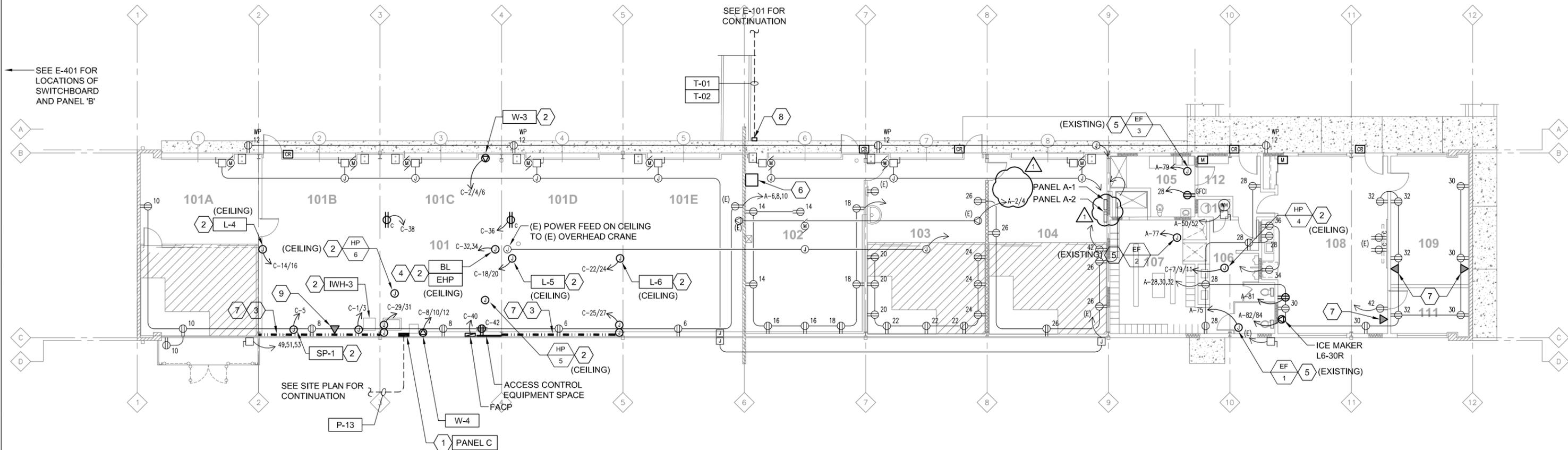
- CR** CARD READER LOCATION. PROVIDE 2-GANG J-BOX WITH WEATHER PROOF COVER IN EXTERIOR WALL. PROVIDE 3/4" CONDUIT FROM BOX TO SECURITY ACCESS EQUIPMENT LOCATION.
- MS** MOTION SENSOR LOCATION. PROVIDE 2-GANG J-BOX WITH COVER AT 6" BELOW ELEVATION OF FINISHED CEILING. PROVIDE 3/4" CONDUIT FROM BOX TO SECURITY ACCESS EQUIPMENT LOCATION.

**KEYNOTES**

1. PROVIDE (N) WALL MOUNT, NEMA 1 PANEL BOARD COMPLETE WITH RATINGS, CIRCUITS AND ACCESSORIES SHOWN IN THE PANEL SCHEDULE.
2. PROVIDE POWER CIRCUIT AND DISCONNECT FOR EQUIPMENT. SEE EQUIPMENT SCHEDULE FOR CIRCUIT MAKEUP AND CONDUIT SIZE. COORDINATE EXACT EQUIPMENT LOCATION IN FIELD WITH OWNER.
3. PROVIDE SURFACE RACEWAY WITH SEPARATE POWER AND DATA, WIREMOLD 5400 OR EQUAL, AT +6" ABOVE COUNTER. PROVIDE DUPLEX POWER AND DATA EVERY 36".
4. PROVIDE MINIMUM 6' OF FLEXIBLE CONDUIT FOR FINAL CONNECTION TO EQUIPMENT ON FLOOR. COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH OWNER IN FIELD.
5. INSPECT (E) BREAKER, CONDUIT, FEEDER AND CONTROLS TO (E) DEVICE. MAKE REPAIRS AS REQUIRED TO RESTORE OPERATION.
6. PROVIDE WALL MOUNT IDF CABINET 8" A.F.F. PROVIDE 24" x 24" x 1/2" PLYWOOD BACKBOARD ADJACENT TO CABINET. PROVIDE PATCH PANELS IN CABINET FOR TERMINATION OF BUILDING DATA CABLING.
7. PROVIDE 1"C BACK TO IDF CABINET FOR DATA.
8. TURN UP CONDUITS AT BUILDING AND RUN UP WALL. PROVIDE 10"x10"x8" NEMA 3R JUNCTION BOX AT +12' AFG. CORE DRILL BEHIND JUNCTION BOX AND CONTINUE CONDUITS TO IDF RACK.
9. PROVIDE DATA RECEPTACLE WITH (2) DEDICATED BLACK DATA JACKS FOR DESK RADIOS. PROVIDE (2) BLACK CAT6 CABLES IN 3/4" CONDUIT BACK TO IDF RACK. COORDINATE FINAL EQUIPMENT CONNECTION WITH OWNER IN FIELD.

**SHEET GENERAL NOTES**

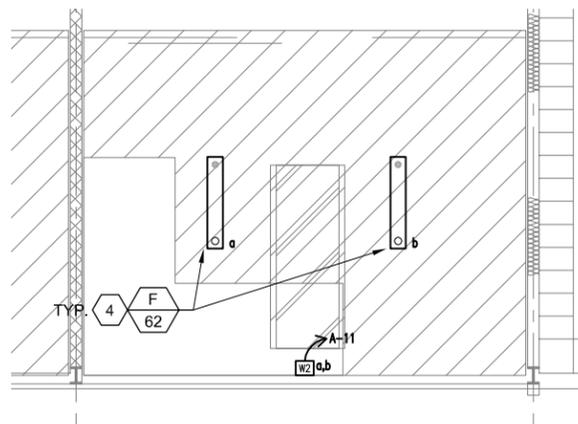
1. MAINTAIN POWER TO ALL (E) RECEPTACLES AND DEVICES THAT REMAIN.
2. CIRCUIT NUMBERS REFER TO PANEL 'A', U.O.N.
3. CIRCUIT NUMBERS SHOWN FOR (E) DEVICES ARE BASED ON AVAILABLE RECORD DRAWINGS. VERIFY ACTUAL CIRCUITS IN FIELD. UPDATE PANEL SCHEDULES AS NECESSARY AND PROVIDE NEW LABELS ON RECEPTACLE COVERS INDICATING CIRCUIT.
4. MOUNT ALL (N) ELECTRICAL EQUIPMENT AND DEVICES A MINIMUM OF +24" AFF.
5. FOR CEILING MOUNTED AND OVERHEAD FEED DEVICES, EXTEND POWER CIRCUIT DOWN TO DEVICE. PROVIDE RGS CONDUIT FOR VERTICAL SECTIONS AND SUPPORT PER NEC.



				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1</td> <td style="width: 15%;">12/01/11</td> <td style="width: 40%;">ADDENDUM NO. 1</td> <td style="width: 40%;">CAR</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	1	12/01/11	ADDENDUM NO. 1	CAR														<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">SCALE: 1/8" = 1'-0"</td> <td style="width: 50%;">DATE: 9/28/2011</td> </tr> <tr> <td colspan="2">DRAWN: SMG</td> </tr> <tr> <td colspan="2">REVIEWED: </td> </tr> </table>	SCALE: 1/8" = 1'-0"	DATE: 9/28/2011	DRAWN: SMG		REVIEWED:		<p><b>SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)</b>  <b>SERVICE CENTER POWER &amp; SIGNAL PLAN</b></p>
1	12/01/11	ADDENDUM NO. 1	CAR																										
SCALE: 1/8" = 1'-0"	DATE: 9/28/2011																												
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REVIEWED:																													
<p>FILE NAME: 7449_E-212.dwg      CONTRACT NUMBER: 0-706-7 #01A</p>																													
<p>DRAWING NUMBER: E-212      SHEET 31 OF 56</p>																													

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**A ABOVE MEZZANINE - TYPICAL LIGHTING PLAN**  
SCALE: 1/4" = 1'-0"

**SHEET SPECIAL SYMBOLS**

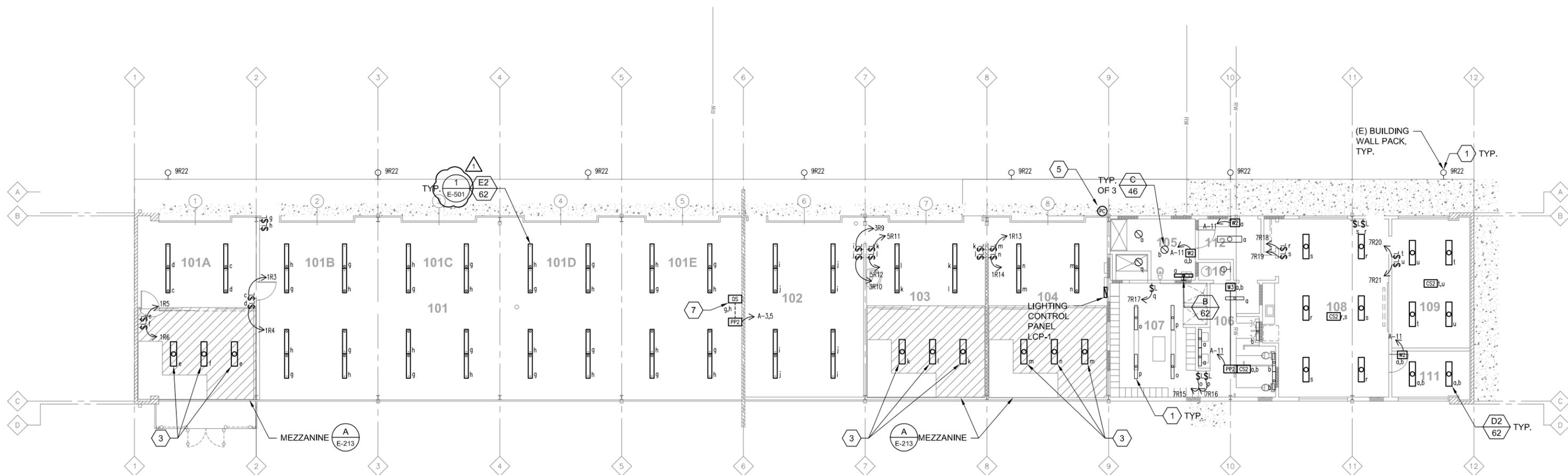
- SL** LOW VOLTAGE DATA LINE SWITCH
- W2** WALL OCCUPANCY SENSOR, LINE VOLTAGE, DUAL RELAY, DUAL TECHNOLOGY
- CS2** CEILING OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY, SINGLE RELAY
- PP2** INTELLIGENT POWER PACK, DUAL RELAY
- PC** EXTERIOR PHOTOCELL
- DS** DAYLIGHT SENSOR

**SHEET GENERAL NOTES**

1. COORDINATE FIXTURE MOUNTING IN SHOP BAYS WITH O/H CRANE AND VEHICLE LIFTS TO AVOID CONFLICT.
2. POWER CIRCUIT NUMBERS REFER TO PANEL A, U.O.N.
3. SEE SHEET E-222 FOR TYPICAL OCCUPANCY SENSOR AND POWER PACK WIRING DIAGRAM.

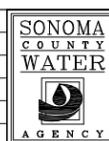
**KEYNOTES**

1. CLEAN (E) FIXTURE LENS, REPLACE BALLAST(S) AND RELAMP.
2. NOT USED
3. MOUNT FIXTURES BELOW MEZZANINE.
4. MOUNT FIXTURES ABOVE MEZZANINE. ADJUST MOUNTING HEIGHT TO MAXIMIZE CLEARANCE BELOW AND AVOID CONFLICT.
5. INSTALL PHOTOCELL PER MANUFACTURER'S INSTRUCTIONS.
6. PROVIDE TRIM SUITABLE FOR WET LOCATION.
7. CONFIGURE DAYLIGHT SENSOR TO AUTOMATICALLY TURN OFF 50% OF THE LIGHTING ('H' FIXTURES) WHEN AVERAGE LIGHT LEVEL EXCEEDS 40 FOOT CANDLES. CONNECT POWER PACK TO LCP-1 RELAY 8 (POWER CIRCUIT 5) AND CONFIGURE FOR TIMECLOCK SHUTOFF WITH LOCAL SWITCH OVERRIDE.



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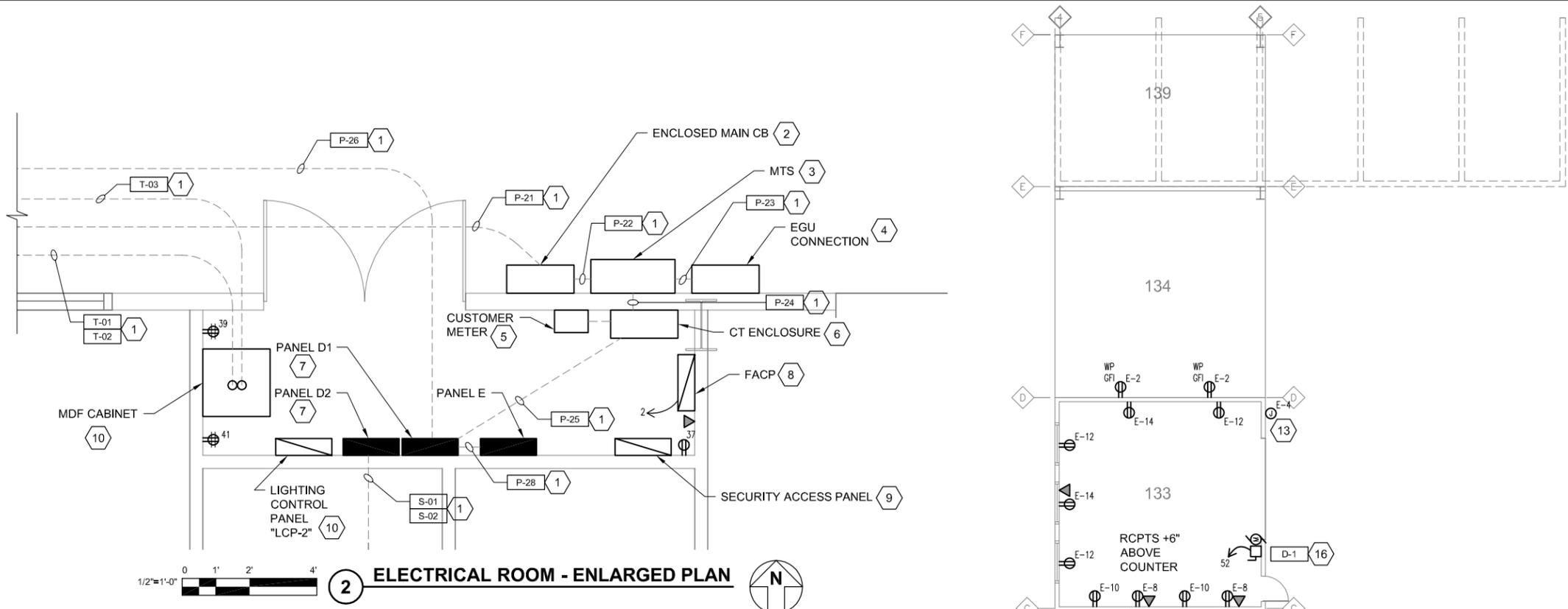
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NO.	DATE	REVISION	BY



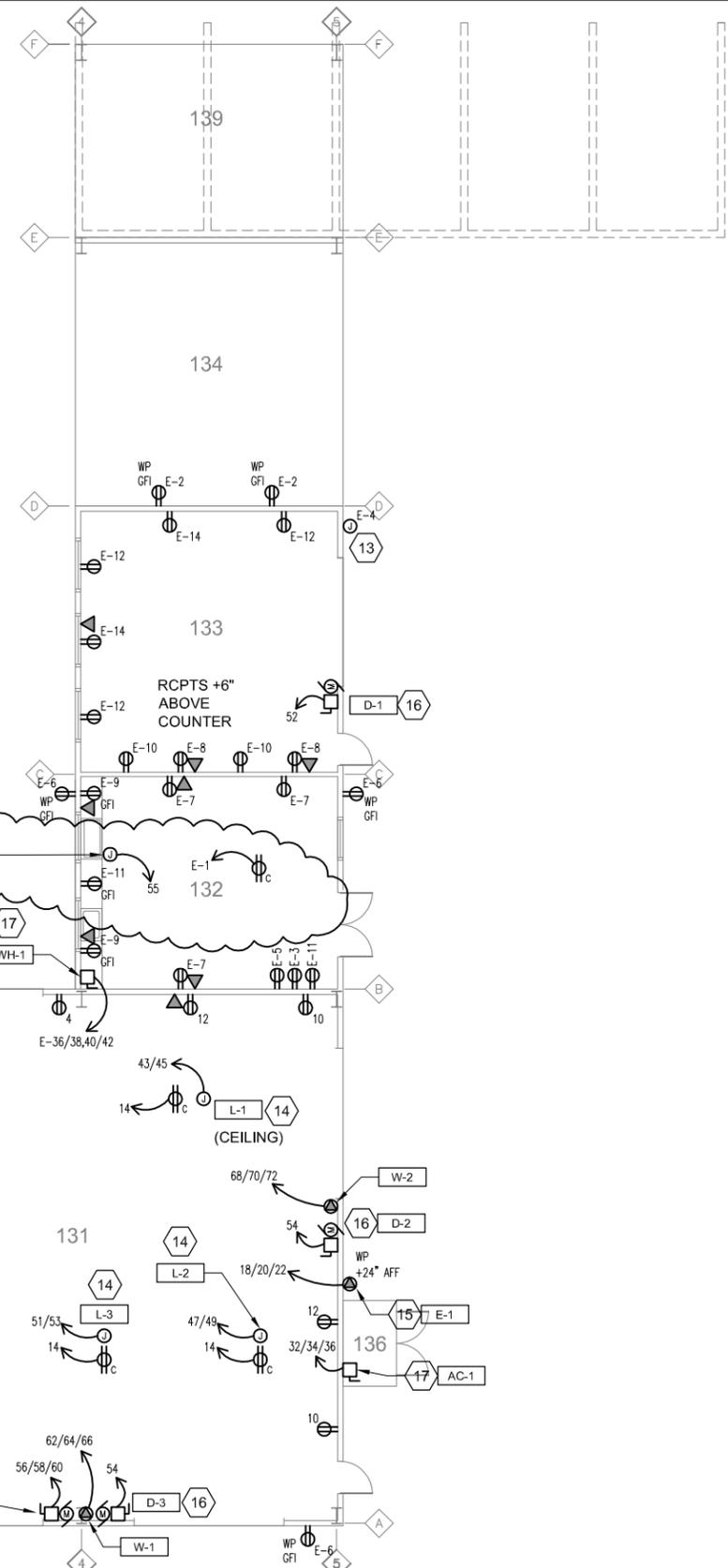
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DRAWN:	SMG		
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SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)	
EXISTING SERVICE CENTER	
LIGHTING PLAN	
FILE NAME:	7449_E-213.dwg
CONTRACT NUMBER:	0-706-7 #01A
DRAWING NUMBER:	E-213
SHEET	32 OF 56

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**2 ELECTRICAL ROOM - ENLARGED PLAN**



**1 NEW SERVICE CENTER - POWER PLAN**

**SHEET GENERAL NOTES**

1. MOUNT POWER AND DATA RECEPTACLES 24" AFF UON.
2. POWER RECEPTACLES CONSIST OF A 20 AMP COMMERCIAL GRADE DUPLEX RECEPTACLE, BACKBOX, AND NYLON COVER. PROVIDE (3) #12 IN 3/4" C. BETWEEN RECEPTACLE AND INDICATED CIRCUIT. COMBINE CIRCUITS IN CONDUIT WHERE PRACTICAL AND ACCORDING TO NEC FILL AND DERATING REQUIREMENTS.
3. DATA RECEPTACLES CONSIST OF A 4-JACK FACEPLATE, JACKS, BACKBOX AND COVER, 1/2" CONDUIT TO CEILING SPACE. PROVIDE (3) CAT 6 CABLES PER JACK IN CEILING SPACE BACK TO BUILDING IDF. BUNDLE AND SUPPORT CABLES WITH CABLE TRAY IN CEILING SPACE.
4. CIRCUIT NUMBERS REFER TO PANEL D, U.O.N.
5. PROVIDE DISCONNECTS FOR MECHANICAL SHOP EQUIPMENT AS SHOWN ON THE EQUIPMENT SCHEDULES.
6. PROVIDE (1) 3/4"C FROM EACH AIR HANDLING UNIT OVER 2,000CFM BACK TO FACP FOR DUCT SMOKE DETECTOR AND (1) 3/4"C BACK TO PANEL D, CIRCUIT #41 FOR FIRE SMOKE DAMPERS.
7. PROVIDE A DEDICATED 20A CIRCUIT WITH (3) #12 AWG CU BACK TO PANEL 'D2' CIRCUIT 79 FOR MECHANICAL CONTROL PANEL. COORDINATE LOCATION WITH MECHANICAL.

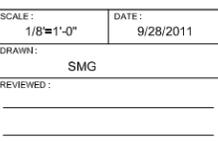
**KEYNOTES**

1. PROVIDE FEEDERS AS INDICATED. SEE SITE PLAN AND SCHEDULES.
2. PROVIDE WALL MOUNT MAIN CIRCUIT BREAKER DISCONNECT IN NEMA 3R ENCLOSURE. SEE SINGLE LINE FOR RATING AND GROUNDING PROVISIONS.
3. PROVIDE WALL MOUNT MTS IN NEMA 3R ENCLOSURE. SEE SINGLE LINE FOR CONNECTIONS AND RATINGS.
4. PROVIDE WALL MOUNT, NEMA 3R GENERATOR CAM-LOCK CONNECTION ENCLOSURE. SEE SINGLE LINE FOR RATINGS AND MODEL.
5. PROVIDE ENCLOSED CUSTOMER METER AS SHOWN ON THE SINGLE LINE DIAGRAM.
6. PROVIDE CT ENCLOSURE COMPLETE WITH CT MOUNTING ACCESSORIES, CT'S TO MATCH CUSTOMER METER, AND INTERCONNECTION WIRING.
7. PROVIDE PANELBOARD WITH BREAKERS, RATINGS AND ACCESSORIES AS INDICATED ON THE PANEL SCHEDULES AND SINGLE LINE DIAGRAM.
8. PROVIDE FACP, SEE SHEET E-223 FOR ADDITIONAL INFORMATION. PROVIDE INDICATED POWER CIRCUIT.
9. PROVIDE SECURITY ACCESS PANEL AND TIE TO ADJACENT POWER CIRCUIT. SEE SPECIFICATIONS FOR SECURITY PANEL DETAILS AND SECURITY DEVICES. SEE E-223 FOR DEVICE LOCATIONS.
10. PROVIDE LIGHTING CONTROL PANEL ADJACENT TO PANEL D2. PROVIDE CLOSE NIPPLES OR WIREWAY FOR CIRCUITS BETWEEN D2 AND LCP2.
11. PROVIDE POWER AND DATA J-BOXES IN WALL 24" AFF FOR FURNITURE WHIP CONNECTIONS. PROVIDE INDICATED POWER CIRCUITS IN 1 J-BOX AND PROVIDE (3) CAT-6 IN SECOND. EXTEND POWER AND DATA CIRCUITS TO THEIR DESTINATIONS IN THE SAME MANNER AS REGULAR RECEPTACLES.
12. SPECIAL DATA RECEPTACLE WITH NORMAL CONNECTIONS AND (1) ADDITIONAL BLACK JACK AND BLACK CAT-6 TO IDF FOR DESK RADIO.
13. IRRIGATION CONTROLLER CIRCUIT.
14. PROVIDE CEILING J-BOX FOR VEHICLE LIFT AT EACH BAY (TOTAL OF 3). SEE EQUIPMENT SCHEDULES FOR CIRCUIT AND DISCONNECT.
15. PROVIDE 40 AMP TWIST LOCK FOR VEHICLE EMISSIONS DEVICE. SEE EQUIPMENT SCHEDULE FOR CIRCUIT AND DISCONNECT.
16. PROVIDE POWER CIRCUIT AND DISCONNECT FOR ROLL UP DOOR MOTOR. SEE EQUIPMENT SCHEDULE.
17. PROVIDE POWER CIRCUIT AND DISCONNECT AS NOTED ON THE EQUIPMENT SCHEDULES.
18. PROVIDE SINGLE GANG BACKBOX WITH BLANK COVER AT 48" AFF. PROVIDE 1-1/4" CONDUIT FROM BOX TO CEILING SPACE.

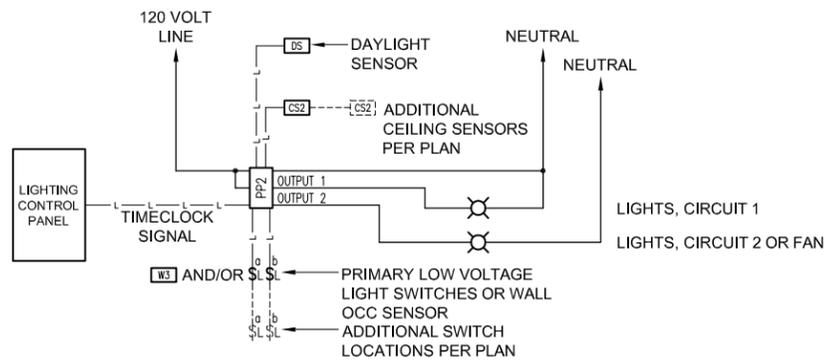
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SCALE: 1/8" = 1'-0"	DATE: 9/28/2011	SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)	
DRAWN: SMG	REVIEWED:	NEW SERVICE CENTER POWER PLAN	
FILE NAME: 7449_E-221.dwg	DRAWING NUMBER: E-221	SHEET 33 OF 56	
CONTRACT NUMBER: 0-706-7 #01A			



**NOTES:**

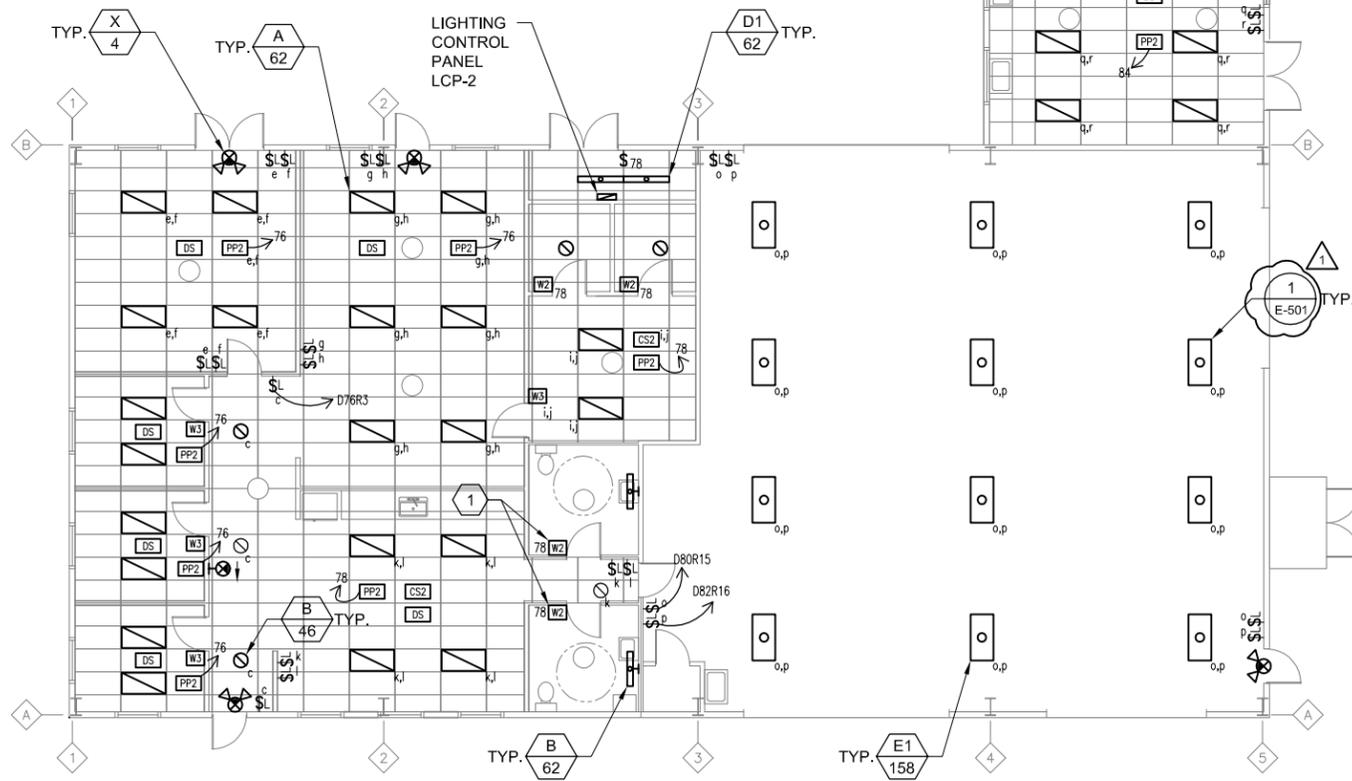
SET OCCUPANCY SENSOR TO STANDARD OCCUPANCY LOGIC, 10 MINUTE TIME DELAY, LED ENABLED, PIR SENSITIVITY MAX.

SET POWER PACK TO AUTO-ON MODE.

SET POWER PACK TO AUTOMATICALLY SHUT OFF 50% OF THE AREA LIGHTING WHEN THE DAYLIGHT SENSOR INDICATES A LIGHT LEVEL OVER 40FC AT THE WORK SURFACE.

**OCCUPANCY SENSOR WIRING, 2-CIRCUIT POWER PACK LIGHT AND FAN AT DIFFERENT VOLTAGES**

NOT TO SCALE



**SHEET SPECIAL SYMBOLS**

- SL** LOW VOLTAGE DATA LINE SWITCH
- W2** WALL OCCUPANCY SENSOR, LINE VOLTAGE, DUAL RELAY, DUAL TECHNOLOGY
- CS2** CEILING OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY, SINGLE RELAY
- PP2** INTELLIGENT POWER PACK, DUAL RELAY
- PC** EXTERIOR PHOTOCELL
- DS** DAYLIGHT SENSOR
- L — LOW VOLTAGE CONTROL CABLE PER MANUFACTURER'S RECOMMENDATIONS: 3 CONDUCTOR #20 AWG WEST PENN #232 OR EQUAL..

**SHEET GENERAL NOTES**

1. CIRCUIT NUMBERS REFER TO PANEL 'D', U.O.N.
2. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-604 FOR FIXTURE TYPE AND MOUNTING.
3. SEE SITE PLAN FOR FLEET CENTER EXTERIOR LIGHTING AND POLE-MOUNTED LIGHTING CONTROLLED BY LCP-2.
4. PROVIDE POWER CIRCUIT FROM PANEL 'D' TO EACH FIXTURE AS INDICATED BY CIRCUIT NUMBER.
5. MOUNT DAYLIGHT SENSOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

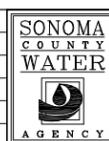
**KEYNOTES**

1. LIGHT SWITCH WIRED TO CONTROL BOTH LIGHTS AND FAN.
2. COORDINATE MOUNTING HEIGHT OF PENDANT FIXTURES TO AVOID CONFLICT. MAXIMIZE CLEARANCE ABOVE GROUND AND MAINTAIN UNIFORM MOUNTING HEIGHT WITHIN EACH ROOM OR BAY.



**WINZLER & KELLY**

1	12/01/11	ADDENDUM NO. 1	CAR
NO.	DATE	REVISION	BY



SCALE:	DATE:
1/8"=1'-0"	9/28/2011
DRAWN:	SMG
REVIEWED:	

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)	
NEW SERVICE CENTER	
LIGHTING PLAN	
FILE NAME: 7449_E-222.dwg	DRAWING NUMBER: E-222
CONTRACT NUMBER: 0-706-7 #01A	SHEET 34 OF 56

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PANEL SCHEDULE												
PANEL NAME: <b>D1</b>			VOLTAGE: 208		NEMA RATING: 1		NOTES: SUBFEED LUGS TO D2					
MAINS RATING: 400A MCB			PHASE: 3		AIC RATING: 35,000		MOUNTING: SURFACE					
BUS RATING: 400A			WIRE: 4		LOCATION: (N) SERVICE CENTER ELECTRICAL ROOM							
CKT NO.	USE	DESCRIPTION	BKR SIZE	BKR OPTS	BKR KVA	PHASE	BKR KVA	BKR OPTS	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	R	CUBICLE FURNITURE	20/1		1.00	A	1.00	LO	20/1	FACP	O	2
3	R	CUBICLE FURNITURE	20/1		1.00	B	0.36		20/1	SHOP RECEPTACLES	R	4
5	R	CUBICLE FURNITURE	20/1		1.00	C	0.36		20/1	SHOP RECEPTACLES	R	6
7	R	CUBICLE FURNITURE	20/1		1.00	A	0.18		20/1	SHOP RECEPTACLES	R	8
9	R	RECEPTACLES	20/1		0.54	B	0.36		20/1	SHOP RECEPTACLES	R	10
11	R	RECEPTACLES	20/1		0.54	C	0.36		20/1	SHOP RECEPTACLES	R	12
13	R	RECEPTACLES	20/1		0.54	A	0.54		20/1	SHOP CEILING RECEPTS	R	14
15	R	RECEPTACLES	20/1		0.36	B	0.12		20/1	LCP-2 CONTROL POWER	P	16
17	R	RECEPTACLES	20/1		0.18	C	3.00				O	18
19	R	RECEPTACLES	20/1		0.18	A	3.00		40/3	EMISSION DEVICE	O	20
21	R	RECEPTACLES	20/1		0.18	B	3.00				O	22
23	R	RECEPTACLES	20/1		0.18	C	3.25		40/2	IWH-2.1	O	24
25	R	RECEPTACLES	20/1		0.36	A	3.25				O	26
27	R	RECEPTACLES	20/1		0.36	B	3.25		40/2	IWH-2.2	O	28
29	R	RECEPTACLES	20/1		0.54	C	3.25				O	30
31	R	RECEPTACLES	20/1		0.36	A	5.50				O	32
33	R	RECEPTACLES	20/1		0.18	B	5.50		70/3	AIR COMPRESSOR	O	34
35	R	RECEPTACLES	20/1		0.18	C	5.50				O	36
37	R	RECEPTACLES	20/1		0.18	A	9.51				P	38
39	R	FIRE ALARM BELL	20/1		1.00	B	13.35		100/3	PANEL E FEEDER	P	40
41	R	FIRE SMOKE DAMPERS	20/1		1.00	C	13.08				P	42

**LOADS**

PHASE A: 53.3 (KVA)

PHASE B: 55.8 (KVA)

PHASE C: 58.0 (KVA)

TOTAL: 167.2 (CONNECTED KVA)

464.4 (CONNECTED AMPS)

**USE LEGEND**

H HVAC

L LIGHTING

M MOTOR

O OTHER

R RECEPTACLE

P PANEL

**LOAD TYPE**

HVAC

LIGHTING

MOTOR

OTHER

RECEPTACLE

PANEL

**BREAKER OPTIONS**

GFCI - GROUND FAULT CIRCUIT INTERRUPTER

LO - LOCK-ON DEVICE

PA - PADLOCK ATTACHMENT

ST - SHUNT TRIP

PANEL SCHEDULE												
PANEL NAME: <b>D2</b>			VOLTAGE: 208		NEMA RATING: 1		NOTES: SUBFEED FROM D1					
MAINS RATING: MLO			PHASE: 3		AIC RATING: 35,000		MOUNTING: SURFACE					
BUS RATING: 400A			WIRE: 4		LOCATION: (N) SERVICE CENTER ELECTRICAL ROOM							
CKT NO.	USE	DESCRIPTION	BKR SIZE	BKR OPTS	BKR KVA	PHASE	BKR KVA	BKR OPTS	BKR SIZE	DESCRIPTION	USE	CKT NO.
43	M	LIFT-1	50/2		1.90	A	0.48		20/1	EF-4	M	44
45	M				1.90	B	0.48		20/1	EF-5	M	46
47	M	LIFT-2	50/2		1.90	C	0.48		20/1	EF-6	M	48
49	M				1.90	A			20/1	SPARE	M	50
51	M	LIFT-3	50/2		1.90	B	0.86		20/1	ROLL-UP DOOR 1	M	52
53	M				1.90	C	1.66		30/1	ROLL-UP DOORS 2, 3	M	54
55	H	EF-7	20/1		0.48	A	1.10				M	56
57		SPACE				B	1.10		15/3	ROLL-UP DOORS 4, 5	M	58
59		SPACE				C	1.10				M	60
61	H				2.20	A	4.32				O	62
63	H	HP-1	30/3		2.20	B	4.32		50/3	WELDER RECEPT. 1	O	64
65	H				2.20	C	4.32				O	66
67	H				2.20	A	4.32				O	68
69	H	HP-2	30/3		2.20	B	4.32		50/3	WELDER RECEPT. 2	O	70
71	H				2.20	C	4.32				O	72
73	H				3.00	A	1.34		20/1	EXTERIOR LIGHTING	L	74
75	H	HP-3	45/3		3.00	B	1.18		20/1	INTERIOR LIGHTING	L	76
77	H				3.00	C	0.59		20/1	INTERIOR LIGHTING	L	78
79	P	HVAC CONTROL PANEL	20/1		0.25	A	0.95		20/1	INTERIOR LIGHTING	L	80
81	-	SPARE	20/1			B	0.95		20/1	INTERIOR LIGHTING	L	82
83	-	SPARE	20/1			C	0.87		20/1	INTERIOR LIGHTING	L	84

**LOADS**

PHASE A: 24.4 (KVA)

PHASE B: 24.4 (KVA)

PHASE C: 24.5 (KVA)

TOTAL: 73.4 (CONNECTED KVA)

203.9 (CONNECTED AMPS)

**USE LEGEND**

H HVAC

L LIGHTING

M MOTOR

O OTHER

R RECEPTACLE

P PANEL

**LOAD TYPE**

HVAC

LIGHTING

MOTOR

OTHER

RECEPTACLE

PANEL

**BREAKER OPTIONS**

GFCI - GROUND FAULT CIRCUIT INTERRUPTER

LO - LOCK-ON DEVICE

PA - PADLOCK ATTACHMENT

ST - SHUNT TRIP

PANEL SCHEDULE												
PANEL NAME: <b>E</b>			VOLTAGE: 208		NEMA RATING: 1		NOTES: FED FROM D1					
MAINS RATING: 100A MCB			PHASE: 3		AIC RATING: 35,000		MOUNTING: SURFACE					
BUS RATING: 100			WIRE: 4		LOCATION: (N) SERVICE CENTER ELECTRICAL ROOM							
CKT NO.	USE	DESCRIPTION	BKR SIZE	BKR OPTS	BKR KVA	PHASE	BKR KVA	BKR OPTS	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	R	FISH RECEPTACLES	20/1		0.18	A	0.36		20/1	EXTERIOR RECEPTACLES	R	2
3	R	FISH RECEPTACLES	20/1		0.18	B	1.00		20/1	IRRIGATION RECEPTACLES	R	4
5	R	FISH RECEPTACLES	20/1		0.18	C	1.08		20/1	EXTERIOR RECEPTACLES	R	6
7	R	FISH RECEPTACLES	20/1		0.54	A	0.36		20/1	FISH RECEPTACLES	R	8
9	R	FISH RECEPTACLES	20/1		0.36	B	0.36		20/1	FISH RECEPTACLES	R	10
11	R	FISH RECEPTACLES	20/1		0.18	C	0.54		20/1	FISH RECEPTACLES	R	12
13	-	SPARE	20/1			A	0.36		20/1	FISH RECEPTACLES	R	14
15	-	SPARE	20/1			B	3.60		40/2	ELECTRIC VEHICLE CHARGING STATION	O	16
17	-	SPARE	20/1			C	3.60				O	18
19	-	SPARE	20/1			A	3.60		40/2	ELECTRIC VEHICLE CHARGING STATION	O	20
21	-	SPARE	20/1			B	3.60				O	22
23	-	SPARE	20/1			C			20/1	SPARE	-	24
25	-	SPARE	20/1			A			20/1	SPARE	-	26
27	-	SPARE	20/1			B			20/1	SPARE	-	28
29	-	SPARE	20/1			C			20/1	SPARE	-	30
31	-	SPARE	20/1			A			20/1	SPARE	-	32
33	-	SPARE	20/1			B			20/1	SPARE	-	34
35	-	SPARE	20/1			C	3.25		20/2	IWH-1.1	O	36
37	R	BREAK ROOM PROJECTOR	20/1		0.86	A	3.25				O	38
39	O	MDF	20/1	LO	1.00	B	3.25		20/2	IWH-1.2	O	40
41	O	MDF	20/1	LO	1.00	C	3.25				O	42

**LOADS**

PHASE A: 9.5 (KVA)

PHASE B: 13.4 (KVA)

PHASE C: 13.1 (KVA)

TOTAL: 35.9 (CONNECTED KVA)

99.8 (CONNECTED AMPS)

**USE LEGEND**

H HVAC

L LIGHTING

M MOTOR

O OTHER

R RECEPTACLE

P PANEL

**LOAD TYPE**

HVAC

LIGHTING

MOTOR

OTHER

RECEPTACLE

PANEL

**BREAKER OPTIONS**

GFCI - GROUND FAULT CIRCUIT INTERRUPTER

LO - LOCK-ON DEVICE

PA - PADLOCK ATTACHMENT

ST - SHUNT TRIP

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**WINZLER & KELLY**

12/01/11    ADDENDUM NO. 1



SCALE: NONE    DATE: 9/28/2011

DRAWN: SMG

REVIEWED:

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)

**ELECTRICAL SCHEDULES-2**

02243-10-002

FILE NAME: 7449\_E-603.dwg

CONTRACT NUMBER: 0-706-7 #01A

DRAWING NUMBER: E-603

SHEET 41 OF 56

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**CONDUIT AND CABLE SCHEDULE**

FEEDER NO.	DESCRIPTION	FROM	TO	AMPS	CONDUIT	WIRE SIZE	GROUND	NOTES
P-01	12KV FEEDER	(E) 12KV SWITCHGEAR	XFMR TX3A	20	(E) 4"	(3) #2 AWG 15KV EPR	#4 AWG BARE CU EQPT GND	EXTEND AND REUSE (E) CONDUIT FOR (N) FEEDER
P-02	12KV FEEDER	XFMR TX3A	XFMR TX3B	20	4"	(3) #2 AWG 15KV EPR	#4 AWG BARE CU EQPT GND	
P-03	SPARE	XFMR TX3B	CAP	NA	4"	PULL ROPE	N/A	EXTEND 4' BEYOND TRANSFORMER PAD AND CAP. BURY 3' BELOW GRADE.
P-04	SPARE	SEE SITE PLAN	SEE SITE PLAN	NA	4"	PULL ROPE	N/A	SPARE 12kv FEEDER CONDUIT
P-11	SERVICE CENTER ("SC") FEEDER	XFMR TX3A	SWITCHBOARD SC	600	(2) 4"	(2) SETS OF (4) 350KCMIL	N/A	SEE SINGLE LINE FOR SWITCHBOARD GROUNDING
P-12	PANEL A1 FEEDER	SWITCHBOARD SC	(E) PANEL A1	400	(E) 4"	(4) 500KCMIL	#3 AWG BARE CU	EXTEND AND REUSE (E) CONDUIT FOR (N) FEEDER
P-13	PANEL C FEEDER	SWITCHBOARD SC	PANEL C	225	2-1/2"	(4) #4/0 AWG	#4 AWG BARE CU	
P-14	PANEL B FEEDER	SWITCHBOARD SC	(E) PANEL B	100	1-1/4"	(4) #2 AWG	#8 AWG BARE CU	PROVIDE (N) CONDUIT TO (E) PANEL
P-15	EXISTING LOAD FEEDER	SWITCHBOARD SC	(E) LOAD	100	(E)	(4) #2 AWG	#8 AWG BARE CU	EXTEND AND REUSE (E) CONDUIT FOR (N) FEEDER
P-21	FLEET CENTER FEEDER	XFMR TX3B	FLEET CENTER MAIN CIRCUIT BREAKER	400	4"	(4) 500KCMIL	N/A	SEE SINGLE LINE FOR ENCLOSED CB GROUNDING
P-22	MTS NORMAL FEEDER	FLEET CENTER MAIN CIRCUIT BREAKER	MTS	400	4"	(4) 500KCMIL	#3 AWG BARE CU	
P-23	MTS EM FEEDER	EGU CONNECTION BOX	MTS	400	4"	(4) 500KCMIL	#3 AWG BARE CU	
P-24	FLEET CENTER FEEDER	MTS	CT ENCLOSURE	400	4"	(4) 500KCMIL	#3 AWG BARE CU	
P-25	FLEET CENTER FEEDER	CT ENCLOSURE	PANEL D1	400	4"	(4) 500KCMIL	#3 AWG BARE CU	
P-26	SITE LIGHTING FEEDER	LIGHTING CONTROL PANEL	SITE LIGHTING	20	1"	(2) #10 AWG	#10 AWG BARE CU	
P-27	PANEL D2 FEEDER	PANEL D1	PANEL D2	400	N/A	(4) 500KCMIL	#3 AWG BARE CU	PROVIDE SUBFEED LUGS IN EACH PANEL
P-28	PANEL E FEEDER	PANEL D1	PANEL E	100	1-1/4"	(4) #2 AWG	#8 AWG BARE CU	
S-01	208V SPARE CONDUIT	PANEL D1	PULL BOX BY GATE	N/A	2"	PULL ROPE	N/A	SEE SITE PLAN FOR ADDITIONAL INFO
S-02	208V SPARE CONDUIT	PANEL D1	PULL BOX BY GATE	N/A	2"	PULL ROPE	N/A	SEE SITE PLAN FOR ADDITIONAL INFO
T-01	COMM. LINE	SEE SITE PLAN		N/A	2"	FIBER BACKBONE CABLE & (1) 25-PAIR COPPER	N/A	PROVIDE INNERDUCT. SEE SPECIFICATIONS FOR REQUIREMENTS FOR FIBER. COPPER CABLE SHALL BE BELDEN ANBW OR EQUAL.
T-02	COMM. LINE	SEE SITE PLAN		N/A	4"	PULL ROPE	N/A	CONDUIT FOR AT&T.
T-03	SECURITY CAMERA	FLEET CENTER ELEC. ROOM	LIGHTING POLE	N/A	1"	PULL ROPE	N/A	STUB UP INSIDE POLE BASE.
T-04	COMM. LINE	SEE SITE PLAN	SEE SITE PLAN	N/A	2"	PULL ROPE	N/A	SPARE FOR FUTURE USE.

**LIGHTING FIXTURE SCHEDULE**

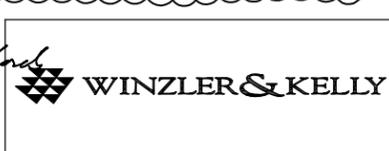
TAG	DESCRIPTION	MANUFACTURER	LAMP	FIXTURE INPUT WATTS	MOUNTING	NOTES
A	2x4 INDIRECT TROFFER	DAYBRITE: 2-ST-G-2-32-PMW-120-1/2-EBHE	(2) F32T8	62	RECESSED	PROVIDE (2) 2-LAMP RAPID START ELECTRONIC BALLASTS IN EVERY OTHER FIXTURE AND WIRE FIXTURES IN TANDEM
B	RESTROOM FIXTURE	DAYBRITE: AVW-2-32-PMW-120-DEK	(2) F32T8	62	WALL	PROVIDE ELECTRONIC RAPID START BALLAST
C	8" CFL DOWNLIGHT	CAPRI: CM8-FV42-U	(1) CFTR42WGx2	46	RECESSED	PROVIDE ELECTRONIC RAPID START BALLAST. PROVIDE WET TRIM WHERE INDICATED ON DRAWINGS.
D1	INDUSTRIAL STRIP	HOLOPHANE: HSM-S-04-D-NHH-S-042-EP-2-U	(2) F32T8	62	SURFACE	PROVIDE ELECTRONIC RAPID START BALLAST
D2	SURFACE MOUNT FLUORESCENT	HOLOPHANE: LS-T-24-X-S-POL-O42-EP-2-1	(2) F32T8	62	SURFACE	PROVIDE ELECTRONIC RAPID START BALLAST
E1	HIGH BAY SHOP FLUORESCENT	HOLOPHANE: HB24-6-32-N1D20-PCL125WG-MVOLT-2/3	(6) F32T8	158	PENDANT, 15' AFF	PROVIDE (2) 3-LAMP RAPID START ELECTRONIC BALLASTS PER FIXTURE
E2	LOW BAY SHOP FLUORESCENT	HOLOPHANE: HB14-2-32-N1D20-PCL125WG-MVOLT	(2) F32T8	62	PENDANT, MOUNT TO MATCH (E) HEIGHT	PROVIDE ELECTRONIC RAPID START BALLAST
F	STORAGE PENDANT	HOLOPHANE: HSM-S-04-D-NHH-S-042-EP-2-U	(2) F32T8	62	AS INDICATED ON DRAWINGS	PROVIDE ELECTRONIC RAPID START BALLAST. FIXTURE SHALL BE SUITABLE FOR USE IN DAMP LOCATION.
G	EXTERIOR WALL PACK	LSI: SIFCM-WB-70-MH-F-MT-BLK	M70	86	WALL	PROVIDE ELECTRONIC BALLAST
H	POLE FIXTURE	LSI: CT2H-FT-250-PSMH-F-MT-BLM-PCR	M250	295	POLE, 25' AFG	PROVIDE 25' TALL 4" SQUARE STRAIGHT STEEL POLE WITH CONCRETE POLE BASE. PROVIDE 208V PHOTOCELL AND CONNECT IN FIELD
X	EXIT SIGN	TELESIS: TLXCOM-RU-W	LED	4	SURFACE	LED EXIT WITH DUAL MR16 EGRESS HEADS AND 90-MINUTE EMERGENCY BATTERY BACKUP

**ELECTRICAL SCHEDULE - SHOP EQUIPMENT**

EQUIP NO.	EQUIPMENT NAME	VOLTAGE	PHASE	HP	FLA	CB	CONDUIT	WIRE	DISCONNECT	NOTES
L-1	LIFT-1	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
L-2	LIFT-2	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
L-3	LIFT-3	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
L-4	LIFT-4	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
L-5	LIFT-5	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
L-6	LIFT-6	208	1		18	50/2	3/4"	(3) #6, #10 GND	60/3 NON-FUSED	MOUNT DISCONNECT ON EQUIPMENT
W-1	WELDER RECEPT.	208	3			50/3	1-1/4"	(4) #6, #10 GND	RECEPT. ONLY	NEMA RECEPTACLE TO MATCH DEVICE
W-2	WELDER RECEPT.	208	3			50/3	1-1/4"	(4) #6, #10 GND	RECEPT. ONLY	NEMA RECEPTACLE TO MATCH DEVICE
W-3	WELDER RECEPT.	208	3			50/3	1-1/4"	(4) #6, #10 GND	RECEPT. ONLY	NEMA RECEPTACLE TO MATCH DEVICE
W-4	WELDER RECEPT.	208	3			50/3	1-1/4"	(4) #6, #10 GND	RECEPT. ONLY	NEMA RECEPTACLE TO MATCH DEVICE
E-1	EMISSION RECEPT.	208	3			40/3	1"	(4) #8, #10 GND	RECEPT. ONLY	COORDINATE EXACT RECEPT. CONFIGURATION WITH OWNER
D-1	ROLL-UP DOOR	120	1	1/2		20/1	3/4"	(2) #12, #12 GND	30/3 NON-FUSED	
D-2	ROLL-UP DOOR	120	1	3/4		30/1	3/4"	(2) #12, #12 GND	30/3 NON-FUSED	
D-3	ROLL-UP DOOR	120	1	3/4		30/1	3/4"	(3) #12, #12 GND	30/3 NON-FUSED	
D-4	ROLL-UP DOOR	208	3	1		15/3	3/4"	(3) #12, #12 GND	30/3 NON-FUSED	
D-5	ROLL-UP DOOR	208	3	1		15/3	3/4"	(3) #12, #12 GND	30/3 NON-FUSED	
AC-1	COMPRESSOR	208	3	15	46.2	70/3	1-1/4"	(3) #4, #8 GND	100/3 NON-FUSED	
H-1	HOIST 1	208	3	5	16.7	30/3	1"	(4) #10, #8 GND	30/3 NON-FUSED	
EHP	EHP SYSTEM	120	1			20/1			O/H DROP TO RECEPT	
BL	BRAKE LATHE	120	1			20/1			RECEPT. ONLY	

**ELECTRICAL SCHEDULE - MECHANICAL EQUIPMENT**

EQUIP NO.	EQUIPMENT NAME	VOLTAGE	PHASE	HP	FLA	CB	CONDUIT	WIRE	DISCONNECT	NOTES
HP-1	HEAT PUMP 1	208	3		18.4	30/3	3/4"	(3) #10, #12 GND	30/3 NON-FUSED	
HP-2	HEAT PUMP 2	208	3		18.4	30/3	3/4"	(3) #10, #12 GND	30/3 NON-FUSED	
HP-3	HEAT PUMP 3	208	3		25.4	45/3	1"	(3) #8, #10 GND	60/3 NON-FUSED	
HP-4	HEAT PUMP 4	208	3	⚠	27.5	50/3	1"	(3) #8, #10 GND	60/3 NON-FUSED	
HP-5	HEAT PUMP 5	208	3		25.4	45/3	1"	(3) #8, #10 GND	60/3 NON-FUSED	
HP-6	HEAT PUMP 6	208	3		25.4	45/3	1"	(3) #8, #10 GND	60/3 NON-FUSED	
EF-4	EXHAUST FAN 4	120	1	FRAC		20/1	3/4"	(2) #12, #12 GND	20A SNAP SW	
EF-5	EXHAUST FAN 5	120	1	FRAC		20/1	3/4"	(2) #12, #12 GND	20A SNAP SW	
EF-6	EXHAUST FAN 6	120	1	FRAC		20/1	3/4"	(2) #12, #12 GND	20A SNAP SW	
IWH-1	INSTANT HOT WATER HEATER 1	208	1		15	(2) 40/2	1"	(4) #8, #10 GND	DISCONNECT IN DEVICE	
IWH-2	INSTANT HOT WATER HEATER 2	208	1		15	(2) 40/2	1"	(4) #8, #10 GND	DISCONNECT IN DEVICE	
IWH-3	INSTANT HOT WATER HEATER 3	120	1		28.3	40/1	3/4"	(2) #8, #10 GND	60/3 NON-FUSED	
SR-1	SUMP PUMP 1	120	1	FRAC		20/1	3/4"	(2) #12, #12 GND	20A SNAP SW	
EF-7	EXHAUST FAN 7	120	1	FRAC		20/1	3/4"	(2) #12, #12 GND	20A SNAP SW	



12/01/11	ADDENDUM NO. 1
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SCALE: NONE	DATE: 9/28/2011
DRAWN: SMG	
REVIEWED:	

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)	
ELECTRICAL SCHEDULES-3	
FILE NAME: 7449_E-604.dwg	DRAWING NUMBER: E-604
CONTRACT NUMBER: 0-706-7 #01A	SHEET 42 OF 56

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**MECHANICAL LEGEND**

- AFF ABOVE FINISHED FLOOR
- COP COEFFICIENT OF PERFORMANCE
- CD CONDENSATE DRAIN
- CFM CUBIC FEET PER MINUTE
- DIA DIAMETER
- EER ENERGY EFFICIENCY RATIO
- EF EXHAUST FAN
- ESP EXTERNAL STATIC PRESSURE
- F FILTER
- FSD FIRE SMOKE DAMPER
- GA GAUGE
- GA GALVANIZED
- HP HORSEPOWER
- HP HEAT PUMP
- HP HORSEPOWER
- LBS POUNDS
- LRA LOCKED ROTOR AMPS
- LDS LOW DYNAMIC STIFFNESS
- MBH THOUSAND BTU'S PER HOUR
- MCA MINIMUM CIRCUIT AMPS
- MOCOP MAXIMUM OVERCURRENT PROTECTION
- NC NOISE CRITERIA
- OSA OUTSIDE AIR
- P PUMP
- PD PRESSURE DROP (FEET OF WATER)
- RLA RATED LOAD AMPS
- REQD REQUIRED
- RW RECYCLED WATER (SUPPLY)
- RWR RECYCLED WATER RETURN
- TDH TOTAL DYNAMIC HEAD
- TYP TYPICAL
- UCD UNDERCUT DOOR
- 20X20 RECTANGULAR DUCT DESIGN
- 12" ROUND DUCT DESIGNATION
- (E) EXISTING
- (N) NEW
- (SM) DUCT SMOKE DETECTOR LOCATION
- (TS) THERMOSTAT/SENSOR (UNIT NOTED)
- SD SUPPLY DIFFUSER
- RD RETURN DIFFUSER
- VD VOLUME DAMPER
- BD BACKDRAFT DAMPER
- BALANCING VALVE, CALIBRATED
- BALL VALVE
- CHECK, SWING GATE
- FLEXIBLE PIPE CONNECTION
- GATE OR GLOBE VALVE
- AUTOMATIC AIR VENT
- P/T PORT
- STRAINER
- TWO WAY VALVE

**WATER TO AIR HEAT PUMP SCHEDULE**

TAG	NOMINAL TONS	CFM	OSA	MAX ESP	ELECTRICAL				COMPRESSOR		WATER FLOW		COOLING LOAD (MBH)		HEATING LOAD (MBH)	EER	COP	WEIGHT	LOCATION	NOTES	
					VOLTAGE	TOTAL FLA	MCA	MOCOP	RLA	LRA	GPM	WATER CONN.	PD (FT.)	SENSIBLE							TOTAL
HP 1	4	1500	209	0.75	208-230/60/3	18.4	21.0	30	13.6	83.1	9	1"	5.1	38.2	41.1	29.5	20.6	4.49	438	(N) FLEET CTR NORTH	2345
HP 2	4	1500	174	0.75	208-230/60/3	18.4	21.0	30	13.6	83.1	9	1"	5.1	39.8	41.3	27.4	20.6	4.49	438	(N) FLEET CTR SOUTH	2345
HP 3	5	2000	393	0.75	208-230/60/3	25.4	29.0	45	17.6	123	12	1"	8.3	62.6	67.0	15.3	18.5	4.35	483	(N) FLEET CTR SHOP	12345
HP 4	6	2200	275	0.75	208-230/60/3	27.5	32.6	50	20.5	155	15	1"	8.5	59.9	64.4	65.1	13.9	4.00	500	(E) SERVICE CTR RMS 105-107	2345
HP 5	5	2000	235	0.75	208-230/60/3	25.4	29.0	45	17.6	123	12	1"	8.3	62.6	67.7	41.1	18.5	4.35	483	(E) SERVICE CTR RMS 101A-101E	1345
HP 6	5	2000	235	0.75	208-230/60/3	25.4	29.0	45	17.6	123	12	1"	8.3	62.6	67.7	41.1	18.5	4.35	483	(E) SERVICE CTR RMS 101A-101E	1345

- NOTES:  
 ① DUAL CAPACITY UNIT  
 ② PROVIDE DRAIN PAN UNDER UNIT. PROVIDE CONDENSATE DRAIN AND SECONDARY OVER FLOW DRAIN AS REQUIRED.  
 ③ RATED IN ACCORDANCE WITH ARI/ISO STANDARD 13256-1.  
 ④ COP BASED ON 50° EWT; EER BASED ON 70° EWT.  
 ⑤ PROVIDE LOW-VOLTAGE THERMOSTAT & WIRING TO UNIT, FILTER RACK AND FILTERS, MERV 11 MINIMUM PER CALGREEN (A5.504.5.3.1).

~~FAN COIL SCHEDULE (DELETED)~~

TAG	NOMINAL TONS	CFM	OSA	MAX ESP	VOLTAGE	MOTOR WATTS	ELECTRICAL		COMPRESSOR		WATER FLOW		COOLING LOAD (MBH)		WEIGHT	LOCATION	NOTES	
							MCA	MOCOP	RLA	LRA	GPM	WATER CONN.	PD (FT.)	SENSIBLE				TOTAL
FC 1	2.5	921	0	0.0	208-230/60/3	159	4.05	15	13.6	83.1	6	1"	5.1	21.6	25	210	ROOM 132	1234

- NOTES:  
 ① DUAL SPEED UNIT  
 ② PROVIDE DRAIN PAN UNDER UNIT. PROVIDE CONDENSATE DRAIN AND SECONDARY OVER FLOW DRAIN AS REQUIRED.  
 ③ CAPACITY BASED ON 50° EWT. (8.5 ΔT)  
 ④ PROVIDE LOW-VOLTAGE THERMOSTAT & WIRING TO UNIT, FILTER RACK AND FILTERS, MERV 11 MINIMUM PER CALGREEN (A5.504.5.3.1).

**FIRE/SMOKE DAMPER SCHEDULE**

QTY	TAG	SLEEVE	UL RATING	DESCRIPTION
1	FSD-1	18"x18" 16" LONG 20 GAUGE	1.5 HR UL 555, UL555, CSFM 3225-0368 AND 3230-0368; 111	PROVIDE WITH 165°F FUSIBLE LINK AND ELECTRONIC ACTUATOR. INSTALL IN DUCTWORK AS SHOWN. ELECTRONIC ACTUATOR DAMPER MOTOR, 120V/1 PH. SET AT N.O. POSITION. WIRE TO CORRIDOR SMOKE DETECTOR FOR OPERATION.
1	FSD-2	36"x18" 16" LONG 20 GAUGE	1.5 HR UL 555, UL555, CSFM 3225-0368 AND 3230-0368; 111	PROVIDE WITH 165°F FUSIBLE LINK AND ELECTRONIC ACTUATOR. INSTALL IN DUCTWORK AS SHOWN. ELECTRONIC ACTUATOR DAMPER MOTOR, 120V/1 PH. SET AT N.O. POSITION. WIRE TO CORRIDOR SMOKE DETECTOR FOR OPERATION.

**EXHAUST FAN SCHEDULE**

TAG	QTY.	CFM	ESP	SONES	RPM	ELECTRICAL		WEIGHT (LBS.)	SERVING	LOCATION
						VOLTAGE	HP			
EF 1	1	-	-	-	-	-	-	-	SERVICE CENTER 106	EXISTING
EF 2	1	-	-	-	-	-	-	-	SERVICE CENTER 107	EXISTING
EF 3	1	-	-	-	-	-	-	-	SERVICE CENTER 105	EXISTING
EF 4	1	200	0.4	1.4	1260	120/60/1	-	17	FLEET CENTER 127 & 128	ABOVE CEILING
EF 5	1	290	0.25	2.0	990	120/60/1	-	18.3	FLEET CENTER ELECTRICAL ROOM	CEILING
EF 6	1	150	0.25	3.5	1023	120/60/1	-	10.0	FLEET CENTER BREAK ROOM	CEILING
EF 7	1	600	0.4	4.5	1089	120/60/1	1/6	49	ROOM 132	ROOF

**LOUVER SCHEDULE**

QTY	TAG	SIZE	DESCRIPTION
2	L-1	18"x18"	EXTRUDED ALUMINUM WALL LOUVER, DRAINABLE BLADES, 4"x0.081" THICK FRAME, 4"x0.081" THICK BLADES, 35° SETTING, 1/2" WIRE MESH SCREEN.

**DIFFUSER SCHEDULE**

QTY	TAG	MAX CFM	NECK SIZE	MODULE SIZE	NC	PD	FLOW	LOCATION
1	SD-1	250	10#	10X10	-	-	SUPPLY	ACOUSTICAL CEILING
12	SD-2	500	20X10	18X10	-	-	SUPPLY	SIDEWALL DUCT
7	SD-3	200	8#	24X24	-	-	SUPPLY	T-BAR CEILING
4	SD-4	250	8#	24X24	-	-	SUPPLY	T-BAR CEILING
3	SD-5	300	10#	24X24	-	-	SUPPLY	T-BAR CEILING
1	SD-6	100	8#	24X24	-	-	SUPPLY	T-BAR CEILING
2	SD-7	75	6#	24X24	-	-	SUPPLY	T-BAR CEILING
2	RD-1	2000	36X18	-	-	-	RETURN	SIDEWALL
1	RD-2	2000	36X18	-	-	-	RETURN	SIDEWALL
2	RD-3	600-650	12#	24X24	-	-	RETURN	T-BAR CEILING
2	RD-4	200	8#	24X24	-	-	RETURN	T-BAR CEILING
2	RD-5	250-300	10#	24X24	-	-	RETURN	T-BAR CEILING
2	RD-6	700-800	14#	24X24	-	-	RETURN	T-BAR CEILING
2	EG-1	100	8#	8X8	-	-	EXHAUST	GYP. BD. CLNG.
2	TG-1	100	8X8	-	-	-	TRANSFER	SIDEWALL

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

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12/01/10	ADDENDUM NO. 1	RN
NO.	DATE	REVISION

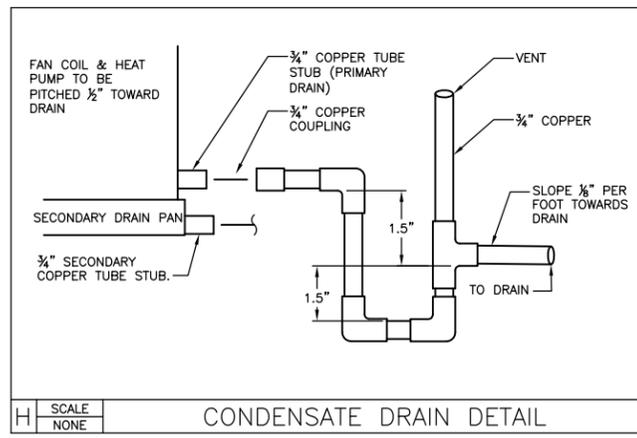
**SONOMA COUNTY WATER AGENCY**

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 DRAWN: HB  
 REVIEWED: R. Simonsen

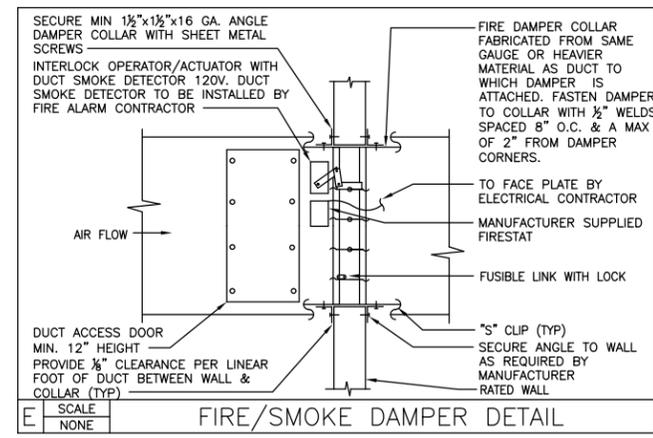
SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)

**MECHANICAL SCHEDULES**

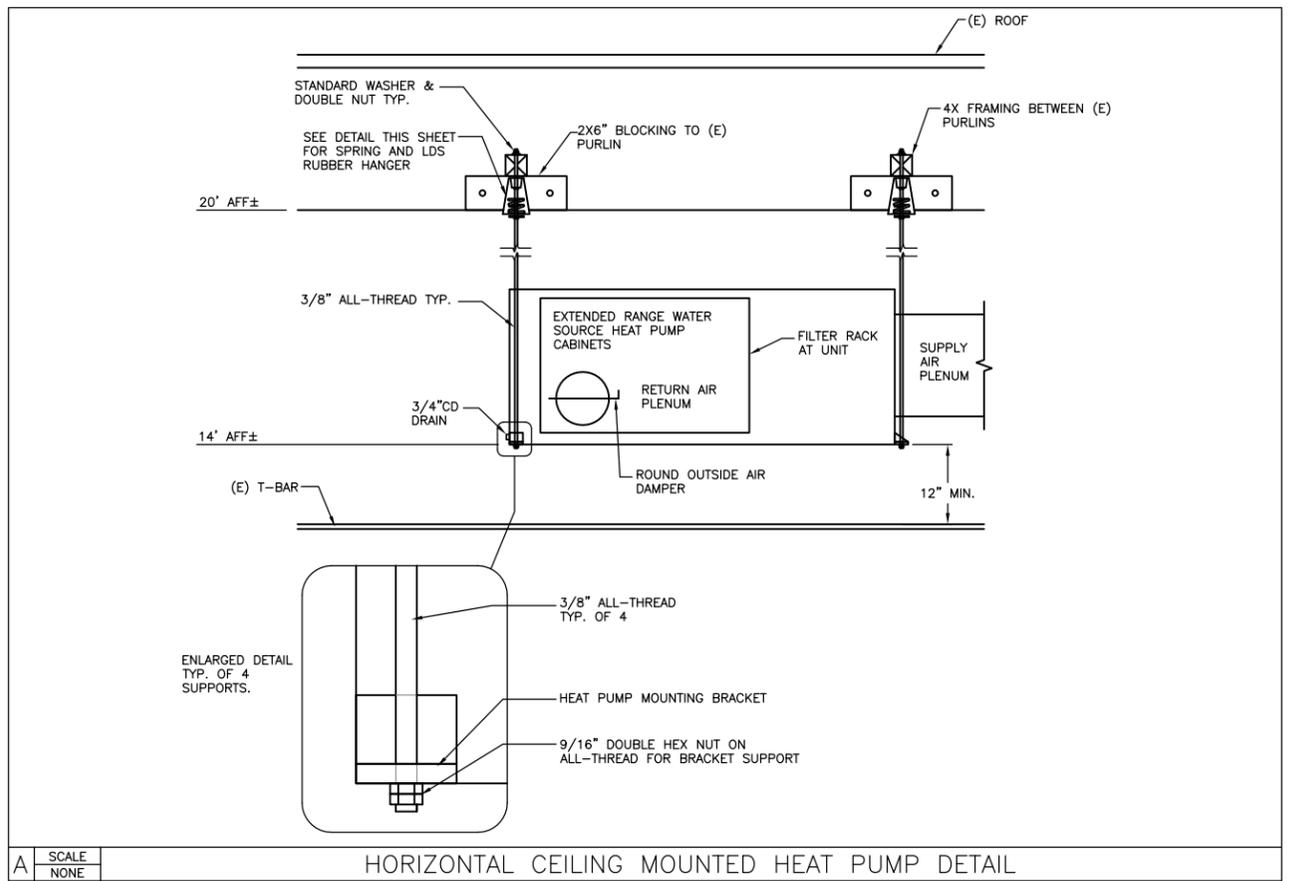
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 DRAWING NUMBER: M0.00 SHEET 47 OF 56



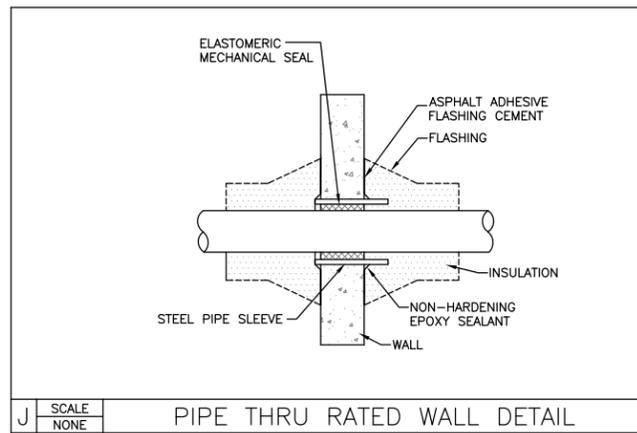
H SCALE NONE CONDENSATE DRAIN DETAIL



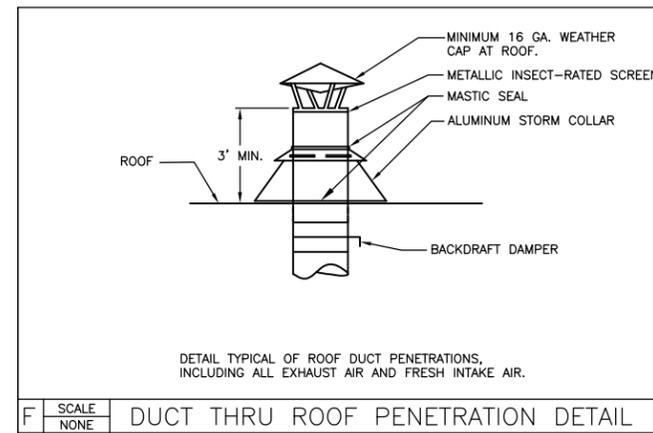
E SCALE NONE FIRE/SMOKE DAMPER DETAIL



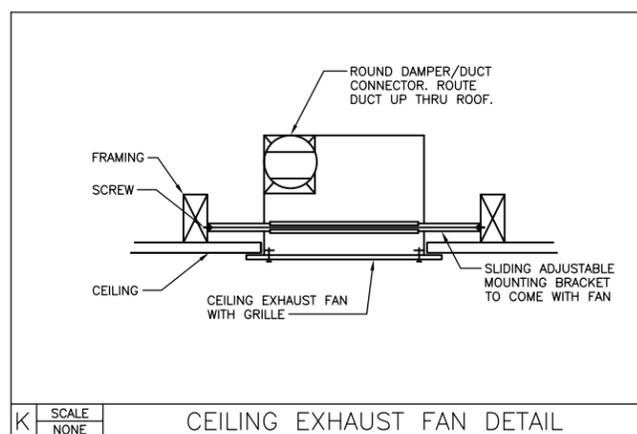
A SCALE NONE HORIZONTAL CEILING MOUNTED HEAT PUMP DETAIL



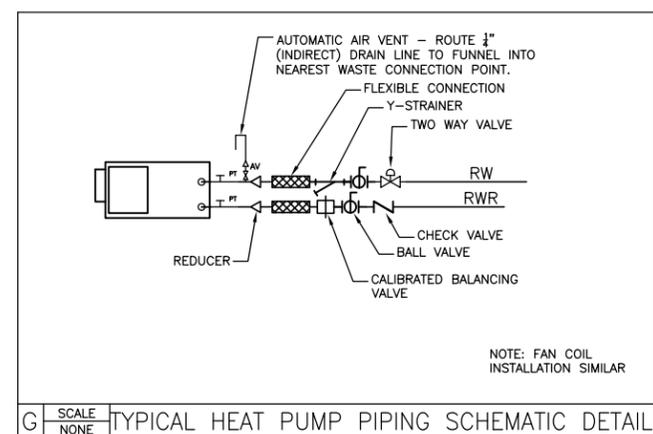
J SCALE NONE PIPE THRU RATED WALL DETAIL



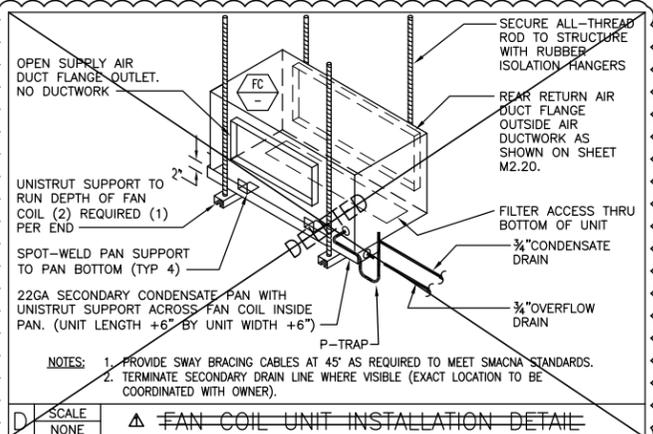
F SCALE NONE DUCT THRU ROOF PENETRATION DETAIL



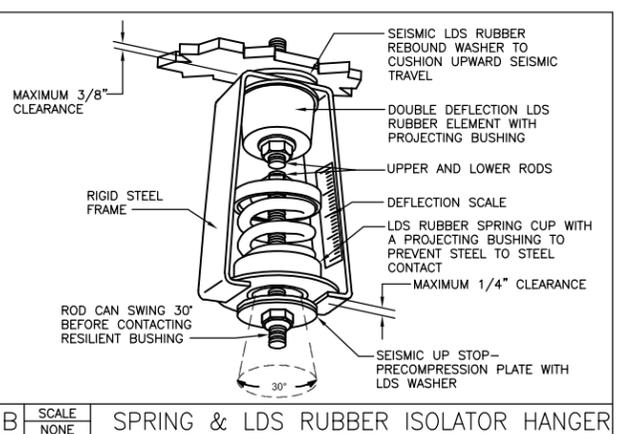
K SCALE NONE CEILING EXHAUST FAN DETAIL



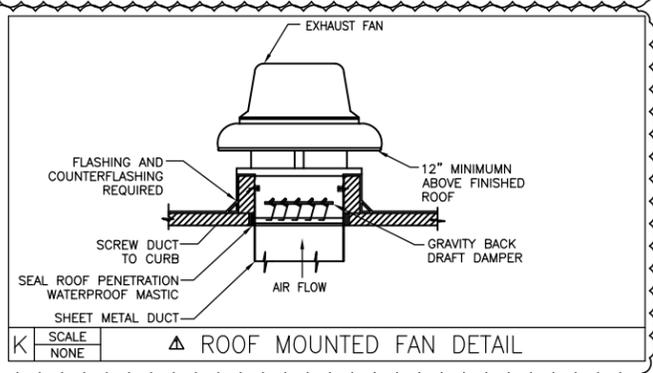
G SCALE NONE TYPICAL HEAT PUMP PIPING SCHEMATIC DETAIL



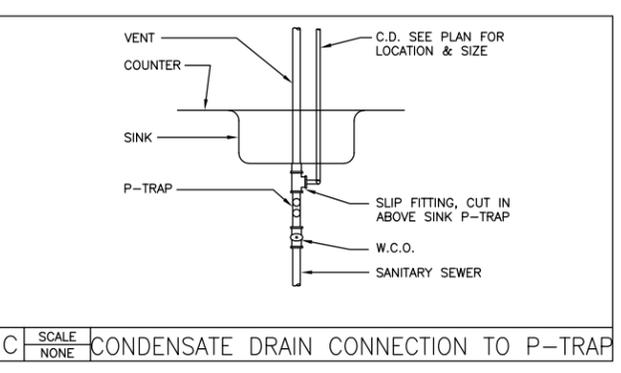
D SCALE NONE FAN COIL UNIT INSTALLATION DETAIL



B SCALE NONE SPRING & LDS RUBBER ISOLATOR HANGER



K SCALE NONE ROOF MOUNTED FAN DETAIL



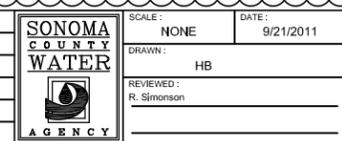
C SCALE NONE CONDENSATE DRAIN CONNECTION TO P-TRAP

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

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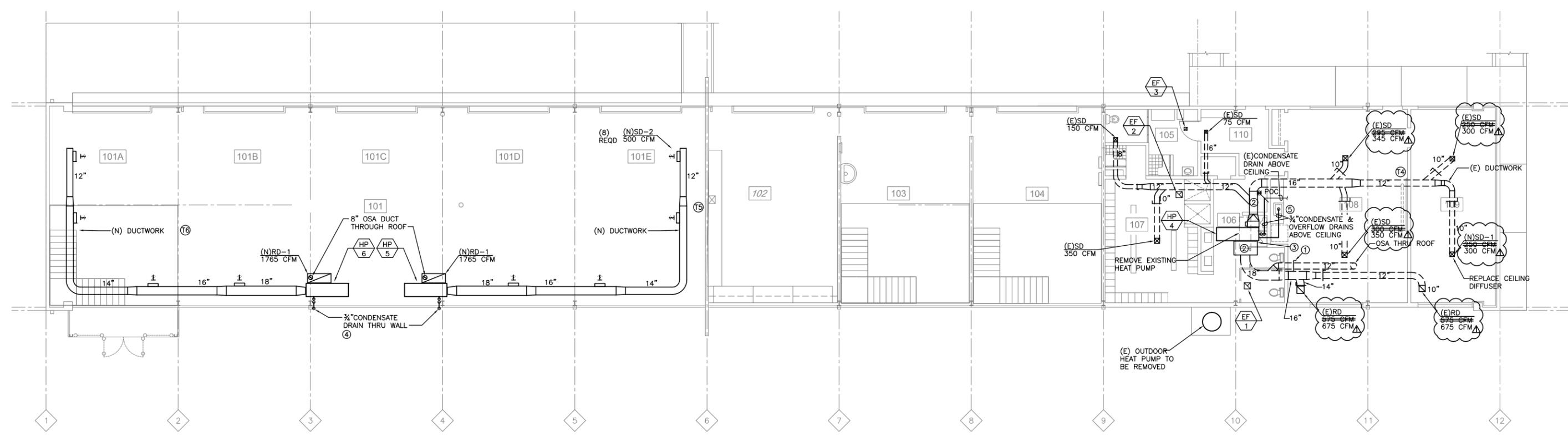
12/01/10	ADDENDUM NO. 1	RN	SCALE: NONE	DATE: 9/21/2011
			DRAWN: HB	
			REVIEWED: R. Simonsen	
NO.	DATE	REVISION	BY	



SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)  
**MECHANICAL DETAILS**  
 ME541\_M0.10.dwg  
 CONTRACT NUMBER: TWW 0-706-7 #01A  
 DRAWING NUMBER: M0.10  
 SHEET 48 OF 56

**SHEET NOTES**

- ① REPLACE (E) DAMPER WITH (N) SPRING-LOADED BUTTERFLY STYLE BACKDRAFT DAMPER.
- ② PROVIDE NEW SUPPLY AND RETURN PLENUM AND REQUIRED DUCTWORK TO RECONNECT TO EXISTING DUCTWORK.
- ③ NEW FILTER RACK AND FILTER, MERV 11 MIN.
- ④ ROUTE 3/4" CONDENSATE DRAIN THRU EXTERIOR WALL AT LOCATION SHOWN. TERMINATE WITH DOWNTURNED ELL. SPILL TO PLANTER BELOW.
- ⑤ ROUTE & TIE (N) 3/4" CONDENSATE DRAIN TO EXISTING CONDENSATE LINE ABOVE FINISHED CEILING. ROUTE 3/4" OVERFLOW TO ABOVE SINK. TERMINATE WITH DOWNTURNED ELL. 1" BELOW FINISHED CEILING. SPILL TO SINK BELOW.



EXISTING SERVICE CENTER MECHANICAL PLAN

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



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1	12/01/10	ADDENDUM NO. 1	RN

**SONOMA COUNTY WATER AGENCY**

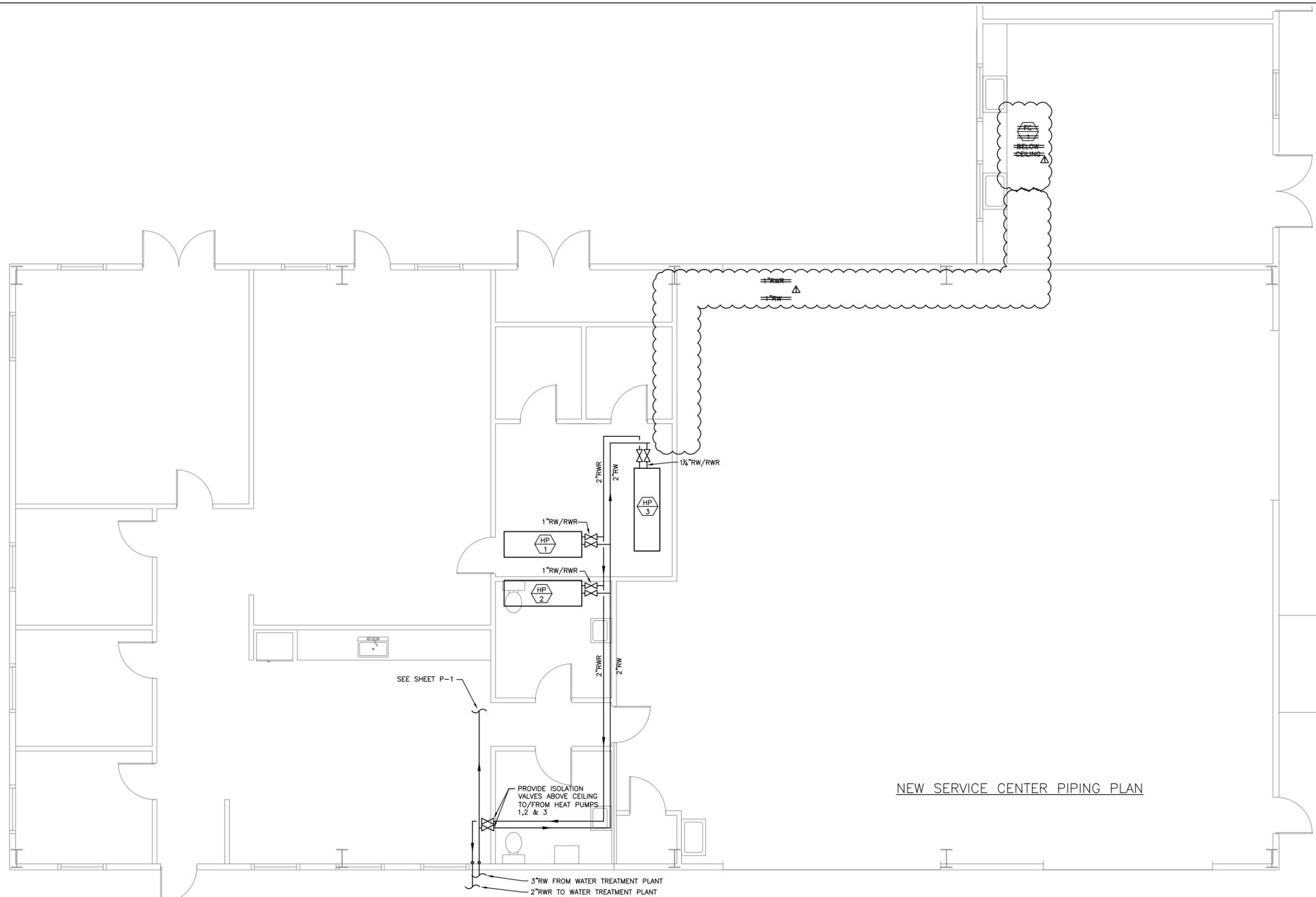
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 DATE: 9/21/2011  
 DRAWN: HB  
 REVIEWED: R. Simonson

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)  
**EXISTING SERVICE CENTER MECHANICAL PLAN**

ME541\_M2.10.dwg  
 CONTRACT NUMBER: TWW 0-706-7 #01A

DRAWING NUMBER: M2.10  
 SHEET 49 OF 56





NEW SERVICE CENTER PIPING PLAN

BAR LENGTH ON ORIGINAL  
DRAWING EQUALS ONE INCH.  
ADJUST SCALE ACCORDINGLY



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12/01/10	ADDENDUM NO. 1	RN
NO.	DATE	REVISION



SCALE: 1/4"=1'-0"  
DATE: 9/21/2011  
DRAWN: HB  
REVIEWED: R. Simpson

SERVICE CENTER RELOCATION (2025 AVIATION BOULEVARD)		
<b>NEW SERVICE CENTER PIPING PLAN</b>		
ME541_M4.20.dwg CONTRACT NUMBER: TWW 0-706-7 #01A	DRAWING NUMBER: M4.20	SHEET 52 OF 56