



**INDEX OF SHEETS**

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**GENERAL NOTES (ALL HVAC and ELECTRICAL)**

**Mechanical**

- All piping above ground in finished spaces shall be concealed. Cost is included in cost of Split-System Air Conditioner.
- Existing conditions shown on drawings are based on field surveys, record drawings and other available documents. It is the contractor's responsibility to verify existing conditions prior to bidding and the start of work.
- Locate mechanical equipment so as to provide adequate filter removal and maintenance access space.
- All work shall be installed in a neat and workmanlike manner and in accordance with current general specifications and all applicable codes, ordinances and regulations and as directed and approved by the Engineer.
- Coordinate with Mechanical and Electrical trades the location of all piping, ductwork and equipment to avoid interferences.
- Provide 6 inch reinforced concrete pad for graded and floor mounted equipment. Dowel pad to concrete slab with number 3 dowels rods at 18" on center around perimeter. Reinforce concrete pad with one layer of number 3 bars at 18" on center each way. Precast pad is not permitted. Cost is included in cost of Split-System Air Conditioner.
- Size refrigerant piping per equipment manufacturer's recommendation.
- Dimensions on drawings denote english measurements.
- Route 3/4 inch minimum condensate drain to nearest floor drain. Cost is included in cost of Split-System Air Conditioner.
- Manufacturer's or equivalent model numbers shown on the drawings are subject to change. Equipment or component specifications and drawing descriptions shall govern.
- Equipment supplier shall furnish motors, relays, and starters for HVAC equipment. These components shall be either mounted on the equipment or furnished loose but attached to equipment containers. Starters shall be magnetic type with disconnect means and contain thermal overload protection in accordance with the service factor (sf) nameplate rating of the motor and equipment manufacturer's recommendations. Exception to this requirement is furnishing of starters for equipment fed by MCC's, as shown on electrical drawings. Cost is included in cost of Split-System Air Conditioner.
- All work associated with refrigerants including demolition of air conditioner and installation of new split systems shall comply with Section 608 of the Clean Air Act of 1990 as amended by City of Chicago. Demolition work cost is included in cost of HVAC Demolition (Mechanical and Electrical). New work cost is included in cost of Split-System Air Conditioner.

- Conform to procedures applicable in IDOT Standard Specification Section 107 when discovering hazardous or contaminated materials.
- Provide all necessary offsets in ductwork/piping to avoid structure.
- Service valves shall be installed on each piece of equipment. Cost is included in cost of Split-System Air Conditioner.
- Provide cleanouts in accordance with local codes. Cost is included in cost of Split-System Air Conditioner.
- Contractor shall coordinate all piping penetrations with other contractors to avoid interferences.
- All valves shall be accessible.
- Contractor shall refer to Architectural drawings for exact dimensions and plumbing fixture layouts and locations.

**Mechanical Demolition**

- The cost of the Items listed below are included in cost of HVAC Demolition (Mechanical and Electrical).
- Demolition of HVAC equipment includes removal of heating system in its entirety and includes but is not limited to: removing a gas fired boiler with the associated flue and controls in the east control building, and removing two electric boilers, power wiring and controls in the west control building, 12 Radiators and fin tubes, 12 unit heaters, and the interconnecting piping for all heating devices including all associated hangers. The electrical connections for the boilers are being removed to the nearest junction box with cable being removed to the associated panel board. Paint and patch all surfaces to match new Architectural work as part of HVAC Demolition (Mechanical and Electrical).
  - Render any roof patching permanently water tight.
  - Demolish in an orderly and careful manner as required to accommodate new work. Protect existing elements and finishes which are to remain.
  - Repair all demolition performed in excess of that required at no extra cost to the owner.

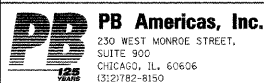
**Electrical**

- Comply with the latest approved edition of the National Electrical Code, OSHA, drawings, and specifications.
- Perform work in accordance with NECA 1-2000, standard practice for good workmanship in electrical contracting.
- For 120/208 volt, three-phase, four-wire circuits, conform to the colors: phase A=black, phase B=red, phase C=blue, neutral=white.
- For 277/480 volt, three-phase, four-wire circuits, conform to the colors: phase A=brown, phase B=yellow, phase C=orange, neutral=gray.
- Use of insulation color white, gray, green, green with yellow tracer not permitted for ungrounded branch circuit or feeder conductors.
- Conform to the following insulation colors: equipment grounding conductor=green; isolated grounding conductor=green with yellow tracer.
- Use #12 AWG THHN wire, minimum, for branch circuit and feeder wiring, including ground wires, unless noted. Run ground wire in every conduit that contains feeder or branch circuit wiring. Aluminum wire not permitted. Cost of this item is included in Cable Assembly in Conduit.
- Furnish new panelboards identified as part of the work with current and accurate typewritten circuit panel schedule card. Hand-corrected or handwriten cards not permitted.
- Manufacturer's or equivalent manufacturer's part numbers are subject to verification. Drawing and specification descriptions shall govern.
- Verify overcurrent protection size for installed mechanical equipment with the manufacturer and revise if required. Cost is included in Panelboards and Panel Mounted Circuit Breakers.

**Electrical Demolition**

- The cost of the Items listed below are included in cost of HVAC Demolition (Mechanical and Electrical).
- Disconnect electrical systems in work areas scheduled for demolition; coordinate electrical outages with the owner.
  - Existing conditions shown are based upon reasonable review of available records and field observations. It is possible that reported conditions do not reflect new or previously demolished equipment or wiring. In some cases, these drawings omit equipment and wiring not expected to impact in-contract work. Verify existing conditions and dimensions shown on drawings and report discrepancies to the engineer before demolition.
  - Cut conduit behind walls and below floors; patch surfaces and finishes to match existing fire ratings and finishes.
  - Without additional cost to the Owner, replace equipment, facilities, and materials damaged as a result of demolition work.
  - Remove abandoned wiring back to source of supply. Abandoning wiring in place is permitted only to preserve circuits that remain in common raceways.
  - Unintended interruption of circuits feeding lighting, receptacles, or other equipment may be incidental to in-contract electrical demolition. Intercept and reconnect these circuits to the nearest circuit panel.
  - Disconnect and remove abandoned, switches, contactors, starters, and other distribution equipment.
  - Disconnect and remove electrical devices and equipment servicing utilization equipment that has been removed (i.e. HVAC equipment) unless noted.
  - Clean and repair electrical materials and devices that remain (or are reused by owner's permission). Remove daily demolished materials and clean debris from site.

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**STATE OF ILLINOIS  
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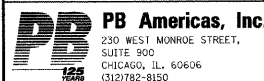
**INDEX OF SHEETS AND  
HVAC AND ELECTRICAL GENERAL NOTES  
FOR STRUCTURE NO. 016-2445**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-1-2	COOK	14	2
CONTRACT NO.			60P18	
FED. ROAD DIST. NO. 7   ILLINOIS FED. AID PROJECT				

SHEET NO. ME1 OF ME3 SHEETS

HVAC and ELECTRICAL SYMBOLS and ABBREVIATIONS	
<b>Heating and A/C</b>	<b>Abbreviations</b>
<p>— D — Drain line (other than plumbing)</p> <p>☐ Floor drain</p>	<p>AC Air Conditioner</p> <p>AFF Above Finished Floor</p> <p>BOE Bottom of Equipment</p> <p>CAP Capacity</p> <p>CFM Cubic Feet per Minute</p> <p>CO Clean out</p> <p>COMP Compressor</p> <p>COND Condensor</p> <p>CU Condensing Units</p> <p>CUH Cabinet Unit Heater</p>
<b>Piping Specialties</b>	
<p>—○— Elbow (turned up)</p> <p>—○— Elbow (turned down)</p>	<p>D Condensate drain line</p> <p>EVAP Evaporator</p> <p>FD Floor drain</p> <p>FLA Full Load Amps</p> <p>IN Inches</p> <p>KW Kilowatts</p> <p>LB Pound</p> <p>MBH Btuh (1,000's)</p> <p>MCA Minimum Circuit Amps</p> <p>MFR Manufacturer</p> <p>MOP Maximum Overcurrent Protection</p>
<b>Electrical</b>	
<p>⊙ Junction box</p> <p>☐ Disconnect switch, 30A 2-pole NFS NEMA 4x enclosure</p> <p># Circuit homerun #12 wire in 3/4" grs unless noted otherwise, phase conductor, ground conductor</p>	<p>PH Phase</p> <p>REFRIG Refrigerant</p> <p>UH Unit Heater</p> <p>V Volts</p> <p>WT Weight</p>
<b>Miscellaneous</b>	
<p>(Mark) Equipment designation (Number)</p> <p>(Detail number) Detail designation (Sheet number where detail is found)</p> <p>◇ Keyed note</p> <p>△ Revision</p> <p>☐ Demolition note</p>	

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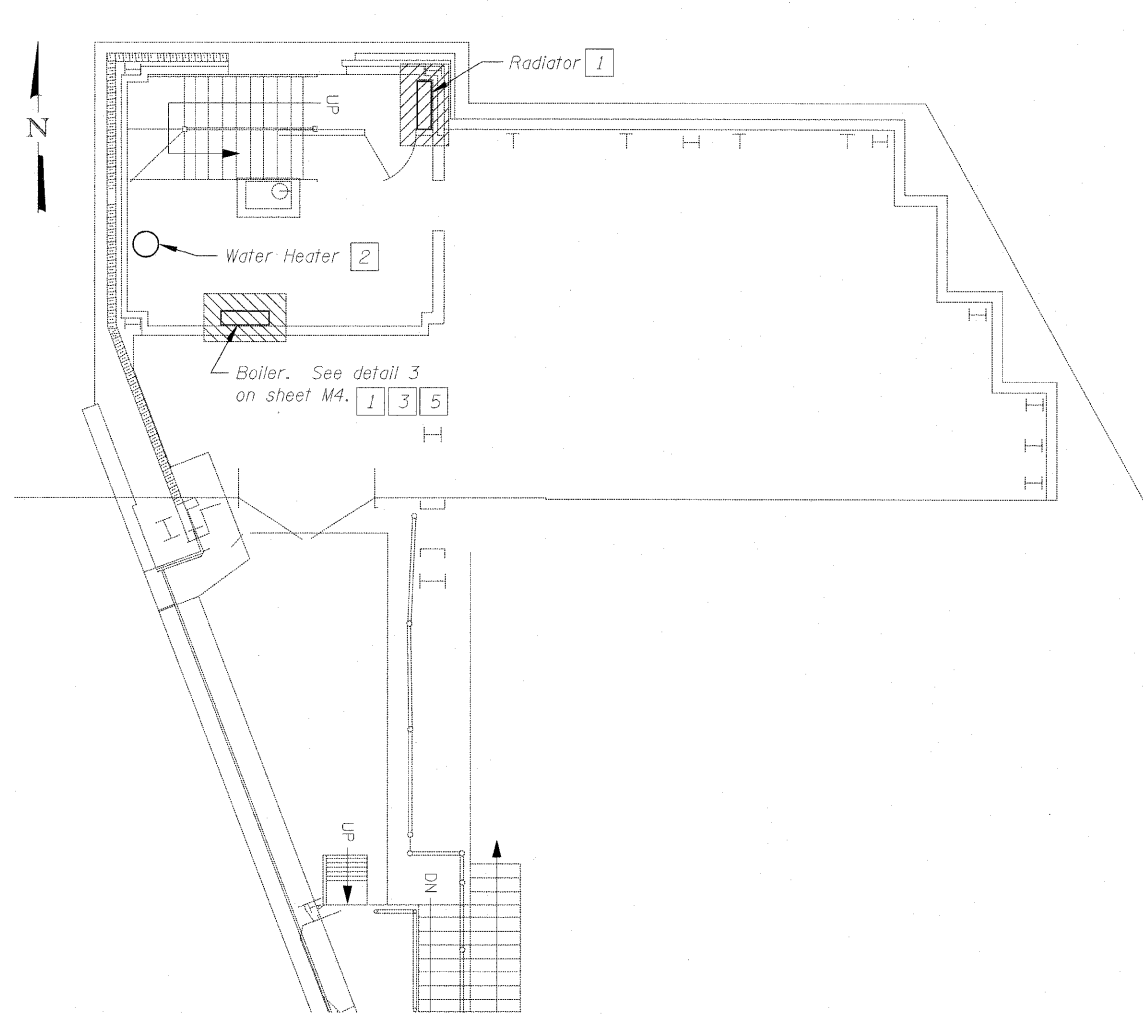
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HVAC AND ELECTRICAL  
SYMBOLS AND ABBREVIATIONS  
FOR STRUCTURE NO. 016-2445

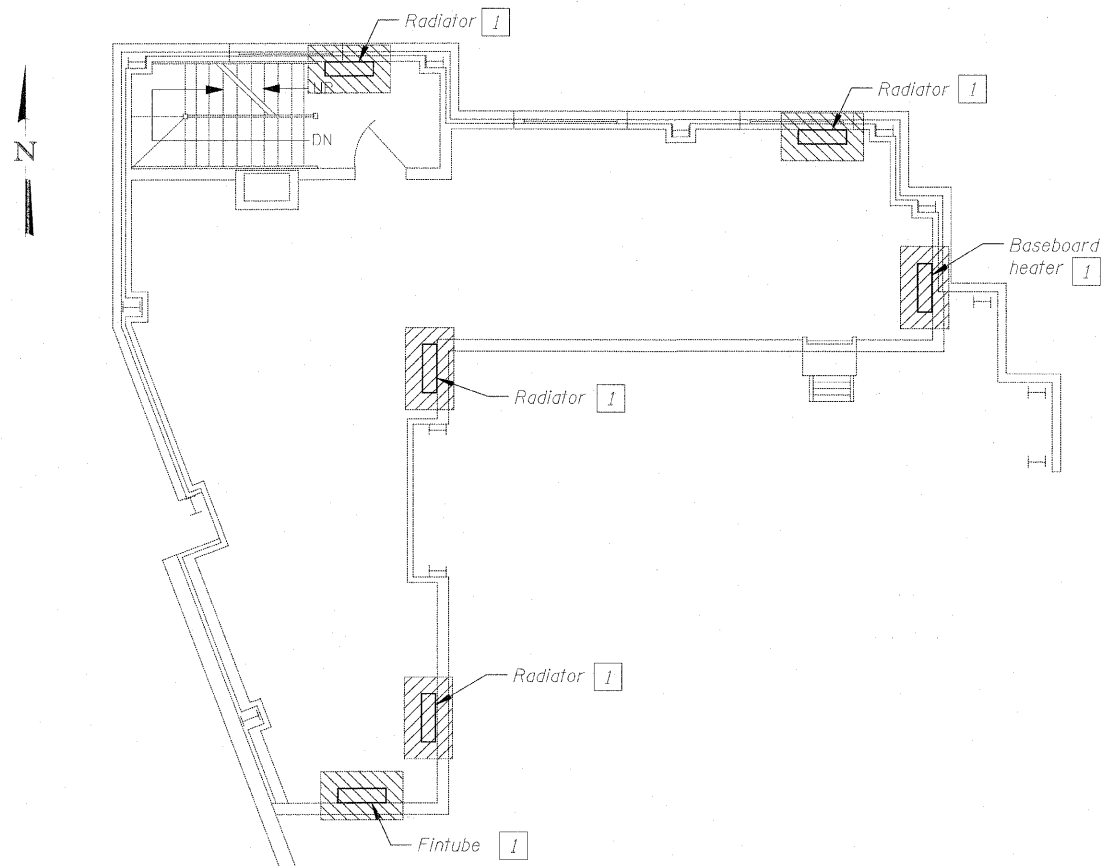
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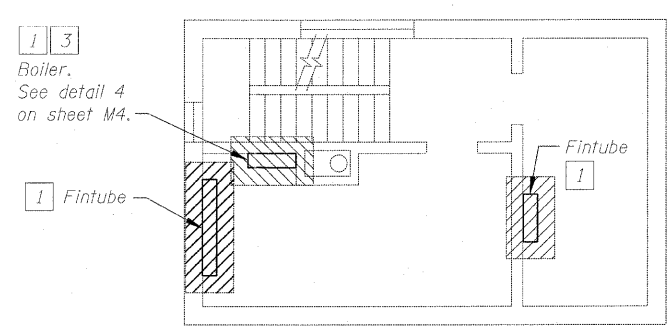




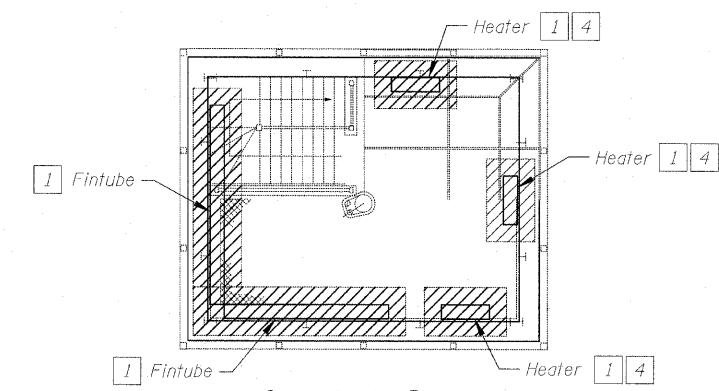
Electrical Control Room  
West Control House  
1st Floor Demolition



Electrical Control Room  
West Control House  
2nd Floor Demolition



Toilet Room / Mechanical Room  
West Control House  
3rd Floor Demolition



Operator's Room  
West Control House  
4th Floor Demolition

**Sheet Notes:**

1. See sheet 2 for general demolition notes.
2. Cost of demolition, removal and disposal of all items indicated is included in the cost of HVAC Demolition (Mechanical and Electrical).

**Sheet Key Notes:**

- 1 Remove equipment with related controls. Remove all exposed related piping. Abandon piping in wall.
- 2 Existing to remain.
- 3 Remove conduit back to nearest j-box. remove wire back to source.
- 4 Frame openings with 3 5/8" metal studs at 16" on center where existing unit heaters are removed. Apply surface finish and texture to match existing finish adjacent to unit heaters (paint to match). Provide 4" vinyl base (black in color) in entire space.
- 5 Cap boiler flu (vent) below roof. The cost of this item is included in the cost of HVAC Demolition (Mechanical and Electrical).

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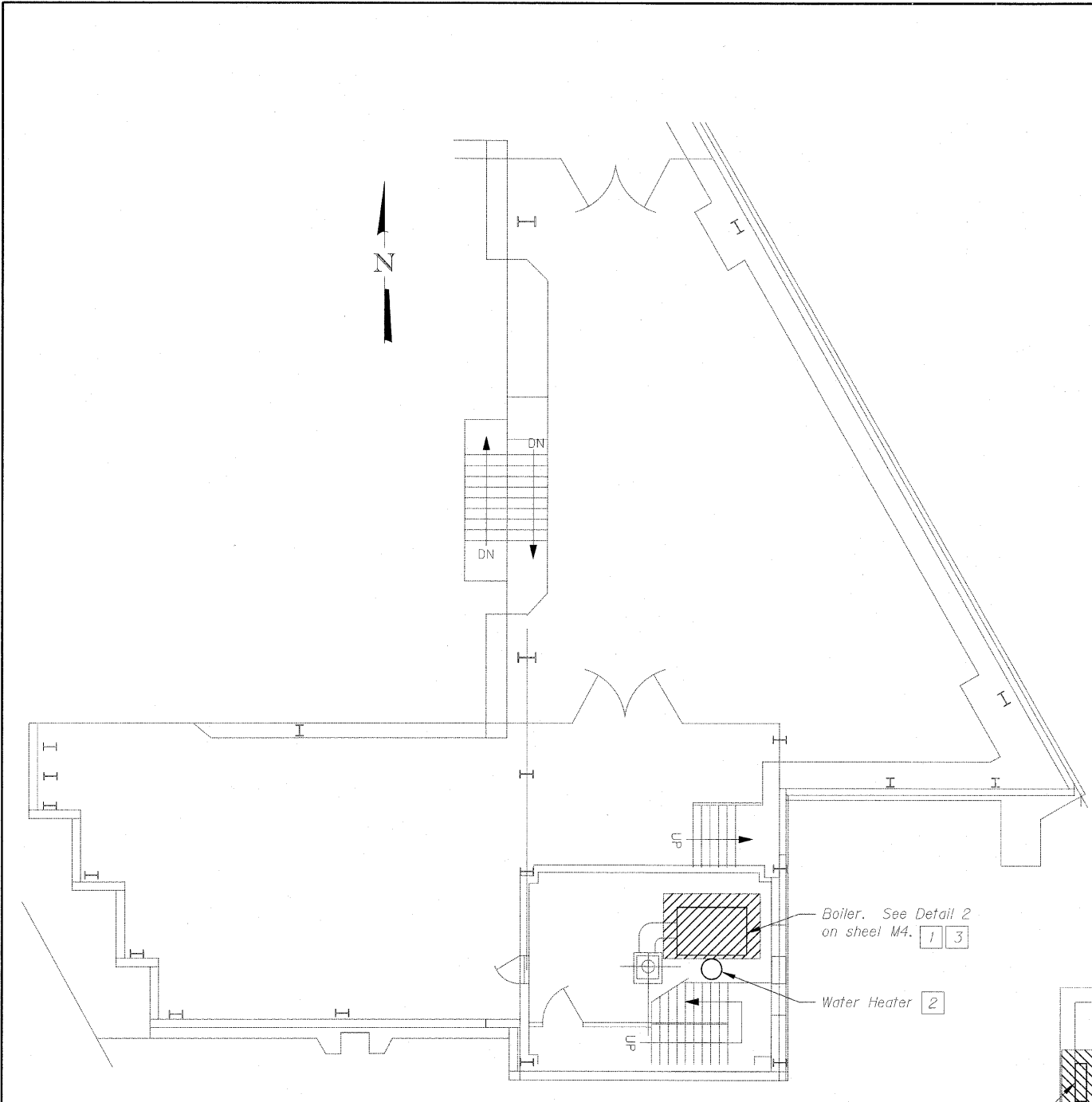
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WEST CONTROL HOUSE**  
**DEMOLITION FLOOR PLANS**  
**FOR STRUCTURE NO. 016-2445**

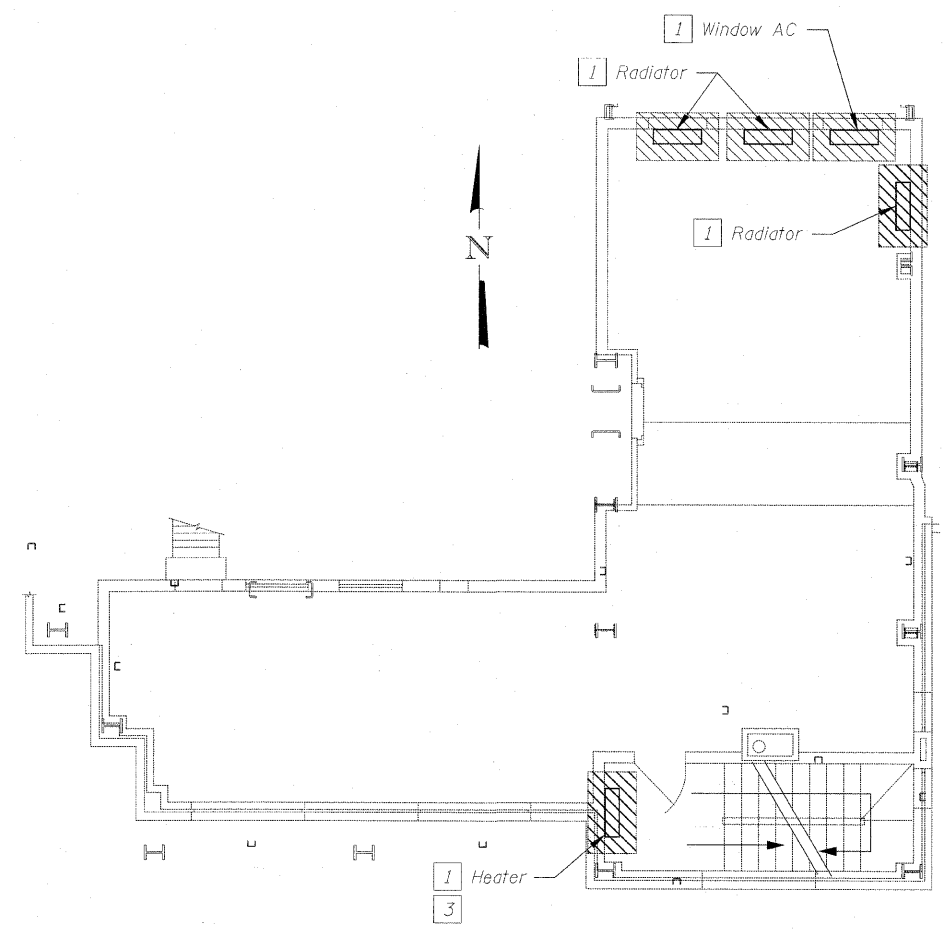
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FED. ROAD DIST. NO. 7 (ILLINOIS) FED. AID PROJECT				

SHEET NO. MED1 OF MED2 SHEETS

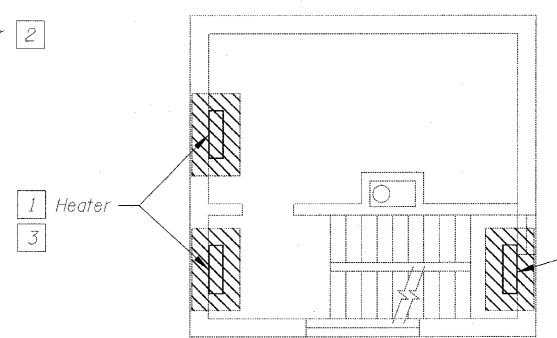
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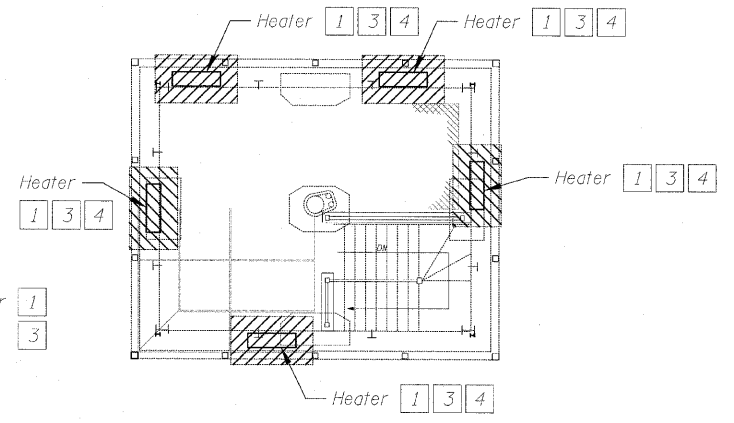
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East Control House  
1st Floor Demolition



Electrical Control Room  
East Control House  
2nd Floor Demolition



Mechanical Room  
East Control House  
3rd Floor Demolition



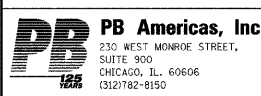
Operator's Room  
East Control House  
4th Floor Demolition

**Sheet Notes:**

1. See sheet 2 for general demolition notes.
2. Cost of demolition, removal, and disposal of all items indicated is included in the cost of HVAC Demolition (Mechanical and Electrical).

**Sheet Key Notes:**

- 1 Remove equipment with related controls. Remove all related exposed piping to wall. Abandon piping in wall.
- 2 Existing to remain.
- 3 Remove conduit back to nearest j-box. remove wire back to source.
- 4 Frame openings with 3 5/8" metal studs at 16" on center where existing unit heaters are removed. Apply surface finish and texture to match existing finish adjacent to unit heaters (paint to match). Provide 4" vinyl base (black in color) in entire space.



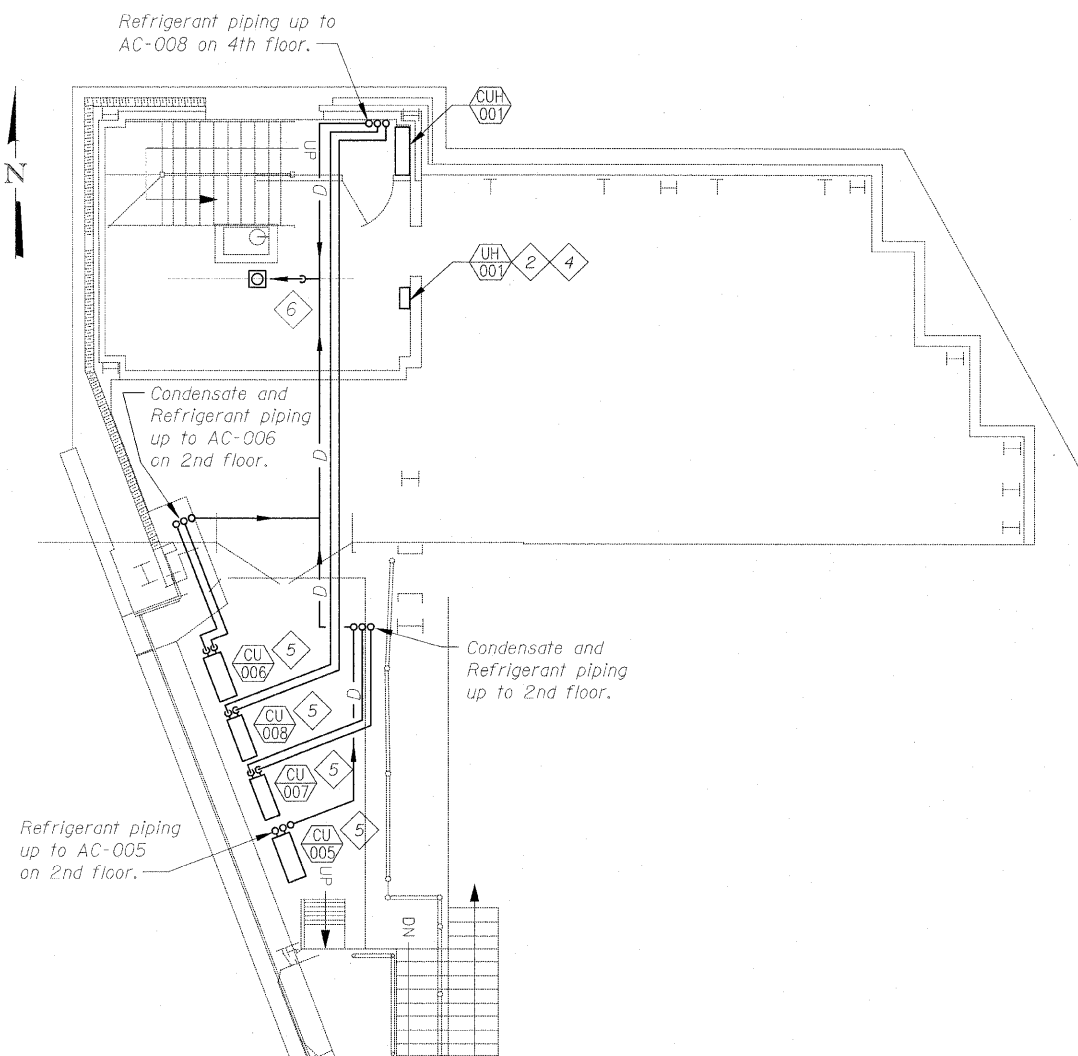
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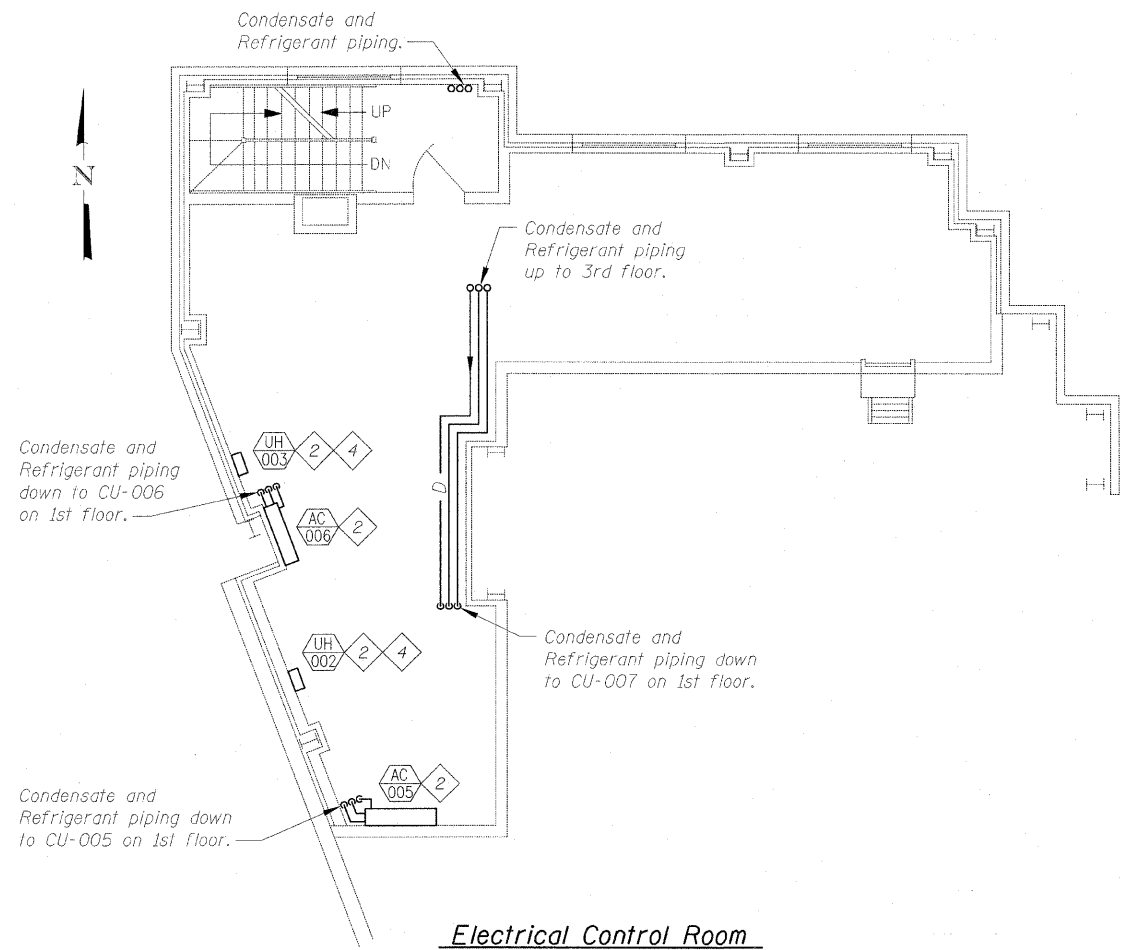
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EAST CONTROL HOUSE  
 DEMOLITION FLOOR PLANS  
 FOR STRUCTURE NO. 016-2445  
 SHEET NO. MED2 OF MED2 SHEETS

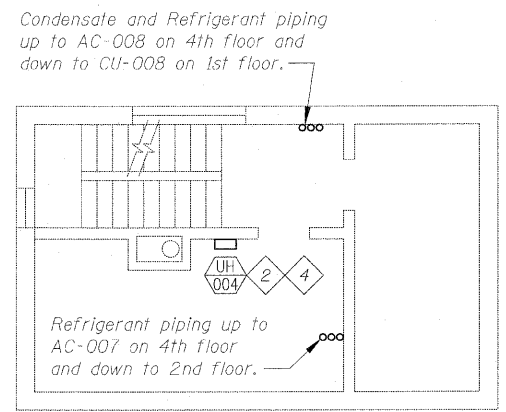
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CONTRACT NO. 60P18				
FED. ROAD DIST. NO. 7 (ILLINOIS) FED. AID PROJECT				



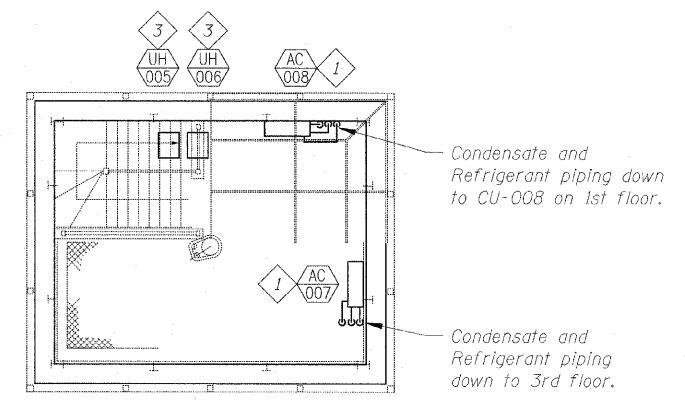
**Electrical Control Room  
West Control House  
1st Floor**



**Electrical Control Room  
West Control House  
2nd Floor**



**Toilet Room / Mechanical Room  
West Control House  
3rd Floor**



**Operator's Room  
West Control House  
4th Floor**

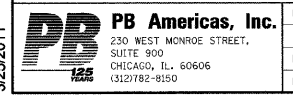
**Sheet Notes:**

1. Mechanical equipment locations to be coordinated with electrical equipment locations.
2. Size refrigerant piping per manufacturer's recommendations.
3. Cost of all AC and CU units and all piping is included in the cost of the Split System Air Conditioner.
4. Cost of all UH and CUH is included in the cost of the Unit Heaters.

**Sheet Key Notes:**

- 1 Bottom of Equipment (BOE) = 0'-2" AFF
- 2 BOE = 6'-0" AFF
- 3 Ceiling mounted vertical discharge.
- 4 Horizontal discharge.
- 5 Install on 6" concrete slab. Secure condensing unit using Series I cage by Property Armor ([www.propertyarmor.net](http://www.propertyarmor.net)) or equal. The cost of this item is included in the cost of the Split System Air Conditioner.
- 6 Extend condensate drain to nearest floor drain. The cost of this item is included in the cost of the Split System Air Conditioner.

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PLOT SCALE					
PLOT DATE	3/25/2011				

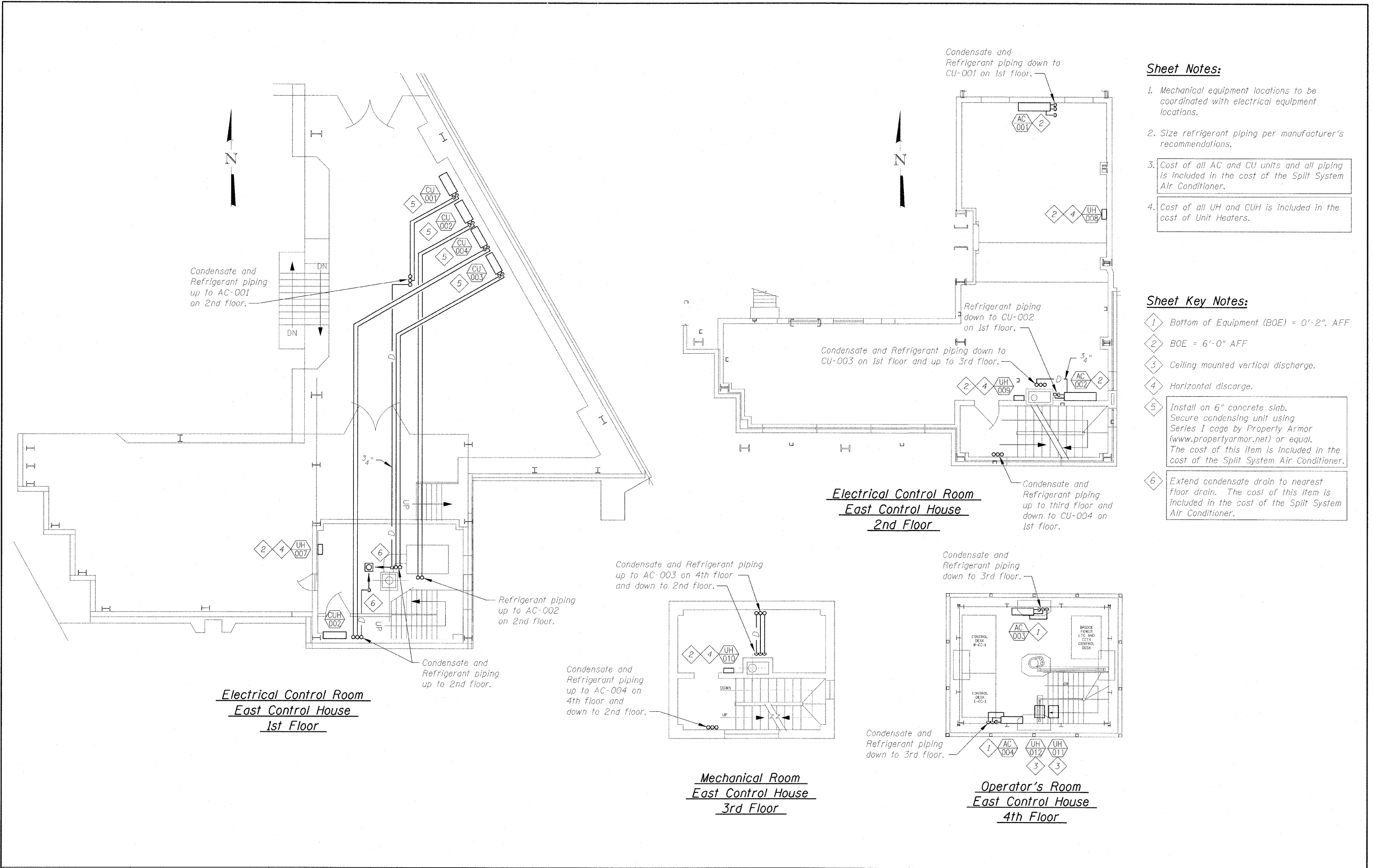
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**WEST CONTROL HOUSE RENOVATION  
FLOOR PLANS  
FOR STRUCTURE NO. 016-2445**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-1-2	COOK	14	7
FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60P18	

SHEET NO. M1 OF M4 SHEETS

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- Sheet Notes:**
- Mechanical equipment locations to be coordinated with electrical equipment locations.
  - Size refrigerant piping per manufacturer's recommendations.
  - Cost of all AC and CU units and all piping is included in the cost of the Split System Air Conditioner.
  - Cost of all UH and CUH is included in the cost of Unit Heaters.

- Sheet Key Notes:**
- Bottom of Equipment (BOE) = 0'-2" AFF
  - BOE = 6'-0" AFF
  - Ceiling mounted vertical discharge.
  - Horizontal discharge.
  - Install on 6" concrete slab. Secure condensing unit using Series I cage by Property Armor ([www.propertyarmor.net](http://www.propertyarmor.net)) or equal. The cost of this item is included in the cost of the Split System Air Conditioner.
  - Extend condensate drain to nearest floor drain. The cost of this item is included in the cost of the Split System Air Conditioner.

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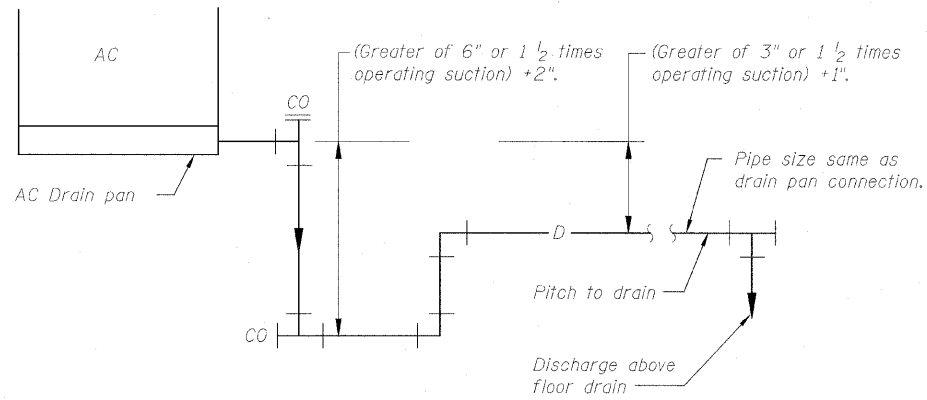
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 DEPARTMENT OF TRANSPORTATION**

**EAST CONTROL HOUSE RENOVATION  
 FLOOR PLANS  
 FOR STRUCTURE NO. 016-2445**

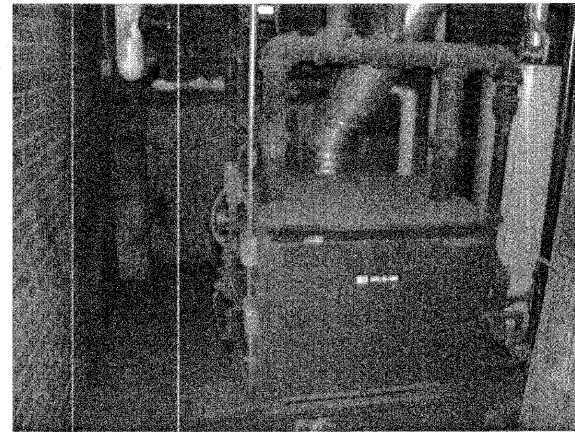
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SHEET NO. M2 OF M4 SHEETS

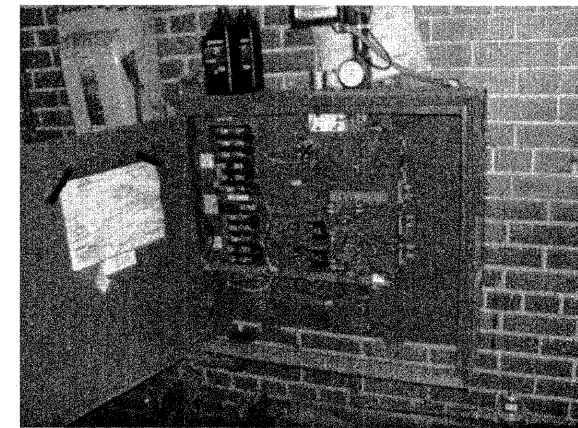




**1** COOLING COIL CONDENSATE DRAIN TRAP  
 Scale: None  
 Cost included in the cost of Split System Air Conditioner.



**2** BOILER TO BE DEMOLISHED ON LEVEL ONE (EAST)  
 Scale: None  
 Cost included in the cost of HVAC Demolition (Mechanical and Electrical).

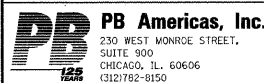


**3** BOILER TO BE DEMOLISHED ON LEVEL ONE (WEST)  
 Scale: None  
 Cost included in the cost of HVAC Demolition (Mechanical and Electrical).



**4** BOILER TO BE DEMOLISHED ON LEVEL THREE (WEST)  
 Scale: None  
 Cost included in the cost of HVAC Demolition (Mechanical and Electrical).

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USER NAME	kienstra	DESIGNED	S. KALYONCU	REVISED
		CHECKED	K. TELLA	REVISED
PLOT SCALE		DRAWN	E. KIENSTRA	REVISED
PLOT DATE	3/25/2011	CHECKED	K. TELLA	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**HVAC DETAILS  
 FOR STRUCTURE NO. 016-2445**  
 SHEET NO. M3 OF M4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-1-2	COOK	14	9
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60P18	

**Sheet Notes:**

1. Equipment listed in these schedules are shown on sheets 7 and 8 of 14.

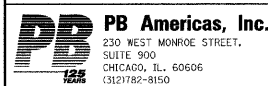
AIR HANDLING UNIT AND CONDENSING UNIT SCHEDULE (SPLIT-SYSTEM) ②																			
MARK		SERVING	MFR.	MODEL ①	WT (LB)	COOLING CAP (TC MBH)	NOMINAL CFM	ELECTRICAL (INDOOR) ①				REMOTE AIR COOLED CONDENSER UNIT (OUTDOOR) ①						NOTES	
EVAP.	COND.							MOTOR (HP)	MCA	FLA	V/PH	MODEL	COMP. QUANTITY	REFRIG.	ELECTRICAL				WT (LB)
												MCA	MOP	COMP FLA	V/PH				
AC-1	CU-1	2-EAST	mitsubishi	MSY-D30NA	40	30.7	639	.	1.0	0.76	208-230/1	MUY-D30NA	1	410A	21	25	16	208-230/1	141
AC-2	CU-2	2-EAST	mitsubishi	MSY-D30NA	40	30.7	639	.	1.0	0.76	208-230/1	MUY-D30NA	1	410A	21	25	16	208-230/1	141
AC-3	CU-3	4-EAST	mitsubishi	MSY-GE15NA	22	14.0	335	.	1.0	0.76	208-230/1	MUY-GE15NA	1	410A	12	15	7.4	208-230/1	80
AC-4	CU-4	4-EAST	mitsubishi	MSY-GE15NA	22	14.0	335	.	1.0	0.76	208-230/1	MUY-GE15NA	1	410A	12	15	7.4	208-230/1	80
AC-5	CU-5	2-WEST	mitsubishi	MSY-D30NA	40	30.7	639	.	1.0	0.76	208-230/1	MUY-D30NA	1	410A	21	25	16	208-230/1	141
AC-6	CU-6	2-WEST	mitsubishi	MSY-GA24NA	37	22.0	568	.	1.0	0.76	208-230/1	MUY-GA24NA	1	410A	17	20	12.8	208-230/1	117
AC-7	CU-7	4-WEST	mitsubishi	MSY-GE15NA	22	14.0	335	.	1.0	0.76	208-230/1	MUY-GE15NA	1	410A	12	15	7.4	208-230/1	80
AC-8	CU-8	4-WEST	mitsubishi	MSY-GE15NA	22	14.0	335	.	1.0	0.76	208-230/1	MUY-GE15NA	1	410A	12	15	7.4	208-230/1	80

① PROVIDE WITH DISCONNECT SWITCH.  
 ② PROVIDE SPECIFIED EQUIPMENT OR EQUIVALENT AS APPROVED BY ENGINEER.

CABINET UNIT HEATER/UNIT HEATER SCHEDULE ⑤						
MARK	SERVING	MFR.	MODEL	ELECTRICAL		NOTES
				KW	V/PH	
CUH-1	WEST STAIRS	TRANE	FFJB030280H	3	208/1	①②
CUH-2	EAST STAIRS	TRANE	FFJB030280H	3	208/1	①②
UH-001	1-WEST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-002	2-WEST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-003	2-WEST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-004	3-WEST TOILET ROOM	TRANE	UHEC031A	3.3	208/1	①②④
UH-005	4-WEST OP ROOM	TRANE	UHEC031A	3.3	208/1	①②③
UH-006	4-WEST OP ROOM	TRANE	UHEC031A	3.3	208/1	①②③
UH-007	1-EAST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-008	2-EAST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-009	2-EAST ELEC. CONTROL RM	TRANE	UHEC031A	3.3	208/1	①②④
UH-010	3-EAST	TRANE	UHEC031A	3.3	208/1	①②④
UH-011	4-EAST OP. ROOM	TRANE	UHEC031A	3.3	208/1	①②③
UH-012	4-EAST OP. ROOM	TRANE	UHEC031A	3.3	208/1	①②③

① PROVIDE WITH BUILT IN THERMOSTAT. LOCATE TEMPERATURE SENSOR IN AIR INLET OF UNIT.  
 ② PROVIDE WITH DISCONNECT SWITCH.  
 ③ PROVIDE WITH VERTICAL DISCHARGE MOUNTING BRACKET.  
 ④ PROVIDE WITH HORIZONTAL DISCHARGE MOUNTING BRACKET.  
 ⑤ PROVIDE SPECIFIED EQUIPMENT OR EQUIVALENT AS APPROVED BY ENGINEER.

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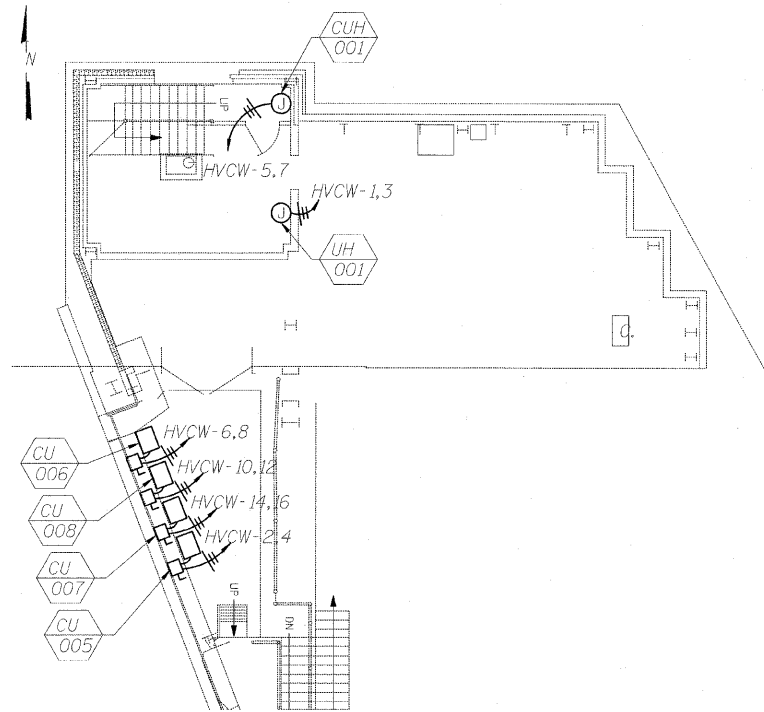


USER NAME	kienstra	DESIGNED	S. KALYONCU	REVISED	
		CHECKED	K. TELLA	REVISED	
PLOT SCALE		DRAWN	E. KIENSTRA	REVISED	
PLOT DATE	3/25/2011	CHECKED	K. TELLA	REVISED	

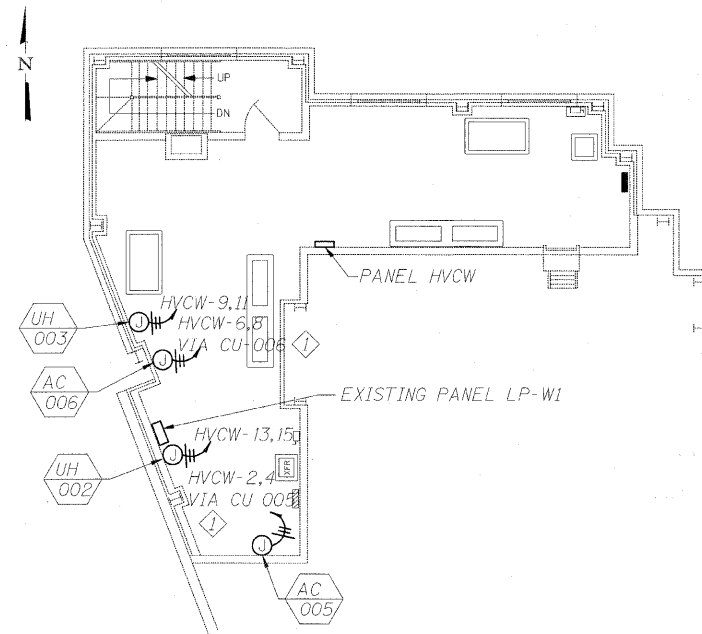
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HVAC SCHEDULES  
FOR STRUCTURE NO. 016-2445**  
SHEET NO. M4 OF M4 SHEETS

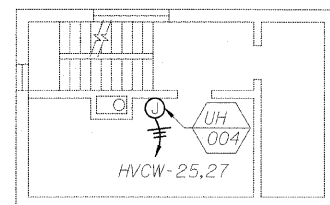
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-1-2	COOK	14	10
FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60P18	



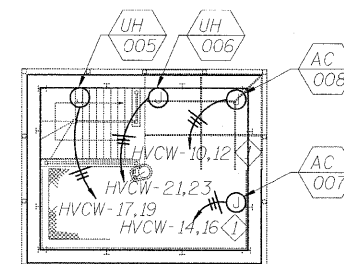
Electrical Control Room  
West Control House  
1st Floor



Electrical Control Room  
West Control House  
2nd Floor



Toilet Room / Mechanical Room  
West Control House  
3rd Floor



Operator's Room  
West Control House  
4th Floor

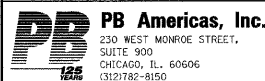
**Sheet Notes:**

- Mechanical equipment locations to be coordinated with electrical equipment locations.
- See sheet 13 for Panel Board Schedule.
- Cost of panel HVCW is included in the cost of Panel Boards and Panel Mounted Circuit Breakers.

**Sheet Key Notes:**

- AC units require power from their respective CU units located on the first floor. Provide 2 #12GND in 3/4" C to CU unit.

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USER NAME kienstra  
PLOT SCALE  
PLOT DATE 3/25/2011

DESIGNED S. KALYONCU  
CHECKED K. TELLA  
DRAWN E. KIENSTRA  
CHECKED K. TELLA

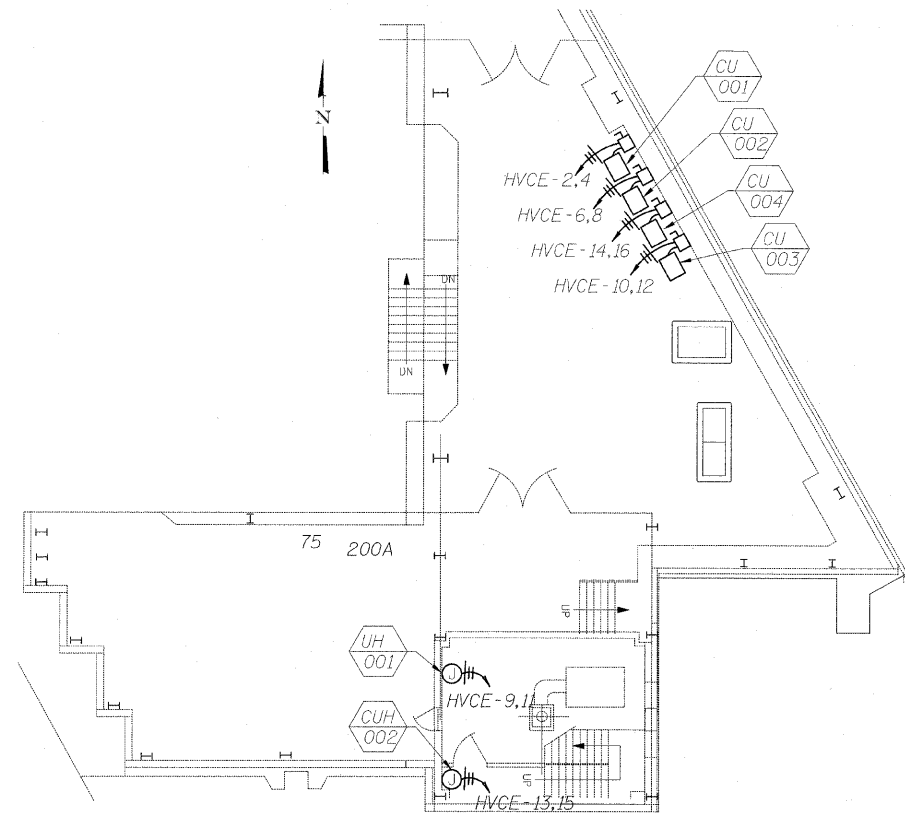
REVISED  
REVISED  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

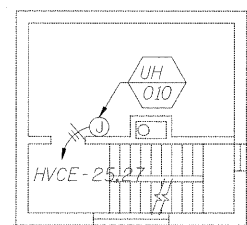
WEST CONTROL HOUSE  
ELECTRICAL PLANS  
FOR STRUCTURE NO. 016-2445

SHEET NO. E1 OF E4 SHEETS

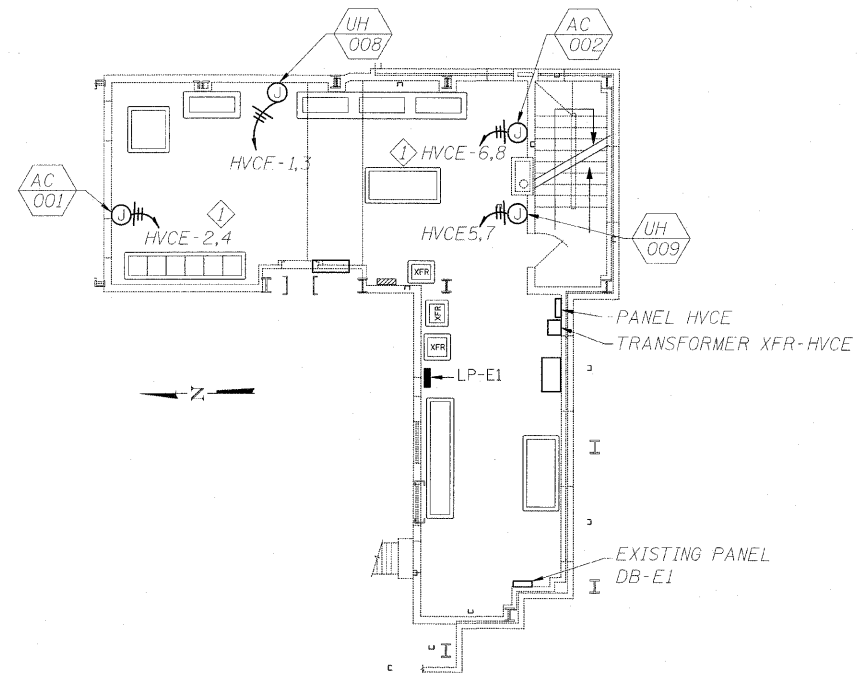
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-1-2	COOK	14	11
CONTRACT NO. 60P18				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



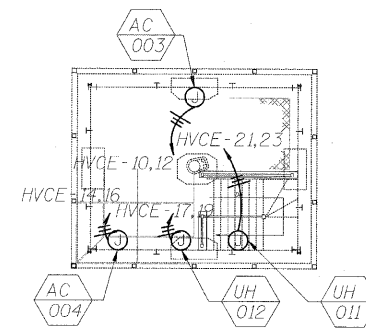
Electrical Control Room  
East Control House  
1st Floor



Mechanical Room  
East Control House  
3rd Floor



Electrical Control Room  
East Control House  
2nd Floor



Operator's Room  
East Control House  
4th Floor

**Sheet Notes:**

1. Mechanical equipment locations to be coordinated with electrical equipment locations.
2. See sheet 14 for Panel Board Schedule.
3. Cost of panel HVCE is included in the cost of Panel Boards and Panel Mounted Circuit Breakers.
4. Cost of transformer XFR-HVCE is included in the cost of transformers.

**Sheet Key Notes:**

- Ⓜ AC units require power from their respective CU units located on the first floor. Provide 2 #12GND in 3/4" C to CU unit.

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**PB Americas, Inc.**  
230 WEST MONROE STREET,  
SUITE 900  
CHICAGO, ILL. 60606  
312782-8150

USER NAME: kjanstro  
PLOT SCALE:  
PLOT DATE: 3/25/2011

DESIGNED: J. HEMPHILL  
CHECKED: D. LODUCA  
DRAWN: K. JORDAN  
CHECKED: D. LODUCA

REVISED  
REVISED  
REVISED  
REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST CONTROL HOUSE**  
**ELECTRICAL PLANS**  
**FOR STRUCTURE NO. 016-2445**

SHEET NO. E2 OF E4 SHEETS

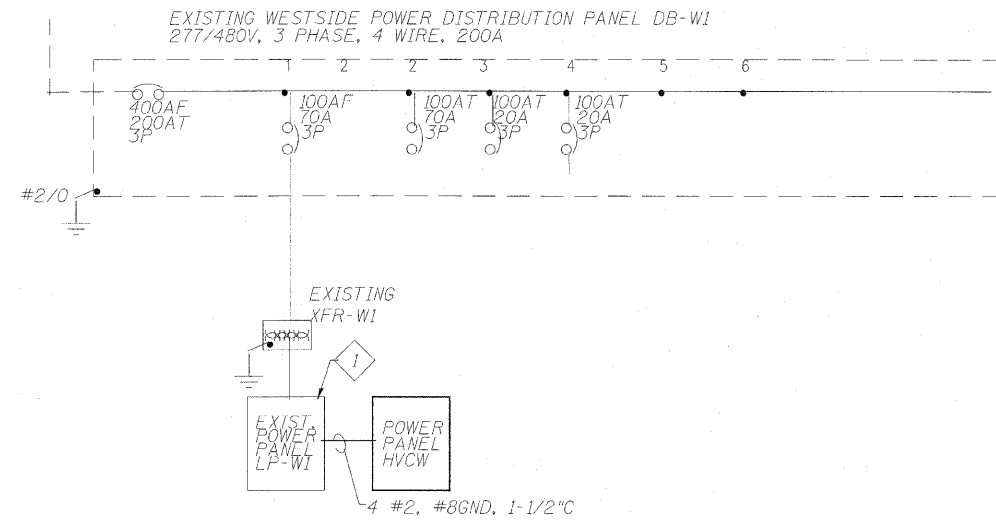
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-I-2	COOK	14	12
CONTRACT NO. 60P18				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

**Sheet Notes:**

1 The cost of new 100A 3-pole circuit breaker installed in existing panel LP-W1 is included in the cost of Panelboards and Panel mounted circuit breakers.

THREE PHASE PANEL SCHEDULE											
PANEL NAME: HVCW		MAIN BKR: 100A MLO		AIC RATING: 10,000 AMPS							
VOLTS: 120/208		BUS SIZE: 225 A									
PHASE: 3		MOUNTING: SURFACE									
φ	DIRECTORY	LOAD	WIRE	AMP	PHASE	WIRE	AMP	LOAD	DIRECTORY	φ	
A	UNIT HEATER UH-001	1650	#12	20	2	1	2	1750	CU-005, AC-005	A	
B		1650				3	4	1750		B	
C	CUH-001	1500	20	2	5	6	2	1750	CU-006, AC-006	C	
A		1500				7	8	1750		A	
B	UNIT HEATER UH-003	1500	20	2	9	10	2	850	CU-008, AC-008	B	
C		1500				11	12	850		C	
A	UNIT HEATER UH-002	1500	20	2	13	14	2	850	CU-007, AC-007	A	
B		1500				15	16	850		B	
C	UNIT HEATER UH-005	1650	20	2	17	18			SPACE	C	
A		1650				19	20		SPACE	A	
B	UNIT HEATER UH-006	1650	20	2	21	22			SPACE	B	
C		1650				23	24		SPACE	C	
A	UNIT HEATER UH-004	1650	20	2	25	26			SPACE	A	
B		1650				27	28		SPACE	B	
C	SPACE					29	30		SPACE	C	
A	SPACE					31	32		SPACE	A	
B	SPACE					33	34		SPACE	B	
C	SPACE					35	36		SPACE	C	
A	SPACE					37	38		SPACE	A	
B	SPACE					39	40		SPACE	B	
C	SPACE					41	42		SPACE	C	

NOTES:



**Sheet Key Notes:**

1 Provide a new 100 amp 3 pole Circuit Breaker in existing panel LP-W1, circuits 38, 40 and 42 to feed panel HVCW.

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**PB Americas, Inc.**  
230 WEST MONROE STREET,  
SUITE 900  
CHICAGO, IL, 60606  
(312)782-8150

USER NAME: kienstra  
PLOT SCALE:  
PLOT DATE: 3/25/2011

DESIGNED: J. HEMPHILL  
CHECKED: D. LODUCA  
DRAWN: K. JORDAN  
CHECKED: D. LODUCA

REVISED:  
REVISED:  
REVISED:  
REVISED:

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEST CONTROL HOUSE  
SCHEDULES AND DETAILS  
FOR STRUCTURE NO. 016-2445**

SHEET NO. E3 OF E4 SHEETS

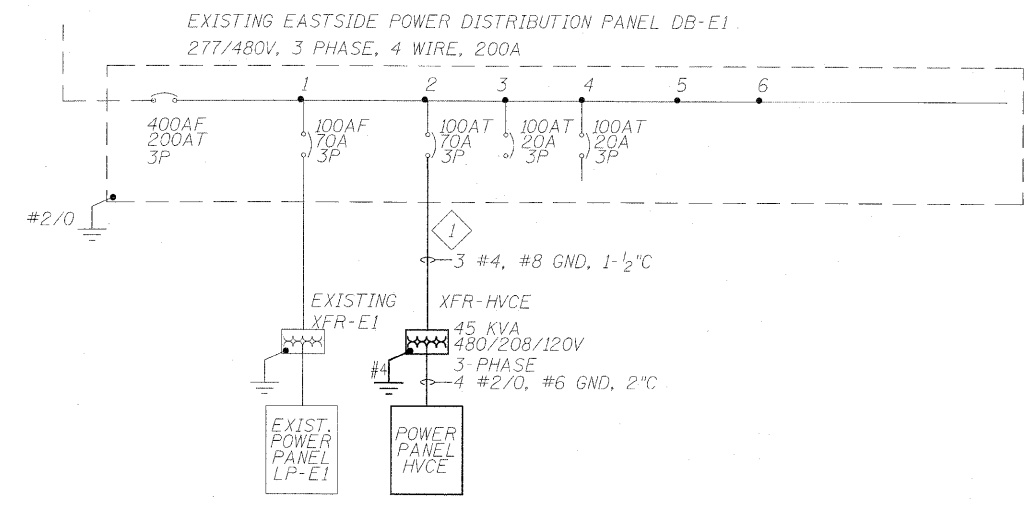
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-I-2	COOK	14	13
CONTRACT NO. 60P18			FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT	

**Sheet Key Notes:**

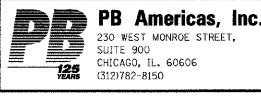
1 Feed transformer HVCE from existing 70 amp breaker in panel DB-E1.

THREE PHASE PANEL SCHEDULE											
PANEL NAME: HVCE		MAIN BKR: 150A MCB		AIC RATING: 10,000 AMPS							
VOLTS: 120/208		BUS SIZE: 225 A		MOUNTING: SURFACE							
PHASE: 3											
Ø	DIRECTORY	LOAD	WIRE	AMP	ROLE	Ø	AMP	WIRE	LOAD	DIRECTORY	Ø
A	UNIT HEATER UH-008	1650	#12	20	2	1	20	#12	1750	CU-001, AC-001	A
B		1650				2			1750		B
C	UNIT HEATER UH-009	1500		20	2	3	20	#12	1750	CU-002, AC-002	C
A		1500				4			1750		A
B	UNIT HEATER UH-007	1500		20	2	5	15	#12	850	CU-003, AC-003	B
C		1500				6			850		C
A	CUH-002	1500		20	2	7	15	#12	850	CU-004, AC-004	A
B		1500				8			850		B
C	UNIT HEATER UH-012	1650		20	2	9				SPACE	C
A		1650				10				SPACE	A
B	UNIT HEATER UH-011	1650		20	2	11				SPACE	B
C		1650				12				SPACE	C
A	UNIT HEATER UH-010	1650		20	2	13				SPACE	A
B		1650				14				SPACE	B
C	SPACE					15				SPACE	C
A	SPACE					16				SPACE	A
B	SPACE					17				SPACE	B
C	SPACE					18				SPACE	C
A	SPACE					19				SPACE	A
B	SPACE					20				SPACE	B
C	SPACE					21				SPACE	C
A	SPACE					22				SPACE	A
B	SPACE					23				SPACE	B
C	SPACE					24				SPACE	C
A	SPACE					25				SPACE	A
B	SPACE					26				SPACE	B
C	SPACE					27				SPACE	C
A	SPACE					28				SPACE	A
B	SPACE					29				SPACE	B
C	SPACE					30				SPACE	C
A	SPACE					31				SPACE	A
B	SPACE					32				SPACE	B
C	SPACE					33				SPACE	C
A	SPACE					34				SPACE	A
B	SPACE					35				SPACE	B
C	SPACE					36				SPACE	C
A	SPACE					37				SPACE	A
B	SPACE					38				SPACE	B
C	SPACE					39				SPACE	C
A	SPACE					40				SPACE	A
B	SPACE					41				SPACE	B
C	SPACE					42				SPACE	C

NOTES:



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USER NAME: kienstra	DESIGNED: J. HEMPHILL	REVISED:
	CHECKED: D. LODUCA	REVISED:
PLOT SCALE:	DRAWN: K. JORDAN	REVISED:
PLOT DATE: 3/25/2011	CHECKED: D. LODUCA	REVISED:

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EAST CONTROL HOUSE  
SCHEDULES AND DETAILS  
FOR STRUCTURE NO. 016-2445  
SHEET NO. E4 OF E4 SHEETS

F.A.P. RTE. 389	SECTION 2424.2B-1-2	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 14
CONTRACT NO. 60P18			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	