

Building a Small Meat Processing Plant



NICHE MEAT PROCESSOR
ASSISTANCE NETWORK

May 26, 2009 Webinar



www.nichemeatprocessing.org



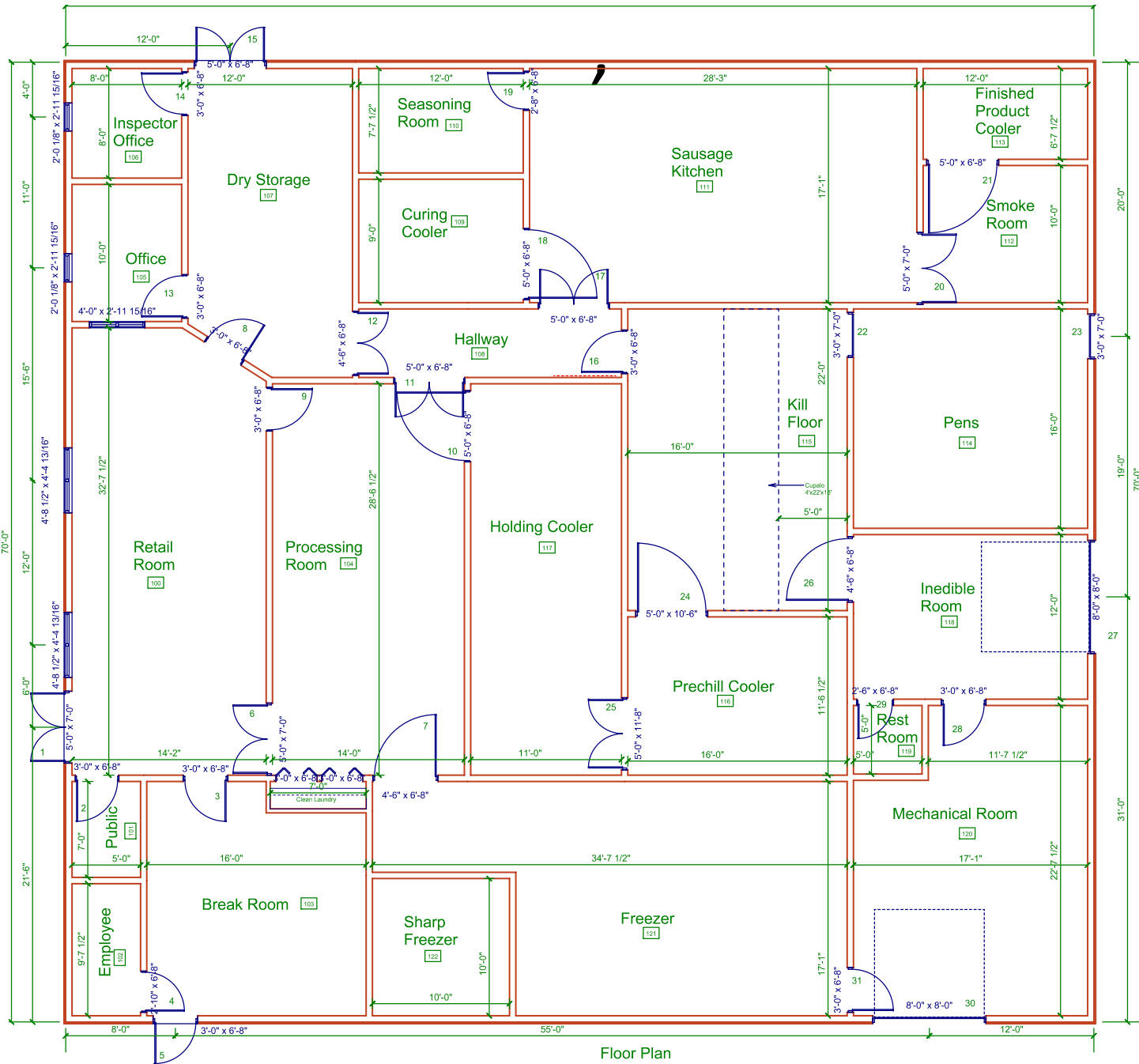
Arion Thiboumery
Iowa State University & NMPAN Co-coordinator

Guide Overview

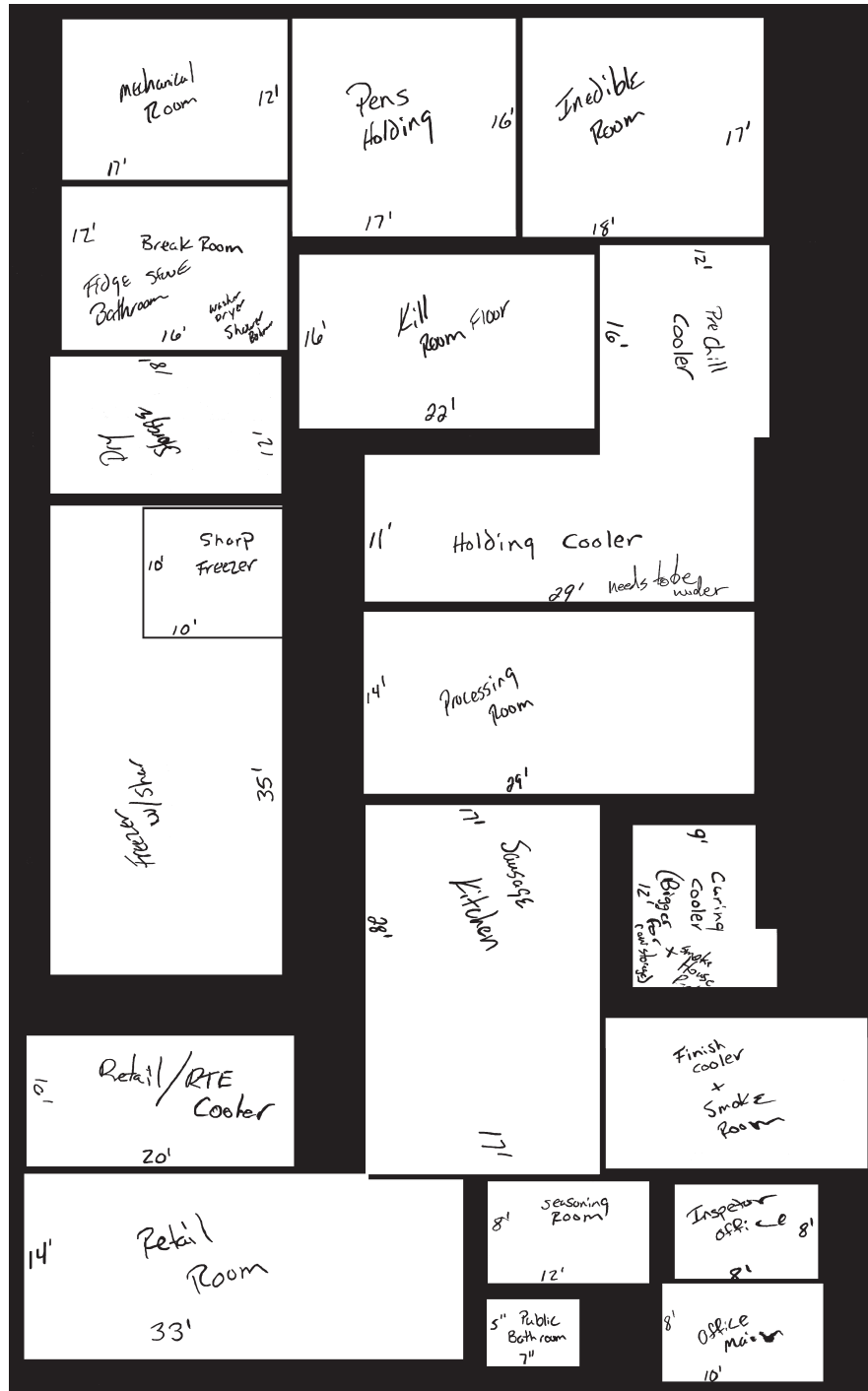
- Two sizes: 2,600 and 5,250 sq.ft.
- Designed by Experienced Consultant
- Includes floor plans for:
 - Refrigeration, Electric, Plumbing, Equipment
- Material Specs and Options
- Capacity Estimates
- Comments & considerations from Iowa meat processors and Meat Inspections
- How to modify layout for your production process

What this Guide is NOT

- For direct construction use... just add meat
- Guarantee regulatory compliance (9 CFR 416.2)
- Perfect -> Typos



Floor Plan



Electrical Specifications

Room No.	Room Name	Lighting Type	Lighting FCP	Switches	Outlets 115v	Outlets 220v	Exhaust Fan	Remarks
100	Retail Area	8"VT, HO T8 4"VT, HO T8	50	1 1-3way	3 1 GFI	2		Needs a night light
101	Freezer	Incandescent	30					Light switch in Retail Room
102	Dry Storage	4"VT, HO T8	30	1	1			
103	Public Rest Room	4"VT, HO T8	30	1	1 GFI		1	Exhaust fan on with light
104	Employee Rest Room	4"VT, HO T8	30	1	1 GFI		1	Exhaust fan on with light
105	Office	4"VT, HO T8	50	1	4			
106	Break Area	4"VT, HO T8	30	1-3way	2			
107	Kill Floor	8"VT, HO T8	50	4	3 1 GFI	2		
108	Pre chill Cooler	8"VT, HO T8	30					Light switch in Kill Floor
109	Holding Cooler	8"VT, HO T8	30					Light switch in Process Room
110	Processing Room	8"VT, HO T8	50	2	2 1 GFI	2		
111	Mixing & Stuffing Area	8"VT, HO T8	50		1 1 GFI	1		Lights on with Process Room lights
112	Curing Cooler	8"VT, HO T8	30	1	2			Light switch in hallway
113	Finished Product Cooler	4"VT, HO T8	30	1				Light switch in hallway
114	Smoke Room	8"VT, HO T8	50	1-3way	1	2	1	
115	Mechanical Room	8"VT, HO T8 4"VT, HO T8	50	1	3	1	2	
116	Offal Cooler	4"VT, HO T8	30					Light switch in Kill Floor
117	Pens	8"VT, HO T8	30					Light switch in Kill Floor

Refrigeration Room Specifications

Room No.	Room Name	Room Size	Ceiling R-value	Walls R-value	Floor R-value	Workers in room	Product Temp in	Product Temp out	Remarks
101	Freezer	14'x9'x10'	30	23	40	0	50°F	0°F	Run room temp at 0 - 10°F Freezer 2000# in 24 hours
108	Pre chill Cooler	8'x14'6"x14'	30	23	10	0	100°F	36°F	Cool 5000# product in 24 hours
109	Holding Cooler	14'x14'6"x14'	30	23	10	0	40°F	34°F	Hold product at 34°F Up to 15000# product
110	Processing Room	24'x11'x10'	30	23	10	5	40°F	40°F	Run room temp at 55°F
111	Mixing & Stuffing Area	14'x12'x10'	30	23	10	3	40°F	50°F	Run room temp at 55°F
112	Curing Cooler	8'6"x10'x10'	30	23	10	0	50°F	36°F	Hold product at 34-36°F
113	Finished Product Cooler	5'x7'x10'	30	23	10	0	120°F	40°F	2000# product in 12 hours
116	Offal Cooler	8'x8'x10'	30	23	10	0	100°F	50-60°F	Run room temp at 50°F 3000# product in 48 hours

NOTES:

Need to supply electrical needs for refrigeration to electrical contractor.

Refrigeration lines should be insulated and covered with PVC or other sealed vapor barrier to avoid condensation.

How to get a copy

www.extension.iastate.edu/store

Search for “PM 2077”