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To Rehab or Not To Rehab

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With many new facilities being constructed, and production animals being moved out of the old facilities, the question that remains is: What do we do with the old buildings? Do we raze it or remodel it? Has the structure outlived its useful life or with a little tweaking can it be part of another facet of the enterprise or even an entirely different enterprise? In order to answer these questions you will need to honestly evaluate the current status of the structure. Sentimentality aside, Humstone[1] (1988) presents a 10-point preliminary checklist to begin evaluation of the feasibility of remodeling and/or restoring an existing barn:

1. Evaluate the framing: Check all posts, beams, sills, rafters, and joists to be sure they are solid and free of rot. Minor sags are probably OK – if you'd been holding up something for 150+ years you'd probably be a little saggy, too. However, cracked beams, punky posts, or twisted joists and rafters could be signs of deeper troubles (#moneypit). You may need to scrape off a century's worth of whitewash in order to make a proper assessment.

2. Evaluate the foundation: Check for cracks, settling, and shifting. Look for loose or missing mortar. A minor crack running along the mortar joint may not be cause for concern, but a generally vertical crack running through the block as well as the mortar could indicate settling or shifting. Spalling (blistering, sloughing) of concrete or plaster coats usually indicates hydraulic pressure from the other side. This may simply mean surface / subsurface water needs to be drained away. Unfortunately, this could also mean that significant damage has already been done to the structural integrity of the wall, and, therefore, the wall, or section of the wall, will need to be rebuilt. (See #1)

3. Evaluate the roof: Check the roof covering and flashing, especially in the valleys and along any shed roofs, cupolas, etc. On the inside, look for water stains and rot on sheathing and beams. Note if any metal plates are significantly rusted.

4. Evaluate the exterior walls: Eyeball the length of the barn at eave level to check walls for straightness. If the foundation has shifted, walls may have sagged and pulled out – floor joists and rafters may only be sitting on a fingernail width of bearing surface. Depending on the condition of the foundation (see #2) you may be able to simply clean out any chaff or animal dander and pull the building back together with a heavy cable and turnbuckle.

5. Evaluate the building interior: Note the location and existence of any drains and/or gutters. Check the condition of existing floors above and below. Will it require resurfacing, and if so how much and of what type? Will it need to meet "Grade A" requirements (i.e. - artisanal cheese storage). Note the amount of free-span space. Will any of the supporting structure have to be moved or changed? Will it easily accommodate all of the equipment needed for the enterprise to be housed here?

6. Evaluate the building location: Is the barn conveniently located with good access to and from other buildings and the farmyard? Can delivery and live-haul trucks easily access the facility? Is there room to add on if you want to expand your operation in the future? Is the current structure in the way of expanding other

facilities or farm lanes? Is the current location creating an environmental nightmare? (It may be less expensive to build elsewhere than to try to properly remedy an environmental issue.)

7. Evaluate the building size. Is the barn big enough for its intended purpose? Is there adequate ceiling clearance and space between interior posts? Is there room to install the equipment you need? (see #5)

8. Evaluate doorways. Will doors need to be enlarged or moved? This may require significant restructuring, especially if you're considering installing overhead doors.

9. Evaluate the building's ambient environment: Is the barn airtight and insulated? Does it need to be? Can appropriate heating and ventilation systems be installed? What is the current condition of any insulation? If it is full of vermin feces and urine or soaking wet from rain or condensation it will have to be replaced.

10. Evaluate the utilities. What is the condition of the plumbing and wiring? Will it need to be updated? Is there sufficient water and is the electrical entrance large enough to handle the expected peak draws? Are you still running on some of the old knob-and-tube wiring? Has the integrity of the wiring insulation been maintained? Is the old galvanized plumbing full of rust and hard water deposits? Will the new water lines have to be insulated to keep them from freezing? Can efficient feeding, watering, and manure handling systems be installed if necessary? There is nothing to be gained in exchanging one labor intensive facility for another.

That being said, I'd like to add another criteria…

11. Biosecurity: What has been the typical pathogen load in this facility? Can the facility be adequately cleaned and sanitized to reduce or eliminate the contamination? For example, if this has been a mature cow barn with a history of respiratory infections and environmental mastitis can you get this clean enough to house highly susceptible neonates (new born calves)?

[1]Humstone, Mary. *Barn Again! A Guide to Rehabilitation of Older Farm Buildings*. Meredith Corporation. 1988.