

## WINERY LONG TERM BARREL STORAGE ROOM

### Viticulture & Enology

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### PROGRAM REQUIREMENTS

<i>Net sq. ft.:</i>	600	<i>Assignable sq. ft.:</i>	600	<i>Number of rooms:</i>	1
<i>Program function:</i>	The Winery Long Term Barrel Storage Room provides space for the long term aging of up to 40 barrels, 1 high on Western Square racks.				
<i>Adjacencies:</i>	Required: The Long Term Barrel Storage Room shall be immediately adjacent to and accessible from the Winery Fermentation Room. The Long Term Barrel Storage Room shall be immediately adjacent to and visible from the Corridor through a public viewing window.				
<i>Hours of occupancy:</i>	Typically short durations and intermittent frequency throughout the entire year, Monday through Friday, 8am to 6pm, except holidays. Population varies up to 2 persons.				
<i>Typical # of occupants:</i>	0	<i>Maximum # of occupants:</i>	2		
<i>Major equipment:</i>	Barrels and barrel racks; pump (occasional use); power wash (occasional use). See "Equipment List Sorted by Room" for complete list of research equipment.				
<i>Process operations:</i>	See Process Load Summary.				
<i>Audio/visual equipment:</i>	None.				
<i>Furniture:</i>	None.				
<i>Signage:</i>	Campus standard room sign. Educational room function description/display. Donor recognition plaque.				
<i>Program contact:</i>	Charles Brenneman				

### ARCHITECTURAL SYSTEMS

<i>Floor plan dimensions:</i>	Minimum 20 feet nominal width as required for four rows of barrels.
<i>Ceiling clearances:</i>	14 feet minimum clear.
<i>General requirements:</i>	All finishes shall be smooth, washable, durable and light in color. All finishes shall be selected for applications as recommended by the manufacturer and shall be installed in accordance with manufacturer's written installation instructions. All finishes, sealants and adhesives shall meet Campus Standards & Design Guide requirements, including limitations on volatile organic compounds, chemical constituents and flammability. Finishes shall meet all applicable local, state and federal regulations and guidelines for spaces in which food or beverages are prepared for human consumption.
<i>Floors:</i>	Floors shall withstand forklift traffic, resist impacts and scratching, resist staining, resist slippage when wet, withstand daily steam or hot water washdown and withstand caustics and acids (potassium hydroxide, tank washdown PH 11-12, wine PH 3-4, acid rinse PH2). Slope 1/4" per foot; ponding not acceptable at any location in room. Provide vapor barrier under structural slab. Suitable floor materials include modified urethane concrete.
<i>Floors base:</i>	None.
<i>Walls:</i>	All walls shall be smooth, durable, cleanable and resistant to mold and humidity. Walls within 60 inches above the floor shall have strong impact resistance, shall be suitable for daily power washdown and shall provide significant thermal mass. Suitable

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assemblies for walls within 60 inches above the floor include cast-in-place concrete, pre-cast concrete, tilt-up concrete, shot-crete or concrete masonry units, provided that all surface voids and mortar joints exposed to the interior are filled smooth and surfaced with epoxy or equivalent coating. Walls above 60 inches above the floor shall withstand periodic washdown and humidity. Suitable assemblies for walls greater than 60 inches above the floor include aluminum or galvanized metal insulated panels with integrally sealed joints and appropriate paint coatings.

<i>Ceilings:</i>	Hard, smooth, washable, light color, non-organic materials. Suitable materials included painted aluminum insulated panels.
<i>Doors:</i>	Insulated, sealed galvanized steel rollup or sliding door, 120"w x 144"h, from Winery Fermentation Room (1); galvanized steel door with viewing window or sidelight, 36'w x 84"h, from Winery Fermentation Room (1).
<i>Casework:</i>	None.
<i>Acoustics:</i>	No requirements.
<i>Sound transmission:</i>	No requirements.

### **FENESTRATION, SKYLIGHTS & LIGHTING**

<i>Daylighting:</i>	None.
<i>Windows:</i>	Interior viewing window from Corridor required. Small vision panel required in door to Fermentation Room.
<i>Window treatment:</i>	None.
<i>Skylights:</i>	Not permitted.
<i>General lighting:</i>	30 footcandles at +36" in high level position. Lamp temperature 4,100 degrees K.
<i>Special lighting:</i>	None.
<i>Lighting controls:</i>	Dual level switching. Photosensor to switch electric lights off if daylight meets footcandle criteria. Manual on/off. Automatic time clock off.

### **POWER & LOW VOLTAGE SYSTEMS**

<i>General power:</i>	Two duplex 120 volt outlets on each wall, waterproof outlet covers, GFI.
<i>Dedicated power:</i>	
<i>Back-up power:</i>	None, except for HVAC system.
<i>Special power reqmnts.:</i>	
<i>Process wiring:</i>	None.
<i>Telephone outlets:</i>	None.
<i>Data outlets:</i>	(2) outlets with 2 cables each.
<i>Security systems:</i>	None.
<i>Equipment alarms:</i>	Room temperature alarm and humidity alarm connected to central campus building information system.
<i>Access control systems:</i>	Card key access.

### **FIRE PROTECTION**

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*Fire alarm:* Required per campus policy and designed per Campus Standards & Design Guide.

*Fire sprinklers:* Required per campus policy and designed per Campus Standards & Design Guide.

### **HEATING, VENTILATING & AIR CONDITIONING**

*Temp. range (deg F):* At all times: 50 min. to 90 max, controlled by user setpoint anywhere within range, +/- 2.

*Humidity control:* Variable, controlled by user between 50% and 100%, +/- 2%, steam in-line injection, chlorine-free water.

*Ventilation rate:* Minimum allowed by code.

*Pressurization:* None.

*CO2 exhaust:* None.

*Supply air filtration:* Filter for dust (MIRV 11).

*Chemical hoods:* None.

*Equipment exhaust:* None, except provide penetrations for future CO2 capture duct.

*Controls:* Thermostat and humidistat dedicated to individual room, both user controllable.

### **PLUMBING & PROCESS PIPING**

*Sinks & fixtures:* (1) hose bib.

*Eyewashes/showers:* None.

*Floor drains:* Trench drain, see Winery Fermentation Room for specifications.

*Grey water systems:* None.

*Domestic water:* None.

*Industrial water:* None.

*Treated water:* Treated water for humidification; 1 hose bib for RO water or charcoal filtered water.

*Industrial steam:* None.

*Culinary steam:* None.

*Compressed air:* None.

*Natural gas:* None.

*Nitrogen:* One outlet with quick connection.

*Glycol:* None.

*Clean in Place:* None.

*Other special piping:* None.

*Metering:* Circuit electrical loads for this room so that power consumption could be independently metered in the future.