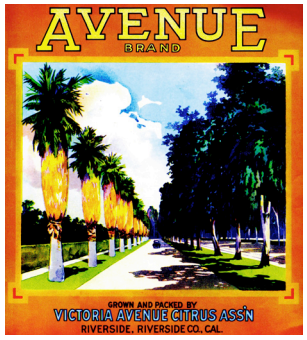
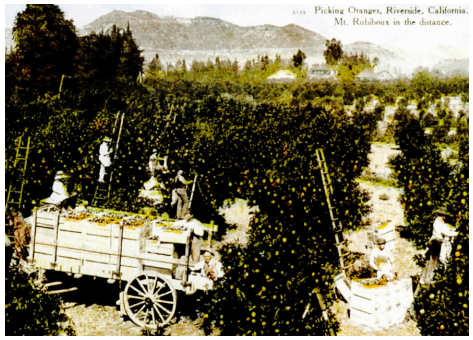
UC RIVERSIDE | THE BARN PROJECT PHASES 1 & 2 | DETAILED PROJECT PROGRAM





FERNAU & **HARTMAN** ARCHITECTS

MAY 28, 2010

TABLE OF CONTENTS

I. INTRODUCTION

Appreciation is given to all who participated in the development of the 2010 Barn Project Phases 1 & 2 Detailed Project Program (DPP).

Executive Summary outlines the project vision, methodology, site, and scope. *Process* describes the series of workshops that included the many stakeholders' input to arrive at the DPP. *Project Goals* states the guiding principles and *Site Analysis* describes the key elements of the 2009 Barn Area Study that were reviewed as part of this DPP.

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Executive Summary

PROJECT VISION

The Barn Project Phases 1 & 2 offers the opportunity to strengthen the connection between the historic roots of the region and the future identity of the UCR campus. The Barn Group has the possibility of becoming a hub of indoor/outdoor activity and diversity that anchors and brands the image of UCR through a respectful integration of old and new. The Barn Project Phases 1 & 2 will:

- Provide a unique dining and entertainment center.
- Enhance awareness of the Campus's agrarian heritage.
- Serve as a gateway / link between the East Campus and the West Campus.
- Integrate indoor and outdoor spaces to support dining and entertainment programs.
- Be developed as a model of sustainable adaptive reuse that can serve to both instruct and demonstrate principles of sustainability.

METHODOLOGY

The 2010 Barn Project Phases 1 & 2 DPP was realized through a series of four on-campus workshops which included the UCR Project Management Team, Steering Committee, and the design consultant team. This team included: the Offices of Capital and Physical Planning, Office of Design and Construction and Housing, Dining & Residential Services. The working sessions included detailed input from KUCR, as well as the College of Humanities, Arts, and Social Sciences (CHASS), University Club, and other campus representatives. The preferred alternative was presented and favorably reviewed by the Campus Design Review Board (DRB).

Previous campus planning documents were used as a point of departure. They include:

- 1993 Historical Resources Inventory, The Barn Theater and The Barn Group
- 2002 East Campus Infrastructure Detailed Project Program
- 2005 Long Range Development Plan
- 2006 East/Southeast Campus Area Study
- 2007 Campus Design Guidelines
- 2008 Campus Aggregate Master Planning Study (CAMPS)
- 2009 Barn Area Study
- 2010 Historic Resources Assessment--The Barn Group and University Cottage

The 2010 Historical Resources Assessment did not encounter any "historical resources" as defined by CEQA within the project area. However, because the buildings are associated with the earliest history of the campus, the buildings should be given special consideration in planning and design. This could include keeping the building s together as a group and preserving their rustic feel by retaining features that contribute to their historic character.

The program elements were defined and located based on campus and user requirements and standards, as well as design consultant input.

PROJECT SITE

The project is located in the southwest Carillon Mall District near the intersection of West Campus Drive with the Barn Walk and the western terminus of the Eucalyptus Walk.

Executive Summary

PROJECT SCOPE:
BARN PROJECT PHASES 1 & 2 & 3

The Barn Project will be developed in three phases. Phase 1 will include: the renovation of The Barn and construction of the Kitchen Addition; the relocation, renovation, and addition to the Barn Stable; the relocation and renovation of the Cottage; the East Courtyard; the Cottage South Patio; Loading Dock Area and Drive Aisle along West Campus Drive; and major utility connections. Phase 2 will include construction of the new facility for KUCR and the West Courtyard. This DPP addresses these two phases in detail. Phase 3 will include the Barn Theater Addition and Renovation. This DPP locates and provides design guidelines for the future development of the Barn Theater, but does not include detailed programming for this phase.

The Program for the 2010 Barn Project Phases 1 & 2 is organized in four categories with the following Assigned Square Footage (ASF):

The 6,473 ASF of The Barn (Barn Dining and Kitchen Addition) includes:
- Production kitchen
- Ware washing
- Back of house support
- Servery
- Indoor seating and Indoor Stage

The 1,870 ASF of the Barn Stable Relocation, Renovation and Addition includes:
- Meeting Room
- Bar
- Lobby
- Kitchen
- Storage

The 739 ASF of the Cottage Relocation and Renovation includes:
- Serving
- Back of house support

The 2,946 ASF of KUCR includes:
- Production spaces
- Library
- Office service/ kitchenette
- Storage
- 5 private offices
- 4 open offices
- Server / transmission room
- Lobby
- Backstage space

PROGRAMMABLE OUTDOOR SPACE

Additional programmable space not included in the ASF totals above include outdoor spaces organized into five categories with the related Square Footage (SF):

The 1,080 SF of the Cottage South Patio includes:
- 54 café style dining seats

The 3,630 SF of the East Courtyard includes:
- 122 café style dining seats

The 875 SF of the Barn Stable Patio includes:
- 44 café style dining seats

The 7,148 SF of the West Courtyard includes:
- 116 café style dining seats
- 3,000 SF shade structure
- 100 SF Outdoor BBQ
- 48 SF Outdoor Condiment Counter

The 720 SF of the Outdoor Stage at KUCR includes:
- Outdoor Stage and roof

SITE BASED PROJECT SCOPE

In addition to the enclosed ASF and the Programmable Outdoor Space outlined above, the project has considerable site-based scope of work. This includes hardscape, softscape, and shade structures associated with the courtyards, portions of the Barn Walk, and some work at Sproul Loading Dock. It also includes primary and secondary pedestrian paths, 3 parking spaces, and Loading Dock Area and Drive Aisle off West Campus Drive.

Process

OVERVIEW

A series of four workshops and a presentation to the Design Review Board were held on the UC Riverside campus along with several conference calls. Information was presented via large-scale drawings, sketches, and PowerPoint presentations. The workshops were held from early February through mid-April 2010.

WORKSHOP 1:
PROGRAM REVIEW AND REFINEMENT; SITE PLAN ANALYSIS; ESTABLISH PROJECT GOALS

- Review 2009 Barn Area Study
- Interview campus and program representatives
- Discuss site plan options / opportunities / constraints
- Discuss building and site character
- Review program for building and site

WORKSHOP 2:
SITE PLAN OPTIONS; BUILDING SYSTEMS; SUSTAINABILITY

- Review building systems options
- Discuss sustainability strategies and LEED
- Review site plan
- Review program

WORKSHOP 3:
FINALIZE ELEMENTS OF DPP; PREPARE FOR COST ESTIMATE

- Review space program and room requirements
- Review site plan and space plans
- Discuss parameters for project schedule and implementation plan for design through construction
- Review building systems narratives, including LEED
- Discuss costing parameters and methods

WORKSHOP 4:
REVIEW DPP AND COST PLAN

- Review and approve Draft DPP
- Review and approve Draft Cost Plan

DESIGN REVIEW BOARD PRESENTATION

- Review project vision, campus precedents, and supporting documents
- Review project milestones
- Review and discuss preferred scheme

CONFERENCE CALL:
KUCR

- Discuss program elements and space allocation for KUCR

CONFERENCE CALL:
PERFORMANCE ISSUES

- Review types of performances
- Discuss A/V and theatrical design and equipment criteria
- Discuss requirements for Ticket Booth and support spaces
- Review outdoor seating Shade Structure
- Discuss opportunities for shared program areas

Project Goals

- Provide a unique dining and entertainment center.
- Enhance awareness of the Campus's agrarian heritage.
- Serve as a gateway / link between the East Campus and the West Campus.
- Integrate indoor and outdoor spaces to support dining and entertainment programs.
- Provide a well organized, welcoming, secure, and efficient group of buildings.
- Design the buildings to function as a group or independently.
- Achieve a minimum LEED Silver USGBC certification.
- Develop sustainable design as an instructional/ demonstration facility.

Site Analysis of 2009 Barn Area Study

OVERVIEW

A detailed analysis of the 2009 Barn Area Study (BAS) was completed at the start of the project. The purpose of the review was to obtain a common understanding of the site, and identify areas that needed further attention during the DPP. The site analysis diagram and supporting text illustrate the key issues to test and verify in the 2009 BAS site plan.

FLOW & CIRCULATION

The Barn Group, located northwest of the intersection of West Campus Drive and the termination of Eucalyptus Walk, is a gateway site from the community into the core of the East Campus.The Barn Walk links the perimeter to the core of the campus and provides an important service access to Sproul Hall.

A strong pedestrian corridor enters The Barn Group site through the Humanities & Social Sciences Building, and connects to the Barn Walk from the west, while the walkway that runs along the south of Sproul and Watkins Hall connects to the Barn Walk from the east. This linkage must be maintained.

West Campus Drive is a major peripheral Campus loop . Proposed realignment to the road is considered a future project (note: the illustration shows the future road realignment as proposed in the 2009 BAS). The project must be planned to work with both the current and the future road.

Within the site, easy flow from indoor to outdoor should be enhanced to support dining and entertainment and to activate the outdoor spaces.

OUTDOOR SPACES

The project will make a significant contribution to the existing and very successful outdoor spaces on the campus. Two major courtyards (East and West) furnish seating areas that support the Barn's primary activities. A third outdoor space at the termination of Eucalyptus Walk, the South Cottage Patio, could offer an inviting entry to the Barn Walk.

IMPLEMENTATION

Initial Phase 1 & 2 construction can be completed via a series of coordinated projects. Site planning will need to consider how the Barn Theater can be accessed for future development.

AREAS FOR FURTHER INVESTIGATION

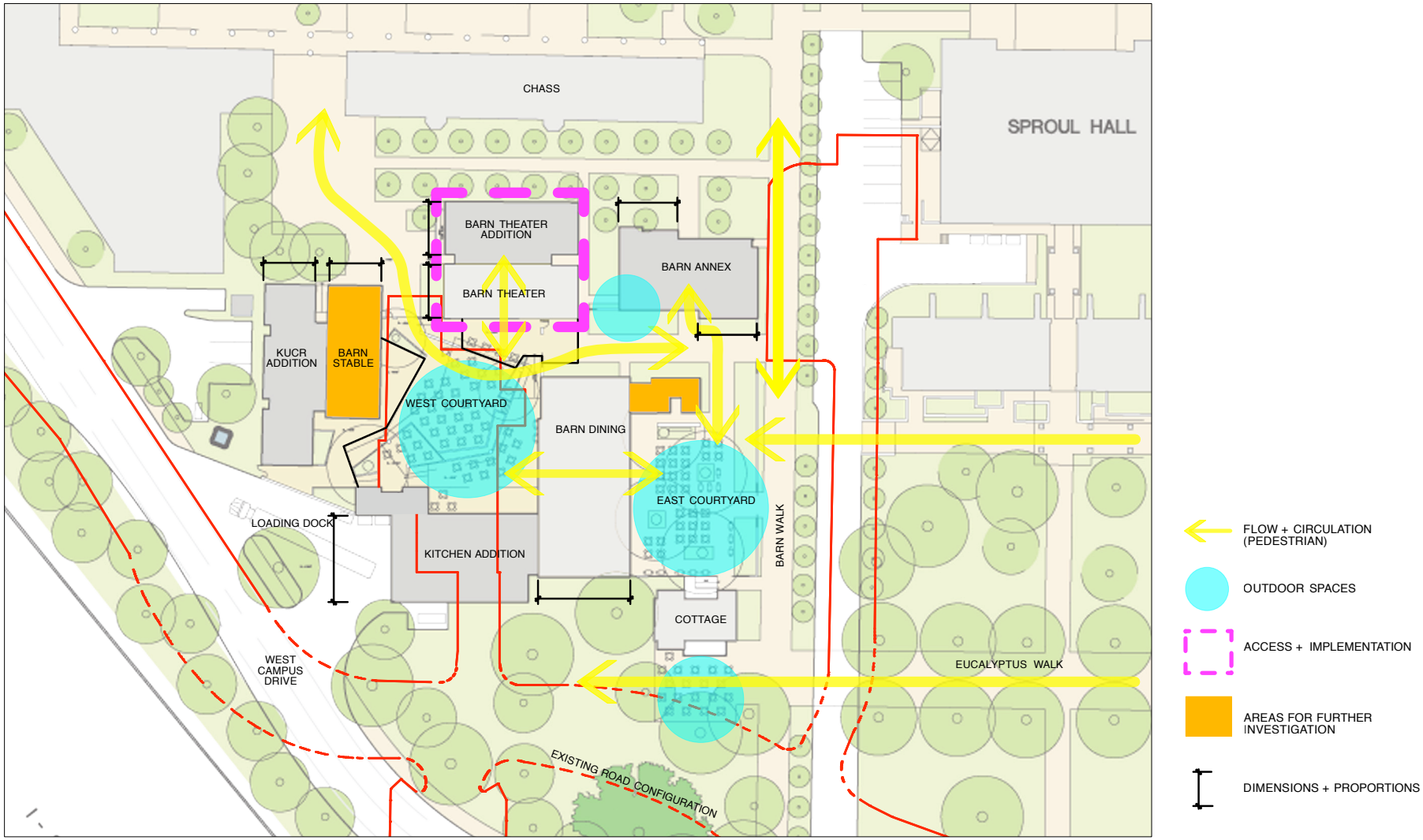
Several areas of the BAS are worth revisiting.

- Using the Barn Stable for KUCR may not be the best programmatic fit for the existing building.
- Adding a full basement under the Barn Stable may not be the most cost effective way to gain space.
- The location of the restrooms seems to isolate the Barn Annex program from the East Courtyard.
- The Cottage may need to move north to avoid existing underground utilities.
- Two outdoor performance stages could be combined into one, to improve Campus and site circulation and West Courtyard seating layout.

HISTORIC CHARACTER—DIMENSIONS AND PROPORTIONS

The character of the existing barn structures should be maintained. Additions should support their character but be distinctly different, while being compatible with the re-purposed barn structures. The dimensions and proportions, as well as the materials and roof configurations, will need to be carefully studied in the design phases.

Site Analysis of 2009 Barn Area Study



SITE ANALYSIS OF 2009 BARN AREA STUDY

II. FUNCTIONAL CONCEPTS

The Composite Site Organization Plan and site diagrams were developed through the exploration of alternatives, that built upon the 2009 Barn Area Study and the goals for the project.

Maintaining the character of the existing structures to be repurposed and developing the synergy between the indoor and outdoor spaces for dining and entertainment were the touchstones for the development of the preferred concept.

A series of diagrams present the preferred concept, and show how operational issues (including service access and security) are addressed. A study of potential improvements to the Sproul Hall loading dock was also done.

Composite Site Organization Plan

BUILDINGS

THE BARN

Barn Dining
- Indoor dining and entertainment venue (renovation)

Kitchen Addition
- Main Kitchen supporting The Barn Group (new construction)

COTTAGE
- Coffee house with some limited food service (renovation and relocation)

BARN STABLE
- Multipurpose event venue (renovation of relocated structure and new construction)

BARN THEATER
- Rehearsal and performance space for CHASS (future phase renovation and addition)

KUCR
- Purpose built radio station (new construction)

OUTDOOR SPACES

EAST COURTYARD
- Quiet dining courtyard

WEST COURTYARD
- Outdoor entertainment and dining venue including covered Outdoor Stage and Shade Structure

BARN STABLE PATIO
- Outdoor dining area

SOUTH COTTAGE PATIO
- Outdoor dining area

Composite Site Organization Plan

OVERVIEW

Project site is located at the southwest edge of the campus core, and is crisscrossed by vibrant pedestrian pathways.

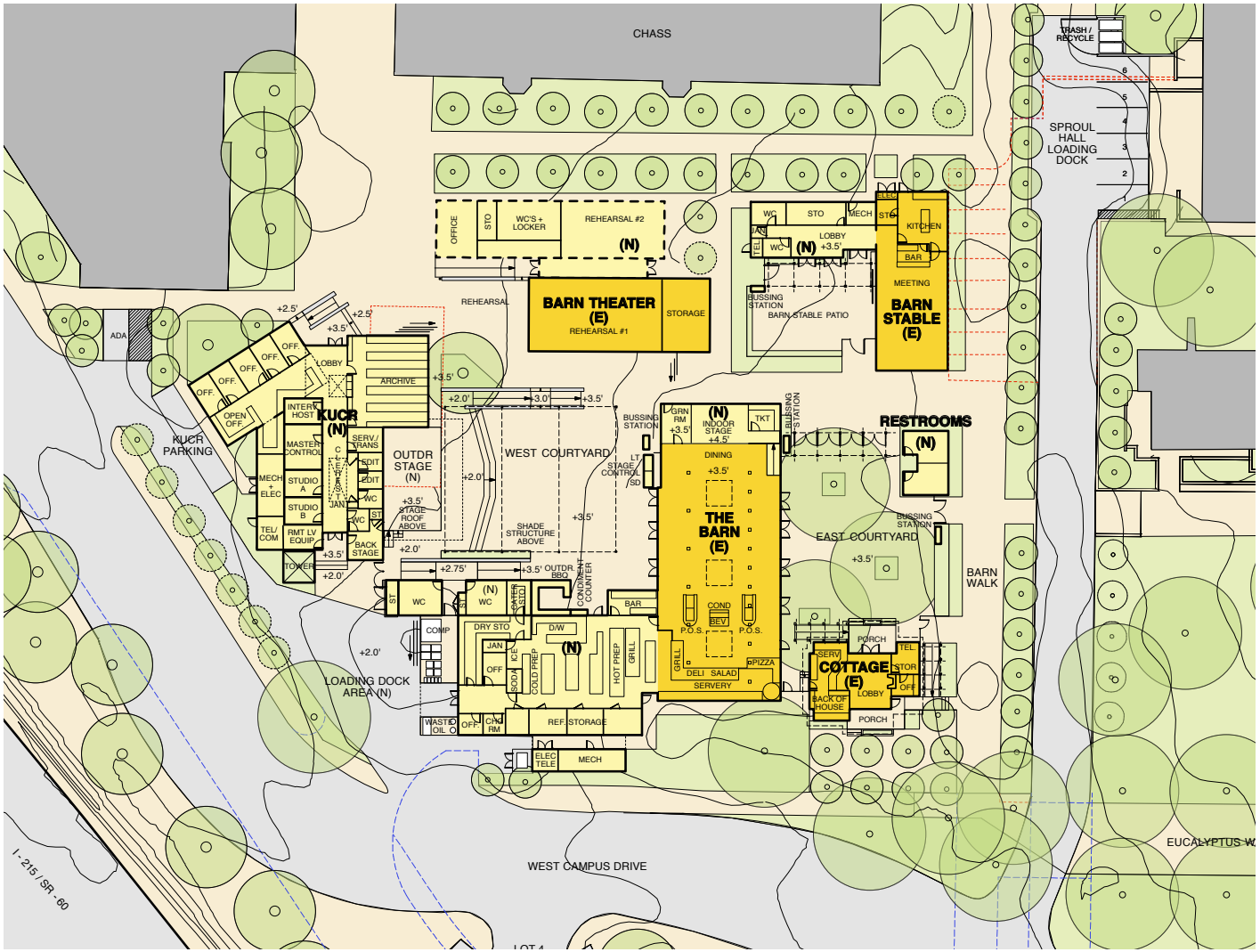
The site plan organizes the buildings and land to frame a series of outdoor rooms, while enhancing the pedestrian pathways throughout.

The East Courtyard will provide for quiet outdoor dining and is framed by two historically significant buildings; the relocated Cottage, a coffeehouse and entrance marker for the East Campus; and The Barn, a cultural dining and entertainment venue.

The West Courtyard will host a variety of live performances as well as provide space for outdoor dining. It is framed by The Barn, the Barn Theater, and KUCR.

The relocated Barn Stable frames a patio providing a more intimate indoor/outdoor venue for various events including faculty gathering and weddings.

Service for the Kitchen Addition and KUCR is screened by the landscape strip along West Campus Drive.



COMPOSITE SITE ORGANIZATION PLAN

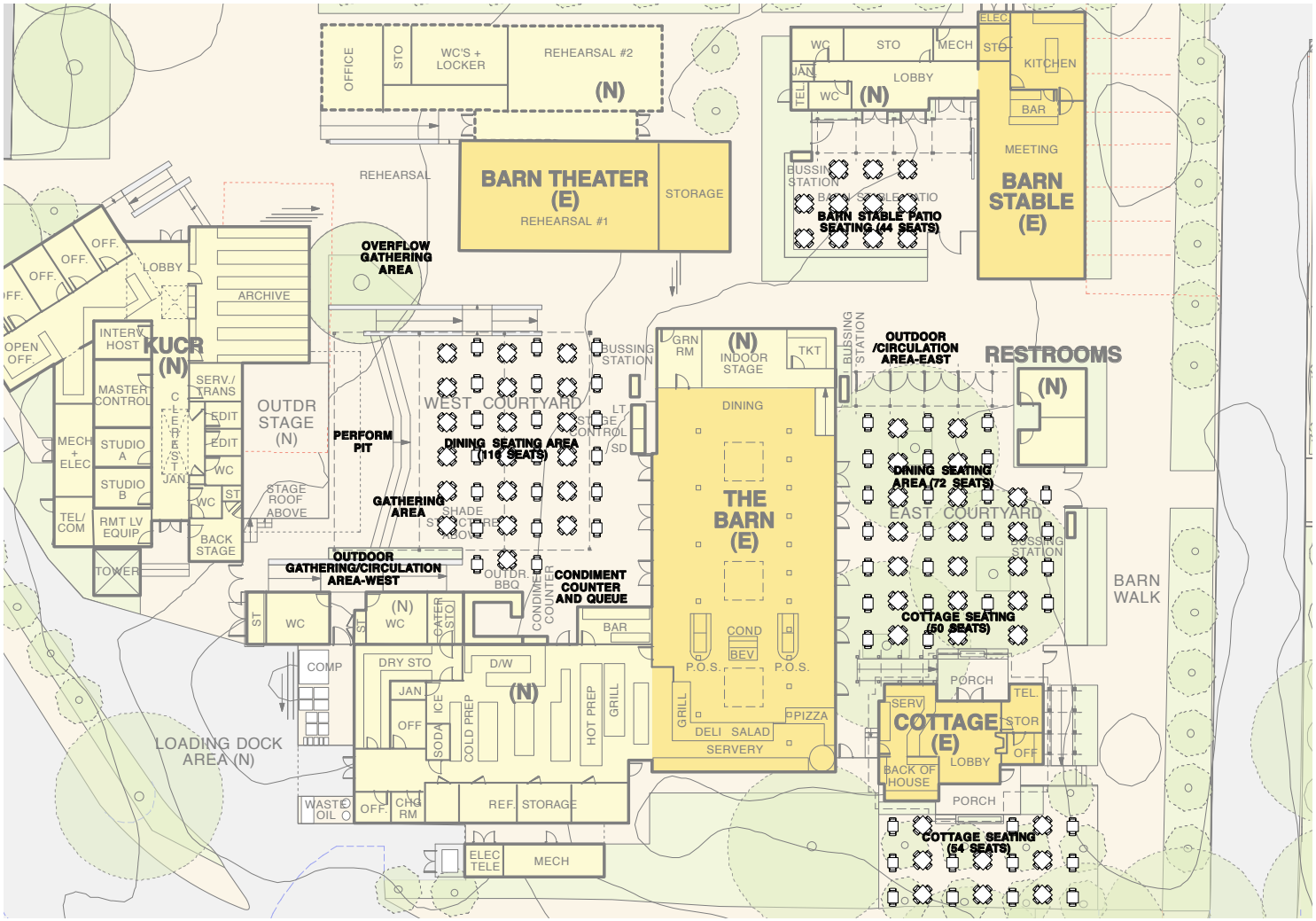
0 30’ 60’ 120’

NOTE: The conceptual vertical control points shown are relative to each other but not related to USGS survey heights. They are to be verified, during design, once a site survey is available.

Site Diagrams

OUTDOOR SEATING

This diagram illustrates a potential seating arrangement and necessary areas to meet the required seat count. These areas are based on approximately 20 SF per seat.



OUTDOOR SEATING DIAGRAM

0 20’ 40’ 80’

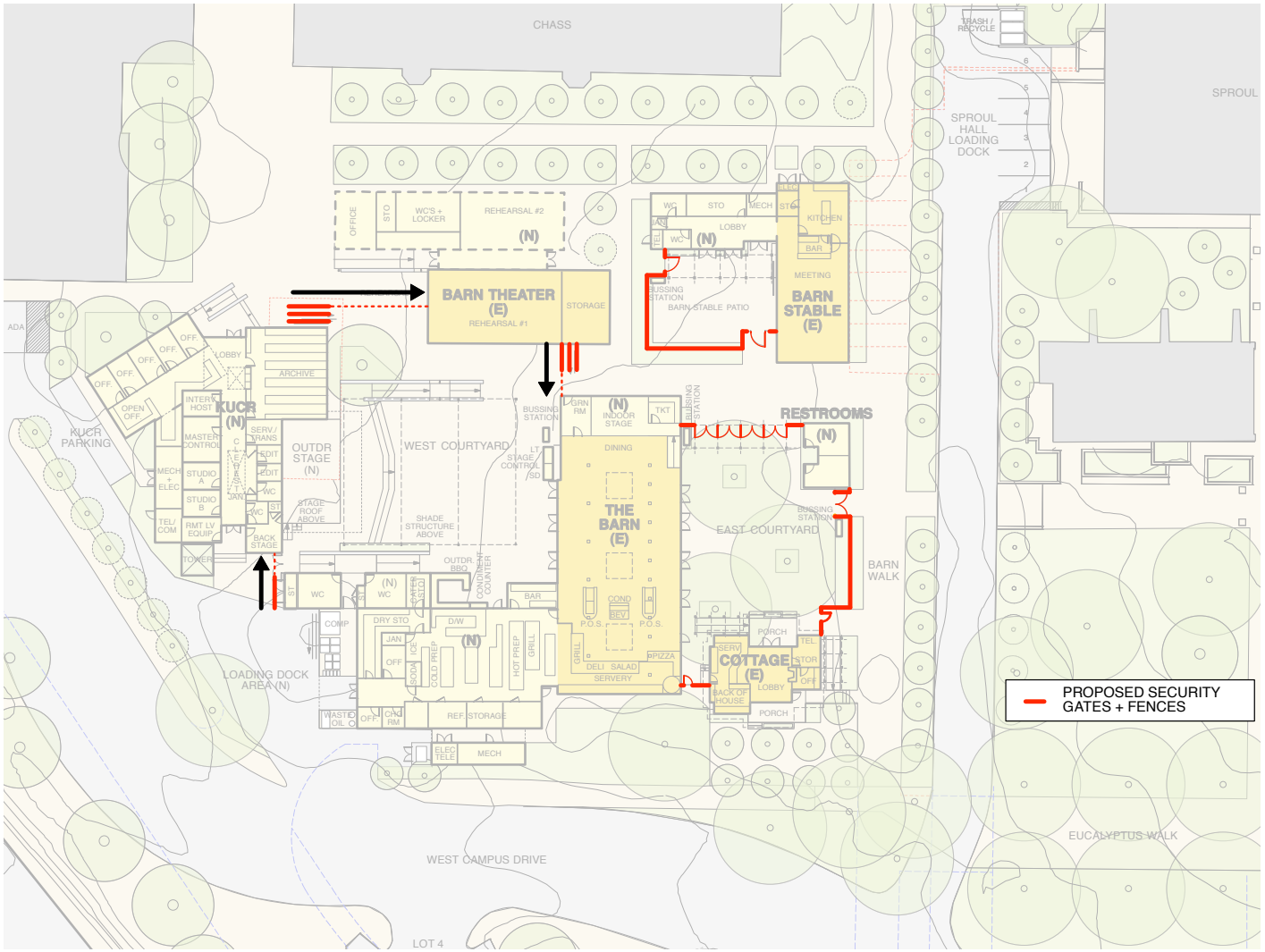
Site Diagrams

SECURITY

The goal is to secure the three courtyards while allowing through-site access between the Barn Walk and CHASS.

The West Courtyard has three points of access, with its primary entrance being to the east, where tickets will be sold and people will queue for events.

The East Courtyard and Barn Stable Patio can both be independently isolated and secured.



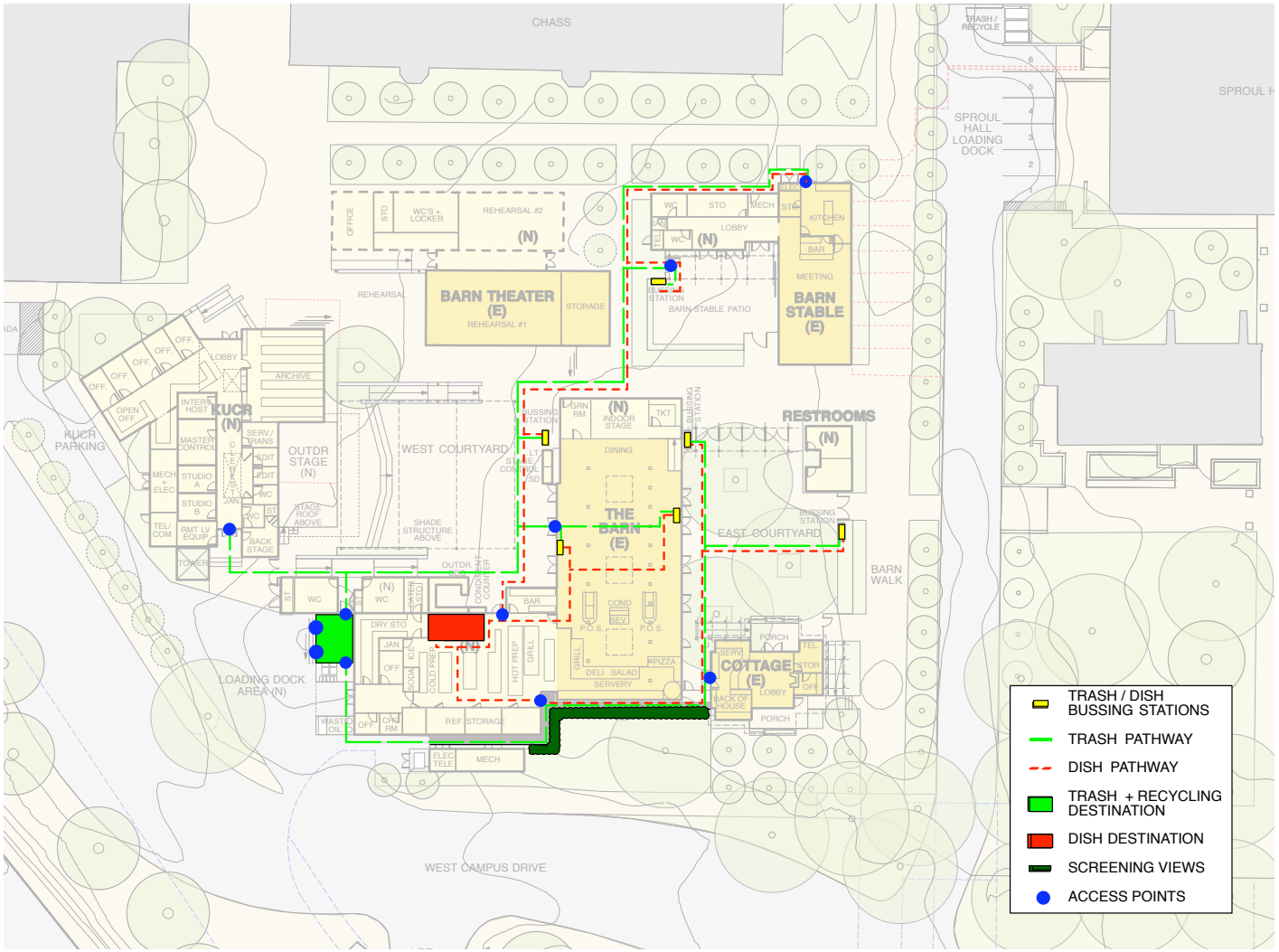
SECURITY DIAGRAM

Site Diagrams

ON-SITE SERVICE CIRCULATION

The majority of service circulation will be accomplished on-site with carts pushed by hand.

The Kitchen Addition serves as the service core for dining operations on-site. It will provide food storage and preparation for Barn Dining, East and West Courtyards, Barn Annex, and Cottage. It will also serve as an area of preparation for catered events elsewhere on the campus (see food service narrative).



ON-SITE SERVICE CIRCULATION DIAGRAM

0 30’ 60’ 120’

Site Diagrams

SITE CIRCULATION

SERVICE VEHICLES

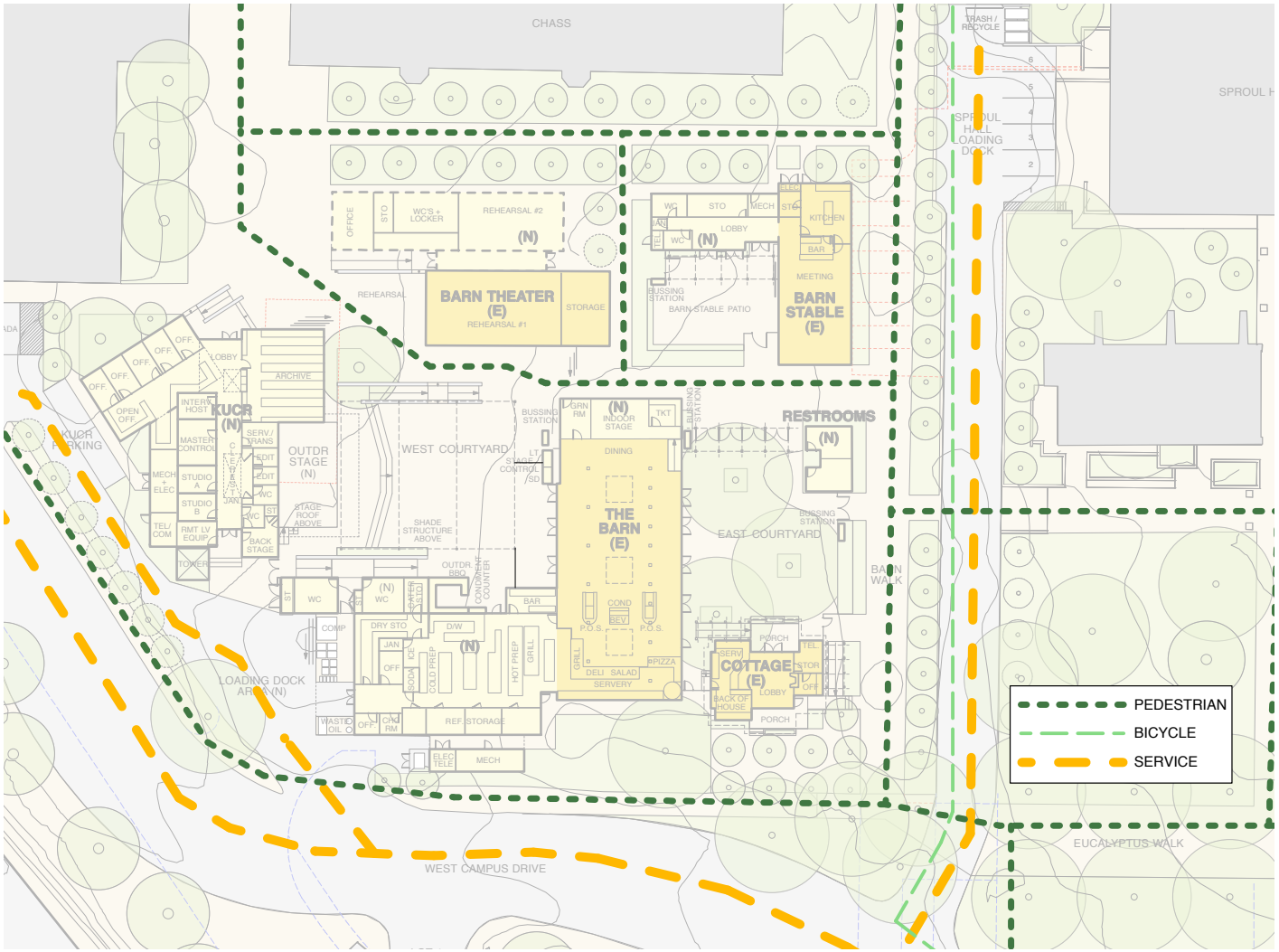
West Campus Drive is a major peripheral campus loop road and provides access to The Barn Group. This service access is separated from West Campus Drive by a landscaped median that will screen the facilities. Service access to The Barn will be from the Loading Dock at the southwest corner of the Kitchen Addition. This service lane also provides access to KUCR's three parking spaces. Service access to the Sproul Hall Loading Dock will be from a service road that parallels the Barn Walk.

BICYCLES

Bicyclists will move with traffic along West Campus Drive and connect to East Campus via the Barn Walk service road.

PEDESTRIANS

The Barn Walk links the perimeter to the core of the East Campus. It is the terminus of both Eucalyptus Walk and the walk just south of Sproul Hall and Watkins Hall. A strong pedestrian corridor enters the Barn Group through the College of Humanities, Arts, and Social Sciences (CHASS) Building from the northeast, and connects to the Barn Walk. Should entertainment events close the West Courtyard to through traffic, pedestrians can walk through the orange grove just south of CHASS. West Campus Drive is a major peripheral campus loop road for pedestrians as well as vehicles.



SITE CIRCULATION DIAGRAM

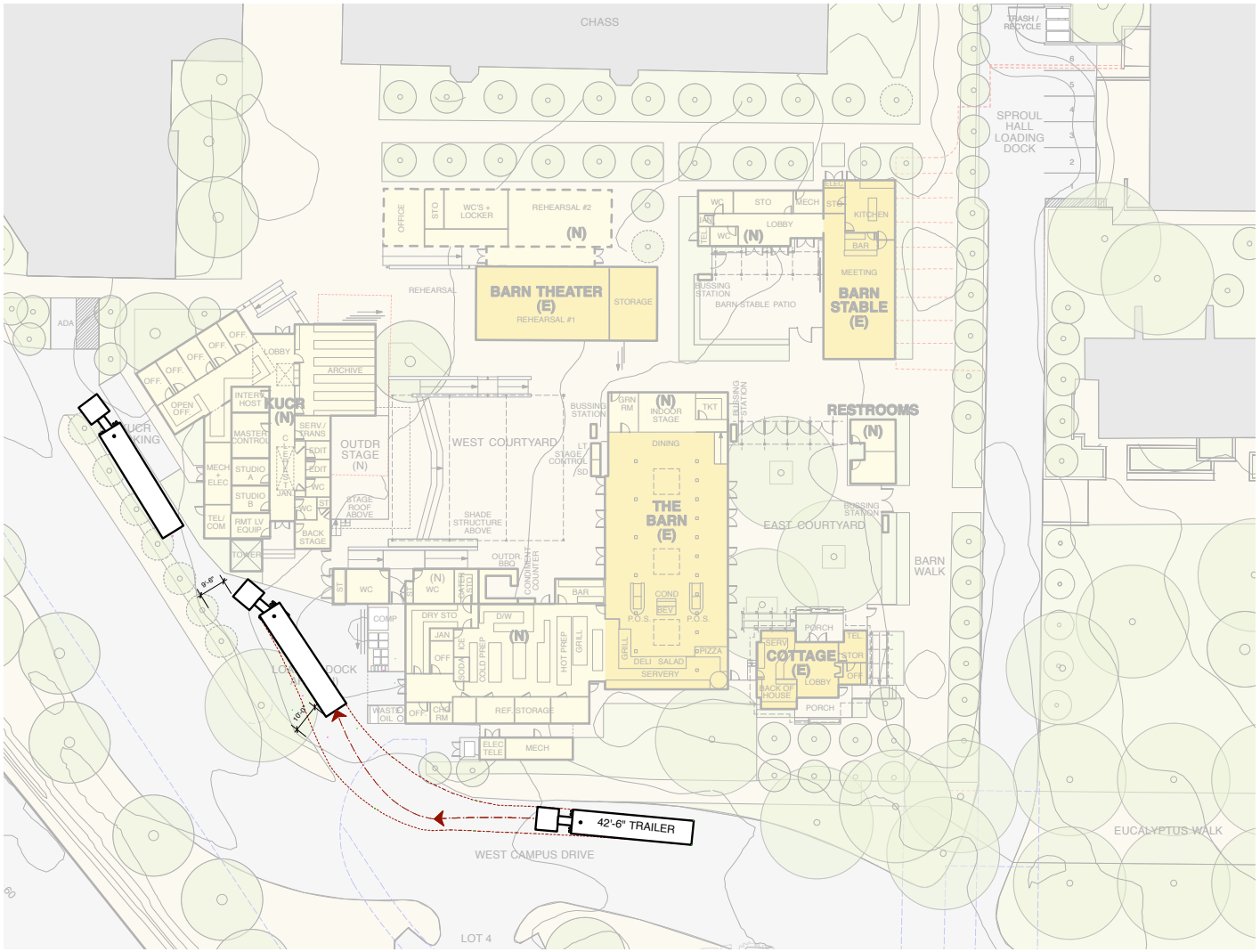
0 30' 60' 120'

Site Diagrams

TRUCK TURNING

Truck turning for the largest delivery truck was studied with the following goals:

- Allow for a drive aisle to also serve KUCR parking
- Allow clearance for a car to pass alongside a delivery vehicle
- Provide a strong pedestrian experience along West Campus Drive



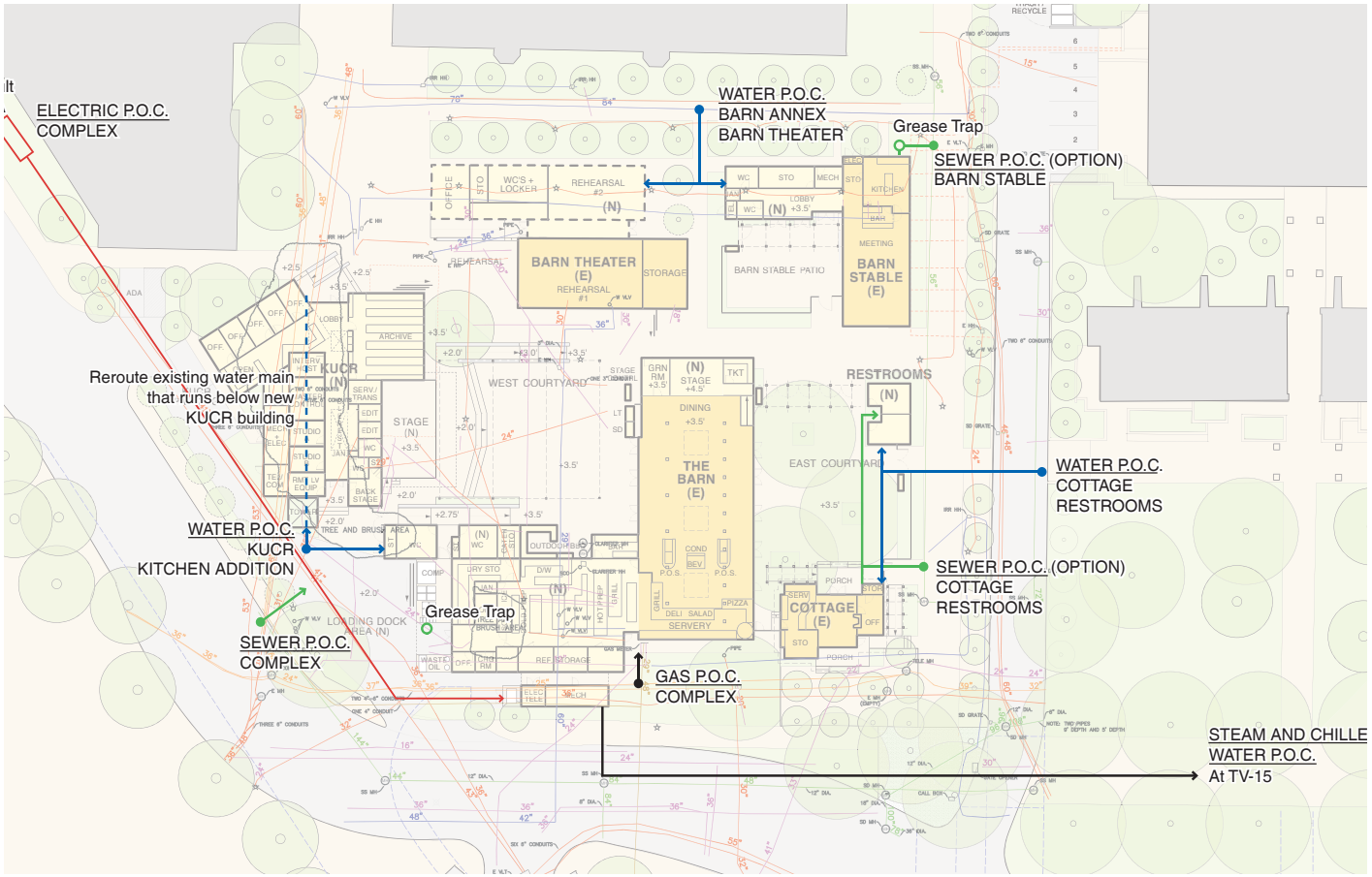
TRUCK TURNING DIAGRAM

0 30' 60' 120'

Site Diagrams

UTILITY POINTS OF CONNECTION

See civil narrative for information on utility points of connection.



UTILITY POINTS OF CONNECTION

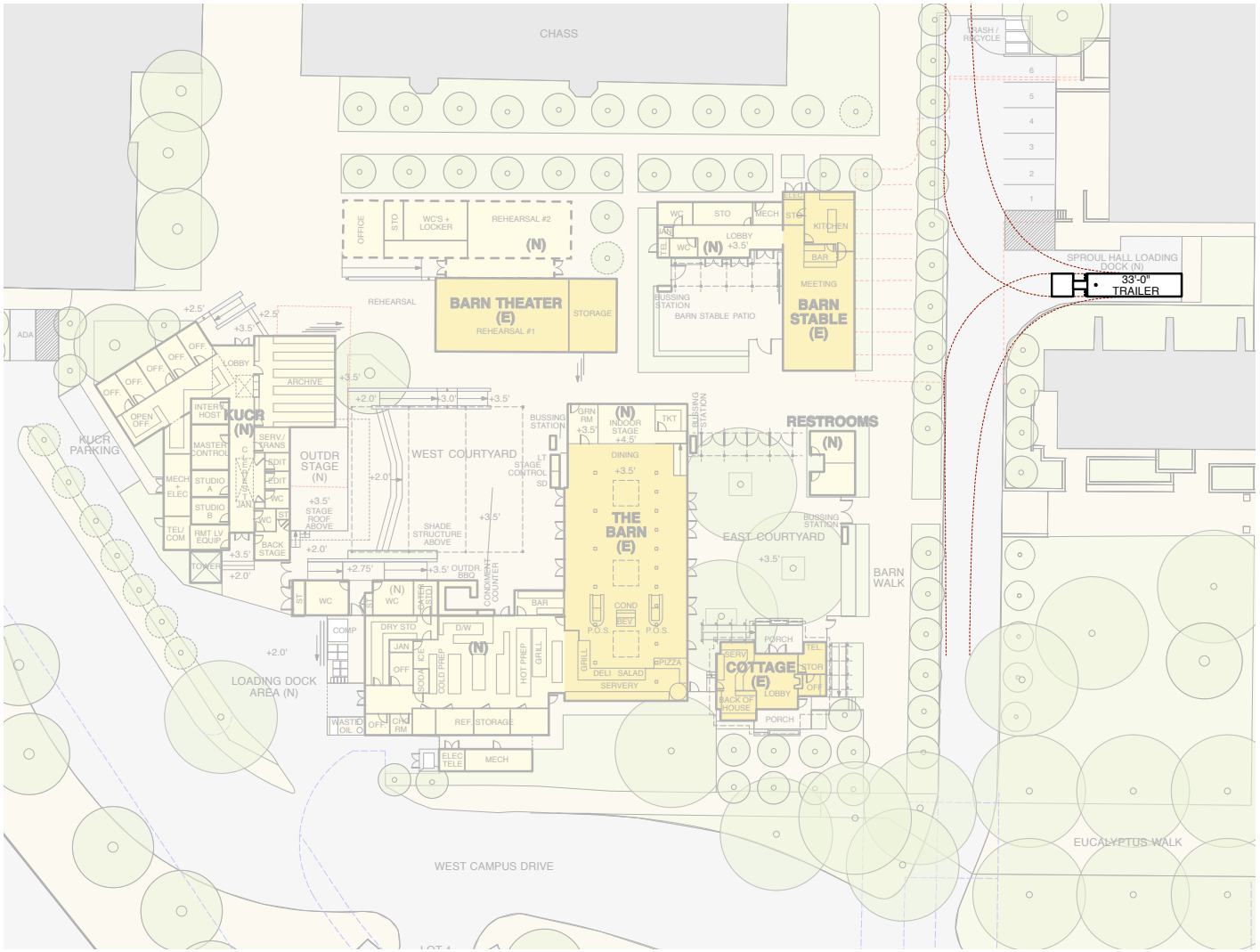
Site Diagrams

ALTERNATE SPROUL LOADING DOCK

The 2009 Barn Area Study proposed major modifications to the Sproul Hall Loading Dock to address several issues. One of the issues identified with the existing loading dock is the need for the front-loading trash collection vehicles to back up to West Campus Drive when exiting. While the costs for any work associated with the Sproul Hall Loading Dock (east of the curb at the Barn Walk) are not included in the budget of the Barn Project Phases 1 & 2, three options were explored for this report:

- Maintain the existing configuration.
- Reconfigure the service vehicle spaces and screen the recycling/ trash bins within a new enclosure (as illustrated in the Composite Site Organization Plan, page 13.
- Provide a new loading dock between the Sproul Hall buildings as well as the modifications mentioned in option 2 above (as illustrated in the diagram on this page).

Each option will need to allow for through access to the Carillon Mall by Fire Department vehicles.



ALTERNATE SPROUL LOADING DOCK DIAGRAM

III. PROGRAM

The unique dining and entertainment opportunities offered by the facilities, and the site's rich agrarian and cultural heritage were emphasized throughout the planning process. The addition of KUCR to the site increases the breadth of entertainment possibilities, while giving the station a new and more functional facility.

The identity and character of the project—within the campus, within the Riverside community, and within the UC system—are addressed in relation to the unique functional requirements that are the basis of the program. The Project Area Summary and the Room Data Sheets summarize these requirements.

Project Area Summary

BUILDING AND ASSOCIATED OUTDOOR AREAS	ASF	BASIC GROSS TOTAL	Covered Area (SF)	OGSF100	OGSF50	SF[1]	Indoor Dining Seating	Outdoor Dining Seating
COTTAGE	**739**	**879**	**356**	**1,235**	**1,057**			
THE BARN: BARN DINING & KITCHEN ADDITION	**6,473**	**8,647**	**635**	**9,282**	**8,964**		**94**	
BARN STABLE	**1,870**	**2,467**	**100**	**2,567**	**2,517**		**42**	
KUCR	**2,946**	**4,423**		**4,423**	**4,423**			
BARN THEATER[2]	**3,013**	**3,465**		**3,465**	**3,465**			
SOUTH COTTAGE PATIO (OUTDOOR)[3]						**1,080**		**54**
EAST COURTYARD (OUTDOOR)[4]						**3,630**		**122**
WEST COURTYARD (OUTDOOR)[5, 6]			**974**			**7,148**		**116**
BARN STABLE PATIO (OUTDOOR)						**875**		**44**
TOTAL	**15,041**	**19,880**	**2,065**	**20,971**	**20,426**	**12,733**	**136**	**335**

[1] Outdoor areas are calculated in square feet (SF).

[2] The Barn Theater is not included as part of the Barn Project Phases 1 and 2, areas per the 2009 Barn Area Study (BAS).

[3] The South Cottage Patio has outdoor café seating adjacent to the Cottage.

[4] The outdoor dining seating in the East Courtyard includes seating for the Barn Dining and the Cottage.

[5] The covered Outoor Stage adjacent to KUCR at the West Courtyard has a Covered Area of 974 SF.

[6] The outdoor Shade Structure (3,000 SF) at the West Courtyard is included in total oudoor area of the West Courtyard.

Project Area Summary

AREA DESCRIPTION	NEW CONSTRUCTION	RENOVATION OF EXISTING BUILDING	TOTAL
COTTAGE			
ASSIGNABLE (ASF): SERVING			
Lobby		151	151
Serving Area		150	150
Customer Queuing		120	120
Self-Serve Condiment Counter & Queuing		24	24
SUBTOTAL	***0***	***445***	***445***
ASF: BACK OF HOUSE SUPPORT			
Dry Storage		64	64
Refrigerated Storage - Bulk		36	36
Storage		55	55
Office		55	55
Pot-washing		60	60
Ice Making/Prep/Misc Support		24	24
SUBTOTAL	***0***	***294***	***294***
ASSIGNABLE TOTAL	**0**	**739**	**739**
NON-ASSIGNABLE (NON-ASF) SPACES			
Telecom/Electrical		25	25
NON-ASSIGNABLE TOTAL	**0**	**25**	***25***
NET TOTAL ASF & NON-ASF	**0**	**764**	**764**
Grossing Factor (15%)	0	115	115
BASIC GROSS TOTAL	**0**	**879**	**879**
ASF to GSF Ratio	**0%**	**84%**	**84%**
PROGRAMMABLE COVERED OUTDOOR SPACE			
Entrance Arcade		45	45
Front Porch		137	137
Back Porch		174	174
PROGRAMMABLE COVERED OUTDOOR TOTAL	***0***	***356***	***356***
OGSF100	**0**	**1,235**	**1,235**
OGSF50	**0**	**1,057**	**1,057**
PROGRAMMABLE OUTDOOR SPACE[1]			
Outdoor Seating - East Courtyard[2]	1,000		1,000
Outdoor Seating - South Cottage Patio	1,080		1,080
TOTAL OUTDOOR SPACE	***2,080***	***0***	***2,080***

[1] Outdoor areas are calculated in square feet (SF).

[2] Assume 20 SF / Person for outdoor seating:

Outdoor Seating - East Courtyard	1,000	/ 20 =	50
Outdoor Seating - South Cottage Patio	1,080	/ 20 =	54
Total Outdoor Cottage Seating			104

Project Area Summary

AREA DESCRIPTION	NEW CONSTRUCTION	RENOVATION OF EXISTING BUILDING	TOTAL
THE BARN: BARN DINING/ KITCHEN ADDITION			
ASSIGNABLE (ASF): PRODUCTION KITCHEN			
Cold Prep	579		579
Soda Room / Ice Machine	82		82
Hot Production (Cook Line & Grille)	408	153	561
Refrigerated Storage - Bulk Food	120		120
Refrigerated Storage - Finished Product Cooler	120		120
Refrigerated Storage - Beer Cooler	80		80
Frozen Storage	120		120
Dry Storage - Food	340		340
Dry Storage - Liquor	30		30
Dry Storage - Catering Equipment	80		80
Receiving, Recycling and Outbound Staging	160		160
SUBTOTAL	***2,119***	***153***	***2,272***
ASF: WARE-WASHING			
Dishwashing & Pot-washing Combined	127		127
Janitor's Closet	32		32
SUBTOTAL	***159***	***0***	***159***
ASF: BACK OF HOUSE SUPPORT			
Unisex Changing Room & Lockers	56		56
Manager's Office	80		80
Production Office	80		80
SUBTOTAL	***216***	***0***	***216***
ASF: SERVING			
Serving Area		800	800
Customer Queuing		360	360
Self-Serve Beverage Counter & Queuing		65	65
Double-sided Service Bar	136		136
Self-Serve Condiment Counter & Queuing		65	65
SUBTOTAL	***136***	***1,290***	***1,426***
ASF: INDOOR SEATING & STAGE			
Indoor Seating[1]		1,870	1,870
Indoor Stage	280		280
Green Room	150		150
Ticket Booth	100		100
SUBTOTAL	***530***	***1,870***	***2,400***
ASSIGNABLE TOTAL	**3,160**	**3,313**	**6,473**
NON-ASSIGNABLE (NON-ASF) SPACES			
Stage Power & Dimmers	50		50
Mechanical	200		200
Telecom Closet	120		120
Electrical Room	61		61
Public Restrooms (4)[2]	665		665
NON-ASSIGNABLE TOTAL	**1,046**	**0**	**1,046**
NET TOTAL ASF & NON-ASF	**4,206**	**3,313**	**7,519**
Grossing Factor (15%)	631	497	1,128
BASIC GROSS TOTAL	**4,837**	**3,810**	**8,647**
ASF TO GSF RATIO	**65%**	**87%**	**75%**

AREA DESCRIPTION	NEW CONSTRUCTION	RENOVATION OF EXISTING BUILDING	TOTAL
THE BARN: BARN DINING/ KITCHEN ADDITION (continued)			
NON-PROGRAMMABLE COVERED OUTDOOR SPACE			
Covered space	100		100
Covered Loading Dock Area	535		535
NON-PROGRAMMABLE COVERED OUTDOOR TOTAL	***635***		***635***
OGSF100			**9,282**
OGSF50			**8,964**
PROGRAMMABLE OUTDOOR SPACE[3]			
Outdoor Dining Seating - East[4]	1,450		1,450
Outdoor Dining Seating - West[4]	2,375		2,375
Outdoor Gathering/Circulation - East	1,180		1,180
Outdoor Gathering Area - West	485		485
Outdoor Pit (Gathering) - West	650		650
Outdoor Overflow Gathering Area- West	1,320		1,320
Outdoor Circulation - West	2,170		2,170
Outdoor BBQ	100		100
Outdoor Condiment Counter & Queuing	48		48
SUBTOTAL	***9,778***	***0***	***9,778***
NON-PROGRAMMABLE OUTDOOR SPACE			
Loading Dock[5]	3,465		3,465
SUBTOTAL	***3,465***	***0***	***3,465***
TOTAL OUTDOOR SPACE	**13,243**	**0**	**13,243**

[1] Assume 20 SF / Person for indoor dining seating:

Indoor Seating 1,870 ASF / 20 = 94

[2] Restroom area total include the East Courtyard and West Courtyard Restrooms.

[3] Outdoor areas are calculated in square feet (SF).

[4] Assume 20 SF / Person for outdoor dining seating:

Outdoor Dining Seating - East 1,450 / 20 = 72

Outdoor Dining Seating - West 2,375 / 20 = 116

[5] Loading Dock includes space for truck and/or vehicle parking and is adjacent to Covered Loading Dock Area.

Project Area Summary

AREA DESCRIPTION	NEW CONSTRUCTION	RENOVATION OF EXISTING BUILDING	TOTAL
BARN STABLE (formerly known as "Barn Annex")			
ASSIGNABLE (ASF)			
Meeting Room[1]		868	868
Bar		100	100
Lobby	328		328
Kitchen		254	254
Storage		70	70
Storage for tables and chairs	250		250
ASSIGNABLE TOTAL	**578**	**1,292**	**1,870**
NON-ASSIGNABLE (NON-ASF) SPACES			
Mechanical	100		100
Telecom Closet	48		48
Public Restrooms (2)	127		127
NON-ASSIGNABLE TOTAL	**275**	**0**	**275**
NET TOTAL ASF & NON-ASF	**853**	**1,292**	**2,145**
Grossing Factor (15%)	128	194	322
BASIC GROSS TOTAL	**981**	**1,486**	**2,467**
ASF to GSF Ratio	**59%**	**87%**	**76%**
OUTDOOR SPACE[2]			
Covered Outdoor Space	100		100
NON-PROGRAMMABLE COVERED OUTDOOR TOTAL	***100***	***0***	***100***
OGSF100			**2,567**
OGSF50			**2,517**
OUTDOOR SPACE[2]			
Barn Stable Patio[3]	875		875
TOTAL OUTDOOR SPACE	**875**	**0**	**875**

[1] Assume 20 SF / Person for indoor dining seating:

Meeting Room 868 ASF / 20 = 42

[2] Outdoor areas are calculated in square feet (SF).

[3] Assume 20 SF / Person for outdoor dining seating:

Barn Stable Patio 875 / 20 = 44

Project Area Summary

AREA DESCRIPTION	NEW CONSTRUCTION	RENOVATION OF EXISTING BUILDING	TOTAL
KUCR			
ASF: PRODUCTION			
Studio: Master Control	190		190
Studio: Production Room A	110		110
Studio: Production Room B	110		110
Studio: Interview/Program Host	110		110
Edit Post/Prodution Room #1	48		48
Edit Post/Prodution Room #2	48		48
SUBTOTAL	***616***	***0***	***616***
ASF: OTHER SPACES			
Library	900		900
Office Service / Kitchenette	75		75
Storage - Remote Live Equipment	100		100
Private Office (Director)	110		110
Private Office (Asst. Dir./Program Dir.)	110		110
Private Office (Music Dept.)	110		110
Private Office (Engineering)	110		110
Private Office (Administrative Assistant)	110		110
Open Office (shared workspace)[1]	90		90
Open Office (News/Public Affairs)[2]	90		90
Server/Transmission Equipment Room	100		100
Lobby	275		275
Backstage Space (secure)	150		150
ASSIGNABLE TOTAL	**2,946**	**0**	**2,946**
NON-ASSIGNABLE (NON-ASF) SPACES			
Circulation	485		485
Mechanical/Electrical	200		200
Telecom Closet	100		100
Public Restrooms (2)	115		115
NON-ASSIGNABLE TOTAL	**900**	**0**	**900**
NET TOTAL ASF & NON-ASF	**3,846**	**0**	**3,846**
Grossing Factor (15%)	577	0	577
BASIC GROSS TOTAL	**4,423**	**0**	**4,423**
ASF TO GSF RATIO	**67%**	**0%**	**67%**
OGSF100			**4,423**
OGSF50			**4,423**
PROGRAMMABLE COVERED OUTDOOR SPACE[3]			
Outdoor Stage Roof Overhang	254		254
Outdoor Stage	720		720
PROGRAMMABLE COVERED OUTDOOR TOTAL	***974***		***974***

[1] Four work stations are provided in the "Open Office (shared workspace)"

[2] Four work stations are provided in the "Open Office News/Public Affairs"

[3] Outdoor areas are calculated in square feet (SF).

Project Area Summary

AREA DESCRIPTION	2009 BAS
BARN THEATER[1]	
ASF SPACES	
Rehearsal 01	1,140
Office	288
Rehearsal 02	765
Locker/Restroom	313
Storage	507
ASSIGNABLE TOTAL	**3,013**
NON-ASSIGNABLE (NON-ASF) SPACES	
Circulation (included above)	
Mechanical	
Public Restrooms	
NON-ASSIGNABLE TOTAL	**0**
NET TOTAL ASF & NON-ASF	**3,013**
Grossing Factor (15%)	452
BASIC GROSS TOTAL	**3,465**
ASF TO GSF RATIO	**87%**
OGSF100	**3,465**
OGSF50	**3,465**
OUTDOOR SPACE[2]	
Exterior Stage[3]	670
TOTAL OUTDOOR SPACE	**670**

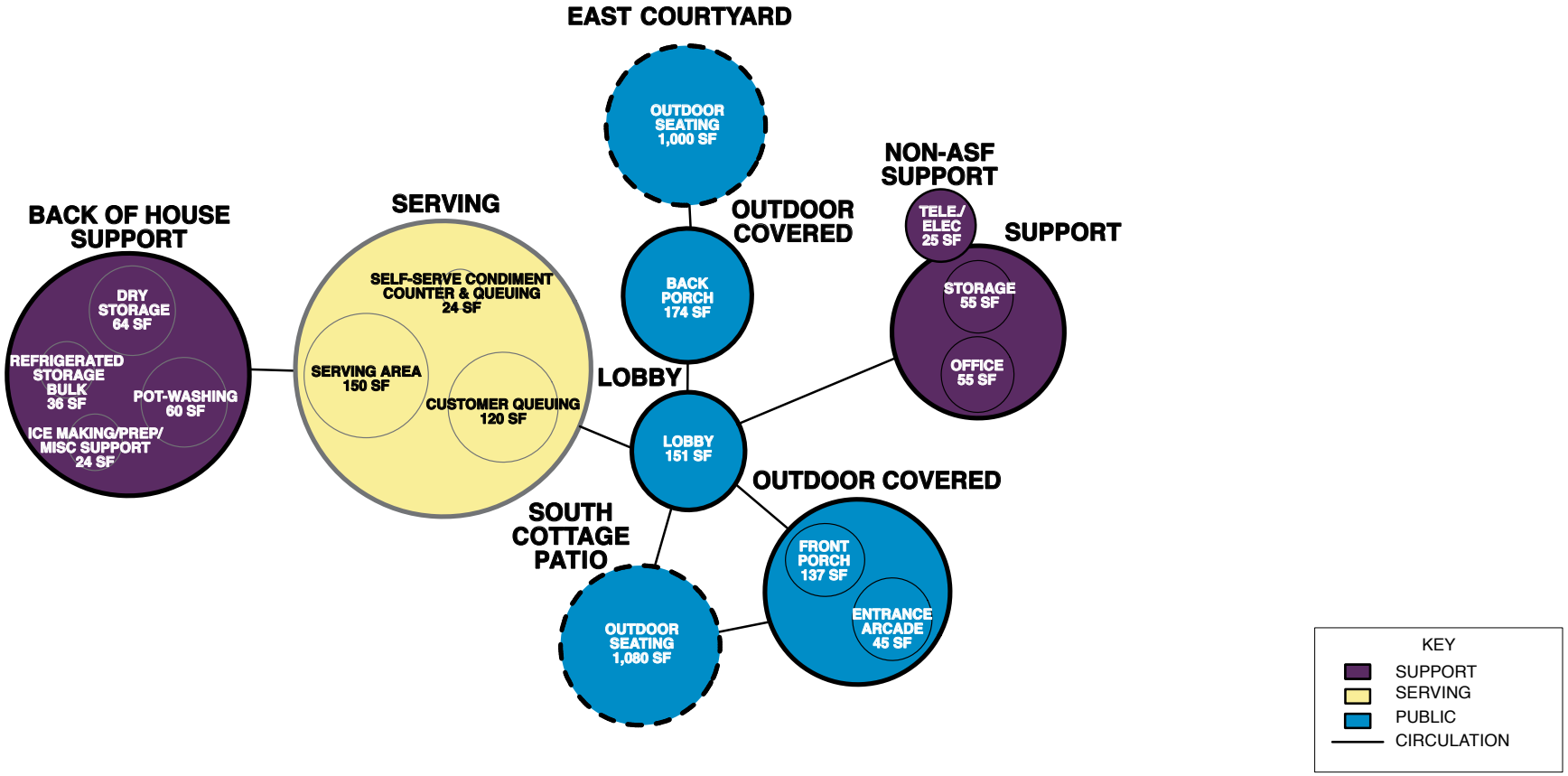
[1] The Barn Theater is not part of the Barn Project Phases 1 and 2. Barn Theater areas are per the 2009 Barn Area Study (BAS).

[2] Outdoor areas are calculated in square feet (SF).

[3] Exterior Stage at Barn Theater to be combined with Outdoor Stage adjacent to KUCR.

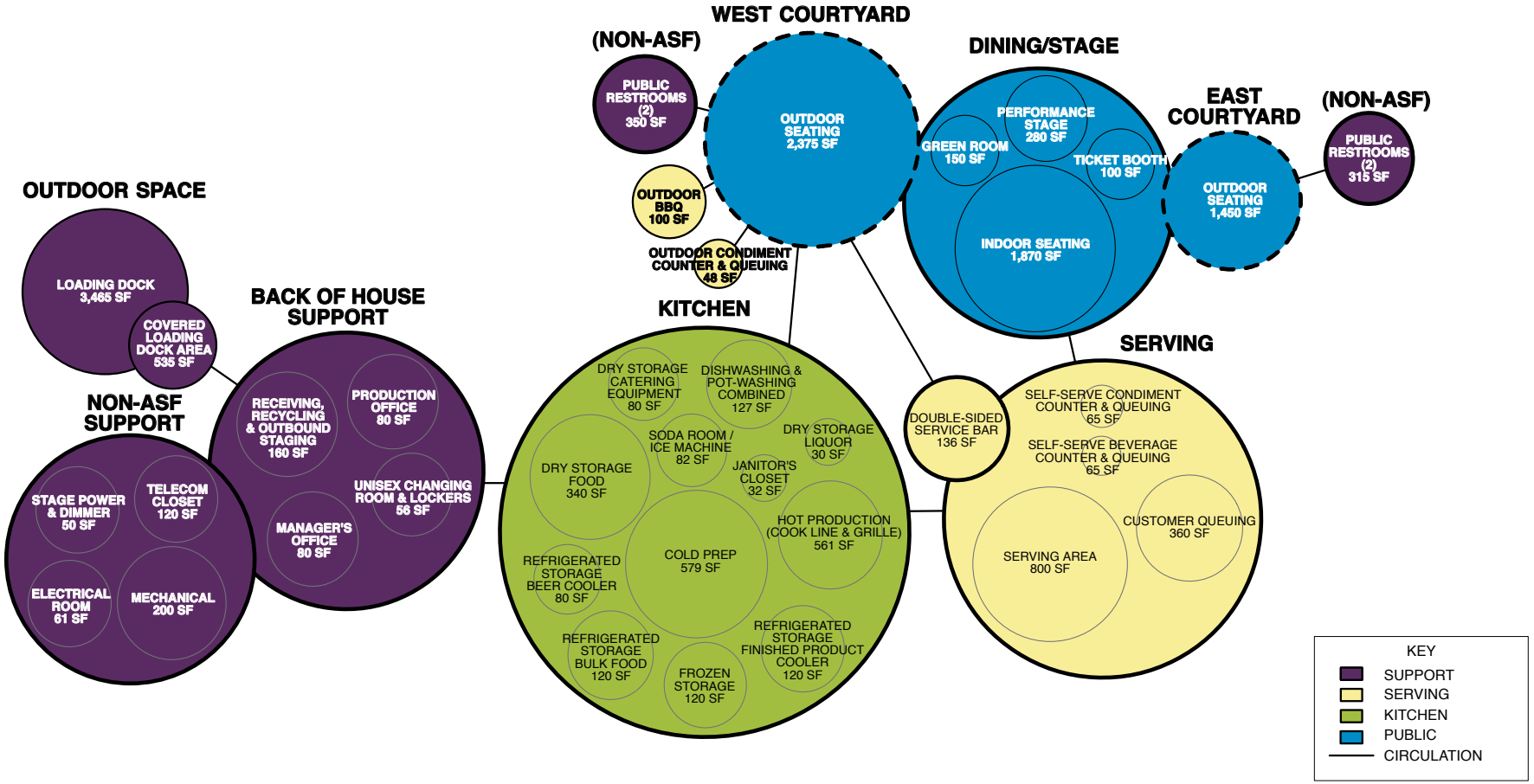
Site & Building Adjacency Diagrams

COTTAGE



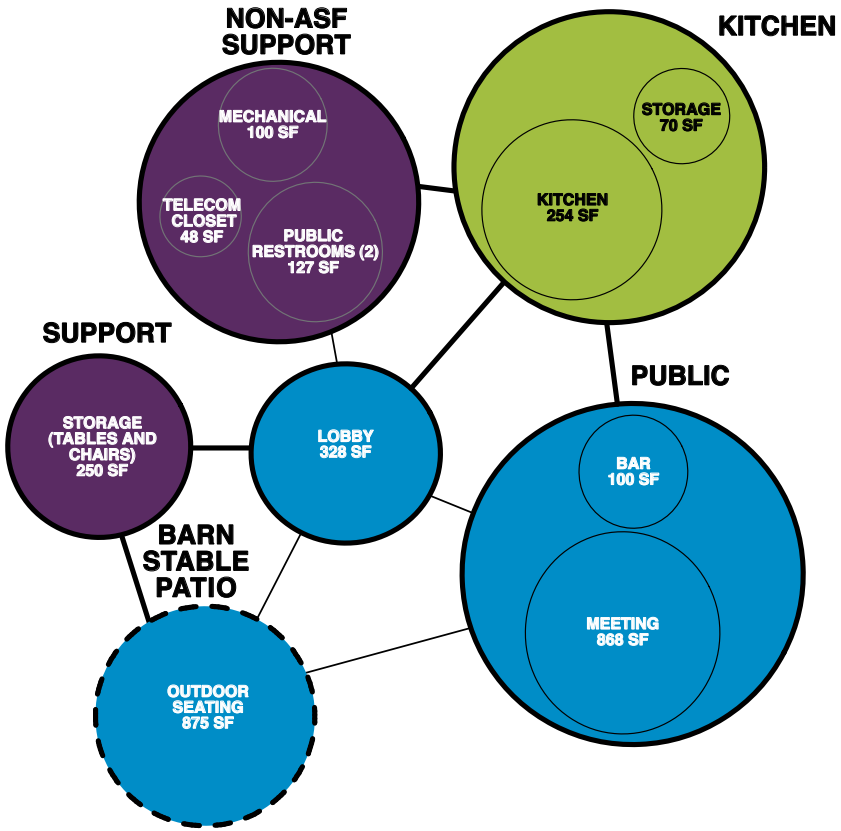
Site & Building Adjacency Diagrams

THE BARN: BARN DINING / KITCHEN ADDITION



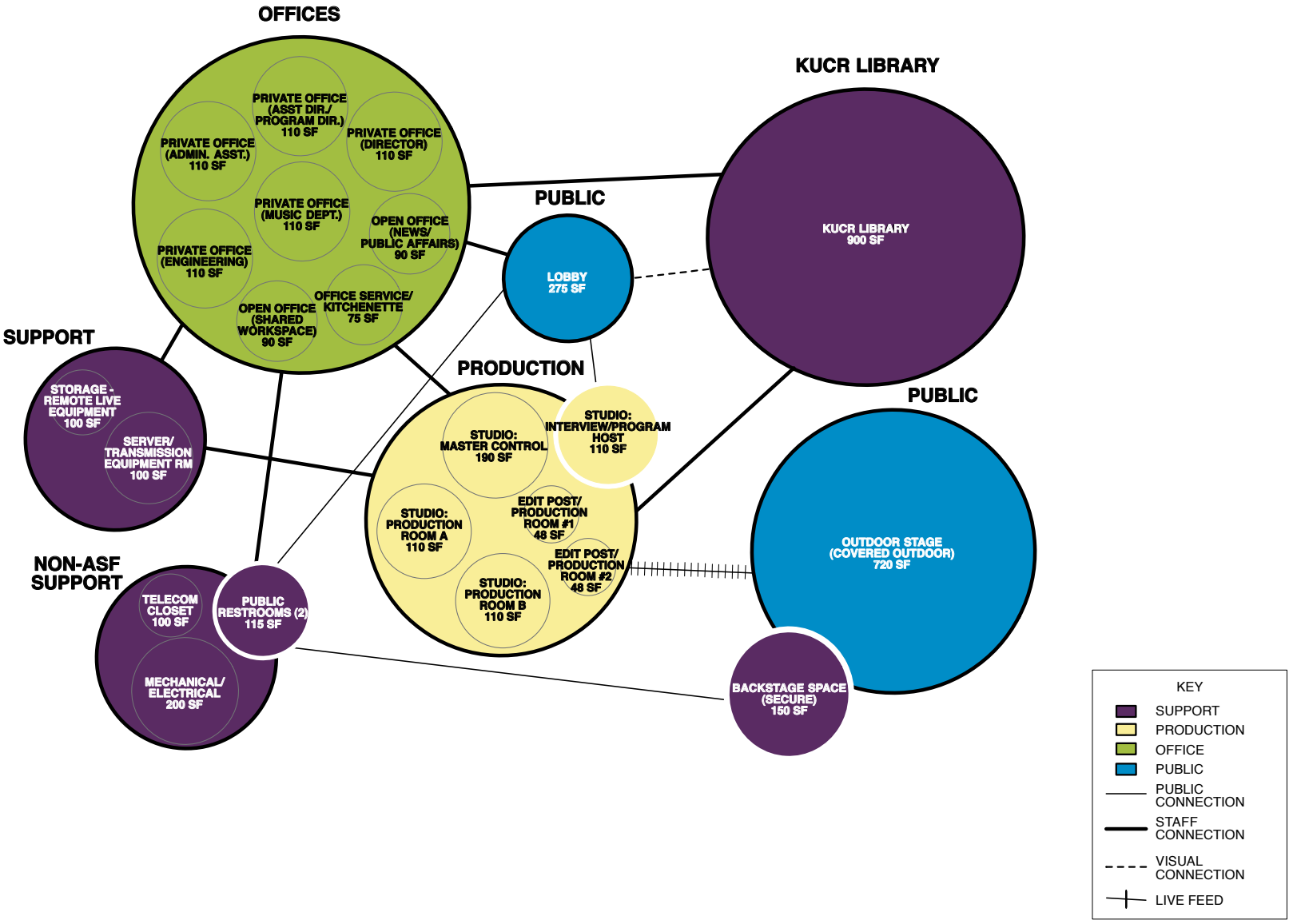
Site & Building Adjacency Diagrams

BARN STABLE



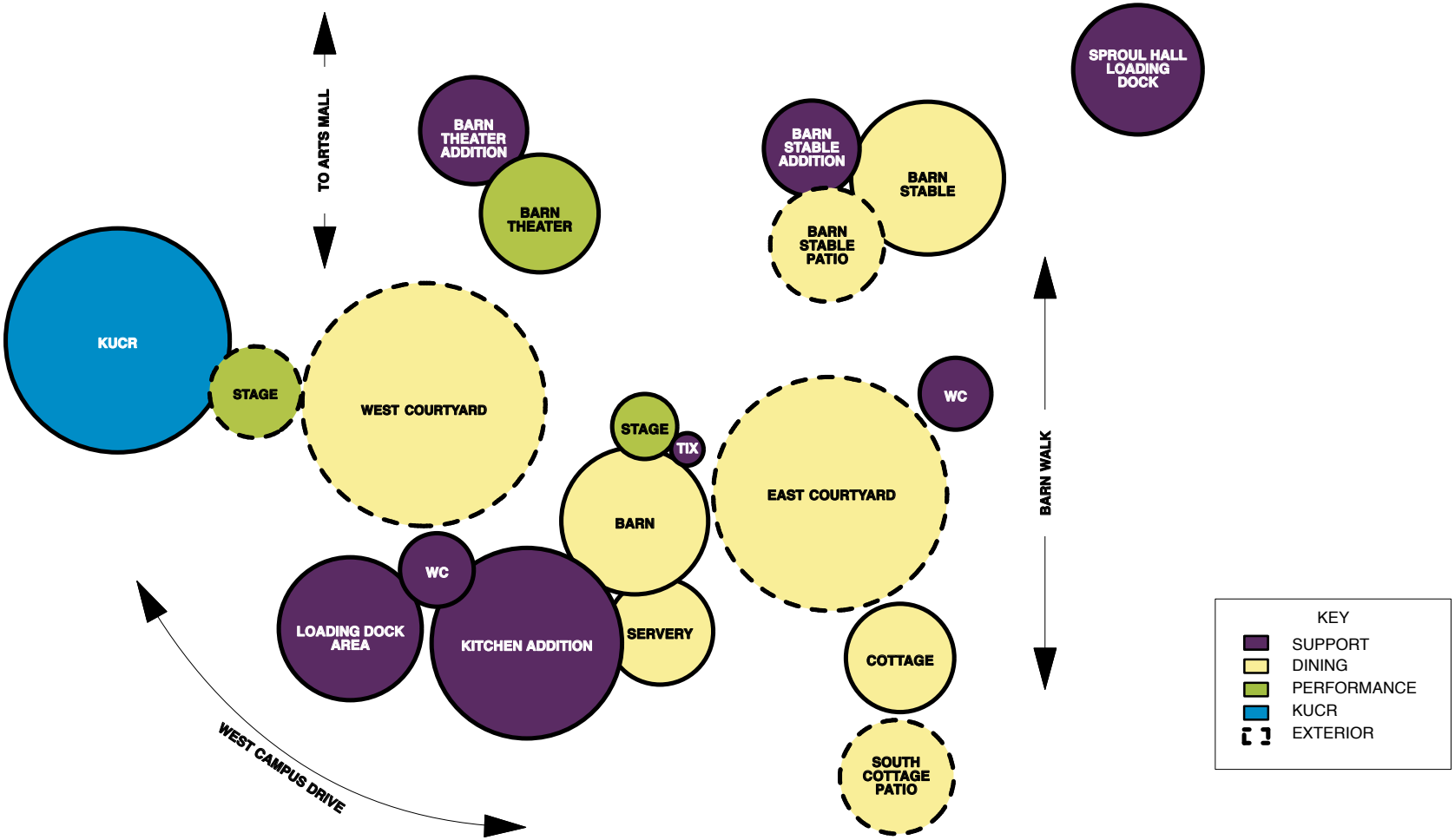
Site & Building Adjacency Diagrams

KUCR



Site & Building Adjacency Diagrams

SITE

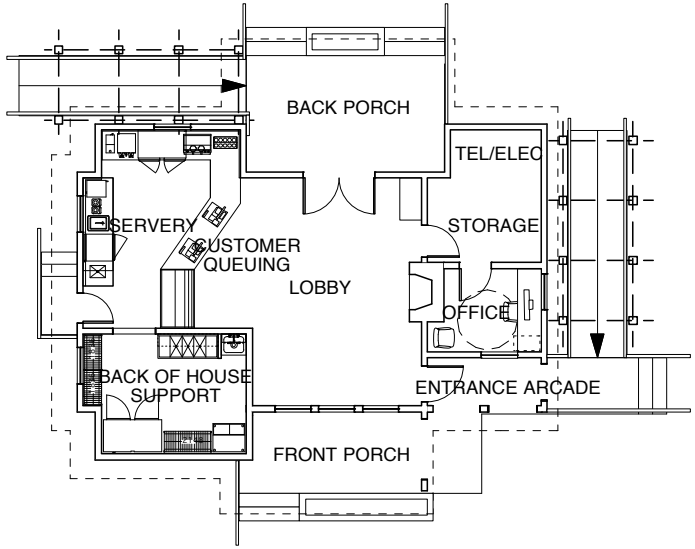


Comprehensive Space Plans

COTTAGE

SCALE 1/16” = 1’-0”

0 4’ 8’ 16’

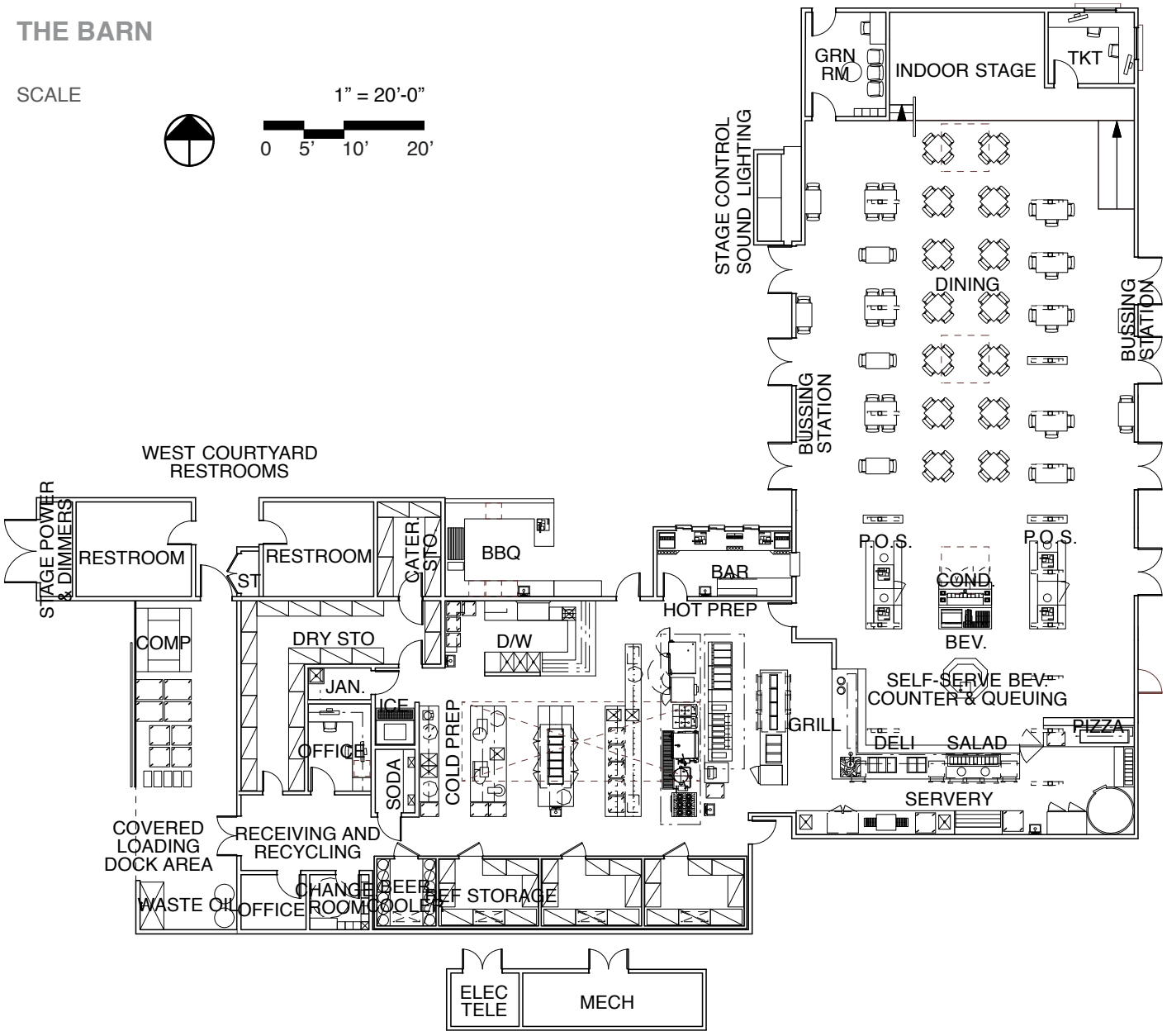


Comprehensive Space Plans

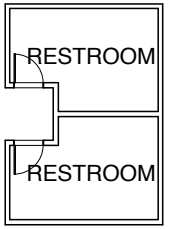
THE BARN

SCALE 1" = 20'-0"

0 5' 10' 20'



EAST COURTYARD RESTROOMS

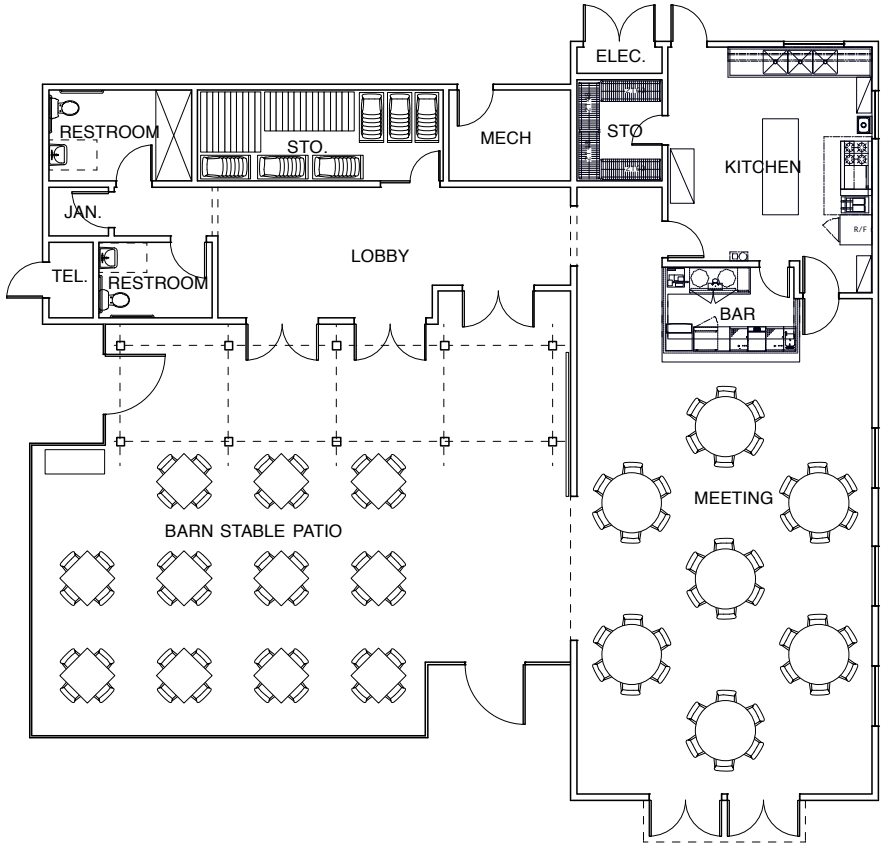


Comprehensive Space Plans

BARN STABLE

SCALE 1/16” = 1’-0”

0 4’ 8’ 16’

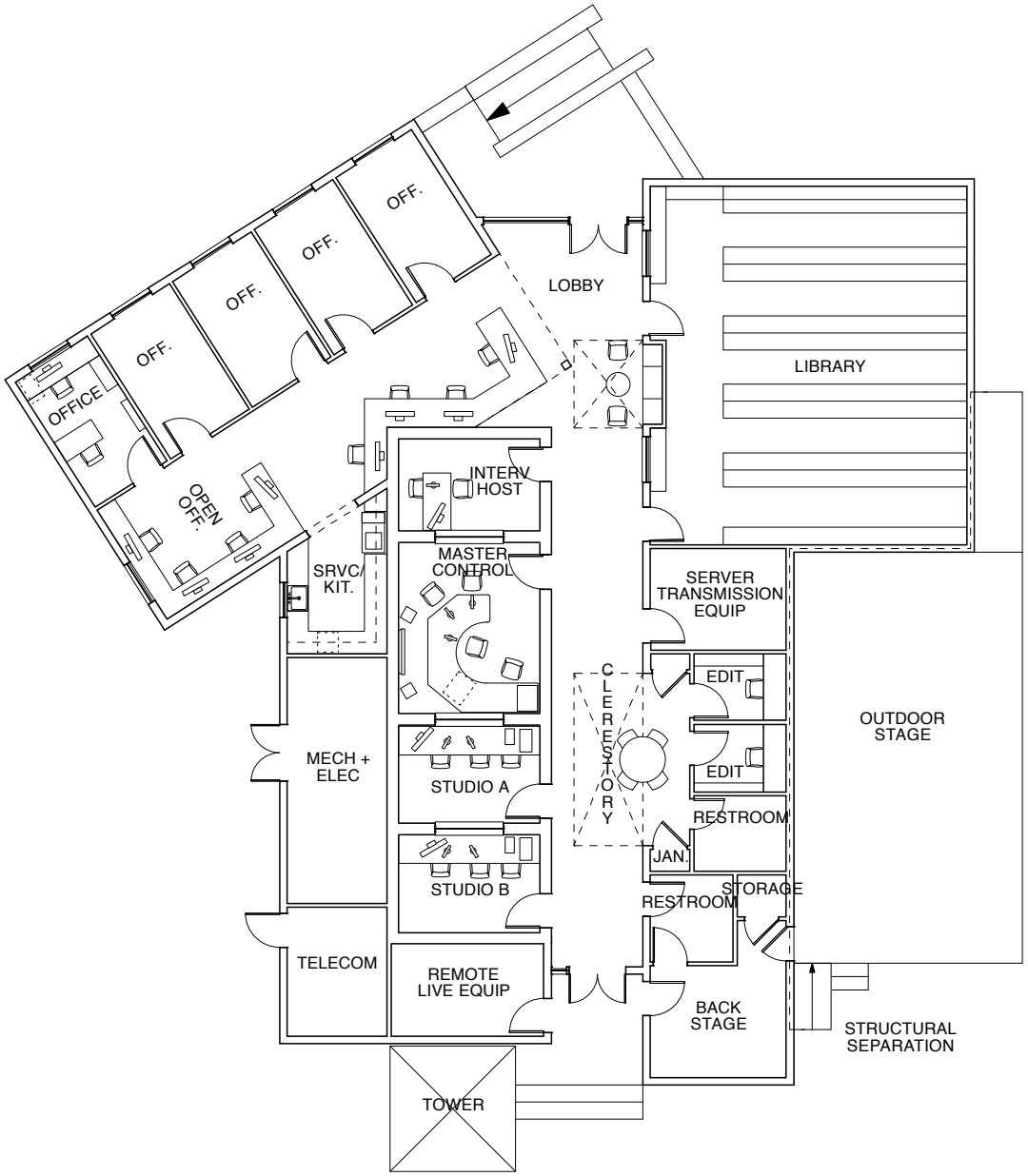


Comprehensive Space Plans

KUCR

SCALE 1/16” = 1’-0”

0 2’ 4’ 16’



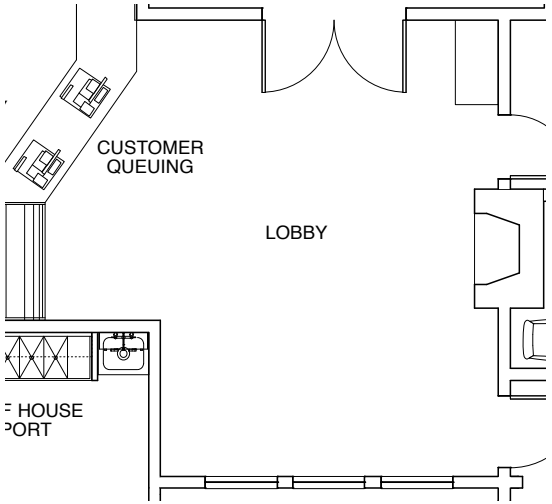
Room Data Sheets

ABBREVIATIONS

A/V	Audio/Visual
CFM	Cubic feet per minute (ventilation)
FC	Foot-candles
FRP	Fiberglass-reinforced plastic
FSC	Forest Stewardship Council
HVAC	Heating, Ventilation, and Air Conditioning
NA	Not applicable
NC	Noise Criteria
POS	Point of sale
STOR	Storage
U/C	Under-counter
V	Volts
WAP	Wireless Access Point

Room Data Sheets

COTTAGE: SERVING
LOBBY



GENERAL INFORMATION

Area for customers to gather.

TOTAL ASF	151
NUMBER OF OCCUPANTS	25 (maximum)
ADJACENCIES	Serving Area, Office, Front and Back Porch
VIEWS	East Courtyard, Cottage South Patio
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Wood -- refinish and match existing
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	Bar counters, existing fireplace (repair)
FIXED	NA
MOVABLE	Trash, recycling and dish bussing station
OTHER	Repair fireplace as necessary for structural integrity to allow for operation

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, ceiling mount linear fluorescents, architectural sconces, 20-30 FC. Controlled via a central time clock system and provided with an override switch
MECHANICAL	HVAC. Individual zone control/thermostat. Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	Rough-in for camera, Key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	WAP
MEDIA	Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

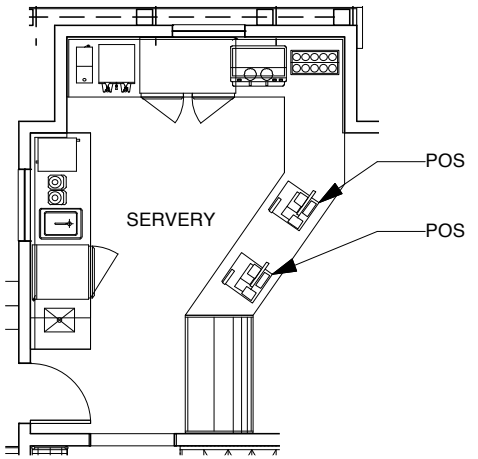
COTTAGE: SERVING

SERVING AREA

GENERAL INFORMATION

Area for serving customers.

TOTAL ASF	150
NUMBER OF OCCUPANTS	5
ADJACENCIES	Lobby, Service access
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”



MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Quarry tile or resin
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	
FIXED	Point of sale (POS) (2), pick-up counter, coffee counter, blender counter, hand sink, floor sink for espresso machine
MOVABLE	Trash and recycling containers
OTHER	Espresso and coffee machines, blenders, bakery display case (2 sections: ambient and refrigerated), oven, ice bin, grinders, under-counter refrigerator (2)

BUILDING SYSTEM REQUIREMENTS

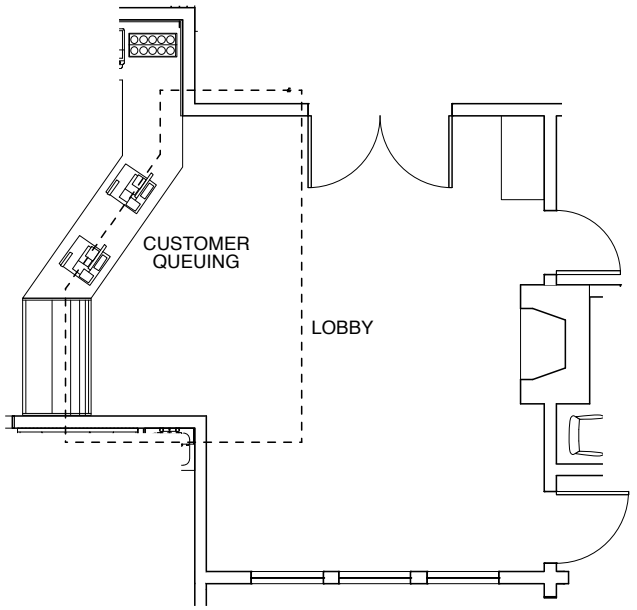
DAYLIGHTING	
ELECTRICAL	120/208 V / 3 Phase, Quad receptacle at each POS
LIGHTING	Ceiling mount linear fluorescent with acrylic lens, 40-50 FC. Controlled via Occupancy Sensor/Switch
MECHANICAL	HVAC. Exhaust air at kitchen hoods with interlocked tempered make-up air. Air curtains with door actuation switches at exterior doors
PLUMBING	Hot and cold water, sanitary sewer for equipment as required, gas
SECURITY	Rough-in for cameras above each POS, Panic alarm, Card key access ext. door, Window sash locks, Magnetic contacts at exterior door and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 1 data at each POS, as well as at least one on each wall
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

COTTAGE: SERVING
CUSTOMER QUEUING



GENERAL INFORMATION

Serpentine queue system (next available cashier). Seating will not be provided.

TOTAL ASF	120
NUMBER OF OCCUPANTS	4
ADJACENCIES	Lobby, Servery
VIEWS	East Courtyard, Cottage South Patio
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Wood -- refinish and match existing
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC. Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	WAP
MEDIA	Ceiling Loudspeakers

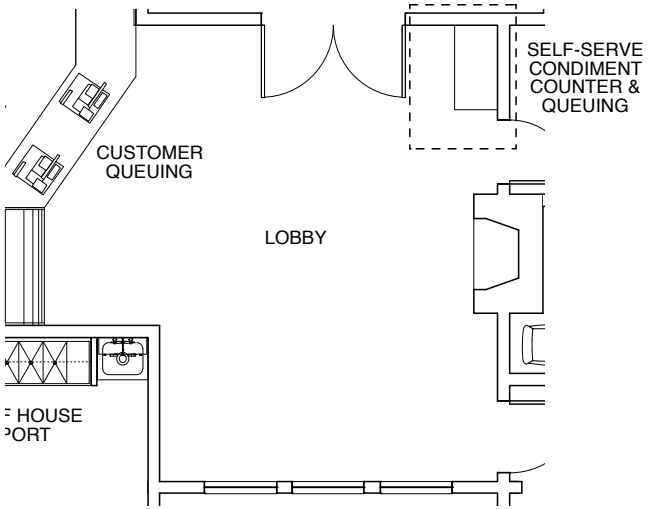
ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

COTTAGE: SERVING

SELF-SERVE CONDIMENT COUNTER & QUEUING



GENERAL INFORMATION

Located away from Serving counter.

TOTAL ASF	24
NUMBER OF OCCUPANTS	1
ADJACENCIES	Lobby, Servery
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Wood -- refinish and match existing
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	Millwork condiment counter
FIXED	NA
MOVABLE	Trash container below counter
OTHER	For milk, toppings, napkins, lids, stirs, and straws

BUILDING SYSTEM REQUIREMENTS

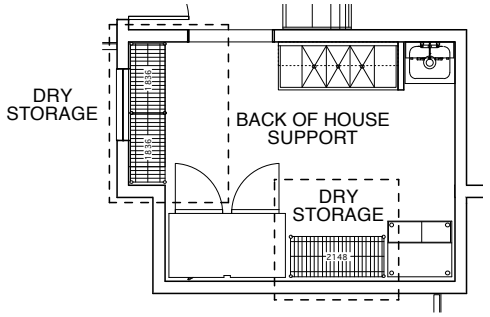
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V convenience receptacles (2)
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC. Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	Rough-in for camera, Key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler
VOICE/DATA	WAP
MEDIA	Ceiling Loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT
DRY STORAGE



GENERAL INFORMATION

Storage of dry goods.

TOTAL ASF	64
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Servery, Service entrance
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board with FRP wainscotting
FLOORS	Quarry tile or resin
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch
MECHANICAL	Ventilation
PLUMBING	NA
SECURITY	Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

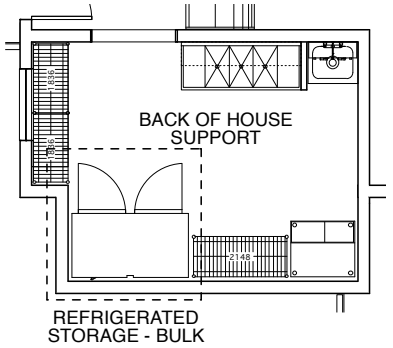
BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT
REFRIGERATED STORAGE - BULK



GENERAL INFORMATION

Storage of bulk refrigerated goods.

TOTAL ASF	36
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Servery, Service entrance
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board with FRP wainscotting
FLOORS	Quarry tile or resin
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Factory-installed (included with refrigerator)
MECHANICAL	Ventilation
PLUMBING	NA
SECURITY	Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

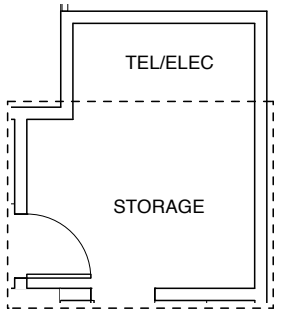
BUILT-IN	NA
FIXED	2-door reach-in refrigerator
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT
STORAGE



GENERAL INFORMATION

General storage.

TOTAL ASF	55
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Office, open to Telecom/Electrical Closet
VIEWS	NA
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Wood -- refinish and match existing
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

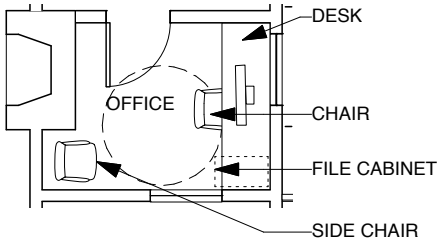
DAYLIGHTING	
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch
MECHANICAL	Ventilation
PLUMBING	NA
SECURITY	Card key access, Window sash locks, Magnetic contacts at exterior window, Camera at entry door
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT
OFFICE



GENERAL INFORMATION

Space for managers to work and place their belongings and for cash counting.

TOTAL ASF	55
NUMBER OF OCCUPANTS	1
ADJACENCIES	Open to Storage, Telecom/electrical Closet
VIEWS	Exterior
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Gypsum board with wood wainscotting
FLOORS	Wood -- refinish and match existing
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

FURNITURE + EQUIPMENT

BUILT-IN	Desk and computer table
FIXED	NA
MOVABLE	Chair and file cabinet
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

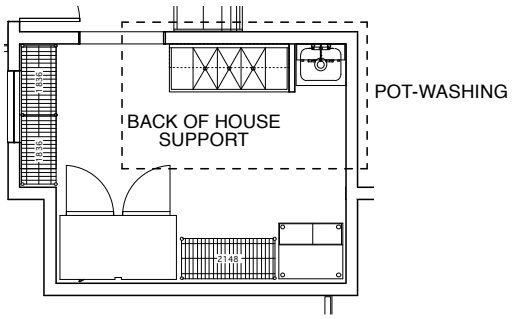
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	HVAC
PLUMBING	NA
SECURITY	Card key access, Window sash locks, Magnetic contacts at exterior window, Camera over cash counting area
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	Lobby/Porch audio source equipment

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT
POT-WASHING



GENERAL INFORMATION

Space for washing.

TOTAL ASF	60
NUMBER OF OCCUPANTS	1
ADJACENCIES	Servery
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board with FRP with resin or quarry tile base
FLOORS	Quarry tile or resin
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	30 FC, Occupancy sensors
MECHANICAL	Ventilation required at chem stor
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	3-compartment sink, wall shelf, mop sink, chemical storage shelf
MOVABLE	NA
OTHER	NA

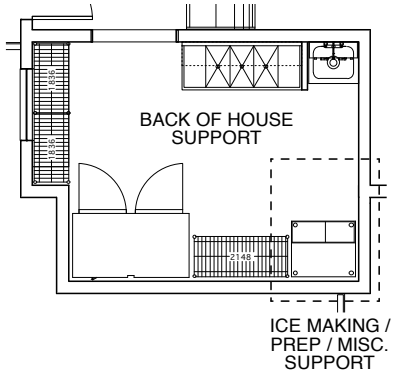
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

COTTAGE: BACK OF HOUSE SUPPORT

ICE MAKING / PREP / MISC. SUPPORT



GENERAL INFORMATION

TOTAL ASF	24
NUMBER OF OCCUPANTS	1
ADJACENCIES	Servery, Service Entrance
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board with FRP with resin or quarry tile base
FLOORS	Quarry tile or resin
WINDOWS	Wood -- double glaze, match existing
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120/208 V / 1 Phase
LIGHTING	48” recessed fluorescent fixtures with plastic lens covers
MECHANICAL	Ventilation, ice machine and refrigerator heat rejection of 11.2 MBTU
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Ice machine, prep counters
MOVABLE	NA
OTHER	NA

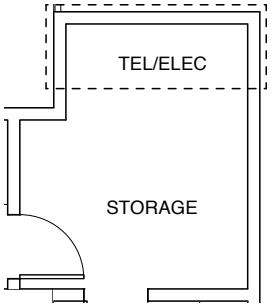
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

COTTAGE: NON-ASSIGNABLE SPACES

TELECOM / ELECTRICAL CLOSET



GENERAL INFORMATION

Area for telecom and electrical equipment that is open to Storage. Access to the equipment will need to be maintained (approach TBD during design). Code-required clearances will need to be provided for the electrical dimensions of equipment TBD during design.

TOTAL NON-ASF	25
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Open to Storage
VIEWS	NA
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Fire resist. Plywood / wood
FLOORS	Resilient
WINDOWS	NA
DOORS	Wood -- refinish existing where possible
DOOR FRAMES	Wood -- refinish existing where possible

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Exhaust
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	Telecom equipment will need physical protection

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

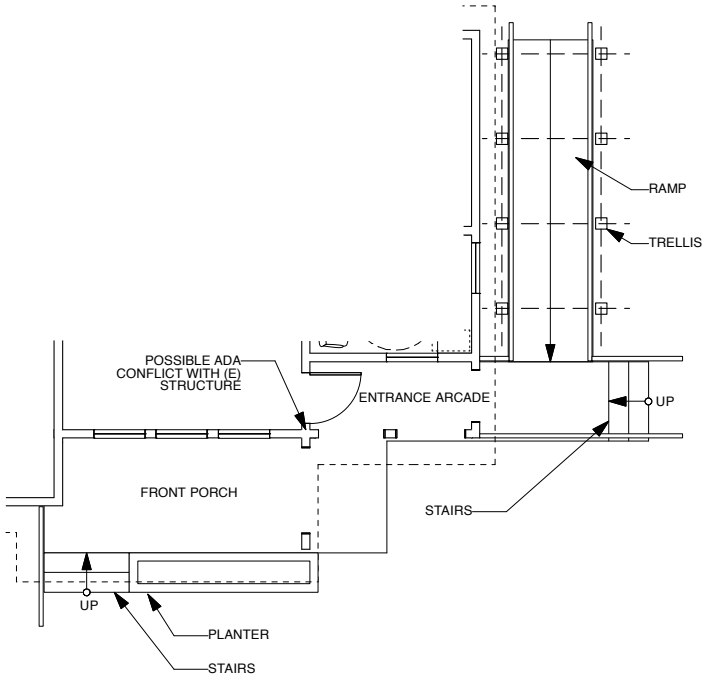
COTTAGE: PROGRAMMABLE COVERED OUTDOOR SPACE

FRONT PORCH / ENTRANCE ARCADE

GENERAL INFORMATION

The front porch/entrance arcade is the front door for the cottage

TOTAL SF	182
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Lobby, Barn Walk, Cottage South Patio
VIEWS	Barn Walk, West Campus Drive, Eucalyptus Walk
MINIMUM CEILING HEIGHT	7’-6”
ACCESSIBILITY	Per code, 5’ wide 1:12 ramp, possible ADA conflict at entry door (see diagram). Accessibility issues will be addressed during design.
SCALE	1/8” = 1’-0”



MATERIALS AND FINISHES

CEILING	Wood, painted
WALLS / BASE	Wood siding, painted
FLOORS	Wood decking and colored concrete
WINDOWS	Wood painted
DOORS	Wood painted
DOOR FRAMES	Wood painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase, Lockable outdoor outlet
LIGHTING	NA
MECHANICAL	Air curtains with door actuation switches at exterior door
PLUMBING	NA
SECURITY	NA
FIRE PROTECTION	Sprinklers at covered areas
VOICE/DATA	NA
MEDIA	Outdoor loudspeakers

FURNITURE + EQUIPMENT

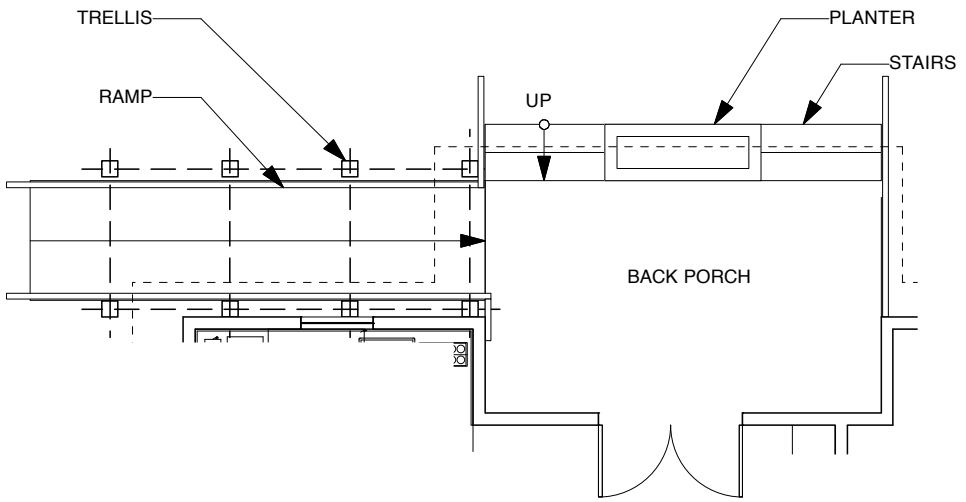
BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

COTTAGE: PROGRAMMABLE COVERED OUTDOOR SPACE
BACK PORCH



GENERAL INFORMATION

Primarily an exterior circulation space, this area is the public “back door” to the cottage.

TOTAL SF	174
NUMBER OF OCCUPANTS	NA
ADJACENCIES	East Courtyard, Lobby
VIEWS	East Courtyard, Lobby
MINIMUM CEILING HEIGHT	7’-6”
ACCESSIBILITY	Per code , 5’ wide, 1:12 ramp
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Wood, painted
WALLS / BASE	Wood siding, painted
FLOORS	Wood decking and colored concrete
WINDOWS	Wood, painted
DOORS	Wood, painted
DOOR FRAMES	Wood, painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase, Lockable outdoor outlet
LIGHTING	NA
MECHANICAL	Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	NA
FIRE PROTECTION	Sprinklers at covered areas
VOICE/DATA	NA
MEDIA	Outdoor loudspeakers

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

COLD PREP

GENERAL INFORMATION

Cold production for Barn, Barn/University Club catering, and 425 pieces packaged grab-and-go products daily.

SEE *HOT PRODUCTION* FOR DIAGRAM

TOTAL ASF	579
NUMBER OF OCCUPANTS	5
ADJACENCIES	Hot Production, Storage, Dishwashing
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or poured resin
WINDOWS	Aluminum
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Stainless steel counters, undercounter prep refrigerator (2), work tables with sinks, hand sink, vegetable prep sinks
MOVABLE	Mobile pan racks, double overshelves, trash containers, hot and cold catering carts
OTHER	20-quart mixer, slicer, vegetable processor, food chopper, salad dryer

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	North facing clerestory windows
ELECTRICAL	120/208 V / 3 Phase, Quad receptacle at POS
LIGHTING	48” recessed fluorescent fixtures with plastic lens covers, occupancy sensors
MECHANICAL	HVAC / Exhaust / Chilled water supply and return; conditioned primarily by make-up air; air curtains with door actuation switches at exterior doors
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required, Grease interceptor
SECURITY	Card key access at exterior door, Window sash locks, Magnetic contacts at exterior door and windows
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-50

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

HOT PRODUCTION (COOK LINE & GRILLE)

GENERAL INFORMATION:

Grill line adjacent to Servery with pass-through window for finished products;
Bulk hot production line to include finish baking capability.

DIAGRAM ON FOLLOWING PAGE

TOTAL ASF	561
NUMBER OF OCCUPANTS	3
ADJACENCIES	Cold Prep, Servery
VIEWS	NA
MINIMUM CEILING HEIGHT	9'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or poured resin
WINDOWS	Aluminum
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	36" clamshell grill (2), exhaust hoods, double-stacked combi-oven (2), double-stacked convection oven, 6-burner range with oven
FIXED	Pot racks, sheet pan storage, fryer (4) with filter and pump to oil collection tank, freezer, under counter prep refrigerator, expediter counter with crumb rail, 3-pan hot food well
MOVABLE	Bun racks
OTHER	Chef's counter, 40-gallon tilting skillet, 25-gallon tilting kettle, pressure fryer (2), vertical toaster

BUILDING SYSTEMS

DAYLIGHTING	North facing clerestory windows.
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	48" recessed fluorescent fixtures with plastic lens covers, occupancy sensors; exhaust hoods will have internal lighting
MECHANICAL	HVAC / Exhaust / Chilled water supply and return; make-up air will be tempered; air curtains with door actuation switches at exterior doors
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required, Grease interceptor
SECURITY	Card key access at exterior door, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	R-102 / UL-300, cooking fire protection system
VOICE/DATA	NA
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-50

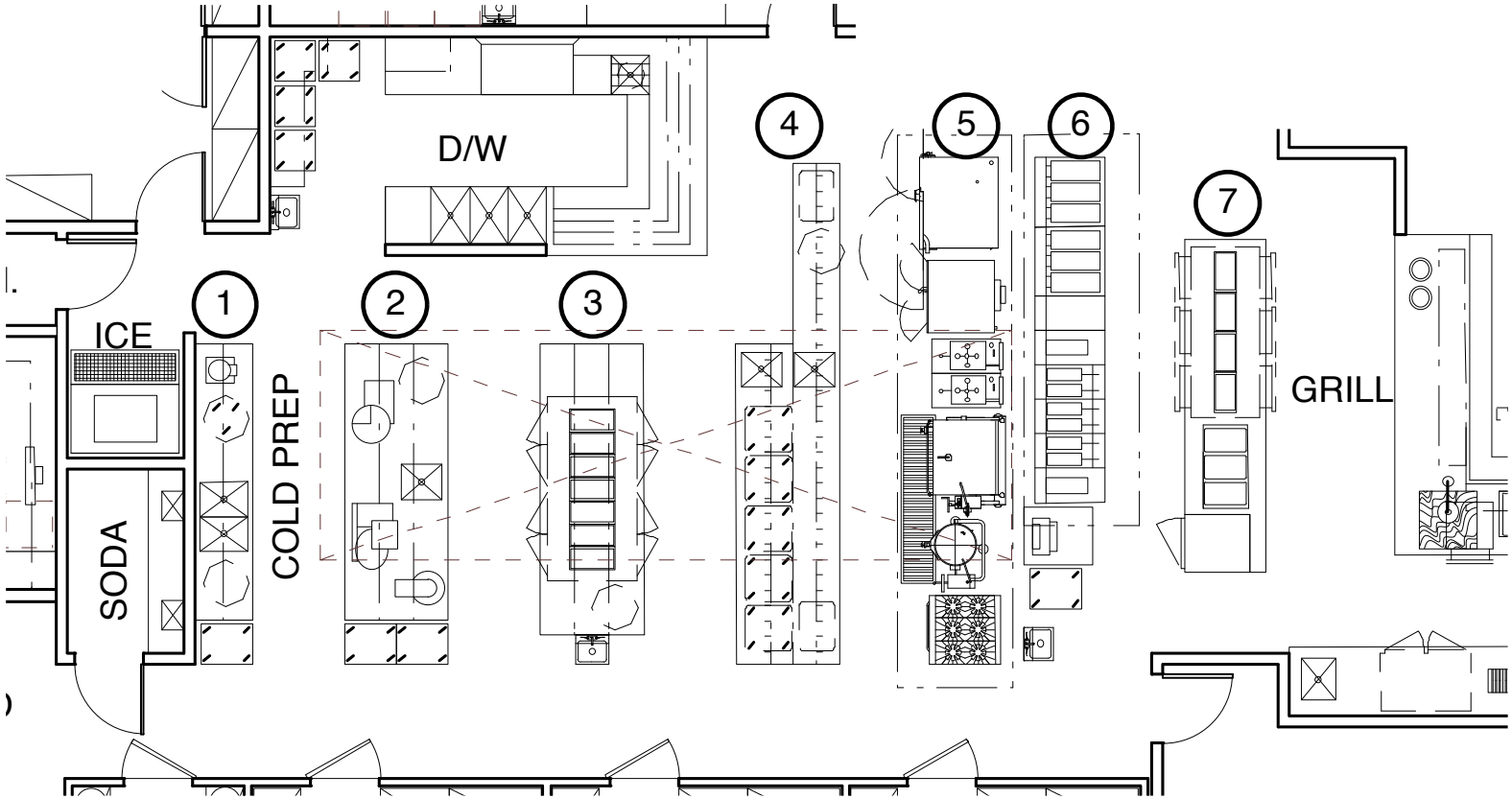
Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

COLD PREP & HOT PRODUCTION (COOK LINE & GRILLE)

SCALE 1/8" = 1'-0"

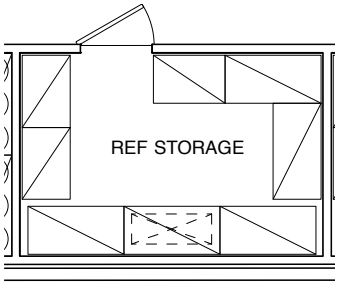
1. WORK COUNTER, FOOD PROCESSOR, SALAD DRYERS, DOUBLE SINKS, DOUBLE WALL SHELVES, MOBILE PAN RACK
2. DOUBLE SIDED WORK COUNTER, DOUBLE OVERSHELVES, SLICER, FOOD CHOPPER, MIXER, 20 QT, SINK, TRASH CONTAINER, MOBILE PAN RACKS
3. DOUBLE SIDED WORK COUNTER, DOUBLE OVERSHELVES, DOUBLE UNDERCOUNTER, REFRIGERATOR WITH COLD PAN RAIL, TRASH CONTAINER, HAND SINK
4. PARTIAL DOUBLE SIDED WORK COUNTER, DOUBLE OVERSHELVES, OVERHEAD POT RACK, SINKS, CATERING CART (6)
5. DOUBLE COMBI OVEN, DOUBLE CONVECTION OVEN, PRESSURE FRYER (2), TILTING SKILLET, 40 GAL, TILTING KETTLE, 40 GAL, SIX BURNER RANGE WITH OVEN, EXHAUST HOOD WITH FIRE SUPPRESSION SYSTEM
6. CLAM SHELL GRILL (2 TRIPLE PLATEN), FRYER (3), FRYER DUMP STATION (2), BUN TOASTER, BUN RACK, HAND SINK
7. DOUBLE SIDED EXPEDITOR COUNTER, OVER SHELF, DOUBLE UNDERCOUNTER REFRIGERATOR WITH COLD PAN RAIL, HOT FOOD WELL, 3 PAN, FREEZER



Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

REFRIGERATED STORAGE - BULK FOOD



GENERAL INFORMATION

Walk-in refrigerated storage.

TOTAL ASF	120
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving, Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Insulated panels
WALLS / BASE	Insulated panels
FLOORS	Insulated panels, quarry tile, or resin
WINDOWS	NA
DOORS	Insulated with windows
DOOR FRAMES	Part of Cold Room

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	Waste -- indirect, 36” trench drain outside of door
SECURITY	NA
FIRE PROTECTION	Sprinkler with freeze protection
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Walk-in cooler / evaporator coil
MOVABLE	Shelving
OTHER	Remote compressor, temperature alarm

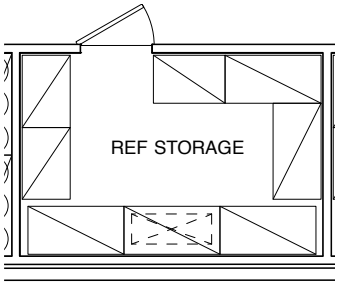
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

REFRIGERATED STORAGE - FINISHED PRODUCT COOLER



GENERAL INFORMATION

Walk-in refrigerated storage.

TOTAL ASF	120
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving, Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Insulated panels
WALLS / BASE	Insulated panels
FLOORS	Insulated panels, quarry tile, or resin
WINDOWS	NA
DOORS	Insulated with windows
DOOR FRAMES	Part of Cold Room

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Walk-in cooler / evaporator coil
MOVABLE	Shelving
OTHER	Remote compressor, temperature alarm

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	Waste -- indirect, 36” trench drain outside of door
SECURITY	NA
FIRE PROTECTION	Sprinkler with freeze protection
VOICE/DATA	NA
MEDIA	NA

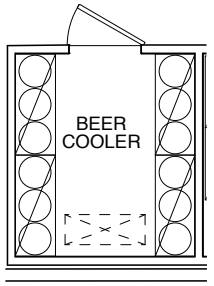
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

REFRIGERATED STORAGE - BEER COOLER



GENERAL INFORMATION

Walk-in refrigerated storage.

TOTAL ASF	80
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving, Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Insulated panels
WALLS / BASE	Insulated panels
FLOORS	Insulated panels, quarry tile, or resin
WINDOWS	NA
DOORS	Insulated with windows
DOOR FRAMES	Part of Cold Room

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	Waste -- indirect, 36” trench drain outside of door
SECURITY	NA
FIRE PROTECTION	Sprinkler with freeze protection
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Walk-in cooler (lockable) / evaporator coil, beer system
MOVABLE	Keg racks
OTHER	Remote compressor, temperature alarm

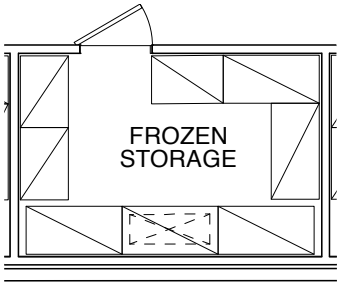
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

FROZEN STORAGE



GENERAL INFORMATION

Walk-in frozen storage

TOTAL ASF	120
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving, Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Insulated panels
WALLS / BASE	Insulated panels
FLOORS	Insulated panels, QT, or resin
WINDOWS	NA
DOORS	Insulated with windows
DOOR FRAMES	Part of Cold Room

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	Waste -- indirect, 36” trench drain outside of door
SECURITY	NA
FIRE PROTECTION	Sprinkler with freeze protection
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Walk-in freezer / evaporator coil
MOVABLE	Shelving
OTHER	Remote compressor, temperature alarm

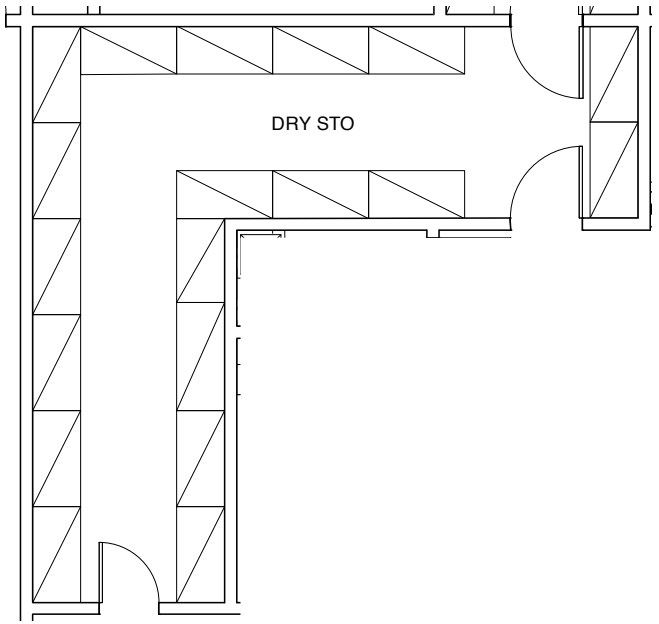
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

DRY STORAGE - FOOD



GENERAL INFORMATION

Dry storage for bulk food items.

TOTAL ASF	340
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	Wire-rack shelving
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase convenience receptacle
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	HVAC; 0.15 cfm/sf ventilation, humidity sensor
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler with freeze protection
VOICE/DATA	NA
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

DRY STORAGE - LIQUOR

GENERAL INFORMATION

Lockable dry storage for liquor located in the Double-Sided Service Bar.

SEE *DOUBLE-SIDED SERVICE BAR* ROOM DATA SHEET FOR DIAGRAM

TOTAL ASF	30
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Double-sided Service Bar
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	NA
SECURITY	Key access for storage
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	Storage cabinets (secure)
FIXED	NA
MOVABLE	NA
OTHER	NA

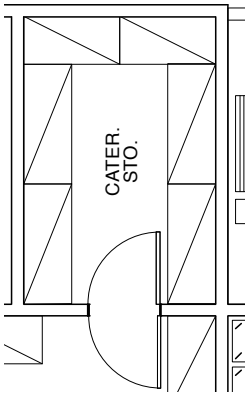
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

DRY STORAGE - CATERING EQUIPMENT



GENERAL INFORMATION

Storage for catering equipment.

TOTAL ASF	80
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	POS
FIXED	NA
MOVABLE	Wire-rack shelving
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase, Quad receptacle at POS
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	HVAC; 0.15 cfm/sf ventilation, humidity sensor.
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data at POS
MEDIA	NA

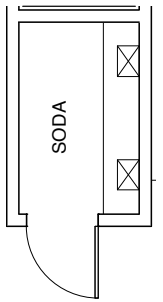
ACOUSTICS

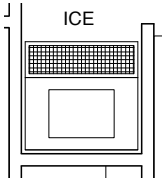
ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

SODA ROOM / ICE MACHINE





GENERAL INFORMATION

Area for soda equipment and ice machine.

TOTAL ASF	82
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Soda carbonator
MOVABLE	Soda shelving, water filter, CO2 regulators, ice machine, and ice bin with mobile ice carts
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	HVAC; 0.15 cfm/sf ventilation, humidity sensor.
PLUMBING	Cold water, floor trough drain
SECURITY	Key access for Soda room
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

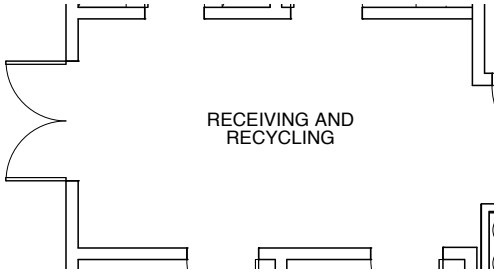
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: PRODUCTION KITCHEN

RECEIVING, RECYCLING, AND OUTBOUND STAGING AREA



GENERAL INFORMATION

Receiving; outbound cart marshalling.

TOTAL ASF	160
NUMBER OF OCCUPANTS	1
ADJACENCIES	Loading Dock
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	Hollow metal painted door, Vision panels
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Recessed downlights rated for outdoor use or ceiling mounted linear fluorescents, 20-30 FC. Controlled via switch and Occupancy Sensor.
MECHANICAL	HVAC, Exhaust, Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	Card key access, Magnetic contacts at exterior doors, Camera at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	Food waste and compostable bins (exterior)
OTHER	NA

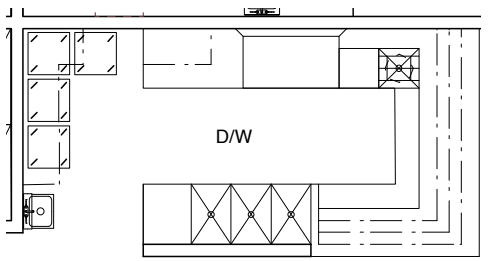
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN DINING: WAREWASHING

DISHWASHING AND POT-WASHING COMBINED



GENERAL INFORMATION

Space includes chemical storage.

TOTAL ASF	127
NUMBER OF OCCUPANTS	2
ADJACENCIES	Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP, stainless steel flashing
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Conveyor dishmachine, scrap collector, utensil sinks, hand sink, wall shelves, eye wash station
MOVABLE	Tray dollies, trash containers
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	North facing clerestory windows
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	48” recessed fluorescent fixtures with plastic lens covers, occupancy sensors
MECHANICAL	HVAC. Provide exhaust air at a rate of at least 0.7 cfm/sf with stainless steel duct, sloped down towards appliance. Make-up air from adjoining spaces.
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required, Eye wash station
SECURITY	Key access for chemical storage
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

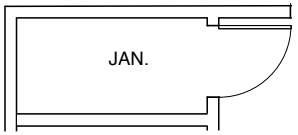
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-50

Room Data Sheets

BARN DINING: WAREWASHING

JANITOR'S CLOSET



GENERAL INFORMATION

Sotrage of cleaning and janitorial supplies.

TOTAL ASF	32
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Cold Prep
VIEWS	NA
MINIMUM CEILING HEIGHT	9'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in
WALLS / BASE	White FRP
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Mop sink, mop rack, cleaning equipment storage also includes chemical storage, eye wash station
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Exhaust 6 air changes per hour, meet LEED requirement for indoor chemical control; require full height partitions
PLUMBING	Hot / cold water, waste, eye wash station
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

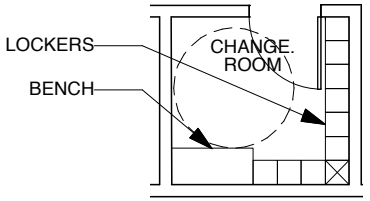
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: BACK OF HOUSE SUPPORT

CHANGING ROOM & LOCKERS (UNISEX)



GENERAL INFORMATION

TOTAL ASF	56
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Receiving
VIEWS	NA
MINIMUM CEILING HEIGHT	9’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Paint or lay-in
WALLS / BASE	Paint
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	24 one-third lockers
FIXED	NA
MOVABLE	Changing bench
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Surface mounted linear fluorescent with acrylic lens. Controlled via Occupancy Sensor/Switch.
MECHANICAL	HVAC, exhaust at minimum 0.5 CFM/sf per code
PLUMBING	NA
SECURITY	Card key access, padlock type lockers
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

BARN DINING: BACK OF HOUSE SUPPORT

PRODUCTION OFFICE & MANAGER'S OFFICE

GENERAL INFORMATION

Production Office: 2 work stations shared by: 1 Senior Mgr., 1 Entertainment Mgr., 1 Principal Supervisor (Barn), 1 Principal Cook (Barn), and 1 Principal Supervisor (Truck).

Manager's Office: 2 work stations

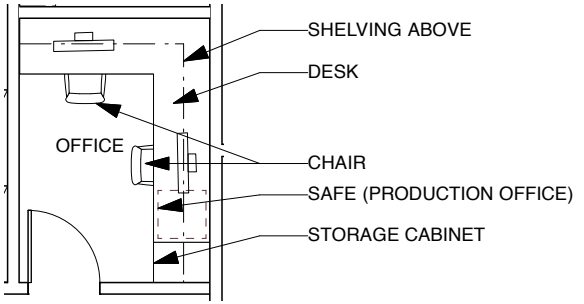
TOTAL ASF	80 each
NUMBER OF OCCUPANTS	See above
ADJACENCIES	Copy Office
VIEWS	NA
MINIMUM CEILING HEIGHT	8' - 0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Paint or lay-in
WALLS / BASE	Paint
FLOORS	Quarry tile or resin
WINDOWS	Aluminum or skylight
DOORS	Hollow metal painted door Vision panel
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Safe (at Production Office only), 2 POS, desk and upper shelving
FIXED	Desks, storage cabinet
MOVABLE	NA
OTHER	NA



BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows where possible
ELECTRICAL	120 V / 1 Phase, Quad receptacle at each POS
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	HVAC; group offices on a common zone for temperature control independent from Kitchen prep area.
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at safe and exterior windows
FIRE PROTECTION	Sprinkler
VOICE/DATA	2 phone / 4 data, at least one on each wall
MEDIA	Intercom station at Production Office

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

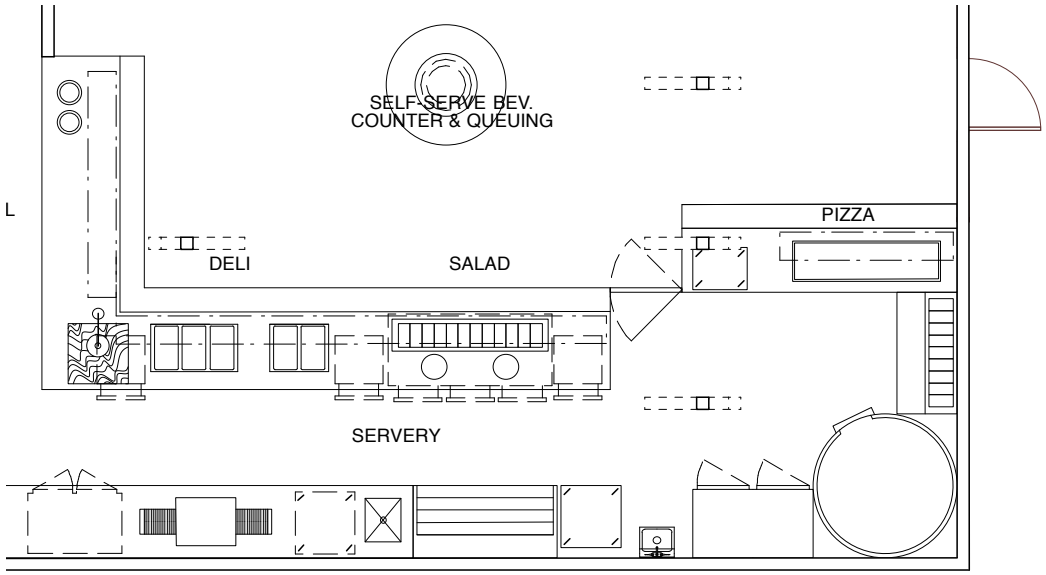
BARN DINING: SERVING

SERVING AREA

GENERAL INFORMATION

Exhibition kitchen and servery, 4 exhibition production platforms (salad / cold sandwich, hot sandwich / specialty, grill, pizza / woodstone oven).

TOTAL ASF	800
NUMBER OF OCCUPANTS	5
ADJACENCIES	Dining, Kitchen
VIEWS	NA
MINIMUM CEILING HEIGHT	9'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"



MATERIALS AND FINISHES

CEILING	Drop; washable
WALLS / BASE	Washable
FLOORS	Quarry tile or resin
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	Serving counter with breath guard, heat lamps, lights
FIXED	Counters, pizza oven, refrigerator, large ceiling fans, hand sink, pizza prep refrigerator, heated shelf, refrigerated open display case, salad mixing station with cold rail, sink, bread drawers, undercounter heated cabinet, hot/cold well (2), hot well (3), carving station with lamp, plate shelves, undercounter refrigerator
MOVABLE	Racks, pizza dough rack, trash cans
OTHER	Orange juice machine, glove box holders

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at Dining
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Ceiling mount linear fluorescent with acrylic lens, 40-50 FC. Controlled via Occupancy Sensor/Switch
MECHANICAL	HVAC, Exhaust air at kitchen hoods with interlocked tempered make-up air; Air curtains with door actuation switches at exterior doors.
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	NA
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	NA
MEDIA	Servery/Dining/Courtyard audio source equipment or control

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-45

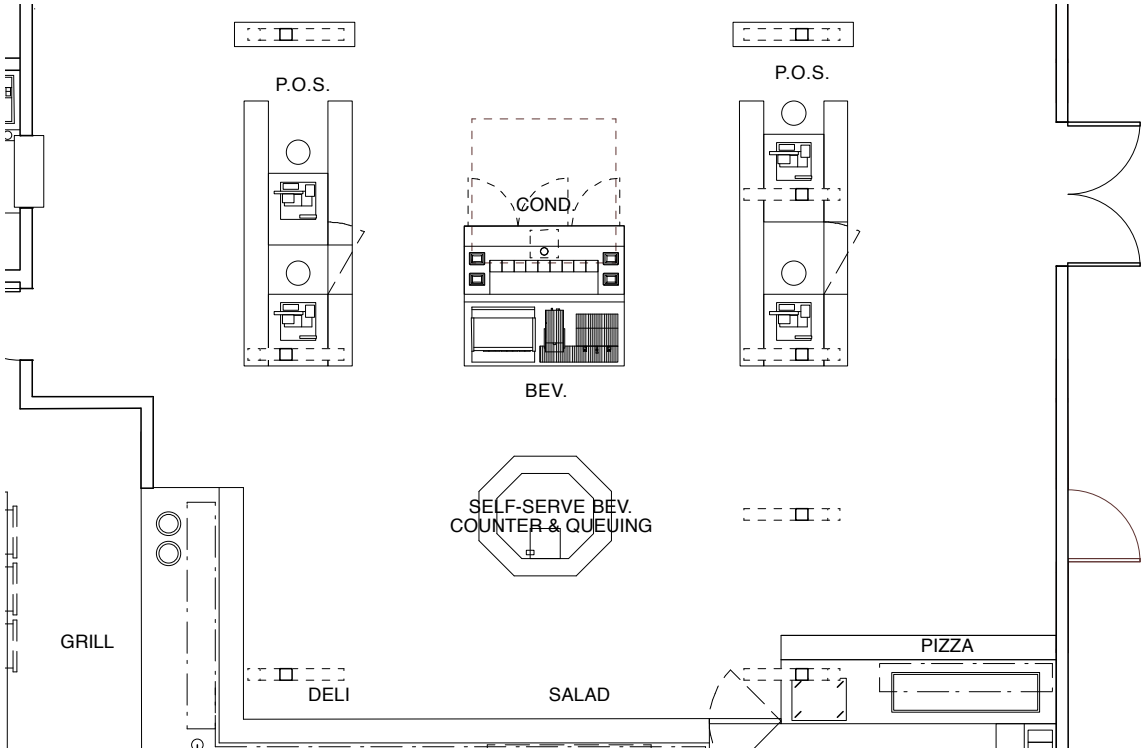
Room Data Sheets

BARN DINING: SERVING
CUSTOMER QUEUING

GENERAL INFORMATION

Serpentine queue system (next available cashier), 4 POS stations

TOTAL ASF	360
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Serving Area, Self-serve Condiments and Beverages
VIEWS	NA
MINIMUM CEILING HEIGHT	Open to existing structure
ACCESSIBILITY	Per code, angle columns require cane detection area.
SCALE	1/8" = 1'-0"



MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Wood
FLOORS	Colored concrete
WINDOWS	Wood painted
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Wood painted

FURNITURE + EQUIPMENT

BUILT-IN	POS (4)
FIXED	Large ceiling fans
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at Dining
ELECTRICAL	120 V / 1 Phase, Quad receptacle at each POS
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC; air curtains with door actuation switches at exterior doors
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior doors and windows, Camera at each POS
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 1 data at each POS, WAP
MEDIA	Speakers, Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment; remote refrigeration (i.e. no display cases with built-in condensers)
BACKGROUND NOISE CRITERIA	NC-40

Room Data Sheets

BARN DINING: SERVING

SELF-SERVE BEVERAGE COUNTER & QUEUING

GENERAL INFORMATION

SEE *CUSTOMER QUEUING* ROOM DATA SHEET FOR DIAGRAM OF SPACE

TOTAL ASF	65
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Part of Customer Queuing at Servery, adjacent to Double-Sided Service Bar
VIEWS	NA
MINIMUM CEILING HEIGHT	Open to existing structure
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Washable
FLOORS	Colored concrete
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Counter, beverage equipment, large ceiling fans
MOVABLE	Soda/ice dispenser, double coffee machine, iced tea brewer, refrigerated grab-and-go display case
OTHER	Beverage conduit to Soda Room

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at Dining
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC; air curtains with door actuation switches at exterior doors
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	NA
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	WAP
MEDIA	Ceiling loudspeakers

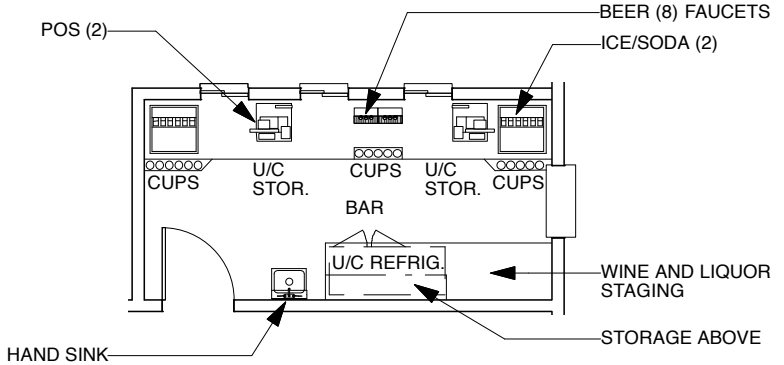
ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment; remote refrigeration (i.e. no display cases with built-in condensers)
BACKGROUND NOISE CRITERIA	NC-40

Room Data Sheets

BARN DINING: SERVING

DOUBLE-SIDED SERVICE BAR



GENERAL INFORMATION

Opening to interior and exterior; Service bars on each side (beer taps and bottled wine); (1) bar sink and (1) under counter glass washer; staffed by one bartender.

TOTAL ASF	136
NUMBER OF OCCUPANTS	1-2
ADJACENCIES	Servery, West Courtyard, Dining, includes Dry Storage - Liquor
VIEWS	NA
MIN. CEILING HT.	9'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Vinyl faced lay-in (or themed)
WALLS / BASE	White FRP (or themed)
FLOORS	Quarry tile, poured resin, or themed
WINDOWS	Aluminum
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	POS (2)
FIXED	Hand sink, (2) 4-tap beer towers, lockable wine / liquor storage, back bar refrigerator, (2) ice bin / soda towers, cup dispensers
MOVABLE	Trash containers
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase, Quad receptacle at each POS
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC; air curtains with door actuation switches at exterior windows
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Window sash locks, Magnetic contacts at exterior windows, Camera at each POS
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data at each POS
MEDIA	Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-40

Room Data Sheets

BARN DINING: SERVING

SELF-SERVE CONDIMENT COUNTER & QUEUING

GENERAL INFORMATION

SEE *CUSTOMER QUEUING* ROOM DATA SHEET FOR DIAGRAM OF SPACE

TOTAL ASF	65
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Part of Customer Queuing at Servery
VIEWS	NA
MINIMUM CEILING HEIGHT	Open to existing structure
ACCESSIBILITY	Per code

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Themed
FLOORS	Colored concrete
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Counter, basket/tray return station, large ceiling fans
MOVABLE	Trash and recycling containers, oven, condiment pan, napkin dispensers
OTHER	Storage

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at Dining
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	WAP
MEDIA	Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment; remote refrigeration (i.e. no display cases with built-in condensers)
BACKGROUND NOISE CRITERIA	NC-40

Room Data Sheets

BARN DINING: INDOOR SEATING + STAGE

INDOOR SEATING

GENERAL INFORMATION

Main interior dining area with 94 cafe style seats

TOTAL ASF	1,870
NUMBER OF OCCUPANTS	94
ADJACENCIES	Indoor Stage, Servery, West and East Courtyards
VIEWS	West and East Courtyards
MINIMUM CEILING HEIGHT	Open to existing structure
ACCESSIBILITY	Per code

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Wood
FLOORS	Colored concrete
WINDOWS	Wood painted
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Wood painted

FURNITURE + EQUIPMENT

BUILT-IN	Indoor Stage
FIXED	Audio speakers, television screens, oversized ceiling fans, trash, recycling and dish bussing station
MOVABLE	94 seats (cafe style)
OTHER	NA

DIAGRAM OF SPACE FOUND ON FOLLOWING PAGE

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	50 - 60 FC, Photocell sensors to be used in rroms with abundant daylight. These are not mandated by T-24 but add to energy efficiency.
MECHANICAL	HVAC. Natural ventilation could cause mustic-to-exterior noise issues if area can separate from Food Service. Otherwise, mechanical ventilation. All 3 MEP options (see MEP programming narrative) apply here, but would prefer Option 2 for energy efficiency and overall sustainability. Air curtains with door actuation switches at exterior doors.
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior doors and windows, Camera at location TBD
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	NA
MEDIA	Indoor Stage performance audio system similar to existing, reuse existing where feasible; manual pull-down projection screen at downstage edge; Audio presentation capability (e.g. one to four mics, audio for video) without deployment of large mixer or operator; Installed video projector; Background music for non-performance times

ACOUSTICS

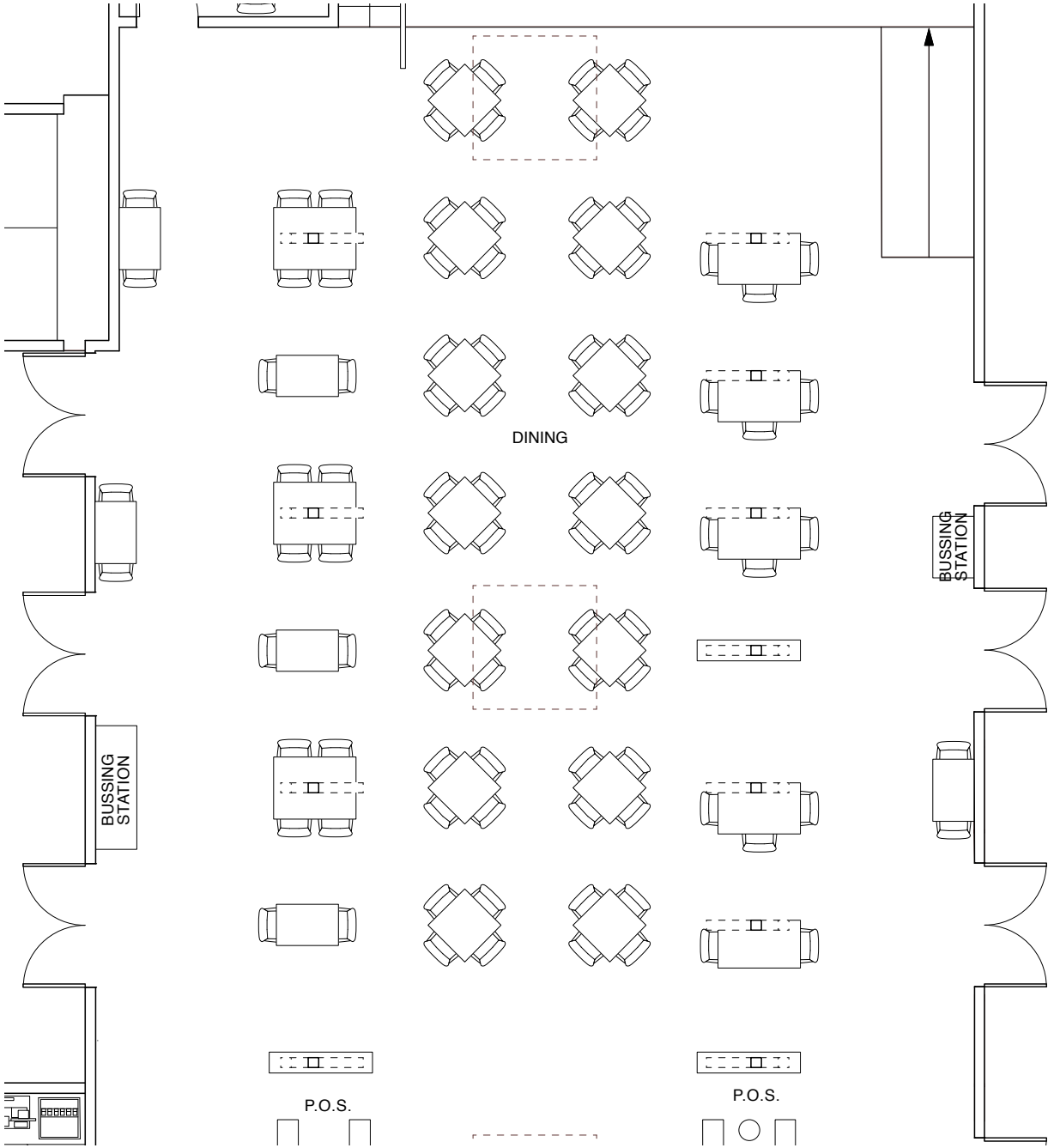
ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN DINING: INDOOR SEATING + STAGE

INDOOR SEATING

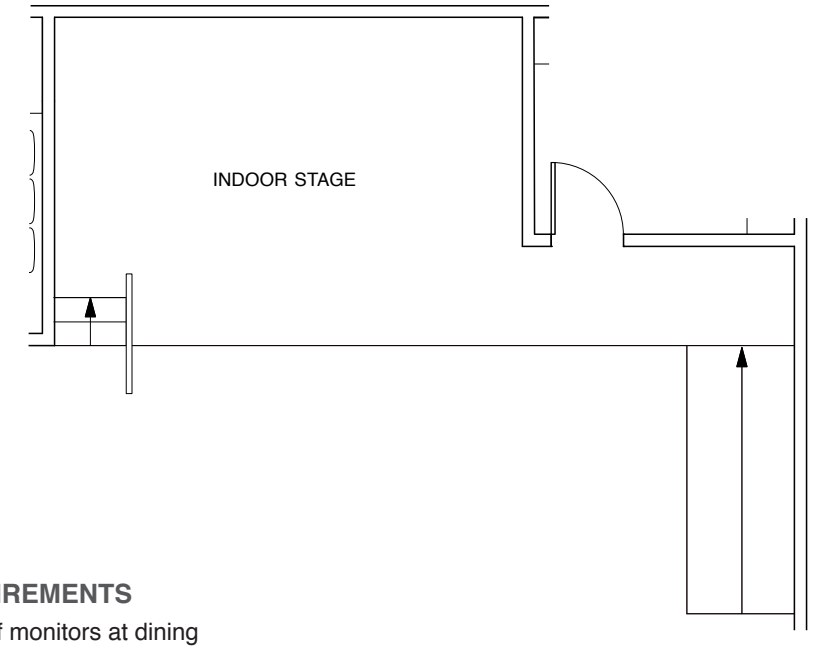
SCALE 1/8” = 1’-0”



Room Data Sheets

BARN DINING: INDOOR SEATING + STAGE

INDOOR STAGE



GENERAL INFORMATION

Stage open to interior Barn Seating Area for live performances. Includes a non-permanent location for sound mixing and lighting control. Sitelines will require further review during design.

TOTAL ASF	280
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Barn Dining, Green Room
VIEWS	NA
MINIMUM CEILING HEIGHT	7’-6”
ACCESSIBILITY	Per code, 1:12
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Wood
FLOORS	Wood
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	Indoor Stage raise 1’6” AFF, Stairs, Ramp
FIXED	Adjustable lighting, speakers
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at dining
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Specialty
MECHANICAL	HVAC
PLUMBING	NA
SECURITY	Camera at location TBD
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 4 data, at least one on each wall
MEDIA	A/V feed to KUCR, roll down projection screen, ceiling mounted projector and speakers, performance audio system (possible reuse of existing), intercom station

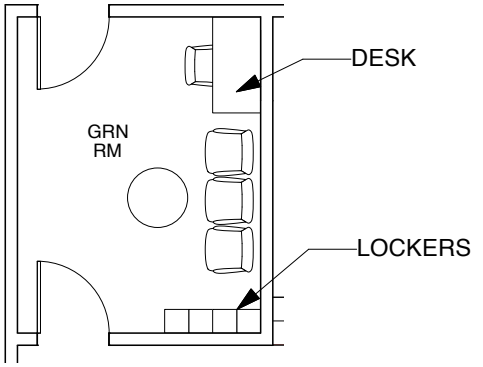
ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN DINING: INDOOR SEATING + STAGE

GREEN ROOM



GENERAL INFORMATION

Space for performers before and after a show.

TOTAL ASF	150
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Indoor Stage, Exterior access
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Wood
FLOORS	Carpet
WINDOWS	NA
DOORS	FSC certified solid-core wood door, painted
DOOR FRAMES	Wood painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/indirect pendants, specialty lighting – lights around mirrors, 30-50 FC. Occupancy Sensor/Switch.
MECHANICAL	HVAC, Individual zone control/thermostat.
PLUMBING	NA
SECURITY	Card key access, Magnetic contacts at exterior door, Camera at exterior door
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 4 data, at least one on each wall
MEDIA	Intercom station

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Lockers, lockable safe
MOVABLE	Small desk with mirror, chairs and/or couch, coat rack
OTHER	NA

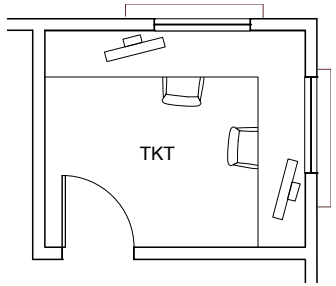
ACOUSTICS

ACOUSTICAL MEASURES	Carpet or sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN DINING: BACK OF HOUSE SUPPORT

TICKET BOOTH



GENERAL INFORMATION

Area for ticket sales and distributing performance information

TOTAL ASF	100
NUMBER OF OCCUPANTS	2
ADJACENCIES	Barn interior, West and East Courtyards
VIEWS	NA
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Open to trusses above
WALLS / BASE	Wood
FLOORS	Wood
WINDOWS	Wood painted
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Wood painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Controlled Daylight
ELECTRICAL	120 V / 1 Phase, Quad receptacle at each POS
LIGHTING	Direct/indirect pendants with downlight above counter, 35-50 FC. Occupancy Sensor/ Switch.
MECHANICAL	HVAC. Individual temperature control.
PLUMBING	NA
SECURITY	Window sash locks, Magnetic contacts at exterior windows, Camera at each POS
FIRE PROTECTION	Sprinkler
VOICE/DATA	2 phone / 4 data, at least one on each wall
MEDIA	Intercom station

FURNITURE + EQUIPMENT

BUILT-IN	Sales desk, ticket windows (2)
FIXED	Safe, POS (2), Ticketmaster terminals (2)
MOVABLE	File cabinets
OTHER	NA

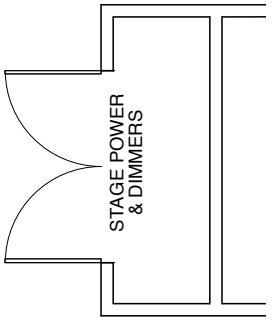
ACOUSTICS

ACOUSTICAL MEASURES	Carpet or sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN DINING: NON-ASSIGNABLE SPACES

STAGE POWER & DIMMERS



GENERAL INFORMATION

TOTAL SF	50
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Restrooms
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Metal decking
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Surface mounted fluorescents with acrylic lens. 30-40 FC. Occupancy Sensor/Switch.
MECHANICAL	Exhaust air and ventilation
PLUMBING	NA
SECURITY	Card key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	Dimmers and amp racks for Outdoor Stage

FURNITURE + EQUIPMENT

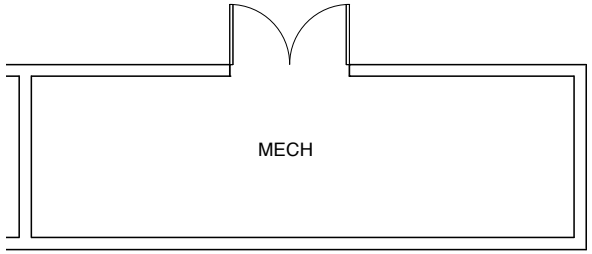
BUILT-IN	NA
FIXED	One dimmer (96 circuits) and multiple amp racks
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: NON-ASSIGNABLE SPACES
MECHANICAL



GENERAL INFORMATION

Main mechanical room for the entire complex.

TOTAL NON-ASF	200
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Metal decking
WALLS / BASE	Plywood
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

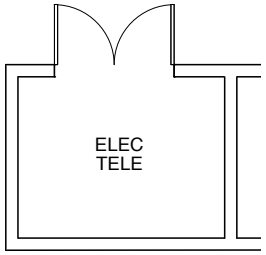
DAYLIGHTING	NA
ELECTRICAL	120/208 V, 3 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Heat exchange equipment, pumps, expansion tanks, metering for Barn Dining
PLUMBING	Drains, gas, water
SECURITY	Key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: NON-ASSIGNABLE SPACES
TELECOM CLOSET



GENERAL INFORMATION

TOTAL NON-ASF	120
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Mechanical Room, Transformer
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Metal decking
WALLS / BASE	Plywood
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Exhaust
PLUMBING	NA
SECURITY	Key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

FURNITURE + EQUIPMENT

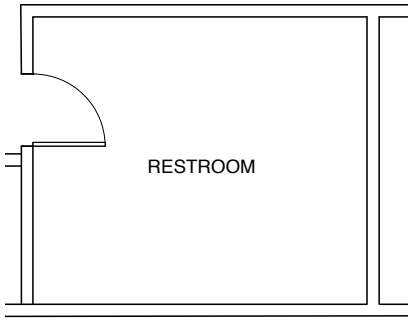
BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: NON-ASSIGNABLE SPACES
PUBLIC RESTROOMS (4)



GENERAL INFORMATION

Restroom for public as well as Barn Dining employees (dogtrot restroom).

TOTAL NON-ASF	665
NUMBER OF OCCUPANTS	NA
ADJACENCIES	West Courtyard, Kitchen Addition
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Metal decking
WALLS / BASE	Tile
FLOORS	Colored concrete
WINDOWS	Aluminum skylights
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Skylights or Roof monitors, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Surface mounted fluorescents above mirrors, downlights in the aisle ways with acrylic lens. 30-40 FC. Occupancy Sensor/Switch.
MECHANICAL	Exhaust air and ventilation, heating, fan
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	Restroom fixtures and accessories. Totals: Men’s: 3 WC, 2 urinals, 3 lavs Women’s: 4 WC, 3 lavs
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

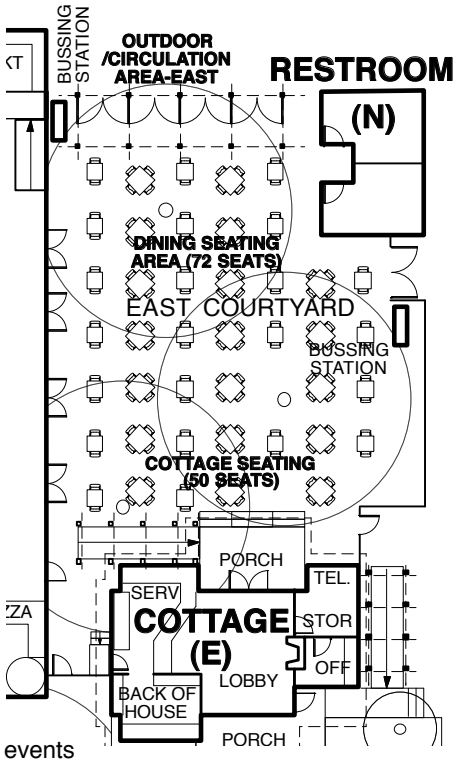
BARN DINING: PROGRAMMABLE OUTDOOR SPACE

EAST COURTYARD

GENERAL INFORMATION

Dining, circulation, and gathering space east of Barn Dining and north of the Cottage. 122 seats; cafe-style seating, Bussing Stations.

TOTAL SF	3,630
NUMBER OF OCCUPANTS	TBD
ADJACENCIES	Barn Dining, Cottage, Barn Walk, Barn Annex
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code
SCALE	1" = 30'-0"



MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	NA
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	
ELECTRICAL	Outdoor electrical outlets for special events
LIGHTING	Outdoor lighting
MECHANICAL	Heaters, misters
PLUMBING	Potable water supply for misters
SECURITY	Key access at gates, Cameras at location TBD
FIRE PROTECTION	Sprinklers at covered areas
VOICE/DATA	WAP
MEDIA	Outdoor loudspeakers

FURNITURE + EQUIPMENT

BUILT-IN	Shade structures / trellis, fences and gates
FIXED	Trash, recycling and dish bussing station
MOVABLE	Tables and chairs
OTHER	Landscape planters, seat walls

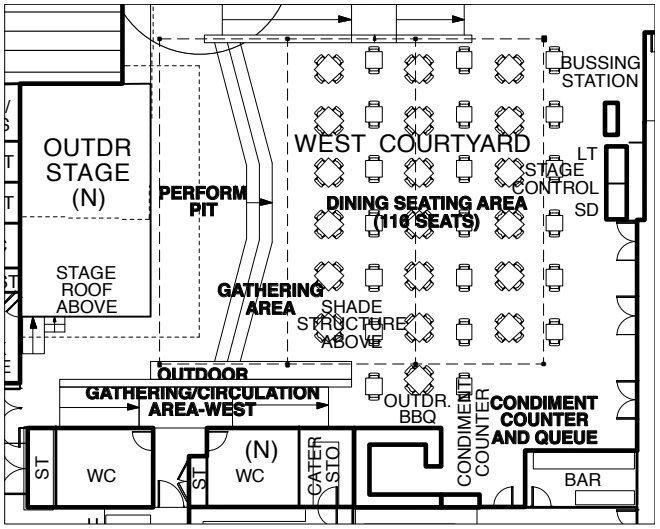
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: PROGRAMMABLE OUTDOOR SPACE

WEST COURTYARD



GENERAL INFORMATION

Dining, circulation, and gathering space west of Barn Dining. 116 seats; cafe-style seating, Shade Structure, Outdoor Stage, BBQ, Condiment Counter & Queuing (see separate room data sheets), Bussing Stations, A/V and Lighting Booth (location to be studied during design)

TOTAL SF	7,000 SF [+ 100 SF (Outdoor BBQ) + 48 SF (Outdoor Condiment Counter & Queuing); see separate Room Data Sheets]
NUMBER OF OCCUPANTS	TBD
ADJACENCIES	Outdoor Stage, KUCR, The Barn, Barn Theater
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code
SCALE	1” = 30’-0”

MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	NA
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	18’ high 3,000 SF (included in Total SF) Shade Structure
FIXED	Trash, recycling and dish bussing station
MOVABLE	NA
OTHER	Landscape Planters, Seat Walls, Ramps, Steps at Performance Pit

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	Outdoor electrical outlets for special events
LIGHTING	Outdoor lighting
MECHANICAL	Heaters, misters
PLUMBING	Water supply for misters
SECURITY	Key access at gates, Cameras at locations TBD
FIRE PROTECTION	Sprinklers at covered areas
VOICE/DATA	WAP
MEDIA	See Outdoor Stage room data sheet for additional requirements

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

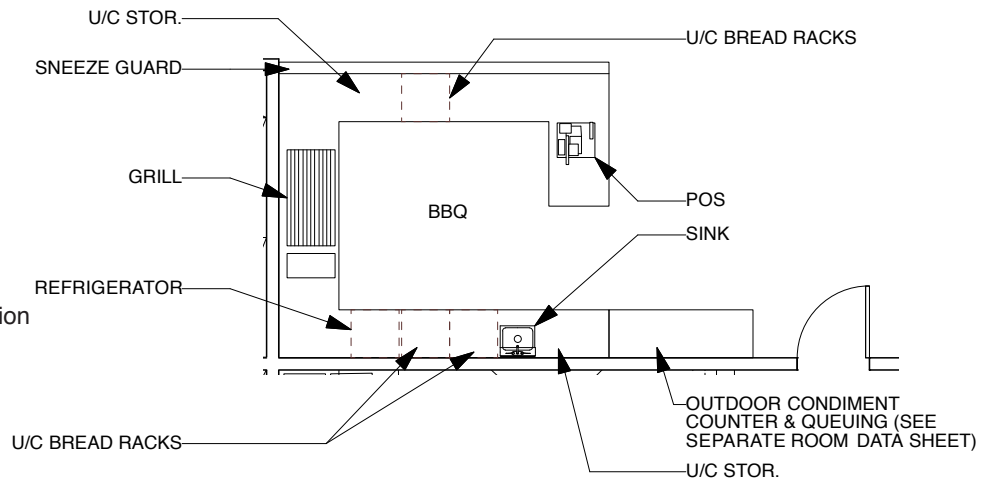
BARN DINING: PROGRAMMABLE OUTDOOR SPACE

OUTDOOR BBQ

GENERAL INFORMATION

Outdoor area for the preparation and sales of BBQ and other food items.

TOTAL SF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	West Courtyard, service entrance to Kitchen Addition
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”



MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	Colored concrete
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase, Quad receptacle at POS, outlet at front counter
LIGHTING	Outdoor
MECHANICAL	Exhaust
PLUMBING	Hot / cold water, gas, waste
SECURITY	Key access for equipment and POS, Camera at POS
FIRE PROTECTION	Cooking fire protection system
VOICE/DATA	1 phone / 1 data at POS
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Counter, BBQ, hand sink, POS (1), hood and flue, undercounter refrigerator, undercounter shelving / bread racks
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN DINING: PROGRAMMABLE OUTDOOR SPACE

OUTDOOR CONDIMENT COUNTER & QUEUING

GENERAL INFORMATION

TOTAL SF	48
NUMBER OF OCCUPANTS	NA
ADJACENCIES	West Courtyard
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code

DIAGRAM OF SPACE CONTAINED IN DRAWING ON *WEST COURTYARD* ROOM DATA SHEET

MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	Colored concrete
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Counter, basket/tray return station, large ceiling fans
MOVABLE	Trash and recycling containers, oven, condiment pan, napkin dispensers
OTHER	Storage

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Roof monitors at Dining
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	WAP
MEDIA	Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

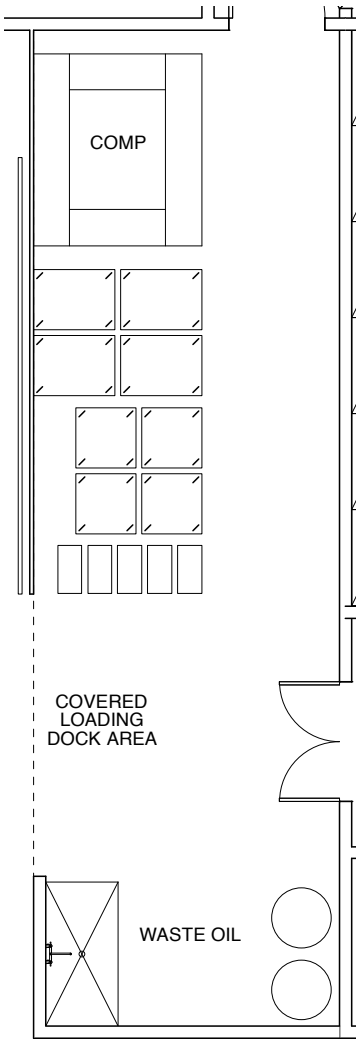
Room Data Sheets

BARN DINING: NON-PROGRAMMABLE OUTDOOR SPACE

COVERED LOADING DOCK AREA & LOADING DOCK

GENERAL INFORMATION

TOTAL SF	4,000
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Production Kitchen / Storage
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”



MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	Concrete slab at covered area, asphalt
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Area light
MECHANICAL	NA
PLUMBING	Hot/cold water, grease waste
SECURITY	Locking gates
FIRE PROTECTION	NA
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

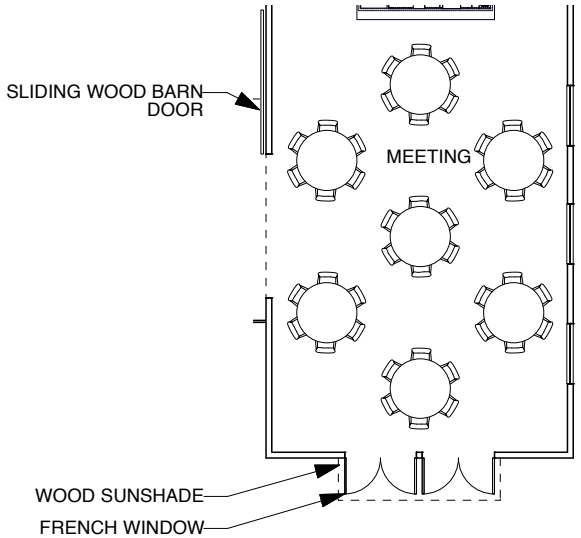
BUILT-IN	3 bays: 2 vehicle, 1 trash/recycling (compactor, trash dumpster, recycling cotainers for oil waste, paper, compostables); mat/cart washing area
FIXED	NA
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN STABLE
MEETING ROOM



GENERAL INFORMATION

50 seats; flexible multipurpose room for weddings, parties, meetings, and lectures.

TOTAL ASF	868
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Barn Stable Patio, Lobby, Bar, Kitchen
VIEWS	Barn Stable Patio
MINIMUM CEILING HEIGHT	10’-0”
ACCESSIBILITY	Per code
SCALE	1/16” = 1’-0”

MATERIALS AND FINISHES

CEILING	Exposed existing wood structure and reinforced original metal roofing
WALLS / BASE	Wood slats over acoustical cloth
FLOORS	Wood
WINDOWS	Wood; operable
DOORS	FSC certified solid-core wood door painted with vision glazing
DOOR FRAMES	Wood painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Sunshade, projection screen in ceiling
MOVABLE	Tables and chairs
OTHER	Sliding barn door

BUILDING SYSTEM REQUIREMENTS

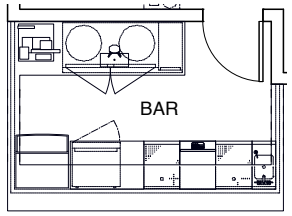
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/indirect pendants. Downlights above any presentation wall. 40-50 FC. Occupancy Sensor/Switch.
MECHANICAL	HVAC. Individual zone control/thermostat. Ventilation at 15 CFM / person; room to be on own zone control; CO2 sensors for demand control ventilation; Air curtains with door actuation switches at exterior doors
PLUMBING	NA
SECURITY	Card key access, Window sash locks, Magnetic contacts at exterior doors and windows
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 4 data, at least one on each wall, WAP
MEDIA	Ceiling loudspeakers; roll-down projection screen; ceiling-mounted video projector

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment, acoustcial wall treatment
BACKGROUND NOISE CRITERIA	NC-25

Room Data Sheets

BARN STABLE
BAR



GENERAL INFORMATION

Full service bar with ability to secure, with locakable shutters.

TOTAL ASF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Meeting, Lobby, Kitchen
VIEWS	Meeting
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Exposed existing wood structure and reinforced original metal roofing; possible wood slats overhead
WALLS / BASE	FRP
FLOORS	Colored concrete
WINDOWS	NA
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Wood painted

FURNITURE + EQUIPMENT

BUILT-IN	Bar top and die with beer taps, POS (1), undercounter ice maker; back bar to include undercounter refrigeration, undercounter dishwasher and bar sink, wire rack for liquor storage (secure)
FIXED	NA
MOVABLE	Wood shutters for locking bar when not in use
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase, Quad receptacle at POS
LIGHTING	Downlights, Ceiling mount linear fluorescents, 30-40 FC. Controlled via central time clock system with override switches.
MECHANICAL	HVAC
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Key access shutters, Magnetic contacts at shutters and door to kitchen, Camera at POS
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 1 data at POS, not at each wall
MEDIA	Audio source (music) for Meeting Room loudspeakers

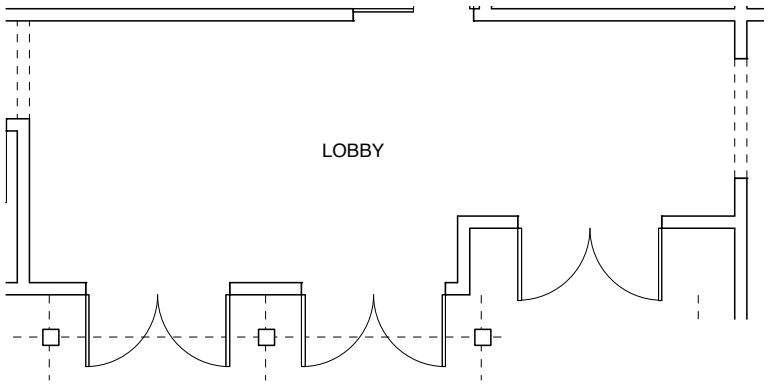
ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment; remote refrigeration (i.e. no display cases with built-in condensers)
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN STABLE
LOBBY

GENERAL INFORMATION



TOTAL ASF	328
NUMBER OF OCCUPANTS	
ADJACENCIES	Meeting, Bar, Restrooms
VIEWS	Barn Stable Patio
MINIMUM CEILING HEIGHT	10’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Acoustical wood slats
WALLS / BASE	Wood / gypsum board
FLOORS	Wood
WINDOWS	Aluminum
DOORS	Aluminum door with vision glazing at exterior, wood at interior
DOOR FRAMES	Aluminum, Wood painted at interior

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, ceiling mount linear fluorescents, architectural sconces, 20-30 FC. Controlled via a central time clock system and provided with an override switch.
MECHANICAL	HVAC. Individual zone control/thermostat
PLUMBING	NA
SECURITY	Card key access, Window sash locks, Magnetic contacts at exterior doors and windows, Cameras at doors
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 1 data, at least one on each wall, WAP
MEDIA	Speakers

FURNITURE + EQUIPMENT

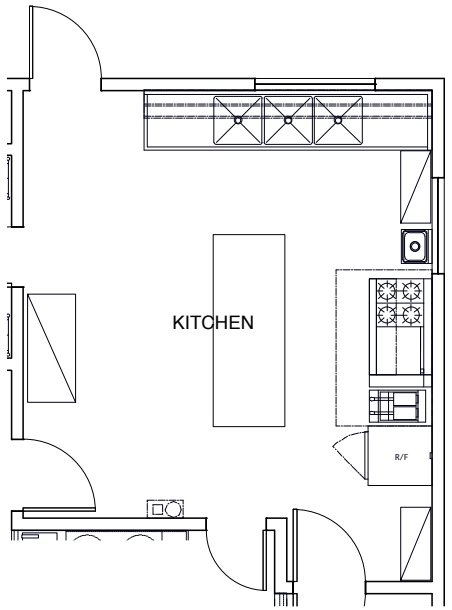
BUILT-IN	Bench, coat check, reception
FIXED	NA
MOVABLE	Soft chairs
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

BARN STABLE
KITCHEN



GENERAL INFORMATION

Finishing kitchen only, supported by Barn Dining Kitchen. Allows for catering events, including those held at Barn Stable.

TOTAL ASF	254
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Bar, Meeting
VIEWS	NA
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Vinyl-faced lay-in panels
WALLS / BASE	FRP
FLOORS	Quarry tile or resin
WINDOWS	Wood painted
DOORS	Wood painted
DOOR FRAMES	Wood painted

FURNITURE + EQUIPMENT

BUILT-IN	Cook line: exhaust hood, 1 two-basket fryer, 24" range and 24" griddle with oven below
FIXED	3-compartment sink, soiled pot shelving, clean pot shelving, 8-10' work counter with undercounter dishmac chine for glassware, 1 wire rack shelf / lockable liquor storage, dry storage, 1 hand sink
MOVABLE	Plating table, 1-section roll-in refrigerator
OTHER	Cart parking area with electrical outlets

BUILDING SYSTEM REQUIREMENTS

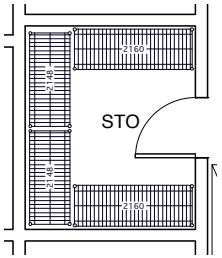
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Ceiling mount linear fluorescent with acrylic lens, 40-50 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	Exhaust air at kitchen hoods with interlocked tempered make-up air; control humidity with humidity sensors; air curtains with door actuation switches at exterior doors
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required, Gas, Grease waste
SECURITY	Card key access at exterior door, Window sash locks, Magnetic contacts at exterior door and windows, Camera at exterior door
FIRE PROTECTION	Cooking fire protection system, 120 V hard wired smoke detector, fire alarm mini-horn and strobe fire alarm mini-horn and strobe
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	Dedicated in and out doors (single-swing with stops) to provide adequate door seals between Kitchen and Meeting
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

BARN STABLE
STORAGE



GENERAL INFORMATION

For storage of miscellaneous kitchen items and equipment.

TOTAL ASF	70
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Meeting, Kitchen
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	FRP
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Wood painted
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	0.15 CFM/sf ventilation
PLUMBING	NA
SECURITY	NA
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	NA

FURNITURE + EQUIPMENT

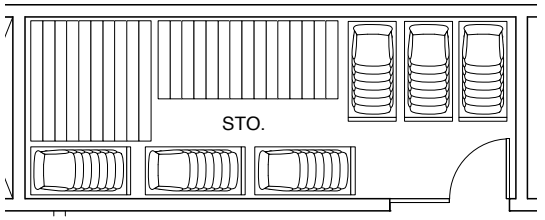
BUILT-IN	Shelving
FIXED	NA
MOVABLE	Carts
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN STABLE
STORAGE FOR TABLES AND CHAIRS



GENERAL INFORMATION

For storage of round tables and folding chairs.

TOTAL ASF	250
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Meeting, Lobby
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	FRP
FLOORS	Colored concrete
WINDOWS	NA
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	Carts for chair storage
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	HVAC; 0.15 CFM/sf ventilation
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	NA

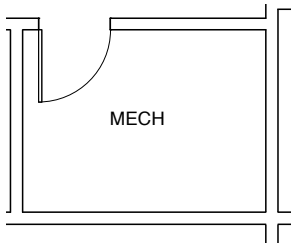
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

BARN STABLE: NON-ASSIGNABLE SPACES

MECHANICAL (TBD)



GENERAL INFORMATION

TOTAL NON-ASF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch
MECHANICAL	HVAC; 0.15 CFM/sf ventilation
PLUMBING	TBD
SECURITY	Key access, Magnetic contacts at exterior door
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

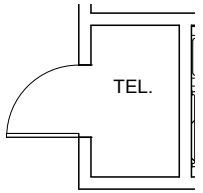
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN STABLE: NON-ASSIGNABLE SPACES

TELECOM CLOSET



GENERAL INFORMATION

TOTAL NON-ASF	48
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch
MECHANICAL	HVAC; 0.15 CFM/sf ventilation
PLUMBING	NA
SECURITY	Key access, Magnetic contacts at exterior door
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

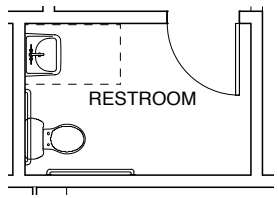
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

BARN STABLE: NON-ASSIGNABLE SPACES

PUBLIC RESTROOMS (2)



GENERAL INFORMATION

TOTAL NON-ASF	127
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Lobby
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Tile
FLOORS	Tile
WINDOWS	Aluminum, Obscured
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Restroom fixtures and accessories, provide shower in one restroom
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Surface mounted fluorescents above mirrors, downlights in the aisle ways with acrylic lens. 30-40 FC. Occupancy Sensor/Switch.
MECHANICAL	HVAC, exhaust air
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Latch and closer
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

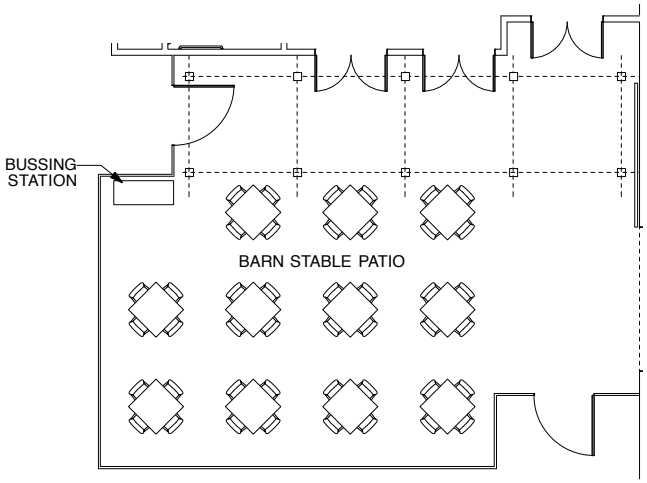
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

BARN STABLE: PROGRAMMABLE OUTDOOR SPACE

PATIO



GENERAL INFORMATION

Dining, circulation, and gathering space outside Barn Stable. 44 seats; cafe-style seating, Bussing Stations.

TOTAL SF	875
NUMBER OF OCCUPANTS	TBD
ADJACENCIES	Lobby, Meeting
VIEWS	NA
MINIMUM CEILING HEIGHT	NA
ACCESSIBILITY	Per code
SCALE	1/16” = 1’-0”

MATERIALS AND FINISHES

CEILING	NA
WALLS / BASE	NA
FLOORS	NA
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	Electrical outlets for special events
LIGHTING	Outdoor lighting
MECHANICAL	Heaters, misters
PLUMBING	NA
SECURITY	Fencing, gates with keyed entry
FIRE PROTECTION	NA
VOICE/DATA	WAP
MEDIA	Outdoor speakers

FURNITURE + EQUIPMENT

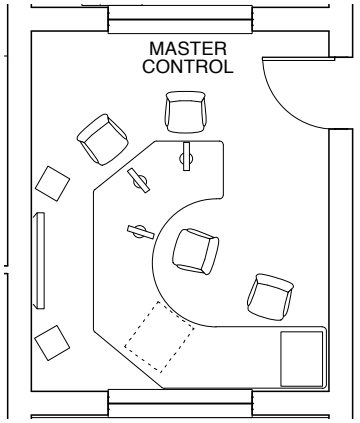
BUILT-IN	Shade structures
FIXED	Trash, recycling and dish bussing station
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

KUCR
STUDIO: MASTER CONTROL



GENERAL INFORMATION

Primary on-air studio, accommodating larger interview and multi-purpose broadcast team use. Also serves as a music mixing control and broadcast space for musical performances at the Outdoor Stage and the conference/performance space.

TOTAL ASF	190
NUMBER OF OCCUPANTS	4
ADJACENCIES	Production areas, Lobby
VIEWS	Interview/Program Host, Studio A
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Acoustical tile
WALLS / BASE	Gypsum board
FLOORS	Carpet
WINDOWS	Aluminum
DOORS	FSC certified solid-core wood door painted, Sound rated
DOOR FRAMES	Hollow metal painted, Sound rated

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Surface mounted track lights above the control station. Pendant mounted fluorescent troffers. Control via Switches and occupancy sensors.
MECHANICAL	HVAC. Separate zone control with own thermostat.
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	2 phone / 4 data, at least one on each wall
MEDIA	Radio production equipment; capable of supporting Outdoor Stage broadcast; intercom station

FURNITURE + EQUIPMENT

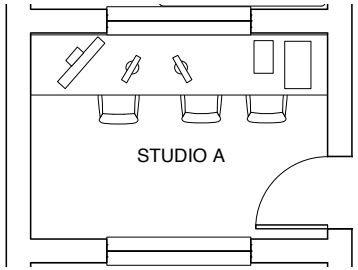
BUILT-IN	Broadcast equipment and desk
FIXED	Flat screen monitor
MOVABLE	4 Chairs
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	Carpet, sound absorbing ceiling treatment, and acoustcial wall panels (absorbing and diffusing); sound-rated door
BACKGROUND NOISE CRITERIA	NC-20

Room Data Sheets

KUCR
STUDIO: PRODUCTION ROOM (A + B)



GENERAL INFORMATION

Capable of operating as stand-alone on-air studios as well as pre-production editing spaces.

TOTAL ASF	110 each
NUMBER OF OCCUPANTS	3
ADJACENCIES	Master Control, Lobby, Production areas
VIEWS	Master Control
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Acoustical tile
WALLS / BASE	Gypsum board
FLOORS	Carpet
WINDOWS	Soundproof glass
DOORS	FSC certified solid-core wood door painted, Sound rated
DOOR FRAMES	Hollow metal painted, Sound rated

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Specialty lighting, occupancy sensors.
MECHANICAL	HVAC on separate zone control.
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	2 phone / 4 data, at least one on each wall
MEDIA	Radio production equipment

FURNITURE + EQUIPMENT

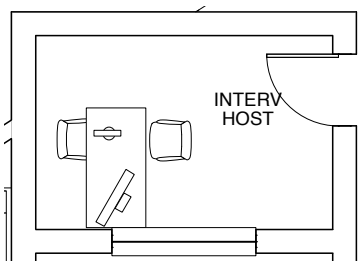
BUILT-IN	Broadcast equipment and desk
FIXED	NA
MOVABLE	NA
OTHER	One or two on-air microphone locations for small interview, multi-person broadcast and voice-over functions

ACOUSTICS

ACOUSTICAL MEASURES	Carpet, sound absorbing ceiling and wall treatment; sound-rated door
BACKGROUND NOISE CRITERIA	NC-20

Room Data Sheets

KUCR
STUDIO: INTERVIEW / PROGRAM HOST



GENERAL INFORMATION

Multipurpose room for meetings, on-air band performances, interviews, and audio/video.

TOTAL ASF	110
NUMBER OF OCCUPANTS	1-3
ADJACENCIES	Master Control, Production areas, Lobby
VIEWS	Master Control
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Acoustical tile
WALLS / BASE	Gypsum board
FLOORS	Carpet
WINDOWS	Soundproof glass between interviewer and performer
DOORS	FSC certified solid-core wood door painted, Sound rated
DOOR FRAMES	Hollow metal painted, Sound rated

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	HVAC. Separate zone control with own thermostat.
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	A/V connection to Master Control, 2 phone / 4 data, at least one on each wall
MEDIA	Microphones and fold-back only

FURNITURE + EQUIPMENT

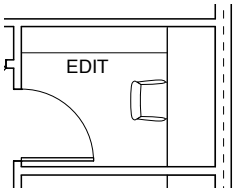
BUILT-IN	Broadcast equipment and desk
FIXED	NA
MOVABLE	Table and chairs
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	Carpet, sound absorbing ceiling and wall treatment; sound-rated door
BACKGROUND NOISE CRITERIA	NC-20

Room Data Sheets

KUCR
EDIT / POST-PRODUCTION ROOM (2)



GENERAL INFORMATION

Small room for pre- and post-production of KUCR content.

TOTAL ASF	48 each
NUMBER OF OCCUPANTS	1
ADJACENCIES	Archive, Production
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	NA
DOORS	FSC certified solid-core wood door painted, Sound rated
DOOR FRAMES	Hollow metal painted, Sound rated

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect Pendants and recessed downlights, 40-60 FC. Controlled via Occupancy Sensor/Switch
MECHANICAL	HVAC; zoned separately to provide individual thermal control
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	Workstation-based editing system

FURNITURE + EQUIPMENT

BUILT-IN	Desk and post production equipment
FIXED	NA
MOVABLE	Chair
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	Carpet, sound absorbing ceiling treatment, and tackable acoustcial wall panels
BACKGROUND NOISE CRITERIA	NC-30

Room Data Sheets

KUCR
LIBRARY

GENERAL INFORMATION

Extensive audio collection of various materials [LPs, CDs, archival tapes (reel-to-reel, cassette, broadcast cartridge)]. Some portion visible/ on display from Lobby and/or Hallway. Plan assumes fixed shelving; compact shelving will be studied further during design and appears to have the potential to reduce the square footage of Library by 50%.

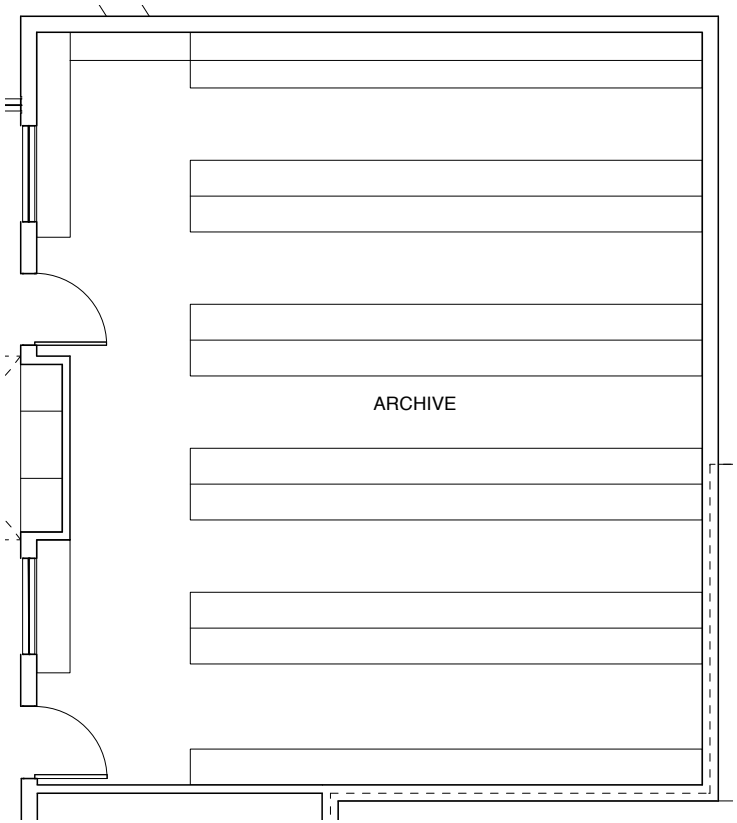
TOTAL ASF	900
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Lobby, Production areas, Offices
VIEWS	NA
MINIMUM CEILING HEIGHT	9'-0"
ACCESSIBILITY	Per code

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	Interior aluminum
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Visible archive area
FIXED	Shelving
MOVABLE	NA
OTHER	NA



BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	No direct sunlight
ELECTRICAL	120 V / 1 Phase
LIGHTING	Ambient lighting via decorative fluorescent pendants, task lighting, book stack lighting. 50-60 FC. Controlled via Switch/Time Clock and Occupancy Sensor.
MECHANICAL	Variable speed ventilation fan with room humidity sensor.
PLUMBING	NA
SECURITY	Security for collection, but with visual connection to public areas, Card key access, Camera at each door
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe
VOICE/DATA	NA
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

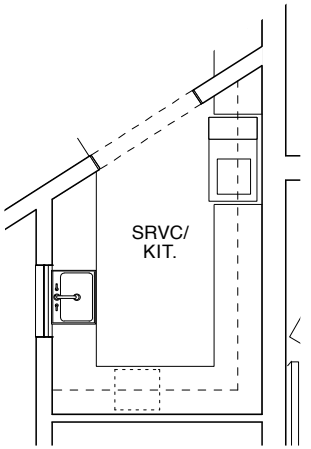
Room Data Sheets

KUCR
OFFICE SERVICE / KITCHENETTE

GENERAL INFORMATION

Copy room and small kitchen to support KUCR offices.

TOTAL ASF	75
NUMBER OF OCCUPANTS	3
ADJACENCIES	Offices
VIEWS	Exterior
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”



MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board / resilient base
FLOORS	Resilient floor
WINDOWS	Aluminum
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Base cabinets, upper cabinets for storing office and kitchen supplies
FIXED	counter space, sink
MOVABLE	compact refrigerator, copy machine
OTHER	coffee maker

BUILDING SYSTEM REQUIREMENTS

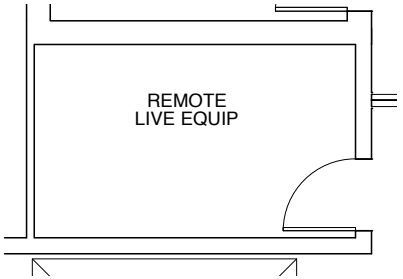
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	HVAC. Individual zone control for corner offices. Interior offices to be grouped, and zoned on a combined thermostat.
PLUMBING	Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector
VOICE/DATA	1 phone / 1 data, at least one on each wall
MEDIA	NA

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

KUCR
STORAGE - REMOTE LIVE EQUPMENT



GENERAL INFORMATION

Storage for equipment used for off-site live events.

TOTAL ASF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior, Parking / Loading by pick-up truck
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code, on grade for rolling carts
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Plywood or other durable material
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal
DOOR FRAMES	Metal

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Ventilation
PLUMBING	NA
SECURITY	Key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	NA
MEDIA	NA

FURNITURE + EQUIPMENT

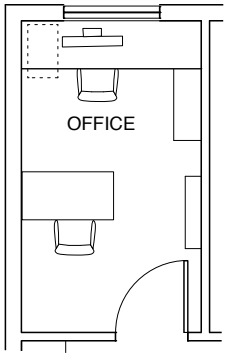
BUILT-IN	NA
FIXED	NA
MOVABLE	Shelving, cart for moving equipment (provided by user)
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

KUCR
PRIVATE OFFICES (5)



GENERAL INFORMATION
Private offices for KUCR staff.

TOTAL ASF	110 each
NUMBER OF OCCUPANTS	1
ADJACENCIES	Director, Administrative Assistant, Assistant Director / Program Director, Music Department, Engineering, Open Offices, Production
VIEWS	Exterior
MINIMUM CEILING HEIGHT	8'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Gypsum board or drop ceiling
WALLS / BASE	Gypsum board
FLOORS	Carpet, resilient floor, or colored concrete
WINDOWS	Aluminum, Double pane, low SHGC
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Desk, computer table, shelving
FIXED	Window blinds, Locking file cabinet, bookcase
MOVABLE	2 office chairs
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

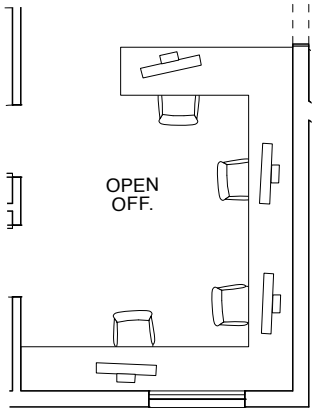
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	Radiant heating and cooling, ventilation. Individual zone control for corner offices. Interior offices to be grouped, and zoned on a combined thermostat.
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe in shared area
VOICE/DATA	1 phone / 1 data, at least one on each wall, WAP
MEDIA	Ceiling loudspeakers, indiviually controllable

ACOUSTICS

ACOUSTICAL MEASURES	Carpet or sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

KUCR
OPEN OFFICES (2): SHARED WORKSPACE & NEWS / PUBLIC AFFAIRS



GENERAL INFORMATION

One open office is a shared workspace for processing and cataloging media, one open office is for News / Public Affairs.

TOTAL ASF	90 each
NUMBER OF OCCUPANTS	4 each
ADJACENCIES	Director, Assistant Director / Program Director, Archive
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board or drop ceiling
WALLS / BASE	Gypsum board
FLOORS	Carpet, resilient floor, or colored concrete
WINDOWS	Aluminum double pane, low SHGC
DOORS	Wood painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Desk, shelving
FIXED	Window blinds, Locking file cabinet
MOVABLE	4 office chairs
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

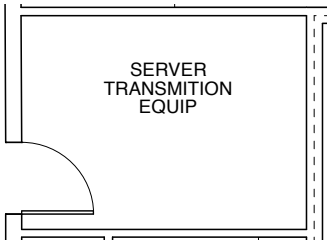
DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Direct/Indirect linear pendants, 10-20 FC. Task lights 30-40 FC. Controlled via Occupancy Sensor/Switch.
MECHANICAL	Radiant heating and cooling, ventilation. Individual zone control for corner offices. Interior offices to be grouped, and zoned on a combined thermostat.
PLUMBING	NA
SECURITY	Key access, Window sash locks, Magnetic contacts at exterior window
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe in shared area
VOICE/DATA	1 phone / 1 data, at least one on each wall, WAP
MEDIA	Ceiling loudspeakers

ACOUSTICS

ACOUSTICAL MEASURES	Carpet or sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-40

Room Data Sheets

KUCR
SERVER / TRANSMISSION EQUIPMENT ROOM



GENERAL INFORMATION

Room for housing the KUCR server and transmission equipment.

TOTAL ASF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Production Area, Offices
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board, resilient base
FLOORS	Colored concrete or resilient floor
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Switch/Occupancy sensor.
MECHANICAL	Exhaust air; requires 24/7 cooling
PLUMBING	NA
SECURITY	Key access
FIRE PROTECTION	Sprinkler
VOICE/DATA	2 phone / 2 data
MEDIA	NA

FURNITURE + EQUIPMENT

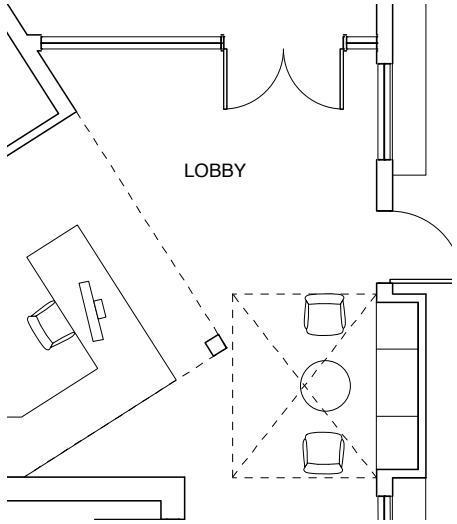
BUILT-IN	NA
FIXED	Server racks
MOVABLE	Transmission equipment
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-55

Room Data Sheets

KUCR
LOBBY



GENERAL INFORMATION

Reception area (supported by the KUCR staff in the Open Offices) with seating for 6.

TOTAL ASF	275
NUMBER OF OCCUPANTS	1-6
ADJACENCIES	Studio Production, Conference, Master Control
VIEWS	NA
MINIMUM CEILING HEIGHT	14'-0"
ACCESSIBILITY	Per code
SCALE	1/8" = 1'-0"

MATERIALS AND FINISHES

CEILING	Wood or other high-end finish
WALLS / BASE	Wood or other high-end finish
FLOORS	Colored concrete
WINDOWS	Aluminum storefront
DOORS	Aluminum door with vision glazing at exterior, wood painted at interior
DOOR FRAMES	Aluminum storefront at exterior, Hollow metal painted at interior

FURNITURE + EQUIPMENT

BUILT-IN	Shelving, mailboxes (~100), bench
FIXED	NA
MOVABLE	Soft chairs, coffee table
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	Windows, exterior sun shading where applicable
ELECTRICAL	120 V / 1 Phase
LIGHTING	Downlights, ceiling mount linear fluorescents, architectural sconces, 20-30 FC. Controlled via a central time clock system and provided with an override switch.
MECHANICAL	Radiant heating and cooling, ventilation. Individual zone control/thermostat.
PLUMBING	NA
SECURITY	Card key access, Window sash locks, Magnetic contacts at exterior doors and windows, Camera at entrance
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe in shared area
VOICE/DATA	WAP
MEDIA	Ceiling loudspeakers

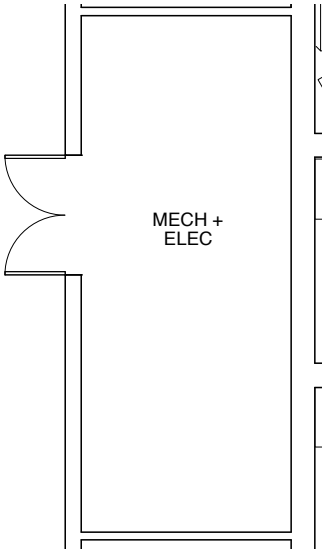
ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing ceiling treatment
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

KUCR: NON-ASSIGNABLE SPACES

MECHANICAL / ELECTRICAL



GENERAL INFORMATION

Room to house HVAC and electrical equipment.

TOTAL NON-ASF	200
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Plywood or other durable material
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted door
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120/208 V / 3 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Exhaust
PLUMBING	TBD
SECURITY	Key access, Magnetic contacts at exterior doors
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

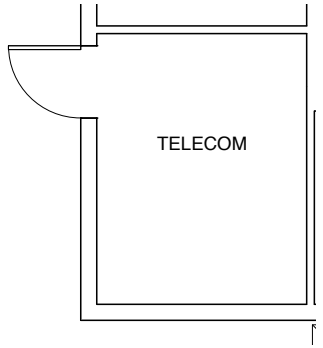
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

KUCR: NON-ASSIGNABLE SPACES

TELECOM CLOSET



GENERAL INFORMATION

Room to house telecommunications equipment.

TOTAL NON-ASF	100
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Exterior
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Plywood or other durable material
FLOORS	Colored concrete
WINDOWS	NA
DOORS	Hollow metal painted
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Utilitarian surface mounted linear fluorescents, 20-30 FC with acrylic lens. Controlled with Occupancy Sensor/Switch.
MECHANICAL	Exhaust
PLUMBING	NA
SECURITY	Key access, Magnetic contacts at exterior door
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data
MEDIA	NA

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

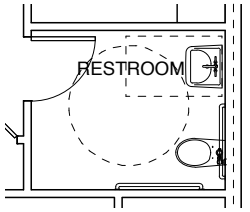
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NA

Room Data Sheets

KUCR: NON-ASSIGNABLE SPACES

PUBLIC RESTROOMS (2)



GENERAL INFORMATION

Unisex restrooms, one to be accessible from Backstage Space.

TOTAL NON-ASF	115
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Backstage, KUCR circulation
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Tile
FLOORS	Tile or colored concrete
WINDOWS	NA
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

FURNITURE + EQUIPMENT

BUILT-IN	Restroom fixtures and accessories: 1 WC, 1 lav each
FIXED	NA
MOVABLE	NA
OTHER	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Surface mounted fluorescents above mirrors, downlights in the aisle ways with acrylic lens. 30-40 FC. Occupancy Sensor/Switch.
MECHANICAL	HVAC, exhaust air
PLUMBING	Floor drain, Cold and hot water, Sanitary sewer for equipment as required.
SECURITY	Key access, shared Restroom to be lockable from both inside KUCR and the Backstage Space.
FIRE PROTECTION	Sprinkler, 120 V hard wired smoke detector, fire alarm mini-horn and strobe in shared area
VOICE/DATA	NA
MEDIA	NA

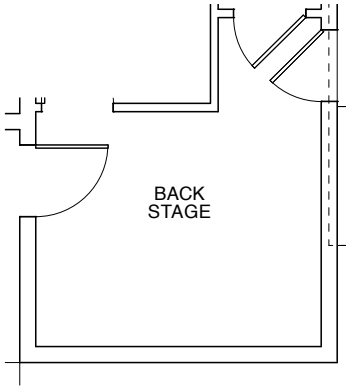
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-45

Room Data Sheets

KUCR: PROGRAMMABLE COVERED OUTDOOR SPACE

BACKSTAGE SPACE (SECURE)



GENERAL INFORMATION

Space for pre-performance staging and storage.

TOTAL ASF	150
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Outdoor Stage, shared Restroom
VIEWS	NA
MINIMUM CEILING HEIGHT	8’-0”
ACCESSIBILITY	Per code
SCALE	1/8” = 1’-0”

MATERIALS AND FINISHES

CEILING	Gypsum board
WALLS / BASE	Gypsum board
FLOORS	Colored concrete
WINDOWS	Aluminum
DOORS	FSC certified solid-core wood door painted
DOOR FRAMES	Hollow metal painted

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	120 V / 1 Phase
LIGHTING	Pendant downlights, surface mounted downlights or direct/indirect fluorescent (depending on ceiling), 40-60 FC. Controlled via Switch/Occupancy Sensor
MECHANICAL	HVAC
PLUMBING	NA
SECURITY	Card key access, Magnetic contacts at exterior door, Camera
FIRE PROTECTION	Sprinkler
VOICE/DATA	1 phone / 1 data, at least one on each wall, WAP
MEDIA	Intercom station

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	NA
MOVABLE	NA
OTHER	NA

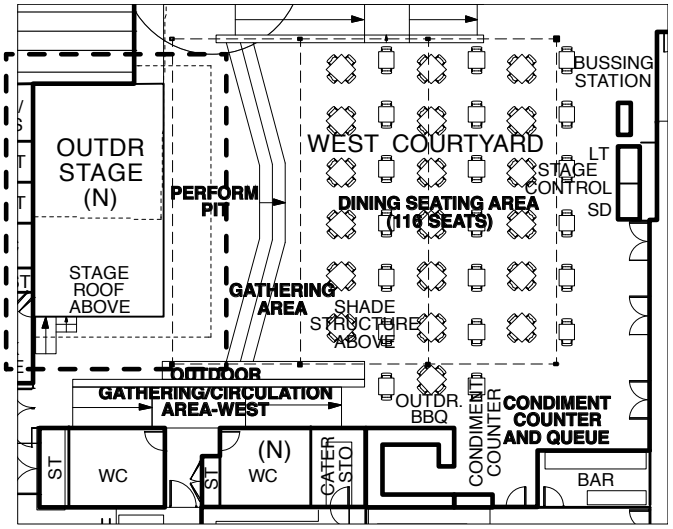
ACOUSTICS

ACOUSTICAL MEASURES	NA
BACKGROUND NOISE CRITERIA	NC-35

Room Data Sheets

KUCR: PROGRAMMABLE COVERED OUTDOOR SPACE

OUTDOOR STAGE & STAGE CONTROL - LIGHTING (LT) & SOUND (SD)



GENERAL INFORMATION

Outdoor Stage for performances. Sitelines will require further review during design.

TOTAL SF	720
NUMBER OF OCCUPANTS	NA
ADJACENCIES	Backstage, West Courtyard
VIEWS	NA
MINIMUM CEILING HEIGHT	20’-0”
ACCESSIBILITY	Per code
SCALE	1” = 30’-0”

MATERIALS AND FINISHES

CEILING	Outdoor Stage roof TBD
WALLS / BASE	Siding
FLOORS	Colored concrete
WINDOWS	NA
DOORS	NA
DOOR FRAMES	NA

BUILDING SYSTEM REQUIREMENTS

DAYLIGHTING	NA
ELECTRICAL	Outdoor electrical outlets for special events
LIGHTING	Truss-mounted moveable theatrical lighting
MECHANICAL	NA
PLUMBING	NA
SECURITY	See West Courtyard room data sheet
FIRE PROTECTION	Sprinkler at covered areas
VOICE/DATA	1 phone / 4 data at LT & SD Booth, WAP
MEDIA	Large installed audio system, Roll-down projection screen, Truss-mounted Speakers and Projector, Camera for video feed. One or two 22” wide x 32” deep equipment racks required for audio/production equipment. Must be in an air-conditioned space (ductless OK).

FURNITURE + EQUIPMENT

BUILT-IN	NA
FIXED	Lighting, outdoor loud speakers
MOVABLE	NA
OTHER	NA

ACOUSTICS

ACOUSTICAL MEASURES	Sound absorbing wall and canopy treatment
BACKGROUND NOISE CRITERIA	NA

IV. SUPPORT DOCUMENTS

The architectural narrative begins to develop the character and materials of the buildings. Narratives that describe the systems that support the buildings are provided for civil, landscape, structural, food service, acoustical, mechanical, electrical, and plumbing. Sustainability has been fore-grounded and integrated with the discussions of building character, materials, and systems. The project will obtain at minimum a LEED Silver rating. Furthermore, the design phase should explore opportunities to demonstrate sustainable principles where possible.

System Narratives

ARCHITECTURAL

OVERVIEW

The Barn Project Phases 1 & 2 offers the opportunity to demonstrate that these well-used (and well-loved) existing structures have utility beyond being part of the historical record. Part found object, part new intervention, the project can be a model for sustainable adaptive reuse. This project should explore an unromantic attitude toward these structures, one that retains their integrity while addressing contemporary needs and sensibilities. To that end, the development should express what is new as new, and allow the spirit of the old to remain.

The Barn Group is comprised of three existing historic barns (each to be renovated and added to), a historic cottage (to be relocated and renovated), and a new radio station. These buildings are to be interconnected through four significant new outdoor rooms. In order to be perceived as a group of related structures and activities, it is very important that the material choices and massing strategies be thought of as a whole. To organize the various structures on the site, a coordinated hierarchy of building elements is proposed.

PRIMARY ELEMENTS

The three barns (called “The Barn”, “Barn Stable,” and “Barn Theater”) and the Cottage were part of the original Citrus Research Station that has become UCR. The Barn has a long history as an important performance venue on the campus. The overall character of this project is driven by a desire to revive and repurpose these four buildings as the central elements in this new dining and entertainment group.

The goal is to update these existing structures in the spirit of their original design. The vernacular and material strategies employed in the existing structures will be the basis for material decisions. It is desirable to maintain the essential character of each structure as it is repurposed, and in several cases relocated. The buildings are to be treated as working farm structures that are being given a new life.

The existing three barns are wood frame structures on concrete slabs with painted wood siding (predominantly board and batten and some horizontal wood siding) and the Cottage has painted horizontal wood siding. The addition to The Barn north of the existing stage would be the same type of construction as The Barn. These existing buildings are predominantly rectangular structures that vary in width and height, with overhangs on four sides. They have wood windows and doors and either asphalt shingle or corrugated metal roofs.

In the renovation of these structures the exterior siding will be repaired and re-used as much as possible. New double-glazed wood windows, with true divided lights, will replace existing windows. New wood doors in various configurations will replace existing and there will be a few large sliding barn doors with glazing. Additional openings will be added to provide daylight to the spaces that are frequently occupied. The roofs will be replaced with either new asphalt shingles or standing seam metal.

SECONDARY ELEMENTS

Significant additions are to be made to each barn, in some cases nearly equal in size to the original structures. These additions should be secondary and recessive in relation to the barns. They should be compatible with the barns, but distinct as additions. They should be developed as a “family” of additive elements, which relate to each other within the group. All should have the same siding material. To contrast with the barns, horizontal metal or wood siding is recommended. Doors and windows should be metal. In order to address the varying eave heights of the existing structures they will most likely have flat roofs, with a durable, light colored single-ply membrane.

TERTIARY ELEMENTS

There are a variety of elements that are needed to knit the project into the site, to meet the functional requirements of the hybrid program, and to address the uniqueness of the existing buildings. The most significant of these is the Shade Structure in the West Courtyard. Also included are four trellises, fences, gates, restrooms, a mechanical / electrical support structure, a canopy over the kitchen service area, and the connecting elements between the existing barns and their additions. They too, should be developed as a family of elements. The shade structures should be a mixture of steel and wood, as should the fences and gates. The small buildings (restrooms and mechanical / electrical support structure) should be very recessive and closely woven in with the landscape elements. They should be “planted-out” with vine armatures on their walls over FRC or metal siding. Most are windowless, although skylights in the restrooms

System Narratives

ARCHITECTURAL (CONTINUED)

may be desirable. They should have low roofs, most likely flat, that could be planted if determined to be appropriate.

THE NEW BUILDING—KUCR

As the only new building in the project, as the home of the vibrant KUCR, and as the first purpose-built radio station in the UC system, this structure has several roles to play in The Barn Group. To some extent it should be a background building, a visual and acoustical buffer separating the West Courtyard from West Campus Drive and the freeway. The building should also promote the identity and presence of KUCR, as the station both makes and broadcasts radio from this site.

The design should employ composite strategies, using the hierarchy of elements outlined above. The Outdoor Stage at the West Courtyard is part of the entertainment program for The Barn. The Outdoor Stage roof will be fairly high on its east side to allow for adequate sight lines. It should relate to the Primary Elements above--barn structures--in either form or structure (or both).

To play down its size and accommodate a program that is rather inward looking (security and acoustical isolation are very important) the main part of the new building should relate to the Secondary Elements outlined above. In this case, however, a simple shed roof, lower toward the West Courtyard and higher toward the freeway, may make the most sense. Acoustical analysis will be needed to confirm that the massing is helping both to exclude freeway noise and to contain sound related to performances within the West Courtyard. Finally, the small office wing is conceived of as a flat roof tucking under the larger shed. It should relate to the Tertiary Elements outlined above.

FLEXIBILITY / ADDRESSING CHANGE

The programmed spaces allow for flexibility and many of the spaces could be adapted (if need be) over time. Whether tailored for the specific needs of performance, dining, or radio production, the buildings should be designed to respond to a variety of formal and informal activities that change over time.

SUSTAINABLITY

An integrated design approach will be needed to achieve sustainable design. Concentrating on “first principles”--of orientation, shading, natural ventilation, and other passive strategies--will go a long way toward achieving sustainable design in this climate. Among the most important concepts are durability and consideration of the life cycle impact of these buildings. All materials need to be long-lasting and low maintenance.

The goal of obtaining LEED Silver, as mandated by the University, should be easily met. Raising the bar higher, to LEED Gold, is possible, with little cost impact. Designing the buildings and landscape to reveal their sustainable systems and to educate their users about “green” principles should be a fundamental aspect of the design.

BUILDING AND LANDSCAPE

The Riverside campus has a number of very successful outdoor spaces. These are a key part of the campus character and identity. This project is committed to contributing to and extending the outdoor spaces on the campus. The potential for integration of indoor and outdoor spaces is deeply imbedded in the building program. In the development of the design, the building and landscape should be seen as inseparable partners, so that in the end the project has as much to say about successful outdoor spaces as it does about successful interiors. These outdoor spaces will be able to support a variety of activities. An effort has been made to program the outdoor spaces with as much specificity as the interior spaces. These spaces can work with the buildings to establish the character of The Barn Group and engage the natural cycles of the site with the theater of everyday life.

System Narratives

CIVIL

**Note: See "Utility Points of Connection" Diagram in Section II (Functional Concepts)*

GENERAL SITE WORK

The majority of the site work for the Barn Project Phases 1 & 2 will be completed during Phase 1 of construction. Although final landscape and hardscape treatments for certain areas may wait until Phase 2 construction is complete, underground utility work, grading, the majority of the drainage systems, and primary paving should be incorporated into the early Phase 1 construction activities.

GENERAL UTILITY ISSUES

Utility design and construction practices shall follow UC Riverside standards. Where UC Riverside standards do not exist, appropriate local, state, and federal regulations shall be followed. For utilities such as graywater and rainwater, where local codes may inhibit standard green building design practices, the University shall support the design team's use of codes from other municipalities within the State of California.

Specific design related items include:

- Provide a minimum five (5) foot separation between outside edge of building foundations and centerline of nearest underground utility line.
- Provide separate meters for each building to allow for effective commissioning and long-term use monitoring for gas, water, power, hot water, and electricity.

WATER

Domestic water will require new points of connection for the proposed buildings within The Barn Group. At this time the civil engineer assumes that there will be three new connection points as per the utility diagram. The existing 12" water line running to the west of the Barn Stable conflicts with the proposed location for KUCR and will need to be relocated further to the west. The point of this relocation shall serve as one of the water points of connection (see utility diagram).

A three valve cluster will be installed at each point of connection; one isolation valve on the service lateral, and two valves at each tee head. Each building will require the installation of a separate meter on this service lateral. Size of water service laterals will be provided by the MEP.

Fire suppression water supply is combined in the same piped network as potable water. Location of a new fire hydrant, if required, will be coordinated with the campus Fire Marshall.

A water softener will need to be installed for the Kitchen Addition within The Barn Group. This should be located within the Kitchen Addition.

SANITARY SEWER

At least one new sanitary sewer point of connection will be required for The Barn Group. This connection will occur to the southwest of The Barn Group as per the utility diagram. At this new point of connection a sanitary sewer manhole will be constructed. During the conceptual design phase the civil engineer may evaluate the option of including an alternative point of connection for the Cottage and proposed outdoor Public Restroom at the East Courtyard (see utility diagram). Size of sewer service laterals will be provided by the MEP. A grease interceptor from the kitchen will be required.

GRAYWATER

There is no recycled water system on campus and as such alternative reclaimed water resources would have to be derived from onsite sources. The most viable water reuse source on site is the graywater generated within the Kitchen Addition. In order to tap this source, the Kitchen Addition will need to be dual plumbed so as to separate graywater from blackwater. Graywater is defined as wash water that typically comes from sinks, showers, and laundry facilities; while blackwater is defined as water that is exposed to organic material. Within the Kitchen Addition it is assumed that graywater would be generated through water sources that have minimal-to-no contact with organics. Sinks used to clean soiled items will be connected directly to the sanitary sewer. Kitchen sink layout and type of use will be provided by the Foodservice Consultant and MEP.

Graywater collected from the Kitchen Addition should be treated through filtration and disinfection, and used immediately for toilet flushing or irrigation. Graywater shall not be stored longer than 24 hours prior to use. Graywater system design will follow the Uniform Plumbing Code. Construction of a graywater system is estimated

System Narratives

CIVIL (CONTINUED)

to cost between $25,000 and $40,000 (actual cost will depend on length of piping installed, filtration system specified, disinfection system specified, and type reuse). Given the relatively low cost of water in Riverside, this system is not expected to pay for itself within its design lifespan. This system would however provide an exceptional opportunity for demonstration by the university and help the project meet UC Riverside's sustainability goals.

ELECTRICAL

The electrical point of connection will occur at Vault 3A (see "Utility Points of Connection" diagram), allowing connection to the 12kV substation. This project will require that the existing transformer and 800 amp service be replaced with a new 480kVa transformer and 600 amp service that meets the project demands as per the MEP. The existing service will be replaced with new copper conduit for all new service connections. New electric meters shall be installed at each building. The existing transformer will need to be replaced in order to accommodate the 600 amp service; and may be pad-mounted as per UC Riverside standards.

The conduit between MH 12 and MH 13 is currently out of use but should be reserved if possible for re-use with data/telecommunications.

The line to the west of the current Barn Stable location (feed to CHASS) can be slurry capped and spanned with a bridge foundation in order to avoid moving the line.

The old 800 amp service and transformer shall be retained by the University.

NATURAL GAS

The Kitchen Addition and Barn Stable will have connections to natural gas. This point of connection will occur along the existing line running to the south of the site at the location shown on the utility diagram. The project shall reuse the existing service lateral and gas meter if approved by the provider, Southern California Gas.

FIBER OPTIC

A fiber optic line will be run from Sproul Hall for fire communication.

TELECOMMUNICATIONS

Existing telecommunications conduits run along the western and southern side of The Barn Group. New runs will be required for some of the buildings. Feed to KUCR will come from the conduits running to the west. Feed to the Cottage will come from the vault to the south. Reusing the existing conduit to feed the Kitchen Addition is a possibility. The Telecommunications infrastructure is to be design by the Telecommunications consultant.

A new AV switching mechanism will be placed outside Vault 3A.

STEAM / CHILLED WATER

The point of connection for steam and chilled water is in Tunnel Vault 15 to the south of Watkins Recital Hall. See utility diagram and the MEP narrative for more information.

STORMWATER

Stormwater shall be managed in order to meet LEED Credits 6.1 and 6.2 for stormwater runoff quality and quantity. Impervious areas will be minimized and stormwater will be treated as close as possible to the point at which it falls. Drainage design shall minimize piped flow and maximize overland surface flow to treatment areas. Permeable, interlocking pavers shall be used for hardscape surfaces wherever possible and configured for onsite infiltration. Softscape treatments, such as rain gardens and bioswales, shall be integrated into the landscape design where feasible. During the design phase, effort should be made to keep stormwater management facilities visible, thereby enhancing The Barn Area as a demonstration project. Additional UC Riverside stormwater requirements, if more stringent than LEED, shall be met.

GRADING / EARTHWORK

Grading and earthwork will be minimized onsite and an effort will be made to balance cut and fill across the project.

CIRCULATION

Circulation will be improved via changes to the loading bay areas. The kitchen approach will be adjusted so that trucks approach from the south and pull into a new parking lane, allowing parking and unloading without traffic lane obstruction.

CARBON

CO2 emissions for the facility will be minimized through design and infrastructure selection. Additional vegetation will further offset carbon

System Narratives

LANDSCAPE

The outdoor spaces of the Barn Project Phases 1 & 2 are a series of interconnected courtyards shaped by the surrounding buildings. A strong connection between indoor and outdoor spaces is achieved through large doors and wide exterior corridors. The landscape (layout, plantings, hardscape, and shade elements) will be designed to reflect the rich agricultural heritage of the region and The Barn Group.

The Barn Walk, the main pedestrian route from the site to East Campus, is separated from the Sproul Hall service drive with a planted corridor of orange trees that tie into the existing orange grove to the north of the project. This citrus allée will also function to screen the Sproul Hall loading dock from the project site. Bike traffic will use the service road with pavement striping to separate a bike lane.

The Eucalyptus Walk, which approaches the project site from the east, terminates at the intersection with the Barn Walk. This important intersection will be studied during design so that it functions in several ways: as circulation, as a visual endpoint of the two walks, and as a courtyard garden/meeting place. One possible reference may be the historic rancho garden, with a courtyard of decomposed granite inset with informal plantings.

The East Courtyard at The Barn and Cottage will be shaded by the large existing shade trees. This courtyard will have moveable furniture for dining and gatherings.

The West Courtyard will be shaded by a large shade structure and used for dining and outdoor performances. A lower area in front of the Outdoor Stage will be used a flexible space for everyday dining or as an auditorium for performances. Moveable furniture as well as broad steps and other landscape elements will accommodate a variety of formal and informal seating.

The Barn Stable will have its own patio enclosed by low walls or fences accessed by gates and will be separated from the rest of The Barn Group by plantings.

Fencing and gates will be designed with transparency and security in mind. Wood and steel will be the primary construction materials. The design of the fences and gates will be integrated into the tertiary shade structures and planted trellises. The operable gates will allow for a variety of possibilities for enclosing the Barn Stable Patio and the West and East Courtyards. For instance, access to the West Courtyard performance area can be controlled by rolling gates to completely enclose this area for alcohol and ticketing control.

The hardscape will be durable and light-colored to minimize the heat island effect. The design will consider areas of permeable paving to reduce runoff. Planted bio-swales will retain, clean, and slow down storm water before it reaches the storm water drainage system. Rainwater collection for onsite usage (toilet flushing, irrigation) will be considered. Other ornamental planting areas will feature drought-tolerant perennials and shrubs and will add softness, color, and aroma.

The plant palette will include shade trees such as Sycamores and Oaks; citrus and possibly other fruit or nut trees (avocado, walnut); drought-tolerant native or Mediterranean perennials, featuring flowers suitable for cutting for use in dining table arrangements; shrubs; vines (grape or kiwi as potential edible vines.) There is also the possibility of an herb garden to be used by the Kitchen Addition.

The approach to exterior lighting is a subtle integration of lighting fixtures into the proposed built structures: recessed wall lights at steps and ramps; dimmable down lights from the West Courtyard Shade Structure; down lights from existing trees at the East Courtyard; downlights from the trellises at the Barn Stable Patio. Low path lights in planting areas adjacent to walkways will supplement where needed for circulation safety.

Site work will include the necessary service access for Sproul Hall with a revised layout of parking spots and 3 dumpsters. Truck exiting this Loading Dock will back out onto West Campus Drive as they currently do; no turn around will be provided. Screening of the Sproul Hall Loading Dock will be achieved as mentioned above with a citrus allée running along the Barn Walk.

The design of the landscape will play a key role in ensuring a pleasant experience along West Campus Drive at the western edge of the project, which is largely a service area. The Drive Aisle that runs parallel to West Campus Drive allows for: truck delivery to the Kitchen Addition, access to KUCR parking, and a more continuous pedestrian experience. A carefully designed strip of plantings and trees will provide screening of this area.

System Narratives

STRUCTURAL

THE BARN

We do not anticipate needing to do any significant work to the framing to resist vertical gravity loads. However, in many areas, the existing framing and siding appears to be near or in contact with the exterior grade. The building should be surveyed for water damage and repaired as needed.

Based on a review of the available structural information, The Barn will most likely require a seismic upgrade as part of a comprehensive renovation. The structure is both too weak and too flexible in its current state, relative to modern safety standards. Fortunately, upgrading can be relatively straightforward and cost effective.

The existing straight-sheathed roof diaphragm is inadequate to transfer seismic loads to the walls. It can be easily upgraded by adding a layer of plywood sheathing directly to the existing structure. This work would be integral with improving the insulation and re-roofing the building. The proposal is to work above existing sheathing and keep in tact the structure as exposed from the inside. Once the existing roof has been removed to bare structure, the new plywood would be nailed directly to the framing. Because the building is currently not insulated, a layer of rigid insulation would be added over the new plywood. The insulation would change the appearance of the building by raising the roof by around six inches. To maintain the look of the exposed rafter-tails and roof overhang, the existing rafter-tails would be removed flush with the wall line. A new set of false tails would be set on top of the new plywood and overhang past the walls. The new framing would exist above the diaphragm, but within the layer of insulation. The overall appearance of the building would be similar, except that the building would be taller by the height of the new insulation. The roof framing forms a low monitor at the ridge, the full length of the building. The insulation layer would also be added to the monitor. To preserve the roof appearance similar to its current state, the exposed rafter framing at the monitor would be removed and replaced in kind. The new position would be higher due to the insulation. Like the rafter-tails of the main roof, the final appearance of the monitor would be similar to the current state.

The most cost effective and straightforward way to improve the seismic strength of the structure is to add new plywood sheathing to the existing wood stud framing. The wall locations best suited for new plywood are at the ends of the structure. In plan, the walls would appear as bookends. Both transverse wall elevations would be sheathed. Additionally, one segment of wall would be sheathed at each end of each longitudinal elevation. This placement of sheathing works well with existing walls, and would not disrupt the function of the building. The sheathing will be placed on the inside of the stud framing once gypboard finishes have been removed. This placement preserves the existing historic wood siding.

It is recommended that the exterior of the Kitchen Addition be built with concrete masonry exterior walls with steel light gauge construction or wood stud for internal framing. If steel framing is selected for the interior, the walls would be steel studs and the roof would be framed with steel joists and beams partially supported by the exterior CMU walls. Because concrete masonry and steel joists have problems with thermal bridging, a layer of rigid insulation would most likely be needed outside of the walls and over the roof, to get satisfactory insulation. The roof sheathing would be shallow gauge metal deck with the CMU providing lateral strength for the walls. The foundations would be shallow wall footings with a slab on grade. The new construction would be seismically separated from the existing Barn Dining structure.

If wood stud framing at the interior were used, the construction would be similar to the light gauge steel. The walls would be wood studs and the roof joists would be either solid lumber or engineered I-joist. The roof sheathing would be plywood. A seismic joint is needed to separate the CMU and existing wood structure. Unlike with steel framing, rigid insulation at the roof would not be necessary.

Several issues should be considered in the selection of the framing system. The metal stud framing is considered to be straighter, and more durable with respect to moisture resistance. However, there would be several advantages to using wood framing. Wood framing is architecturally in keeping with the existing buildings of The Barn Group. It is also the most appropriate material from the prospective of environmental sustainability – especially if Forrest Stewardship Council (FSC) certified wood is used. Often wood framing is less expensive than other forms of construction. The issues of longevity can be addressed with good detailing practices that are supported by good maintenance. Finally, if wood framing were used throughout (instead of CMU for the exterior walls), then rigid insulation and a seismic joint would not be required.

System Narratives

STRUCTURAL (CONTINUED)

BARN STABLE

The Barn Stable is to be relocated. The new site would be prepared with a new foundation supporting a concrete perimeter curb. Presently, areas of framing and siding appear to be in contact with the exterior grade. The building should be surveyed for water damage and repaired as needed. The lower portions of the stud framing and siding should be removed (approx. 6") to have the building positioned on the new curb above grade.

Like The Barn, the Barn Stable will most likely require a seismic upgrade as part of a comprehensive renovation. In a similar fashion, the structure can be strengthened and stiffened with plywood sheathing to meet modern standards.

The existing roof diaphragm of corrugated metal sheathing is inadequate to transfer seismic loads to the walls. A layer of plywood sheathing can be added over the metal sheathing and fastened to the existing structure. This work would be integral with adding new rigid insulation and re-roofing the building. Working above the existing corrugated sheathing will keep the exposed structure in tact from the inside. Like The Barn, the added insulation would change the appearance of the building by raising the roof by around six inches. However, a similar strategy of false exposed rafters would keep the overall appearance of the building similar to its present state.

The seismic strength would be improved by adding new plywood sheathing to the existing wood stud framing. The sheathing would be placed on the inside of the stud framing. This placement removes the existing poor quality interior finishes and preserves the existing historic wood siding.

New framing that is part of the stable building could be either light gauge metal or wood stud. The same issues noted for the Kitchen Addition apply here.

COTTAGE

The Cottage is to be relocated. The new site would be prepared with a new foundation. The structure presently has a wood framed floor that would be preserved. By altering the design of the perimeter curb and foundation, the final height of the building could be set at various levels. The building could possibly be set relatively lower than its current state. This change would reduce the length and appearance of the new exterior ramps.

The improvements to the seismic capacity of the building would be made by adding new plywood sheathing. The roof structure would be sheathed above the existing sheathing and the roof replaced. Because the cottage has flat ceilings, additional insulation would be placed in the cavity above the ceiling and below the roof. No changes to the eave framing would be needed. New wall plywood sheathing would be added to the interior face of existing stud framing, once interior finishes have been removed and replaced as needed.

Additionally, the chimney anchorage would be improved for seismic resistance.

KUCR

The new structure that will house the KUCR radio station should be recognized as a very important building to the community for emergency response, especially after a major earthquake. The building is planned to be quite small with one story of approximately 4,500 sf. Because of its modest size, there is the opportunity to cost effectively make the structure stronger than a conventional building. Essential Facilities, such as police and fire stations, are made 50% stronger relative to ordinary buildings in recognition of their importance to the community. Although the radio station has no such code requirements, we suggest that emergency broadcasts would be an essential function after a regional disaster.

The structure can be made of many materials. We propose using concrete masonry walls in critical areas to get good acoustic performance. Other areas of framing could be of either wood stud or light gauge studs. The roof framing could be with either wood joists or light gauge steel joists. Where long spans are needed, such as over the Outdoor Stage and for the canopy, structural steel or glulam beams could be used depending on the architectural expression desired and depth requirements. The advantages of light gauge steel and wood framing listed for the Kitchen Addition also apply here.

System Narratives

FOODSERVICE

THE BARN

The Dining Master Planning Study (DMPS) determined potential foodservice demand of 320 meals per hour as opposed to the current 120 meals per hour, an increase of 2.5 times.

The Barn foodservice demands require The Barn Kitchen to provide meals for The Barn and support for the Cottage, Barn Stable functions, catering and pre-packaged food items for Ivan's, a catering truck and potential food carts and a barbeque on the West Courtyard. Day part service is lunch, happy hour, dinner and potentially breakfast. Dining areas include interior seating with a small Indoor Stage at Barn Dining, outdoor eating at the West Courtyard with a large Outdoor Stage, and quiet courtyard on the east side of The Barn.

The DMPS assigned area requirements by function for The Barn to support these foodservice requirements. This recent study and the earlier 2009 Barn Area Study (BAS) presented the need to expand the kitchen and servery. The 2009 BAS proposed an addition to the west side of The Barn to support the requirements but did not address the potential dining demand presented in the DMPS. Accordingly, additional kitchen expansion is necessary to support the anticipated foodservice demands.

The DMPS proposed an operational style of order and pre-payment of meals with the customers recalled to the servery when the meals are ready, putting double circulation requirements on the servery. Thus the decision was made to change to a post-pay system in order to eliminate half of the required circulation space demand. It was also decided to forgo the use of china ware and instead use disposables, re-usable trays, and self-bussing stations located in each of the three dining areas.

The servery has 4 food stations (Pizza, Salad/Cold Sandwich, Hot Sandwich/Specialty and Grill), as well as a self-serve beverage counter and two double sided dual tandem Point of sale (POS) counters. The condiment counter is to be located behind the beverage counter facing Indoor Seating. A bar window will be located on the west wall near the west POS station for wine and beer sales.

All finish food preparation is "on stage" to promote fresh food, freshly prepared.

The Kitchen functions include dry storage, catering storage, cold storage, cold food prep, hot food prep, catering staging, ware-washing and bar, ice machine, soda system room, change room and two offices.

The Service area is to support deliveries and house the storage of: empty vendor racks/bottles, a refillable CO2 tank, a trash compactor, recycling bins, and a used cooking oil tank. Access to staff restrooms is through the service area. It is anticipated that a remote compressor rack will be located on the roof.

COTTAGE

The Cottage is located east of The Barn and programmed to be a coffee house serving coffee-based beverages, hot tea, cold blended beverages, pastries, self-serve cold bottled beverages, pre-packaged salads and sandwiches. Day part service is breakfast, lunch, afternoon, and evening. Some exterior seating will be provided at the South Cottage Patio and the East Courtyard. It will be supported by The Barn kitchen with bulk storage and food prep.

BARN STABLE

This facility is located northeast of The Barn and will host occasional lunches, teas, dinner, meetings and banquet functions. A small pantry kitchen with grill, warming oven and dishwashing will be supported by The Barn Kitchen and will have a full service bar in a multi-function room and a patio. It is not programmed to operate as a restaurant on a daily basis.

System Narratives

ACOUSTICAL

OVERVIEW

The acoustical design issues include room acoustics, sound isolation, mechanical equipment noise and vibration control, and sound reinforcement.

WEST COURTYARD

The main outdoor courtyard space will be used for both dining and outdoor entertainment. Freeway noise and possibly mechanical system noise are potential issues in this space. To optimize the acoustical quality in the space as it is developed, the following should be considered:

To the extent feasible, building massing should be used to block freeway noise into the outdoor use space.

The building surfaces facing into the outdoor area space should be made sound absorbing to the extent feasible so as to mitigate echoes and reverberation.

Overhead canopies, trellises, and other feasible design elements could work together to mitigate freeway noise intrusion into the outdoor area space, as well as to provide shading.

Installing a high quality audio system could enhance the sound quality in this space. The sound system could be used for live performances, radio station broadcasts, background music, and campus wide announcements.

If a trellis system is installed overhead, then loud speakers could be located in this structure to provide distributed sound at a acceptable sound level.

A permanently installed sound system, if electronically controlled, could mitigate disturbing sound transfer to adjoining classroom buildings.

BARN AND BARN STABLE

Controlling excessive reverberation in dining and serving areas is important to the overall quality of the spaces. The sound absorbing material selected for these spaces need to be reconciled with the interest in having an exposed ceiling/roof structure.

MECHANICAL EQUIPMENT NOISE AND VIBRATION CONTROL

When designing controls for mechanical equipment noise and vibration both inside and outside the buildings, the recommended criteria will vary depending on the use of the space. A broadcast facility may require a background noise level of NC 20, where as an appropriate background noise level for a dining facility would be NC 40. The typical noise limit for mechanical equipment is 40 dBA in outdoor use areas such as dining.

KUCR

Sound intrusion into acoustically sensitive areas at the radio station is obviously important. During programming, the specific sound isolation requirements for each room were reviewed.

Controlling excessive reverberation in broadcast, meeting and other areas must also be addressed. The selected criteria will be a combination of industry standards, our experience with similar projects, and the specific insights and requirements of the user group.

The Master Control Room will serve as the primary on-air studio, accommodating larger interview and multi-person broadcast team use, and will also serve as a music mixing control and broadcast space for musical performances at the Outdoor Stage and the conference/performance space.

The Production Studio(s) will be capable of operating as stand-alone on-air studios as well as pre-production editing spaces. One or two additional on-air microphone locations will be provided for small interview, multi-person broadcast and voice-over functions.

High-performance acoustical isolation will be concentrated in at the Master Control Room, and may include a concrete floating floor to isolate low frequency noise from the attached (or at least adjacent), Outdoor Stage.

System Narratives

ACOUSTICAL (CONTINUED)

Some type of outdoor acoustical absorption should be considered for the exterior walls and the overhead canopy at the Outdoor Stage. This will create a better performance environment for the on-stage performers as well as reduce the amount of “stage-spill” sound (sound projected directly from the Outdoor Stage versus that from the sound system), allowing better control of sound radiated to adjacent buildings and outdoor spaces.

SOUND REINFORCEMENT

Having a permanent sound reinforcement system associated with the exterior entertainment dining area will help limit sound emissions. This will minimize noise impact on adjoining outdoor and indoor use spaces, particularly the radio station. Locating and integrating the loudspeakers into an overhead trellis system could combine shading, aesthetics, and a distributed sound system.

FREEWAY TRAFFIC NOISE

To reduce traffic noise levels in the outdoor dining area, new buildings could be located to provide a noise barrier. This could be considered as a part of building massing studies.

MISCELLANEOUS

Sources of noise such as kitchen exhaust fans will also need to be reviewed so that the noise emissions do not annoy people in the vicinity, particularly outdoor use areas.

System Narratives

MEP

INTRODUCTION

The mechanical systems for the Barns Project Phases 1 & 2 will be designed to optimize performance, and minimize maintenance and energy use. Three distribution options are proposed, all of which take advantage of the central campus chilled water and steam utilities. A central mechanical room located in the Barn will then distribute heating hot water and chilled water to the other buildings on site. Energy conservation will also be achieved by optimizing natural daylight, selecting energy efficiency lighting, and using lighting controls such as occupancy sensors, photocells and dimmers. Low flow fixtures are recommended for use throughout the site to reduce overall water use by at least 30%.

5.3 HEATING VENTILATION AND AIR CONDITIONING (HVAC)

Systems Design Philosophy:

HVAC system components and distribution layouts will have the following characteristics:

1. Modular approach.
2. Energy and resource efficient.
3. Flexibility for future changes.
4. Durability.
5. Ease of maintenance.
6. Reliability.
7. Redundancy of critical components.

5.3.1 Codes and Standards

- NFPA Codes, current editions, as applicable
- ASHRAE Standard 62-2004 Ventilation for
- Acceptable Indoor Air Quality
- ASHRAE Handbooks, current editions
- SMACNA Duct Construction Standards

5.3.2 HVAC Design Criteria

Location: Riverside CA

Latitude: 34.0° N 117.4° W

Elevation: 1007 ft.

Outside Design Conditions:

Summer: 110°FDB/68°FWB (per UCR standards)
Winter: 34°F DB

Interior Design Conditions:

Occupancy	Summer	Winter
Conference/Meeting Rooms:	75ºF DB, 50% RH*	70ºF DB
Offices:	75ºF DB, 50% RH*	70ºF DB
Dining Areas:	75ºF DB, 50% RH*	70ºF DB
Kitchen:	75ºF DB, 50% RH*	70ºF DB
Telecom/Data Equip Rooms:	70ºF DB, 35%-55% RH	70ºF DB, 35%-55% RH
Mech/Elec:	95ºF DB max	65°F min

* Humidity control is not required in General Occupied Spaces, but may be necessary in Telecom / Data Equip Rooms, as recommended by equipment manufacturers.

* Where radiant cooling is used comfort conditions will be maintained by designing to the operative temperature which incorporates both air temperature (DB) and mean radiant temperature.

Outdoor Air Ventilation:

- Minimum Outdoor Air Ventilation rate will be 15 cfm / occupant, as recommended by Title-24 as it exceeds ASHRAE for dining spaces, based on maximum number of people in each space taken from Project Room Data Sheets, whichever is higher. Where the LEED EQ Credit dictates a higher air flow will be used.
- Internal Heat Gains: Heat gain from occupants will be calculated according to ASHRAE guidelines for maximum number of people in each space taken from Project Room Data Sheets.
- Heat gain from lighting will be calculated based on the actual layouts and fixture types obtained from the electrical drawings. For energy efficiency the lighting design will employ lower ambient lighting levels with task lighting.
- Heat gain from equipment will be based on information received from specialty consultants (i.e kitchen consultant, telecom, etc.) and project cut sheets.

5.3.3 Energy Efficiency

The UC system mandates that all new buildings are required to beat Title 24 by a 20% margin. The building will need to incorporate sustainable design measures to meet the requirement of LEED® Silver Rating.

The building envelope shall be designed to beat the T-24 minimum requirements by a margin of 20%. T-24 prescriptive envelope requirements for California Climate Zone 10 are given below:

- Roof R19
  Wall R13
  Floor R11
- Glazing
  U factor 0.47
  RSHG

	Non-North	North
0-10% WWR	0.47	0.61
11-20% WWR	0.36	0.51
21-30% WWR	0.36	0.47
31-40% WWR	0.31	0.47

System Narratives

MEP (CONTINUED)

Glazing systems shall be selected to provide optimum Shading Coefficients / Solar Heat Gain Coefficients and U-factors on each exposure of the building. External shading is recommended where possible for non-north exposures.

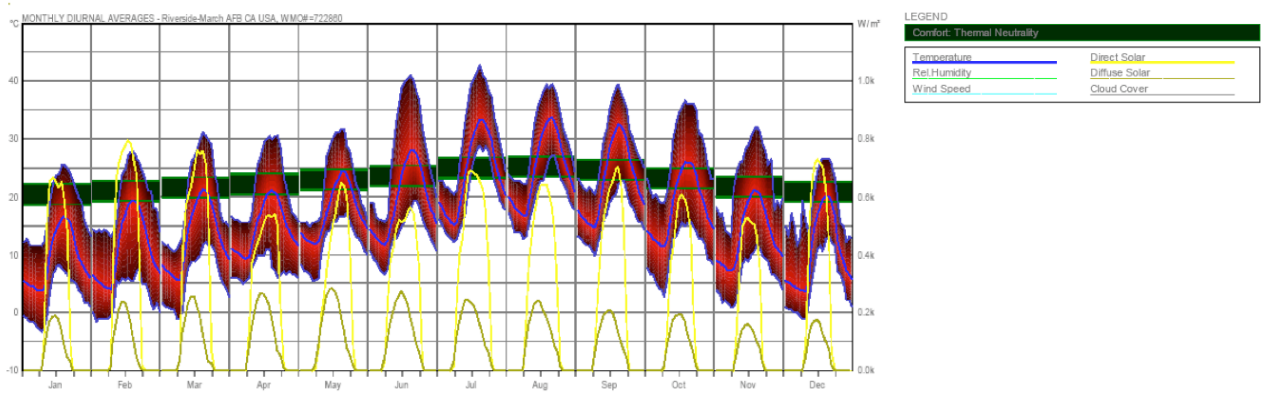
- Glazed areas shall be optimized to maximize effective use of natural day-lighting and allow views to the exterior and to the interior.
- Operable windows will provide natural ventilation of rooms in perimeter zones (where applicable by program). Operable windows shall be under the control of occupants and the users will maintain the windows in the appropriate position when supplemental heating or cooling is provided from the mechanical system.

HVAC systems will incorporate energy conserving features known to be economically feasible. The design will first focus on passive systems such as thermal mass and natural ventilation (where applicable by program) which provide the most energy benefit at the least cost. Once the cooling and heating loads have been minimized then the most efficient active systems will be explored. Technologies to be explored include, radiant cooling and heating, chilled beams, active thermal mass, heat recovery, dedicated 100% outside air economizer cooling cycle for air handling systems, CO2 sensors utilized to control minimum outdoor air, variable frequency drives for control of fans, and premium efficiency motors. Additional energy conserving features, such as variable speed drives for pumps, indirect evaporative cooling of outdoor air, and heat recovery from exhaust systems will be evaluated during the Schematic phase and provided if shown to be economically feasible.

Utilization of renewable energy sources, such as solar panels for water heating, wind power and/ or photo-voltaic power for supplemental power generation will be evaluated during the Schematic phase and incorporated into the project if shown to be economically feasible. Three (3) additional LEED® credits are available for renewable energy.

5.3.4 HVAC Systems

The graph below shows an annual plot of temperature in Riverside as it relates to human comfort. As can be seen there is a defined heating and cooling season. In the peak of the cooling season there is a 15°F diurnal variation which allows for a night time purge cycle however there are periods where the night time temperature is above interior comfort conditions so the purge cycle would be limited in these months.



Thus the buildings will need to be conditioned (heating and cooling) but will be done in a mixed mode fashion so that natural ventilation can be used in periods where conditions allow.

Three ventilation and air conditioning systems appropriate for the building are being proposed for evaluation during the Schematic Design phase. The evaluation will be based on a life-cycle analysis considering capital first cost, projected energy/operating costs, and maintenance cost.

System Narratives

MEP (CONTINUED)

Option 1 is a base case design of a single duct over head variable air volume (VAV) systems, with hot water reheat. Based on current thinking for building organization this is likely to be split into a single air handling unit per building.

This system has the following characteristics:

Benefits	Cons
Conventional system with known installation and maintenance procedures.	VAV boxes create noise. A ceiling is often used to limit noise transfer, adding cost to the system. Acoustical tile or gypsum board ceilings, whether installed for acoustic or aesthetic reasons also limit the opportunity to use exposed structure as a thermal mass that would moderate the temperature swings.
The users may prefer finished ceilings below mechanical equipment for aesthetic and acoustic reasons.	Added cost to provide individual control at each perimeter office per LEED® IEQ Credit 6.2.
	Higher fan pressure reduces energy efficiency. Estimate system performance between 10-15% below ASHRAE 90.1 Achieving the mandatory 20% below T-24 is a challenge with this system.
	Reduced IAQ (Interior Air Quality) and comfort compared to other systems described below.
	Higher floor to floor heights required, increasing cost for building structure and envelope.

Option 2 is a Dedicated Outside Air System with radiant floors. For costing purposes 1/2" tubing on 6" centers may be assumed for radiant floors, with combined heating and cooling zones in a 15 foot perimeter band. The interior zones would be cooling only. Individual control of offices and enclosed spaces (KUCR) would be provided. The ventilation system would be 1/3 the size of the all system described in Option 1 above. The optimum location for the ventilation air is at low level so the displacement effect can be used.

The radiant floor assembly will consist of a topping slab with a total thickness of 3 inches. This includes 1 inch for insulation between the slab and topping slab, and a 2 inch thick topping slab.

This system has the following characteristics:

Benefits	Cons
Excellent IAQ.	Unconventional system with which some subcontractors are unfamiliar.
Excellent control.	Limited load capacity. Must be comprehensively designed to balance demand with capacity. May require building occupants to moderate heat gain from lighting, computers, equipment, etc.
Excellent comfort.	Require exposed thermal mass to allow passive cooling.
Reduced floor to floor height.	
Very responsive system	
Can work in tandem with natural ventilation with control monitoring.	
Very energy efficient. Both hydronic cooling and displacement AHUs run at higher chilled water higher temps allowing the central plant to run at its maximum efficiency.	

Option 3 is a dedicated outside air system with active chilled beams. The active beam density at the perimeter would be one 6 foot beam per 100 sq.ft. Individual control of offices would be provided.

This system provides:

Benefits	Cons
Very good IAQ. The system is not displacement but the dedicated outside air system provides constant rates of outside air.	Unconventional system with which some subcontractors are unfamiliar.
Very good control.	Limited load capacity. Must be comprehensively designed to balance demand with capacity. May require building occupants to moderate heat gain from lighting, computers, equipment, etc.
Excellent comfort.	Works best with exposed thermal mass to allow passive cooling.
Night time cooling with low energy. This option allows more ceiling to be exposed	
Very energy efficient due to higher chilled water temperatures. Achieving the mandatory T-24 energy performance is readily accomplished and further LEED® credits could be achieved.	
Can work in tandem with natural ventilation as the outdoor air is induced through the active beam, tempering the outside air	

System Narratives

MEP (CONTINUED)

In each option air handling system(s) will be draw-thru unit(s) with supply air fan, return/exhaust fan, outside air, return air and exhaust air dampers for 100% outside air economizer cooling cycle operation (option 1 only, option 2 and 3 are 100% outside air units without return fans or economizer), chilled water cooling coils, hot water heating coils, air filters, and acoustic attenuators as required to achieve design space noise levels.

Indirect evaporative cooling units will be considered and evaluated for 100% outdoor air supply.

Separate systems will be provided for areas with distinct functional or occupancy requirements and/or operating schedules, continuous cooling/heating requirements, and/or other unusual requirements.

Equipment will be selected with sufficient capacities to satisfy calculated building heating and cooling loads with allowances for future growth/remodeling of facilities as determined in collaboration with Campus engineering and facilities personnel.

Cooling and heating coils will be selected in accordance with the requirements of the Campus Standards and Design Guidelines as follows:

- Chilled Water Cooling Coils;
- Hot water heating Coils; and,
- 450 fpm maximum coil face velocity.

Minimum air filter efficiencies will be selected to meet LEED® IEQ 5 criteria:

- MERV 13 for air handling systems serving all spaces.

Temperature control zones will be provided as required by the building envelope design, space uses, occupancy, required times of operation, and/or other special requirements.

Any night time cooling strategies will take into account the occupant load profile and morning temperatures will not prevent uncomfortable conditions.

Supply (or ventilation air) will be distributed throughout the building via insulated sheet metal ductwork and industry standard air diffusion devices. Displacement diffusers will be used in option 2.

There will be no exposed fiberglass duct liner installed in supply ducts downstream of the air filters. Noise control will be achieved by the use of attenuators.

Return air will be ducted where required, or transferred back to the air handling unit(s) via the ceiling plenums where the building design permits.

Toilet rooms, janitor's rooms, food service and other areas where heat and/or odors are generated will be ventilated with mechanical exhaust systems. Food service areas will be served with dedicated exhaust and make-up air per the recommendations of the kitchen consultant.

Exhaust fans will discharge minimum 10 feet above grade level and minimum 10 feet away from air intakes or other openings into the building.

Mechanical rooms will be designed to accommodate equipment with adequate access and clearances for maintenance and replacement of components during the life of the equipment. Roof top air handling units are envisioned for the project.

5.3.5 Cooling System - Chilled Water Supply & Return

Site Utilities: Chilled water will be supplied to the building from existing campus Central Plant utility sources. Connection locations: Vault-15.

It is anticipated that existing site utility systems have sufficient capacities to support the estimated additional loads to be imposed by the new and/or renovated structres. Actual loads will be verified during Schematic Design. It should be noted that Options 2 and 3 above require higher chilled water temperature than the 45F available. It is possible that return chilled water can be used to feed the chilled beams or chilled ceilings, raising the general Campus chilled water return temperature and not imposing a load on the chilled water supply.

A hydraulic decoupler will separate the Campus and building chilled water supplies. Two (2) chilled water pumps, each sized for 60% of design flow, will be located in a mechanical room in the Barn. The arrangement and control of the pumps for alternating lead-lag operation will be in accordance with the Campus Standards and Design Guidelines. Variable frequency drives (VFDs) will be used if it is shown to be cost effective to do so. VFDs will be located in cooled spaces or where they can be effectively cooled by general building exhaust air.

Cooling coils will be controlled by modulating control valves with DDC (Direct Digital Control) actuators.

Chilled water supply and return piping will be insulated Schedule 40 black steel, or Type L copper.

System Narratives

MEP (CONTINUED)

5.3.6 Heating System

Heating hot water for the complex will be supplied via the Campus steam loop. Heat transfer will via a tube and shell heat exchanger will occur in the mechanical room, located in the Barn.

Two heating water pumps, each sized for 60% of total design flow, will distribute hot water to heating coils in air handling units and chilled beams/ radiant floors (and if provided at VAV boxes). The arrangement and control of the pumps for alternating lead-lag operation will be in accordance with the Campus Standards and Design Guidelines. Variable frequency drives will be used if it is shown to be cost effective to do so. VFDs will be located in cooled spaces or where they can be effectively cooled by general building exhaust air.

Heating coils will be controlled by modulating control valves with DDC actuators.

Heating piping will be Schedule 40 steel, or Type L copper piping, and will be fully insulated.

5.3.7 Central Plant Option

An alternative approach to using the campus utilities as described in sections 5.3.5 and 5.3.6 is to build a dedicated central plant for the facility. The central plant would consist of a cooling tower, water-cooled chiller and condensing boiler. Primary pumps for condenser water, chilled water and heating hot water will be provided. Associated secondary pumps for chilled water and heating hot water will be as described in sections 5.3.5 and 5.3.6.

Issues to consider with the central plant option include: requirement for outdoor space for the central plant facility (with covered structures for the chiller, boiler and pumps), acoustical impact of central plant on surrounding outdoor patios and programmed spaces, and additional maintenance requirements for the facility.

5.3.8 HVAC Controls

A direct digital control (DDC) system will be provided for all HVAC equipment and systems. The system will include field panels wired to a PC control front end and will be capable of stand-alone operation. DDC controls shall be BACnet per the Campus Standards and Design Guidelines.

The PC front end will have full color graphics, simulation of all systems, capable of monitoring, remote set point adjustment of all devices, trending, lighting control and other functions as required. The system will be linked to the Campus energy management and control system.

All control valves and motorized dampers will have DDC operators to be controlled and monitored by the DDC control system.

5.3.9 Testing, Adjusting and Balancing and Commissioning

All testing and balancing of HVAC systems will be by an independent test and balance company hired by the General Contractor or directly by the University, as agreed during the design phases of the project.

Air systems will have manual dampers where required for balancing.

Hydronic systems will have manual balancing valves where required for balancing, together with Pete's plugs or similar devices for measurement of temperatures and pressures at coils, pumps, control valves and other strategic locations.

All systems shall be commissioned to the Campus protocol. Additional commissioning to qualify for the LEED® EA3 credit should be priced as a separate line item.

5.4 PLUMBING AND FIRE PROTECTION SYSTEMS

5.4.1 Codes and Standards UC Riverside Campus Standards and Design Guide

- California Building Code, 2007
- California Plumbing Code, 2007
- California Fire Code, 2007
- NFPA Codes, current editions, as applicable

5.4.2 General

Site Utilities: Construction and renovation of the buildings will require existing site plumbing utilities to be relocated or removed. Phasing of this work and provision of stub-outs for lateral connections to the new buildings will be coordinated with the Campus facilities and engineering personnel and the project civil engineering consultant. Disruption of existing Campus utilities for the new connections will be coordinated with Campus facilities personnel.

System Narratives

MEP (CONTINUED)

It is anticipated that existing site utility systems have sufficient capacities to support the estimated additional loads to be imposed by the new building as indicated on the Preliminary Utility Demand Form, but this will be verified during Schematic Design. Given the LEED® aspirations for the building it is envisioned that the use of low flow fixtures will reduce the water demand below the projections of the Utilities Demand Form.

Plumbing systems for the buildings include sanitary sewer and vent, roof drains and rainwater piping, domestic cold water and hot water, and natural gas supply piping inside the buildings.

Plumbing utility piping beyond 5 feet outside the building will be designed by the project civil engineering consultant.

The buildings will be fully protected by an automatic wet-pipe fire sprinkler and alarm system.

5.4.3 Plumbing Fixtures

Fixtures will be provided as required by the Room Data Sheets and will be selected to comply with Campus Standards and Design Guidelines.

Plumbing fixtures will be commercial quality with water conserving technologies to meet the LEED® aspirations of the project.

Water closets shall be dual flush 0.8/1.6 gallon per flush and urinals shall be 1/8 gallon per flush or waterless urinals upon prior approval of UCR facilities staff. Fixtures will be wall hung. Metering faucets with 0.5 gpm flow control aerators and other restroom appliances/dimensions will fully comply with ADA and other relevant regulations. It is estimated that all non irrigation LEED ® Water Efficiency credits could be achieved using these low flow fixtures.

5.4.4 Domestic Cold Water

Domestic cold water will be supplied to the buildings from the campus utility main, with an approved water meter installed inside the mechanical room (in the Barn) and reduced pressure backflow preventer.

Maximum pressure in each building will not exceed 80 psi. A pressure reducing station will be provided if necessary.

Piping will be Type L copper, designed in accordance with Campus Standards and Design Guidelines and industry standard sizing methodology to meet the building demands.

Cold water piping will be insulated in unheated attic spaces and where exposed to potential freezing conditions

Shut-off valves will be provided in accessible locations to allow for isolation of each toilet room or small groups of fixtures to facilitate maintenance and future modification.

5.4.5 Industrial (Non-potable) Water

Industrial water for make-up to HVAC systems, and/or other non-potable uses, will be supplied from the potable domestic cold water supply system with a separate reduced pressure backflow preventer.

Piping will be Type L copper, designed in accordance with the Campus Standards and Design Guidelines and industry standard sizing methodology to meet the calculated demands.

Piping will be insulated in unheated attic spaces and where exposed to freezing conditions.

Shut-off valves will be provided in accessible locations to allow for isolation of each piece of equipment to facilitate maintenance and future modification.

5.4.6 Domestic Hot Water

Base building design for generation of domestic hot water will be to utilize gas fired water heaters. An in-line circulation pump will be included to circulate hot water through the heating systems as necessary to maintain temperature in the distribution piping.

Hot water piping will be Type L copper, designed in accordance with Campus Standards and Design Guidelines and industry standard sizing methodology to meet the building demands.

Hot water supply and circulation/return piping will be insulated.

5.4.7 Sanitary Waste and Vent

Sanitary waste and vent system will be connected to the Campus sanitary sewer as coordinated with the project civil engineer.

Piping will be cast iron, designed in accordance with Campus Standards and Design Guidelines and industry standard sizing methodology to meet the building demands.

System Narratives

MEP (CONTINUED)

5.4.8 Roof Drains

Roof drains, overflow drains, conductors, and/or down spouts will be provided and connected into the Campus storm sewer as coordinated with the project civil engineer. The systems shall be designed so that stormwater is not diverted directly to Campus sidewalks and/or exterior courtyard paved surfaces. Detention of stormwater should occur in bioswales or other planted areas, not into or onto paved surfaces used by pedestrians, bicycles and/or “customers” of The Barn Group.

Overflow provisions will be by roof drains with a separate piping system or scuppers, as determined during Schematic Design phase.

Piping will be cast iron, designed in accordance with Campus Standards and Design Guidelines and industry standard sizing methodology to meet the building requirements.

5.4.9 Fire Protection Systems

Based on the findings of the Historic Resources Assessment, the project will be brought up to current Fire Code per the discussions with the Campus Fire Marshall at Workshop #1.

The buildings will be fully protected by an automatic fire sprinkler and alarm systems designed in accordance with NFPA 13, and the Campus Standards. Occupancy Hazard classification(s) will be from NFPA 13, as approved by the Fire Marshal. Special extinguishing systems will be provided if required to protect sensitive electronic equipment.

System control valve and fire department connection will be located outside the building.

5.5 ELECTRICAL

5.5.1 Codes and Regulations

All electrical work shall comply with the following codes and standards:

- National Electrical Code (2008 Edition)
- National Fire Protection Association (NFPA 72)
- California Energy Conservation Code, Title 24 CCR
- Illumination Engineering Society of North America (IES)
- Local Utility Company Rules and Regulations
- Local Fire Authority

5.5.2 Electrical Design Criteria

The buildings have a combined area of approximately 19,000 square feet. Based on a preliminary approximation of 10VA/sf for Cottage, 22VA/sf for the Kitchen Addition & 10VA/sf for the remaining space within The Barn, 12VA/sf for the Barn Stable, 12VA/sf for KUCR, and 16VA/sf for the Barn Theater, the total VA needed for the entire complex equals approximately 350kVA.

TDE recommends a 500kVA, 12kV-480/277V, pad mounted transformer be provided to supply power to the buildings. The main incoming service will be sized at 600A at 480/277V, 3-phase, 4-wire. The pad mounted transformer should be located near the main electrical room (within the Barn) in order to reduce conduit runs and related costs.

5.5.2 Building Power Distribution Systems

In addition to the main electrical room noted above,

each building should also have dedicated electrical closets to house electrical panels and any 480-208/120V, 3-phase, dry-type transformers, as needed.

The 480/277V incoming service shall be used to provide power to motor loads rated 1HP or higher and all lighting loads. In order to supply motor loads rated less than 3/4HP, and other receptacle loads, an indoor rated dry-type transformer will be located in the main electrical room.

The exact number of panels will be determined once the final floor layout is decided.

UCR specific requirements such as flush floor receptacles shall be provided for all potential meeting and conference rooms.

5.5.3 Grounding System

Grounding system will be installed per NEC, section 250. A central grounding system will be provided for the main service. All grounded busses from switchboard, transformers, and panel boards will be connected at a central grounds bus in the electrical room.

5.5.4 Load management

In order to reduce power demand in the building TDE recommends using energy efficient lighting fixtures integrated with occupancy sensors and photocells will help reduce loads in the building even further. TDE also recommends the use of Energy Star rated appliances (where available) for the kitchen.

System Narratives

MEP (CONTINUED)

5.5.5 Emergency Power

Emergency power shall be provided via an emergency generator to support The Barn Group in the case of an emergency In order to provide lighting for path of egress, all emergency fixtures will be connected to the generator, which will power the fixtures in case of a power outage. The generator will also support critical loads within the Kitchen, as identified by the Campus.

5.5.6 Lighting

5.5.6.1 Lighting Level

Lighting system level will be designed in accordance with Illuminating Engineering Society (IES) recommendations, California Code of Regulations (CCR), and Title 24. The following chart will be adopted as reference:

LIGHTING LEVEL GUIDELINES

Type of Area	Recommended Footcandle Level at WorkStation*
Support Spaces	5-10
Meeting/Conference rooms.	40
Dining Areas	50-60
Work circulation areas, surrounding work stations, bathrooms, work areas where critical visual tasks are not performed	20-30
Offices	30-50

*where general lighting levels fall below UCR standards supplementary task lighting shall be used.

5.5.6.2 Lighting Control

All lighting will have means of automatic shut-off to comply with Title 24 except where this may create a hazard in areas such as the Kitchen Addition. This will be achieved through the use of occupancy sensors and lighting control panels. A lighting control panel will be located in the electrical room. Lighting in open areas, corridors, and exterior lighting will be controlled by the lighting control panels. Individual offices, restrooms, electrical and mechanical rooms will be controlled by occupancy sensors. All areas greater than 100 square feet will have bi-level switching to comply with Title 24.

Areas greater than 250 square feet with areas fifteen feet or more away from windows will have daylighting control zones to comply with Title 24. The zones will be controlled by ceiling mounted photosensors and will be capable of dimming the light sin the associated zone. The daylighting zones will also have bi-level switching to allow 50% of the lights to be switched off.

5.5.7 Fire Alarm System

An addressable fire alarm system complying with the Campus Standards and Design Guidelines will be provided and consist of the following:

A. A main fire alarm control panel located in the fire alarm control room, if possible.
B. Heat detectors will be installed in the main electrical room, elevator machine room and kitchen area. Smoke detectors will be installed in accordance with code.
C. Audio-visual alarm stations will be provided along all egress routes, toilet areas, lobbies and other areas of assembly.
D. Pull station will be provided along egress routes.

The fire alarm system will initiate mechanical air supply system shut-down in the event of smoke detection.

The fire alarm system will be linked with elevators for return to a predetermined floor and mechanical air supply system for shut-down in the event of fire alarm signal.

The fire alarm system will also be linked to the sprinkler flow switches and valve monitors.

The fire alarm system will be tied to the campus main fire alarm system through telephone interface. All devices shall be addressable.

5.5.8 Telecommunication System

Electrical shall run all necessary conduits for telecommunications installation. The telecom infrastructure for the building shall be designed per the telecommunications consultant.

LEED Checklist

LEED 2009 for New Construction and Major Renovation

Project Checklist

UC Riverside Barn
4.9.10

Y	N	?			
22	2	2	**Sustainable Sites**	Possible Points:	**26**
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
	1		Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
	1		Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
		1	Credit 8	Light Pollution Reduction	1

4	0	6	**Water Efficiency**	Possible Points:	**10**
Y			Prereq 1	Water Use Reduction—20% Reduction	
2		2	Credit 1	Water Efficient Landscaping	2 to 4
			x	Reduce by 50%	2
				No Potable Water Use or Irrigation	4
		2	Credit 2	Innovative Wastewater Technologies	2
2		2	Credit 3	Water Use Reduction	2 to 4
			x	Reduce by 30%	2
				Reduce by 35%	3
				Reduce by 40%	4

LEED Checklist

12	9	14	**Energy and Atmosphere**		Possible Points:	**35**
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems		
Y			Prereq 2	Minimum Energy Performance		
Y			Prereq 3	Fundamental Refrigerant Management		
10	9		Credit 1	Optimize Energy Performance		1 to 19
				X	Improve by 12% for New Buildings or 8% for Existing Building Renovations	1
				X	Improve by 14% for New Buildings or 10% for Existing Building Renovations	2
				X	Improve by 16% for New Buildings or 12% for Existing Building Renovations	3
				X	Improve by 18% for New Buildings or 14% for Existing Building Renovations	4
				X	Improve by 20% for New Buildings or 16% for Existing Building Renovations	5
				X	Improve by 22% for New Buildings or 18% for Existing Building Renovations	6
				X	Improve by 24% for New Buildings or 20% for Existing Building Renovations	7
				X	Improve by 26% for New Buildings or 22% for Existing Building Renovations	8
				X	Improve by 28% for New Buildings or 24% for Existing Building Renovations	9
				X	Improve by 30% for New Buildings or 26% for Existing Building Renovations	10
					Improve by 32% for New Buildings or 28% for Existing Building Renovations	11
					Improve by 34% for New Buildings or 30% for Existing Building Renovations	12
					Improve by 36% for New Buildings or 32% for Existing Building Renovations	13
					Improve by 38% for New Buildings or 34% for Existing Building Renovations	14
					Improve by 40% for New Buildings or 36% for Existing Building Renovations	15
					Improve by 42% for New Buildings or 38% for Existing Building Renovations	16
					Improve by 44% for New Buildings or 40% for Existing Building Renovations	17
					Improve by 46% for New Buildings or 42% for Existing Building Renovations	18
					Improve by 48%+ for New Buildings or 44%+ for Existing Building Renovations	19
		7	Credit 2	On-Site Renewable Energy		1 to 7
					1% Renewable Energy	1
					3% Renewable Energy	2
					5% Renewable Energy	3
					7% Renewable Energy	4
					9% Renewable Energy	5
					11% Renewable Energy	6
					13% Renewable Energy	7
		2	Credit 3	Enhanced Commissioning		2
2			Credit 4	Enhanced Refrigerant Management		2
		3	Credit 5	Measurement and Verification		3
		2	Credit 6	Green Power		2

LEED Checklist

6	2	6	**Materials and Resources**		Possible Points:	**14**
Y			Prereq 1	Storage and Collection of Recyclables		
1		2	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof		1 to 3
				X Reuse 55%		1
				Reuse 75%		2
				Reuse 95%		3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements		1
2			Credit 2	Construction Waste Management		1 to 2
				X 50% Recycled or Salvaged		1
				X 75% Recycled or Salvaged		2
	2		Credit 3	Materials Reuse		1 to 2
				Reuse 5%		1
				Reuse 10%		2
1		1	Credit 4	Recycled Content		1 to 2
				X 10% of Content		1
				20% of Content		2
1		1	Credit 5	Regional Materials		1 to 2
				X 10% of Materials		1
				20% of Materials		2
		1	Credit 6	Rapidly Renewable Materials		1
1			Credit 7	Certified Wood		1

12	1	2	**Indoor Environmental Quality**		Possible Points:	**15**
Y			Prereq 1	Minimum Indoor Air Quality Performance		
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control		
		1	Credit 1	Outdoor Air Delivery Monitoring		1
1			Credit 2	Increased Ventilation		1
1			Credit 3.1	Construction IAQ Management Plan—During Construction		1
1			Credit 3.2	Construction IAQ Management Plan—Before Occupancy		1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants		1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings		1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems		1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products		1
1			Credit 5	Indoor Chemical and Pollutant Source Control		1
	1		Credit 6.1	Controllability of Systems—Lighting		1
		1	Credit 6.2	Controllability of Systems—Thermal Comfort		1
1			Credit 7.1	Thermal Comfort—Design		1
1			Credit 7.2	Thermal Comfort—Verification		1
1			Credit 8.1	Daylight and Views—Daylight		1
1			Credit 8.2	Daylight and Views—Views		1

LEED Checklist

3	0	3	**Innovation and Design Process**	Possible Points:	**6**
		1	Credit 1.1	Innovation in Design: Green cleaning	1
		1	Credit 1.2	Innovation in Design: IPM	1
		1	Credit 1.3	Innovation in Design: Double Green power	1
1			Credit 1.4	Innovation in Design: Green Building as an Educational Tool	1
1			Credit 1.5	Innovation in Design: Sustainability in the Curriculum, Eco-Literacy	1
1			Credit 2	LEED Accredited Professional	1
3	0	1	**Regional Priority Credits**	Possible Points:	**4**
1			Credit 1.1	Regional Priority: SS 4.1 Public Transit Access	1
1			Credit 1.2	Regional Priority: SS 7.1 Heat Island, Non-Roof	1
		1	Credit 1.3	Regional Priority: WE 3 Water Use Reduction	1
1			Credit 1.4	Regional Priority: EQ 8.1 Daylight	1
62	14	34	**Total**	Possible Points:	**110**

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

LEED Matrix

UCR Barn Project, East Campus

Prepared by Simon & Associates, Inc.

LEED 2009 Green Building Design & Construction Priorities Matrix (NC)

April 9, 2010

CREDIT (blue shading indicates a campus baseline credit)		DESIGN/CONSTRUCTION REQUIREMENTS	YES	MAYBE	NO	(D) DESIGN OR (C) CONSTRUCTION PHASE	PARTIES RESPONSIBLE FOR DOCUMENTATION	COMMENTS/ACTION ITEMS
Sustainable Sites								
SS Prereq. 1	**Construction Activity Pollution Prevention**	Create and implement an Erosion and Sedimentation Control (ESC) Plan for all construction activities associated with the project. The ESC Plan shall conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local erosion and sedimentation control standards and codes, whichever is more stringent. The Plan shall describe the measures implemented to accomplish the following objectives: • Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse. • Prevent sedimentation of storm sewer or receiving streams. • Prevent polluting the air with dust and particulate matter.	X			**C**	Civil Engineer	
SS 1.0	**Site Selection**	Do not develop buildings, hardscape, roads or parking areas on portions of sites that meet any one of the following criteria: • Prime farmland as defined by the United States Department of Agriculture in the United States Code of Federal Regulations, Title 7, Volume 6, Parts 400 to 699, Section 657.5 (citation 7CFR657.5) • Previously undeveloped land whose elevation is lower than 5 feet above the elevation of the 100-year flood as defined by FEMA (Federal Emergency Management Agency) • Land that is specifically identified as habitat for any species on Federal or State threatened or endangered lists • Within 100 feet of any wetlands as defined by United States Code of Federal Regulations 40 CFR, Parts 230-233 and Part 22, and isolated wetlands or areas of special concern identified by state or local rule, OR within setback distances from wetlands prescribed in state or local regulations, as defined by local or state rule or law, whichever is more stringent. • Previously undeveloped land that is within 50 feet of a water body, defined as seas, lakes, rivers, streams and tributaries which support or could support fish, recreation or industrial use, consistent with the terminology of the Clean Water Act • Land which prior to acquisition for the project was public parkland, unless land of equal or greater value as parkland is accepted in trade by the public landowner (Park Authority projects are exempt).	1			**D**	Architect	CPP point.
SS 2	**Development Density and Community Connectivity**	**OPTION 1 - DEVELOPMENT DENSITY:** Construct or renovate building on a previously developed site AND in a community with a minimum density of 60,000 square feet per acre net (Note: density calculation must include the area of the project being built and is based on a typical two-story downtown development). **OR** **OPTION 2 - COMMUNITY CONNECTIVITY:** Construct or renovate building on a previously developed site AND within 1/2 mile of a residential zone or neighborhood with an average density of 10 units per acre net AND within 1/2 mile of at least 10 Basic Services AND with pedestrian access between the building and the services. Basic Services include, but are not limited to: 1) Bank; 2) Place of Worship; 3) Convenience Grocery; 4) Day Care; 5) Cleaners; 6) Fire Station; 7) Hair Care; 8) Hardware; 9) Laundry; 10) Library; 11) Medical/Dental; 12) Senior Care Facility; 13) Park; 14) Pharmacy; 15) Post Office; 16) Restaurant; 17) School; 18) Supermarket; 19) Commercial Office; 20) Community Center; 21) Fitness Center; 22) Museum. Proximity is determined by drawing a 1/2 mile radius around the main building entrance on a site map and counting the services within that radius.	5			**D**	Architect	

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April 9, 2010

CREDIT (blue shading indicates a campus baseline credit)		DESIGN/CONSTRUCTION REQUIREMENTS	YES	MAYBE	NO	(D) DESIGN OR (C) CONSTRUCTION PHASE	PARTIES RESPONSIBLE FOR DOCUMENTATION	COMMENTS/ACTION ITEMS
SS 3.0	**Brownfield Redevelopment**	**OPTION 1 -** Develop on a site documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program) **OR** **OPTION 2 -** Develop on a site defined as a brownfield by a local, state or federal government agency.			1	**D**	Owner	Is there abatement?
SS 4.1	**Alternative Transportation**	**Public Transportation Access** **OPTION 1: Rail Station Proximity -** Locate project within 1/2 mile walking distance of an existing—or planned and funded—commuter rail, light rail or subway station (measured from the building entrance). **OR** **OPTION 2: Bus Stop Proximity** - Locate project within 1/4 mile walking distance of one or more stops for two or more public, campus, or private bus lines usable by building occupants (measured from the building entrance).	6			**D**	Architect	CPP point.
SS 4.2		**Bicycle Storage & Changing Rooms**: **CASE 1** For commercial or institutional buildings provide secure bicycle racks and/or storage (within 200 yards of a building entrance) for 5% or more of all building users (calculated on average for the year), AND, provide shower and changing facilities in the building, or within 200 yards of a building entrance, for 0.5% of Full-Time Equivalent (FTE) occupants. **CASE 2** For residential buildings, provide covered storage facilities for securing bicycles for 15% or more of building occupants in lieu of changing/shower facilities.	1			**D**	Architect	CPP point.
SS 4.3		**Low Emitting & Fuel Efficient Vehicles:** **OPTION 1** Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. Providing a discounted parking rate is an acceptable substitute for preferred parking for low-emitting/fuel-efficient vehicles. To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be equal to 5% of the vehicle parking capacity, publicly posted at the entrance of the parking area and available for a minimum of 2 years. **OR OPTION 2** Install alternative-fuel refueling stations for 3% of the total vehicle parking capacity of the site (liquid or gaseous fueling facilities must be separately ventilated or located outdoors). **OR OPTION 3:** Provide low-emitting and fuel-efficient vehicles for 3% of full-time equivalent (FTE) occupants. Provide preferred parking for these vehicles. **OR OPTION 4:** Provide building occupants access to a low-emitting or fuel efficient vehicle-sharing program.	3			**D**	Architect	Option 1. Preferred parking spaces in lot 4 to be determined.

LEED Matrix

UCR Barn Project, East Campus

Prepared by Simon & Associates, Inc.

LEED 2009 Green Building Design & Construction Priorities Matrix (NC)

April 9, 2010

CREDIT (blue shading indicates a campus baseline credit)		DESIGN/CONSTRUCTION REQUIREMENTS	YES	MAYBE	NO	(D) DESIGN OR (C) CONSTRUCTION PHASE	PARTIES RESPONSIBLE FOR DOCUMENTATION	COMMENTS/ACTION ITEMS
SS 4.4		**Parking Capacity:** **OPTION 1 — NON-RESIDENTIAL** • Size parking capacity to meet but not exceed minimum local zoning requirements AND provide preferred parking for carpools or vanpools for 5% of the total parking spaces. **OR OPTION 2 — NON-RESIDENTIAL** For projects that provide parking for less than 3% of FTE building occupants: • Provide preferred parking for carpools or vanpools, marked as such, for 3% of total provided parking spaces. Providing a discounted parking rate (20% for 2 years) is also acceptable. **OR OPTION 3 - RESIDENTIAL** • Size parking capacity to not exceed minimum local zoning requirements, AND, provide infrastructure and support programs to facilitate shared vehicle usage such as carpool drop-off areas, designated parking for vanpools, or car-share services, ride boards, and shuttle services to mass transit. **OR OPTION 4 — ALL** Provide no new parking. **OR OPTION 5- MIXED USE** (Residential with Commercial) • For mixed-use buildings with less than 10% commercial area, the entire building should be considered residential and adhere to the residential requirements in Option 3. For mixed use buildings with greater than 10% commercial area, the commercial space is to adhere to Non-Residential requirements, while the residential component is to adhere to residential requirements. Note - This option is for a mixed use building that is residential + commercial (or retail) as opposed to office + retail (non-residential building)	2			**D**	Architect	
SS 5.1	**Site Development**	**Protect or Restore Habitat:** **OPTION 1:** On greenfield sites, limit all site disturbance to 40 feet beyond the building perimeter, 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches, and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities and playing fields) that require additional staging areas in order to limit compaction in the constructed area; **OR OPTION 2:** On previously developed or graded sites, restore or protect a minimum of 50% of the site area (excluding the building footprint) or 20% of the total site area (including the building footprint), whichever is greater, with native or adapted vegetation. (Native/adapted plants are plants indigenous to a locality or cultivars of native plants that are adapted to the local climate and are not considered invasive species or noxious weeds.) Projects earning SS credit 2 and using vegetated roof surfaces may apply the vegetated roof surface to this calculation if the plants meet the definition of native/adapted.			1	**C**	Contractor or Landscape Architect	.

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SS 5.2		**Maximize Open Space:** **OPTION 1 - Sites with Local Zoning Open Space Requirements** Reduce the development footprint (defined as the total area of the building footprint, hardscape, access roads and parking) and/or provide vegetated open space within the project boundary to exceed the local zoning's open space requirement for the site by 25%. **OR** **OPTION 2 - Sites with No Local Zoning Requirements** (e.g., some university campuses, military bases) Provide vegetated open space area adjacent to the building that is equal to the building footprint. **OR** **OPTION 3 - Sites with Zoning Ordinances but No Open Space Requirements** Provide vegetated open space equal to 20% of the project's site area. **ALL OPTIONS:** • For projects located in urban areas that earn SS credit 2, vegetated roof areas can contribute to credit compliance. • For projects located in urban areas that earn SS Credit 2, pedestrian oriented hardscape areas can contribute to credit compliance. For such projects, a minimum of 25% of the open space counted must be vegetated. • Wetlands or naturally designed ponds may count as open space if the side slope gradients average 1:4 (vertical : horizontal) or less and are vegetated.		1		D	Architect	CPP point. Calculations need to be studied.
SS 6.1	Stormwater Design	**Quantity Control:** **CASE 1: IF EXISTING IMPERVIOUSNESS IS LESS THAN OR EQUAL TO 50%** **Option 1 -** Implement a stormwater management plan that prevents the post-development peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity for the one- and two-year 24-hour design storms. **OR** **Option 2 -** Implement a stormwater management plan that protects receiving stream channels from excessive erosion. The stormwater management plan must include a stream channel protection strategy and quantity control strategies. **CASE 2: IF THE EXISTING IMPERVIOUSNESS IS GREATER THAN 50%** Implement a stormwater management plan that results in a 25% decrease in the volume of stormwater runoff from the two-year 24-hour design storm.	1			D	Civil Engineer	Permeable paving (interlocking pavers for onsite filtration), bioswales, rain gardens. Rainwater collection will be considered.
SS 6.2		**Quality Control:** Implement a stormwater management plan that reduces impervious cover, promotes infiltration, and captures and treats the stormwater runoff from 90% of the average annual rainfall using acceptable best management practices (BMPs). BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports. BMPs are considered to meet these criteria if (1) they are designed in accordance with standards and specifications from a state or local program that has adopted these performance standards, **OR** (2) there exists in-field performance monitoring data demonstrating compliance with the criteria. Data must conform to accepted protocol (e.g., Technology Acceptance Reciprocity Partnership [TARP], Washington State Department of Ecology) for BMP monitoring.	1			D	Civil Engineer	Bioswales.

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SS 7.1	**Heat Island Effect**	**Non-Roof: OPTION 1:** Use any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots): • Provide shade from existing tree canopy or within five years of landscape installation; landscaping (trees) must be in place at the time of certification application. • Provide shade from structures fully covered by solar photovoltaic panels. • Provide shade from architectural devices or structures that have a solar reflectance index (SRI2) of at least 29. • Have paving materials with an SRI of at least 29. • Have an open-grid pavement system (at least 50% pervious). **OR OPTION 2** Place a minimum of 50% of parking spaces under cover (defined as under ground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29, be a vegetated green roof or be covered by solar panels that produce energy used to offset some nonrewable resource use.	1			C	Architect or Landscape Architect	Hardscape will be durable and light-colored. Permeable paving.
SS 7.2		**Roof:** **OPTION 1:** Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values in the table below for a minimum of 75% of the roof surface. If more than 75% of the roof area is covered with the SRI material, the SRI value may be lower than the required value if the resulting area-weighted equivalent SRI performance is at least as high as having the required value on 75% of the area. **OR OPTION 2:** Install a "green" (vegetated) roof for at least 50% of the roof area, **OR OPTION 3:** Install high albedo and vegetated roof surfaces that, in combination, meet the following criteria: (Area of SRI Roof/0.75) + (Area of vegetated roof /0.5) <= Total Roof Area **Table:** *Roof* *Type* *Slope* Low-Sloped Roof ≤ 2:12 = SRI 78 Steep-Sloped Roof > 2:12 = SRI 29	1			D	Architect, Landscape Architect, Green Roof Consultant	Adoption of cool roof standards is a goal of the UCR Sustainability Plan.
SS 8.0	**Light Pollution Reduction**	**FOR INTERIOR LIGHTING:** Project teams must comply with 1 of the 2 options for interior lighting AND the requirement for exterior lighting. OPTION 1: Reduce the input power (by automatic device of) all non-emergency interior luminaires with the direct line of sight to any opening in the envelope (translucent or transparent) by at least 50% between 11 PM and 5 AM. After hours override may be provided by a manual or occupant sensing device provided that the override last no more than 30 minutes. OR OPTION 2: All openings in the envelope (translucent or transparent), with a direct line of sight to any non-emergency lighting must have shielding (controlled/closed by automatic device for a resultant transmittance of less than 10% between 11 PM and 5 AM). **AND FOR EXTERIOR LIGHTING:** Light areas only as required for safety and comfort. Lighting power densities must not exceed ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda) for the classified zone.		1		D	Electrical Engineer	Night sky protection policy is an intermediate goal of the UCR Sustainability Plan. Outdoor stage will need lighting weekly.

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		Classify the project under 1 of the following zones, as defined in IESNA RP-33, and follow all the requirements for that zone: LZ1 - Dark (Developed areas within national parks, state parks forest land and rural areas) LZ2 - Low (Areas predominantly consisting of; Residential zoning, Neighborhood business districts, Light industrial with limited nighttime use, Residential mixed use areas) LZ3 - Medium (All other areas not included in LZ1, LZ2 or LZ4 such as Commercial/Industrial, High-Density Residential) LZ4 - High (High activity commercial districts in major metropolitan areas. To be LZ4 the area must be so designated by the local jurisdiction) Please refer to the Rating System or Reference Guide for explanations of the zones.						
Water Efficiency								
WE prereq. 1	**Water Use Reduction: 20% Reduction**	Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation). Calculate the baseline according to the commercial and/r residential baselines outlined in the reference guide. Calculations are based on estimated occupant usage and must include only the following fixtures and fixture fittings (as applicable to the project scope): water closest, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves. The following fixtures, fittings and appliances are outside the scope of the water use reduction calculation: • Commercial Steam Cookers • Commercial Dishwashers • Commercial (family-sized) Clothes Washers • Residential Clothes Washers • Standard and Compact Residential Dishwashers	X			**D**	Plumbing Engineer	
WE 1	**Water Efficient Landscaping**	**Option 1: Reduce by 50% (2 points) -** Reduce potable water consumption for irrigation by 50% from a calculated mid-summer baseline case. Reductions shall be attributed to any combination of the following items: • Plant species factor • Irrigation efficiency • Use of captured rainwater • Use of recycled wastewater • Use of water treated and conveyed by a public agency specifically for non-potable uses. Groundwater seepage that is pumped away from the immediate vicinity of building slabs and foundations may be used for landscape irrigation to meet the intent of this credit. However, the project team must demonstrate that doing so does not affect site stormwater management systems. Option 2: No Potable Use or No Irrigation (4 points) - Achieve Option 1 AND: Use only captured rainwater, recycled wastewater, recycled greywater, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation. OR Install landscaping that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within one year of installation.	2	2		**D**	Landscape Architect	UCR Sustainability Plan intermediate goal calls for 20% reduction in potable water used for irrigation. Weather-based controls, hydrozoning and xeriscape, turf area reduction are components of the UCR Sustainability Plan. Planting: drought-tolerant perennials and shrubs, sycamores, oaks, citrus and possibly other fruit or nut trees (avocado, walnut); drought-tolerant native or Mediterranean perennials and shrubs; vines (grape or kiwi as potential edible vines). Also, species related to historical landscape will be included with reliance on climate adaptive species.

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WE 2	**Innovative Wastewater Technologies**	**OPTION 1:** Reduce potable water use for building sewage conveyance by 50% through the use of water conserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled greywater, and on-site or municipally treated wastewater). **OR** **OPTION 2:** Treat 50% of wastewater on-site to tertiary standards. Treated water must be infiltrated or used on-site.		2		**D**	Plumbing Engineer	Rainwater collection will be considered for both irrigation and toilet flushing. Greywater from kitchen addition is under consideration and is listed as an intermediate goal of the UCR Sustainability Plan.
WE 3	**Water Use Reduction**	Employ strategies that in aggregate use less water than the water use baseline calculated for the building (not including irrigation). The minimum water savings percentage for each point threshold is as follows: 30% Reduction = 2 points 35% Reduction = 3 points 40% Reduction = 4 points Calculate the baseline according to the commercial and/or residential baselines outlined in the reference guide. Calculations are based on estimated occupant usage and must include only the following fixtures and fixtures fittings (as applicable to the project scope): water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves. The following fixtures, fittings and appliances are outside the scope of the water use reduction calculation: • Commercial Steam Cookers • Commercial Dishwashers • Commercial (family-sized) Clothes Washers • Residential Clothes Washers • Standard and Compact Residential Dishwashers	2	2		**D**	Plumbing Engineer	PP/ODC point. Mechanical Engineer narrative indicates 30%. Kitchen water use will have impact on savings. Specs: dual flush WCs 0.8/1.6 gpf, urinals shall be 1/8 gpf or waterless urinals, metering faucets with 0.5 gpm flow control aerators.

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Energy and Atmosphere								
EA Prereq. 1	**Fundamental Commissioning of the Building Energy Systems**	The following commissioning process activities shall be completed by the commissioning team: 1) Designate an individual as the Commissioning Authority (CxA) to lead, review, and oversee the completion of the commissioning process activities. a) The CxA must have documented commissioning authority experience in at least two building projects. b) The individual serving as the CxA shall be independent of the project's design and construction teams, though they may be employees of the firms providing those services. The CxA may be a qualified employee or consultant of the Owner. c) The CxA must report results, findings and recommendations directly to the Owner. d) For projects smaller than 50,000 gross square feet, the CxA may include qualified persons on the design or construction teams who have the required experience. 2) The Owner shall document the Owner's Project Requirements (OPR). The design team shall develop the Basis of Design (BOD). The CxA must review these documents for clarity and completeness. The Owner and design team shall be responsible for updates to their respective documents. 3) Develop and incorporate commissioning requirements into the construction documents. 4) Develop and implement a commissioning plan. 5) Verify the installation and performance of the systems to be commissioned. 6) Complete a summary commissioning report. COMMISSIONED SYSTEMS: Commissioning process activities shall be completed for the following energy related systems, at a minimum: • Heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems (mechanical and passive) and associated controls • Lighting and daylighting controls • Domestic hot water systems • Renewable energy systems (PV, wind, solar etc.)	X			C	Commissioning Agent	Campus has Cx protocol.

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EA Prereq. 2	**Minimum Energy Performance**	**OPTION 1: Whole Building Energy Simulation -** Demonstrate a 10% improvement in the proposed building performance rating for new buildings, or a 5% improvement in the proposed building performance rating for major renovations to existing building, compared with the baseline building performance rating. Calculate the baseline building performance rating according to the building performance rating method in Appendix G of ANSI/ASHRAE/IESNA/ Standard 90.1-2007 (with errata but without addenda) using a computer simulation model for the whole building project. **OR OPTION 2: Prescriptive Compliance Path:** ASHRAE Advanced Energy Design Guide – Comply with the prescriptive measures of the ASHRAE Advanced Energy Design Guide appropriate to the project scope, outlined below. Project teams must comply with al applicable criteria as established in the Advanced Energy Design Guide for the climate zone in which the building in located. Path 1: ASHRAE Advanced Energy Design Guide for Small Office buildings 2004 – The building must be 1) less than 20,000 SF, AND 2) office Occupancy. Path 2: ASHRAE Advanced Energy Design Guide for Small Retail Buildings 2006 – The building must be 1) less than 20,000 SF, AND 2) retail occupancy. Path 3: ASHRAE Advanced Energy Design Guide for Small Warehouses and Self Storage Buildings 2008 – The building must be 1) less than 50,000 SF, AND 2) warehouse or self-storage occupancy. **OR OPTION 3: Prescriptive Compliance Path: Advanced Core Performance Guide –** Comply with the prescriptive measures identified in the Advanced Building Core Performance Guide developed by the New Buildings institute. The building must 1) be less than 100,000 SF, 2) comply with Section 1: Design Process Strategies, and Section 2: Core Performance Requirements, 3) office, school, public assembly, and retail projects less than 100,000 SF must comply with Section 1 and Section 2 of the Core Performance Guide, OR 4) other project types less than 100,000 SF implement the basic requirements of the Core Performance Guide, AND 5) health care, warehouse and laboratory projects are ineligible for this path.	X			**D**	Mechanical Engineer	UC Mandate is 20%. Options for HVAC systems: Option 1, Is a base case design of a single duct over head variable air volume (VAV) systems, with hot water reheat. Option 2 is a Dedicated Outside Air System with radiant floors. Option 3 is a Dedicated Outside Air System with active chilled beams.
EA Prereq. 3	**Fundamental Refrigerant Management**	Zero use of CFC-based refrigerants in new building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phase-out conversion prior to project completion. Phase-out plans extending beyond the project completion date will be considered on their merits.	X					

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EA 1	**Optimize Energy Performance**	Select 1 of the 3 compliance path options described below. Project teams documenting achievement using any of the 3 options are assumed to be in compliance with EA Prerequisite 2: Minimum Energy Performance. OPTION 1 — WHOLE BUILDING ENERGY SIMULATION (1–19 Points) Demonstrate a percentage improvement in the proposed building performance rating compared with the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda) using a computer simulation model for the whole building project. The minimum energy cost savings percentage for each point threshold is as follows:	10		9	D	Mechanical and Electrical Engineer	For Projects in California, the USGBC may allow an equivalency of using T-24-2008 instead of ASHRAE-2007 with the same thresholds as identified on the Table under Option 1. UC Mandate is 20% which would earn 5 points. There are central campus chilled water and steam utilities. A goal of the Sustainability plan is to strive for 30% efficiency, or 10 points. 10 points earned assuming an efficient building envelope with good glazing and insulation, efficient lighting with dimming and occupancy/daylight sensors, and radiant floor systems, we would expect at least 30% below T-24. Refer to Mechanical Narrative for potential strategies.

% Energy Cost Savings (minimum)

New Buildings	Existing Building Renovations	Points
12%	8%	1
14%	10%	2
16%	12%	3
18%	14%	4
20%	16%	5
22%	18%	6
24%	20%	7
26%	22%	8
28%	24%	9
30%	26%	10
32%	28%	11
34%	30%	12
36%	32%	13
38%	34%	14
40%	36%	15
42%	38%	16
44%	40%	17
46%	42%	18
48%	44%	19

OR OPTION 2: Prescriptive Compliance Path: ASHRAE Advanced Energy Design Guide – Refer to EA p2 above.

OR OPTION 3: PRESCRIPTIVE COMPLIANCE PATH: Advanced Buildings™ Core Performance™ Guide (1-3 Points)
Comply with the prescriptive measures identified in the Advanced Buildings™ Core Performance™ Guide developed by the New Buildings Institute. Refer to EA p2 above.

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EA 2	**Renewable Energy**	• Use on-site renewable energy systems to offset building energy cost. Calculate project performance by expressing the energy produced by the renewable systems as a percentage of the building annual energy cost and use the table below to determine the number of points achieved. • Use the building annual energy cost calculated in EA Credit 1 or use the Department of Energy (DOE) Commercial Buildings Energy Consumption Survey (CBECS) database to determine the estimated electricity use. The minimum renewable energy percentage for each point threshold is as follows: Percentage Renewable Energy — Points 1% — 1 3% — 2 5% — 3 7% — 4 9% — 5 11% — 6 13% — 7		7		**D**	Electrical Engineer	PV installation for UCR Campus is currently being evaluated. From the Sustainability Action Plan: UC Policy is to obtain 20% of electricity form renewable sources by 2010. 10 Mw system-wide installation of local renewable power by 2014 is referred to in the UCR Sustainability Plan.
EA 3	**Enhanced Commissioning**	Implement, or have a contract in place to implement, the following additional commissioning process activities in addition to the requirements of EA prerequisite 1 and in accordance with the LEED Reference Guide for Green Building Design and Construction, 2009 Edition: 1. Prior to the start of the construction documents phase, designate an independent Commissioning Authority (CxA) to lead, review, and oversee the completion of all commissioning process activities. 2. The CA shall conduct, at a minimum, one commissioning design review of the Owner's Project Requirements (OPR), Basis of Design (BOD), and design documents prior to mid-construction documents phase and back-check the review comments following design submission. 3. The CA shall review contractor submittals applicable to systems being commissioned for compliance with the OPR and BOD. This review must be concurrent with A/E reviews and submitted to the design team and the Owner. 4. Develop a systems manual that provides future operating staff the information needed to understand and optimally operate the commissioned systems. 5. Verify that the requirements for training operating personnel and building occupants are completed. 6. The CxA must be involved in reviewing the operation of the building with operations and maintenar		2		**C**	Commis. Agent	A goal of the UCR Sustainability Plan.

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EA 4	**Enhanced Refrigerant Management**	**OPTION 1**: Do not use refrigerants. **OR OPTION 2**: Select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. The base building HVAC&R equipment shall comply with the following formula, which set a maximum threshold for the combined contributions to ozone depletion and global warming potential: LCGWP + LCODP x 10^5 ≤ 100 Where: LCODP = [ODPr x (Lr x Life +Mr) x Rc]/Life LCGWP = [GWPr x (Lr x Life +Mr) x Rc]/Life LCODP: Lifecycle Ozone Depletion Potential (lb CFC 11/Ton-Year) LCGWP: Lifecycle Direct Global Warming Potential (lb CO_2/Ton-Year) GWPr: Global Warming Potential of Refrigerant (0 to 12,000 lbCO_2/lbr) ODPr: Ozone Depletion Potential of Refrigerant (0 to 0.2 lb CFC 11/lbr) Lr: Refrigerant Leakage Rate (0.5% to 2.0%; default of 2% unless otherwise demonstrated) Mr: End-of-life Refrigerant Loss (2% to 10%; default of 10% unless otherwise demonstrated) Rc: Refrigerant Charge (0.5 to 5.0 lbs of refrigerant per ton of gross ARI rated cooling capacity) Life: Equipment Life (10 years; default based on equipment type, unless otherwise demonstrated) For multiple types of equipment, a weighted average of all base building level HVAC&R equipment shall be applied using the following formula: [sum (LCGWP + LCODP x 105) x Qunit] / Qtotal ≤ 100 Where: Qunit = Gross ARI rated cooling capacity of an individual HVAC or refrigeration unit (Tons) Qtotal = Total gross ARI rated cooling capacity of all HVAC or refrigeration. ALL OPTIONS: Small HVAC units (containing less than 0.5 lbs of refrigerant) and other equipment, such as standard refrigerators, small water coolers and any other cooling equipment that contains less than 0.5 ponds of refrigerant, are not considered part of the base building system and are not subject to the requirements of this credit. AND Do not install fire suppression systems that contain ozone-depleting substances (CFCs, HCFCs or Halons).	2			**D**	Mechanical Engineer	PP point.
EA 5	**Measurement & Verification**	**OPTION 1:** Develop and implement a measurement and verification (M&V) plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2) as specified in the International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003. The M&V period must cover at least 1 year of post-construction occupancy. Provide a process for corrective action if the results of the M&V plan indicate that energy savings are not being achieved. **OR OPTION 2:** Develop and implement a measurement and verification (M&V) plan consistent with Option B: Energy Conservation Measure Isolation, as specified in the International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003. The M&V period must cover at least 1 year of post-construction occupancy. Provide a process for corrective action if the results of the M&V plan indicate that energy savings are not being achieved.		3		**D**	Commissioning Agent or Mechanical Engineer	DDC (controls and monitoring) for HVAC system will be provided.

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EA 6.0	**Green Power**	Engage in at least a 2-year renewable energy contract to provide at least 35% of the building's electricity from renewable sources, as defined by the Center for Resource Solutions' Green-e Energy product certification requirements. **OPTION 1:** DETERMINE THE BASELINE ELECTRICITY USE Use the annual electricity consumption from the results of EA Credit 1. **OR OPTION 2:** ESTIMATE BASELINE ELECTRICITY USE Use the Department of Energy (DOE) Commercial Buildings Energy Consumption Survey (CBECS) database to determine the estimated electricity use. Note - All purchases of green power shall be based on the quantity of energy consumed, not the cost.		2		**C**	Owner	
Materials and Resources								
MR Prereq.	**Storage & Collection of Recyclables**	Provide an easily-accessible dedicated area or for the collection of storage materials for recycling for the entire building. Materials must include at minimum paper, corrugated cardboard, glass, plastics and metals.	X			**D**	Architect	UCR has a recycling and waste management policy, which includes food waste composting and targets a 50% landfill diversion rate of 50% by 2008-9. Zero waste by 2020 is a long term goal.
MR 1.1	**Building Reuse - Maintain Existing Walls, Floors, and Roof**	Maintain at least 55% (based on surface area) of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percent maintained. If the project includes an addition to an existing building, this credit is not applicable if the square footage of the addition is more than 2 times the square footage of the existing building. The minimum percentage building reuse for each point threshold is as follows: Building Reuse — Points 55% — 1 75% — 2 95% — 3	1	2		**C**	Architect	Attempting more than 75%.: Walls and floors will be retained.
MR 1.2	**Building Reuse - Maintain Interior Nonstructural Elements**	Using existing interior nonstructual elements (e.g., interior walls, doors, floor coverings and ceiling systems in at least 50% (by area) of the completed building, including additions. If the project includes an addition with square footage more than 2 times the square footage of the existing building, this credit is not applicable.		1		**C**	Architect	To be determined.
MR 2	**Construction Waste Management**	Recycle and/or salvage at least 50% of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or comingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout. The minimum percentage debris to be recycled or salvaged for each point threshold is as follows: Recycled or Salvaged — Points 50% — 1 75% — 2	2			**C**	Contractor	ODC point. Baseline is only 50% (1 point). Recommend the project attempt 75% minimum. 75% is in the recommended level noted in the UCR Sustainability Plan.

LEED Matrix

UCR Barn Project, East Campus

Prepared by Simon & Associates, Inc.

LEED 2009 Green Building Design & Construction Priorities Matrix (NC)

April 9, 2010

CREDIT (blue shading indicates a campus baseline credit)		DESIGN/CONSTRUCTION REQUIREMENTS	YES	MAYBE	NO	(D) DESIGN OR (C) CONSTRUCTION PHASE	PARTIES RESPONSIBLE FOR DOCUMENTATION	COMMENTS/ACTION ITEMS
MR 3	**Materials Reuse: 5%**	Use of salvaged, refurbished or reused materials, the sum of which constitutes at least 5% or 10%, based on cost, of the total value of materials on the project. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR Credits 3–7. The minimum percentage materials reused for each point threshold is as follows: Reused Materials — Points 5% — 1 10% — 2			2	C	Architect, Contractor	
MR 4	**Recycled Content**	Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value. Mechanical, electrical and plumbing components and specialty items such as elevators shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR Credits 3–7. Recycled content shall be defined in accordance with the International Organization of Standards document, ISO 14021—Environmental labels and declarations—Self-declared environmental claims (Type II environmental labeling). The minimum percentage materials recycled for each point threshold is as follows: Recycled Content — Points 10% — 1 20% — 2	1	1		C	Architect, Contractor	Per baseline study, 2 points are listed as maybes, however, the design team considers 1 point achievable.
MR 5	**Regional Materials**	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20% (based on cost) of the total materials value. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR Credits 3–6. The minimum percentage regional materials for each point threshold is as follows: Regional Materials — Points 10% — 1 20% — 2	1	1		C	Architect, Contractor	ODC point.
MR 6	**Rapidly Renewable Materials**	Use rapidly renewable building materials and products for 2.5% of the total value of all building materials and products used in the project, based on cost. Rapidly renewable building materials and products are made from plants that are typically harvested within a 10-year or shorter cycle.		1		C	Architect, Contractor	This credit is difficult to achieve, but it would depend on interior finish selection.

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MR 7	**Certified Wood**	Use a minimum of 50% (by cost) of wood-based materials and products, certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components. The components include, but not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes. Only include materials permanently installed in the project. Wood products purchased for temporary use on the project (e.g., formwork, bracing, scaffolding, sidewalk protection, and guard rails) may be included in the calculation at the project team's discretion. If any such materials are included, all such materials must e included in the calculation. If such materials are purchased for use on multiple projects, the applicant may include these materials for only one project, at its discretion. Furniture may be included, providing it is included consistently in MR Credits 3-7.	1			**C**	Architect, Contractor	Credit is easily achievable, considering the amount of wood in the project.
Indoor Environmental Quality								
EQ Prereq. 1	**Minimum IAQ Performance**	**Mechanically Ventilated Spaces** Meet the minimum requirements of Sections 4 through 7 of ASHRAE 62.1-2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda). Mechanical ventilation systems must be designed using the Ventilation Rate Procedure or the applicable local code, whichever is more stringent. **Naturally Ventilated Spaces** Naturally ventilated buildings must comply with ASHRAE 62.1-2007, paragraph 5.1 (with errata but without addenda).	X			**D**	Mechanical Engineer	
EQ Prereq. 2	**Environmental Tobacco Smoke (ETS) Control**	**OPTION 1** • Prohibit smoking in the building. • Prohibit on-property smoking within 25 feet of entries, outdoor air intakes and operable windows. Provide signage to allow smoking in designated areas, prohibit smoking in designated areas or prohibit smoking on the entire property. **OR OPTION 2** • Prohibit smoking in the public areas of the building except in designated smoking areas. Public areas include all common areas that are part of the core and shell that are not tenant spaces. • Smoking must be prohibited within 25 feet away from entries, outdoor air intakes and operable windows. Provide signage to allow smoking in designated areas, prohibit smoking in designated areas or prohibit smoking on the entire property.	X			**D**	Owner	
		OR OPTION 3 (For residential buildings and hotels only). • Prohibit smoking in all common areas of the building • Locate any exterior designated smoking areas, including balconies where smoking is permitted, at least 25 feet away from entries, outdoor air intakes and operable windows opening to common areas. Provide signage to allow smoking in designated areas, prohibit smoking in designated areas or prohibit smoking on the entire property.						

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April 9, 2010

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EQ 1	**Outdoor Air Delivery Monitoring**	Install permanent monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum ventilation requirements. Configure all monitoring equipment to generate an alarm when the airflow values or carbon dioxide (CO2) levels vary by 10% or more from the design values via either a building automation system alarm to the building operator or a visual or audible alert to the building occupants. **AND FOR MECHANICALLY VENTILATED SPACES** • Monitor carbon dioxide concentrations within all densely occupied spaces (those with a design occupant density greater than or equal to 25 people per 1000 sq.ft.). CO2 monitoring locations shall be between 3 feet and 6 feet above the floor. • For each mechanical ventilation system, provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor airflow rate with an accuracy of plus or minus 15% of the design minimum outdoor air rate, as defined by ASHRAE 62.1- 2007 (with errata but without addenda) for mechanical ventilation systems where 20% or more of the design supply airflow serves n **FOR NATURALLY VENTILATED SPACES** Monitor CO2 concentrations within all naturally ventilated spaces. CO2 monitoring shall be located within the room between 3 feet and 6 feet above the floor. One CO2 sensor may be used to represent multiple spaces if the natural ventilation design uses passive stack(s) or other means to induce airflow through those spaces equally and simultaneously without intervention by building occupants. Note - The credit is specifically intended to address issues with ventilation in environments where a fixed amount of minimum outside air is provided through a specific incoming path. CO2 monitoring is required in densely occupied spaces, in addition to outdoor air intake flow measurement.		1		**D**	Mechanical	
EQ 2	**Increased Ventilation**	**FOR MECHANICALLY VENTILATED SPACES:** • Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2007 (with errata but without addenda) as determined by EQ Prerequisite 1. **FOR NATURALLY VENTILATED SPACES:** • Design natural ventilation systems for occupied spaces to meet the recommendations set forth in the Carbon Trust "Good Practice Guide 237" [1998]. Determine that natural ventilation is an effective strategy for the project by following the flow diagram process shown in Figure 1.18 of the Chartered Institution of Building Services Engineers (CIBSE) "Applications Manual 10: 2005, Natural ventilation in non-domestic buildings." **AND Option 1:** Use diagrams and calculations to show that the design of the natural ventilation systems meets the recommendations set forth in the CIBSE Applications Manual 10: 2005, Natural ventilation in non-domestic buildings. **OR Option 2:** Use a macroscopic, multi-zone, analytic model to predict that room-by-room airflows will effectively naturally ventilate, defined as providing the minimum ventilation rates required by ASHRAE 62.1-2007 Chapter 6, for at least 90% of occupied spaces.	1			**D**	Mechanical	Minimum ventilation rate is 15 cfm / occupant, but Mechanical Engineer narrative indicates LEED EQ rates will be used, therefore point is earned.

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EQ 3.1	**Construction IAQ Management Plan**	**During Construction:** Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows: • During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3). • Protect stored on-site or installed absorptive materials from moisture damage. • If permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grille, as determined by ASHRAE 52.2-1999 (with errata but without addenda). Replace all filtration media immediately prior to occupancy.	1			C	Contractor	ODC point.
EQ 3.2	**Construction IAQ Management Plan - Before Occupancy**	Develop and (IAQ) management plan and implement it after all finishes have been installed and the building has been completely cleaned before occupancy. **OPTION 1: Flush Out** After construction ends, prior to occupancy and with all interior finishes installed, install new filtration media and perform a building flush-out by supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area while maintaining an internal temperature of at least 60F and relative humidity no higher than 60%. **OR** If occupancy is desired prior to completion of the flush-out, the space may be occupied following delivery of minimum of 3,500 cubic feet of outdoor air per square foot of floor area. Once the space is occupied, it must be ventilated at a minimum rate of 0.30 cubic feet per minute (cfm) per square foot of outside air or the design minimum outside air rate determined in EQ prereq 1, whichever is greater. During each day of the flush-out period, ventilation must begin a minimum of 3 hours prior or occupancy and continue during occupancy. These conditions must be maintained until a total of 14,000 cubic feet per square foot of outside air has been delivered to the space. **OR Option 2: Air Testing** Conduct baseline IAQ testing, after construction ends and prior to occupancy, using testing protocols consistent with the EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air and as additionally detailed in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition.	1				Contractor	ODC point.
EQ 4.1	**Low-Emitting Materials**	**Adhesives and Sealants:** (Refer to Reference Guide for VOC limits) All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements applicable to the project scope: • Adhesives, Sealants and Sealant Primers must comply with South Coast Air Quality Management District (SCAQMD) Rule #1168. VOC limits are listed in reference guide and correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005. • Aerosol Adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000. Note - Use of VOC budgets is an alternative compliance path that allows for specialty applications for which there is no low VOC product option.	1			C	Architect, Contractor	ODC point.

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EQ 4.2	**Low-Emitting Materials**	**Paints and Coatings:** Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the criteria defined in the LEED Reference Guide.	1			**C**	Architect, Contractor	ODC point.
EQ 4.3	**Low-Emitting Materials**	**Flooring Systems:** **OPTION 1: All flooring must comply with the following as applicable to the project scope:** All carpet installed in the building interior shall meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. This credit is only available to projects where carpet is installed. All carpet adhesive shall meet the requirements of EQ Credit 4.1: VOC limit of 50 g/L. **AND** All of the hard surface flooring must be certified as compliant with the FloorScore standard (current as of the date of this Rating System, or more stringent version) by an independent third-party. Flooring products covered by FloorScore include vinyl, linoleum, laminate flooring, wood flooring, ceramic flooring, rubber flooring, wall base, and associated sundries. An alternative compliance path using FloorScore is acceptable for credit achievement according to the following stipulations. 100% of the non-carpet finished flooring must be FloorScore certified, and it must compr least 25% of the finished floor area. Potential examples of unfinished flooring include floors in mechanical rooms, electrical rooms, and elevator service rooms **AND** Concrete, wood, bamboo, and cork floor finishes such as sealer, stain and finish must meet the requirements of South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004. VOC limits are listed in the Reference Guide. **AND** Tile setting adhesives and grout must meet South Coast Air Quality Management District (SCAQMD) Rule #1168. VOC limits are listed in the Reference Guide. **OR OPTION 2:** All flooring products will meet the testing and product requirements of the California Department of Health Services Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.	1			**C**	Architect, Contractor	ODC point.
EQ 4.4	**Low-Emitting Materials**	**Composite Wood & Agrifiber Products:** Composite wood and agrifiber products used on the interior of the building (defined as inside of the weather proofing system), must contain no added urea formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied assemblies shall contain no added urea-formaldehyde resins. Composite wood and agrifiber products are defined as: particleboard, Medium Density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates and door cores. Materials considered fit-out, furniture, and equipment (FF&E) are not considered base building elements and are not included.	1			**C**	Architect, Contractor	Added urea formaldehyde is now banned in California, therefore point is attained. Sustainability plan calls for a comprehensive IAQ policy. This would mandate attaining this credit.

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EQ 5	**Indoor Chemical and Pollutant Source Control**	Design to minimize and control pollutant entry into buildings and later cross-contamination of regularly occupied areas: • Employ permanent entryway systems at least 10 feet long in the primary direction of travel to capture dirt and particulates from entering the building at all entryways that are directly connected to the outdoors. Acceptable entryway systems include permanently installed grates, grilles, or slotted systems that allow for cleaning underneath. Roll-out mats are only acceptable when maintained on a weekly basis by a contracted service organization. Qualifying entryways are those that serve as regular entry points into the core and shell of the building by building users. • Where hazardous gases or chemicals may be present or used (including garages, housekeeping/laundry areas and copying/printing rooms), exhaust each space sufficiently to create negative pressure with respect to adjacent spaces with the doors to the room closed. • In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media prior to occupancy that provides a Minimum Efficiency Reporting Value (MERV) of 13 or better. Filtration should be applied to process both return and outside air that is to be delivered as supply air. • Provide containment drains plumbed for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs (e.g. housekeeping, janitorial and science laboratories).	1			D	Architect, Mechanical, Plumbing, Contractor	ODC point.
EQ 6.1	**Controllability of Systems**	**Lighting:** Provide individual lighting controls for 90% (minimum) of building occupants to enable adjustments to suit individual task needs and preferences. Provide lighting system controls for all shared multi-occupant spaces to enable adjustments that meet group needs and preferences.			1	D	Architect, Electrical	
EQ 6.2	**Controllability of Systems**	**Thermal Comfort:** Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. Operable windows can be used in lieu of comfort controls for occupants of areas that are 20 feet inside of and 10 feet to either side of the operable part of the window. The areas of operable window must meet the requirements of ASHRAE 62.1-2007 paragraph 5.1 Natural Ventilation. **AND** Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to suit group needs and preferences. Conditions for thermal comfort are described in ASHRAE Standard 55-2004 to include the primary factors: of air temperature, radiant temperature, air speed, and humidity. Comfort system control for the purposes of this credit is defined as the provision of control over at least one of these primary factors in the occupant's local environment.		1		D	Architect, Electrical	This credit needs to be studied in consideration of the health code as it pertains to food service areas.
EQ 7.1	**Thermal Comfort**	**Design:** Design HVAC systems and the building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Demonstrate design compliance in accordance with the Section 6.1.1 Documentation.	1			D	Architect	ODC point.

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EQ 7.2	**Thermal Comfort**	**Verification** Achieve EQ 7.1 AND agree to conduct a thermal comfort survey of building occupants (adults and students of grades 6 and above) within 6 to 18 months after occupancy. This survey should collect anonymous responses about thermal comfort in the building, including an assessment of overall satisfaction with thermal performance and identification of thermal comfort problems. Agree to develop a plan for corrective action if the survey results indicate that more than 20% of occupants are dissatisfied with thermal comfort of the building. This plan should include measurement of relevant environmental variables in problem areas in accordance with ASHRAE Standard 55-2004 (with errata but with addenda). **AND** Provide a permanent monitoring system to ensure that building performance meets the desired comfort criteria as determined by EQ 7.1. Residential Projects are not eligible for this credit.	1			D	Architect	Provides an opportunity for educational benefit for the project.
EQ 8.1	**Daylight and Views**	**Daylight 75% of Spaces** **OPTION 1 - SIMULATION** Demonstrate through computer simulation that 75% or more of regularly occupied spaces achieve daylight illuminance levels of a minimum of 25 footcandles (fc) and a maximum of 500 fc in a clear sky condition on September 21 at 9 am and 3 pm: areas with illuminance levels below or above the range do not comply. However, designs that incorporate view-preserving automated shades for glare control may demonstrate compliance for only the minimum 25 fc illuminance level. **OR OPTION 2 - PRESCRIPTIVE** Sidelighting Daylight Zone Top-lighting Daylight Zone **OR OPTION 3 - MEASUREMENT** **OR OPTION 4 - COMBINATION**	1			**D**	Architect	
EQ 8.2		**Views for 90% of Spaces:** Achieve direct line of sight to the outdoor environment via vision glazing between 30" and 90" above finish floor for building occupants in 90% of all regularly occupied areas. Determine the area with direct line of sight by totaling the regularly occupied square footage that meets the following criteria: • In plan view, the area is within sight lines drawn from the area to perimeter vision glazing. • In section view, a direct sight line can be drawn from the area to perimeter vision glazing. Line of sight may be drawn through interior glazing. For private offices, the entire square footage of the office can be counted if 75% or more of the area has direct line of sight to perimeter vision glazing. For multi-occupant spaces, the actual square footage with direct line of sight to perimeter vision glazing is counted.	1			**D**	Architect	

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Innovation & Design Process								
ID 1.1-1.5	**Innovation in Design**	Purpose: To provide design teams and projects the opportunity to be awarded points for exceptional performance above requirements set by the LEED Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Rating System. Requirements: In writing, identify the Intent of the proposed innovation credit, the proposed requirement for compliance, the proposed submittals to demonstrate compliance, and the design approach (strategies) that might be used to meet the requirements. Substantially exceed a LEED performance credit such as energy performance or water efficiency. Apply strategies or measures that demonstrate a comprehensive approach and quantifiable environment and/or health benefits.						
ID 1.1	**TBD**	e.g. Green cleaning		1		**D**	TBD	Green Seal cleaners are among the UCR Sustainability Plan goals.
ID 1.2	**TBD**	e.g. Integrated pest management		1		**D**	TBD	IPM is among the UCR Sustainability Plan goals.
ID 1.3	**TBD**	e.g. Double green power		1		**D**	TBD	
ID 1.4	**TBD**	e.g. Green Building as Educational Tool	1			**D**	TBD	Case Studies will be an intermediate goal outlined in the UCR Sustainability Plan.
ID 1.5	**TBD**	e.g. Sustainability in the Curriculum, Eco-Literacy	1			**D**	TBD	Currently a goal of the UCR Sustainability plan.
ID 2	**LEED Accredited Professional**	Intent: To support and encourage the design integration required by a LEED-NC green building project and to streamline the application and certification process. Requirements: At least one principal participant of the project team shall be a LEED Accredited Professional (AP).	1			**D**	Simon & Assoc.	ODC point.

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Regional Bonus Credits								
RB 1.1-1.4	**Regional Bonus Credit**	To provide design teams and projects the opportunity to be awarded points for achievement of existing LEED credits that deliver regionally important benefit which has been deemed, by the regional authority, to have benefit above the point value set by the LEED Green Building Rating System. Requirements: Achieve one of the six (6) credits, to a maximum of four (4), that have been identified as regionally important by the regional authority where the LEED project is located.						
RB 1.1	**SS 4.1**	Alternative Transportation: Public Transportation Access	1			**D**	TBD	
RB 1.2	**SS 7.1**	Heat Island Effect: Non-Roof	1			**D**	TBD	
RB 1.3	**WE 2**	Innovative Wastewater Technology				**D**	TBD	
RB 1.4	**WE 3 (40%)**	Water Use Reduction		1		**D**	TBD	
	EA 2 (1%)	On-site Renewable Energy						
	EQ 8.1	Daylight and Views: Daylight	1					
		TOTAL POINTS	**62**	**34**	**14**			
		LEED Certified = 40-49, Silver = 50-59, Gold = 60-79, Platinum = 80-110				110 Possible Points		

RESPONSIBLE PARTY KEY:

Owner
Architect
Civil
Landscape
MEP
Cx Agent
LEED/Sustainability Simon & Associates, Inc.
Contractor
Construction Manager
Other Environmental

LEED-Online Access: http://leedonline.com

Project Schedule:

SD
DD
CD
Bid
CA
CO

V. COST PLAN

A Preliminary Budget Estimate has been prepared and reflects the program and systems presented in the DPP. For costing purposes, the project has been broken into phases and the building and landscape elements are costed separately.

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Riverside, CA

Preliminary Budget Estimate

Revised May 25, 2010
Prepared for Fernau & Hartman Architects

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

1 Basis of Estimate

This statement is based on program plans by Fernau & Hartman Architects, along with verbal direction from the architectural team and Owner.

2 Conditions of Construction

The pricing is based on the following general conditions of construction:

Start date of construction June 2011 for Phase 1A, June 2012 for Phase 1B, and June 2013 for Phase 2
A construction period of 12 months for Phases 1A and 2; and
a construction period of 5 months for Phase 1B
Construction contract procurement method is CM at risk
Contractors performance bond is to be included by the general contractor
Builder's Risk Insurance is deemed to be included by the general contractor,
Owner's Risk Insurance is by Ower and excludes from the estimate
Phasing assumptions are shown on the summary sheet
The general contractor will have full access to the site during normal business hours
Contractor's General Conditions and Site Management are included in the estimate, but only for the duration of construction. They are excluded for the duration between phases.

3 Items Not Included Within Estimate

The following cost items are excluded from this estimate:

Theater Renovation and Expansion
Professional fees, inspections and testing
Construction Management Pre-construction Fees
Cost escalation beyond the midpoint of construction
Plan check fees and building permit fees
Movable Furnishings, fixtures and equipment (FF&E)
Costs of offsite construction except potential new utility connections at east of site
Construction contingency costs
LEED Commissioning and Certification fees

4 Notes

We recommend that the client review this statement, and that any interpretations contrary to those intended by the design documents be fully addressed. The statement is based upon a detailed measurement of quantities when possible, and reasonable allowances for items not clearly defined in the documents. The facts presented, and the recommendations made, are believed to be reliable. The cost estimate is distributed upon the condition that the Owner and the Architect shall review the estimate documents for scope of work and content.

Basis of Estimate (Continued)

The statement reflects probable construction costs obtainable in a competitive and stable bidding market. This estimate presumes a minimum of four (4) competitive bids from qualified general contractors, with bids from a minimum of three (3) subcontractors per trade. This statement is a determination of fair market value for the construction of the project and is not intended to be a prediction of low bid. Experience indicates that a fewer number of bidders may result in a higher bid amount, and more bidders may result in a lower bid amount.

1 bid add 25% to 40%
2 to 3 bids add 8% to 12%
4 to 5 bids -4% to +4%
7 to 8 bids deduct 5% to 7%

5 Escalation

For the purpose of this report cost escalation has been assumed at the following levels:

2010 2%
2011 2%
2012 4%

Preliminary Budget Estimate

5/25/2010 Construction Cost Summary

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Construction Cost Summary	Area		Cost/SF	Total
Phase 1A				
Cottage	939	SF	$730.87	$686,288
Kitchen Addition	4,482	SF	692.66	3,104,515
Barn Stable	1,486	SF	710.26	1,055,451
Barn Stable Addition	1,031	SF	802.51	827,392
Sitework Phase 1A				1,673,059
Phase 1B				
Barn Dining	4,132	SF	$459.48	$1,898,572
East Courtyard Restrooms	350	SF	1,003.54	351,240
Sitework Phase 1B				214,809
Phase 2				
KUCR & Performance Stage	4,910	SF	$707.35	$3,473,075
Sitework Phase 2				1,465,520
Allowance for Relocation of KUCR Tower				160,000
Total Estimated Construction Cost	**17,330**	**SF**	**$860.35**	**$14,909,921**

Alternates

1) Provide Alterations to Sproul Hall Loading Dock	Add	$447,011
2) Provide Onsite Chiller and Boiler in lieu of Conn to Campus HW/CHW.	Add	(66,918)
3) Provide Audio Visual Equipment	Add	442,731
4) Provide Emergency Power for Kitchen Addition & KUCR	Add	418,582
5) Provide Construction Management Preconstruction Services	Add	250,000
6) Provide Enhanced Commissioning/3rd Party Commissioning Services	Add	75,000
7) Allow for Patching & Painting Barn Theater	Add	15,000
8) Provide Security Devices	Add	142,211

Allowances Included in the Estimate

Performance Space @ KUCR Building	$328,890

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COST PLAN

Preliminary Budget Estimate

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UC Cost Summary

University of California, Riverside
The Barn Project
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UC Cost Summary	Phase 1A						Phase 1B				Phase 2				TOTAL
	Cottage	Kitchen Addition	Barn Stable	Barn Stable Addition	Phase 1A Sitework	Phase 1A Subtotal	Barn Dining	East Courtyard Restrooms	Phase 1B Sitework	Phase 1B Subtotal	KUCR & Performance Stage	Phase 2 Sitework	Relocation of KUCR Tower	Phase 2 Subtotal	
1.0 Foundations	$92,681	$84,986	$132,805	$22,953	$0	$333,425	$66,216	$8,784	$0	$75,000	$77,183	$0		$77,183	$485,607
2.0 Vertical Structure	28,572	$175,994	35,962	46,039	0	286,567	157,813	30,811	0	188,624	193,519	0		193,519	668,709
3.0 Floor & Roof Structures	46,703	$287,804	114,530	80,971	0	530,008	206,270	39,081	0	245,351	427,231	0		427,231	1,202,590
4.0 Exterior Cladding	53,736	$428,408	160,496	185,951	0	828,591	274,756	65,108	0	339,865	595,908	0		595,908	1,764,364
5.0 Roofing, Waterproofing & Skylights	40,975	$119,917	48,556	58,312	0	267,760	115,405	13,514	0	128,919	180,917	0		180,917	577,595
Total Shell (1.0 - 5.0)	**$262,668**	**$1,097,108**	**$492,348**	**$394,226**	**$0**	**$2,246,350**	**$820,461**	**$157,297**	**$0**	**$977,758**	**$1,474,757**	**$0**		**$1,474,757**	**$4,698,866**
6.0 Interior Partitions, Doors & Glazing	$21,548	$116,303	$26,767	$47,645	$0	$212,263	$34,189	$9,730	$0	$43,919	$265,369	$0		$265,369	$521,551
7.0 Floor, Wall & Ceiling Finishes	$28,594	$158,736	58,861	38,438	0		126,434	39,103	0	165,536	717,033	0		717,033	882,569
Total Interiors (6.0 - 7.0)	**$50,142**	**$275,039**	**$85,628**	**$86,083**	**$0**	**$212,263**	**$160,623**	**$48,832**	**$0**	**$209,455**	**$982,402**	**$0**		**$982,402**	**$1,404,120**
8.0 Function Equipment & Specialties	$157,608	$888,576	$164,364	$50,309	$0	$1,260,857	$137,995	$9,608	$0	$147,603	$162,829	$0		$162,829	$1,571,288
9.0 Stairs & Vertical Transportation	$6,692	$0	0	0	0	6,692	0	0	0	0	0	0		0	6,692
Total Equip and Vert Transportation (8.0-9.0)	**$164,300**	**$888,576**	**$164,364**	**$50,309**	**$0**	**$1,267,549**	**$137,995**	**$9,608**	**$0**	**$147,603**	**$162,829**	**$0**		**$162,829**	**$1,577,980**
10.0 Plumbing Systems	$19,453	$169,996	$25,860	$41,924	$0	257,234	$58,718	$37,162	$0	$95,880	$76,990	$0		$76,990	$430,103
11.0 Heating, Ventilating & Air Conditioning	$25,452	$206,559	70,371	29,872	0	332,254	245,134	15,405	0	260,540	205,229	0		205,229	798,022
12.0 Electric Lighting, Power & Communications	$59,336	$232,023	84,504	58,245	0	434,108	234,689	23,335	0	258,024	345,177	0		345,177	1,037,309
13.0 Fire Protection Systems	$9,245	$31,115	11,925	7,067	0	59,351	32,844	5,546	0	38,390	34,138	0		34,138	131,879
Total Mechanical and Electrical (10.0 - 13.0)	**$113,487**	**$639,692**	**$192,660**	**$137,108**	**$0**	**$1,082,947**	**$571,385**	**$81,449**	**$0**	**$652,833**	**$661,534**	**$0**		**$661,534**	**$2,397,314**
Subtotal Building Construction (1.0 - 13.0)	**$590,596**	**$2,900,416**	**$934,999**	**$667,726**	**$0**	**$5,093,737**	**$1,690,464**	**$297,186**	**$0**	**$1,987,650**	**$3,281,521**	**$0**		**$3,281,521**	**$10,362,908**
14.0 Site Preparation & Demolition	21,414	20,075	13,384	20,075	175,304	250,252	27,027	0	74,201	101,228	21,050	21,050		42,100	393,580
15.0 Site Paving, Structures & Landscaping	34,128	63,572	0	106,132	632,106	835,937	93,243	0	93,311	186,554	30,171	1,360,270		1,390,442	2,412,933
16.0 Site Utilities	40,151	120,452	107,069	33,459	865,649	1,166,779	87,838	54,054	47,297	189,189	140,333	84,200		224,532	1,580,500
Subtotal Site Construction (14.0 - 16.0)	**$95,692**	**$204,099**	**$120,452**	**$159,666**	**$1,673,059**	**$2,252,969**	**$208,108**	**$54,054**	**$214,809**	**$476,971**	**$191,554**	**$1,465,520**		**$1,657,074**	**$4,387,013**
Allowance for Relocation of KUCR Tower													$160,000	**$160,000**	**$160,000**
TOTAL BUILDING & SITE COST (1.0-16.0)	**$686,288**	**$3,104,515**	**$1,055,451**	**$827,392**	**$1,673,059**	**$7,346,705**	**$1,898,572**	**$351,240**	**$214,809**	**$2,464,621**	**$3,473,075**	**$1,465,520**	**$160,000**	**$5,098,595**	**$14,909,921**

Preliminary Budget Estimate

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UC Cost Summary

University of California, Riverside
The Barn Project
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UC Cost Summary		Phase 1A Cottage	Phase 1A Kitchen Addition	Phase 1A Barn Stable	Phase 1A Barn Stable Addition	Phase 1A Sitework	Phase 1A Subtotal	Phase 1B Barn Dining	Phase 1B East Courtyard Restrooms	Phase 1B Sitework	Phase 1B Subtotal	Phase 2 KUCR & Performance Stage	Phase 2 Sitework		Phase 2 Subtotal	TOTAL
1.0 Foundations		$69,250	$63,500	$99,230	$17,150	$0	$249,130	$49,000	$6,500	$0	$55,500	$55,000	$0		$55,000	$359,630
2.0 Vertical Structure		21,349	131,500	26,870	34,400	0	214,119	116,782	22,800	0	139,582	137,900	0		137,900	491,601
3.0 Floor & Roof Structures		34,896	215,043	85,575	60,500	0	396,014	152,640	28,920	0	181,560	304,442	0		304,442	882,016
4.0 Exterior Cladding		40,151	320,100	119,920	138,940	0	619,111	203,320	48,180	0	251,500	424,640	0		424,640	1,295,251
5.0 Roofing, Waterproofing & Skylights		30,616	89,600	36,280	43,570	0	200,066	85,400	10,000	0	95,400	128,920	0		128,920	424,386
Total Shell (1.0 - 5.0)		**$196,262**	**$819,743**	**$367,875**	**$294,560**	**$0**	**$1,678,440**	**$607,142**	**$116,400**	**$0**	**$723,542**	**$1,050,902**	**$0**		**$1,050,902**	**$3,452,884**
6.0 Interior Partitions, Doors & Glazing		$16,100	$86,900	$20,000	$35,600	$0	$158,600	$25,300	$7,200	$0	$32,500	$189,100	$0		$189,100	$380,200
7.0 Floor, Wall & Ceiling Finishes		21,365	118,605	43,980	28,720	0	212,670	93,561	28,936	0	122,497	510,953	0		510,953	846,120
Total Interiors (6.0 - 7.0)		**$37,465**	**$205,505**	**$63,980**	**$64,320**	**$0**	**$371,270**	**$118,861**	**$36,136**	**$0**	**$154,997**	**$700,053**	**$0**		**$700,053**	**$1,226,320**
8.0 Function Equipment & Specialties		$117,763	$663,931	$122,810	$37,590	$0	$942,094	$102,117	$7,110	$0	$109,227	$116,031	$0		$116,031	$1,167,351
9.0 Stairs & Vertical Transportation		5,000	0	0	0	0	5,000	0	0	0	0	0	0		0	5,000
Total Equip and Vert Transportation (8.0-9.0)		**$122,763**	**$663,931**	**$122,810**	**$37,590**	**$0**	**$947,094**	**$102,117**	**$7,110**	**$0**	**$109,227**	**$116,031**	**$0**		**$116,031**	**$1,172,351**
10.0 Plumbing Systems		$14,535	$127,019	$19,323	$31,325	$0	$192,201	$43,451	$27,500	$0	$70,951	$54,863	$0		$54,863	$318,015
11.0 Heating, Ventilation & Air Conditioning		19,018	154,338	52,580	22,320	0	248,255	181,400	11,400	0	192,800	146,245	0		146,245	587,300
12.0 Electric Lighting, Power & Communications		44,335	173,364	63,140	43,520	0	324,359	173,670	17,268	0	190,938	245,971	0		245,971	761,268
13.0 Fire Protection Systems		6,908	23,249	8,910	5,280	0	44,347	24,305	4,104	0	28,409	24,327	0		24,327	97,082
Total Mechanical and Electrical (10.0 - 13.0)		**$84,796**	**$477,969**	**$143,953**	**$102,445**	**$0**	**$809,162**	**$422,825**	**$60,272**	**$0**	**$483,097**	**$471,405**	**$0**		**$471,405**	**$1,763,663**
Subtotal Building Construction (1.0 - 13.0)		**$441,285**	**$2,167,148**	**$698,618**	**$498,915**	**$0**	**$3,805,965**	**$1,250,945**	**$219,918**	**$0**	**$1,470,863**	**$2,338,390**	**$0**		**$2,338,390**	**$7,615,217**
14.0 Site Preparation & Demolition		$16,000	$15,000	$10,000	$15,000	$130,985	$186,985	$20,000	0	$54,909	$74,909	$15,000	$15,000		$30,000	$291,894
15.0 Site Paving, Structures & Landscaping		25,500	47,500	0	79,300	472,300	624,600	69,000	0	69,050	138,050	21,500	969,320		990,820	1,753,470
16.0 Site Utilities		30,000	90,000	80,000	25,000	646,800	871,800	65,000	$40,000	35,000	140,000	100,000	60,000		160,000	1,171,800
Subtotal Site Construction (14.0 - 16.0)		**$71,500**	**$152,500**	**$90,000**	**$119,300**	**$1,250,085**	**$1,683,385**	**$154,000**	**$40,000**	**$158,959**	**$352,959**	**$136,500**	**$1,044,320**		**$1,180,820**	**$3,217,163**
SUBTOTAL BUILDING AND SITE COST		**$512,785**	**$2,319,648**	**$788,618**	**$618,215**	**$1,250,085**	**$5,489,350**	**$1,404,945**	**$259,918**	**$158,959**	**$1,823,822**	**$2,474,890**	**$1,044,320**		**$3,519,210**	**$10,832,381**
General Conditions	12.5%	64,098	289,956	98,577	77,277	156,261	686,169	175,618	32,490	19,870	227,978	309,361	130,540		439,901	1,354,048
Contractor's Fee	5.0%	28,844	130,480	44,360	34,775	70,317	308,776	79,028	14,620	8,941	102,590	139,213	58,743		197,956	609,321
Design Contingency	10.0%	60,573	274,008	93,155	73,027	147,666	648,429	165,959	30,703	18,777	215,439	292,346	123,360		415,707	1,279,575
Escalation		19,989	90,423	30,741	24,099	48,730	213,982	73,022	13,509	8,262	94,793	257,265	108,557		365,822	674,597
Allowance for Relocation of KUCR Tower														160,000	160,000	160,000
TOTAL BUILDING & SITE COST (1.0-16.0)		**$686,288**	**$3,104,515**	**$1,055,451**	**$827,392**	**$1,673,059**	**$7,346,705**	**$1,898,572**	**$351,240**	**$214,809**	**$2,464,621**	**$3,473,075**	**$1,465,520**	**$160,000**	**$5,098,595**	**$14,909,921**

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Schedule of Areas	**Gross Area**	
Cottage Relocation & Renovation		
Enclosed Area	879	SF
Covered Area 1/2	60	SF
Gross Area	939	SF

Control Quantities			**Ratio to Gross Area**
Cottage Relocation & Renovation			
Number of Stories	1	Ea	
Total Area	939	SF	0.90
Enclosed Area	879	SF	0.84
Covered Area	120	SF	0.11
Footprint Area	999	SF	0.96
Volume (Gross)	9,240	CF	8.84
Gross Wall Area	1,764	SF	1.69
Retaining Wall Area	0	SF	0.00
Finished Wall Area	1,564	SF	1.50
Windows or Glazing Area	100	SF	0.10
Roof Area - Pitched	1,476	SF	1.41
Finished Area	879	SF	0.84
Interior Partitions	44	LF	0.04
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	3	Ea	0.00

University of California, Riverside
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Schedule of Areas	**Gross Area**	
Kitchen Addition		
Enclosed Area	4,432	SF
Covered Area 1/2	50	SF
Gross Area	4,482	SF

Control Quantities			**Ratio to Gross Area**
Kitchen Addition			
Number of Stories	1	Ea	
Total Area	4,532	SF	1.06
Enclosed Area	4,432	SF	1.04
Covered Area	100	SF	0.02
Footprint Area	4,532	SF	1.06
Volume (Gross)	45,500	CF	10.64
Gross Wall Area	4,800	SF	1.12
Retaining Wall Area	500	SF	0.12
Finished Wall Area	3,800	SF	0.89
Windows or Glazing Area	450	SF	0.11
Roof Area - Pitched	4,590	SF	1.07
Finished Area	3,785	SF	0.88
Interior Partitions	400	LF	0.09
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	20	Ea	0.00

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Schedule of Areas	**Gross Area**	
Barn Stable		
Enclosed Area	1,486	SF
Covered Area 1/2	0	SF
Gross Area	1,486	SF

Control Quantities			**Ratio to Gross Area**
Barn Stable			
Number of Stories	1	Ea	
Total Area	1,486	SF	1.00
Enclosed Area	1,486	SF	1.00
Covered Area	0	SF	0.00
Footprint Area	1,486	SF	1.00
Volume (Gross)	19,970	CF	13.44
Gross Wall Area	2,890	SF	1.94
Retaining Wall Area	0	SF	0.00
Finished Wall Area	2,170	SF	1.46
Windows or Glazing Area	120	SF	0.08
Roof Area - Pitched	1,830	SF	1.23
Finished Area	1,486	SF	1.00
Interior Partitions	90	LF	0.06
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	4	Ea	0.00

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Schedule of Areas	**Gross Area**	
Barn Stable Addition		
Enclosed Area	981	SF
Covered Area 1/2	50	SF
Gross Area	1,031	SF

Control Quantities			**Ratio to Gross Area**
Barn Stable Addition			
Number of Stories	1	Ea	
Total Area	1,031	SF	1.00
Enclosed Area	981	SF	0.95
Covered Area	100	SF	0.10
Footprint Area	1,081	SF	1.05
Volume (Gross)	8,880	CF	8.61
Gross Wall Area	1,792	SF	1.74
Retaining Wall Area	0	SF	0.00
Finished Wall Area	1,472	SF	1.43
Windows or Glazing Area	320	SF	0.31
Roof Area - Pitched	9,800	SF	9.51
Finished Area	830	SF	0.81
Interior Partitions	110	LF	0.11
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	5	Ea	0.00

University of California, Riverside
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Schedule of Areas	**Gross Area**	
Barn Dining Renovation		
Enclosed Area	4,132	SF
Covered Area 1/2	0	SF
Gross Area	4,132	SF

Control Quantities			**Ratio to Gross Area**
Barn Dining Renovation			
Number of Stories	1	Ea	
Total Area	4,132	SF	0.94
Enclosed Area	4,132	SF	0.94
Covered Area	0	SF	0.00
Footprint Area	4,132	SF	0.94
Volume (Gross)	56,450	CF	12.77
Gross Wall Area	3,680	SF	0.83
Retaining Wall Area	0	SF	0.00
Finished Wall Area	2,760	SF	0.62
Windows or Glazing Area	920	SF	0.21
Roof Area - Pitched	4,900	SF	1.11
Finished Area	4,419	SF	1.00
Interior Partitions	100	LF	0.02
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	4	Ea	0.00

COST PLAN

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Schedule of Areas	**Gross Area**	
East Courtyard Restrooms		
Enclosed Area	350	SF
Covered Area 1/2	0	SF
Gross Area	350	SF

Control Quantities			**Ratio to Gross Area**
East Courtyard Restrooms			
Number of Stories	1	Ea	
Total Area	350	SF	0.77
Enclosed Area	350	SF	0.77
Covered Area	0	SF	0.00
Footprint Area	350	SF	0.77
Volume (Gross)	4,560	CF	10.00
Gross Wall Area	1,040	SF	2.28
Retaining Wall Area	0	SF	0.00
Finished Wall Area	1,040	SF	2.28
Windows or Glazing Area	0	SF	0.00
Roof Area - Pitched	456	SF	1.00
Finished Area	456	SF	1.00
Interior Partitions	40	LF	0.09
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	8	Ea	0.02

University of California, Riverside
The Barn Project
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Schedule of Areas	**Gross Area**	
KUCR & Performance Stage		
Enclosed Area	4,423	SF
Covered Area 1/2	487	SF
Gross Area	4,910	SF

Control Quantities			**Ratio to Gross Area**
KUCR & Performance Stage			
Number of Stories	1	Ea	
Total Area	4,910	SF	1.00
Enclosed Area	4,423	SF	0.90
Covered Area	975	SF	0.20
Footprint Area	5,400	SF	1.10
Volume (Gross)	70,768	CF	14.41
Gross Wall Area	5,120	SF	1.04
Retaining Wall Area	400	SF	0.08
Finished Wall Area	4,220	SF	0.86
Windows or Glazing Area	500	SF	0.10
Roof Area - Pitched	5,830	SF	1.19
Finished Area	4,423	SF	0.90
Interior Partitions	480	LF	0.10
Shelled Area	0	SF	0.00
Elevators	0	Ea	0.00
Plumbing Fixtures	8	Ea	0.00

Preliminary Budget Estimate

University of California, Riverside
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Cottage Relocation & Renovation Summary		Cost	Cost/SF
1.0 Foundations		$69,250	$73.75
2.0 Vertical Structure		21,349	22.74
3.0 Floor & Roof Structure		34,896	37.16
4.0 Exterior Cladding		40,151	42.76
5.0 Roofing & Waterproofing		30,616	32.60
Total Shell (1.0 - 5.0)		**$196,262**	**$209.01**
6.0 Interior Partitions, Doors & Glazing		$16,100	$17.15
7.0 Floor, Wall & Ceiling Finish		21,365	22.75
Total Interiors (6.0 - 7.0)		**$37,465**	**$39.90**
8.0 Function Equipment & Specialties		$117,763	$125.41
9.0 Stairs and Vertical Transportation		5,000	5.32
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$122,763**	**$130.74**
10.0 Plumbing Systems		$14,535	$15.48
11.0 Heating, Ventilation & Air Conditioning		19,018	20.25
12.0 Electrical Lighting, Power & Communication		44,335	47.22
13.0 Fire Protection Systems		6,908	7.36
Total Mechanical and Electrical (10.0 - 13.0)		**$84,796**	**$90.30**
Subtotal Building Construction (1.0 - 13.0)		**$441,285**	**$469.95**
14.0 Site Preparation & Building Demolition		$16,000	$17.04
15.0 Site Paving, Structures & Landscaping		25,500	27.16
16.0 Utilities on Site		30,000	31.95
Total Site Construction (14.0 - 16.0)		**$71,500**	**$76.14**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$512,785**	**$546.10**
General Conditions	12.5%	64,098	68.26
Contractor's Fee	5.0%	28,844	30.72
Subtotal		**$605,727**	**$645.08**
Design Contingency	10.0%	60,573	64.51
Escalation For Construction Start June 2011	3.0%	19,989	21.29
Total Construction Cost		**$686,288**	**$730.87**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Cottage Relocation & Renovation Estimate

1.0 Foundations				
Earthwork				
Cut & Fill Onsite	50	CY	35.00	$1,750
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation	1	LS		25,000
Allow for Dryrot Repairs	1	LS		9,000
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams	30	CY	450.00	13,500
Relocate Building		Allow		15,000
Total 1.0 Foundations				$69,250
2.0 Vertical Structure				
Upgrade to Existing Structure	1211	SF	13.50	$16,349
Misc. Rough Carpentry	1	LS		5,000
Retaining Walls		None		
Total 2.0 Vertical Structures				$21,349
3.0 Floor and Roof Structure				
Slab on Grade @ Ramps	300	SF	20.00	$6,000
Pads & Curbs	175	LF	18.00	3,150
Roof Structure Upgrade	1476	SF	13.50	19,926
Porch Repairs	332	SF	10.00	3,320
Miscellaneous	1	LS		2,500
Total 3.0 Floor and Roof Structure				$34,896
4.0 Exterior Cladding				
Repair Existing Wall Cladding & Repaint	1764	SF	9.00	$15,876
Replace Windows	110	SF	85.00	9,350
Louvers	1	LS		1,000
Mechanical Equipment Screen		None		
Doors - Double	1	Pr	3,500	3,500
- Single	2	Ea	1,400	2,800
Roof Hatch		None		
Card Readers		None		
Soffits	210	SF	12.50	2,625
Sunshades		None		
Miscellaneous Metal & Hardware	1	LS		5,000
Total 4.0 Exterior Cladding				$40,151

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5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Comp Shingle	1476	SF	16.00	$23,616
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$30,616
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	440	SF	10.00	$4,400
GWB @ New Shear Walls	1000	SF	3.50	3,500
CMU		None		
Miscellaneous Cut & Patch for MEP	1	LS		4,000
Interior Glazing		None		
Doors				
Single	3	Ea	1,400	4,200
Double		None		
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$16,100
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	1045	SF	9.00	$9,405
Wall Finishes	300	SF	12.00	3,600
Ceiling Finishes	1045	SF	8.00	8,360
Total 7.0 Floor, Wall & Ceiling Finishes				$21,365
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms		None		
Other Fixture Accessories	2	Ea	350.00	700
Other Div 10 Specialties	1045	SF	2.50	2,613
Refurbish Fireplace	1	LS		10,000
Millwork	106	LF	325.00	34,450
Kitchen Equipment	1	LS		65,000
Miscellaneous	1	LS		5,000
Total 8.0 Function Equipment & Specialties				$117,763
9.0 Stairs and Vertical Transportation	2	Sets	2,500	$5,000
10.0 Plumbing Systems				
Toilet Rooms		None		
Kitchen	2	Fixt	4,500	9,000
Roof Drainage	1476	SF	3.75	5,535
Total 10.0 Plumbing				$14,535

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11.0 Heating, Ventilation & Air Conditioning				
Heat Pump	1	Ea	5,000	$5,000
Ductwork & Accessories	1045	SF	6.00	6,270
Pipework & Accessories	1045	SF	5.50	5,748
Controls	1	LS		2,000
Total 11.0 Heating, Ventilation & Air Conditioning				$19,018
12.0 Electrical Lighting, Power & Communication				
Primary Power	1045	SF	4.50	$4,703
TVSS		None		
Emergency Power		None		
Feeders		None		
Equipment Power	4	Ea	750.00	3,000
User Convenience Power	12	Ea	350.00	4,200
Lighting	1217	SF	10.00	12,170
Low Voltage Systems				
Telephone/Data System	8	Ea	900	7,200
Master Clock System		None		
Public Address System	1045	SF	2.00	2,090
Security System - Rough In Only	1045	SF	4.00	4,180
Audio Visual Systems - Rough In Only	1045	SF	2.00	2,090
Fire Alarm System	1045	SF	4.50	4,703
Total 12.0 Electrical Lighting, Power & Communication				$44,335
13.0 Fire Protection Systems	1256	SF	5.50	$6,908
14.0 Site Preparation & Building Demolition				
Miscellaneous Demolition @ New Site	1	LS		$11,000
Miscellaneous Demolition @ Existing Site	1	LS		5,000
Total 14.0 Site Preparation & Building Demolition				$16,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading		Included in Phase 1A Sitework		
Paving		Included in Phase 1A Sitework		
Landscape & Irrigation		Included in Phase 1A Sitework		
Site Structures				
Trellis	300	SF	60.00	$18,000
Railings	75	LF	100.00	7,500
Site Lighting		Included in Phase 1A Sitework		
Miscellaneous Site Accessories		Included in Phase 1A Sitework		
Total 15.0 Site Paving, Structures & Landscaping				$25,500
16.0 Utilities on Site				
Mechanical Utilities		Allow		$15,000
Electrical Utilities		Allow		15,000
Total 16.0 Utilities on Site				$30,000

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Kitchen Addition		**Cost**	**Cost/SF**
1.0 Foundations		$63,500	$14.17
2.0 Vertical Structure		131,500	29.34
3.0 Floor & Roof Structure		215,043	47.98
4.0 Exterior Cladding		320,100	71.42
5.0 Roofing & Waterproofing		89,600	19.99
Total Shell (1.0 - 5.0)		**$819,743**	**$182.90**
6.0 Interior Partitions, Doors & Glazing		$86,900	$19.39
7.0 Floor, Wall & Ceiling Finish		118,605	26.46
Total Interiors (6.0 - 7.0)		**$205,505**	**$45.85**
8.0 Function Equipment & Specialties		$663,931	$148.13
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$663,931**	**$148.13**
10.0 Plumbing Systems		$127,019	$28.34
11.0 Heating, Ventilation & Air Conditioning		154,338	34.43
12.0 Electrical Lighting, Power & Communication		173,364	38.68
13.0 Fire Protection Systems		23,249	5.19
Total Mechanical and Electrical (10.0 - 13.0)		**$477,969**	**$106.64**
Subtotal Building Construction (1.0 - 13.0)		**$2,167,148**	**$483.52**
14.0 Site Preparation & Building Demolition		$15,000	$3.35
15.0 Site Paving, Structures & Landscaping		47,500	10.60
16.0 Utilities on Site		90,000	20.08
Total Site Construction (14.0 - 16.0)		**$152,500**	**$34.02**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$2,319,648**	**$517.55**
General Conditions	12.5%	289,956	64.69
Contractor's Fee	5.0%	130,480	29.11
Subtotal		**$2,740,084**	**$611.35**
Design Contingency	10.0%	274,008	61.14
Escalation to Construction Start June 2011	3.0%	90,423	20.17
Total Construction Cost		**$3,104,515**	**$692.66**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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1.0 Foundations				
Earthwork				
Cut & Fill Onsite	100	CY	45.00	$4,500
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation		By Owner		
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams	120	CY	450.00	54,000
Total 1.0 Foundations				$63,500
2.0 Vertical Structure				
Shear Walls - CMU	4200	SF	20.00	$84,000
Misc. Rough Carpentry & Metals	1	LS		7,500
Retaining Walls	1000	SF	40.00	40,000
Total 2.0 Vertical Structures				$131,500
3.0 Floor and Roof Structure				
Slab on Grade	4227	SF	9.00	$38,043
Pads & Curbs	600	LF	18.00	10,800
Loading Dock Slabs on Grade	1000	SF	9.00	9,000
Roof Structure	4600	SF	32.00	147,200
Miscellaneous	1	LS		10,000
Total 3.0 Floor and Roof Structure				$215,043
4.0 Exterior Cladding				
Exterior Wall Assembly - Metal Siding	4200	SF	42.00	$176,400
Windows	1000	SF	85.00	85,000
Louvers	1	LS		7,000
Mechanical Equipment Screen		None		
Doors - Double	5	Pr	3,500	17,500
- Single	7	Ea	1,500	10,500
Roof Hatch		None		
Card Readers		None		
Soffits	900	SF	18.00	16,200
Sunshades		None		
Miscellaneous Metal & Hardware	1	LS		7,500
Total 4.0 Exterior Cladding				$320,100

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5.0 Roofing & Waterproofing				
Waterproofing	1000	SF	9.00	$9,000
Roofing & Insulation - Comp Shingle	4600	SF	16.00	73,600
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$89,600
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	4000	SF	10.00	$40,000
CMU	800	SF	20.00	16,000
Interior Glazing		None		
Doors				
Single	15	Ea	1,400	21,000
Double	3	Pr	3,300	9,900
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$86,900
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	4227	SF	10.00	$42,270
Wall Finishes	4227	SF	10.00	42,270
Ceiling Finishes	3785	SF	9.00	34,065
Total 7.0 Floor, Wall & Ceiling Finishes				$118,605
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms	2	Rms	4,500	$9,000
Other Fixture Accessories	10	Ea	350.00	3,500
Other Div 10 Specialties	4227	SF	3.00	12,681
Millwork	150	LF	325.00	48,750
Kitchen Equipment		Allowance		525,000
Exterior BBQ Unit	1	LS		40,000
Miscellaneous	1	LS		25,000
Total 8.0 Function Equipment & Specialties				$663,931
9.0 Stairs and Vertical Transportation		None		
10.0 Plumbing Systems				
Toilet Rooms Fixtures	12	Fixt	2,700	$32,400
Kitchen Fixtures	6	Fixt	3,500	21,000
Grease Trap	1	Ea	8,000	8,000

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10.0 Plumbing Systems (continued)				
Kitchen Equipment Rough In	1	LS		15,000
Roof Drainage	4165	SF	3.75	15,619
Gas & Miscellaneous	1	LS		35,000
Total 10.0 Plumbing				$127,019
11.0 Heating, Ventilation & Air Conditioning				
Wet Equipment				
Connection to CHW/HW	1	LS		$15,000
Dry Equipment				
AHU	2	Ea	28,000	56,000
Exhaust Fans	3	Ea	3,500	10,500
Miscellaneous Equipment	1	LS		10,000
Ductwork & Accessories	4227	SF	8.00	33,816
Pipework & Accessories	4227	SF	4.50	19,022
Controls	1	LS		10,000
Total 11.0 Heating, Ventilation & Air Conditioning				$154,338
12.0 Electrical Lighting, Power & Communication				
Primary Power	4227	SF	9.00	$38,043
TVSS		None		
Emergency Power		None		
Feeders	20	LF	90.00	1,800
Equipment Power	20	Ea	750.00	15,000
User Convenience Power	30	Ea	350.00	10,500
Lighting	4227	SF	11.00	46,497
Low Voltage Systems				
Telephone/Data System	12	Ea	900	10,800
Master Clock System		None		
Public Address System	4227	SF	2.00	8,454
Security System - Rough In Only	4227	SF	4.00	16,908
Audio Visual Systems - Rough In Only	4227	SF	2.00	8,454
Fire Alarm System	4227	SF	4.00	16,908
Total 12.0 Electrical Lighting, Power & Communication				$173,364
13.0 Fire Protection Systems	4227	SF	5.50	$23,249
14.0 Site Preparation & Building Demolition				
Demolition @ Existing Building	1	LS		$7,500
Site Reconfiguration	1	LS		7,500
Total 14.0 Site Preparation & Building Demolition				$15,000

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15.0 Site Paving, Structures & Landscaping		
Fine Grading	Included in Phase 1A Sitework	
Paving	Included in Phase 1A Sitework	
Landscape & Irrigation	Included in Phase 1A Sitework	
Site Structures		
Trash Enclosure	1 LS	$15,000
Utility Enclosure	1 LS	10,000
Site Lighting @ Loading	1 LS	15,000
Miscellaneous	1 LS	7,500
Railings	None	
Total 15.0 Site Paving, Structures & Landscaping		$47,500
16.0 Utilities on Site		
Mechanical Utilities	Allow	$50,000
Electrical Utilities	Allow	40,000
Total 16.0 Utilities on Site		$90,000

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Barn Stable Summary		**Cost**	**Cost/SF**
1.0 Foundations		$99,230	$66.78
2.0 Vertical Structure		26,870	18.08
3.0 Floor & Roof Structure		85,575	57.59
4.0 Exterior Cladding		119,920	80.70
5.0 Roofing & Waterproofing		36,280	24.41
Total Shell (1.0 - 5.0)		**$367,875**	**$247.56**
6.0 Interior Partitions, Doors & Glazing		$20,000	$13.46
7.0 Floor, Wall & Ceiling Finish		43,980	29.60
Total Interiors (6.0 - 7.0)		**$63,980**	**$43.06**
8.0 Function Equipment & Specialties		$122,810	$82.64
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$122,810**	**$82.64**
10.0 Plumbing Systems		$19,323	$13.00
11.0 Heating, Ventilation & Air Conditioning		52,580	35.38
12.0 Electrical Lighting, Power & Communication		63,140	42.49
13.0 Fire Protection Systems		8,910	6.00
Total Mechanical and Electrical (10.0 - 13.0)		**$143,953**	**$96.87**
Subtotal Building Construction (1.0 - 13.0)		**$698,618**	**$470.13**
14.0 Site Preparation & Building Demolition		$10,000	$6.73
15.0 Site Paving, Structures & Landscaping		0	0.00
16.0 Utilities on Site		80,000	53.84
Total Site Construction (14.0 - 16.0)		**$90,000**	**$60.57**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$788,618**	**$530.70**
General Conditions	12.5%	98,577	66.34
Contractor's Fee	5.0%	44,360	29.85
Subtotal		**$931,554**	**$626.89**
Design Contingency	10.0%	93,155	62.69
Escalation For Construction Start June 2011	3.0%	30,741	20.69
Total Construction Cost		**$1,055,451**	**$710.26**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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1.0 Foundations				
Earthwork				
Cut & Fill Onsite	78	CY	35.00	$2,730
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation	1	LS		25,000
Allow for Dryrot Repairs	1	LS		9,000
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams	50	CY	450.00	22,500
Relocate Building		Allow		35,000
Total 1.0 Foundations				$99,230
2.0 Vertical Structure				
Upgrade to Existing Structure	1620	SF	13.50	$21,870
Misc. Rough Carpentry	1	LS		5,000
Retaining Walls		None		
Total 2.0 Vertical Structures				$26,870
3.0 Floor and Roof Structure				
Slab on Grade @ Ramps	1620	SF	18.00	$29,160
Pads & Curbs	200	LF	18.00	3,600
Roof Structure Upgrade	1830	SF	18.00	32,940
New Eave Framing	165	LF	75.00	12,375
Porch Repairs		None		
Miscellaneous	1	LS		7,500
Total 3.0 Floor and Roof Structure				$85,575
4.0 Exterior Cladding				
Repair Existing Wall Cladding & Repaint	2880	SF	9.00	$25,920
Replace & Enlarge Windows	400	SF	85.00	34,000
Louvers	1	LS		5,000
Doors - Double	3	Pr	3,500	10,500
- Single	2	Ea	1,400	2,800
- Sliding	1	Ea	20,000	20,000
Roof Hatch		None		
Card Readers		None		
Soffits	300	SF	9.00	2,700
Sunshades	120	SF	75.00	9,000
Miscellaneous Metal & Hardware	1	LS		10,000
Total 4.0 Exterior Cladding				$119,920

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5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Comp Shingle	1830	SF	16.00	$29,280
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$36,280
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	1120	SF	10.00	$11,200
CMU		None		
Interior Glazing		None		
Doors				
Single	4	Ea	1,400	5,600
Double	1	Pr	3,200	3,200
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$20,000
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	1620	SF	10.00	$16,200
Wall Finishes	1200	SF	11.00	13,200
Ceiling Finishes	1620	SF	9.00	14,580
Total 7.0 Floor, Wall & Ceiling Finishes				$43,980
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms		None		
Other Fixture Accessories	2	Ea	350.00	$700
Other Div 10 Specialties	1620	SF	3.00	4,860
Millwork	80	LF	325.00	26,000
Bar Enclosure	125	SF	90.00	11,250
Kitchen Equipment	1	LS		75,000
Miscellaneous	1	LS		5,000
Total 8.0 Function Equipment & Specialties				$122,810
9.0 Stairs and Vertical Transportation		None		
10.0 Plumbing Systems				
Toilet Rooms		None		
Kitchen	2	Fixt	3,500	$7,000
Roof Drainage	1830	SF	2.75	5,033
Gas & Miscellaneous	1620	SF	4.50	7,290
Total 10.0 Plumbing				$19,323

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11.0 HVAC				
Wet Equipment				
Connection to CHW/HW	1	LS		$10,000
Dry Equipment				
AHU	1	Ea	18,000	18,000
Exhaust Fans	2	Ea	2,500	5,000
Ductwork & Accessories	1620	SF	5.50	8,910
Pipework & Accessories	1620	SF	3.50	5,670
Controls	1	LS		5,000
Total 11.0 HVAC				$52,580
12.0 Electrical Lighting, Power & Communication				
Primary Power	1620	SF	5.00	$8,100
TVSS		None		
Emergency Power		None		
Feeders		None		
Equipment Power	4	Ea	750.00	3,000
User Convenience Power	16	Ea	350.00	5,600
Lighting	1620	SF	11.00	17,820
Low Voltage Systems				
Telephone/Data System	12	Ea	900.00	10,800
Master Clock System		None		
Public Address System	1620	SF	2.00	3,240
Security System - Rough In Only	1620	SF	3.00	4,860
Audio Visual Systems - Rough In Only	1620	SF	2.00	3,240
Fire Alarm System	1620	SF	4.00	6,480
Total 12.0 Electrical Lighting, Power & Communication				$63,140
13.0 Fire Protection Systems	1620	SF	5.50	$8,910
14.0 Site Preparation & Building Demolition				
Demolition				
New Site	1	LS		$5,000
Existing Site	1	LS		5,000
Total 14.0 Site Preparation & Building Demolition				$10,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading				Included in Sitework Estimate
Paving				Included in Sitework Estimate
Landscape & Irrigation				Included in Sitework Estimate
Site Structures				
Trellis				Included in Addition Estimate
Railings				None
Site Lighting				Included in Sitework Estimate
Total 15.0 Site Paving, Structures & Landscaping				$0

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16.0 Utilities on Site		
Mechanical Utilities	Allow	$40,000
Electrical Utilities	Allow	40,000
Total 16.0 Utilities on Site		$80,000

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Barn Stable Addition Summary		Cost	Cost/SF
1.0 Foundations		$17,150	$16.63
2.0 Vertical Structure		34,400	33.37
3.0 Floor & Roof Structure		60,500	58.68
4.0 Exterior Cladding		138,940	134.76
5.0 Roofing & Waterproofing		43,570	42.26
Total Shell (1.0 - 5.0)		**$294,560**	**$285.70**
6.0 Interior Partitions, Doors & Glazing		$35,600	$34.53
7.0 Floor, Wall & Ceiling Finish		28,720	27.86
Total Interiors (6.0 - 7.0)		**$64,320**	**$62.39**
8.0 Function Equipment & Specialties		$37,590	$36.46
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$37,590**	**$36.46**
10.0 Plumbing Systems		$31,325	$30.38
11.0 Heating, Ventilation & Air Conditioning		22,320	21.65
12.0 Electrical Lighting, Power & Communication		43,520	42.21
13.0 Fire Protection Systems		5,280	5.12
Total Mechanical and Electrical (10.0 - 13.0)		**$102,445**	**$99.36**
Subtotal Building Construction (1.0 - 13.0)		**$498,915**	**$483.91**
14.0 Site Preparation & Building Demolition		$15,000	$14.55
15.0 Site Paving, Structures & Landscaping		79,300	76.92
16.0 Utilities on Site		25,000	24.25
Total Site Construction (14.0 - 16.0)		**$119,300**	**$115.71**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$618,215**	**$599.63**
General Conditions	12.5%	77,277	74.95
Contractor's Fee	5.0%	34,775	33.73
Subtotal		**$730,266**	**$708.31**
Design Contingency	10.0%	73,027	70.83
Escalation For Construction Start June 2011	3.0%	24,099	23.37
Total Construction Cost		**$827,392**	**$802.51**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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Barn Stable Addition Estimate

1.0 Foundations				
Earthwork				
Cut & Fill Onsite	20	CY	45.00	$900
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation		By Owner		
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams	25	CY	450.00	11,250
Total 1.0 Foundations				$17,150
2.0 Vertical Structure				
Shear Walls - Wood	1800	SF	18.00	$32,400
Misc. Rough Carpentry & Metals	1	LS		2,000
Retaining Walls		None		
Total 2.0 Vertical Structures				$34,400
3.0 Floor and Roof Structure				
Slab on Grade	900	SF	9.00	$8,100
Pads & Curbs	120	LF	18.00	2,160
Terrace Slab on Grade	1400	SF	9.00	12,600
Roof Structure	1020	SF	32.00	32,640
Miscellaneous	1	LS		5,000
Total 3.0 Floor and Roof Structure				$60,500
4.0 Exterior Cladding				
Exterior Wall Assembly - Metal Siding	1800	SF	42.00	$75,600
Windows	400	SF	85.00	34,000
Louvers	1	LS		2,500
Mechanical Equipment Screen		None		
Doors - Double	3	Pr	4,500	13,500
- Single	2	Ea	1,000	2,000
Roof Hatch		None		
Card Readers		None		
Soffits	120	SF	32.00	3,840
Sunshades		None		
Miscellaneous Metal & Hardware	1	LS		7,500
Total 4.0 Exterior Cladding				$138,940

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5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Comp Shingle	1020	SF	16.00	$16,320
Skylights	150	SF	135.00	20,250
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$43,570
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	1320	SF	10.00	$13,200
GWB on Shear Walls	2400	SF	3.50	8,400
CMU		None		
Interior Glazing		None		
Doors				
Single	5	Ea	1,400	7,000
Double	2	Pr	3,500	7,000
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$35,600
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	880	SF	10.00	$8,800
Wall Finishes	1000	SF	12.00	12,000
Ceiling Finishes	880	SF	9.00	7,920
Total 7.0 Floor, Wall & Ceiling Finishes				$28,720
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms	2	Rms	1,800	$3,600
Other Fixture Accessories	1	Ea	350.00	350
Other Div 10 Specialties	880	SF	3.00	2,640
Millwork	80	LF	325.00	26,000
Kitchen Equipment		None		
Miscellaneous	1	LS		5,000
Total 8.0 Function Equipment & Specialties				$37,590
9.0 Stairs and Vertical Transportation		None		
10.0 Plumbing Systems				
Toilet Rooms Fixtures	5	Fixt	3,500	$17,500
Kitchen Fixtures		None		
Roof Drainage	1020	SF	3.75	3,825
Gas & Miscellaneous	1	LS		10,000
Total 10.0 Plumbing				$31,325

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11.0 Heating, Ventilation & Air Conditioning				
Wet Equipment	Included in Barn Stable			
Dry Equipment				
Heat Pump	1	Ea	4,000	$4,000
Exhaust Fan	1	Ea	3,000	3,000
Ductwork & Accessories	880	SF	4.00	3,520
Pipework & Accessories - Incl Radiant	880	SF	10.00	8,800
Controls	1	LS		3,000
Total 11.0 Heating, Ventilation & Air Conditioning				$22,320
12.0 Electrical Lighting, Power & Communication				
Primary Power	880	SF	7.00	$6,160
TVSS	None			
Emergency Power	None			
Feeders	None			
Equipment Power	4	Ea	750.00	3,000
User Convenience Power	16	Ea	350.00	5,600
Lighting	880	SF	11.00	9,680
Low Voltage Systems				
Telephone/Data System	8	Ea	900.00	7,200
Master Clock System	None			
Public Address System	880	SF	2.00	1,760
Security System - Rough In Only	880	SF	4.00	3,520
Audio Visual Systems - Rough In Only	880	SF	3.00	2,640
Fire Alarm System	880	SF	4.50	3,960
Total 12.0 Electrical Lighting, Power & Communication				$43,520
13.0 Fire Protection Systems	880	SF	6.00	$5,280
14.0 Site Preparation & Building Demolition				
Miscellaneous Demolition @ New Site	1	LS		$7,500
Miscellaneous Demolition @ Existing Site	1	LS		7,500
Total 14.0 Site Preparation & Building Demolition				$15,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading	Included in Phase 1A Sitework			
Paving	Included in Phase 1A Sitework			
Landscape & Irrigation	Included in Phase 1A Sitework			
Site Structures				
Trellis	500	SF	65.00	$32,500
Fencing	110	LF	180.00	19,800
Gates	2	Ea	6,000	12,000
Railings	None			
Site Lighting @ Terrace	1	LS		15,000
Total 15.0 Site Paving, Structures & Landscaping				$79,300

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16.0 Utilities on Site		
Mechanical Utilities	Allow	$15,000
Electrical Utilities	Allow	10,000
Total 16.0 Utilities on Site		$25,000

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Phase 1A Sitework Summary		**Cost**
14.0 Site Preparation & Building Demolition		$130,985
15.0 Site Paving, Structures & Landscaping		$472,300
16.0 Utilities on Site		$646,800
SUBTOTAL SITE CONSTRUCTION (14.0 - 16.0)		**$1,250,085**
General Conditions	12.5%	156,261
Contractor's Fee	5.0%	70,317
Subtotal		$1,476,663
Design Contingency	10.0%	147,666
Escalation For Construction Start June 2011	3.0%	48,730
Total Construction Cost		**$1,673,059**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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Phase 1A Sitework

14.0 Site Preparation & Building Demolition				
Demolition				
Remove Existing Paving & Landscaping	31365	SF	1.15	$36,070
Demo Existing Structures & Miscellaneous	31365	SF	1.00	31,365
Protection of Existing to Remain	1	LS		15,000
Demo Remaining Structure on Cottage Site	750	SF	5.00	3,750
Allow for Temporary Egress & Access Staging	1	LS		25,000
Barricades & Access	1650	LF	12.00	19,800
Total 14.0 Site Preparation & Building Demolition				$130,985
15.0 Site Paving, Structures & Landscaping				
Fine Grading	12200	SF	1.00	$12,200
Concrete Paving	7200	SF	8.00	57,600
AC Paving	5000	SF	4.50	22,500
Landscape & Irrigation				
Fine Grading	13150	SF	1.00	13,150
Trees	25	Ea	900.00	22,500
Planted Areas Including Irrigation & Soil Prep	13150	SF	9.00	118,350
Landscape Repair @ Offsite Utilities	400	LF	25.00	10,000
Repairs to Existing Cottage Site	4000	SF	7.00	28,000
Site Structures		Allow		20,000
Railings		None		
Site Lighting	50	Ea	1,300	65,000
Perimeter Fencing				
New Enclosure @ Cottage	70	LF	225.00	15,750
Gates	2	Ea	3,000	6,000
Terrace Enclosure @ Barn Stable	130	LF	225.00	29,250
Gates	2	Pr	6,000	12,000
Miscellaneous Site Accessories	1	LS		40,000
Total 15.0 Site Paving, Structures & Landscaping				$472,300
16.0 Utilities on Site				
Mechanical				
Piping				
Water	600	LF	35.00	$21,000
Fire Water	800	LF	35.00	28,000
Gas	200	LF	35.00	7,000
Sanitary Sewer	600	LF	45.00	27,000
Steam	800	LF	100.00	80,000
CW	800	LF	50.00	40,000
CHW	800	LF	70.00	56,000

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16.0 Utilities on Site (Continued)				
Pumps	2	Ea	10,800	21,600
Heat Exchangers	2	Ea	20,500	41,000
Valves & Accessories	1	LS		35,000
FDC, PRV & Misc. Connections	1	LS		15,000
Manholes & Valve Covers	8	Ea	2,500	20,000
Connection to Existing	1	LS		25,000
Relocations & Capping	1	LS		20,200
Pads, Curbs & Misc. Support	1	LS		20,000
Trenching	1	LS		20,000
Electrical				
Power				
Primary	200	LF	150.00	30,000
Secondary	500	LF	100.00	50,000
Transformer	1	Ea	20,000	20,000
Telecom				
Conduit & Cable	600	LF	100.00	60,000
Connections to Existing	2	Ea	5,000	10,000
Total 16.0 Utilities on Site				$646,800

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Barn Dining Renovation Summary		Cost	Cost/SF
1.0 Foundations		$49,000	$11.86
2.0 Vertical Structure		116,782	28.26
3.0 Floor & Roof Structure		152,640	36.94
4.0 Exterior Cladding		203,320	49.21
5.0 Roofing & Waterproofing		85,400	20.67
Total Shell (1.0 - 5.0)		**$607,142**	**$146.94**
6.0 Interior Partitions, Doors & Glazing		$25,300	$6.12
7.0 Floor, Wall & Ceiling Finish		93,561	22.64
Total Interiors (6.0 - 7.0)		**$118,861**	**$28.77**
8.0 Function Equipment & Specialties		$102,117	$24.71
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$102,117**	**$24.71**
10.0 Plumbing Systems		$43,451	$10.52
11.0 Heating, Ventilation & Air Conditioning		181,400	43.90
12.0 Electrical Lighting, Power & Communication		173,670	42.03
13.0 Fire Protection Systems		24,305	5.88
Total Mechanical and Electrical (10.0 - 13.0)		**$422,825**	**$102.33**
Subtotal Building Construction (1.0 - 13.0)		**$1,250,945**	**$302.75**
14.0 Site Preparation & Building Demolition		$20,000	$4.84
15.0 Site Paving, Structures & Landscaping		69,000	16.70
16.0 Utilities on Site		65,000	15.73
Total Site Construction (14.0 - 16.0)		**$154,000**	**$37.27**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$1,404,945**	**$340.02**
General Conditions	12.5%	175,618	42.50
Contractor's Fee	5.0%	79,028	19.13
Subtotal		**$1,659,591**	**$401.64**
Design Contingency	10.0%	165,959	40.16
Escalation For Construction Start June 2012	4.0%	73,022	17.67
Total Construction Cost		**$1,898,572**	**$459.48**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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Barn Dining Renovation Estimate

1.0 Foundations				
Earthwork				
Cut & Fill Onsite		None		
Excavate & Haul		None		
Hazmat Mitigation	1	LS		25,000
Allow for Dryrot Repairs	1	LS		10,000
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams for New Structure	20	CY	450.00	9,000
Total 1.0 Foundations				$49,000
2.0 Vertical Structure				
Upgrade to Existing Structure	4419	SF	18.00	$79,542
New Shear Walls	1680	SF	18.00	30,240
Misc. Rough Carpentry	1	LS		7,000
Retaining Walls		None		
Total 2.0 Vertical Structures				$116,782
3.0 Floor and Roof Structure				
Slab on Grade	480	SF	18.00	$8,640
Pads & Curbs	200	LF	18.00	3,600
Roof Structure Upgrade	4900	SF	18.00	88,200
New Eave Framing	320	LF	75.00	24,000
New Roof Structure	520	SF	35.00	18,200
Miscellaneous	1	LS		10,000
Total 3.0 Floor and Roof Structure				$152,640
4.0 Exterior Cladding				
Repair Existing Wall Cladding & Repaint	2880	SF	9.00	$25,920
Replace Windows	800	SF	85.00	68,000
New Exterior Walls	880	SF	55.00	48,400
Louvers	1	LS		3,000
New Windows	40	SF	90.00	3,600
Doors - Double - Repair & Reset Existing	7	Pr	4,500	31,500
- Single	4	Ea	1,800	7,200
Roof Hatch		None		
Card Readers		None		
Soffits - Painted	300	SF	19.00	5,700
Sunshades		None		
Miscellaneous Metal & Hardware	1	LS		10,000
Total 4.0 Exterior Cladding				$203,320

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5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Comp Shingle	4900	SF	16.00	$78,400
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$85,400
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	1200	SF	10.00	$12,000
GWB on Shear Walls	2600	SF	3.50	9,100
CMU		None		
Interior Glazing		None		
Doors				
Single	3	Ea	1,400	4,200
Double		None		
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$25,300
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	4419	SF	10.00	$44,190
Wall Finishes	800	SF	12.00	9,600
Ceiling Finishes	4419	SF	9.00	39,771
Total 7.0 Floor, Wall & Ceiling Finishes				$93,561
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms		None		
Other Fixture Accessories		None		
Other Div 10 Specialties	4419	SF	3.50	15,467
Millwork	130	LF	325.00	42,250
Stage Construction & Finish	360	SF	40.00	14,400
Kitchen Equipment	1	LS		25,000
Miscellaneous	1	LS		5,000
Total 8.0 Function Equipment & Specialties				$102,117
9.0 Stairs and Vertical Transportation		None		
10.0 Plumbing Systems				
Toilet Rooms		None		
Kitchen	2	Fixt	3,700	$7,400
Roof Drainage	4900	SF	3.75	18,375
Gas & Miscellaneous	4419	SF	4.00	17,676
Total 10.0 Plumbing				$43,451

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11.0 Heating, Ventilation & Air Conditioning				
Wet Equipment				
Connection to CHW/HW	1	LS		$10,000
Dry Equipment				
AHU	1	Ea	35,000	35,000
Exhaust Fans	2	Ea	35,000	70,000
Ductwork & Accessories	4419	SF	6.50	28,724
Pipework & Accessories	4419	SF	4.00	17,676
Controls	1	LS		20,000
Total 11.0 Heating, Ventilation & Air Conditioning				$181,400
12.0 Electrical Lighting, Power & Communication				
Primary Power	4419	SF	4.50	$19,886
TVSS		None		
Emergency Power		None		
Feeders		None		
Equipment Power	12	Ea	750.00	9,000
User Convenience Power	30	Ea	350.00	10,500
Lighting	4419	SF	11.00	48,609
Low Voltage Systems				
Telephone/Data System	24	Ea	900.00	21,600
Master Clock System		None		
Public Address System	4419	SF	2.00	8,838
Security System - Rough In Only	4419	SF	4.00	17,676
Audio Visual Systems - Rough In Only	4419	SF	4.00	17,676
Fire Alarm System	4419	SF	4.50	19,886
Total 12.0 Electrical Lighting, Power & Communication				$173,670
13.0 Fire Protection Systems	4419	SF	5.50	$24,305
14.0 Site Preparation & Building Demolition				
Exterior Demolition	1	LS		$10,000
Interior Demolition	1	LS		10,000
Total 14.0 Site Preparation & Building Demolition				$20,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading		Included in Phase 1B Sitework		
Paving		Included in Phase 1B Sitework		
Landscape & Irrigation		Included in Phase 1B Sitework		
Site Structures				
Trellis	600	SF	75.00	45,000
Gates	4	Pr	6,000	24,000
Railings		None		
Site Lighting		Included in Phase 1B Sitework		
Miscellaneous Site Accessories		Included in Phase 1B Sitework		
Total 15.0 Site Paving, Structures & Landscaping				$69,000

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16.0 Utilities on Site		
Mechanical Utilities	Allow	$40,000
Electrical Utilities	Allow	25,000
Total 16.0 Utilities on Site		$65,000

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East Courtyard Restrooms Summary		Cost	Cost/SF
1.0 Foundations		$6,500	$14.25
2.0 Vertical Structure		22,800	50.00
3.0 Floor & Roof Structure		28,920	63.42
4.0 Exterior Cladding		48,180	105.66
5.0 Roofing & Waterproofing		10,000	21.93
Total Shell (1.0 - 5.0)		**$116,400**	**$255.26**
6.0 Interior Partitions, Doors & Glazing		$7,200	$15.79
7.0 Floor, Wall & Ceiling Finish		28,936	63.46
Total Interiors (6.0 - 7.0)		**$36,136**	**$79.25**
8.0 Function Equipment & Specialties		$7,110	$15.59
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$7,110**	**$15.59**
10.0 Plumbing Systems		$27,500	$60.31
11.0 Heating, Ventilation & Air Conditioning		11,400	25.00
12.0 Electrical Lighting, Power & Communication		17,268	37.87
13.0 Fire Protection Systems		4,104	9.00
Total Mechanical and Electrical (10.0 - 13.0)		**$60,272**	**$132.18**
Subtotal Building Construction (1.0 - 13.0)		**$219,918**	**$482.28**
14.0 Site Preparation & Building Demolition		0	0.00
15.0 Site Paving, Structures & Landscaping		0	0.00
16.0 Utilities on Site		40,000	87.72
Total Site Construction (14.0 - 16.0)		**$40,000**	**$87.72**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$259,918**	**$570.00**
General Conditions	12.5%	32,490	71.25
Contractor's Fee	5.0%	14,620	32.06
Subtotal		**$307,028**	**$673.31**
Design Contingency	10.0%	30,703	67.33
Escalation For Construction Start June 2012	4.0%	13,509	29.63
Total Construction Cost		**$351,240**	**$770.26**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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East Courtyard Restrooms Estimate

1.0 Foundations				
Earthwork				
Cut & Fill Onsite	20	CY	50.00	$1,000
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation		By Owner		
Allow for Obstacles & Misc Conditions	1	LS		1,000
Foundations/Tie Beams	10	CY	450.00	4,500
Total 1.0 Foundations				$6,500
2.0 Vertical Structure				
Shear Walls	1040	SF	20.00	$20,800
Misc. Rough Carpentry & Metals	1	LS		2,000
Retaining Walls		None		
Total 2.0 Vertical Structures				$22,800
3.0 Floor and Roof Structure				
Slab on Grade @ Ramps	456	SF	20.00	$9,120
Pads & Curbs	100	LF	18.00	1,800
Roof Structure	500	SF	32.00	16,000
Miscellaneous	1	LS		2,000
Total 3.0 Floor and Roof Structure				$28,920
4.0 Exterior Cladding				
Exterior Walls - Metal Siding	1040	SF	42.00	$43,680
Louvers	1	LS		2,500
Mechanical Equipment Screen		None		
Doors - Double		None		
- Single	2	Ea		
Roof Hatch		None		
Card Readers		None		
Soffits		None		
Miscellaneous Metal & Hardware	1	LS		2,000
Total 4.0 Exterior Cladding				$48,180

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5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Comp Shingle	500	SF	16.00	$8,000
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		1,000
Roof Accessories & Miscellaneous	1	LS		1,000
Total 5.0 Roofing & Waterproofing				$10,000
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted		None		
CMU	360	SF	20.00	$7,200
Interior Glazing		None		
Doors		None		
Total 6.0 Interior Partitions, Doors & Glazing				$7,200
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	456	SF	12.00	$5,472
Wall Finishes	1760	SF	11.00	19,360
Ceiling Finishes	456	SF	9.00	4,104
Total 7.0 Floor, Wall & Ceiling Finishes				$28,936
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms	2	Rms	2,200	$4,400
Other Div 10 Specialties	456	SF	3.75	1,710
Millwork		None		
Miscellaneous	1	LS		1,000
Total 8.0 Function Equipment & Specialties				$7,110
9.0 Stairs and Vertical Transportation		None		
10.0 Plumbing Systems				
Toilet Rooms	8	Fixt	3,000	$24,000
Roof Drainage	500	SF	7.00	3,500
Total 10.0 Plumbing				$27,500
11.0 Heating, Ventilation & Air Conditioning	456	SF	25.00	$11,400

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12.0 Electrical Lighting, Power & Communication				
Primary Power	456	SF	6.50	$2,964
TVSS		None		
Emergency Power		None		
Feeders		None		
Equipment Power	2	Ea	750.00	1,500
User Convenience Power	6	Ea	350.00	2,100
Lighting	456	SF	10.00	4,560
Low Voltage Systems				
Telephone/Data System	1	Ea	900.00	900
Master Clock System		None		
Public Address System	456	SF	2.00	912
Security System - Rough In Only	456	SF	3.00	1,368
Audio Visual Systems - Rough In Only	456	SF	2.00	912
Fire Alarm System	456	SF	4.50	2,052
Total 12.0 Electrical Lighting, Power & Communication				$17,268
13.0 Fire Protection Systems	456	SF	9.00	$4,104
14.0 Site Preparation & Building Demolition		None		
15.0 Site Paving, Structures & Landscaping				
Fine Grading		Included in Phase 1B Sitework		
Paving		Included in Phase 1B Sitework		
Landscape & Irrigation		Included in Phase 1B Sitework		
Site Structures				
Trellis		Included in Barn Dining Estimate		
Railings		None		
Site Lighting		Included in Phase 1B Sitework		
Miscellaneous Site Accessories		Included in Phase 1B Sitework		
Total 15.0 Site Paving, Structures & Landscaping				$0
16.0 Utilities on Site				
Mechanical Utilities		Allow		$20,000
Electrical Utilities		Allow		20,000
Total 16.0 Utilities on Site				$40,000

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Phase 1B Sitework Summary		**Cost**
14.0 Site Preparation & Building Demolition		$54,909
15.0 Site Paving, Structures & Landscaping		$69,050
16.0 Utilities on Site		$35,000
SUBTOTAL SITE CONSTRUCTION (14.0 - 16.0)		**$158,959**
General Conditions	12.5%	19,870
Contractor's Fee	5.0%	8,941
Subtotal		$187,770
Design Contingency	10.0%	18,777
Escalation For Construction Start June 2012	4.0%	8,262
Total Construction Cost		**$214,809**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

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Phase 1B Sitework

14.0 Site Preparation & Building Demolition				
Demolition				
Remove Existing Paving & Landscaping	6830	SF	1.15	$7,855
Demo Existing Structures & Miscellaneous	6830	SF	1.15	7,855
Protection of Existing to Remain	1	LS		15,000
Allow for Temporary Egress & Access Staging	1	LS		20,000
Barricades & Access	350	LF	12.00	4,200
Total 14.0 Site Preparation & Building Demolition				$54,909
15.0 Site Paving, Structures & Landscaping				
Fine Grading	5830	SF	1.00	$5,830
Concrete Paving	5830	SF	12.00	69,960
Landscape & Irrigation				
Fine Grading	1000	SF	1.15	1,150
Trees	4	Ea	900.00	3,600
Planted Areas Including Irrigation & Soil Prep	1000	SF	9.00	9,000
Site Structures		None		
Railings		None		
Site Lighting	6	Ea	1,300	7,800
Perimeter Fencing	130	LF	225.00	29,250
Gates	2	Pr	6,000	12,000
Miscellaneous Site Accessories	1	LS		20,000
Total 15.0 Site Paving, Structures & Landscaping				$69,050
16.0 Utilities on Site				
Mechanical Utilities		Allow		$20,000
Electrical Utilities		Allow		15,000
Total 16.0 Utilities on Site				$35,000

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KUCR & Performance Stage Summary		Cost	Cost/SF
1.0 Foundations		$55,000	$11.20
2.0 Vertical Structure		137,900	28.09
3.0 Floor & Roof Structure		304,442	62.00
4.0 Exterior Cladding		424,640	86.48
5.0 Roofing & Waterproofing		128,920	26.26
Total Shell (1.0 - 5.0)		**$1,050,902**	**$214.03**
6.0 Interior Partitions, Doors & Glazing		$189,100	$38.51
7.0 Floor, Wall & Ceiling Finish		510,953	104.06
Total Interiors (6.0 - 7.0)		**$700,053**	**$142.58**
8.0 Function Equipment & Specialties		$116,031	$23.63
9.0 Stairs and Vertical Transportation		0	0.00
Total Equipment and Vertical Transportation (8.0 - 9.0)		**$116,031**	**$23.63**
10.0 Plumbing Systems		$54,863	$11.17
11.0 Heating, Ventilation & Air Conditioning		146,245	29.79
12.0 Electrical Lighting, Power & Communication		245,971	50.10
13.0 Fire Protection Systems		24,327	4.95
Total Mechanical and Electrical (10.0 - 13.0)		**$471,405**	**$96.01**
Subtotal Building Construction (1.0 - 13.0)		**$2,338,390**	**$476.25**
14.0 Site Preparation & Building Demolition		$15,000	$3.05
15.0 Site Paving, Structures & Landscaping		21,500	4.38
16.0 Utilities on Site		100,000	20.37
Total Site Construction (14.0 - 16.0)		**$136,500**	**$27.80**
SUBTOTAL BUILDING & SITE CONSTRUCTION (1.0 - 16.0)		**$2,474,890**	**$504.05**
General Conditions	12.5%	309,361	63.01
Contractor's Fee	5.0%	139,213	28.35
Subtotal		**$2,923,464**	**$595.41**
Design Contingency	10.0%	292,346	59.54
Escalation for Construction Start June 2013	8.0%	257,265	52.40
Total Construction Cost		**$3,473,075**	**$707.35**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

KUCR & Performance Stage Estimate

1.0 Foundations				
Earthwork				
Cut & Fill Onsite	100	CY	50.00	$5,000
Excavate & Haul		None		
Imported Fill		None		
Hazmat Mitigation		By Owner		
Allow for Obstacles & Misc Conditions	1	LS		5,000
Foundations/Tie Beams	100	CY	450.00	45,000
Total 1.0 Foundations				$55,000
2.0 Vertical Structure				
Shear Walls - CMU	5720	SF	20.00	$114,400
Misc. Rough Carpentry & Metals	1	LS		7,500
Retaining Walls	400	SF	40.00	16,000
Total 2.0 Vertical Structures				$137,900
3.0 Floor and Roof Structure				
Slab on Grade	4423	SF	9.00	$39,807
Pads & Curbs	400	LF	18.00	7,200
Roof Structure	5830	SF	32.00	186,560
Stage Covering	975	SF	65.00	63,375
Miscellaneous	1	LS		7,500
Total 3.0 Floor and Roof Structure				$304,442
4.0 Exterior Cladding				
Exterior Wall Assembly - Metal Siding	4420	SF	42.00	$185,640
Windows	900	SF	85.00	76,500
Louvers	1	LS		2,500
Mechanical Equipment Screen		None		
Doors - Double	4	Pr	4,000	16,000
- Single	5	Ea	1,800	9,000
Roof Hatch		None		
Card Readers		None		
Soffits	975	SF	25.00	24,375
Stage Covering	975	SF	75.00	73,125
Sunshades	400	SF	75.00	30,000
Miscellaneous Metal & Hardware	1	LS		7,500
Total 4.0 Exterior Cladding				$424,640

Preliminary Budget Estimate

5.0 Roofing & Waterproofing				
Waterproofing		None		
Roofing & Insulation - Metal	3830	SF	24.00	$91,920
Membrane	2000	SF	15.00	30,000
Skylights		None		
Sheet Metal		Included Above		
Caulking & Sealants	1	LS		5,000
Roof Accessories & Miscellaneous	1	LS		2,000
Total 5.0 Roofing & Waterproofing				$128,920
6.0 Interior Partitions, Doors & Glazing				
Partitions				
Stud & GWB, Painted	6100	SF	11.00	$67,100
GWB on Shear Walls	10000	SF	3.50	35,000
CMU	1000	SF	20.00	20,000
Interior Glazing	200	SF	90.00	18,000
Doors				
Single	15	Ea	1,400	21,000
Double	8	Pr	3,500	28,000
Roll Down		None		
Card Readers		None		
Total 6.0 Interior Partitions, Doors & Glazing				$189,100
7.0 Floor, Wall & Ceiling Finishes				
Floor Finishes	4423	SF	90.00	$398,070
Wall Finishes	2000	SF	10.00	20,000
Ceiling Finishes	4423	SF	9.00	39,807
Acoustical Treatment	4423	SF	12.00	53,076
Total 7.0 Floor, Wall & Ceiling Finishes				$510,953
8.0 Function Equipment & Specialties				
Specialties				
Toilet Rooms	2	Rms	1,000	$2,000
Other Fixture Accessories	3	Ea	350.00	1,050
Other Div 10 Specialties	4423	SF	3.50	15,481
Millwork	200	LF	300.00	60,000
Storage Shelving		Allow		30,000
Kitchen Equipment		None		
Miscellaneous	1	LS		7,500
Total 8.0 Function Equipment & Specialties				$116,031
9.0 Stairs and Vertical Transportation		None		

Preliminary Budget Estimate

10.0 Plumbing Systems				
Toilet Rooms Fixtures	4	Fixt	3,500	$14,000
Kitchen Fixtures	2	Fixt	3,500	7,000
Roof Drainage	5830	SF	3.75	21,863
Gas & Miscellaneous	1	LS		12,000
Total 10.0 Plumbing				$54,863
11.0 Heating, Ventilation & Air Conditioning				
Wet Equipment				
Connection to CHW/HW	1	LS		$10,000
Dry Equipment				
AHU	2	Ea	18,000	36,000
Exhaust Fans	2	Ea	3,200	6,400
Miscalleous Equipment	1	LS		7,500
Ductwork & Accessories	4423	SF	5.00	22,115
Pipework & Accessories - Incl. Radaint	4423	SF	10.00	44,230
Controls	1	LS		20,000
Total 11.0 Heating, Ventilation & Air Conditioning				$146,245
12.0 Electrical Lighting, Power & Communication				
Primary Power	4423	SF	9.00	$39,807
TVSS		None		
Emergency Power		None		
Feeders	20	LF	90.00	1,800
Equipment Power	12	Ea	750.00	9,000
User Convenience Power	100	Ea	375.00	37,500
Lighting	4423	SF	12.00	53,076
Low Voltage Systems				
Telephone/Data System	55	Ea	900.00	49,500
Master Clock System		None		
Public Address System	4423	SF	2.00	8,846
Security System - Rough In Only	4423	SF	4.00	17,692
Audio Visual Systems - Rough In Only	4423	SF	2.00	8,846
Fire Alarm System	4423	SF	4.50	19,904
Total 12.0 Electrical Lighting, Power & Communication				$245,971
13.0 Fire Protection Systems	4423	SF	5.50	$24,327
14.0 Site Preparation & Building Demolition				
Demolition @ Existing	1	LS		$7,500
Site Reconfiguration	1	LS		7,500
Total 14.0 Site Preparation & Building Demolition				$15,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading			Included in Phase 2 Sitework	
Paving			Included in Phase 2 Sitework	
Landscape & Irrigation			Included in Phase 2 Sitework	

Preliminary Budget Estimate

15.0 Site Paving, Structures & Landscaping (Continued)				
Site Structures				
Ramps to Entries	500	SF	35.00	$17,500
Railings @ Ramps	40	LF	100.00	4,000
Site Lighting			Included in Phase 2 Sitework	
Miscellaneous Site Accessories			Included in Phase 2 Sitework	
Total 15.0 Site Paving, Structures & Landscaping				$21,500
16.0 Utilities on Site				
Mechanical Utilities			Allow	$50,000
Electrical Utilities			Allow	50,000
Total 16.0 Utilities on Site				$100,000

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Phase 2 Sitework Summary		**Cost**
14.0 Site Preparation & Building Demolition		$15,000
15.0 Site Paving, Structures & Landscaping		$969,320
16.0 Utilities on Site		$60,000
SUBTOTAL SITE CONSTRUCTION (14.0 - 16.0)		**$1,044,320**
General Conditions	12.5%	130,540
Contractor's Fee	5.0%	58,743
Subtotal		$1,233,602
Design Contingency	10.0%	123,360
Escalation For Construction Start June 2013	8.0%	108,557
Total Construction Cost		**$1,465,520**

Notes: Estimate excludes construction contingency, hazardous materials abatement and soft costs.

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Phase 2 Sitework

14.0 Site Preparation & Building Demolition				
Demolition & Miscellaneous Grading		Allow		$15,000
Total 14.0 Site Preparation & Building Demolition				$15,000
15.0 Site Paving, Structures & Landscaping				
Fine Grading	17600	SF	1.15	$20,240
Concrete Paving	17600	SF	8.00	140,800
Patch AC Paving	1	LS		15,000
Premium for Finish @ Performance Area	7000	SF	4.00	28,000
Landscape & Irrigation				
Fine Grading	2530	SF	1.15	2,910
Trees	6	Ea	900.00	5,400
Planted Areas Including Irrigation & Soil Prep	2530	SF	9.00	22,770
Site Structures				
Performance Pit	3000	SF	18.00	54,000
Ramps @ North & South	700	SF	22.00	15,400
Trench Drain & Misc Curbs	1000	LF	18.00	18,000
Stage Covering		Included in KUCR Estimate		
Canopy Over Performance Seating Area	3000	SF	120.00	360,000
Radio Station Tower Incl Foundation		By Owner		
Misc Curbs & Connect to Existing	1	LS		15,000
Railings	200	LF	200.00	40,000
Site Lighting	6	Ea	1,300	7,800
Perimeter Fencing	130	LF	200.00	26,000
Closure Gates	3	Ea	50,000	150,000
Allow for Fence Section	3	Ea	6,000	18,000
Miscellaneous Site Accessories	1	LS		30,000
Total 15.0 Site Paving, Structures & Landscaping				$969,320
16.0 Utilities on Site				
Mechanical Utilities		Allow		$35,000
Electrical Utilities		Allow		25,000
Total 16.0 Utilities on Site				$60,000

Preliminary Budget Estimate

University of California, Riverside
The Barn Project
Preliminary Budget Estimate

Alternates

1.0 Provide Alterations to Sproul Hall Loading Dock				
Demolition of Existing Structure	1	LS		$25,000
Demolition of Existing Paving & Surf Treatment	9800	SF	3.00	29,400
Miscellaneous Cut & Fill	40	CY	50.00	2,000
Hazmat Mitigation		By Owner		
Allow for Obstacles & Misc Conditions	1	LS		15,000
New Dock Structure Alterations	1500	SF	50.00	75,000
New Concrete Paving	2080	SF	10.00	20,800
New AC Paving	3520	SF	5.00	17,600
Alterations to Existing Roadway	3200	SF	6.00	19,200
New Landscaping & Irrigation	1000	SF	8.00	8,000
New Trees	12	Ea	1,000	12,000
Utility Relocations & Connections	1	LS		50,000
Site Lighting	1	LS		25,000
Work Inside Existing Building		None		
Temporary Access & Egress	1	LS		20,000
Miscellaneous Other Work		Allow		15,000
Subtotal 1.0 Alterations to Sproul Hall				$334,000
Contractor Overheads				113,011
Total 1.0				$447,011
2.0 Provide Onsite Chiller and Boiler in lieu of Campus Connection				
Delete Steam	(800)	LF	100.00	($80,000)
Delete CW	(800)	LF	50.00	(40,000)
Delete CHW	(800)	LF	75.00	(60,000)
Delete Misc Trenching Premiums	1	LS		(20,000)
Delete Manholes	(4)	Ea	2,500	(10,000)
Delete Valves & Connections	1	LS		(30,000)
Delete Heat Exchangers	(2)	Ea	20,500	(41,000)
Delete Landscape Repairs	(400)	LF	25.00	(10,000)
Chillers	2	Ea	50,000	100,000
Boilers	2	Ea	16,500	33,000
Valves & Piping	1	LS		25,000
Building/Pad Area to Support Equipment	800	SF	85.00	68,000
Miscellaneous Other Work		Allow		15,000
Subtotal 2.0 Onsite Chiller & Boiler in lieu of Campus Connection				($50,000)
Contractor Overheads				(16,918)
Total 2.0				($66,918)

Preliminary Budget Estimate

3.0 Provide Audio Visual Equipment as Described in DPP Report				
Interior Stage @ Barn Dining	1	LS		$275,000
Outdoor Stage @ KUCR	1	LS		30,000
Event Space @ Barn Stable	1	LS		25,000
Subtotal 3.0 Provide Audio Visual Equipment				$330,000
Contractor Overheads				112,731
Total 3.0				$442,731
4.0 Provide Emergency Power for Kitchen Addition & KUCR				
Diesel Generator & Day Tank	1	Ea	150,000	$150,000
Three Day Storage Tank	1	LS		60,000
Emergency Barrels	2	Ea	3,500	7,000
Feeders	250	LF	100.00	25,000
Auto Transfer Switches	2	Ea	12,500	25,000
Acoustic Enclosure	300	SF	150.00	45,000
Subtotal 4.0 Provide Emergency Power for Kitchen & KUCR				$312,000
Contractor Overheads				106,582
Total 4.0				$418,582
5.0 Provide Construction Management Preconstruction Services				
Allow				$250,000
6.0 Provide Enhanced Commissioning/3rd Party Commissioning				
Allow				$75,000
7.0 Allow for Patching & Painting Barn Theater				
Allow				$15,000
8.0 Allow for Security Devices				
Cameras	12	Ea	5,000	$60,000
Intrusion Detection	20	Ea	500.00	10,000
Card Keys	12	Ea	3,000	36,000
Subtotal 8.0 Allow for Security Devices				$106,000
Contractor Overheads				36,211
Total 8.0				$142,211

Preliminary Budget Estimate

Alowances Included in the Estimate

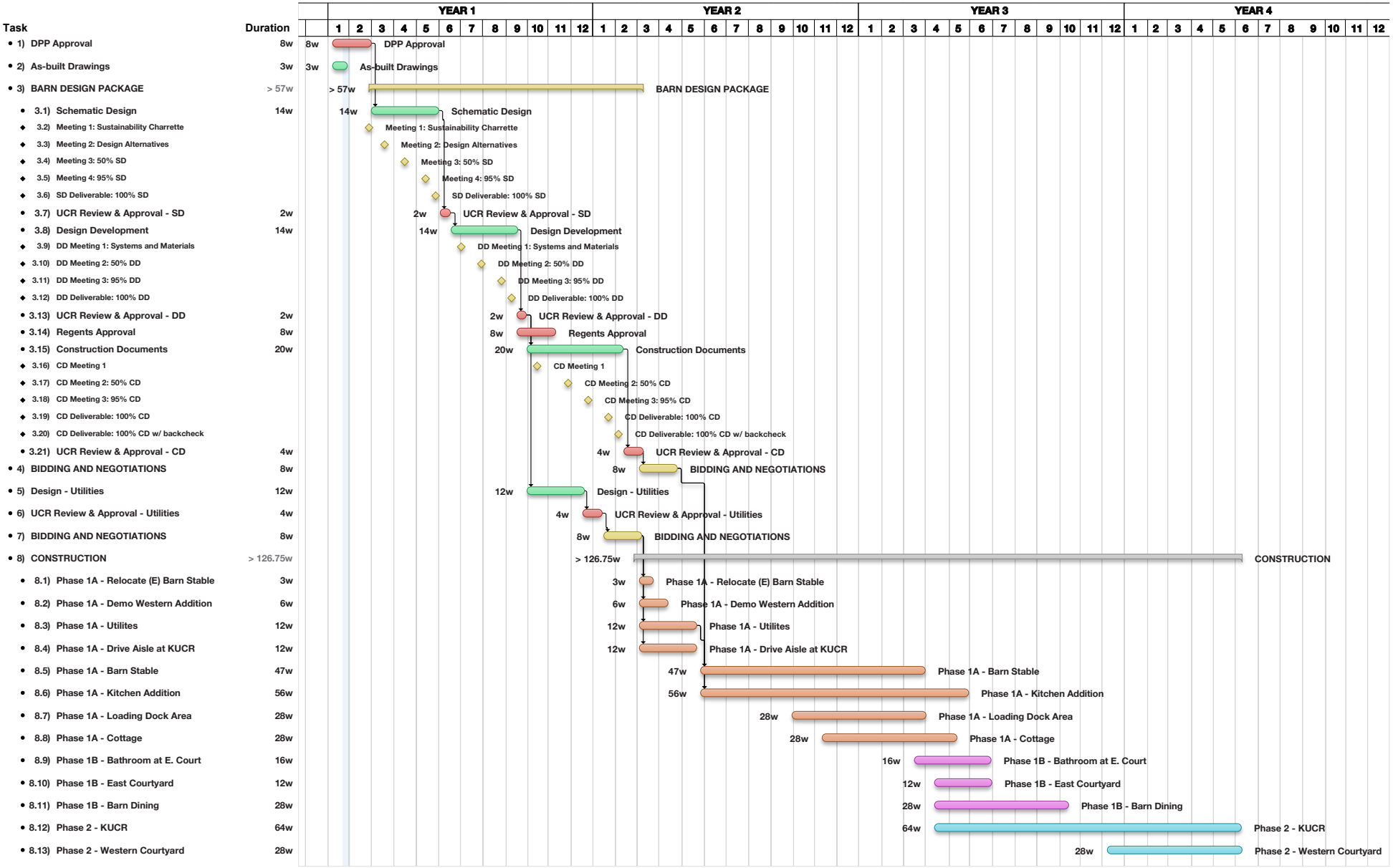
1.0 Performance Space @ KUCR Building			
Interior Backstage Space			
Program Area	110 SF	504.05	$55,446
Exterior Stage			
Foundations	6 CY	450.00	2,700
Stage Construction	975 SF	65.00	63,375
Roof Construction	975 SF	75.00	73,125
Soffits	850 SF	25.00	21,250
Roofing	975 SF	24.00	23,400
Fire Sprinklers	975 SF	3.00	2,925
Electrical Rough-In	975 SF	3.00	2,925
Subtotal 1.0 Performance Space @ KUCR Building			$245,146
Contractor Overheads			83,744
Total 1.0			$328,890

VI. IMPLEMENTATION

The initial project schedule and implementation diagrams were developed in close coordination with the Project Management Team and the Steering Team. Retaining food service operation during the academic year has been a key concern in developing the schedule.

IMPLEMENTATION

Project Schedule



NOTE: The Project Schedule is shown monthly and is based on a yet-to-be-determined start date. Durations of tasks are shown in weeks.

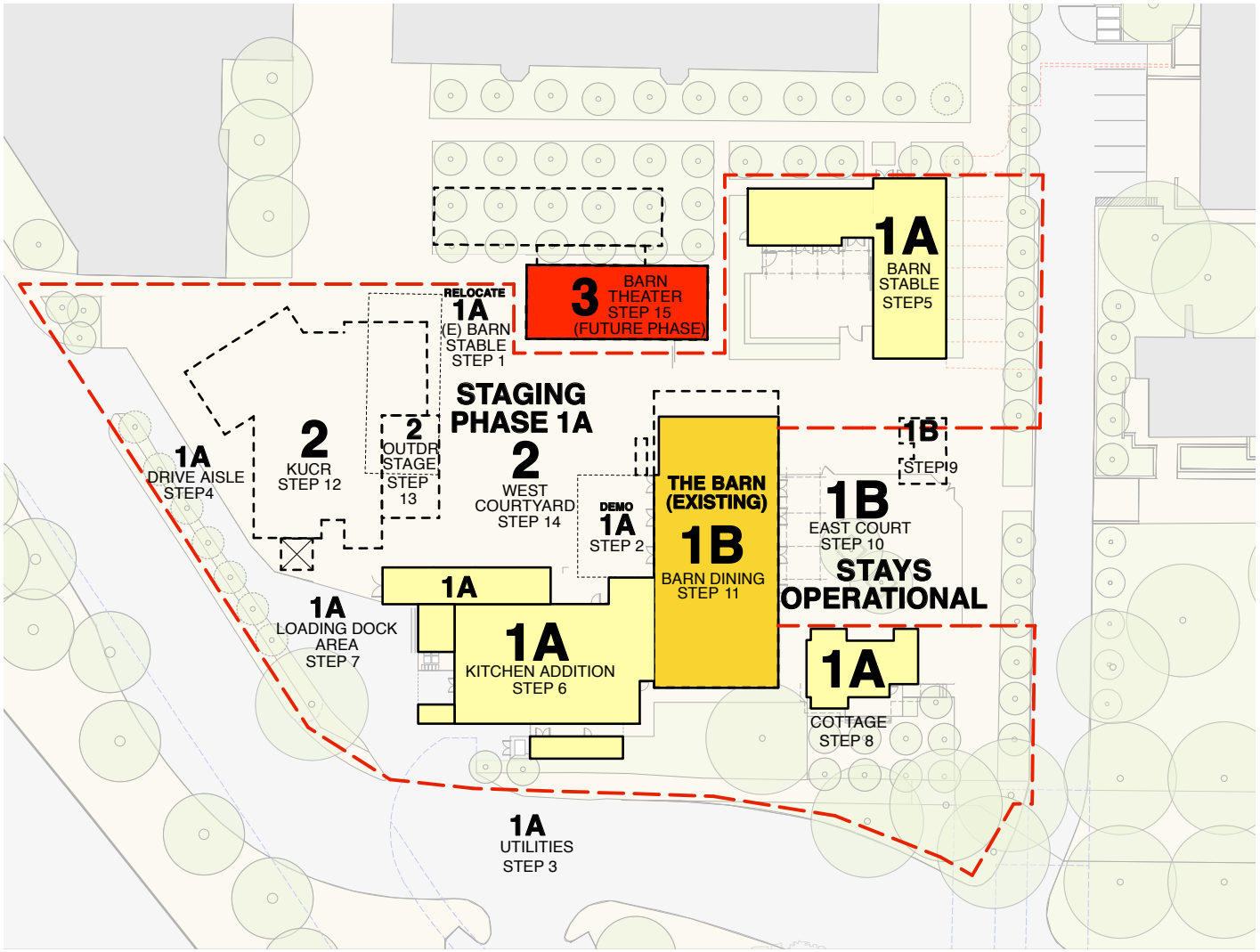
Phasing & Implementation Diagrams

PHASING & IMPLEMENTATION STRATEGY: PHASE 1A

PHASE 1A

Initial work in Phase 1 will include items identified as having potential schedule complications or other risks. These include: relocation of the Barn Stable and the utility work. Ideally this work would begin before Summer 2011. This phase will also include: the Kitchen Addition, the Cottage, the Loading Dock Area, and the Drive Aisle along West Campus Drive.

The Kitchen Addition should be up and running before the end of summer to provide a functioning kitchen during the school year. The Kitchen Addition will require at least a 12-month window for completion. Demolition of the current University Club meeting space can also occur in Phase 1A if necessary.



PHASING & IMPLEMENTATION STRATEGY: PHASE 1A

0 30’ 60’ 120’

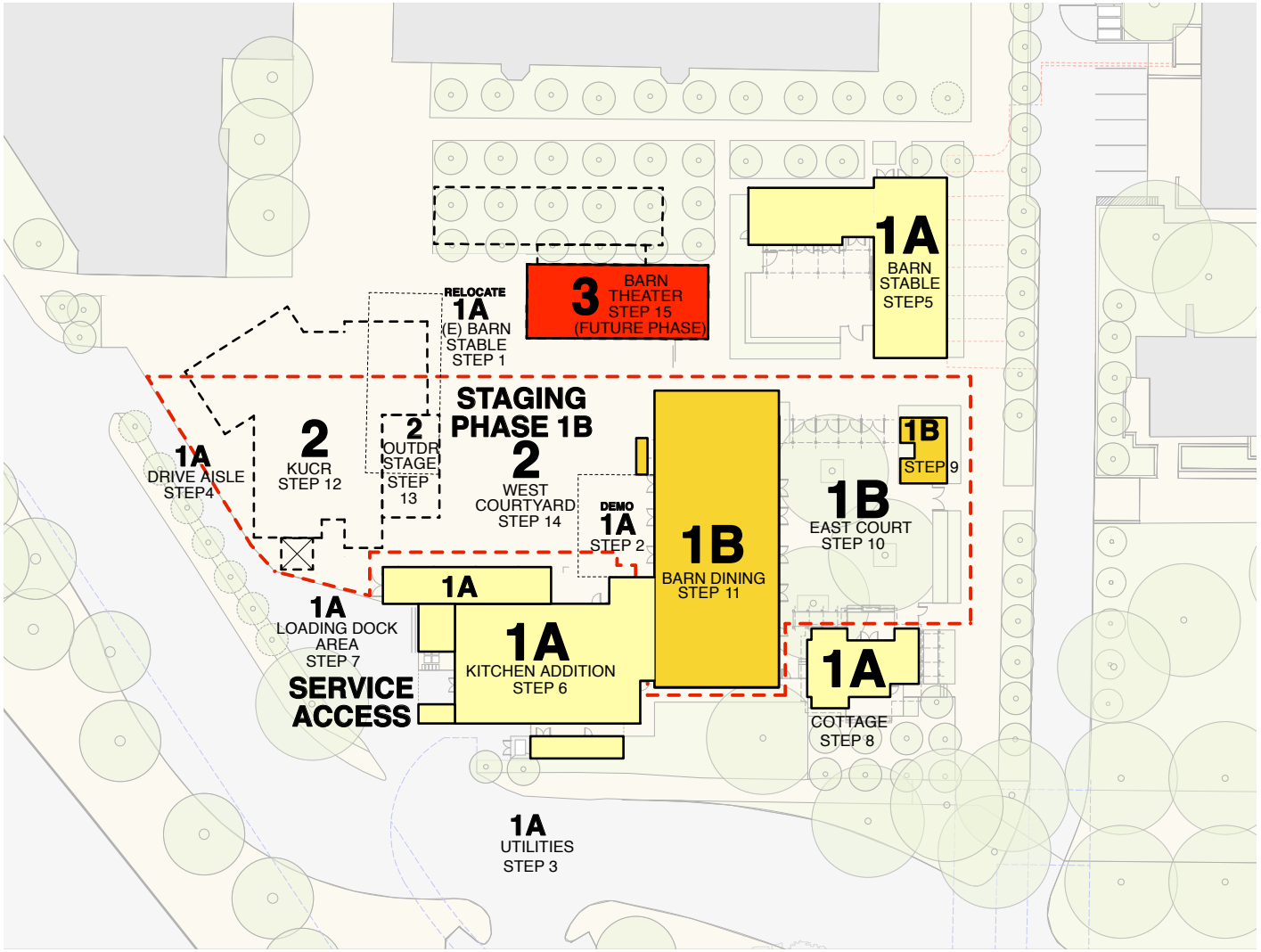
Phasing & Implementation Diagrams

PHASING & IMPLEMENTATION STRATEGY: PHASE 1B

PHASE 1B

Phase 1B will include: Barn Dining, the East Courtyard, and the Restrooms east of The Barn.

During the school year when Barn Dining is under construction, the Barn Stable, Cottage, and related seating areas can be used for dining and be served by the Kitchen Addition.



PHASING & IMPLEMENTATION STRATEGY: PHASE 1B

0 30’ 60’ 120’

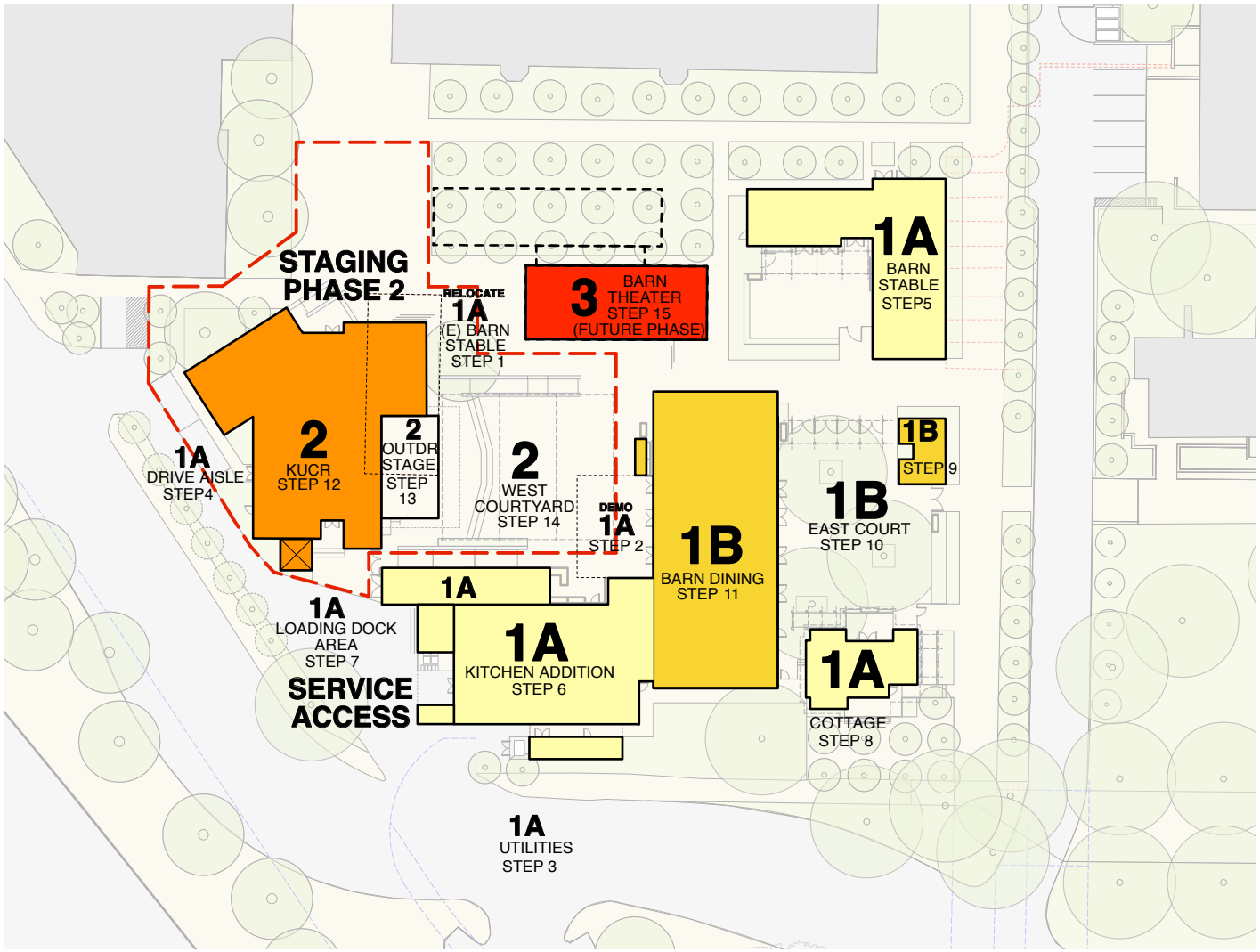
Phasing & Implementation Diagrams

PHASING & IMPLEMENTATION STRATEGY: PHASE 2

PHASE 2

Phase 2 will include: the West Courtyard, Outdoor Stage, and KUCR.

The construction fence at the west side of The Barn will be close to the west side of the building, allowing for exiting only. This approach will provide a clean division between Phases 1 and 2. It was determined that construction activities during this phase would be too disruptive to allow for outdoor dining at the West Courtyard. Therefore, no seating in the West Courtyard will be provided during Phase 2.



PHASING & IMPLEMENTATION STRATEGY: PHASE 2

0 30’ 60’ 120’

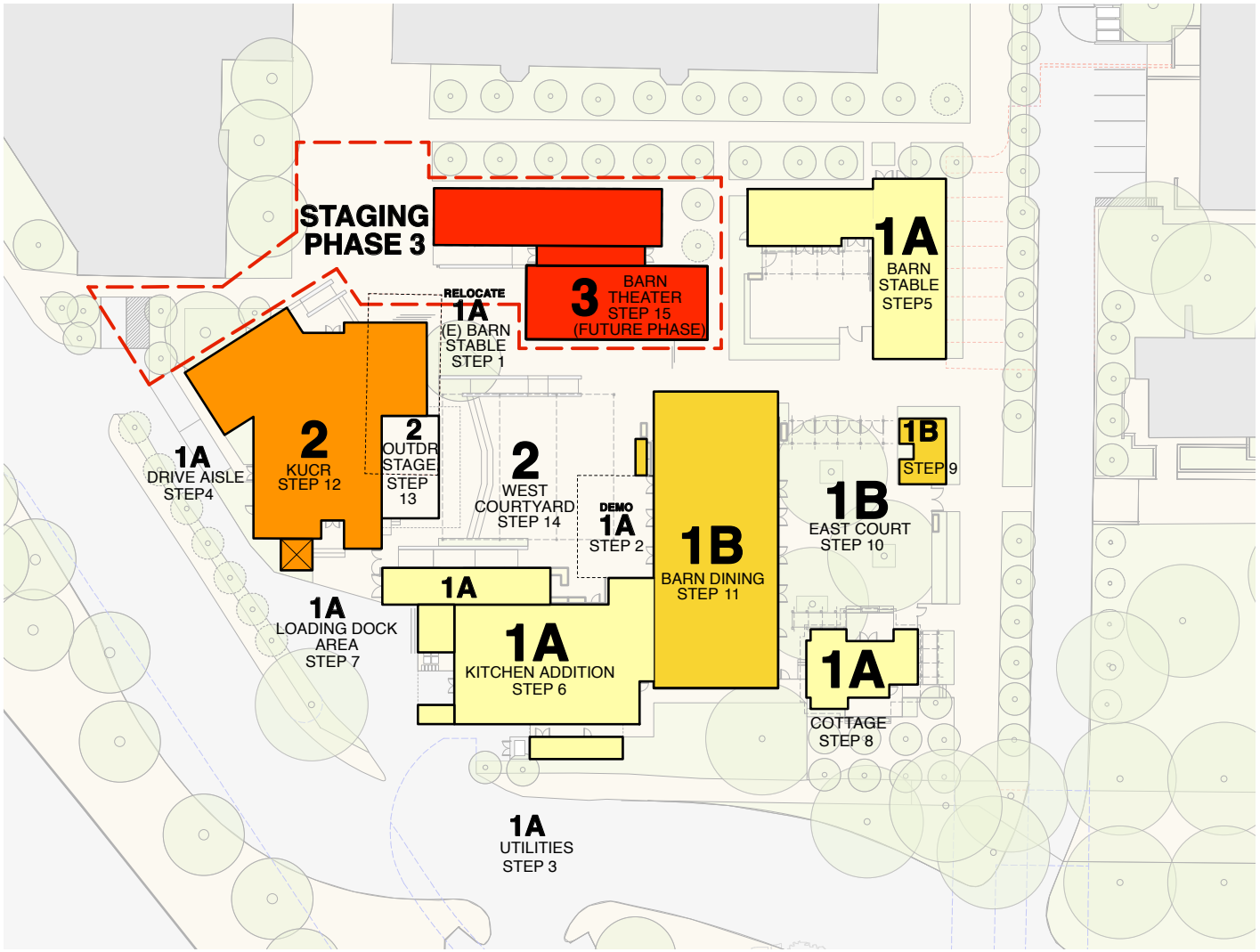
Phasing & Implementation Diagrams

PHASE 3

PHASE 3

Phase 3 is assumed to be a future phase that will include the Barn Theatre renovation and addition.

The Barn Project Phases 1 & 2 DPP did not review the program for the Barn Theatre in depth, however phasing and implementation was considered. A challenge with the implementation of Phase 3 is that access to this area will be restricted by new and renovated structures once Phase 2 is complete. The Composite Site Organization Plan layout for KUCR was greatly influenced by the need for construction access and staging area for Phase 3 work.



PHASING & IMPLEMENTATION STRATEGY: PHASE 3

0 30’ 60’ 120’

VII. APPENDIX

A record of the decision making process is provided that includes visual materials, the meeting notes, key correspondence, and other materials.

APPENDICIES INDEX

Campus Supporting Documents

Meeting Notes, Action Items, and/or Site Plan Alternatives presented at:

Workshop #1	February 5, 2010
Workshop #2	February 26, 2010
KUCR Conference Call	March 11, 2010
Workshop #3	March 19, 2010
Performances Issues Conference Call	April 5, 2010
DRB Presentation	April 6, 2010
Workshop #4	April 16, 2010

Correspondence

APPENDIX

Campus Supporting Documents

The following documents, provided by UCR, were used or referred to in preparation of the 2010 Barn Project Phases 1 & 2 DPP:

August 1991	EIR Humanities & Social Sciences
June 16, 1993	Historic Resource Inventory, The Barn Theater and The Barn Group
November 2000	Tenant Improvement for the Barn
June 2002	East Campus Infrastructure DPP
March 15, 2003	Asbestos and Lead Information for the Barn Complex
October 3, 2005	Campus Green Building Baseline Substantiation
November 2005	Long Range Development Plan
May 2006	East/Southeast Campus Area Study
May 24, 2006	Communications Infrastructure Planning Guidelines
2007	Campus Design Guidelines
2008	Campus Aggregate Master Planning Study
July 2007	Room Numbering Standards
July 2007	Facilities Management System CAD Standards
January 4, 2008	Campus Sign Program
April 1, 2008	UCR West Campus Graduate & Professional Center DRB Presentation
August 2008	Room Use Codes
Fall 2008	Room Use Codes and Definitions
Februrary 2, 2009	UCR Student Recreation Center Expansion DRB Presentation
April 2009	Sustainability Action Plan – DRAFT
August 1, 2009	ADA Site Assessment Report: UCR P5338 The Barn
August 1, 2009	ADA Site Evaluation Cost Report
August 3, 2009	ADA Site Assessment Report: UCR P5251 Theater Workshop
August 3, 2009	ADA Site Assessment Report: UCR P5251 Theater Workshop Cost Report
August 9, 2009	ADA Site Assessment Report: UCR Lot 16
August 9, 2009	ADA Site Assessment Report: UCR Lot 16 Cost Report
October 2009	Barn Area Study
October 5, 2009	Existing Building Information Summaries
October 5, 2009	Existing Space Inventory, Barn Group
October 5, 2009	UCR Vision and Goals
November 7, 2009	ADA Site Assessment Report: UCR Lot P4
November 7, 2009	ADA Site Assessment Report: UCR Lot P4 Cost Report
November 16, 2009	Dining Master Planning Study
February 19, 2010	Asbestos and Lead Based Paint Survey: Barn Complex
March 2, 2010	GeoVision: Site Map with Geophysical Interpretation
April 2010	Historic Resources Assessment (title page and Executive Summary, page i., of which are included on the following page of this DPP)

Soils Report, Humanities & Social Sciences

Humanities & Social Science Drawings

AutoCAD Data Delivery for UCR Planning & Design Projects

APPENDIX

Campus Supporting Documents

HISTORIC RESOURCES ASSESSMENT

THE BARN GROUP AND UNIVERSITY COTTAGE
UNIVERSITY OF CALIFORNIA, RIVERSIDE

CITY OF RIVERSIDE

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

The University of California, Riverside
Office of Design and Construction
Tricia D. Thrasher, ASLA, LEED AP
Principal Environmental Project Manager
3615-A Canyon Crest Drive
Riverside, California 92521-0322

Prepared by:

Casey Tibbet, M.A., and Elisa Bechtel
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, California 92507

LSA Project No. UCR1001

LSA

April 2010

EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) conducted a historic resources assessment for the Barn Group and University Cottage located on the University of California, Riverside (UCR) campus in the City of Riverside, Riverside County, California. The assessment included a review of previous reports, archival research, a field survey, and this report. The project area is currently developed with the Barn Group (the Barn, the Barn Theater, and the Barn Stable; 33-7877), the University Cottage (33-7878), and two sheds. UCR, as Lead Agency for the project, required this study in support of both the project planning and design process and the environmental review process to comply with the California Environmental Quality Act (CEQA).

The purpose of the study is to provide UCR with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any historical resources that may exist in or around the project area, as mandated by CEQA. In addition, UCR will utilize the historic resources assessment to inform the planning and design of the Barn Project. In order to identify and evaluate such resources, LSA conducted historical background research and carried out an intensive-level field survey.

Through the various avenues of research, this study did not encounter any "historical resources," as defined by CEQA, within the project area. Therefore, LSA recommends to UCR a finding of *No Impact* regarding cultural resources. No further cultural resources investigation and no mitigation measures are recommended for the project unless development plans undergo such changes as to include areas not covered by this study. However, because the buildings are associated with the earliest history of campus, specifically the Citrus Experiment Station, and over time have become an integral part of campus life, it is recommended that they be given special consideration in project planning and design. This could include keeping the buildings together as a group and preserving the rustic feel of the buildings by retaining features that contribute to their historic character. Some of these features include the exterior board-and-batten style siding (Barn Group), barn-style doors, the decorative details on the north and south ends of the Barn, historic-period windows, the horizontal wood siding (University Cottage), and the cottage's arched entry area.

If buried cultural materials are encountered during earthmoving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

Workshop #1: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: February 23, 2010

MEETING NOTES

Project Management Team Meeting #1

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 8:30 AM – 9:00 AM, February 5, 2010
LOCATION: Capital and Physical Planning Offices

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining and Residential Services
	Susan Marshburn	Associate Director of Housing Services
Consultant Team		
	Richard Fernau	Design Principal, Fernau & Hartman Architects
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Ron Lutsko	Landscape Architect, Lutsko Associates
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

ACTION BY:	ITEM:
SM	1. **Differences between the Questionnaire Responses:** a. The majority of the responses to the F&H questionnaire have indicated a request for additional square footage as compared to the 2009 Barn Area Study (BAS). The consultant team's role for the Workshop #1 Interviews is primarily to listen to input from building users, not to question square footage changes. That will be addressed by the PMT. b. Dining has identified new needs and is currently engaged in a Dining Study Report which is not yet complete, but will be sent to the Consultant Team when available. Action: Susan Marshburn will ask Dining Services to provide the draft Dining Study for the Barn, and once available the completed Dining Study report.
	2. **"Barn Annex":** There was a reminder that the building known as the "Barn Annex" should not be referred to as the University Club.

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
JN	3. **Planning Studies:** a. **Historical Resources Inventory:** There is an RFP out for an updated Historical Resources Inventory for the Barn Group. For now the Consultant Team will use the 1993 Historical Inventory Report that was prepared for construction of the Humanities Building. The target date for this study to be complete is February 26th to coincide with Workshop #2. **Action:** Jacqueline Norman will provide status on the report at the next meeting.
JN	b. **Utility Survey:** An underground scan of the site utilities will be done shortly. The original target date for this information is February 26th to coincide with Workshop #2. Confirmation of the schedule for completing this study is needed. In the meantime, any information regarding existing utilities will be sent to the Consultant Team. Mike Terry is the representative for the Physical Plant. **Action:** Jacqueline Norman will provide status of the utility surveys at the next meeting.
	4. **Sproul Loading Dock:** It was noted that the Consultant Team is reviewing the Sproul Loading Dock as part of their DPP contract, but it is not currently included in Phase 1 or 2.

APPENDIX

Workshop #1: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
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ISSUED: February 23, 2010

MEETING NOTES

Workshop #1: Program Review and Refinement; Site Plan Analysis; Establish Project Goals

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:10 AM – 4:30 PM, February 5, 2010
LOCATION: Capital and Physical Planning Offices, Bannockburn, J-102

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining and Residential Services
	Susan Marshburn	Associate Director of Housing Services
Steering Committee		
	Andy Plumley	Assistant Vice Chancellor, Auxiliary Services
	Susan Marshburn	Associate Director of Housing Services
	Cheryl Garner	Director of Dinning Services
	Nita Bullock	Directory Physical Planning, Campus Landscape Architect
	Professor John Ganmin	Faculty Representative, Academic Senate
Campus Representatives		
	Tim Gable	Communications
	Scott Corrin	Campus Fire Marshal
	Mike Terry	Physical Plant
	Mike Delo	Transportation and Parking Services
	Andy Steward	Transportation and Parking Services
	John Freese	UCR Police
	Suzanne Trotta	Services for Students with Disabilities
	Louis Vandenberg	KUCR General Manager
	Trish D. Thrasher	Office of Design and Construction
	Connie Young	University Club
	Paul Richardson	Arts Facilities Manager CHASS
	Nathaniel Jones	Assistant Dean, CHASS
	Berent Pippert	Campus Space Manager, Capital and Physical Planning
	Israel Fletes	Multimedia Technologies
Consultant Team		
	Richard Fernau	Design Principal, Fernau & Hartman Architects
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Ron Lutsko	Landscape Architect, Lutsko Associates
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
	1. **Drawings Presented** - Nine 24x36 boards: BAS Program Area Matrix Sheets for each building, BAS Site Analysis, Site Organization Options A, B and C.
	2. **2009 Barn Area Study:** Nita Bullock made a presentation summarizing the 2009 Barn Area Study and provided suggestions for how the Consultant Team could use it as the foundation for the DPP. The study included discussions with multiple stakeholders and developed a master plan that will serve as a strong baseline for moving forward. Following the presentation it was noted that the proposed phasing of the project has changed since the 2009 BAS was completed. For the DPP, phasing is now proposed as follows: Phase 1 includes the Barn Annex, and KUCR; Phase 2 includes the Barn Dining, the Cottage, and the Barn Kitchen.
	3. **Goal For Project:** As defined by the BAS the goal for the Barn Project is to become a "Unique Dining and Entertainment Center."
	4. **Additional Goals:** To expand food service by about 3 times the current level and to expand entertainment to have a full schedule throughout the week.
JN	5. **Historical Status:** Per the 1993 Historical Resources Inventory, the buildings are not currently designated as having historic status, however the group of buildings as a whole has the potential at a local or regional level to have historical status as a campus cultural resource. There is currently an RFP to prepare an updated Historical Resources Inventory for the Barn Group. This study is needed as soon as possible to support the DPP process. In general the PMT and SC want to maintain the character of the existing buildings without the formality of a historical designation. **Action:** Jacqueline Norman will provide the Historical Resources Inventory report to F&H as soon as it is available.
	6. **Landscape:** a. **Clearance for Service and Fire Vehicles:** 20'-0" wide by 13'-6" high b. **Suggested Plant Types:** Do not use Eucalyptus. Drought tolerant species are preferred. The Barn Project is part of a special agricultural planting area. Suggested plantings include: Citrus, Avocado, and herb gardens. Large canopy trees and arbors for shade are encouraged.
RR	7. **Fire Protection Issues:** Interview with Campus Fire Marshal, Scott Corrin a. **Historical Status:** If the buildings are not given historical status, there will be different restrictions for fire protection, design, and new construction in general. b. **Fire Protection Systems:** All buildings will need to have sprinklers and early fire alarm ADA notification systems. c. **Bringing Project up to Current Code Requirements:** There was some discussion about whether to consider the Barn Group as a single complex or as a collection of individual buildings, separated by "imaginary property lines." Further clarification / direction is needed. The project will use the most recent building codes. **Action:** Richard Racicot will review fire protection issues with Campus Fire Marshall and will report back to the Committee. d. **Drawing Review:** If the project is designated with historic status it will be reviewed by both the State Fire Marshall and local fire authorities. If the project is not designated with historic status it will be reviewed by just the State Fire

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
	Marshall. If Alternate Means are requested then it will go to the local fire authorities for review, which could cause delays. e. **Fire Truck Access:** Scott Corrin considers the fire lane access along the Sproul Hall to be "existing non-conforming." He also determined that a fire truck turnaround is not needed and in the event that a service turnaround is provided the fire truck will use it on an interim basis, until the fire lane through to the Carillion Mall is completed as part of a separate future project.
JH	**8. Physical Plant:** Interview with Physical Plant representatives, Mike Terry a. **Truck Turnaround:** A study is being conducted on the refuse trucks, which are the largest used in the Sproul Loading Dock, to determine if the vehicles will require a 48 foot radius (the City of Riverside Standard). Backing up the trucks to West Campus Drive presents safety concerns. **Action:** Jon Harvey will follow up with Mike Terry to obtain truck turning radius. b. **Sproul Loading Dock:** One consideration for the Loading Dock as proposed in the BAS is coordination with the existing infrastructure, including stand pipes, in this area. Fumes and noise in the tight space between the two buildings was also brought up as a concern. This could be managed by scheduling refuse pick ups earlier in the morning before classes start. c. **Access:** Access by unauthorized vehicles will continue to be restricted by the existing gate. d. **Separations:** For safety reasons the pedestrian area should be separated from the vehicular areas with a physical barrier. A landscape buffer is suggested in the BAS. e. **Bicycles:** The bicycle lane is currently grouped with the vehicle lane. This is not ideal. The separation of pedestrians from bikes and bikes from other vehicles at UCD was referred to as a possible model.
	9. **KUCR:** Interview with the General Manger of KUCR, Louis Vandenberg a. **Introduction:** Louis Vandenberg gave a brief introduction to the history, special issues and needs of KUCR. b. **Significance:** This will be the first UC that has built a facility especially to house a campus radio station. c. **Concerns:** Safety is a very important concern, especially with KUCR being moved to a building adjacent to outdoor entertainment venue where alcohol will be served. d. **Stage:** The stage will provide opportunities to air live interviews, full band performances and other lower scale events. e. **Tower:** KUCR would like to reuse the existing (original) tower, which has significance for the radio station's history and is also the correct height for line of sight to the Box Spring Mountains. It is not possible to mount the tower on top of a building. f. **Misc:** The radio station will need a kitchenette (addition to the BAS). g. **Archive:** Making the archive visible while maintaining security is appealing. The archive is a "fantastic collection of very rare stuff." h. **New Building vs. Existing:** Having KUCR in the Barn Area is the "best idea ever" for relocation. A new building would allow for easier customization to meet the current and future needs. The Barn Stable provides a connection to the "deep, long history of this place." In either case the production studios should be located in a new building.

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
	10. **Barn Annex:** Interview with Dining and Food Services and University Club representatives: Andy Plumley, Susan Marshburn, Cheryl Garner, and Connie Young a. **University Club History:** Connie Young provided a brief history and special considerations for the University Club. b. **Partnership:** The University Club will rent space in the Barn Annex from Dining and Food Services, and the University Club will continue to provide a liquor license. c. **Liquor License:** The University Club holds a liquor license which allows the Barn to serve Beer and Wine, and the Club area to have a full bar. d. **Kitchen:** The Annex will have a finishing kitchen only. e. **Outdoor Area:** A dedicated outdoor area for the Barn Annex is desirable. f. **Interior Room Changes:** Instead of a Banquet Room and separate Bar as proposed in the BAS, there will be one large room that should feel comfortable when only a portion is used. The bar will be able to open and close into this room with some type of moveable screen or shutters.
LL JH	11. **Barn Dining:** Interview with Dining and Food Services representatives a. **Outdoor Spaces:** A variety of spaces and seating is desired. The west courtyard will be the loud entertainment area, and the east will be the more formal dining area. Heaters and misters are also desirable. b. **Food Service Concept:** The food service concept was discussed at length. Larry Lanier will follow up with Cheryl Garner to better determine needs and possible solutions. **Action:** Larry Lanier will review and update food service program with Cheryl. c. **Character:** The Barn should have a different character than the HUB, which is identified as having "a more slick food court feel." Overall the project should showcase the agricultural heritage of UCR through various means including a farmer's market, and use of citrus and herb gardens. d. **Seating (change from BAS):** 188 outdoor seats, and 108 indoor seats are required. A variety of seating options including built-in to reduce the need to move furniture for events. e. **Kitchen:** The Barn will support catering and satellite operations. f. **ADA:** A recent draft ADA study for the Barn identified many issues of non-compliance including that the truss buttresses will require cane detectable barriers which will affect the look and seating capacity around the buttresses. ADA compliance will be carefully reviewed during the design phase. A final ADA Transition Plan for the existing Barn complex is being prepared; PMT will send to consultant team when completed. **Action:** Jon Harvey will send Barn Theater ADA Report to F&H, and once available, will provide final ADA Transition Plan.

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
JH	12. **Barn Theater:** Interview with CHASS representatives a. **General:** The Barn Theater is not part of Phases 1 or 2 as there is no funding identified for this project. b. **Rehearsal Space:** CHASS would like to be able to join two rehearsal spaces into one. c. **Stage:** Sharing a stage is acceptable. d. **Box Office:** A box office for charging admissions for performances is desirable and could be shared with the Barn. e. **Confirm Area Sizes:** The PMT will confirm the space requirements of CHASS for the interior rehearsal space and storage. **Action:** Jon Harvey will follow up with Nate Jones (CHASS), who will provide comments on the Barn Theater program presented in the BAS.
	13. **Site Analysis:** The Consultant Team gave a brief presentation of the issues and questions raised by the site plan as proposed in the BAS. Following this presentation Mike Delo from TAPs brought up the following issues: a. **Cross Walk:** The cross walk linking Lot 4 to Barn Group is in a poor location, consider relocating as part of project. b. **Bus Pull Out:** An additional bus pull out is needed on the opposite side of West Campus Drive from the Barn. c. **ADA Parking:** Disabled parking by the Barn Group is a priority. d. **Special Student Services:** Need to maintain the existing 2 parking spaces for Special Student Services. e. **Bike Parking:** Location of the bike parking is another consideration. The LRDP and the Multi-Modal Transportation Management Analysis suggests bike corrals at the periphery of the Carillon Mall. One is proposed at the northwest corner of Sproul on the south side of the Mall walkway.
LH & SL	**14. Cost:** Based on a very brief initial review of costs in the 2009 BAS, that was done by F&H in preparation for the interview, the budget seems tight. To meet the budget it is important to keep the buildings the same size or smaller than the BAS. The Consultant Team will review the preferred scheme in relation to the current budget. **Action:** Laura Hartman will review the 2009 BAS estimate with Scott Lewis (Cost Estimator) and provide comments on the current construction budget.

Workshop #1: Meeting Notes

ACTION BY:	ITEM:
F&H	15. **Site Organization Options Discussion:** The Consultant Team presented three options for the site plan that tested various issues: • Site Organization Option A, "Agricultural History at the Courtyard," would leave the Barn buildings around the Western Courtyard. • Site Organization Option B, "Agricultural History at the Barn Walk", relocates the Barn Stable to serve as the Barn Annex and houses KUCR in a new building. • Site Organization C, "Larger Courtyard" is similar to Option B, but pushes the new KUCR building towards West Campus Drive to widen the Western Courtyard. Site Organization Option B was chosen as the best for developing a composite plan that will be studied further to address the following modifications: f. **Cottage:** Study shifting the Cottage to the North to avoid the utilities at the Eucalyptus Walk. g. **Barn Annex:** Study shifting the historic portion of the Barn Annex (relocated Barn Stable) to the south. h. **Bathrooms:** Locate the East Courtyard bathrooms along the Barn Walk and review incorporating them into a trellis structure to reduce visual impact. i. **KUCR:** Review concepts for a new two-story building to house the radio station and as a backdrop to a single shared stage. j. **Barn Loading Dock:** Study options for reducing the visual impact of the loading dock. **Action:** F&H will prepare a composite plan that addresses the site organization issues.
JW RR	**16. Next Steps:** **a. Area Study Comparison:** The Consultant Team will prepare an Area Study Comparison of the BAS and the current proposal. **Action:** Jason Wilkinson will furnish a Project Area Summary with comparison table of preliminary program and the 2009 BAS. **b. Studies:** The PMT will expedite additional information for the Consultant Team including the ADA report, Historic Resources Inventory, and underground utility survey. As-builts will be required as the project moves into SD. **c. Site Survey:** Cost of a site survey will be investigated. **Action:** Richard Racicot will identify the cost of the site survey for consideration. **d. Site Plans:** The existing road will be shown as the basis for the site plans in the DPP. The future location of the road, as shown in the 2009 BAS, will be shown "dashed" in the DPP. **e. KUCR:** The Consultant Team will contact Louis Vandenberg to discuss options for housing KUCR in a new building. **f. 2/11 Draft Materials from F&H:** The Consultant Team will send out draft materials including a list of questions from the sub-consultants regarding building systems and sustainability, and the draft room data sheets. g. **2/18 Responses to Draft Materials:** UCR will return comments and responses to the draft materials sent on 2/11.

APPENDIX

Workshop #1: Action Items

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2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: February 23, 2010

ACTION ITEM STATUS TABLE

PROJECT: DPP – UCR Barn Project Phases 1 & 2

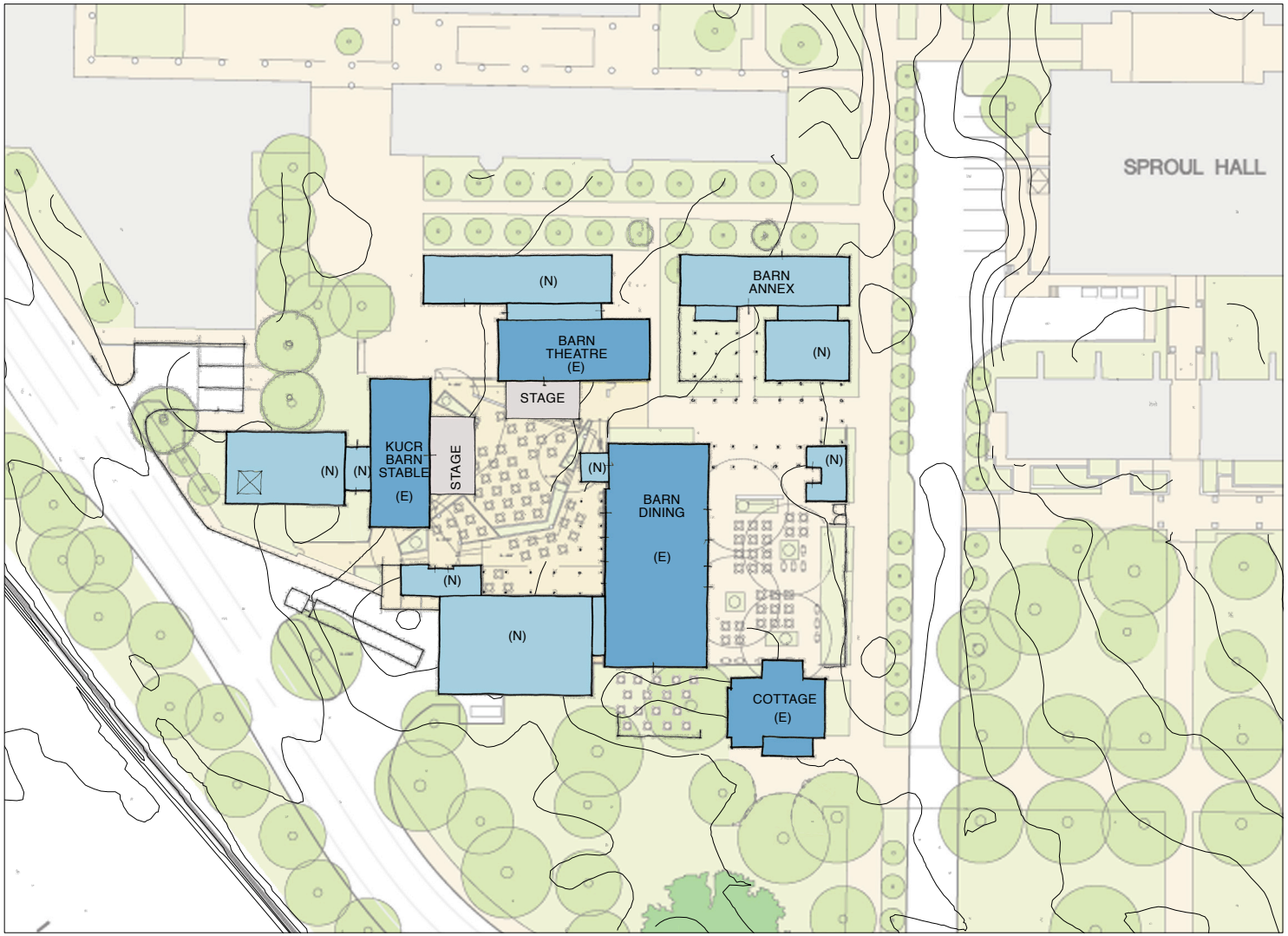
The Action Item Status Table is meant to summarize the action items raised at the meeting(s) listed above and responsible party for each action item. If they differ from your recollection, please contact Fernau & Hartman immediately.

No.	WS Date	Action By	Issue, Notes & Comments	Status
1.01	02/05/10	SM	PMT: Susan Marshburn will ask Dining Services to provide the draft Dining Study for the Barn, and once available the completed Dining Study report. 02/09/10 – spread sheet of draft Dining Study provided to F&H, completed Dining Study report still pending	
1.02	02/05/10	JN	PMT: Jacqueline Norman will provide the Historical Resources Inventory report to F&H as soon as it is available.	
1.03	02/05/10	JN	PMT: Jacqueline Norman will provide status of the utility surveys at the next meeting.	
1.04	02/05/10	RR	PMT: Richard Racicot will review fire protection issues with Campus Fire Marshall and will report back to the Committee.	
1.05	02/05/10	RR	PMT: Richard Racicot will investigate the cost of a site survey.	
1.06	02/05/10	JH	PMT: Jon Harvey will follow up with Mike Terry to obtain truck turning radius. 02/23/10. Information request sent 02-12-10 via email.	
1.07	02/05/10	LL	F&H: Larry Lanier will review and update food service program with Cheryl.	
1.08	02/05/10	JH	PMT: Jon Harvey will send Barn Theater ADA Report to F&H, and once available, will provide final ADA Transition Plan. 2/10/10 – Barn Theater report sent to F&H, final ADA Transition Plan is pending.	

Workshop #1: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
1.09	02/05/10	JH	PMT: Jon Harvey will follow up with Nate Jones (CHASS), who will provide comments on the Barn Theater program presented in the BAS. 02/17/10. Nate will provide comments no later than March 15.	
1.10	02/05/10	F&H: LH, SL	F&H: Laura Hartman will review the 2009 BAS estimate with Scott Lewis (Cost Estimator) and provide comments on the current construction budget.	
1.11	02/05/10	F&H	F&H will prepare a composite plan that addresses the site organization issues.	
1.12	02/05/10	JW	F&H: Jason Wilkinson will furnish a Project Area Summary with comparison table of preliminary program and the 2009 BAS. 02/18/10 – JW sent program area comparison summary	Complete
1.13	02/05/10	F&H	F&H: Jason Wilkinson will send out draft materials including a list of questions from the sub-consultants regarding building systems and sustainability, and the draft room data sheets. 02/12/10 – JW sent draft materials to JH. Per JH room data sheets will be distributed for comment once project spaces and allowances as shown in Project Area Summary are confirmed.	
1.14	02/05/10	JH	Jon Harvey will return comments and responses to the draft materials sent on 2/11. 02/17/10 – Sustainability and LEED issues will be discussed at WS-2. Balance of questions will be addressed by Subsurface Utility Investigation, and the Utility Services Connection Points review.	
1.15	02/05/10	RF	F&H: Richard Fernau will contact Louis Vandenberg to discuss options for housing KUCR in a new building. 02/16/10 – RF followed up with Louis by phone	Complete
1.16	02/05/10	JW	F&H: Jason Wilkinson will show the existing road as the basis for the site plans in the DPP. The future location of the road, as shown in the 2009 BAS, will be shown “dashed” in the DPP.	

Workshop #1: Site Plan Alternatives



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SITE ORGANIZATION - OPTION A

DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #1, 02/05/10
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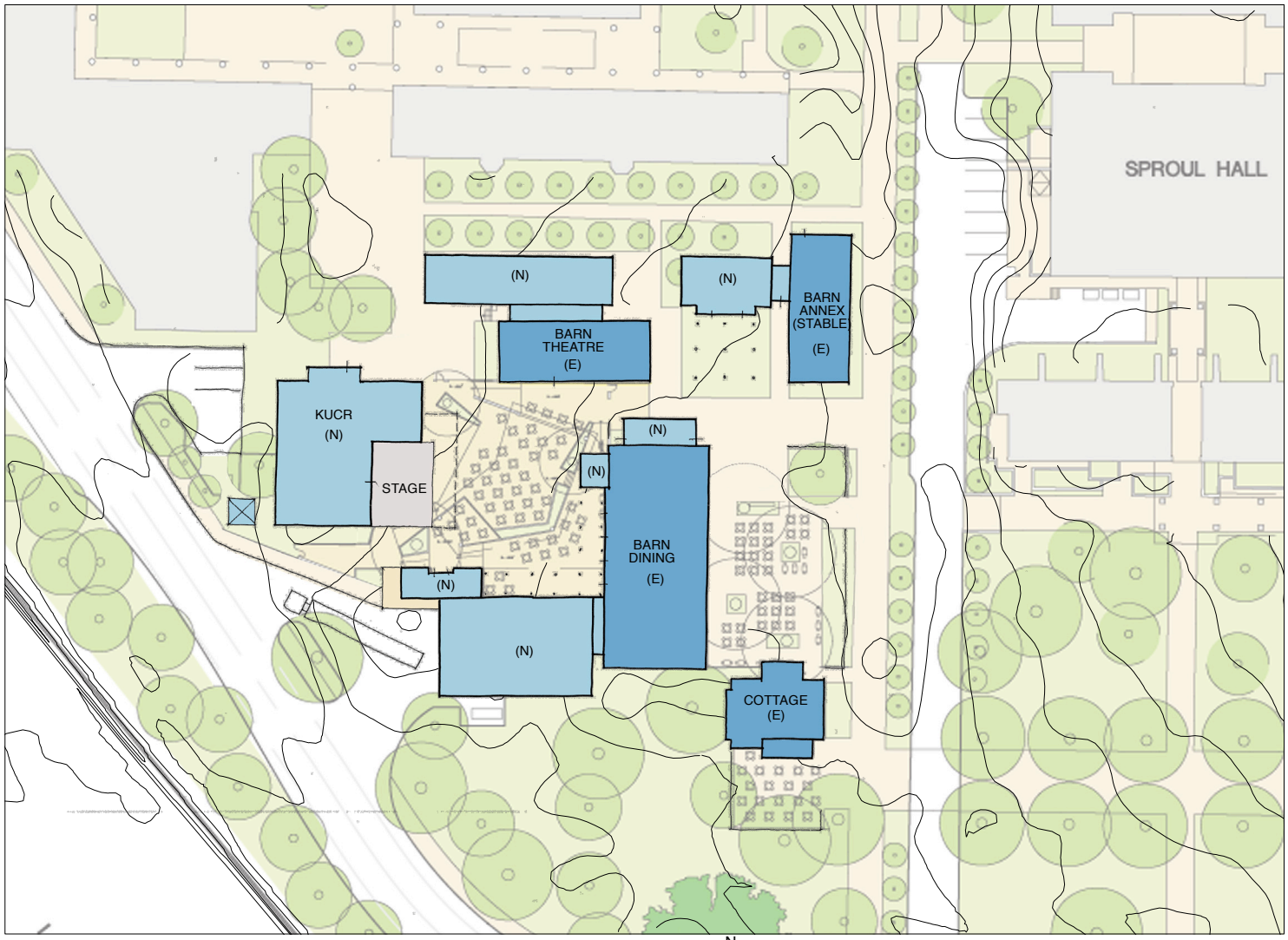
APPENDIX

Workshop #1: Site Plan Alternatives



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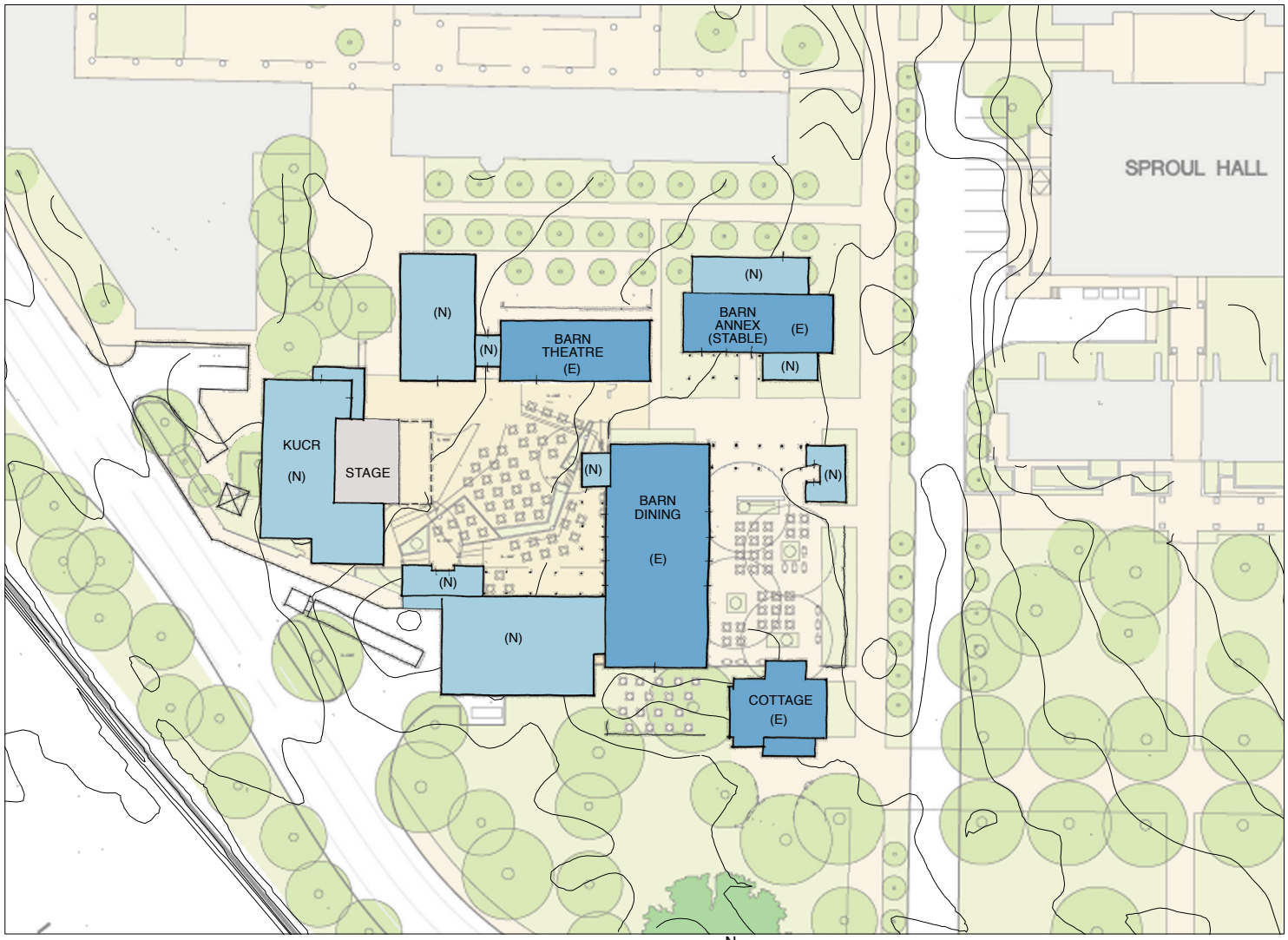
SITE ORGANIZATION - OPTION B

DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #1, 02/05/10
FERNAU & HARTMAN ARCHITECTS, INC

Workshop #1: Site Plan Alternatives



SITE ORGANIZATION - OPTION C

DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #1, 02/05/10
FERNAU & HARTMAN ARCHITECTS, INC

Workshop #2: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: March 15, 2010

MEETING NOTES

Project Management Team Meeting #2

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:00 AM – 9:30 AM, February 26, 2010
LOCATION: Capital and Physical Planning Offices

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Auxiliary Services
	Susan Marshburn	Associate Director of Housing Services
Consultant Team		
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Bry Sarte	Civil Engineer, Sherwood Engineers
	John Rozeluk	Mechanical /Electrical / Plumbing Engineers, Timmons Design Engineers
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

ACTION BY:	ITEM:
	1. **Meeting Notes / Action Items** a. PMT to provide review of the meeting notes and action items within four days after receiving the draft from F&H. b. Action Items that are complete will be moved off the list of current Action Items List and kept as part of the record for future reference.
	2. **Review Studies:**
JN	a. **Historical Resources Inventory (1.02):** A firm has been selected to perform the Historical Resources Inventory for the Barn Group. A schedule for the completion of this work will be provided by the Jacqueline Norman once the contract is finalized. The scope of the work is limited to the historic review and does not include a review of the building condition as proposed by several RFP respondents.
JN	b. **Utility Survey (1.03):** An underground scan of the site utilities has been completed. The data is being transferred into a CAD format and will be reviewed by the Physical Plant. Jacqueline Norman will provide the completed underground utility survey drawings as soon they are available.

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	c. **As-built Drawings:** The only CAD format As-built Drawings for the Barn buildings are the existing floor plans prepared by Nakada for the BAS. Elevations, sections and other drawings will be needed as the project moves forward into Schematic Design. F&H to provide a fee for preparing As-built Drawings as part of the design phase. . d. **Site Survey (1.05):** Richard Racicot will review the cost of a site survey. e. **Utility Connection Point Survey:** A subsurface survey of the area between the Barn Group and the proposed utility connection point will be completed once it is determined which connection point the project will use.
	3. **Project Area Summary:** a. **Barn Dining:** Larry Lanier is concerned that the space allocation for interior seating at the Barn Dining is too tight on a SF per person basis. Susan Marshburn emphasized that the program must meet the seat count for the Barn Dining per the Dining Study. Andy Plumley suggested that the allocation be generous rather than tight. The issue will be discussed during the Workshop.
	4. **Cost:** a. **Cost Estimate:** Laura Hartman related that Scott Lewis the Cost Estimator was nervous with the BAS cost estimate and is more nervous after reviewing the Project Area Summary (comparing the Preliminary Program and BAS Program). Increasing the size of the Barn Dining was his main concern. The additional cost of a two-story building for KUCR and moving the Barn Stable is potentially offset by omitting the basement below the Barn Stable and adapting the historic building to the technological challenges of a radio station as proposed in the BAS. b. **Cost and Increasing Areas:** Increases to the areas from the BAS will most likely result in an increase in the project cost. Susan Marshburn suggested that the Kitchen Addition to the Barn Dining is the heart of the project if the project areas do increase it is where the growth should occur.
	5. LEED / Sustainability: Kenyon with the Office of Design and Construction will be present for the workshop to share his experience with LEED through his involvement in another UCR project that is currently seeking LEED Certification.

APPENDIX

Workshop #2: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
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510.848-4480
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ISSUED: March 15, 2010

MEETING NOTES

Workshop #2: Site Plan Options; Building Systems; Sustainability

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:30 AM – 4:30 PM, February 26, 2010
LOCATION: Capital and Physical Planning Offices, Bannockburn, J-102

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Auxiliary Services
	Susan Marshburn	Associate Director of Housing Services
Steering Committee		
	Andy Plumley	Assistant Vice Chancellor, Auxiliary Services
	Susan Marshburn	Associate Director of Housing Services
	Cheryl Garner	Director of Dinning Services
	Nita Bullock	Director of Physical Planning, Campus Landscape Architect
Campus Representatives		
	Tim Gable	Communications
	Pat Simone	Assistant Director, Physical Plant
	Pat Nugent	Physical Plant
	Mike Terry	Physical Plant
	Eric Shuler	Supervisor, Electrical Shop
	Hassan Ghamlouch	Director of Housing Operations
	Louis Vandenberg	KUCR General Manager
	Tricia D. Thrasher	Office of Design and Construction
	Kenyon Potter	Office of Design and Construction
	Nathan Ziadie	Associated Students of UCR (ASUCR)
Consultant Team		
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Ryan Metcalf	Junior Designer, Fernau & Hartman Architects
	John Rozeluk	Mechanical Engineer, Timmons Design Engineers
	Bry Sarte	Civil Engineer, Sherwood Design Engineers
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	1. **Drawings Presented**: one 24"x36" board (Composite Site Organization Plan), in addition to boards presented previously at Workshop #1.
JH	2. **Utilities**: Representatives from UCR Physical Plant provided information regarding existing utilities. a. **General Utility Issues** i. Building footprints need to be at least 5 feet away from center of utility lines. ii. Separate meters for buildings are proposed for leasing/billing purposes as well as for attaining LEED credits. iii. Jon Harvey to follow up with Physical Plant to provide draft building standards to Consultant Team. iv. Connections should be shared as much as possible to reduce trenching. b. **Electrical** i. **Points of Connection** • There are multiple options for electrical connections. Vault 3A (near West Campus Drive and Humanities) is proposed for all primary connections although Vault 4A (west of Sproul Hall) would also suffice and is less congested. A benefit of Vault 3A is that it is located in a grass area. • Copper piping is preferred; no aluminum. • AV switching mechanism to be placed outside the vault. • Replace the existing transformer and 800 amp service with a new service to handle full complex. • Abandon the existing conduit and consider reuse for data/telecommunications. ii. **Cottage** • Run from Vault 13 to Vault 14 is currently empty. • Two vaults exist near the proposed Cottage location; one is for telecommunications and the other is empty. The Cottage may have to shift to the north to avoid several utility lines. • The new footing of the relocated Cottage can be directly adjacent to a vault. If a new vault is needed it should be concrete. iii. **KUCR** • There is an existing duct bank at the proposed KUCR location. Recommendation from Physical Plant is that service for KUCR and Barn Theater comes from west of existing Barn Stable. The new building footings can span over the existing electrical line, but plans and construction must protect conduits in place.. c. **Water / Sewer**: 110 psi soft, hot water service to Kitchen Addition proposed. i. **Points of Connection**: Multiple lateral connections are preferred to a single tap. Manhole proposed at location of incoming supply. ii. **Reroute 12" Line at KUCR**: The existing 12" water line that runs north/south to the west of the Barn Stable will need to be rerouted further west to accommodate the KUCR addition. The footings of the KUCR addition should not be placed over this water supply. F&H iii. **Sproul Loading Dock**: The truck turnaround at Sproul loading dock may impact sewer or water lines. F&H will review Sproul loading dock for impact on utilities. d. **Steam + Chilled Water** i. A central plant at UCR provides steam and chilled water throughout

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
JN	Campus. Connecting to this system at vault 15 (south of Sproul Hall) is proposed for the Barn Project. ii. No PVC to be used; only steel. iii. 3-way bypass valves (per campus standard) to be used (Physical Plant to provide standards). iv. Minimum of 60°F return water temperature for chilled water. v. BTU meters provided on steam and chilled water. e. **Gas:** Gas is provided by Southern California Gas. f. **Storm Water** i. Policy: The DPP recommended approach to storm water management will be tailored to fit Campus standards. Jacqueline Norman to follow-up with Tricia Thrasher for information regarding the campus-wide storm water policy. ii. Approach: Careful management of storm water can respond to the agrarian nature of the buildings. Bioswales, rainwater harvesting, and fossil filters are options for retention and treatment of storm water. • Points of Connection: Multiple points of connection are available. Currently, a 12" drain runs N-S through the drive to the east of the site while a 24" line runs E-W to the south of the site (just outside Kitchen Addition and Barn Dining). g. **Telecommunications**: The Barn Area contains 2 conduit runs; the current feed on the south side of Barn Dining and an existing duct bank on the west side, from which the new KUCR building and Barn Annex should be fed. The two manholes near the proposed location for the Cottage will likely serve as the connection point for the project.
JH RR	3. **Additional Items** a. **Building Envelope**: Improvements to be made to improve energy performance, including improved daylighting, structure, and insulation. b. **Historical Character**: Completion of the historical report is important for understanding possibilities for design changes. c. **Tree of Concern**: Existing legacy tree on site (an English walnut grafted to a black walnut) is relevant to the history of the UCR campus; would be great to preserve the tree. Mike Terry via Jon Harvey will verify the location of tree trunk. d. **Paving**: Office of Design and Construction is currently in the process of developing standards for the use of interlocking pavers. Richard Racicot to provide a copy of the standards when available.
	4. **LEED / Overview of Sustainability Strategies** a. Project is mandated to achieve LEED Silver Certification minimum. Project will be certified as a single project. b. Desire for simple sustainable systems. Low-tech, passive, cost-effective systems are seen as most beneficial (well-designed daylighting, use of campus chilled water and steam system, etc.) c. There is an opportunity for the project to be a pilot project as presented in the Draft UCR Sustainability Action Plan and serve as an education tool. The project will emphasize cost-effective sustainable strategies while illustrating a campus-wide dedication to sustainable practices. It is important to continue a careful assessment of short- and long-term costs involving both first costs and maintenance costs.

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	5. **HVAC** a. **Systems** i. Passive systems are preferred (passive solar, campus-wide steam and chilled water, insulation, possible solar water heating, kitchen heat reclaim, etc.). The project should tap into existing campus-wide efforts whenever/wherever possible. ii. Sustainable systems to be weaved into all parts of the project, both existing and new. b. **Thermal Comfort** i. For certain areas of the program, setting a wider range of occupants' thermal comfort will improve efficiency. However in the kitchen and other food preparation areas increased temperature fluctuations are not tolerable. ii. Improved air circulation, large ceiling fans, radiant floor heating/cooling, and zoning are all approaches that will improve the performance of the buildings. iii. Due to the varied use of the spaces (some spaces will host both small groups and large gatherings), the buildings will need to respond quickly and efficiently to abrupt changes in heating/cooling demands.
F&H	6. **Structural** a. Durability and seismic resistance are part of sustainability. b. An assessment of the structural impact and extent of the dry rot at the existing buildings will be completed during Schematic Design. c. KUCR: For new construction, wood frame is most cost effective. Steel studs and block construction are also options. d. Cottage: Moving the Cottage offers the opportunity to address dry rot at the base. By putting the crawl space below grade, it becomes possible to reduce the amount of ramps required for access. e. Cottage + Barn Annex: F&H will investigate the different approaches to moving buildings. f. Barn Dining: There may be missing canted beams. The proposed layout lends itself nicely to introducing shear walls at the north and south ends of the building.
	7. **Composite Site Plan** a. **General Issues** i. Cottage: May need to move to the north to avoid existing utilities. A ramp up to the front entrance/porch rather than around to the rear entrance as shown in BAS may be preferable. ii. Barn Annex: Will act to buffer the associated outdoor terrace from the Sproul loading dock to the east. Also, incorporation of a trellis or low walls around the terrace will help to create an enclosed, yet open space for gathering. The existing Barn Annex sliding doors will provide a strong indoor / outdoor connection as well as ample daylight. ("Think wedding" – CG) iii. Barn Dining: Space is open to both courtyards (east and west). iv. KUCR: Current design has the KUCR building as two-stories, with different options for stacking. Questions on adjacencies still remain. The placement

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	of KUCR and the orientation of its entrance make it a visible destination from the north. A next step is for KUCR to provide input on program adjacencies.
F&H	v. Performance Courtyard: Need to further address acoustical concerns and stage/equipment layout. F&H to obtain a proposal for a quick review by the team's theater consultant (Landry & Bogan).
F&H	vi. Ticket Office: This newly proposed space should be included in the project program. It could be stand-alone or could potentially function as a permanent space attached to another building (not attached to Barn Theater). F&H to add the Ticket Office to Project Area Summary.
F&H	vii. F&H to produce overlay sketches on site plan: how "stuff" can be moved and site security.
F&H	viii. F&H to roughly determine the latitude and longitude of proposed location of KUCR radio tower using Google Earth for understanding any conflicts with line of sight to the Box Spring Mountains.
	ix. Jon Harvey will examine options to provide approximate tree locations in a timely manner (as part of 3.c. above).
	b. **Security**
	i. In order to maintain a strong connection to Campus, The Barn Area should feel open to pedestrian circulation. However it needs to be able to be fully enclosed at times due to security concerns and for alcohol containment. Gates between buildings and location of fencing will be studied by F&H (Action Item 7.a.vii).
	ii. The backstage area for the outdoor stage (currently proposed as a part of the KUCR building) needs to function separately from the radio station. Different groups, many of which are not connected to KUCR, will be using this space to prepare for performances and should not have access to the rest of the building. Clarification on this issue from LV and theater consultant is needed.
AP	c. **Liquor License**: Currently, the University Club holds an ABC license, which it extends to Barn Dining. Physically removing the University Club from Barn Dining complicates this relationship, as alcohol service must be contained within the space occupied by the license-holding body. Andy Plumley to obtain additional information to determine whether the license can be modified, fencing options, or if a new ABC license for Barn Dining is required.
	d. **Access / Circulation**
F&H	i. KUCR needs space for a loading dock. F&H to study KUCR loading dock south of KUCR near Barn Dining loading dock.
	ii. Bussing trash and dishes around the site remains an issue.
CG	• Trash: Need to make sure there is adequate space for trash bins throughout the site. Cheryl Garner will determine if a compactor is needed West of Kitchen Addition.
	• A three foot wide sidewalk along the South side of Barn Dining is needed to transport materials from East courtyard and provide a connection between the Cottage and Barn Dining.
CG	• Bussing dishes: Cheryl Garner to determine if Dining will use permanent or disposable dishware. If permanent dishware is chosen, it will be difficult to transport dishes to/from the dishwashing station in Kitchen Addition. Dishes will be coming from Barn Dining as well as from Cottage and Barn Annex, making transportation difficult. Also, a bussing station along the path to the East of the site may be needed to

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	help with transporting food. iii. The service road will also be a cyclist path with the goal of removing cyclists from using the pedestrian path. e. **Cost** i. Laura Hartman spoke with the project's cost estimator (Scott Lewis), who has said that he "was nervous before" about the budget and "is more nervous now." Increasing the size of the project will increase the budget. f. **Implementation / Phasing** i. During construction, the central courtyard may be used as a staging area. Also, a portion of Parking Lot 4 may be utilized as well (for contactor's trailer, etc.). ii. West Courtyard and KUCR could be implemented at the same time. iii. Kitchen Addition, Barn Dining, and Barn Annex could be completed first. iv. Implementation to be discussed further at Workshop #3.
F&H, AP JH	8. **Programming** a. **KUCR** i. LV is concerned that the proposed space allocation may not meet his needs. He prefers a larger performance area within the station for band performances/discussions/interviews. LV is unfamiliar with the process of planning new buildings, but is an expert in radio stations. ii. Clarification of program needs shows that the spaces needed are: • Two production rooms of equal size. The size of existing rooms is adequate (about 10' x 11'). • Two smaller post-production rooms (soundproof spaces with closing doors measuring about 8' x 5') • Several post-production edit bays – Further discussions with Louis is needed to determine sizes of post-production edit bays spaces. • The idea of the conference room being used as a performance room was supported. • Interview / program host space will need to be larger • The Backstage Space, should be separate from KUCR but adjacent to performance stage. F&H and the Theater Consultant to work with AP to determine required size and needs for the Backstage Space. • Server / transmission room approximately 10' x 10'. • Lobby should allow for about 6 people to sit/lounge comfortably, size to be determined. • Private office space for 4 people o Music + News / Public Affairs office: an open office with 2 large stations used to process and catalog materials • Two storage rooms: one for internal use, one for loading live remote equipment • Three parking spaces; one will need to be an ADA space. Also, the parking situation needs to accommodate loading/unloading via a small pickup truck. Any additional parking needs will be met at Parking Lot 4. • Library has three primary audio formats: vinyl records, CDs, and archival tapes (reel-to-reel, cassette, and broadcast cartridge); should be secure and consolidated, not scattered about. o LV volunteered to measure the linear length of the KUCR library materials. Jon Harvey to track. o Visibility of the collections is desirable.

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
F&H, SL	b. **Dining Services** i. **Issues** • Since the BAS, Dining has brought in a master planning group to look at the feasibility of the project; some concerns remain. • The proposed program has 1,323 GSF more than 2009 BAS. Current drawings are based on footprints from BAS. • In order to determine order of magnitude costs increase it is necessary to determine the cost per square foot. F&H and Cost Estimator, Scott Lewis, to determine the order of magnitude cost increase for the increase to the building program. ii. **Kitchen Addition** • Current Concerns: o At least two offices will be needed o Restrooms inside Kitchen Addition can be eliminated, but a changing room will be needed in their place. An additional office may also occupy some of the space formerly assigned to the restrooms. ▪ Proposed restrooms at Northwest corner of Kitchen Addition will suffice for employees. A "dog trot" configuration, or two rooms on either side of a open hall, will be studied o Dry storage has been reduced; space will be tight. o More space is needed for hot food preparation / grill. o Cheryl Garner proposed that the bar pop out into the West Courtyard in an effort to provide more square footage for food preparation. If sufficient space cannot be gained from this move, Kitchen Addition may need to be widened. ▪ The form of these possible additions/shifts needs to be studied. ▪ Bar still needs to serve both inside and outside and should be able to be staffed by one person. o One concern is that there is currently no area for catering equipment storage. This are will be for storing chafing dishes and mobile carts iii. **Barn Dining** • Current Concerns: o Lack of seated dining space within Barn Dining. ▪ May need to decrease the size of the interior stage or make part of it removable to accommodate additional seating. F&H ▪ Servery queuing could possibly begin outside Barn Dining rather than upon entering Servery. ▪ Kitchen Addition could possibly extend to the west. F&H to review truck turning at Barn Dining Loading Dock. ▪ Additional outdoor seating may be added to west and east of Barn Dining (Laura Hartman's proposed porch-like seating scheme). iv. **Barn Annex**: Bar can be reduced to 100 sf. It will require counter space for a bartender and storage for all bar needs. Currently, there is no storage space for tables and chairs. This space will need to be 250 sf.
	9. **Next Steps** a. **Utilities –** There are several options for utility connections that need to be studied. The final underground utility survey will aid in understanding the utility options. b. **Historical Survey –** The Historical Resources Survey that is being prepared will help determine design flexibility for the existing structures.

Workshop #2: Meeting Notes

ACTION BY:	ITEM:
	c. **LEED / Sustainability –** There is a need for further review of the sustainability goals as they relate to the budget, the requirement for LEED Silver Certification and Campus-wide sustainability efforts. d. **HVAC and Thermal Comfort –** In general the project should use passive systems for heating and cooling. However there is a need for certain spaces, such as the Kitchen, to maintain a tight range of thermal comfort, in which case more intensive mechanical systems may be necessary. e. **Structural –** There is a need for a better understanding of the options for seismic resistance and how the Barn Annex and Cottage could be moved. f. **Site Plan –** i. **The Cottage may need to shift from its proposed location to avoid utilities.** ii. **Security –** Security will need to be studied in relation to the desire to maintain a connection to open feeling campus. iii. How "stuff" is moved around the site needs to be studied. iv. Input from the Theater consultant is needed to address various programmatic questions about the indoor and outdoor stage. g. **Cost –** The Cost Consultant will provide information about the order of magnitude cost increase related to increasing the program areas. h. **KUCR –** Many questions remain about the needs of KUCR. A discussion with the Acoustical Consultant is needed to help understand the KUCR program. i. **Barn Dining –**Barn Dining will be studied by Cheryl Garner and Larry Lanier to address concerns about Kitchen space allocation and layout, and sufficient space for interior seating. j. **Implementation and Phasing** will be discussed in detail at Workshop #3. k. **See also attached Action Items List**

APPENDIX

Workshop #2: Action Items

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: March 16, 2010

ACTION ITEM STATUS TABLE

PROJECT: DPP – UCR Barn Project Phases 1 & 2

The Action Item Status Table is meant to summarize the action items raised at the meeting(s) listed above and responsible party for each action item. If they differ from your recollection, please contact Fernau & Hartman immediately. Completed items are taken off the list after review by the PMT.

No.	WS Date	Action By	Issue, Notes & Comments	Status
1.01	02/05/10	SM	PMT: Susan Marshburn will ask Dining Services to provide the draft Dining Study for the Barn, and once available the completed Dining Study report. 2/09/10 – spread sheet of draft Dining Study provided to F&H, completed Dining Study report still pending	
1.02	02/05/10	JN	PMT: Jacqueline Norman will provide the Historical Resources Inventory report to F&H as soon as it is available. 2/26/10 – A firm has been selected to conduct the study. Schedule for completion is TBD. Note: For now proceeding with direction set by 1993 Report.	
1.03	02/05/10	JN	PMT: Jacqueline Norman will provide status of the utility surveys at the next meeting. 2/26/10 – Underground survey is complete. 3/3/10 – Initial CAD file sent to F&H. Review and confirmation by the Physical Plant is pending. 3/12/10 – Review by Plumbing and Telecom sent to F&H by JH. Comments on other trades pending.	
1.04	02/05/10	RR	PMT: Richard Racicot will review fire protection issues with Campus Fire Marshall and will report back to the Committee.	
1.05	02/05/10	RR	PMT: Richard Racicot will investigate the cost of a site survey. 2/26/10 – Cost for a site survey should be available second week of March.	

APPENDIX

Workshop #2: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
1.07	02/05/10	LL	F&H: Larry Lanier will review and update food service program with Cheryl. 3/4/10 – LL reviewed areas and layout with Cheryl Garner and Food Managers. Revised sketch to inform Project Area Summary is pending.	Complete
1.08	02/05/10	JH	PMT: Jon Harvey will send Barn Theater ADA Report to F&H, and once available, will provide final ADA Transition Plan. 2/10/10 – Barn Theater report sent to F&H, final ADA Transition Plan is pending.	
1.09	02/05/10	JH	PMT: Jon Harvey will follow up with Nate Jones (CHASS), who will provide comments on the Barn Theater program presented in the BAS. 2/17/10. Nate will provide comments no later than March 15.	
2.03	02/26/10	F&H	F&H to provide a fee for preparing As-built Drawings.	
2.04	02/26/10	JH	Jon Harvey to follow up with Physical Plant to provide draft building standards to Consultant Team. 03/08/10 – Housing is reviewing the Physical Plant standards and will provide direction.	
2.05	02/26/10	F&H	F&H will review truck turning at the Sproul loading dock for impact on utilities. 3/10/10 – F&H and Civil reviewed truck turning to be presented at WS #3.	Complete
2.06	02/26/10	JN	Jacqueline Norman to follow-up with Tricia Thrasher for information regarding the campus-wide storm water policy.	
2.07	02/26/10	JH	Jon Harvey to verify location of tree trunk of the Walnut tree near proposed location for KUCR. 3/3/10 – Locations of trees trunks have been identified. Drawing to F&H still pending. 03/12/10 – Provided map showing tree locations around the Barn and information that identified Walnut Tree location.	Complete
2.08	02/26/10	RR	Richard Racicot to provide a copy of the interlocking paving standards when available.	
2.09	02/26/10	F&H	F&H will investigate the different approaches to moving buildings	

APPENDIX

Workshop #2: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
2.10	02/26/10	F&H	F&H will obtain a proposal for quick review by theater consultant (Landry & Bogan). 3/12/10 – F&H sent Additional Service Proposal with two separate items to JH: Theater Consultant review and Acoustical Consultant review of KUCR.	Complete
2.11	02/26/10	F&H	F&H will add Ticket Office to Project Area Summary. 3/9/10 – Ticket Office added to Project Area Summary.	Complete
2.12	02/26/10	F&H	F&H to produce overlay sketches on site plan: how “stuff” can be moved and site security. 3/15/10 – F&H drafts overlay sketches on site to be presented at WS #3.	Complete
2.13	02/26/10	F&H	F&H to roughly determine the latitude and longitude of proposed location of KUCR radio tower using Google Earth for understanding any conflicts with line of sight to the Box Spring Mountains. 03/01/10 – F&H identified tower location. 03/12/10 – KUCR review shows location is less than ideal.	Complete
2.14	02/26/10	AP	Andy Plumley to obtain additional information to determine whether the liquor license can be modified, fencing options, or if a new ABC license for Barn Dining is required.	
2.15	02/26/10	F&H	F&H to study KUCR loading dock south of KUCR near Barn Dining loading dock. 3/12/10 – F&H current site plan addresses loading at KUCR (to be presented at WS #3).	Complete
2.16	02/26/10	CG	Cheryl Garner will determine if a compactor is needed west of Kitchen Addition. 03/10/10 – Compactor is needed	Complete
2.17	02/26/10	CG	Cheryl Garner to determine if Dining will use permanent or disposable dishware. 3/4/10 – Meeting with LL and CG: Dining will use disposable dishware (basket with disposable paper liner).	Complete
2.18	02/26/10	F&H, AP	F&H and the Theater Consultant to work with AP to determine required size and needs for the Backstage Space.	
2.19	02/26/10	JH	LV volunteered to measure the linear length of the KUCR library materials. Jon Harvey to track. 3/3/10 - F&H sent email to JH requesting information. 03/11/10 – Information provided	Complete

DPP - UCR Barn Project Phases 1 & 2 – DRAFT Action Item Status Table
3/16/10
Page 3 of 4

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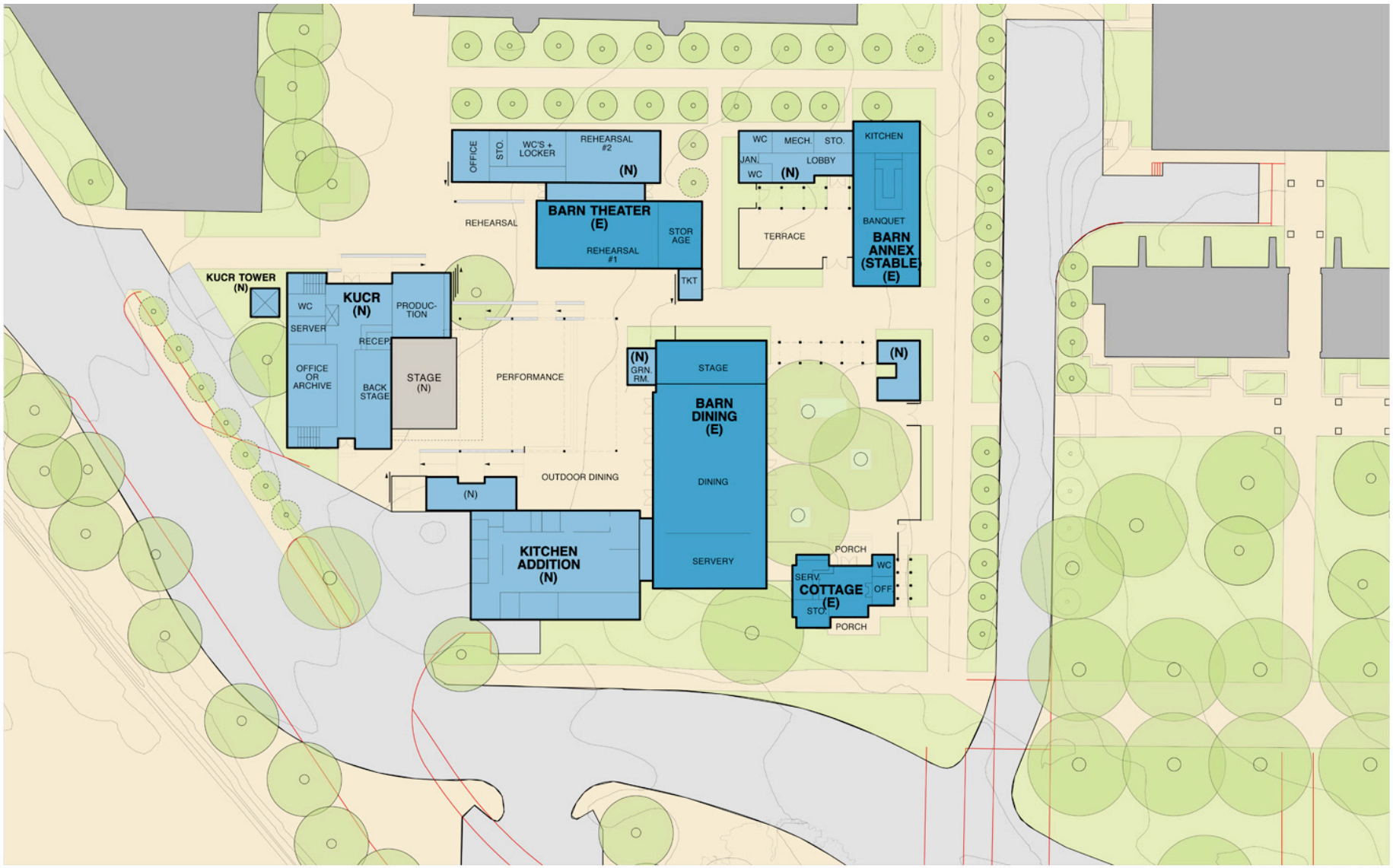
Workshop #2: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
2.20	2/26/10	F&H, SL	In order to determine order of magnitude costs increase it is necessary to determine the cost per square foot. F&H and Cost Estimator, Scott Lewis, to determine the order of magnitude cost increase for the increase to the building program. 3/13/10 – F&H and Scott Lewis discuss order of magnitude cost increase to be presented at WS #3.	Complete
2.21	02/26/10	F&H	Kitchen Addition could possibly extend to the west. F&H to review truck turning at Barn Dining Loading Dock. 3/10/10 – F&H and Civil reviewed truck turning to be presented at WS #3.	Complete

APPENDIX

Workshop #2: Site Plan Alternatives



DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #2, 02/26/10
FERNAU & HARTMAN ARCHITECTS, INC

APPENDIX

KUCR Conference Call: Meeting Notes

Jon Harvey

From: Jon Harvey [jon.harvey@ucr.edu]
Sent: Wednesday, March 10, 2010 5:01 PM
To: Louis Vandenberg; Andy Plumley; Susan Marshburn
Cc: Kieron Brunelle
Subject: KUCR Program Adjustments
Attachments: KUCR_Prgm_Review_03-10-10.pdf

Susan, Andy, Louis,

Adjustments to the KUCR Project Summary dated 03/05/10 from this afternoon's conference call is attached for your information. Changes to the program are:

One open office work station (64 asf) was added to the Other Spaces.

Revised the KUCR production area follows: Master Control room space increase to 190 asf, Studio Production Room A increased to 130 asf, and Studio Production Room B was removed.

As noted on the program sheet, KUCR Library space requires further review. Media collection information will be refined by KUCR to show LF by type (LP, CD, etc). Requested updated collection information by the end of this week.

Please let me know if you have any questions or comments.

Thanks

Jon

Jon Harvey
Capital & Physical Planning
951-827-6952

PROJECT AREA SUMMARY
UCR Barn Project Phases 1 & 2
3/05/10

PRELIMINARY DRAFT
FOR INTERNAL USE ONLY

AREA DESCRIPTION	2009 BAS*	PRELIMINARY PROGRAM	WORKSHOP #2	DIFFERENCE
KUCR				
ASF: PRODUCTION				
KUCR Production	500	500		
Studio: Master Control**			190	
Studio: Production Room A**			130	
~~Studio: Production Room B**~~			~~130~~	
Studio: Interview/Program Host**				
Conference Room (Interview / Program Host)			240	
Edit Post/Prodution Room #1****			48	
Edit Post/Prodution Room #2****			48	
SUBTOTAL	***500***	***500***	***656***	***156***
ASF: OTHER SPACES				
Lobby 01	68			
Backstage/Flex Space	565	450		
KUCR Library†	125	900	900	
Office Service / Kitchenette		40	75	
Remote Live Equipment			100	
Office	983			
Private Offices (4)		400		
Private Office (Director)***			110	
Private Office (Asst. Dir./Program Dir.)***			110	
Private Office (Music Dept.)***			110	
Private Office (Engineering)***			110	
Private Office (Administrative Assistant)***			110	
Open Offices (5)		400		
Open Office (shared workspace)***			64	
Open Office News/Public Affairs***			128 64	
Server/Transmission Equipment Room**		100	100	
Lobby 02	345	275	275	
"ASSIGNABLE TOTAL"	**3,586**	3,065	**2,784**	**-802**
			2648	
NON-ASSIGNABLE (NON-ASF) SPACES				
Circulation	548	600	600	
Elevator/Stair(s)	280	600	600	
Mechanical		150	150	
Telecom Closet			100	
Public Restrooms	116	115	115	
NON-ASSIGNABLE TOTAL	944	1,465	**1,565**	**621**
NET TOTAL ASF & NON-ASF	**4,530**	4,530	**4,349**	
Building Net to Gross Factor 15%	680	680	652	
GROSS TOTAL	**5,210**	5,210	**5,001**	**-208**
PROGRAMABLE COVERED OUTDOOR SPACE				
Backstage Space (secure)***			100	
Stage	500	875	875	
SUBTOTAL	***500***	***875***	***875***	***375***
TOTAL	**5,710**	6,085	**5,876**	**167**

* The 2009 BAS areas for each space were orginally calculated as gross including walls and circulation. F&H has adjusted the numbers to find the net square footage in order to have a direct comparison for the
** Names of spaces from KUCR response to DPP Questionnaire dated 1/27/10 areas were not assigned Spaces and allowances to be confirmed
*** Changes made to program at Workshop #2.
**** More information needed
† Linear length of collection materials by type is needed in order to determine size requirements for KUCR Library KUCR Library size is reduced from BAS by sharing circulation space with other secure

APPENDIX

Workshop #3: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
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ISSUED: April 8, 2010

MEETING NOTES

Project Management Team Meeting #3

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:00 AM – 9:30 AM, March 19, 2010
LOCATION: Capital and Physical Planning Offices

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining & Residential Services
	Susan Marshburn	Executive Director of Housing Services
Consultant Team		
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Laura Boutelle	Project Designer, Fernau & Hartman Architects
	Scott Lewis	Cost Estimator, Oppenheim Lewis
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

ACTION BY:	ITEM:
	1. **KUCR**: a. Concerns were raised about the cost of KUCR being two stories as well as the size of program and the inefficient net-to-gross ratio. b. KUCR currently has approximately 2,000 ASF in their existing space. The current program adds 800 ASF, however the total building is 5000 GSF. Options to consider include: a single story KUCR; a careful review of non-assignable spaces; a review of what can be stored off-site and which items currently being stored can be disposed of. c. Housing and Dining Services would like to understand phasing in order to develop a business plan and cash flow model, which is needed for approval of the project.
F&H	2. **Performances:** a. Theater Consultant: F&H to provide a revised proposal from Theater Consultant to ensure that crowd control, lighting, sound cueing, and stage support spaces are included. The cover letter will be revised to include the appropriate participants for the conference call.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	b. Seating capacity will drive the types of performances that will take place. c. A goal is to provide the ability to use each facility independently and a concern with sound transmission from one location to another was identified. The project will need to address acoustic issues so sound from the west courtyard stage not disrupts food sales in the Barn. The project will also address sound transmission from one location to another within reason. Complete acoustic separation is not a condition.
	3. **Meeting Goals**: The following goals are critical issues to address in Workshop #3: a. Finalize project program areas and allocation. b. Finalize Site Organization Plan.
	4. **Action Items**:
SM	a. **Dining Study (1.01)**: SM reported that the final Dining Study is not yet completed.
JN	b. **Historical Resources Inventory (1.02)**: The EDPA is in process for the firm selected to perform the Historical Resources Inventory. F&H will move forward with the 1993 study and state clearly that the DPP is based on this version.
JN	c. **Utility Survey (1.03)**: RR reported that the Geovision survey missed some water lines because it did not pick up non-metallic lines. Additional work to survey the possible steam and chilled water lines alignment is on hold for now. The
RR	information is not needed to complete the DPP. Item is completed.
	d. **Ground Survey (1.05)**: The ground survey will be delayed until design phase
JH	(after the DPP). For the purposes of the DPP, the item is completed.
	e. **Barn Theater ADA Report (1.08)**: JH is still waiting on the final ADA Transition
JH	Plan.
	f. **Barn Theater Program (1.09)**: JH is still waiting for comments on the Barn Theater program in the 2009 BAS from Nathaniel Jones (NJ). *Note: NJ hand-*
F&H	*delivered these comments to JH and JW at WS#3.*
	g. **As-Built Drawings (2.03)**: F&H has been reviewing the many considerations in documenting these historic structures and will be gathering more information
JH	and taking photos.
	h. **Building Standards (2.04)**: SM reported that Housing and Dining have received Physical Plant standards and will send them to F&H in about one and one half weeks, once they have had a chance to clarify and summarize the
JN	findings in a more presentable form. JH to forward to F&H.
	i. **Storm Water Policy (2.06)**: JN reported that the UCR storm water policy will not
RR	contain anything unusual. This item is complete.
	j. **Interlocking Paving (2.08)**: RR reported that the interlocking paving standards
AP	are being developed.
	k. **Liquor License (2.14)**: AP reported that the liquor license is a non-issue and it will change if necessary. This item is complete.

APPENDIX

Workshop #3: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
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ISSUED: April 8, 2010

MEETING NOTES

Workshop #3: Finalize Elements of DPP; Prepare for Cost Estimate

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:30 AM – 4:30 PM, March 19, 2010
LOCATION: Capital and Physical Planning Offices, Bannockburn, J-102

ATTENDEES:

Project Management Team		
	Don Caskey	Associate Vice Chancellor, Campus Architect
	Kieron Brunelle	Director, Capital and Physical Planning
	Richard Racicot	Assistant Vice Chancellor, Design and Construction
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining & Residential Services
	Susan Marshburn	Executive Director of Housing Services
Steering Committee		
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining & Residential Services
	Susan Marshburn	Associate Director of Housing Services
	Cheryl Garner	Executive Director, of Dining Services
	Nita Bullock	Director of Physical Planning, Campus Landscape Architect
Campus Representatives		
	Louis Vandenberg	General Manager, KUCR
	Nathaniel Jones	Assistant Dean, CHASS
	Paul Richardson	Arts Facilities Manager, CHASS
	John Freese	UCR Police
	Robert Heath	Board President, University Club
	Tim Ralston	Capital and Physical Planning
	Nathan Ziadie	Associated Students of UCR (ASUCR)
Consultant Team		
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Laura Boutelle	Project Designer, Fernau & Hartman Architects
	Ryan Metcalf	Junior Designer, Fernau & Hartman Architects
	Scott Lewis	Cost Estimator, Oppenheim Lewis
	Larry Lanier	Food Service Consultant, Laschober + Sovich

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	1. **Drawings Presented**: Twelve 24" x 36" boards [Composite Site Organization Plan, Composite Site Plan—Alternate (Preserves Walnut Tree), Security Diagram, Moving "Stuff" Diagram, Truck Turning Diagram, Phasing + Implementation Strategy #1—Phases 1-3, Phasing + Implementation Strategy #2—Phases 1-3, Utility Points of Connection Diagram] were presented, in addition to boards shown at previous workshops. Also, adjacency diagrams showing programmatic relationships between spaces were presented.
	2. **Naming Conventions:** Names for the buildings and spaces contained in the project were agreed upon. All names were accepted as presented, with the exception of Barn Annex, which will be referred to as "Barn Stable" and Barn Annex Terrace, which will be referred to as "Barn Stable Patio" from here on out. The project will include the following buildings: Barn Dining, Kitchen Addition, Cottage, Barn Stable, KUCR, Barn Theater, and Restrooms. Outdoor spaces will include West Courtyard, East Courtyard, and Barn Stable Patio.
	3. **Barn Dining**: F&H reported changes in the design made since WS#2, including the reduced square footage of the Kitchen and the Barn Dining stage. a. **Indoor Seating** i. Existing canted beams create difficulties for seating layouts and placement of the POS stations. A section sketch of Barn Dining will be developed to study interior layout options. • F&H presented a layout with the sloping columns incorporated into fixed tables to mitigate ADA issues. Bar tables serving a similar function will be studied as a seating option around the perimeter of the Dining Area to preserve view of stage. • F&H and LL to study orienting the seating North-South and in an angled configuration.
F&H / LL	
	ii. Cheryl Garner (CG) was concerned about seat utilization with bench-style seating. CG recommended 2-tops and 4-tops tables. CG to provide party size and current seat utilization statistics to F&H.
CG	
	iii. Barn Dining may need an A/V mixing booth for existing sound system. CG to provide F&H information regarding current mix setup, which may be applicable to the sound system in the West Courtyard as well.
CG	
	b. **General Program Discussion** i. F&H to study relocating the Kitchen Mechanical room to the southwest corner of Kitchen for easier connection to steam and chilled water to the east at Vault 15.
F&H	
	ii. F&H to study relocating the Green Room to the northwest of Barn Dining, adjacent to Stage.
F&H	
	iii. F&H to revise the adjacency diagrams to reflect current program relationships.
F&H	
	iv. F&H to study adding a structural bay at the north end of the Dining Area and recreating the existing façade**.** • Andy Plumley (AP) noted that the original north façade burned in a fire and the current façade dates to 1986.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	4. **Cottage**: F&H reported changes in the design made since WS#2, including moving the Cottage to the north to clear existing utilities and manholes.
F&H	a. **Entry / Access**: There were several concerns about access to the Cottage and the perceived "front door" (South Porch) and "back door" (East Courtyard) relationship.
F&H	i. F&H to study the indoor/outdoor circulation and number and location of doors to make the South Porch entry more prominent. Double doors will be considered.
F&H	ii. F&H to study widening the ramp at the South Porch to address ADA concerns.
	iii. F&H to study adding a ramp at the North Porch to address ADA concerns at this exit.
	b. **General Program Discussion**
	i. No seating is to be provided inside the Cottage in order to provide sufficient space for circulation and queuing.
F&H	ii. Office and Telecommunications/Electrical seem too large for the space**.** F&H to study a Telecommunications/Electrical cabinet that opens up into
F&H	Office, rather than a dedicated room.
	iii. Storage is too small. F&H to study shifting square footage to Storage from Office and Telecommunications/Electrical.
	5. **Barn Stable**: F&H reported refinements in the design made since WS#2, including the Meeting room seating capacity of 42 persons (using 6-tops tables).
	The Barn Stable Patio can serve as a spillover seating area if additional seating is needed.
	a. **Meeting / Bar**
F&H	i. The two small storage closets at the south end of the Meeting space are not
F&H	needed. F&H to study the possibility of additional seating in this area.
	ii. Bar does not need to wrap-around or provide seating. F&H to study a linear walk-up bar with direct access to the Kitchen, shutters, and storage for liquor and bar supplies.
	iii. Barn Stable will use china, not disposable dishware.
F&H	b. **Electrical / Storage**
	i. F&H to study location of Electrical room to provide access from the outside.
	c. **Lobby**
	i. Lobby should provide a space for gathering, coat check/closet, space to leave gifts, some kind of furniture (benches), and an entry piece (wedding
F&H	announcement, etc.)
	ii. F&H to review Lobby flow and layout.
F&H	d. **General Program Discussion**
	i. F&H to update adjacency diagram to reflect current program relationships, including adding the Barn Stable Patio and showing connection between Restrooms and Lobby.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	6. **KUCR**: F&H reported refinements in the design made since WS#2, including the relocation of the radio tower.
	a. **General Program Discussion**
F&H	i. F&H to first and foremost pursue a single-story option for a more efficient net-to-gross ratio. If a second story is necessary, F&H to study the possibility of removing the second stair. • One benefit of the two-story design is that it would help to block freeway noise. Consideration should be given to sloping the roof up to the west to help mitigate freeway noise.
	ii. The Conference Room will be removed from the program. KUCR staff meetings can occur elsewhere in the Barn complex or around campus.
	iii. Jon Harvey (JH) noted that the library is an area that could be reduced.
JH	iv. JH to provide F&H with the detailed KUCR archive shelving analysis that he recently prepared.
F&H	v. F&H to compare compact shelving to standard shelving and determine square footage savings.
	vi. F&H to study location of KUCR Remote Live Equipment Room to minimize distance away from loading area.
	vii. F&H presented an alternate site plan that preserved the walnut tree west of KUCR. The Steering Committee determined that the tree would interfere with access to the service drive and greatly compromise the KUCR floor plan and therefore should not be preserved. Nita Bullock (NB) also noted that the walnut tree located to the west of KUCR is not identified in the UCR LRDP nor listed in any historic registries and should be identified and mitigated through CEQA if determined to be of importance.
	viii. Louis Vandenberg (LV) is concerned about the security of the archive collection and would like to keep archive materials out of the Production spaces. An alternate suggestion was discussed in which a portion of the archive is displayed in the Production spaces while being properly secured (behind glass, possibly). KB suggested that valuable portions of the KUCR collection might be relocated to special collections in the UCR Library.
	ix. LV approved the location of the KUCR radio tower at the south end of the building. Master Control should be located as close as possible to the tower to minimize the amount of cable run required (critical adjacency).
	b. **Master Control / Production**
	i. The possibility of placing the tower on the roof of KUCR will be reviewed during Schematic Design.
	ii. An Interview / Talent room will need to be added into the program. This space will need to be adjacent to Master Control, with clear visual connection and acoustical separation between the two rooms.
F&H	
	iii. A separate Studio Production room is needed. F&H to study if two studios adjacent to Master Control can be provided.
JH	
	iv. JH to follow up with LV to provide F&H information about the number of occupants and equipment Master Control needs to accommodate.
	v. LV mentioned Master Control at KPFK station as a good precedent.
	7. **Shared Outdoor Spaces**
	a. **West Courtyard**
	i. Program Discussion

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
F&H	• F&H to add BBQ and support in drawings, to be located along the southern end of West Courtyard, in the recess formed by the Kitchen Addition.
AP	• West Courtyard will host various types of performances. AP to provide F&H with lists of current performance types and frequencies, along with potential new uses and priorities. • LV expressed concerns about the acoustical ability to host loud performances in an outdoor space/venue.
F&H	• Stage and stepped performance pit are too large and should be downsized. F&H to coordinate with Theater Consultant and revise layout.
F&H	• F&H to add an A/V mixing booth, centered on the stage and located near seating area. The booth should be permanent to limit the amount of equipment than needs to be moved for a show..
F&H	ii. Outdoor Seating • F&H to revise drawings to show more outdoor seating at the West Courtyard than the East Courtyard (CG noted that this area will become premium seating during performances) with the goal of doubling the amount of West Courtyard seating as compared to the current design. One benefit of an enlarged area will be to allow for additional room for circulation. • Upper deck will be fixed seating for dining. • Lower levels will have movable furniture (cocktail tables possibly) and provide standing room during performances. Currently, furniture is moved 2-3 times per week in the Barn.
	8. **Security**: F&H presented a diagram of both proposed and optional security gates and fences. a. All proposed security enclosures were approved. These include gates at the north end of the West Courtyard running from KUCR to the Barn Theater, gates at the west end of the West Courtyard running from the Kitchen Addition to KUCR, gates at the east end of the West Courtyard running from Barn Dining to Barn Theater, enclosure at the Barn Stable Patio, and enclosure at the east end of the East Courtyard. b. Additional security will be needed in the form of gates at the trellis along the north end of East Courtyard. c. The enclosure at the Barn Stable Patio will be a low wall with fencing, vines, and access via gates.
	9. **Moving "Stuff"**: F&H presented a diagram illustrating how materials, trash and dishes will be transported around the site. a. Outdoor bussing stations in the East Courtyard should move to the east end of the courtyard, near the gates that exit out to the Barn Walk. b. The compactor will be used for compost (food waste, green waste, compostable dishware, etc.); additional bins for recycling and trash will also be provided. c. Carts will be used to move items to and from the Barn Stable.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
F&H	10. **Truck Turning**: F&H presented a diagram illustrating how trucks will access and exit the Loading Dock area at the Kitchen Addition and Sproul Hall. a. Richard Racicot (RR) noted that trucks accessing the Kitchen Loading Dock do not need to back up; they can simply pull up into the drive and unload. F&H to study if there is clearance for a car to access KUCR parking when a truck is unloading at the Kitchen Addition loading dock area. b. RR suggested the entire Kitchen trash, recycling, and waste oil area be enclosed, with a rolling door. c. The Sproul Loading Dock was reviewed in relation to the Barn Project. The truck turn around in this area is not a necessary element of the Barn Project.
F&H/OLI	F&H and Oppenheim Lewis (OLI) to include two options in the Draft DPP (site plan and Cost Plan) for further review. i. One option with truck turnaround (as shown). ii. One option that merely replaces parking, screens trash pickup, and requires the garbage trucks to back out as they do currently.
F&H/OLI	11. **Utility Points of Connection** a. Steam and Chilled Water i. The proposed vault (Vault 15) for connecting to the steam and chilled water lines is 300 feet East of site. • It is very expensive to extend the line this distance. • It may be cheaper to place a stand-alone HVAC unit at each building or to provide a single stand-alone chiller and boiler that feeds the entire site. However, more efficient units needed to achieve LEED Silver will add to the cost. • Another benefit of connecting to the steam and chilled water system would be the need for only one mechanical room to support the entire Barn complex. • F&H and OLI to study both options (stand-alone HVAC units or connecting to the steam and chilled water system) as part of Cost Plan.
F&H/LL	b. Electrical i. Vault 3A will feed electricity to a transformer south of the Kitchen, then distribute to rest of site. c. Water i. LL noted that grease interceptors will be needed at both the Barn Stable and Kitchen Addition. F&H / LL to study.
F&H	12. **Phasing**: F&H presented two strategies for implementation and phasing of the project. The first phasing strategy maintained the phasing approach described in the RFP. The second, preferred option involves underground utility work and building the Dining facilities in Phase 1, KUCR in Phase 2, and the Barn Theater in a future Phase 3. a. **General Comments** i. F&H to revise diagrams to show what is changing at the current phase (along with existing buildings) with future buildings dashed. ii. Underground utility work will need to occur at the beginning of Phase 1, with consideration of maintaining set utilities serving buildings that continue to be in operation during construction. iii. Occupancy dates remain fixed; Phase 1 work will be completed and

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	occupied September 1, 2012 and Phase 2 work will be completed and occupied September 1, 2013. • To meet these deadlines, construction should finish at the end of July. If construction is to run over the expected dates, it would be preferable for construction to slip into the Spring rather than the Fall quarter. iv. Parking Lot 4 may be used for contractor staging, cargo, trailer, etc, and the use will need to be confirmed with TAPS during design. b. **Phasing Concerns** i. KUCR can move to Phase 2 since the schedule has been delayed for Dundee Residence Hall, which necessitates the demolition of the existing KUCR facility. ii. CG will need three weeks to complete training within the Dining facilities. iii. Beginning construction in June is negotiable; if necessary, pushing into spring is preferred to pushing into fall. iv. The Cottage should be constructed concurrently with Barn Dining over summer so that access to the Barn is not infringed upon during the winter and spring. • CG noted that if Barn Dining begins to slip, the Cottage should not slip. If Barn Dining is unable to generate revenue for a period of time, Cottage should be up and running by the end of August. v. AP confirmed that leaving the University Club without a meeting space for a period of time is acceptable (within Phase 1, the construction schedule of the Barn Stable has flexibility). c. **Phasing Consensus** i. Phase 1 • 1A: All underground utility work and moving Barn Stable • 1B: Barn Kitchen • 1C: Barn Dining and Cottage ii. Phase 2: KUCR, West Courtyard, and Stage iii. Phase 3: Barn Theater
	13. **Consultant Narratives**: F&H presented briefs from narratives compiled by the consultants. a. **Feedback** i. Structural
F&H/TM	• RR suggested concrete masonry units for Restrooms and KUCR (for sound purposes) and steel studs for Kitchen. • RR suggested that rafter tails be kept, pulling the ridge up for airflow. F&H noted that Tipping Mar (TM), Structural Engineer, had advised against this strategy. F&H/TM to study options for adding insulation above the existing roof framing.
	ii. MEP
F&H/TDE	• F&H and Timmons Design Engineers (TDE) to study options for radiant heating and cooling at the Barn.
F&H/LA	• F&H and Lutsko Assoicates (LA) to address site lighting in the Draft DPP.
OLI	• CG would like to have an emergency generator in place for Barn and Kitchen to support the community in case of emergency. Oppenheim Lewis, Inc. (OLI), cost estimator, to cost.

Workshop #3: Meeting Notes

ACTION BY:	ITEM:
	• As discussed in WS#2, all buildings will be metered separately. iii. Foodservice • RR noted that all Kitchen walls are to have concrete curbs; he also recommended FRP on cementitious board.
JH F&H/OLI	14. **LEED** a. KB noted that Kenyon Potter is updating UCR LEED baseline. JH to provide F&H with this document for preparing the LEED Matrix. b. Don Caskey (DC) suggested organizing a LEED workshop. i. Begin with UCR baseline and add low-hanging fruit. ii. Educational potential of the project is great. Look at all sustainable options as if project were going beyond LEED Silver. Best to shoot for all options and then scale back as needed. iii. F&H and OLI to develop criteria for a project that meets LEED Silver for the DPP and Cost Plan.
     AP JH AP	15. **CHASS**: During a break, there was a side meeting with CHASS representatives Nathaniel Jones (NJ) and Paul Richardson (PR). AP, JH, JW, and Laura Boutelle (LB) were also in attendance. a. NJ presented a list of issues that were not addressed in the 2009 BAS which will be added to the Appendix of the DPP. b. AP will present the Draft DPP plan to chairs of the department (3) and Dave Keltstrand (sp?) for input. However, the project schedule cannot be delayed when setting this meeting date. If necessary, input will be added as an attachment to the completed DPP. c. JH to invite CHASS and representatives to the conference call with the Theater and AV consultants (4/5/10). d. AP to collect types of performances by CHASS that the Outdoor Spaces and stages will need to support.
F&H/OLI	16. **Cost Plan**: F&H and OLI to develop the draft Cost Plan using the format of the two sample Cost Plans provided by JH. a. “Below the Line” items: i. Sproul truck turning (this is a campus issue, not specific to this project). ii. Barn Dining/Kitchen emergency generator. b. Escalation will be 2-3% carried to the mid-point of construction. c. A design contingency of 10% or higher will be used in the estimate. CM will be assumed at 5%. d. Each individual building will be broken out, as well as site landscaping per zone. e. The Barn Theater will not be part of the Cost Plan.

APPENDIX

Workshop #3: Action Items

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ISSUED: April 8, 2010

ACTION ITEM STATUS TABLE

PROJECT: DPP – UCR Barn Project Phases 1 & 2

The Action Item Status Table is meant to summarize the action items raised at the meeting(s) listed above and responsible party for each action item. If they differ from your recollection, please contact Fernau & Hartman immediately. Completed items are taken off the list after review by the PMT.

No.	WS Date	Action By	Issue, Notes & Comments	Status
1.01	02/05/10	SM	PMT: Susan Marshburn will ask Dining Services to provide the draft Dining Study for the Barn, and once available the completed Dining Study report. 2/09/10 – spread sheet of draft Dining Study provided to F&H, completed Dining Study report still pending 3/19/10 – Report still pending 04-06-10 – Task is completed for the purposes of the DPP. The final report will be provided once available.	Completed
1.02	02/05/10	JN	PMT: Jacqueline Norman will provide the Historical Resources Inventory report to F&H as soon as it is available. 2/26/10 – A firm has been selected to conduct the study. Schedule for completion is TBD. Note: For now proceeding with direction set by 1993 Report. 3/19/10 – Report still pending. DPP will move forward with the 1993 Study as the basis.	
1.03	02/05/10	JN	PMT: Jacqueline Norman will provide status of the utility surveys at the next meeting. 2/26/10 – Underground survey is complete. 3/3/10 – Initial CAD file sent to F&H. Review and confirmation by the Physical Plant is pending. 3/12/10 – Review by Plumbing and Telecom sent to F&H by JH. Comments on other trades pending. 3/19/10 – Geovision survey missed some non-metallic utility lines. An additional survey of the	Completed

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No.	WS Date	Action By	Issue, Notes & Comments	Status
			proposed steam and chill alignment was placed on hold. Information is not needed for the DPP.	
1.04	02/05/10	RR	PMT: Richard Racicot will review fire protection issues with Campus Fire Marshall and will report back to the Committee.	
1.05	02/05/10	RR	PMT: Richard Racicot will investigate the cost of a site survey. 2/26/10 – Cost for a site survey should be available second week of March. 3/19/10 – Survey will wait until design phase.	Completed
1.08	02/05/10	JH	PMT: Jon Harvey will send Barn Theater ADA Report to F&H, and once available, will provide final ADA Transition Plan. 2/10/10 – Barn Theater report sent to F&H, final ADA Transition Plan is pending. 3/19/10 – Study still pending. 04-06-10 – Task is completed for the purposes of the DPP. Anticipate the final report will be provided during design phase.	Completed
1.09	02/05/10	JH	PMT: Jon Harvey will follow up with Nate Jones (CHASS), who will provide comments on the Barn Theater program presented in the BAS. 2/17/10. Nate will provide comments no later than March 15. 3/19/10 – Comments delivered by NJ to JH at WS #3.	Completed
2.03	02/26/10	F&H	F&H to provide a fee for preparing As-built Drawings. 3/19/10 – F&H gathering additional information and photos for preparing fee.	
2.04	02/26/10	JH/SM	Jon Harvey to follow up with Physical Plant to provide draft building standards to Consultant Team. 03/08/10 – Housing is reviewing the Physical Plant standards and will provide direction. 3/19/10 – Housing has received standards from Physical Plant and will provide summaries in 1.5 weeks for JH to forward to F&H.	
2.06	02/26/10	JN	Jacqueline Norman to follow-up with Tricia Thrasher for information regarding the campus-wide storm water policy. 3/19/10 – Storm water policy will not contain anything unusual.	Completed

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No.	WS Date	Action By	Issue, Notes & Comments	Status
2.08	02/26/10	RR	Richard Racicot to provide a copy of the interlocking paving standards when available. 3/19/10 – Standards still pending.	
2.09	02/26/10	F&H	F&H will investigate the different approaches to moving buildings 3/19/10 – F&H reported at WS 3 on options for moving Cottage and Barn Stable	Completed
2.14	02/26/10	AP	Andy Plumley to obtain additional information to determine whether the liquor license can be modified, fencing options, or if a new ABC license for Barn Dining is required. 3/19/10 – AP reported this is a non-issue. The license will change if necessary.	Completed
2.18	02/26/10	F&H, AP	F&H and the Theater Consultant to work with AP to determine required size and needs for the Backstage Space. 3/23/10 – Additional services approved for Theater Consultant review and conference call set for 4/5/10. 04/05/10 – Conference call with Theater Consultant reviewed size of Backstage Space.	Completed
3.01	03/19/10	F&H, LL	F&H and LL to study orienting the Barn Dining seating in North-South and angled configurations.	
3.02	03/19/10	CG	CG to provide Barn Dining party size and current seat utilization statistics to F&H. 04-05-10 – Information provided to F&H	Completed
3.03	03/19/10	CG	CG to provide F&H information on current sound mixing booth at Barn Dining.	
3.04	03/19/10	F&H	F&H to study relocating the Kitchen Mechanical Room to the southwest corner of Kitchen for easier connection to steam and chilled water from Vault 15. 04/02/10 – F&H developed site plan showing Mechanical Room south of Kitchen Addition	Completed
3.05	03/19/10	F&H	F&H to study relocating the Green Room to the northwest corner of Barn Dining, adjacent to Stage. 04/02/10 – F&H developed site plan showing Green Room relocated as discussed	Completed
3.06	03/19/10	F&H	F&H to revise the adjacency diagrams to reflect current program relationships.	Completed

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Workshop #3: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
3.07	03/19/10	F&H	F&H to study adding a structural bay at the north end of the Dining Area. 04/02/10 – F&H developed site plan showing additional structural bay at north end of Barn as discussed	Completed
3.08	03/19/10	F&H	F&H to study the indoor/outdoor circulation and number and location of doors at the Cottage.	
3.09	03/19/10	F&H	F&H to study widening the ramp at the South Porch of the Cottage. 04/02/10 – F&H developed site plan showing a wider ramp at South Porch of the Cottage	Completed
3.10	03/19/10	F&H	F&H to study adding a ramp at the North Porch of the Cottage to address ADA concerns. 04/02/10 – F&H developed site plan showing ramp at North Porch of Cottage	Completed
3.11	03/19/10	F&H	F&H to study a Telecommunications/Electrical cabinet at the Cottage that opens up into Office, rather than a dedicated room.	
3.12	03/19/10	F&H	F&H to study shifting square footage at the Cottage to Storage from Office and Telecommunications/Electrical.	
3.13	03/19/10	F&H	The two small storage closets at the south end of the Meeting space of the Barn Stable are not needed. F&H to study the possibility of additional seating in this area.	
3.14	03/19/10	F&H	F&H to study a linear walk-up bar at the Barn Stable with direct access to the Kitchen, shutters, and storage for liquor and bar supplies.	
3.15	03/19/10	F&H	F&H to study location of Electrical room at the Barn Stable to provide access from the outside.	
3.16	03/19/10	F&H	F&H to study Barn Stable Lobby flow and layout.	
3.17	03/19/10	F&H	F&H to update Barn Stable adjacency diagram to reflect current program relationships, including adding the Patio and showing connection between Restrooms and Lobby.	
3.18	03/19/10	F&H	F&H to study a single-story option for a more efficient net-to-gross ratio at KUCR. If a second story at KUCR is necessary, F&H to study the possibility of removing the second stair. 04/02/10 – F&H sent site plan with single story KUCR	Completed
3.19	03/19/10	JH	JH to provide F&H with the detailed KUCR archive shelving analysis that he recently prepared. 04/06-10 –Information furnished to F&H.	Completed

DPP - UCR Barn Project Phases 1 & 2 – DRAFT Action Item Status Table
3/31/10
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APPENDIX

Workshop #3: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
3.20	03/19/10	F&H	F&H to compare compact shelving to standard shelving and determine square footage savings at KUCR.	
3.21	03/19/10	F&H	A separate KUCR Studio Production room is needed. F&H to study if two studios adjacent to Master Control can be provided. 04/02/10 – F&H sent site plan showing two Production Studios as discussed	Completed
3.22	03/19/10	JH	JH to follow up with LV to provide F&H information about the number of occupants and equipment KUCR Master Control needs to accommodate. 04-05-10 – LV will review KUCR program and room data sheets during the Administrative Draft review period. Additional information will be provided with comments.	Completed
3.23	03/19/10	F&H	F&H to add BBQ and support in drawings, to be located along the southern end of West Courtyard, in recess formed by Kitchen Addition.	
3.24	03/19/10	AP	AP to provide F&H with lists of current performance types and frequencies, along with potential new uses and priorities. 04-05-10 – Information provided to F&H	Completed
3.25	03/19/10	F&H	Stage and stepped performance pit at West Courtyard are too large and should be downsized. F&H to coordinate with Theater Consultant and revise layout. 04/02/10 – F&H sent site plan showing revised layout as discussed	Completed
3.26	03/19/10	F&H	F&H to add an A/V mixing booth, centered on the stage and located near seating area in West Courtyard. The booth should be permanent to reduce the need for moving equipment.	
3.27	03/19/10	F&H	F&H to revise drawings to show more outdoor seating at the West Courtyard with the goal of doubling the amount of seating in this location.	
3.28	03/19/10	F&H	F&H to study if there is clearance for a car to access KUCR parking when a truck is unloading at the Kitchen Addition loading dock area.	
3.29	03/19/10	F&H/OLI	F&H and OLI to include two options for the Sproul loading dock: one option with truck turnaround, one option that merely replaces parking, screens trash pickup, and requires the garbage trucks to back out as they do currently.	

APPENDIX

Workshop #3: Action Items

No.	WS Date	Action By	Issue, Notes & Comments	Status
3.30	03/19/10	F&H/OLI	F&H and OLI to study two HVAC options as part of Cost Plan: one option involving stand-alone HVAC units at each building, one option involving connection to the steam and chilled water system.	
3.31	03/19/10	F&H/LL	F&H and LL to study adding grease interceptors at both the Stable and Kitchen Addition.	
3.32	03/19/10	F&H	F&H to revise phasing diagrams to show what is changing at the current phase (along with existing buildings) with future buildings dashed.	
3.33	03/19/10	F&H/TM	F&H and TM to study options for adding insulation above the existing roof framing at Barn Dining.	
3.34	03/19/10	F&H/TDE	F&H and TDE to study options for radiant heating and cooling at the Barn.	
3.35	03/19/10	F&H/LA	F&H and LA to address site lighting in the Draft DPP.	
3.36	03/19/10	OLI	Oppenheim Lewis to cost the inclusion of an emergency generator for Barn Dining and Kitchen Addition to support the community in case of emergency.	
3.37	03/19/10	JH	JH to provide F&H with UCR LEED baseline for preparing the LEED Matrix. 04/06/10 – F&H to use information provided to date to develop LEED matrix.	Completed
3.38	03/19/10	F&H	F&H to develop criteria for a project that meets LEED Silver for the DPP and Cost Plan.	
3.39	03/19/10	AP	AP will present the Draft DPP plan to chairs (3) of CHASS and Dave Kellstrand for input.	
3.40	03/19/10	JH	JH to invite CHASS and representatives to participate on the conference call with the Theater and AV consultants (4/5/10).	Complete
3.41	03/19/10	F&H/OLI	F&H and OLI to develop the draft Cost Plan using the format of the two sample Cost Plans provided by JH.	

DPP - UCR Barn Project Phases 1 & 2 – DRAFT Action Item Status Table
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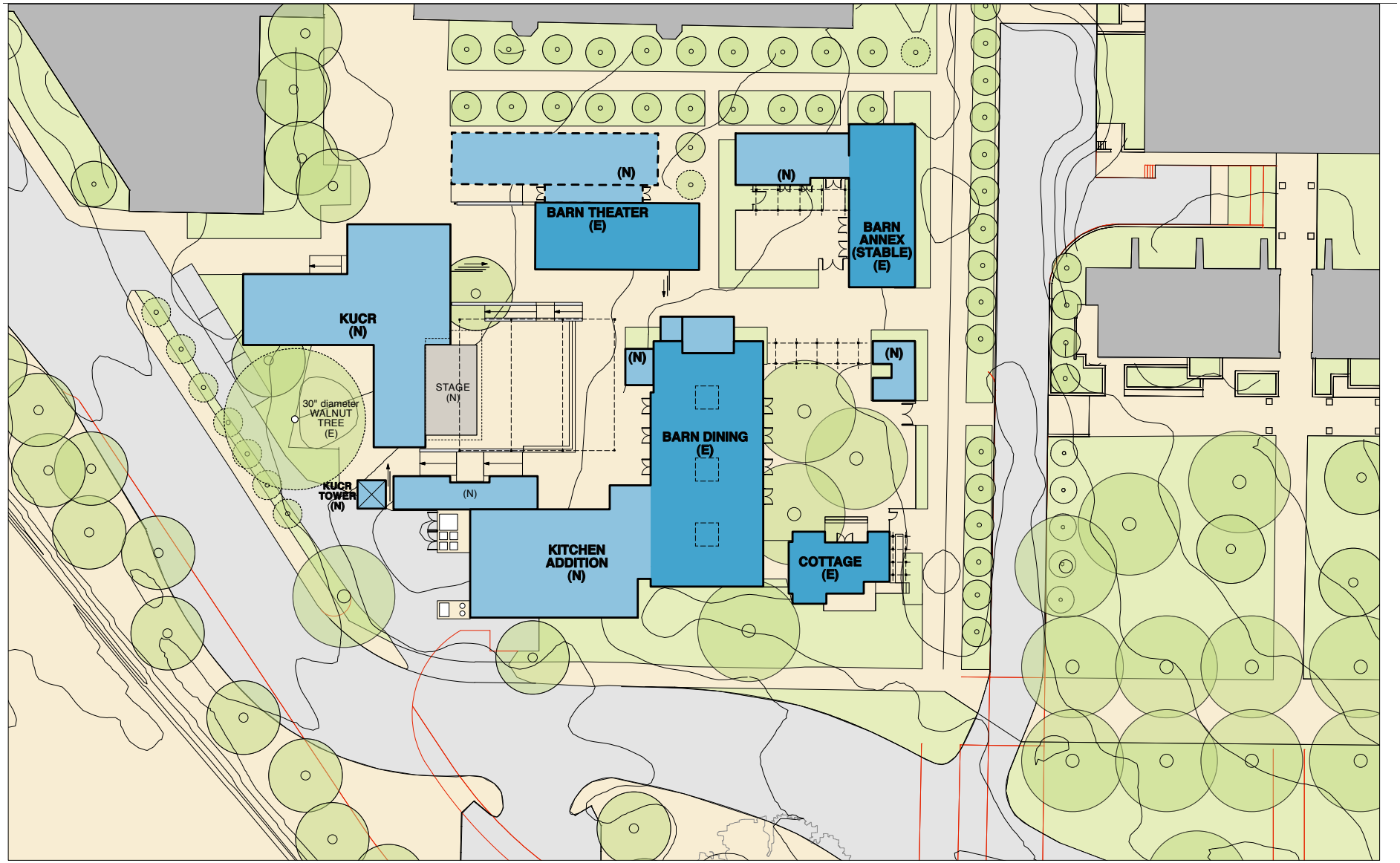
Workshop #3: Site Plan Alternatives

DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #3, 03/19/10
FERNAU & HARTMAN ARCHITECTS, INC

Workshop #3: Site Plan Alternatives



COMPOSITE SITE PLAN - ALTERNATE (PRESERVES THE WALNUT TREE)

DPP - UCR BARN PROJECT PHASES 1 & 2
WORKSHOP #3, 03/19/10
FERNAU & HARTMAN ARCHITECTS, INC

APPENDIX

Performance Issues Conference Call: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

Issued: May 25, 2010

DPP – UCR Barn Project Phases 1 & 2
Fernau & Hartman Architects, Inc.
3:30 – 5:00 pm April 05, 2010
Performance Issues Conference Call

Participants:

Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
Richard Racicot	Assistant Vice Chancellor, Office of Design and Construction
Jacqueline Norman	Senior Project Manager, Office of Design and Construction
Susan Marshburn	Executive Director of Housing Services
Andy Plumley	Assistant Vice Chancellor, Housing, Dining & Residential Services
Cheryl Garner	Executive Director, of Dining Services
Nate Jones	Assistant Dean, CHASS
Paul Richardson	Arts Facilities Manager, CHASS
Laura Hartman	Principal in Charge, Fernau & Hartman Architects
Jason Wilkinson	Project Manager, Fernau & Hartman Architects
Rose Steel	Principal Consultant, Landry & Bogan, Inc. (Theater Consultant)
Tom Schindler	Vice President, Charles M. Salter Associates, Inc. (AV Consultant)

Notes

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

1) **Occupancy**
    a. Fire Marshal will determine maximum number of occupants and exiting requirements for performances or any other use beyond normal dining operations.
2) **Back of House Support Spaces**
    a. Smaller support spaces are OK. If necessary the Barn Stable can be used.
3) **Outdoor Stage**
    a. Mosh Pit: Angle steps to allow for better views and dancing area
    b. Sound / lighting control outdoor stage - two connection points:
        i. There will be an enclosed, permanent booth at the northwest wall of the Barn Dining facing the stage
            1. The sound and lighting boards will be stored when not in use

Performance Issues Conference Call: Meeting Notes

2. The booth will be raised, have low walls, and will not be covered
3. A temporary ramp or stairs will be brought in as needed to access the booth

ii. There will also be a connection point (no enclosure) in the "Dining Seating Area," closer to the stage

1. Both locations will also have network and power connections

c. Screen and projector: larger outdoor mechanical screen on the outdoor stage plus a projector

d. Camera: there will be a truss mounted fixed camera to provide feed to the indoor screen

e. Dimmers: (one dimmer rack=96 circuits) and multiple amp racks in the storage at the southwest gates into the stage area (west of the WC near the loading dock)

f. Shade Structure:

i. The canopy will need to be 18' to 20' high to support lights and lighting trusses mounted at 16' high

ii. Columns will be added to reduce the spans and reduce the column size

iii. Canopy will also need to support permanent weatherized loudspeakers

1. If there are heavier low frequency loudspeakers located as delays (one extra set) in the seating area they can be at the columns.

g. Stage Canopy:

i. Acoustically absorptive underside material. Also on upper walls at back of stage (KUCR exterior walls)

ii. Separate structure for stage and canopy from KUCR

h. Stage Access will be reviewed by F&H to provide for loading from south end of stage

i. Lighting will be truss mounted to the Shade Structure as noted above

i. Provide capability for movable lights but no followspots

4) Indoor Stage

a. Approximate size of the stage is12’ x 20’

b. Sound / lighting control for the indoor stage:

i. The indoor stage will have a sound board connection point on one side of the stage and a lighting control connection point on the other. Neither will be permanent

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Performance Issues Conference Call: Meeting Notes

ii. Also possible to have connection points for both sound and lighting in the same place, and at two or three locations to accommodate different types of acts and mixing / lighting requirements

c. Lighting:
   i. Extent of lighting is to be determined
      1. Incorporate into existing truss
      2. Locations for dimmers are also to be determined
   ii. Provide capability for movable lights but no followspots

d. Screen and projector: mechanical screen on the stage for viewing live feed from the exterior stage plus a projector

5) Ticket Booth

a. The Ticket Booth will include the following:
   i. Terminals for Ticket Master and satellite connection
   ii. Exterior lighting and canopy overhead
   iii. Two onsite sales stations (tickets will be preprinted not computer generated)
   iv. Two sales windows with thick security glass and one safe
   v. Door to the interior of The Barn, no exterior door

6) Additional Storage

a. There will need to be additional storage for audio equipment including:
   i. Mixing boards, mics, stands, cables, and stage monitor cabinets

APPENDIX

DBR Presentation: Meeting Notes

UC Riverside
Design Review Board
Meeting Minutes for April 6, 2010

Board Members		
Professor John Ganim	Academic Senate Chair, Physical Resources Committee	(N)
Professor Stella Nair	History of Art (CHASS)	(A*)
Professor Jerome Schultz	Bioengineering (BCOE)	(A)
Professor Martin Kennedy	Earth Sciences (CNAS)	(N)
Timothy Ralston	Associate VC, Capital & Physical Planning	(A)
Don Caskey	Associate VC/Campus Architect, Design & Construction	(A)
Charles "Duke" Oakley	Steven Ehrlich Architects	(A)
Rob Quigley	Robert Wellington Quigley, FAIA	(A)
Kathleen Garcia	Wallace, Roberts & Todd Architects	(A)
Presenter(s)		
Laura Hartman	Fernau & Hartman	(A)
Jason Wilkinson	Fernau & Hartman	(A)
Other Attendees		
Rich Racicot	Office of Design & Construction	(A)
Mike Delo	Transportation & Parking Services	(N)
Mike Miller	Facilities, Plant Administration	(N)
Jon Harvey	Capital & Physical Planning	(A)
Kieron Brunelle	Capital & Physical Planning	(N)
Tricia Thrasher	Office of Design & Construction	(N)
Nita Bullock	Capital & Physical Planning	(A)
Andy Plumley	Housing Services, Administration	(A)
Susan Marshburn	Housing Services, Administration	(A)
Cheryl Garner	Housing Services, Dining	(A)
Jacqueline Norman	Office of Design & Construction	(A)
Susan Ryan	Office of Design & Construction	(A)
Sandi Evelyn-Veere	Office of Design & Construction	(A)

Attendance (A = Attendance, A* = Arrived After Presentation, N = Not in Attendance)

1.0 Meeting Agenda. The agenda for the April 6th meeting of the Design Review Board (DRB) included:

a. Barn Project Phases 1 & 2, Pre-Design.
Fernau & Hartman presented their pre-design study of the Barn Project Phases 1 & 2 which includes: Barn Dining and Kitchen Addition, Barn Stable, Cottage, KUCR and Barn Theatre.

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DBR Presentation: Meeting Notes

2.0 Observations and Recommendations -- **Barn Project Phases 1 & 2, Pre-Design**.

a. The DRB provided the following comments:

1. Encouraged the design development of interior spaces in the Barn Dining area to address acoustics in order to minimize sound transfer. Acoustical improvements over the existing facility will help improve the dining experience.

2. Recommended that meeting rooms with food service be included in the scope of the project.

3. The terminus of Eucalyptus and Barn Walks ending in a semi-intersection needs to be addressed in order to provide a more gracious entry into and connection across the campus. This area should be further studied and resolved during design.

4. If security and fencing of the courtyards areas are necessary, it is suggested they be developed in a seamless way by using transparent materials for fencing with heights kept to a minimum.

5. The freeway's noise generation is only partially mitigated by the existing sound wall. It will be important to study how to minimize traffic noise in the courtyard spaces and how to utilize the building masses as appropriate sound walls.

6. Since the project includes old versus new buildings, the design should be balanced in scale and materials. DRB endorsed the concept of older buildings being in the foreground with the new buildings in the background. Material selection should reinforce the concept so new buildings do not overshadow existing.

7. The incorporation of trellises in the design needs to be in harmony with the buildings.

8. KUCR facility should explore a stronger relationship with the outdoor entertainment space. It was suggested that one way would be to incorporate the use of a multipurpose digital screen on the stage area showing broadcasts.

9. The design of potentially five courtyards plays an important role in the development of the site and should be looked at as a series of interrelated courtyards.

10. The landscape design should take into consideration the campuses agricultural heritage by developing landscape responses that relate to our early California gardens. This could be done not only with plant material, but hardscape, walls and fences. Permeable paving, such as decomposed granite would also evoke this character. This type of approach would make it a rich site and further tie the old

APPENDIX

DBR Presentation: Meeting Notes

to the new. It was further suggested the approach to the landscape design be developed in a "less formal" way than typical campus landscapes.

11. The bathroom facility, sited at the entry portal to the north, would be a challenge to design. Sound attenuation and privacy will be concerns. A double-door entry could be considered as well as a water feature in near proximity to the facility.

12. Campus guidelines should be developed for The Barn Group to ensure that the development of future phases is in keeping with the current project's direction.

13. The west side of The Barn Group needs to be carefully designed, not overlooked or just dealt with in terms of a demanding service function. The concept design for the service road separated from West Campus Drive with a median gives the potential for landscape screening as one, possibly important tool, for the overall design of that face of the project.

The board commended Fernau & Hartman on a well-developed and refined presentation.

Note: Presentation by Fernau & Hartman, available by request.

3.0 School of Medicine Site Change

a. Nita Bullock informed the DRB that the School of Medicine site has changed from the northeast corner of Chicago Ave. and Martin Luther King Blvd., to the northeast corner of Iowa Ave. and Martin Luther King Blvd. The site change will delay the LRDP Amendment process by one year. Nita will provide updates on the status of the LRDP Amendment at future meetings.

4.0 Follow Up and Next Steps.

a. DRB's next meeting is scheduled for May 3, 2009.

Attachments: Barn Project Phases 1 & 2 Area Summary
West Campus Analysis – School of Medicine Site Options C1, C2, C3 & D

The following constitutes a summary of topics presented to or discussed by the DRB on April 6, 2010. Recipients of these minutes are encouraged to apprise Sandi Evelyn-Veere of any errors or omissions.

APPENDIX

Workshop #4: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: May 19, 2010

MEETING NOTES

Project Management Team Meeting #4

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:00 AM – 9:30 AM, April 16, 2010
LOCATION: Capital and Physical Planning Offices

ATTENDEES:

Project Management Team		
	Kieron Brunelle	Director, Capital and Physical Planning
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining and Residential Services
	Susan Marshburn	Executive Director of Housing Services
Consultant Team		
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Scott Lewis	Cost Estimator, Oppenheim Lewis

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

ACTION BY:	ITEM:
	1. **Workshop #4 Goals**: The goals for the Workshop #4 are to bring closure to the program and implementation plan.
	2. **Performance Issues Conference Call:** Reviewed the input of the Theater Consultant and its usefulness for the DPP.
	3. **Draft DPP Text**: Some of the text in the draft DPP needs work. The text should be clear and concise. It should also focus positive language and avoid negative language whenever possible.
AP	4. **Allowable Number of Occupants:** AP to meet with the Campus Fire Marshal to discuss allowable number of occupants for indoor and outdoor gathering spaces.
	5. **Action Items:** a. **1.02:** JN reported that the Historical resources report will be completed April 26, 2010. The preliminary findings are that the project does not appear to qualify as "historic resources" per CEQA, but the buildings do have cultural significance for the UCR campus and community. b. **2.03:** F&H to provide a fee for As-Built drawings after reviewing the recently

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
	found archived drawings: i. Original drawings (1916 and 1917) for the Cottage, Barn Stable and The Barn ii. Drawings (1985) for the renovation of The Barn after the north end of the structure burned in a fire. c. **3.36:** A single emergency generator for both Kitchen (refrigeration and cooking requirements) and KUCR (emergency broadcast requirements) will be included in the cost plan. Incorporating the generator into the site plan will be a challenge given the limited space.
	6. **Schedule:** The DPP is currently on schedule and is targeting the upcoming milestones: a. **4/28/10 Administrative Draft DPP:** F&H to submit the electronic PDF and one printed copy. b. **5/19/10 Pre-CPAC Conference Call (3:00 to 4:00 PM):** Review the materials for the CPAC presentation. c. **5/24/10 CPAC Presentation (2:00 to 2:30 PM)**

APPENDIX

Workshop #4: Meeting Notes

FERNAU & HARTMAN • ARCHITECTS, INC.
2512 Ninth Street No. 2 • Berkeley California 94710
510.848-4480
fax 510.848-4532

ISSUED: May 20, 2010

MEETING NOTES

Workshop #4: Review DPP and Cost Plan

PROJECT: DPP – UCR Barn Project Phases 1 & 2
TIME/DATE: 9:30 AM – 3:45 PM, April 16, 2010
LOCATION: Capital and Physical Planning Offices, Bannockburn, J-102

ATTENDEES:

Project Management Team		
	Kieron Brunelle	Director, Capital and Physical Planning
	Jacqueline Norman	Senior Project Manager, Office of Design and Construction
	Jon Harvey	Principal Education Facilities Planner, Capital and Physical Planning
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining and Residential Services
	Susan Marshburn	Executive Director of Housing Services
Steering Committee		
	Andy Plumley	Assistant Vice Chancellor, Housing, Dining and Residential Services
	Susan Marshburn	Executive Director of Housing Services
	Cheryl Garner	Executive Director of Dining Services
	Nita Bullock	Director of Physical Planning, Campus Landscape Architect
	Professor John Ganmin	Faculty Representative, Academic Senate
Consultant Team		
	Laura Hartman	Principal in Charge, Fernau & Hartman Architects
	Jason Wilkinson	Project Manager, Fernau & Hartman Architects
	Ryan Metcalf	Junior Designer, Fernau & Hartman Architects
	Scott Lewis	Cost Estimator, Oppenheim Lewis

These notes are meant to summarize the issues raised and directions chosen at the meeting. If they differ from your recollection, please contact Fernau & Hartman immediately.

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
	1. **Drawings Presented**: Two 24" x 36" boards (Composite Site Organization Plan and Outdoor Seating Plan). The draft DPP and illustrations from previous workshops were presented digitally.
	2. **Naming Conventions**: A clarification was made regarding the name of The Barn. Rather than being divided into two separate spaces and referred to as Barn Dining and Kitchen Addition individually, the building should be referred to as a whole, The Barn, which contains both the Kitchen Addition and Barn Dining. The project will include the following buildings: The Barn, Cottage, Barn Stable, KUCR, Barn Theater, and Restrooms. Outdoor spaces will include West Courtyard, East Courtyard, and Barn Stable Patio.
	3. **Cottage**: F&H presented an overview of the program for the Cottage. a. **General Program Discussion**
F&H	i. F&H to study frontage seating south of the Cottage as a place for visitors "to see and be seen."
F&H	ii. F&H to combine the Storage and Telecom/Electrical closet into one space. A secure office space is needed to support cash counting and other administrative functions, but overall the square footage may be reduced to accommodate a larger storage/Telecom space.
F&H	iii. Telecom/Electrical was noted as being smaller than suggested by the Communication Services. It was agreed that the size of Telecom/Electrical will be reviewed during design.
	b. **Outdoor Seating**: F&H to add a column for Programmable Covered Outdoor Space to the "Summary" page of the Project Area Summary.
	4. **The Barn**: F&H presented an overview of the program for The Barn. a. **General Program Discussion**
	i. The current conceptual layout functions well and seating feels comfortable.
	ii. F&H clarified the function of the three proposed ventilation/light shafts at the indoor dining area. They will bring light into the space and help to move air via the stack effect. A roof monitor at the Kitchen will also help to bring daylight into the Kitchen work area.
F&H	iii. F&H to include the missing double exterior door at the west side of Barn Dining.
	b. **Performance Area**
F&H	i. F&H will revise the Green Room to be at ground level (on grade with indoor dining), rather than at the level of the stage. The room will have a door exiting into the Barn (to the south) and an exterior door.
F&H	ii. F&H to confirm height of existing stage.
	5. **Barn Stable**: F&H presented an overview of the program for the Barn Stable. a. **General Program Discussion**
	i. Barn Stable seating (868 SF indoor at the Meeting Room providing 42 seats and 875 SF outdoor at the Barn Stable Patio providing 44 seats) was found to be acceptable. Seat numbers were based on 20 SF/seat. Cheryl Garner (CG) noted that these seating numbers will satisfy the University Club.
	ii. The large, sliding barn door proposed for the west wall of the Meeting Room

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
	allows the Patio to become an extension of the interior space, with service and guests flowing freely between the two spaces. iii. The shower, included in one of the restrooms, will help achieve the LEED credit SS 4.2 "Alternative Transportation: Bicycle Storage and Changing Rooms."
F&H	6. **KUCR**: F&H presented an overview of the program for KUCR, including the new single story plan. a. **General Program Discussion** i. As requested, two studio production rooms have been provided. ii. It may be possible to reduce the square footage of the Library, however this issue will require further study during the design phase. iii. F&H to study an informal conference area at the wide hallway near the two Edit/Post-Production Rooms.
F&H F&H F&H	7. **Shared Outdoor Spaces**: F&H presented an overview of the program for the outdoor spaces, including seat count. a. **Seating** i. Dining seating areas (indoor at the Barn and outdoor at the East Courtyard and West Courtyard), total 6,695 SF, allowing for 332 seats (based on approximately 20 SF/seat). The seat count was found to be acceptable. b. **West Courtyard** i. F&H to note in the narrative the option of moving Sound/Lighting control to the back edge of seating in the West Courtyard will be studied further during design. ii. F&H to revise the Outdoor BBQ layout and criteria. • It will be a self-contained unit with a BBQ grill, exhaust hood, refrigerator, sink, and POS. • The Outdoor BBQ will not be covered by a roof, however a chimney above the cooking area will be need to direct smoke out of the courtyard. • Its location along the south edge of the West Courtyard is acceptable, but it does not necessarily need to be attached to the north wall of the Kitchen Addition. iii. F&H to revise the site plan to show the Outdoor Condiment Counter and Queuing adjacent to the Outdoor BBQ and Bar.
	8. **Materials**: The concept presented by F&H for the use of materials to highlight the hierarchy of the existing, new and tertiary structures was found to be acceptable. a. **Existing:** Materials at the existing buildings will be consistent with the heritage of these buildings. b. **New:** The new buildings will employ contrasting materials that allow the structures to recede, maintaining the historic structures as the focal point. c. **Tertiary:** The tertiary structures will be largely landscape type structures that use materials and plantings to knit together the existing and new buildings.
F&H	9. **Site Circulation** a. **Landscape Approach**: F&H presented a sketch by Lutsko Associates (Landscape Architect) for the intersection of the Eucalyptus Walk, the Barn Walk and West Campus Drive. i. F&H will incorporate the landscape sketch of southeast corner on a larger

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
	site plan to better illustrate the surrounding context. b. **Vehicle Access** i. The drive aisle near the Barn Loading Dock allows approximately 10 feet of clearance for a car to pass while a truck is unloading. ii. Sproul Loading Dock: A simplified Sproul Loading Dock layout without a truck turnaround was accepted. • F&H to revise the wall at the north end of the Sproul Loading Dock to allow for fire truck through access. • The accepted scheme provides a reconfigured area for service cart storage (4 spaces for media services and 2 spaces for service vehicles) and a location for trash and recycling bins. Access will be limited to service vehicles (no public). • Nita Bullock to confirm that an ADA space is not required if these service spaces are considered “cart storage” rather than “parking.”
F&H NB	
	10. **Systems** a. **Steam and Chilled Water**: There are times when the campus steam and chilled water system is shut down. i. Housing to confirm with Physical Plant (between DPP and design) the timing for when steam and chilled water are shut down. ii. Critical services that need to be maintained at the Kitchen Addition are refrigeration and domestic hot water. b. **Heating / Cooling** i. Radiant system proposed for Barn Stable Lobby and KUCR. ii. Forced air system proposed for Barn Kitchen and Cottage. iii. Radiant systems are preferred for the Barn Stable and Barn Dining, However this system will be studied during design for its ability to respond to quick changes for heating and cooling loads. Forced air in these spaces would be the alternative. c. **Electrical**
NB	i. Site Lighting: NB to check with Physical Plant to see if (and how many) existing campus streetlights would be available to incorporate into the project. ii. Barn Kitchen and KUCR require backup power from a shared diesel-powered generator. An acoustical cover will not be needed. Location and size of generator to be determined during design. d. **Security** i. UCR Physical Plant to provide infrastructure for security systems (up to points of access), Barn project to carry systems across site and provide all required devices.
OLI	ii. OLI to include wiring for all systems (assume none will be wireless).
SM/CG	iii. Susan Marshburn (SM) and CG to provide electronic door access (card swipe) count and camera count. e. **A/V and Internet Access** i. Speakers at Barn Dining, Cottage, and Barn Stable Meeting Room. ii. An empty conduit will be provided at the Lighting/Sound booth for running coaxial cable to and from KUCR.
JH	iii. Wireless internet access to be provided across entire site. JH to confirm who provides wireless nodes.

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
OLI	11. **LEED**: F&H presented a draft assessment of the project LEED checklist. a. **LEED Certification Level:** While LEED Silver Certification is required by UCR for The Barn Project, LEED Gold is the current target. This level of certification is largely dependent on connection to the campus steam and chilled water system. b. **Enhanced Commissioning:** OLI will add Enhanced Commissioning to the Cost Plan as a "below the line" item.
F&H	12. **Phasing and Implementation** c. **Phase 1** i. Initial work in Phase 1 will include items identified as having potential schedule complications or other risks. These include: moving the Barn Stable and the utility work. Ideally this work would begin before Summer 2011. ii. Phase 1A • Phase 1A will include: the Kitchen Addition, the Cottage, the Loading Dock Area, and the Drive Aisle along West Campus Drive. • The Kitchen Addition should be up and running before the end of summer. Maintaining a functioning kitchen is critical during the school year. The Kitchen Addition will require at least a 12-month window for completion. • Demolition of the current University Club meeting space can occur in Phase 1A. iii. Phase 1B • Phase 1B will include: Barn Dining, the East Courtyard, and the Restrooms east of The Barn. • During the school year when Barn Dining is under construction, the Barn Stable, Cottage, and related seating areas can be used for dining and be served by the Kitchen Addition. d. **Phase 2** i. Phase 2 will include: the West Courtyard, Stage, and KUCR. ii. The construction fence at the west side of The Barn will be close to along the west side of the building, allowing for exiting only. No West Courtyard seating will be provided during Phase 2. • This approach will provide a clean division between Phases 1 and 2. • It was agreed that construction activities would be too disruptive to outdoor dining at the West Courtyard. e. **Preliminary Scheduling** i. F&H to develop a preliminary design and construction schedule. ii. Construction to begin sometime between spring and early summer of 2011. iii. Construction Scheduling will be clarified once design begins and there is a better understanding of project engineering. A Construction Manager at Risk (CMAR) will be hired early in the design phase to help facilitate construction scheduling and implementation. iv. Construction noise will need to be carefully managed during dining hours. Halting construction during the lunch hours, however, will have a significant impact on costs. v. During Phase 2, due to the construction of the West Courtyard, there will be a significant lack of outdoor seating. Overflow seating may be provided at the Barn Stable, Barn Stable Patio, and/or frontage seating to the south of the Cottage.

Workshop #4: Meeting Notes

ACTION BY:	ITEM:

	13. **Cost Plan**: Scott Lewis (of OLI) presented the cost plan, including assumptions.
	a. **General Elements**
	i. Site work directly associated with each building was included with that building.
	ii. Utilities connections associated with each building were included with that building. (Note: the majority of the utility work will occur in Phase 1)
	iii. Phases run without a break between.
	iv. Preparation of the ground surface for the Phase 2 staging area will be completed during Phase 1.
OLI	v. OLI to revise the Cost Plan so that the 10% design contingency is expressed as a line item and not rolled into the estimate.
	vi. Estimates were obtained from local contractors for the relocation of the Cottage and the Barn Stable. The estimates were considered very low, and so a multiplier was applied to ensure the item is sufficiently covered in the Cost Plan.
OLI	vii. OLI to add a line item for HAZMAT work by owner, per the HAZMAT report dated February 19, 2010.
	viii. Chillers, boilers, etc. are not included in Mechanical rooms. Estimate assumes that project will tap into existing steam and chilled water system.
OLI	ix. OLI to provide an updated version of the Cost Plan.
	b. **Structures / Materials**
	i. Seismic work for the existing buildings can be done from inside.
	ii. Masonry: Kitchen Addition, KUCR, Restrooms.
	iii. Stud framing: additions (Barn Dining and Barn Stable).
	iv. Interior walls will include curbs at the Kitchen Addition.
	v. Metal or wood cladding at all new buildings.
	• Wood may be used in place of metal, but pricing for metal allows flexibility for cost plan.
	vi. Pitched roofs were assumed for all new construction.
	• KUCR will require a metal roof due to the low slope.
	• Roofs may not be gables, but pricing as such allows for flexibility for the Cost Plan.
	vii. Light wells and clerestories are included in estimate.
	c. **Finishes**
	i. Patch/paint existing wood at Theater as a “below the line” item.
	ii. Allowances were made for polished or colored concrete for floors at Barn Dining and Barn Stable Meeting.
	iii. Quarry tile or epoxy floor at Barn Servery and Kitchen.
	d. **Value Engineering**: Kieron Brunelle related the project will approach budget constraints through a “value added” approach rather than simply cutting costs.
	e. **Cost Plan Revisions/Clarifications**
	i. In order to calculate rent for KUCR, the Stage and Backstage will be called out as “Allowance included in the Cost Plan in order to show the cost of these spaces.
	ii. The Schedule is needed for preparing the business plan.

Workshop #4: Meeting Notes

ACTION BY:	ITEM:
	iii. Assume a CMAR will be used. Bid packages are preferred. iv. Cost Plan does not include the Barn Theater. v. It will be determined in design if Sproul Loading Dock will be part of the project. vi. A new UC delivery system allows campus projects under $60M to proceed at risk. f. **"Below the Line" Items**: will be treated as alternatives. i. Alterations to Sproul Hall Loading Dock ii. On-site chiller and boiler in lieu of campus connection iii. Audio visual equipment as described in DPP report iv. Emergency power for Kitchen Addition and KUCR v. Construction Management Preconstruction Services vi. Enhanced Commissioning / 3rd Party Commissioning vii. Patching and painting the Barn Theater viii. Security Devices
	14. **Next Steps** a. **Project** i. Program and phasing have been approved. ii. Design to be carried through construction documents (on all parts of the project, including KUCR). F&H noted that a year will likely be required for design. iii. Bidding/approval process will take at least two months. iv. Ideally, construction to begin sometime between spring and early summer of 2011. v. CPAC presentation may be deferred until June. b. **Materials** i. **DPP**
F&H	• F&H to review discrepancies between project area summary and room data sheets, including the net-to-gross ratio.
F&H	• F&H to remove dimensions from drawings contained in room data sheets.
F&H	• F&H to work through literary portions of DPP.
F&H	• F&H to include backup documentation (important decisions and directives) in Appendix.
	ii. **Documentation**
JN	• JN to provide record drawings of existing Barn structures (dating from 1916-1917 and 1985). • Geotech report also needed early in design. • Site survey to be completed before design begins.

APPENDIX

Correspondence

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APPENDIX

Correspondence

UNIVERSITY OF CALIFORNIA, RIVERSIDE

BERKELEY ◊ DAVIS ◊ IRVINE ◊ LOS ANGELES ◊ MERCED ◊ RIVERSIDE ◊ SAN DIEGO ◊ SAN FRANCISCO

SANTA BARBARA ◊ SANTA CRUZ

POLICE DEPARTMENT

3500 Canyon Crest Drive
Riverside, CA 92521-0218
Phone: (951) 827-5222
Fax: (951) 683-1639
http://www.police.ucr.edu

February 5, 2010

To: Jonathan C. Harvey, Principal Educational Facilities Planner
Fr: John Freese, Lieutenant, University of California Police Department
Re: Barn Area Study – Safety & Security Issues

Crime Prevention Through Environmental Design (CPTED)
This project should employ the CPTED concepts to provide a space that is welcoming to patrons and discourages criminal behavior.

Main areas of concerns:

-Adequate lighting in and around the structures that is pedestrian friendly and mitigates dark areas that could provide hiding places for the criminal element.
-Low lying landscaping that eliminates hiding places and keeps an open line of sight between the facilities and parking areas.

Security/Surveillance Cameras
There is a need for a security camera system that is consistent with current campus systems.

-Coverage of at least the cashier, box office, and alcohol service and consumption areas.
-Internet IP address accessibility with pan/tilt/zoom control for UCPD Communications to access in the event of a police response (UCPD will not monitor the system on a routine basis).
-DVR storage of video footage consistent with current campus time frame standards.

Burglary/Panic Alarms
At a minimum, there should be an entry and motion detector alarm for the main buildings, including KUCR. Panic alarms should be installed at the cashier, and box office, and KUCR main desk and DJ areas.

Access Control
Permanent fencing is needed around the alcohol consumption area to prevent patrons from passing alcoholic beverages through to people outside of the area.

Some type of fencing or barricade is needed around the KUCR radio tower to prevent people from climbing and/or tampering with the tower.

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project Phase 1 & 2 Loading Dock Question**
Date: February 8, 2010 1:10:03 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

FYI

Jon

From: Mike Terry [mailto:Mike.Terry@ucr.edu]
Sent: Friday, February 05, 2010 8:49 AM
To: jon.harvey@ucr.edu
Cc: Kieron Brunelle; Susan Marshburn (susan.marshburn@ucr.edu); Mike Miller
Subject: RE: Barn Project Phase 1 & 2 Loading Dock Question

Jon,
Here's an update on your information request.

Per Toshio Ishida, Asst Director Landscape & Refuse Services:
"The refuse and recycling pick-ups are made with standard refuse trucks. Average size = 13 ft high, 38 ft long, and 9 ft wide. The refuse is picked up everyday Mon-Fri and recycling is twice a week. Recycling will not change as of right now. Refuse may move to a different unit, the length may increase a few feet. I don't have current specs because we have not had a final decision on what we will use. It will require at least the same amount of space as now.

That area is already very tight now. We have to pull in and have a spotter back us all the way out past the lift gate each day. I would not recommend making it any smaller than it is. When cars are present on both sides, we have a very hard time now. If you need more information let me know."

I have not received a reply from Material Management on the size of their vehicles and frequency of use, but they do not have any larger than the P Plant refuse trucks.

Thanks,
Mike

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project - Student Special Services Parking**
Date: February 12, 2010 9:03:19 AM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

Let me know if you have any questions or require additional information related to the Student Special Services parking requirements by the loading dock.

Thanks

Jon

From: Mike Delo [mailto:Mike.Delo@ucr.edu]
Sent: Friday, February 12, 2010 8:59 AM
To: jon.harvey@ucr.edu
Cc: Andy Steward (andrew.stewart@ucr.edu); Kieron Brunelle; marcia.schiffer@ucr.edu; Tammie Pierce; Enci Naghshineh; Lenita Kellstrand
Subject: RE: Barn Project - Student Special Services Parking

Jon,

TAPS and Student Affairs have agreed to transition disabled student transport service to TAPS effective July 1. So, it is likely that Student Special Services will not retain its transport vehicles that now park in the Sproul Hall service area. That demand for the two parking spaces in the Sproul Hall loading dock will go away.

Maybe this factor will increase the likelihood of retaining disabled parking spaces within the loading dock area.

Let me know if other information is required.

Mike

From: Jon Harvey [mailto:jon.harvey@ucr.edu]
Sent: Thursday, February 11, 2010 1:52 PM
To: Mike Delo
Cc: Andy Steward (andrew.stewart@ucr.edu); Kieron Brunelle; marcia.schiffer@ucr.edu
Subject: Barn Project - Student Special Services Parking

Mike,

At last week's Barn Project Phase 1 & 2, workshop, parking at the Sproul Hall loading dock was discussed. Student Special Services is one group that parking two transport vans in the area.

As part of the Medical Infrastructure Phase 1 project, Student Special Services completed a survey which described the Student Mobility Services operation. Transport vans are parked at various locations through out the day, and are parked overnight at dedicated spaces across from Sproul Hall loading dock. Student Special Services is open to finding an alternative overnight parking location for the vans per conversation with Marcia Schiffer, Director, Services for Students with Disabilities Special Services,

Request that you contact Marcia Schiffer to identify another transport vans parking location, which will free space in the Sproul Hall loading dock area.

Please let me know how long it will take to identify the location, and the proposed implementation timeframe.

Thanks

Jon

Jon Harvey
Capital & Physical Planning
951-827-6952

APPENDIX

Correspondence

Barn Project Electrical Review

In reviewing the project description for the Barn Project Phase 1 and 2 and relocation of the cottage Physical Plant would like to make the following electrical recommendations. For review, I have attached a copy of the underground electrical drawings, and an outline of the buildings each feeder serves.

- This area is the main thoroughfare for all of the campus electrical utility systems. Any excavations would need to take place with extreme consideration to this fact. If any one of these feeders becomes compromised it would cause significant campus power outages as each feeder serves multiple buildings.
- The Barn is currently fed from the 5kv substation and has an 800 amp service. We recommend upgrading the service to at least 1200 amps to accommodate the described improvements.
- During this improvement Physical Plant would require the new service to be tied in to the 12kv substation. This can be accomplished by tying in to the 12kv in vault 3 next to the parking lot exit for the cottage.
- Additionally the transformer would need to be replaced in order to accommodate the 1200 amp service and to be tied in to the 12kv system.
- Physical Plant would retain the old 800 amp service and transformer. These items should not be disposed of or resold by the contractor.

Because of the sensitivity of this area electrically to the campus I would welcome the opportunity to be involved during the ongoing planning process. Please feel free to contact me directly for any additional information or questions.

Eric Shuler
Electrical Shop Supervisor
951-827-3112 Office
951-827-4596 Fax
eric.shuler@ucr.edu
UC RIVERSIDE UNIVERSITY OF CALIFORNIA

Campus Electrical Circuits
4,160 Volt System
10/1/99

CIRCUIT 2 Humanities/Olmsted D	**CIRCUIT 4** Student Health Center D Corporation Yard D
CIRCUIT 3 The Barn Barn Theater and Dance Studio The Cottage Domestic Water Pump Pit Football Field Hinderaker Hall Intramural Fields ~~Physical Education Bldg.~~ Rivera Library/Library South Sproul Hall ~~Tennis Courts~~ Underpass Pump Station Watkins	**CIRCUIT 6** Bell Tower ~~Geology~~ Physics **CIRCUIT 7** ~~Sciences~~ Pierce Hall **CIRCUIT 8** Greenhouses 6-10, 11-14, 15-17 Steam Plant

CIRCUIT 3A
Fine Arts
New Humanities

CIRCUIT 3B
Surge
PE
Bookstore
~~Commons~~
Costo Hall
Sass D
Chass D
Arts D

Blue Tags

Think Artels on B

CIRCUIT 4A
Satellite Chiller Plant

CIRCUIT 4B

Green

Campus Electrical Circuits
12,000 Volt System
10/1/999

CIRCUIT 1A
Steam Plant 12KV/4160V Substation

Section 1

A Gary Anderson
Batchelor Hall
Botanic Gardens
Boyden Lab
College Bld. North
College Bld. South
Custodial/Grounds Bld.
Environmental Health & Safety
Entomology - Old
Fawcett Lab
Greenhouse 1
Greenhouse 2a
Greenhouse 3
Greenhouses 18-21
Garage
Greenhouse 51
Greenhouse 52
Insectary
Lysimeter Bldg.
Soils Facility
SPN/ Chapman Hall
Stored Products
Superintendents Cottage
Trailers 1-15 (Surge Facility)
Transfer Lock
University Office Building
Upper Still House
800MHz Building

Red

Section 2

Life Science 1500
Life Science Psychology
Speith Hall

Section 3

4160 volt Steam Plant chillers 1 & 2

Circuit 1B

New Quarantine Building Insectary D
ULB
New Entomology
Bio Science Bld. D
Genomics

Red

Circuit 2A

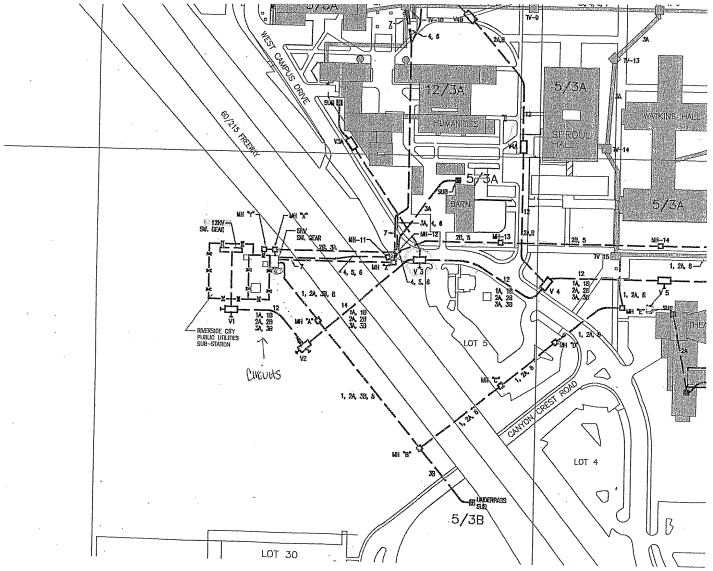
Lothian Hall
Student recreation Center
Parking Services
Science Library
Weber
PS1
Boyce
Com Stat
Science Lab1
Bourns A & B D
Aberdeen & Inverness res. Hall D
Engineering Sciences D
Pentland Hills D
Geology Addition D

Yella

Circuit 2B

Modular Building Lot 9
Pentland Hills D
Glenmor

Yellow



APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project - Trash Truck Information**
Date: February 23, 2010 4:14:42 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

FYI

Jon

From: Mike Terry [mailto:mike.terry@ucr.edu]
Sent: Tuesday, February 23, 2010 4:08 PM
To: jon.harvey@ucr.edu
Cc: Mike Miller; Kieron Brunelle; Toshio Ishida
Subject: RE: Barn Project - Trash Truck Information

Jon,
As discussed earlier today, per Toshio Ishida, Asst. Director Landscape & Refuse Services, the trash truck radius is the same as the large fire truck turning radius identified in the City of Riverside bulletin already supplied to you. Please let me know if you need that info sheet resent.
Thanks,
Mike

APPENDIX

Correspondence

Barn Project Plumbing Review

In reviewing the project description for the Barn Project Phase 1 & 2 and relocation Physical Plant would like to make the following plumbing recommendations.

Barn building utilities:

Water is provided from Campus owned water mains (12"with pressure of 110psi to 135 psi) with 6" domestic supply which supplies 6" Barn fire main and 2" domestic Barn supply followed by second 6" feed (valve) for Stable 2" fire main and Theater 2-1/2" fire main.

Recommend that water system modifications still be provided from Campus owned water mains with addition of Service Protection Backflows.

Gas is provided by Southern California Gas Co. meter with additional ¾" feed lines underground to the Stable and theater buildings currently capped off. (non use)

Recommend that gas continue to be provided by Southern California Gas Co.

Sewer mains system A has been upgraded in size to 12" and is located in the street area with 4" lateral for Barn sewer system.

Recommend that any Barn sewer system changes include new laterals to new 12" main sewer.

Barn has very little small storm discharge lines from site to street storm drains 18" to 24" in size.

Recommend same use and connections be to 18" and 24" storm drains.

Cottage building utilities:

Water sized is ¾" domestic connected to the campus 12" water main in the street to Cottage with additional small ½" water line from this system ½" underground to Cottage garage exist.

Recommend new water supply to campus water main in area with service protection.

Sewer system "A" 12" in street had lateral for Barn 4" and 1-1/2" for garage.

Recommend new sewer to Cottage be connected to Sewer system "B"

Natural gas ¾" supplied by Southern California Gas Company.

Recommend new service line from Southern California Gas Company extending to new site location.

Cottage has no storm area drains (use of parking lot and street)

Recommend area drain installations for new location be connected to street mains 18"-24" depending on location.

Thanks

Jerry Higgins

UCR Plumbing Supervisor

951-827-7696

Jerry.Higgins@ucr.edu

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Sysco truck length**
Date: March 2, 2010 3:53:10 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

From: Cheryl Garner [mailto:Cheryl.Garner@ucr.edu]
Sent: Tuesday, March 02, 2010 2:00 PM
To: Susan Marshburn; jon.harvey@ucr.edu; llanier@laschobersovich.com
Subject: FW: Sysco truck length

It appears that our primary vendor does deliver in a 54 foot tractor and trailer.
This obviously would be the very largest truck.

Cheryl Garner
Director of Dining Services
University of California, Riverside
Office: (951) 827-5857
Cell: (951) 333-4700

If you don't like change, you're going to like irrelevance a lot less.
Tom Feltenstein

From: Gary Burton [mailto:gary.burton@ucr.edu]
Sent: Tuesday, March 02, 2010 10:11 AM
To: Cheryl Garner
Subject: Sysco truck length

Cheryl,

The overall length of the tractor and trailer is 54ft.

Sorry to be late in responding but I have been out sick for a few days.

Regards,

Gary

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **RE: UCR Barn DPP - Area Comparison**
Date: March 4, 2010 2:17:10 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Cc: "Laura Hartman" <lh@fernauhartman.com>, "Kieron Brunelle" <kieron.brunelle@ucr.edu>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

The program will need to clearly identify all of the spaces in KUCT facility.

Following suggestions are made after reviewing materials obtained to date.

KUCR Program

1. An overall station size of 2,800 to 3,000 asf seems fine. Hope that the following comments do not necessarily expand the program
2. Private Offices: Director, Assistant Director/Program Director, Music Department, and Engineering Department. Suggest an office size of 110 to 120 asf per office. This provides a reasonable work space, file storage, and side chairs. The space allocation can vary by function area (e.g., all offices 110 asf except the engineer who would get a larger space for a small work bench).
3. Open office: Administrative Assistant, and News/Public Affairs.
4. The list of space for either of the above office types can be expanded if spaces are identified.
5. Prefer to change name from Kitchenette to Office Service / Kitchenette. Space serves multiple functions (e.g., refrigerator, microwave, sink, coffee counter, copy machine, etc).
6. Add storage room for Remote Live Equipment. Given the condition of the existing facility, including a second storage room does not seem reasonable.
7. Suggest assigning 48 asf for each Edit/Post/Production Space, and review the size of the remaining production spaces.
8. My impression was the Conference Room would be an actual conference room that could also be used for some production work. As presented, the room is more of a studio. Agree that three studio spaces are needed based upon the tour, with the last being a place that can support a small group of people. The conference room (10 to 15 stations) replaces the Backstage/Flex Space.
9. When was the Green Room added to the program? Having two green rooms in a complex of this size does not seem necessary.
10. Are two restrooms needed if the building has two floors?
11. Review and update footnotes. Add a note that explains the Library space reduction assumption.

Barn Annex

12. Change the Banquet Room name to Meeting Room. Adjust the size from 1066 to 1016 asf to accommodate the additional storage space.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Wednesday, March 03, 2010 5:55 PM
To: Jonathan Harvey
Cc: Laura Hartman
Subject: UCR Barn DPP - Area Comparison

Hi Jon,

Please see attached.

This is a draft. I would like to get your feed back on the changes and we need input for KUCR.

Thanks,
Jason

Jason Wilkinson
Fernau & Hartman Architects, Inc.
(t) 510.848.4480
(f) 510.848.4532
http://www.fernauhartman.com

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Telcom Closet Sizes**
Date: March 4, 2010 10:42:22 AM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
1 Attachment, 4.0 KB

Jason,

The size of telecom closet per communications is below for your information.

Jon

From: Tim Gable [mailto:timgable@ucr.edu]
Sent: Thursday, March 04, 2010 10:35 AM
To: jon.harvey@ucr.edu
Subject: RE: Barn

Yes, that is correct…

Regards,
Tim Gable, RCDD, OSP
Campus Planner
Communications Services
Telephone Building
UC RIVERSIDE UNIVERSITY OF CALIFORNIA
Voice: 951-827-4584
Fax: 951-827-5600
Cell: 951-522-4599

From: Jon Harvey [mailto:jon.harvey@ucr.edu]
Sent: Thursday, March 04, 2010 8:14 AM
To: Tim Gable
Subject: RE: Barn

Tim,

Just want to confirm that the space below is for the telecom closets in each building.

Jon

From: Tim Gable [mailto:timgable@ucr.edu]
Sent: Thursday, March 04, 2010 6:07 AM
To: jon.harvey@ucr.edu
Subject: Barn

Jon

As a follow up to our discussion this past Friday; The Barn area contains two (2) conduit runs, the current feed on the South side of the Barn and an existing duct bank on the West side of which we would like to feed the new KUCR building from.

Based on the current preliminary information the amount of space required at each facility is as follows;

Barn – 10' X 12'
KUCR –10' X 10'
Barn Annex – 6' X 8'
Barn Theater – 6' X 8'
Cottage – 6' X 8'

Please contact me if you have any questions.

Thank you,

Regards,
Tim Gable, RCDD, OSP
Campus Planner
Communications Services
Telephone Building
UC RIVERSIDE UNIVERSITY OF CALIFORNIA
Voice: 951-827-4584
Fax: 951-827-5600
Cell: 951-522-4599

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project HVAC utilities**
Date: March 12, 2010 3:20:02 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
2 Attachments, 1.7 MB

Jason,

FYI

Jon

-----Original Message-----
From: Jacqueline Norman [mailto:Jacqueline.Norman@ucr.edu]
Sent: Friday, March 12, 2010 2:58 PM
To: jon.harvey@ucr.edu
Subject: FW: Barn Project HVAC utilities

Jon,

Please find attached additional comments that were sent to Rich, with attachments.

Jacqueline Norman I Office of Design and Construction I University of California, Riverside I 951.827.6316

-----Original Message-----
From: Chris Flanders [mailto:Chris.Flanders@ucr.edu]
Sent: Friday, February 26, 2010 9:28 AM
To: Richard Racicot; patrick.simone@ucr.edu; Jacqueline Norman
Subject: RE: Barn Project HVAC utilities

Rich,

I revisited this, and discussed it with our two veterans (Frank Porter and Steve Benart, who have been here since Anderson Hall was built I think). We all agree that the most likely POC is Vault 15, which I overlooked during Geovision's walk. This high-ceilinged vault contains large services directly from the plant, with blanked-off isolation valves for both services (CHWS/R, steam, condensate return). There is a manhole access located in the sidewalk intersection between Watkins Hall and University Theater. From there the Barn is in your line of sight, with only an access road as an obstacle...distance maybe 250 feet as the crow flies.

Hopefully they will do careful engineering for this connection. While we do not have any direct evidence of capacity problems with condensate return on that particular line, we have had a troubling history with that system where it returns along the Vault 6-9-10 route. We suspect that we are at max capacity over there, so it deserves some attention. At the very least, any new connections should definitely include some gauge ports & service valves etc. for monitoring. Increasing the condensate return line size on that route would be fairly straightforward until you get to the plant...increasing the size from the plant entrance to the receiver looks like a big problem though.

My personal suggestion: if these utilities are tapped for this project, they should be oversized between Vault 15 and the project area POC, to make future upgrades more convenient. We would also be very interested in the plumbing plan at Vault 15 POC, to ensure that maintenance and repair access is not compromised there.

Attached is a schematic of Vault 15 utilities (no sizes shown). FYI, Steve Benart has been surveying the entire tunnel system and producing these schematics. Our goal is to create a schematic of the entire tunnel system, to create a comprehensive valve schedule and try to catch up on thirty years of deferred construction record-keeping. Within a few months I hope to bring Steve's drawings to Jeff Saito's folks for conversion to a CAD master plan.

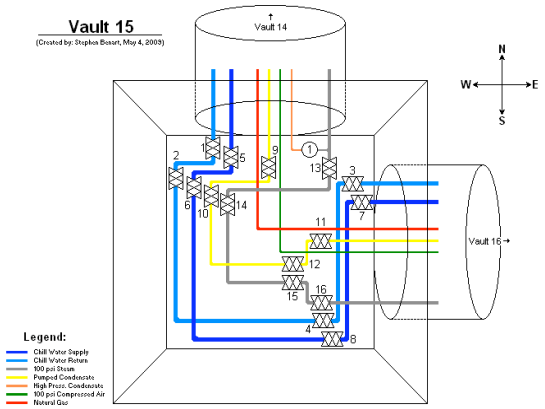
Chris Flanders
Climate Control Supervisor
University of California, Riverside
Steam Plant
ph (951)827-6235
fx (951)827-5404
chris.flanders@ucr.edu

-----Original Message-----
From: Richard Racicot [mailto:Richard.Racicot@ucr.edu]
Sent: Thursday, February 25, 2010 4:42 PM
To: Chris Flanders
Subject: RE: Barn Project HVAC utilities

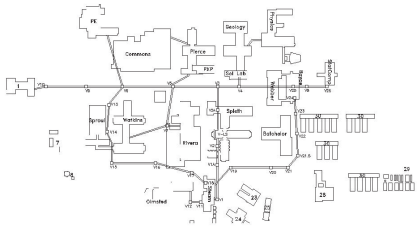
At this time the proposal for GeoVision was to conduct their survey around the Barn Area. it did not include areas back to the utility tunnels. The survey was outlined to include all areas around the Barn Area up to the face of the surrounding buildings. Yes, if an addition survey is needed to one of the tunnel locations we will conduct an additional survey if needed. During this Phase of the project, we are trying to determine if it is cost effective to supply utilities to the Barn project from the one of the tunnels. The length of the connection could be the cost breaker. What are your thoughts. As always, that's for your input.

Richard W. Racicot, A.I.A.
Assistant Vice Chancellor

Facilities - Design & Construction
3615-A Canyon Crest Drive
Riverside, California 92507
951.827.1277 Office
951.827.3890 Fax



Drip Leg Steam Trap 1 3/4" Armstrong 800
Expansion Joints 1, 2, 3 and 4 12" Ball/Swivel, Chilled Water Return



APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: UCR Barn DPP - Proposed KUCR Radio Tower Location**
Date: March 12, 2010 5:07:10 PM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
1 Attachment, 54.0 KB

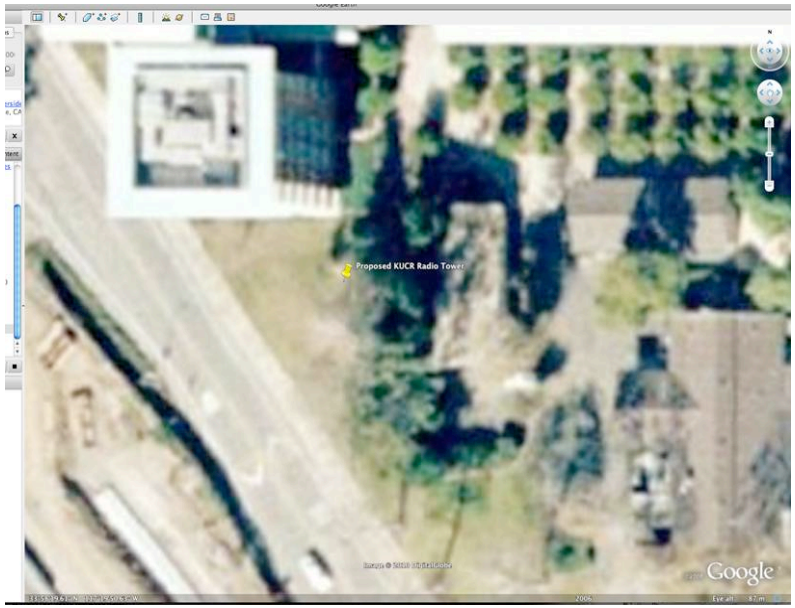
Please see the attached image from Google Earth with the proposed location for the KUCR Tower.

"Proposed KUCR Radio Tower" lat=33.9724173738, lon=-117.331025337

Feel free to contact me if you have any questions.

Regards,
Jason

Jason Wilkinson
Fernau & Hartman Architects, Inc.
(t) 510.848.4480
(f) 510.848.4532
http://www.fernauhartman.com



From: LJ Vandenberg [mailto:louis.vandenberg@ucr.edu]
Sent: Friday, March 12, 2010 4:37 PM
To: jon.harvey@ucr.edu
Cc: Andy Plumley; Susan Marshburn; Kieron Brunelle
Subject: Re: UCR Barn DPP - Proposed KUCR Radio Tower Location

We examined this today. This location is less than ideal. It may work but, it is close. The problem is Sproul Hall, blocking, or close-to-blocking, line-of-sight to Box Springs. Even if it works, it would delimit the station from alternative sites on the Box Springs Mountains, which would be shadowed by Spoul. It would be safer to loacte the site more south-east, which would be my recommendation.

lv

----- Original Message -----
From: Jon Harvey
To: Louis Vandenberg
Cc: Andy Plumley ; Susan Marshburn ; Kieron Brunelle
Sent: Wednesday, March 10, 2010 8:30 AM
Subject: FW: UCR Barn DPP - Proposed KUCR Radio Tower Location

Louis,

The proposed location of the KUCR tower is listed below.

Please review and provide comments no later than Friday, March 12, close of business.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Tuesday, March 09, 2010 6:18 PM
To: Jonathan Harvey
Cc: Laura Hartman
Subject: UCR Barn DPP - Proposed KUCR Radio Tower Location

Hi Jon,

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **RE: UCR Barn DPP - Tree Location**
Date: March 12, 2010 8:56:06 AM PST
To: "Jason Wilkinson" <jw@fernauhartman.com>
Cc: "Laura Hartman" <lh@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
1 Attachment, 275 KB

Jason,

We are trying to plot the locations and hopefully this will be finished this afternoon. Once completed, the approximate location of the trees (plus or minus three feet) in an around the site will be identified.

Attached is the approximate location of the walnut tree from three campus points, and photos of the tree for your information and use.

We are interested to know the impact to the program by retaining the tree.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Thursday, March 11, 2010 4:46 PM
To: Jonathan Harvey
Cc: Laura Hartman
Subject: UCR Barn DPP - Tree Location

Hi Jon,

If it is important for us to design KUCR around the Walnut tree, not knowing the location is holding us up. We need this information as soon as possible. Otherwise, please let us know if we should move ahead without trying to save the tree.

Thanks,
Jason

Jason Wilkinson
Fernau & Hartman Architects, Inc.
(t) 510.848.4480
(f) 510.848.4532
http://www.fernauhartman.com

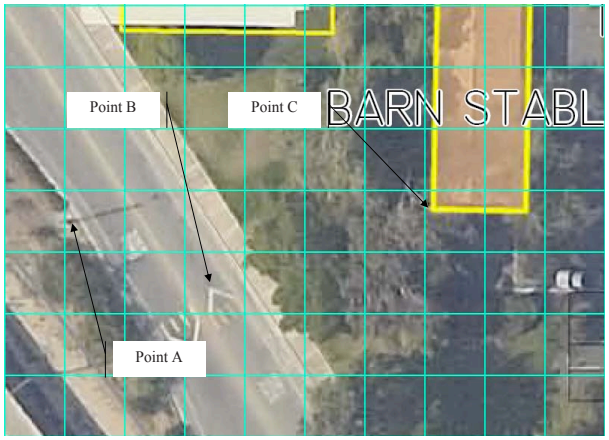
Barn_Prj_Tre....pdf (275 KB)

Barn Project Phases 1 & 2
March 12, 2010

Approximate diameter of the tree (orange tape) is 30 inches

Barn Project Phases 1 & 2
March 12, 2010

Approximate location of the Walnut Tree
Requires field verification



Point	Description	Approximate Distance
A	Light pole, west side of West Campus Drive	89 ft
B	Speed Bump right lane marking	46 ft
C	SW Corner of Barn Stable	34 ft

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Theatre Project**
Date: March 22, 2010 8:03:55 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
1 Attachment, 27.5 KB

Jason,

Per WS-3

Jon

From: Nathaniel Jones [mailto:natej@ucr.edu]
Sent: Friday, March 19, 2010 4:42 PM
To: jon.harvey@ucr.edu
Cc: 'Paul Richardson'
Subject: Barn Theatre Project

Hello Jon:

It was good to see you this morning. I also enjoyed chatting with you over lunch. As discussed, please find an electronic copy of the document I provided you today. As I indicated earlier, the gross scaling of the Barn Theatre and related spaces appears to be adequate to support the likely programmatic use of these facilities. The document provided highlights both general and specific programmatic requirements that would need to be taken into account during the design development phase of the project. Also thoughtful consideration needs to be given to issues of phasing, constructability, security, access and programmatic use of shared/multi-user spaces. I look forward to our continued work on this project. If you have any questions, please feel free to contact me. Take care.

Nate

_____

Nathaniel Jones III, Ph.D., MBA
Assistant Dean & Chief Financial & Administrative Officer
College of Humanities, Arts & Social Sciences
University of California at Riverside
900 University Ave
Riverside, CA 92521
951-827-5062 (Office)
951-827-7975 (Fax)
410-952-3652 (Mobile 1)
951-237-2168 (Mobile 2)

Barn Theatre...oc (27.5 KB)

Correspondence

Barn Theatre Study
CHASS Performing Arts Programming Analysis

Usage:

Dance Department intends to use the space 15 hours per week for studio courses and MFA project rehearsals. Music Department currently uses the space 38 hours per week for courses, rehearsals and music clubs. They would expect the usage to expand depending on the size expansion. Theatre Department is considering use of the space for student works, rehearsals, performances and coursework. The department chair expects the usage to be up to 36 hours per week. The Department of Theatre expects at least one course per quarter to be scheduled in the Barn Theatre. All departments would expect to benefit from the building transformation. This would allow additional rehearsal and performance space to better support the current academic programs.

Facility Attributes:

A few facility attributes are missing or need to be altered in order to accommodate the three departments. The new construction calls for a basic restroom facility. An expanded restroom facility could include dressing areas and make-up tables. Clothes/costumes racks installed in the restroom areas would be a great benefit. In review of the conceptual estimate, there is not a mention of an installed lighting or sound grid. The lighting grid would need to be included on the interior and exterior portions of the facility. Electrical distribution would have to be included as well as with the proper power requirements. The structural grid will need to support such a lighting system. The existing flooring would have to be extended throughout the facility. Network capabilities have been requested due to the programming from the departments. Three data/communication lines would need to be provided for the office and rehearsal spaces. Adequate HVAC, acoustics, security features, general power and lighting must also be provided. A water fountain should be added as well.

Physical Expansion:

Expanding the physical space is easily the most crucial part of this project. The ability to allow multiple activities and have the capability to perform with an audience is of the most importance. A soundproof wall system between rehearsal 01 and rehearsal 02 is crucial in order to maximize the expected use. Separate exterior entrances would be necessary to both rehearsal areas. Each area must be designed to be usable by all anticipated users. Flooring systems that are flexible enough to be used for dance, music and theatre would be ideal. Alternatively, a flooring system could be installed for the primary use and a protection system provided to cover the floor for the other uses.

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Performances**
Date: April 5, 2010 10:11:12 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
▶ 2 Attachments, 52.7 KB

Jason,

FYI

Jon

From: Cheryl Garner [mailto:Cheryl.Garner@ucr.edu]
Sent: Monday, April 05, 2010 9:52 AM
To: jon.harvey@ucr.edu
Cc: Susan Marshburn; Andy Plumley
Subject: Barn Performances
Importance: High

Jon,

Attached is the information that you requested regarding the types of events that are currently performing at the Barn. I had them add the genre and the size of the group where possible so that you would be able to size the stage – or at least have some information that might assist in sizing it. I also had then identify how many people attended the event – for your purposes this is the number noted under "In". This might assist us in deciding how big the space needs to be in front of the stage.

Please note: They would like to schedule Video Game Tournaments, Movie Nights, Sports Event Viewing and Karaoke inside the Barn, which requires a package of equipment. I will send you a quote of the types of equipment that they are interested in.

Please call if you have questions regarding the information.

Cheryl Garner

Director of Dining Services

University of California, Riverside

Office: (951) 827-5857

Cell: (951) 333-4700

If you don't like change, you're going to

like irrelevance a lot less.

Tom Feltenstein

From: Jonathan Cubos [mailto:Jonathan.Cubos@ucr.edu]
Sent: Monday, April 05, 2010 9:07 AM
To: Cheryl Garner; Albert Esqueda; Cedric Martin
Cc: David Sakover; Pam.Trimble@ucr.edu
Subject: Seat Utilization Info & Barn Music Conference call Info
Importance: High

Good Morning,

I have attached the Seat Utilization chart for 3 days of Lunch Service, 3 spread sheets of Past, current and possible future Barn Music Events and the very scaled down version of a Music System for the Barn. If there are any question please contact David or myself.

Thank you,

Jonathan A Cubos

Senior Operations Manager

The Barn, Ivan's and Bear Tracks

3595 Canyon Crest Drive

Riverside, CA 92507

Office (951) 827-2777

email: jonathan.cubos@ucr.edu

Barn Music I....xls (50.0 KB)

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Seat Utilization Study**
Date: April 5, 2010 10:11:56 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

FYI

Jon

From: Cheryl Garner [mailto:Cheryl.Garner@ucr.edu]
Sent: Monday, April 05, 2010 9:34 AM
To: jon.harvey@ucr.edu
Cc: Susan Marshburn
Subject: Barn Seat Utilization Study

Jon,

We conducted the seat utilization study at the Barn last week and I wanted to share some general information with you that may assist us in determining the mix of tables that will be required. I looked at the interior seating and the exterior seating separately as we frequently find they differ, and they indeed did. It appears the larger parties preferred to sit outside.

Our seat utilization currently is approximately 53% inside and 61% outside. Our average party size is 2.5 customers.

Here is the breakdown for tables:

Interior Patio		Interior %	Required	If 4 tops are ganged
25	2 tops	49.02%	76% - 2 tops	76% - 2 tops
14	1 tops	27.45%	22% - 4 tops	24% - 4 tops
11	3 tops	21.57%	2% - 6 tops	
1	7 tops	1.96%		
Exterior Patio		Exterior %	Required	If 4 tops are ganged
35	2 tops	37.63%	57% - 2 tops	57% 2 tops
18	1 tops	19.35%	31% - 4 tops	43% 4 tops
19	3 tops	20.43%	6% - 6 tops	
9	4 tops	9.68%	6% - 8 tops	
4	5 tops	4.30%		
2	6 tops	2.15%		
4	7 tops	4.30%		
2	8 tops	2.15%		

The 6 tops and 8 tops may also be translated into 4 tops if we use squares and assume that they will be ganged together, so you may adjust those counts as required. I strongly suggest that we do this for the 8 tops. If the decision is made to add 6 tops – it would only be about 6% of the exterior mix and just one or two tables inside.

Cheryl Garner
Director of Dining Services
University of California, Riverside
Office: (951) 827-5857
Cell: (951) 333-4700

If you don't like change, you're going to like irrelevance a lot less.
Tom Feltenstein

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **Barn Project - Central Plant Utility Connection Costs**
Date: April 8, 2010 4:51:33 PM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Cc: "Kieron Brunelle" <kieron.brunelle@ucr.edu>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

During WS-3 direction provided was to examine the costs for direct connections to the Central Plant steam and chilled water lines and a stand-alone system.

Assume that the stand-alone system would be a boiler and chiller, which would provide the campus with the capability to connect to central plant steam and chilled water at a later date. It is not clear how the option could be achieved, or where the equipment would be accommodated on the site inside a mechanical room.

Request that the costs for options be clearly identified and that the direct connection be provided above the line, and options below the line.

Thanks

Jon

Jon Harvey
Capital & Physical Planning
951-827-6952

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **RE: UCR Barn DPP - Performance Issues Discussion**
Date: April 8, 2010 8:41:04 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

Stage equipment costs will need reported in the cost estimate as a below the line number. UCR will not furnish any figures.

We will need to get meeting notes for the conference call that shows the outcomes / direction.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Wednesday, April 07, 2010 9:20 PM
To: jon.harvey@ucr.edu
Subject: Fwd: UCR Barn DPP - Performance Issues Discussion

Hi Jon,

I wanted to send this as a follow up to the conference call we had on Monday to confirm the direction. There is some outstanding issues that may not need to be resolved for the deliverable on Monday. One question is what portion of the stage equipment should be included in the estimate and what will be provided by UCR?

Thanks,
Jason

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **RE: UCR Barn DPP - KUCR broadcast Equipment in Cost Estimate?**
Date: April 12, 2010 8:18:51 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Cc: "Laura Hartman" <lh@fernauhartman.com>, "Ryan Metcalf" <rm@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

Providing the figure would be helpful. The number must be below the line since the cost of the equipment would be funded by the station.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Thursday, April 08, 2010 7:16 PM
To: Jonathan Harvey
Cc: Laura Hartman; Ryan Metcalf
Subject: UCR Barn DPP - KUCR broadcast Equipment in Cost Estimate?

Hi Jon,

Should new broadcast equipment for KUCR be included in the estimate?

Thanks,
Jason

Jason Wilkinson
Fernau & Hartman Architects, Inc.
(t) 510.848.4480
(f) 510.848.4532
http://www.fernauhartman.com

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project - Updated Project Area Summary**
Date: April 15, 2010 1:01:08 PM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>, "Laura Hartman" <lh@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason, Laura,

FYI

Jon

From: Cheryl Garner [mailto:Cheryl.Garner@ucr.edu]
Sent: Thursday, April 15, 2010 12:12 PM
To: jon.harvey@ucr.edu; Andy Plumley (andy.plumley@ucr.edu); don.caskey@ucr.edu; Jacqueline Norman; John Ganim; Kieron Brunelle; Nita Bullock; nziad001@ucr.edu; richard.racicot@ucr.edu; Susan Marshburn (susan.marshburn@ucr.edu); Timothy Ralston
Cc: Cheryl Garner
Subject: RE: Barn Project - Updated Project Area Summary

I thought I would provide a little information for us to review as we think about seating:

Total Estimated Lunch Transactions	640
Total Estimated Peak Lunch Hour Transactions (50%)	320
Estimated Seat Turnover (45 minutes)	1.333
Net Seats Required (Occupied)	240
Gross Seats Required @ 75% Utilization	320
10% customers take out food	-32
Total seats required	288
Current Seating	301

There are of course some variables that might change the required seating. For example, our current seat utilization is much lower than 75% based on the table sizes. If I use 65% utilization, the required seating would be 332 rather than 288. Also, we have not accounted for seating for those purchasing coffee, so we will need a margin of error for that as well.

You are currently suggesting 276 seats for the Barn interior and the East and West Courtyard which is less than the 288 required at 75% utilization and without the coffee customer seating.

Cheryl Garner
Director of Dining Services
University of California, Riverside
Office: (951) 827-5857
Cell: (951) 333-4700

If you don't like change, you're going to like irrelevance a lot less.
Tom Feltenstein

From: Jon Harvey [mailto:jon.harvey@ucr.edu]
Sent: Wednesday, April 14, 2010 4:33 PM
To: Andy Plumley (andy.plumley@ucr.edu); Cheryl Garner (cheryl.garner@ucr.edu); don.caskey@ucr.edu; Jacqueline Norman; John Ganim; jon.harvey@ucr.edu; Kieron Brunelle; Nita Bullock; nziad001@ucr.edu; richard.racicot@ucr.edu; Susan Marshburn (susan.marshburn@ucr.edu); Timothy Ralston
Subject: Barn Project - Updated Project Area Summary

Steering Committee,

Seating capacity in the interior and exterior dining areas was reviewed and updated

Revised figures are provided in the attached Project Area Summary revised April 14, 2010.

Total number of seats was reduced from the previous summary as follows:

Interior
Barn Dining - from 108 seats to 94 seats
Barn Stable - from 50 seats to 43 seats

Exterior
East Courtyard – from 134 seats to 122 seats
West Courtyard – from 82 seats to 60 seats
Barn Stable Patio – remains at 44 seats

The updated outdoor seat counts (188) corresponds with the figure presented in WS-1, while the number of interior seats is less (original target was 108 seats).

Please let me know if you have any questions or concerns with the revised figures.

Thanks

Jon

Jon Harvey
Capital & Physical Planning
951-827-6952

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Group and Cottage**
Date: April 16, 2010 8:08:29 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>, "Laura Hartman" <lh@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason, Laura

FYI

Jon

From: Jacqueline Norman [mailto:Jacqueline.Norman@ucr.edu]
Sent: Friday, April 16, 2010 8:03 AM
To: jon.harvey@ucr.edu
Subject: FW: Barn Group and Cottage

FYI – update on Cultural Resources Update.

Jacqueline Norman | Office of Design and Construction | University of California, Riverside | 951.827.6316

From: Tricia Thrasher [mailto:tricia.thrasher@ucr.edu]
Sent: Wednesday, April 14, 2010 10:55 AM
To: Jacqueline Norman
Subject: FW: Barn Group and Cottage

FYI

Tricia D. Thrasher, ASLA, LEED AP
Principal Environmental Project Manager
UCR Office of Design & Construction

From: Casey Tibbet [mailto:casey.tibbet@lsa-assoc.com]
Sent: Wednesday, April 14, 2010 10:44 AM
To: Tricia Thrasher
Subject: Barn Group and Cottage

Hi Tricia,

It was very nice meeting you in person this morning. I appreciate all the information you have provided.

As we discussed, based on the field survey and research the barn group and the cottage do not appear to qualify as "historical resources" pursuant to the California Environmental Quality Act (CEQA). However, they are clearly important to the UCR campus and I would strongly urge you to keep the group together and maintain the rustic character that defines these buildings and gives some sense that they are associated with the earliest history of the campus. If you haven't done so already, it might be nice to have some sort of historical display in the Barn to reinforce its history.

The historical resources assessment will be submitted to you by April 26, 2010. Please let me know if you have any questions.

Casey Tibbet, M.A.
Senior Architectural Historian/Historian

LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, CA 92507
951-781-9310
951-781-4277 (fax)

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **RE: UCR Barn DPP - Schedule**
Date: April 21, 2010 8:43:36 AM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Cc: "Laura Hartman" <lh@fernauhartman.com>, "Kieron Brunelle" <kieron.brunelle@ucr.edu>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>

Jason,

This morning is open with the exception of a 10:30 meeting.

Naming conventions were reviewed at WS-3 were Barn Dining, Kitchen Addition, Barn Theater, Cottage, and Barn Stable.

Comments on the text have challenged the naming convention associated with the Barn since comments typically remove the word Dining from the name. Discussion following WS-4 concluded that the Barn refers to both Barn Dining and Kitchen Addition. Unfortunately there are also problems with this approach.

The Official Name of the dining facility is “The Barn” per the Campus Space Inventory system, and the name should therefore be used in the report. The balance of the names should follow the naming convention adopted at WS-3. Suggest that the report introduction address the “The Barn” name adjustment.

Thanks

Jon

From: Jason Wilkinson [mailto:jw@fernauhartman.com]
Sent: Tuesday, April 20, 2010 5:47 PM
To: Jonathan Harvey
Cc: Laura Hartman
Subject: UCR Barn DPP - Schedule

Hi Jon,

I was not able to complete the schedule today. I apologize for any inconvenience, however there are many considerations and want to feel confident in the draft document. We have some questions that we would like to go over with you tomorrow morning if possible. Please let us know your availability.

Also we were reviewing our notes and were not sure about the naming convention for "The Barn." Should we refer to the new portion as the "Kitchen Addition" or just "(N)" similar to the annotations for the Barn Stable and Barn Theater?

Regards,
Jason

Jason Wilkinson
Fernau & Hartman Architects, Inc.
(t) 510.848.4480
(f) 510.848.4532
http://www.fernauhartman.com

APPENDIX

Correspondence

From: "Jon Harvey" <jon.harvey@ucr.edu>
Subject: **FW: Barn Project Phases 1 & 2 Emergency Generator**
Date: April 23, 2010 2:03:59 PM PDT
To: "Jason Wilkinson" <jw@fernauhartman.com>
Reply-To: "jon.harvey@ucr.edu" <jon.harvey@ucr.edu>
1 Attachment, 4.1 KB

Jason,

Information on the emergency generator fuel type and fuel supply requirements are below.

Thanks

Jon

From: Eric Shuler [mailto:eric.shuler@ucr.edu]
Sent: Friday, April 23, 2010 1:46 PM
To: Mike Terry; jon.harvey@ucr.edu
Cc: Kieron Brunelle
Subject: RE: Barn Project Phases 1 & 2 Emergency Generator

Our preference is red diesel, and we would require a 3 day capacity.

Eric Shuler
Electrical Shop Supervisor
UC RIVERSIDE UNIVERSITY OF CALIFORNIA
Department of Physical Plant
3401 Watkins Drive
Riverside, California 92521
951-827-3112 Office
951-827-4596 Fax
eric.shuler@ucr.edu

From: Mike Terry [mailto:mike.terry@ucr.edu]
Sent: Friday, April 23, 2010 1:36 PM
To: jon.harvey@ucr.edu
Cc: Kieron Brunelle; Eric Shuler
Subject: RE: Barn Project Phases 1 & 2 Emergency Generator

Good afternoon!
I will have a reply sent to you by the end of work Monday 26APR10.
Thanks,
Mike

From: Jon Harvey [mailto:jon.harvey@ucr.edu]
Sent: Friday, April 23, 2010 9:27 AM
To: Mike Terry
Cc: Kieron Brunelle
Subject: Barn Project Phases 1 & 2 Emergency Generator

Mike,

An emergency generator is being considered for the Barn Project Phases 1 & 2 to supply power to the kitchen refrigeration units, emergency lights, and KUCR. The size of the generator will be determined by the consultant team.

Request preferences for emergency generator fuel supplies, and if diesel, the capacity of the fuel tank in days.

We would appreciate a quick response (no later than Monday) so the information can be incorporated into the draft report.

Thanks

Jon

Jon Harvey
Capital & Physical Planning
951-827-6952

APPENDIX

Correspondence

Barn Renovation
Program Statement
November 16, 2009

Demand Analysis

Number of Classroom Seats within a 3 minute walk of the Barn	3617	
Estimated Future Utilization of Classroom Seats - 11am-2pm	75%	Now 69%
Estimated Potential Student Customers	2713	
Current Ratio of Faculty/Staff to Students	32%	
Estimated Potential Faculty/Staff Customers	868	
Total Potential Customers	**3581**	
Projected "Design Day" Capture Rate - All Customers	45%	Current Capture Rate is 34.3% Non-Resident Students & 32.3% Faculty/Staff
Projected Transactions of Student Customers within a 3 minute walk of the Barn	1221	
Projected Transactions of Faculty/Staff Customers within a 3 minute walk of the Barn	391	
Total Projected Transactions of Customers within a 3 minute walk of the Barn	**1611**	
Projected Distribution of Student Transactions between the Barn and the HUB	30% / 70%	30% Barn and 70% HUB
Projected Distribution of Faculty/Staff Transactions between the Barn and the HUB	70% / 30%	70% Barn and 30% HUB
Total Estimated Student Lunch Transactions at the Barn	366	
Total Estimated Faculty/Staff Lunch Transactions at the Barn	273	
Total Estimated Lunch Transactions:	**640**	Current Average Lunch Trasactions are 301

Seating Requirements

Total Estimated Lunch Transactions	640	
Total Estimated Peak Lunch Hour Transactions (50%)	320	
Estimated Seat Turnover in Peak Hour (45 minute occupancy)	1.333333333	
Net Seats Required (Occupied)	240	
Gross Seats Required (@ 75% Seating Efficiency)	320	Current Seating = 183 outdoor seats and 118 indoor seats
Less Estimated Take-Out Factor (10%)	-32	
Total Estimated Seats Required	**288**	
Indoor Seats	**110**	
Outdoor Seats	**178**	

Space Requirements

Program Area		ASF	Notes
Production Kitchen			
	Cold Prep	960	Cold Production for Barn, Barn/University Club Catering and 425 pieces packaged grab and go products daily.
	Hot Production (Cook Line and Grille Production)	640	Grille Line adjacent to Servery with pass-through window for finished products; Bulk hot production line to include finish baking capability; Ice maker.
	Refrigerated Storage - Bulk Food	120	Walk-in Cooler
	Refrigerated Storage - Finished Product Cooler	120	Walk-in Cooler
	Refrigerated Storage - Beer Cooler	80	Walk-in Cooler; Lockable
	Frozen Storage	120	Walk-in Freezer
	Dry Storage - Food	360	Wire Rack Shelving
	Dry Storage - Liquor	30	Lockable
	Dry Storage - Catering Equipment (Barn and University Club)	80	Wire Rack Shelving; Lockable
	Receiving, Recycling and Outbound Staging Area	200	Receiving; Outbound Cart Marshalling; Food waste bin; Compostable bin.
	Subtotal:	**2710**	
Warewashing			

Correspondence

	Dishwashing	352	Conveyor Dishmachine; Space includes Chemical Storage
	Potwashing	100	Pot Sink; Shelving
	Janitor's Closet	48	Mop Sink; Cleaning Equipment Storage
	Chemical Storage	Incl. Above	
	Subtotal:	**500**	
Back of House Support			
	Unisex Employee Toilet	80	
	Unisex Changing Room & Lockers	60	12 Lockers and Changing Bench
	Manager's Office	80	
	Production Office	120	2 stations shared by - 1 Sr. Mgr.; 1 Entertainment Mgr.; 1 Principle Supervisor (Barn); 1 Principle Cook (Barn); 1 Principle Supervisor (Truck). Includes Safe for cash handling.
	Subtotal:	**340**	
Serving			
	Serving Area	480	Exhibition Kitchen and Servery; (4) POS; (2) Exhibition Production Platforms - Salad/Sandwich, Pizza (Woodstone Oven); These Platforms and the Grille Platform all funnel to Expediting/Pick-up Station seperated from POS.
	Customer Queuing	400	Serpentine Queue System (next available cashier).
	Self-Serve Beverage Counter & Queuing	96	Adjacent to interior Service Bar.
	Double-sided Service Bar	96	Opening into interior and exterior; Service Bars on each side (beer taps and bottled wine); (1) bar sink and (1) under counter glass washer.
	Self-Serve Condiment Counter & Queuing	48	
	Subtotal:	**1120**	
Indoor Seating & Stage			
	Indoor Seating	1760	110 Seats; Café Style Seating
	Performance Stage	By Architect	
	Subtotal:	**1760**	
	Total Indoor ASF:	**6430**	
Outdoor Space			
	Loading Dock	By Architect	3 Bays - 2 Vehicle; 1 Trash/Recycling (Trash dumpster; Recycling containers for oil waste, paper, compostables); Mat/cart washing area.
	Outdoor Seating	2848	178 Seats; Café Style Seating
	Outdoor BBQ	100	Outdoor gas BBQ with exterior refrigeration; gas line; (1) POS; hot/cold wells.
	Outdoor Condiment Counter & Queuing	48	
	Total Outdoor ASF:	**2996**	
	Total Indoor/Outdoor ASF:	**9426**	

Correspondence

University Club
Design Criteria - Food Service Areas
November 16, 2009

Back of House Pantry
Provide the following:

3 compartment sink with soiled pot shelving and clean pot shelving
Cart parking area with electrical outlets for 4 carts
Cook line with exhaust hood, to include (1) two-basket fryer, (1) 36" griddle with oven below
8-10' work counter with undercounter dishmachine for glassware
Plating table
1 wire rack shelf/lockable cage for liquor storage
1 section roll-in refrigerator
1 hand sink

Bar
Provide the following:

Bar top and die with beer taps, (1) POS, and undercounter ice maker
Back bar to include undercounter refrigeration, undercounter dishwasher and bar sink

Janitor Closet
Provide the following:

Mop sink
Cleaning equipment storage for the facility
Chemical Storage

APPENDIX

Correspondence

Dear Campus Community:

Due to annual campus maintenance requirements, steam systems serving all campus buildings will be shut down:

Starting
Monday, June 14, 2010 at 8:00 pm
And continue until
Tuesday, June 22, 2010 at 7:00 am

Full steam service will be restored to all buildings by the end of the day, June 22, 2010.

Impacted services include:
Domestic hot water heating, space heating,
Humidification, soil sterilization,
Autoclave sterilization, cage washers, etc.

Critical repairs must be performed to ensure a reliable and energy-efficient supply of steam to all campus facilities.

We are aware of the inconvenience this will cause to some operations, particularly research. The Physical Plant staff is available to help you determine the effect of this shutdown on your areas, and will work with you to provide solutions wherever possible.

Thank you for your cooperation.

Any questions or concerns should be addressed to:

Chris Flanders
Climate Control Supervisor
951-827-6235
Chris.flanders@ucr.edu

OR

Pat Simone
Assistant Director of Energy & Utility Services
951-827-6464
Patrick.simone@ucr.edu

Correspondence

Coffee Shop
Program Statement
November 16, 2009

Space Requirements

Program Area		ASF	Notes
Back of House Support			
	Dry Storage	64	
	Refrigerated Storage - Bulk	36	Walk-in Cooler
	Office	64	
	Potwashing	60	
	Unisex Employee Toilet	48	If required by code
	Ice Making/Prep/Miscellaneous Support	48	
	Janitor's Closet/Chemical Storage	24	
	Subtotal:	**344**	
Serving			
	Serving Area	150	Espresso and specialty coffees; Brewed coffee; Blenders; Bakery display case (2 section - ambient & refrigerated); Undercounter dishmachine
	Customer Queuing	120	Serpentine Queue System (next available cashier).
	Self-Serve Condiment Counter & Queuing	24	
	Subtotal:	**294**	
	Total Indoor ASF:	**638**	
Outdoor Space			
	Outdoor Seating	By Architect	36 Seats Desired; Porch Seating in Keeping with the Architectural Integrity of the Historic Structure
	Total Outdoor ASF:	**By Architect**	