



**KRAUS-FITCH ARCHITECTS, INC.**  
*Home – Community - Planet*

**FINAL DESIGN PROGRAM: COMMON HOUSE & OTHER COMMON FACILITIES**

Prepared for Mosaic Commons Cohousing by Kraus-Fitch Architects, Inc. for August 6 & 7, 2005 workshop

<b>PROGRAM SUMMARY</b>	<b>Approximate Area (SF)</b>
Main Entry Porch	To be determined
Porch Patio and/or Deck (other than Main Entry Porch)	To be determined
Entry	150
Mail & Coat Area	100
Great Room	1,000
Dining Niche / Flex Space	250
Kitchen	450 (300 min.)
Support Functions (Bathrooms Mechanical Halls Storage)	800
Young Kids' Play Room	600
Guest Room #1	150
Guest Room #2	100
Living / Sitting Room	240
Laundry	150 (min.)
Multi-Purpose / Game Room	300
Exercise Room – Machines	200
Music Room	150
Library (as nook or shelving)	10
Crafts / Activity Closet	30
Pantry (additional to pantry storage in kitchen)	10
General Storage	50
TV / Movie (as part of another room)	5
Take-it-or-leave-it	10
Community Office (as a nook or closet)	10

**TOTAL BUILDING SIZE**

**4,765 SF**

## Overall Goals:

The following are design goals for the Common House, listed in order of priority as collated from the survey.

### RATING SYSTEM:

- 1 = this goal is of utmost importance to our community
- 2 = this goal is important for our community
- 3 = this is a goal that would be nice to accommodate, but it's not necessary
- 4 = this goal is not important to me, but I do not object to including it
- 5 = no, this goal is wrong for me and/or the community

- 1.4 Create opportunities for community (random connections by design)
- 1.4 Affordable to build and operate / maintain
- 1.6 Healthful (use of non-toxic materials to increase indoor air quality)
- 1.8 Accessible to someone using a wheelchair
- 2.1 Adaptable for changing needs
- 2.4 Ecologically sustainable
- 2.4 Attractive design features

## Relevant Codes

The following items are typical code issues that require further research and review by Project Architect.

### State building codes:

- Fire suppression systems (sprinklers) and/or rated corridors
- Limited area sprinklers in any large storage areas

### State plumbing codes

- Designated toilet rooms (men's and women's regardless of desired use)

### Local Health Board

- Commercial or Residential Kitchen

### State accessibility codes

- Elevator or lift (for basement and/or 2nd floor)
- Kitchen appliances, sinks etc.
- Accessible toilets
- Accessible entrance and egress

## Size / Stories

- Approximately 4,800 SF (square feet)
- There will be no planning for a future addition of any interior space
- Plan for future deck and porch space
- The design will be for a one-story building without a basement: should additional site information or site plan adjustments enable a basement, this may be reconsidered.
  - Note: The Massachusetts accessibility laws MAY allow "private" use of "inaccessible" areas as long as the community does not include rental units, and restricts access to such areas to "residents only". Therefore, any basement space would be for "resident only", and/or designed for a future or current elevator or lift,

## Overall Green Strategies:

- See Draft Eco Design Program, 24 May 2005
- Keep massing of building fairly simple, but not box-like

- Orient large expanse of roof towards south for future installation of photovoltaics and solar hot water systems (and avoid roof penetrations on south side). The goal would be to accomplish this without significant cost or sacrifice to rest of program.
- Design roofs to divert snow & rain from entrances
- Orient windows to take advantage of winter solar gain as much as possible
- Minimize summer solar heat gain: consider overhangs, minimize windows on West, and/or take advantage of existing trees, to avoid summer overheating
- Insulate and air seal building shell to Energy Star standards (see Eco Program for more information)
- Provide cross ventilation through window and door placement to the degree possible
- Consider material choices that are healthful and sustainable, within budget constraints.

### **General Site Relationship:**

- See **Final Site Design Program – Revision I, 15 April 2003**, under Common House, page 3
- No units will be directly attached to the Common House
- *Circulation from parking to homes to come through common house as much as possible*
- Design to accommodate future covered pathways connecting common house to some units and parking, if possible.
- Handicap accessible ramp to front porch (if not directly on grade), preferably covered from elements and starting and finishing in same locations as Main Entry Porch steps.

### **General Interior Space**

- Lots of natural light, while maintaining adequate wall space
- Ceiling Heights @ 9'-0" except as otherwise noted in Program.
- Circulation: clear and efficient

### **Overall Exterior Aesthetic**

- See **Final Site Design Program – Revision I, 15 April 2003**, under Architectural Directions, page 2.

### **Main Entry Porch:**

- Covered or sheltered area outside of Main Entry
- The entrance should be visually noticeable and attracting upon entry onto site, if possible
- Approximately 300 SF, Minimum: 8'x12', or 100 SF
- Easily maintainable surfaces and materials
- Walk off mats or grate for snow / dirt removal
- Screens, or accommodation for future screens (removable or roll-down)
- Consider wraparound porch to create a separate area
- *Connected to main outdoor gathering space*
- *Connected to main outdoor gathering space with handicap accessible ramp (see note above)*

### **Porches, Patios and Decks (other than Main Entry Porch, listed above):**

Porches, patios and decks provide transition areas between the interior and exterior. Where they are located will depend on many parameters, but a couple of typical locations would be a patio or deck outside the dining room and a porch as part of the entry (see above). If they are located near the entry to the common house and/or at areas of major outdoor activity, they will provide ready opportunities for socializing. For example, a comfortable, shady porch can provide a sitting area for adults watching their children in an adjacent playground; if this porch is located near the common house entry, these parents will have many opportunities to interact with neighbors going to and from the common house.

- For outdoor gathering and relaxing, playing music

- Accommodate outdoor dining
- Sun in Spring and Fall
- Shade in Summer
- Easily maintainable surfaces and materials
- Somewhere to grill / BBQ
- Screened porch
- May design now to build later
- Readily shaded
- *Connecting interior with exterior*
- *View of play area*

### **Main Entry (Interior Area):**

An entry area is an important element for most common houses. It provides a transition between inside and out, and a comfortable place where you can meet your neighbors on your many trips to and from the common house. You typically move under some sheltered area outside, then into an interior space which accommodates functional as well as social purposes.

- Welcoming area inside
- Tackboard space for announcements
- Floor mats for dirt walk-off
- Approximately 100-150 SF inside
- Possibly include sitting space for 6-8 people
- Consider enclosing as an “air-lock” for energy conservation. This should be done without restricting flow and detracting from welcoming experience.
- *Connected to main outdoor gathering space*
- *Leading to or incorporating mail and coat functions*

### **Mail & Coat Area:**

We strongly recommend having mail delivered inside the common house if at all possible. Picking up mail will bring a lot of activity to the common house on a regular basis. If you design this area carefully, it will promote many enjoyable chance encounters, and permit you to linger comfortably with your neighbors.

- Located on main level
- This space to be designed as an “eddy” off of the main entry, without a constricting door between.
- Access to the mail should be direct, not requiring the removal of muddy boots.
- Approximately 100-150 SF
- Combined with or partially combined with main entry if this saves on square footage
- Good traffic flow past these functions, if combined with main entry
- Accommodate US mail, in-community mail, and large packages
- Bench
- Bulletin board
- Hooks and cubbies for coats, boots, and personal belongings
- Paper recycling and trash can
- Lost and Found box; possibly a posting area to list items to exchange
- May include a sitting area, or:
- *Easy, immediate access to a comfortable sitting area*
- *Directly adjacent to entry*

## **Great Room:**

This is the main gathering area in the common house. Here, you share your common meals, gather for meetings of the whole community, celebrate and dance. This area should accommodate the entire community for some gatherings, and typically should be able to seat about 2/3 of the community comfortably for common dinners. At the same time, you want this space to feel homey and welcoming, which can be a challenge for a space of the size required. Acoustics are also a critical issue for this space, as you will want to provide a comfortable dining environment for all while including young, energetic children.

Incorporating a sitting area(s) within the great room can be a successful pattern. It allows you to naturally gather before and after meals. It also helps with noise issues by providing additional space and soft materials in the dining area.

- Located on main level
- Accommodate dining for 2/3 of community comfortably (approximately 1,000 SF)
- Accommodate other gatherings (eg., dancing, space for piano)
- Include a lounging area (eg. Couch), not permanent.
- Acoustically quiet: include acoustic treatment on ceiling (“Tectum” or “Nubby” panels); but “live” enough for performances
- Flexible lighting for ambiance
- Danceable floor
- “Wet bar” with sink (for getting water, serving tea, etc.), if possible, preferably large enough for several small appliances, coffee pots, etc.
- Bussing area in Dining Room (for diners to scrape plates and separate utensils) in corner or otherwise away from main dining area and immediately adjacent to kitchen dish return.
- Room designed so that it can be easily converted into performance space (stage area at one end, sitting area, table storage). Note: “stage” refers to an area or removable platform – not included in construction contract.
- Aesthetic interior design
- Ceilings: high, with some lower areas if possible
- Include a separate area that can be shut off for quiet dining and/or private gatherings
- Fireplace, either glass door insert or wood (or gas) stove; not solid masonry
- Include cable or other accommodation for occasional TV/ Media use (example: movie night, presentations, etc.)
- *Connected to main outdoor gathering space*
- *Easy access to storage (chairs, maybe tables) for flexibility of use*
- *Adjacent to / connected to before/after meal lounging area*

### Kids’ room relationship:

- *Auditory separation from kids room*
- *Easy access to kids room*
- *Visual connection to kids room if at all possible*

### Kitchen relationship:

- *Direct access for serving*
- *Direct access to dish area for bussing*
- *Separation of dining and meetings from kitchen functions (see Kitchen program below for degree of separation)*
- *Visual connection (see Kitchen program below for degree of visual connection)*

### **Dining Niche / Flex Space**

- Located on main level
- Approximately 250 SF
- Immediately off Great Room, possibly separated by large, glass doors
- Furniture should be easily moved (possible adjacency to storage closet) for flexible use of the space.
- Include cable or other accommodation for occasional TV/Media (anticipated for workshop-like instruction).

### **Kitchen:**

Here's where you prepare your common meals – typically cooking for about 60 people. You may also want to can, or gather to bake large batches of bread together. Commercial appliances are of great help, but, as with the great room, you want to feel at home – so balancing convenience with a homey feel comes into play again. Butcher block or other wood surfaces and patterned tiles are examples of materials that can help create a warmer atmosphere; color can help too. We recommend a commercial dishwashing setup.

The connection between the kitchen and great room is an important one. If it is completely open to the great room, it allows ready communication with the cooks and can feel more like a home. But it is helpful to be able to close the kitchen off, so that the noise of cleaning and/or cooking does not impinge on gatherings in the great room. We generally recommend allowing for openness with the option of closing the kitchen off, though there are many examples of common houses designed with a completely open connection.

#### General

- Located on main level
- 300 SF minimum not including pantry
- Efficient layout
- Accommodate 3-4 cooks
- Natural light
- Accessibility: at a minimum, incorporate one sitting-height counter area
- Accessibility: Code may require additional cooktop & sink at lower height.
- Sitting space for cooks and company, can be stools
- If feasible, ability to exclude toddlers while allowing adult circulation to and from kitchen
- Ease of maintenance, cleaning
- Residential feeling, without compromising ease of cleaning and efficiency
- Local Board of Health requirements
- Floor Drain(s) if required by Board of Health.
- *Adjacent to great room (see above)*
- *As open as possible to Great Room while still being able to close off*
- *Access to service entry (for convenient delivery of groceries)*
- *Near kids' room for supervision while cooking*
- *Visual separation from rest of common house, to give kids the message to stay out*
- *Easy access to herb garden, if possible*
- *Easy access to vegetable garden, if possible*
- *Easy access to composting area, if possible*
- *Easy access to dumpster, if possible*

#### Range / Oven(s)

- Gas-Fired commercial or high-grade residential range: 6 burner, 2 oven, with grill
- Alternatively, may have a one-oven range (no grill) and convection oven
- Two burners at low or adjustable height if possible (these may be electric)
- Microwave oven

- Range hood ventilation as required by code.  
Note: Inspector may not require special fire suppression if there is not “frying”, THIS ITEM NEEDS MORE DISCUSSION.

#### Dishwashing

- Receiving counter (including compost bucket access), pass-thru from Great Room.
- Pre-rinse sink and sprayer with adjacent counter space for min. 2 racks of dishes.
- Commercial dishwasher with booster heater
  - THE TYPE OF DISHWASHER NEEDS MORE DISCUSSION. OPTIONS INCLUDE:
    - Above counter model (most expensive, easiest on the back)
    - Floor mounted model (installed below continuous counter top)
    - Floor mounted model raised 12” (easier on the back, but there would be an interruption of usable counter space)
    - Floor mounted raised to counter level
    - Top of the line residential dishwashers – would probably need more than one.
- Additional ventilation as required by any gas appliances (ex. Gas booster heater)
- Pot sink (2 bay minimum for washing and sanitizing)
- Shelving / counter areas for air drying dishes and pots and pans
- Grease trap if required by code or septic system.

#### Food Preparation

- *Very easy access to range and all storage items listed below*
- Hand sink
- Vegetable sink (convenient to refrigeration and preparation area)
- One of these sinks at accessible (& kid) height
- One adjustable height counter if possible
- Prep counter (support interaction while prepping; eg., central island)
- Pass-thru service counter (for laying out finished dishes as buffet or to be taken to dining room)

#### Refrigeration:

- Efficient and quiet models: probably 1 or 2 large residential or commercial refrigerators; enough space to allow for 2 large residential refrigerators or a commercial refrigerator
- Refrigerator(s) capable of fitting “hotel pans”
- Min. of 1 refrigerator with some freezer space (ice, butter, tortillas)

#### Additional freezer space in basement

#### Storage

- Spices, measuring cups, etc.
- Cookbooks: ideally a tall bookshelf’s worth
- Storage for pots, pans, dishes; include open storage for easy finding of items
- Storage for seldom-used items (for sharing by households); could be in basement?
- Drawer storage for some utensils
- Hanging rack storage for some utensils, pots & pans, etc.
- Cart storage (for moving plates in and out of dining area). Note: dishes can be stored on these carts so there is no duplication of storage space. It is nice for carts to have an open counter that they can roll under.
- Pantry – 50 SF (for every day use of oils, flours, food processors, etc.). Design for either open shelving or small closet within the kitchen. Design to allow for quick access, labeling, ease of organizing and scanning by different users.

#### Other

- Recycling area, not necessarily within kitchen, but readily accessible.
- Bulletin board
- Planning desk, if possible
- Telephone
- computer terminal (for access to electronic recipe files)

#### **Kids' Room: two spaces (for active and quiet play)**

A place for the children to play – mainly after dinner, so they can burn off steam noisily while the adults enjoy quiet after-dinner conversation – but also at other times of day. One challenge is safely accommodating kids of different ages: the boisterous 6-year-olds want to run around after dinner, and can often trip over the toddlers. It's helpful to design separate spaces for different age groups. This is why we ideally recommend about 600 square feet of area for two kids' rooms: a larger 400 SF space for the bigger kids, 150 to 200 SF for the toddlers. In the larger space, it is nice if possible to include a wet-play area, with a floor that permits activities such as painting and a water table. One issue to think about is whether to consider designing the kids' room to allow for a licensed daycare.

- Located on main level
- 600 SF
- Include separate quiet play and active play areas, probably separated by full walls. Note: The setup at Cambridge Cohousing is well liked.
- Include lavatory (toilet and sink with room for changing table): Note this toilet room should be readily accessible from the hall or great room for use by others.
- Ability to set up for large physical activities
- Wet and dry areas , if possible
- Pillow area, if possible
- Storage: out of reach, for art supplies, first aid, small toys, snacks, etc.
- Telephone
- *Visually connected to great room, using interior windows*
- *Acoustically separated from Great Room and Living Room*
- *Near kitchen if possible*
- *Convenient access to a bathroom; include a changing table in this bathroom; include kid-height sink in this bathroom if possible*
- *Adjacent to outdoor play area and main outdoor gathering area*
- *Probably not designed for commercial daycare requirements*

#### **Living / Sitting Room:**

It is important to have a comfortable place for small gatherings – a place that feels homey for one person and for a small group (say, 10 people). This way, if you walk into the common house alone, you might actually decide to sit down and stay – maybe read your mail or the paper. And before you know it, someone else happens in, and you can catch up. This space can also serve as a place for small committee meetings. If it is near the entry and mail room, this encourages spontaneous use. If it is convenient to the great room, you may naturally migrate there after dinner to relax and talk. It is also great to have such sitting areas directly integrated into the great room, but even so, it is ideal to have at least one distinctly separate space which can be closed off for meetings.

- Located on main level
- 240 SF
- Accommodate small meetings
- No accommodation for piano (see Great Room)
- Accommodate TV (technology to be considered at later date)

- Telephone
- No fireplace
- *Acoustically separated from kids' room*
- *Relationship to dining for pre/post dinner lounging, but separate room*
- *Adjacent to mail room if readily achievable*
- *Preferably visible from main outdoor gathering area and/or entry*

### **Laundry:**

The laundry room is a convenient shared amenity that draws people into the common house on a regular basis. Large commercial washers and dryers can be included and we recommend them for water conservation and heavy usage.

- Located on main level
- Minimum 150 SF
- 2-3 washers, 2-3 dryers, include commercial appliances
- Small sink for hand washables
- Folding area
- Rod with hangers for items that need immediate hanging
- Storage for soap, etc. out of children's reach
- Ventilation
- Access to interior clotheslines if possible
- *Easy access to exterior if possible*
- *Easy access to exterior clothes lines if possible*
- *Adjacent to mail room if possible*
- *Adjacent to path of travel to sitting room and/or individual homes, if possible*

### **Guest Suite:**

Incorporating guest rooms in the common house permits you to make do with a smaller individual home. Guest rooms in existing communities get a lot of use. It is ideal to have at least two guest rooms, so that families with children can easily visit. It is best to provide reasonably private access to a bathroom, even if that bathroom doubles for general common house use.

- Located on any level, preferably remote from main functions
- Approximately 100-150 SF per bedroom
- Privacy and/or ability to close off from other functions
- 2 bedrooms, minimum one with queen bed
- Full accessible bathroom (with tub-shower); shared with common house, but set up for discreet access from bedrooms without being seen from other areas of common house. Note: This is the only unisex accessible bathroom – it should remain readily accessible to everyone even when guest rooms are in use.

### **Music room (approximately 150 SF)**

Some groups may want a sound-proof room for practicing noisy instruments or playing instruments together. This kind of room can also be used for meditation, because it closes out noise – but if you have a drum set in there, that might not leave much room or create the right atmosphere. The needs of most groups however are met with a piano in the great room for enjoying music together.

### **Multi-purpose Room / Game Room (approximately 300 SF)**

Common houses often accommodate small children without making particular provisions for pre-teens and teens (approx. 8+ years). However, designing a special room as a “teen room” doesn't seem to have much success – these rooms rarely get used. Creating a room around an activity that these age groups enjoy is

likely to be a more effective strategy. A game room might better serve this purpose. This is a place to gather and play pool, foosball, ping-pong, or other games. You probably want to leave the games set up at all times, or they will not get spontaneous use.

Children tend to want to run and be wild in the common house. It is nice to have an area where they can release some of this energy. This space can also be a good place for a toddler to ride a tricycle on a rainy day, or another place to throw a birthday party if the great room is not available.

- Big enough to accommodate pool table
- *Acoustically separate from quiet areas*
- *Possibly attached and/or open to exercise room*

### **Exercise Room – Machines (approximately 200 SF)**

Some common houses include a space for weights and exercise machines. Pooling resources permits you to invest in equipment that you wouldn't buy for just your own household. Working out together can also be more social. Exercise equipment requires a lockable room for the safety of children.

### **Support Functions:**

Bathrooms:

- 2 general use bathrooms with easy access to dining area, including full accessible bathroom shared with guest rooms in a manner that ensures privacy for guests (see above)
- 1 bathroom in kids' room

**MORE DISCUSSION REQUIRED:** Should there be composting toilets in CH?

Janitor's closet with mop sink and storage, main level, ventilation

Storage closet(s), 10-20 SF total, some on main level

Chair storage, 50 SF, easy access to dining room

Electrical panel within Mechanical Room, or separate closet as per best design

Accommodation for network facilities (1-2 wire-rack mounts for small switching equipment & cable runs), may require air conditioning

Mechanical Room & Items

- Fire rate walls & ceiling as required by code
- Air Conditioning

Sprinkler Room (if required):

**MORE DISCUSSION REQUIRED:** Install fire suppression system (sprinklers) to allow more open building design, if possible

### **Circulation:**

Halls, etc., connecting functions. Efficient and multi-purpose design. Circulation (including entry) and support functions may be as much as 20% of the building area

Shelving and/or nooks in halls if possible

Place for posters in halls

Social nooks if possible

Elevator or lift if required (see also discussion item above)

Toddlers able to walk around without fear of falling down stairs

Tack boards for posting

### **Community Office Nook (10 SF):**

Note: This space will be incorporated within the Office Building. If this Office Building is NOT scheduled to be built at the same time as the Common House, then this space should be incorporated into the Common House.

Sharing basic office resources will bring people into the common house, and prevent the need to travel off-site to make a copy or send a fax. There is not generally much need for a full office for community business – that typically requires only a small filing cabinet.

- Copier, computer, fax, filing cabinet(s)
- Probably off entry

### **Library Shelving (approximately 10 SF)**

- Generally library shelving is desired in most of the rooms. It will be explored further in design development.

### **Crafts / Activity Closet (approximately 30 SF)**

Crafts (requiring large areas of undisturbed table space) are an anticipated use that often does not materialize in real life. But for some groups, where there is at least one person active in organizing craft activities, it can add a rich dimension for children and adults alike. Specific requirements of this space depend on the crafts anticipated.

- Lockable closet near or off the great room (or other multi-purpose space)
- Allow easy access and storage of materials that would enable multiple activities, possibly including but not limited to:
  - TV and VCR cart storage
  - Arts & Craft storage (possibly including a sink and counter)
  - Board games, puzzles, etc

### **Take it or Leave It (10 SF)**

A closet can be used as a place to bring clothing, toys, and household items that you no longer want, and to find items you might want or need. This is particularly useful for communities with a large number of young children.

### **Pantry, additional (10 SF)**

Depending on how much food you buy in bulk, you may want to have additional pantry space. Overflow space can often be accommodated in a basement.

### **Other Common Facilities:**

The following are common functions that are programmed to be located OUTSIDE of the common house (See Final Site Design Program – Revision I, 15 April 2003)

:

- **Workshop (400 SF or more)**
- **Home offices (100 – 150 SF per office)**
- **Carports – 1 per household**