

FINAL SITE DESIGN PROGRAM – Revision 1

Prepared for Mosaic Commons by Kraus-Fitch Architects, Inc., September 2002, revised 15 April 2003

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OVERARCHING DESIGN GOALS

Essential (1 = this goal is of utmost importance to our community)

- ◆ Foster interaction between neighbors – design units, porches, etc. to encourage neighbors to cross paths, interact, etc.
- ◆ Privacy within home
- ◆ Sharing resources – community facilities
- ◆ Safe & nurturing environment for children and adults

Very Important (1-2)

- ◆ Regular and frequent community meals
- ◆ Healthfulness – use of materials and systems which do not contribute to bad indoor air quality
- ◆ Attractive – architecture and landscape
- ◆ Accessibility above and beyond code requirements: Most units “visitable” by someone in a wheel chair and a few units “livable” by someone in a wheel chair.
- ◆ Ecological sustainability – design to minimize ecological impact (materials, energy, etc.)
- ◆ Affordability – units affordable to all people interested in living in the community

Important (2 = this goal is important for our community)

- ◆ Beautiful – architecture and landscape
- ◆ Diversity – design that is friendly to people of diverse backgrounds (economic, social, etc.)
- ◆ Adaptability of community and structures – for future changing needs (aging in place for instance)
- ◆ Durability of community and structures – long term maintenance, etc.
- ◆ Minimize impact of cars

Nice if Possible (3 = this is a goal that would be nice to accommodate, but it’s not necessary)

- ◆ Support & create on-site work options – office building, etc.
- ◆ Service & connection to larger community
- ◆ Accessibility above and beyond code requirements: All units “visitable” by someone in a wheel chair and two unit types “livable” by someone in a wheel chair.

RELEVANT CODES

The following items require further research and review by Project Architect. They are codes / regulations that must be considered in concert with your group’s program. You may or may not have any influence over aspects of these codes.

- Town Zoning Bylaws
- Wetlands Protection Act
- State building codes
- State accessibility codes
- Mass. River Ways
- Title V
- 21E – Hazardous Materials

CONNECTION / RELATIONSHIP TO LARGER COMMUNITY:

Design for a view from roads that neighbors will accept.

Welcoming

- car arrival
- pedestrian arrival

Design addresses other issues that may be of importance to neighbors and town, such as:

- Preserving open space
- Impact on traffic
- Welcome traversal and use of public lands beyond without disrupting cohousing community

Design to promote interaction with larger community

Consider providing public amenities to the larger community, such as:

- Conservation easement
- Hiking paths

ARCHITECTURAL DIRECTIONS:

Roofs: steep gables, simple forms, broken up as affordable (not necessarily exclusive of intersecting gables)

Building Massing: simple, broken up some.

Height: Mix of heights (some 1.5 and some 2 story units)

Siding: Fiber cement clapboards (as described in homework), painted in natural colors

Windows: symmetrical windows in gable ends (mirrored across vertical axis) if possible, but not letting design of rooms to be constrained by this. KFA will show double hung windows for now, and confirm this choice during unit programming.

Units: all of similar style

Common House: stylistically similar to units, but of different scale, “grander” in feel and detail.

Common House Porch – include a porch, consider wrap around (size to be determined during common house programming)

Overhangs – no decision made, although many interested in overhangs for solar control.

Shared Porches – no one present was opposed to sharing porches between units (may keep costs down and provide easier adaptability for ramping). Most present wanted to share a porch.

SITE PATTERNS:

Design for 20-35 units and a common house. Ideally the number of units will be 28.

Limit the building footprint to approximately 3 acres for units, common house, and parking regardless of the site acreage.

Note: The following are typical patterns of development found in cohousing communities. Sometimes a mixture of several patterns can be found in a single community. We will be investigating different patterns in site design development, including the following:

- Linear Pattern: linear pedestrian way (houses facing each other along relatively long, narrow path)
- Courtyard Pattern: houses clustered in node(s), roughly 70’ maximum in width.
- Cloverleaf Pattern: Houses clustered in 3-4 fairly small nodes, equidistant from Common House. There was a general agreement not to let this pattern expand to the size of Pathways Cohousing, Northampton.

CRITERIA FOR LOCATING THE DEVELOPMENT ON THE SITE:

Most important:

- Cost of access roads and infrastructure plus consideration of pedestrian/bike path to main artery
- Maintaining existing assets / qualities of site including wooded areas
- Taking advantage of views
- Maximizing solar gain & minimizing wind
- Not building on a hill / keeping grade low as possible on built acreage

Somewhat important:

- Visual impact on larger community
- View from common house
- Some units in trees

- Some units with maximum solar
- Keep building area off good agricultural land if applicable

Other criteria:

- View from some units

MAIN BUILDING ELEMENTS:

COMMON HOUSE:

Common House to be centrally located in the cohousing development
Footprint of 3,500 – 5,000 overall square feet. (pending final Common House programming)
May have more than one level.
Include covered porches or other transition elements, including a screened porch if possible
Orient to take advantage of solar gain as much as possible.
Entry is easy to find when approaching community
Common House should be a “magnet”, architecturally and in location
Common house is a centerpiece, not just “another space”
Relatively easy access to common house kitchen from garden area, if readily achievable
If possible, common house should be passed by members on the way to home from parking.
Easy access from common house to outside play areas for kids (view from porch)

INDIVIDUAL HOUSING:

Quantity: Design for 20-35 units. Ideal number is 28 units. See notes under “Site Pattern”, above.

Design for a mix of unit types

Include duplex and multiplex buildings.
Multiplexes will be attached as townhouses.
There may be flats as well, but only if dictated by cost and/or accessibility goals.
Site plan will not include single-family units
Note: 4-plexes are an acceptable size as long as some of the units are jogged to get light into 3 sides of the middle units. Triplexes would also be okay although jogging would not be necessary as approximately 1/3 of the current residents said they would be willing to live in a center unit with just two window exposures. More research is required regarding fire suppression (sprinkler) requirements and corresponding costs.

Standardization:

Maximum of 5 standard unit types, configured in a maximum of four standard building types

Misc. Housing / Site Program items:

Side-to-side distance(s) between separate units/buildings to range from 10 – 20’ (also dependent on zoning and site constraints)
Orient to take advantage of solar gain as much as possible.
Maximize winter wind shelter.
Private or semi-private back yards wherever possible.
Include porches or other transition elements at pedestrian side of units
Provision for some units to be expanded later

Relationship of housing to parking:

Provide a range of distance from units to parking
Keep parking at the perimeter
Some units to have relatively close access to parking (for accessibility reasons)
Ideally, maximum distance to be 250’ (on flat grade) or 150 - 200’ (on sloped grade) between farthest unit and parking

Relationship of housing to Common House:

Provide a range of distance from units to Common House

Some units to have relatively close access to Common House (for accessibility and social/community-building reasons)

There may be some units attached to common house – this will be investigated further during Common House Programming Workshop

Ideally, maximum distance to be 200' - (on flat grade) or 150 - 200' (on sloped grade) between farthest unit and Common House

PEDESTRIAN WAY:

Path should be fairly organic, winding, not direct but not indirect.

Width between buildings approximately 30' – 50';

Include nodes, eg., sandbox, picnic table, sitting spot along path

Paths from main pedestrian way to each unit should be included in design and budget. Such paths may be shared between clusters of units

Consider trees and other plantings; consider edible landscaping along path as budget allows

Provide sufficient solar access and drainage to prevent ice build-up.

Provide for convenient snow removal.

Surface to accommodate accessibility concerns.

Consider edge lighting

Consider porous pavement

Will probably double as emergency access, but make as aesthetically pleasing as possible; separate emergency access only if economically feasible. There is a preference for narrow paths IF possible.

Consider alternative load bearing surfaces for emergency access if economical and plowable.

Some wider “courtyard/green” areas are a desirable possibility

Lighting of paths / parking areas

Lighting in parking lots to be triggered by motion detectors

Lighting on pedestrian way to be controlled by combination of daylight sensors and timers

Lighting from pedestrian way to individual units to be determined based on distances

Priorities for lighting, in order of importance:

- Safety from ice and tripping hazards
- Night time view of stars (minimize light pollution)
- Energy Efficiency
- Personal security (need to see and recognize people at some distance)
- Community security (thefts, vandalism, etc.)

MAIN GATHERING AREA:

In front of common house.

Visual connection to common house dining room if at all possible

Include a hardscape area, approximately 40x70. (see information under “Additional Hard Surface Play Area”, below)

Comfortable microclimate – solar access, wind protection.

Provide some shade.

Sitting at perimeter, e.g., sitting wall.

GREEN:

An informal play area, gathering area.

In front of common house if possible; may be part of gathering area above or playing fields.

Size depending on location. If it's between buildings, keep buildings 90' from each other or closer.

Comfortable microclimate – solar access, wind protection. Provide some shade.

If possible, big enough for recreation (but not necessarily full field, see below).
Provide some seating; could be moveable, e.g., picnic tables.

MAIN PLAYGROUND:

Adjacent to common house kids' room; preferably adjacent to main gathering area.
Visual connection to common house dining room for after-dinner supervision.
Sandbox – with cover (for cats)
Play structure.
Sitting area for adults at edges.
Comfortable microclimate – solar access, wind protection, shade.
Delineated boundary.
Storage for outdoor toys and bikes (could be part of common house).
There may be other smaller play areas scattered throughout the community (not necessarily designed at this time, organically developed later)

OUTDOOR DINING:

Sitting area for outdoor dining.
Adjacent to common house dining.
Include a spot for barbecue grills, preferably down wind of eating, gathering, and play areas
Easy access to common house kitchen if possible.
Comfortable microclimate – solar access, wind protection, shade.
Preferably partially covered; could be accommodated by common house porch.
A screened dining area would be nice, but not at the exclusion of outdoor dining.

ADDITIONAL HARD SURFACE PLAY AREA (Separate from item under “Main Gathering Area”, above)

Plan for a hard surface play area which may or may not be built right away
Activities to be accommodated should include: basketball, rollerskating, skateboarding, scooters, biking
Adjacent wall for handball if possible
Should not be immediately adjacent to Common House
Could double as overflow parking.
Size to be determined at a later date.

PLAYING FIELDS

Design for a playing field (if it can be readily engineered), whether built right away or not

WORKSHOP: (400 SF or more)

Plan for a workshop, separate from the common house. If at all possible, community to provide foundation and/or shell. Interior space to be built-out by users.

Workshop to accommodate such activities as:

- woodworking
- bike fixing
- finishing
- pottery and/or painting space if possible
- clean crafts, unless accommodated in Common House

HOME OFFICES (100 – 150 SF per office)

Plan for home offices in separate building from common house
Financed by people who want them

BIKE STORAGE (400 SF or more)

Include bike storage
May be in common house or within another building, rather than a structure to itself

QUIET SPOTS:

Away from the building cluster.
Can either design them, identify potential spots, or let them evolve over time.
Identify or design some spots ahead of time if possible – at least one
Possibly include quiet garden/meditation space with seating
If heavily wooded site, possibly include hiking paths in woods
Possible presence of some focusing object, such as a fountain or a small rock pool or similar.

PARKING & ACCESS:

Access:

Driveway per zoning requirements, accommodating cars, delivery trucks, emergency vehicles.
Emergency access may require use of pedestrian way (see question above at Pedestrian Way)
Delivery and drop-off access to common house
Access for occasional deliveries (furniture, etc.) close to units
Access to garden and any out-buildings
Access to workshop, if included.
Access to home offices, if included
Minimize disruption to backyard privacy.
Tractor-trailer access to common house to be designed. It will not necessarily be built depending on aesthetic and cost concerns.

Parking:

Provide 2 spaces per unit
Provide 2-4 visitor spaces
Provide area for overflow parking (such as grass area – something unobtrusive, might double as ball field or hardsurface play area)
Provide handicapped accessible parking convenient to common house and to accessible units.
Provide parking for delivery & mail vehicles at common house.
Consider where overflow parking might go (for parties or special events).
Accommodate snow plowing and locations for snow piles.
Provide some visitor parking fairly close to common house
Consider using porous pavement
There shall be no garages or carports directly attached to units.
There shall be no closed garages.
Design should include carports:

- Design for 50% of the cars to eventually be in carports.
- Design for 25% to be in carports from the on-set.
- Financing of carports to be determined

SUPPORT FUNCTIONS:

Dumpster – truck access, on most people's paths out of community but in a place where it can be avoided by chemically sensitive members
Accommodation for recycling containers (may share with common house, may be specific to specific town provisions)

Storage:

Community and Individual Storage: It is nice to have a place near units or within community to store things like canoes, kayaks, carts, etc.

Individual storage outside of individual units, in one or more of the following places:

- Common House Basement
- Sheds in relative proximity to units – only if not obtrusive or messy
- In rafter or loft space over covered parking structures if there are parking structures – but also include more accessible options
- Within workshop, if included

Include some personal storage in relative proximity to parking or accessible by vehicle.

Management and financial arrangements for storage to be determined

GARDEN / AGRICULTURE:

Main vegetable garden within easy access of common house and main building cluster. (1/8 – 1 acre.)

Small ornamental gardens throughout site (along paths, etc.)

Herb garden near common house, small.

Composting area near main vegetable garden

Allow for the possibility of some privately maintained garden areas

Possibly a pond/ waterfall/ meditation garden somewhere on site.

Caution shall be taken to avoid invasive plant species, now and in future.

Probably include the following agricultural elements:

- Bush crops – berries (may be dispersed)
- Greenhouse (plan for it, not necessarily build right away)
- Orchards (may be dispersed)

Possibly include the following agricultural elements:

- Barn
- Pasture - an area for large animals / livestock: e.g., horses, llamas, sheep.
- CSA Farm – Community Supported Agriculture, approximate required acreage: 10 – 20.
- Irrigation pond / could double as hockey in winter
- Chickens

OTHER POSSIBLE ACTIVITY AREAS TO CONSIDER:

Plan for an outdoor spa (hot tub, sauna) (timing and financial arrangements to be determined)

Site design may also include:

- Cob oven with benches & shelter or outdoor grill / kitchen space
- Swimming pond
- Art/pottery studio (might be separate from workshop)
- Labyrinth (paving-stone variety, not 3-d, walked for meditation)
- Tree house
- Place for campfires
- Dog run
- Sand volleyball court

OTHER:

Network wiring included in site utilities

Allow for some privately maintained outdoor space, eg around a patio area, for personalised landscaping

Wild areas if possible on site