

**Program Design and Cost Guide
For Community Residences
For MA Department of Developmental Services (DDS)**

July 2006

This Program Design and Cost Guide has been developed to provide a frame of reference for the construction of new community residences, or renovation of existing homes, that are developed for individuals served by the Department of Development Services (DDS). Projects that receive funding from Facilities Consolidation Funds (FCF) administered by the Community Economic Development Corporation (CEDAC) under contract with the Massachusetts Department of Housing and Community Development (DHCD) should be developed in accordance with standards outlined below.

These design and cost parameters supplement and elaborate upon program guidelines and underwriting standards set forth in the *Facilities Consolidation Guidelines* issued by the Department of Housing and Community Development (DHCD) February, 2004.

The Guide is intended to assist developers and DDS community residence sponsors and site managers in understanding the basic program design and cost components that DDS considers important to create an appropriate continuum of residential options for DDS consumers.

The Guide reflects DDS requirements and preferences for community residences. It incorporates principles of siting and program design that should inform developers as they evaluate sites and develop design programs for DDS units. The Guide will be interpreted by DDS, DHCD and CEDAC with flexibility to allow for specific client, site, and budget constraints.

The physical disabilities of individuals served by DDS vary from none to very limited mobility; therefore, DDS has developed a range of housing models to meet consumer needs. The parameters identify what are considered essential baseline requirements for all community residences to meet the special needs of consumers in both new and existing structures. Additional features, identified by DDS staff prior to the start of design, may be needed in some homes in order to meet specific clinical requirements.

The Program Design and Cost Guide outlines baseline requirements that can be applied in both urban and suburban settings, and for the adaptation of existing homes and new construction. The guidance will apply to community residences developed exclusively for DDS consumers and to DDS units integrated into larger affordable housing developments. The Guide is organized in three sections. These include:

- I. Scale of development and neighborhood considerations.
- II. Program and design considerations.
- III. Cost parameters.

I. SCALE OF DEVELOPMENT AND NEIGHBORHOOD CONSIDERATIONS

The following are principles to apply in determining the size and location of DDS homes.

- ❑ DDS will continue to require the development of homes for consumers that are located in residential neighborhoods and compatible in scale with the surrounding area.
- ❑ In low-density suburban communities, single story homes are preferred so that all living areas are handicap accessible.
- ❑ In suburban or urban neighborhoods with higher densities, where the project is either new construction or the renovation of an existing building, multi-story development will be considered but all of the first floor living areas should be handicap accessible.
- ❑ Community residences are typically 4 bedroom units. A 5 bedroom unit should be considered whenever greater cost efficiency can be achieved particularly when site and construction costs are high.
- ❑ Depending on site and neighborhood constraints, a duplex consisting of two adjacent units with a maximum total of 8 bedrooms may be an appropriate model for projects where DDS determines that shared staffing and services are important considerations.
- ❑ A single story 4 bedroom home will typically be about 2,000 to 2,350 gross square feet in size, excluding basements or other areas for storage and mechanical equipment. A single story 5 bedroom home will require approximately 385 square feet of additional space.
- ❑ For homes developed as part of a larger multi family complex, no more than 25% of the units or 10 units, whichever is lesser, should be provided for DDS consumers at that location. For example, in a 200 unit project, no more than 10 units will be permitted. In a 20 unit project, 25% or 5 units will be the maximum number.
- ❑ New homes have the advantage of being able to more cost effectively accommodate many of the handicapped accessibility features and other special features required or desired by DDS. New homes also are more cost effective to operate and will require fewer capital investments over time.
- ❑ Existing homes often offer the advantage of desirable locations, proximity to transportation and services and a more conventional neighborhood feel. However, developers are cautioned to make sure that the home can be adapted as required without extensive and costly retrofitting before entering into an agreement to purchase.

II. PROGRAM AND DESIGN CONSIDERATIONS

This section addresses the key program design considerations that developers and architects should incorporate into plans for community residences. Some elements are required for all units; others will depend on client needs and adaptability of the space. Some program elements, such as outdoor sitting areas, are considered optional and their inclusion will depend upon site and budget constraints. The key program elements are summarized in the table found on page 7 titled *Summary of Program Design Requirements for DDS Community Residences*.

- Universal Design –Homes should be designed to incorporate principals of universal design¹ that allow, to the extent possible, residents with physical disabilities, or that develop disabilities during their stay, to remain in place. For example, as outlined below, baseline requirements for all new homes should include accessible roll in showers and reinforcement for future installation of overhead tracks in bedroom and living areas.

- Handicapped Accessibility
New construction - All new construction should be handicapped accessible or handicapped adaptable. This will mean provision for wider hallways and accessible bedrooms, bathrooms kitchens and living rooms

Existing buildings – It may not be cost effective to develop fully handicapped accessible units as part of the adaptation of existing homes for DDS use. However, the first floor including first floor bedrooms and a bathroom should be accessible.

- Visitability
To the extent feasible, visitability² should be incorporated into the design of new or existing buildings.

- Codes

¹ Principles of Universal Design can be found at www.design.ncsu.edu. Generally, in housing development, universal design means that environments are developed to accommodate a wide range of abilities and can be easily adapted as resident's needs change so that people can remain in place as they age or encounter physical disabilities.

² Visitability is a movement to change home construction practices so that virtually all new homes, whether or not designated for residents who currently have disabilities, offer a few specific features that make the home easier for people with mobility impairment to visit.

Existing building and safety codes must be followed. Any requirements above code are included in these guidelines or will be specifically identified by DDS prior to the start of design.

□ Circulation

New construction – All bedrooms, bathrooms and living areas should be accessible. Corridors should be a minimum of 48” in width and doors should be a minimum of 42” in width to easily accommodate wheel chairs. Ceilings in bedrooms, living areas and bathrooms should be reinforced to accommodate future overhead tracks to assist in moving mobility impaired residents. These may be installed at the time of construction or at a later time when needed.

Existing buildings – Any first floor bedrooms and at least one bathroom should be accessible. Existing corridor and door widths are acceptable unless specifically requested by DDS to be increased.

□ Bedrooms

New construction – bedrooms should be handicapped accessible and typically be from 130 to 160 square feet including a closet. Typically they should accommodate a single bed, nightstand, chair, dresser, and television stand. All bedrooms should be provided with telephone and cable TV jacks and outlets. (The cost of telephone and/or cable television service is borne by the residents).

Existing buildings – first floor bedrooms should be handicapped accessible. All bedrooms should be adequate in size, a minimum of 110 square feet to accommodate a single bed, nightstand, dresser and chair. Cable television and telephone connections shall be provided as in new construction.

□ Living areas

New construction – Two spaces should be provided including:

- (1) A shared living room of approximately 170 square feet typically furnished with several chairs, a couch, end tables, coffee table and television.
- (2) A smaller multi purpose room of 120 square feet that can be used for both private family conferences and staff. Ideally this room should have a door for privacy. Staff space should be provided for a desk, files, computer, phone and fax. A locked storage cabinet with a small refrigeration unit for medicines should also be provided in this area.

Existing buildings – Spaces for uses defined above should be included either in one location or separately depending on the constraints imposed by the existing layout.

□ Laundry

For either new or existing buildings, units should include space, plumbing and venting for a washer and dryer preferably on the first floor level. This may be in a bathroom or in a separate laundry room.

□ Bathrooms

New construction – Four and 5 bedroom homes should be equipped with two wheel chair accessible bathrooms with roll in showers. Standard toilets should be used unless otherwise specified.

Existing buildings – At least one accessible bathroom with roll-in shower should be located on the first floor. The laundry area can be located where ever the existing layout permits. A second full bathroom should also be provided. If possible, this bathroom should be accessible.

□ Kitchen and dining

New construction – A barrier free dining area sufficient to provide a sit down meal for all residents at one time can be located in a separate area or as part of an eat in kitchen. As the residents will not be utilizing the kitchen equipment, kitchens are not required to be accessible from an operations standpoint, but kitchens should be large enough so that there is an accessible path of travel throughout the kitchen. All necessary wheelchair clearances shall be provided. Developers should check with DDS to determine whether the kitchen equipment should be geared for mobility impaired persons or whether the predominant users of the kitchen appliances will be non-mobility impaired staff or residents.

Existing buildings – Same requirements as new construction

□ Storage

New construction – In a community residence, a space of at least 300 square feet of space for supplies and miscellaneous items should be located either in a half basement area or, if there is no basement, in an area adjacent to the kitchen or in an attic. If storage is in an attic, the floor must be capable of supporting the weight and it must be accessible by a stair (fixed or folding pull-down). In multi family buildings, in which DDS consumers occupy only a portion of the units, designated storage space of 50 square feet per resident should be provided within or adjacent to the unit.

Existing buildings – Should have a storage area or areas in locations consistent with the design of the building and program needs.

□ Air conditioning

New construction – Design of the home will include air conditioning for all living areas. Typically heat pump units would be installed in the attic with exterior pad mounted air-cooled condensing units.

Existing construction – Window air conditioners or a ductless split system may be needed depending upon resident clinical needs.

□ Heating

New Construction – A heat pump, gas fired furnace or hot water boiler would typically be used in combination with the central air conditioning.

Existing buildings - Existing systems will normally continue to be used unless replacement is required because of condition or increased building area.

□ Elevators

Use of “limited use, limited access” (LULA’s) residential elevators may be appropriate after other alternatives for safe and prompt egress have been considered and deemed not feasible from a design, safety, cost or clinical perspective. Prior notice to DDS of any intention to include LULA residential elevator is required for any new development, either renovation or new construction.

□ Emergency and safety features

New construction – All homes should have carbon monoxide detectors and be fully sprinklered: a local fire alarm system with hardwired smoke and heat detectors zoned to a panel box and a portable electric generator outlet with manual transfer switch and sub panel. Typically municipalities require separate water services for fire sprinkler systems.

Existing construction –Carbon monoxide detectors and fire sprinkler systems are to be installed in existing construction as required by code. Fire alarm system requirements are the same as in new construction - a local fire alarm system with hardwired smoke and heat detectors zoned to a panel box

□ Outdoor space

Outdoor patio space, either enclosed or open, is a desirable but optional feature subject to site and budget constraints.

□ Parking

New construction – Parking requirements are dictated by local zoning ordinances. From an operational standpoint, a space should be provided for a van, several spaces for staff, and, if site conditions permit, several spaces for visitors.

Existing –On site, visitor and staff parking is preferred, however, on street parking may be utilized if the site doesn’t allow for either staff or visitor parking. A space should be available for van parking and drop off and pick up of clients. As with new construction, parking requirements are dictated by local zoning ordinances.

Summary of Program Design Requirements for DDS Community Residences*

*DDS may impose additional requirements for some developments to meet specific clinical needs.

Yes = required

No = may be desirable but not required

Program element	Project Type			
	Urban New	Urban Existing	Suburban/rural New	Suburban/rural Existing
Maximum number of bedrooms/community residence	5	5	5	5
Maximum number of bedrooms per duplex (2 adjacent community residences)	8	8	8	8
Typical square footage of a new 4-bedroom community residence (excluding basement and storage areas)	2,000 to 2,350 gross square feet		2,000 to 2,350 gross square feet	
Typical square footage of a new 5-bedroom community residence (excluding basement and storage areas)	2,385 to 2,735 gross square feet		2,385 to 2,735 gross square feet	
First floor wheel chair accessible	Yes	Yes	Yes	Yes
Number of bathrooms	2	2	2	2
Number of accessible bathrooms with roll in showers	2	1	2	1
Number of bathrooms with free standing transfer tub	No	No	No	No
Minimum percentage of accessible bedrooms	100%	50%	100%	50%
48" Wide halls, 42" wide doors both interior and exterior	Yes	No	Yes	No
Structural reinforcement for overhead tracks in living areas	Yes	No	Yes	No
Staff, resident, and family conference area	Yes	No	Yes	No
Secure space for staff desk, computer, files, office supplies (may be combined with staff, resident, and family conference area)	Yes	Yes	Yes	Yes
Medicine cabinet with lock and small refrigerator	Yes	Yes	Yes	Yes
Central air conditioning	Yes	No	Yes	No
Hard wired fire alarm system	Yes	Yes	Yes	Yes
Fire suppression system	Yes	No	Yes	No
Standby generator – (manual transfer switch, sub-panel, and portable generator outlet).	Yes	Yes (confirm)	Yes	Yes (confirm)
Van parking	Yes	Yes	Yes	Yes
Staff parking	Yes	Yes	Yes	Yes
Visitor parking	No	No	Yes	No

III. Cost Parameters

The total development cost (TDC) of a community residence includes the cost of acquiring a site, construction, and various “soft costs” that cover such items as architect and engineering fees, legal services, and permitting costs. The proportion of each as a part of the TDC will vary for the development of a new community residence or the renovation of an existing property. Therefore, cost parameters should be evaluated in terms of costs per bedroom to bring a building on line.

TDC = Acquisition Cost + Construction Cost+ Soft Costs and Fees.

TDC divided by the number of bedrooms = cost per bedroom.

The parameters outline what should be considered as within the normal range of costs. If the TDC of a proposed project is higher than the cost limits, further evaluation of project feasibility should be undertaken.

DHCD cost guidelines³ for assisted living projects will be the basis for an initial evaluation of the cost of the FCF units. In 2005, the cost limits for an assisted living unit in the Boston Metro area and in non-Boston areas are \$140,000 and \$100,000 respectively. DHCD updates these limits from time to time. Costs above this amount are not unusual and may be necessary due to particular DDS program or consumer requirements. However, the developer must justify these higher costs.

Allowable additional costs will include specific project features that are essential for the resident population such as handicapped accessibility. Additional costs may also be approved for a location that provides required proximity to nearby services or facilities.⁴

Underwriters will expect to review costs in the range of the DHCD assisted living cost limits above, as adjusted for DDS program needs, up to \$170,000 per bedroom. This amount represents the upper limit of the TDC cost range for a DDS unit, regardless of whether the proposed source of capital funding is private, public or both. It is based on an analysis of the cost ranges of the FCF portfolio and the addition of DDS program components to the cost of conventional construction or rehabilitation. As noted below, the DDS requirements may add an additional 15%-20% to the standard construction costs of a development. If the TDC per bedroom for a proposed project exceeds \$170,000, it will be rigorously critiqued and may not be approved for FCF funding.

Construction costs

³ The Qualified Allocation Plan is available at www.mass.gov/dhcd

⁴ See the complete FCF guidelines for more detail

New Construction

For the most part, DDS community residences should be similar in design and appearance to conventional housing with adaptations to meet client needs as shown in the above table: *Summary of Program Design Requirements for DDS Community Residences*. The cost of community residences may be somewhat above conventional unit costs. Two areas impact and increase the cost of DDS units: 1) additional square footage required for handicapped accessibility and staff space within the home; and 2) construction standards and features required to accommodate specific adaptations to meet consumer needs.

A newly constructed community residence, in comparison with standard residential construction, will require additional square feet for 2 accessible bathrooms, wider circulation space and a second living/staff area, as well as such features as reinforced ceilings, central air conditioning, added safety requirements, and added parking area.

Analysis has shown that the cost of the additional space, handicapped accessibility and other features in the new construction may add up to 20% more to the construction cost of a new conventional unit. Some of this cost can be reduced on a per bed basis by increasing the number of bedrooms from 4 bedrooms to 5 bedrooms.

Existing Homes

For existing properties, where much of the cost will be in the acquisition of the site and building, construction costs should be considerably less than for a new community residence. In general, the total cost for the acquisition and rehabilitation of an existing home should not exceed that of new construction. This means that in choosing sites, the ease of adaptation of the existing home to the needs of DDS consumers will be a critical threshold.

Early evaluation of the costs of adapting the unit should inform the purchase decision and the amount that can be paid for the property. Generally, a project that requires expensive retrofitting will not fit within the allowable cost parameters unless the purchase price is low enough to insure that the Total Development Cost (TDC) does not exceed that of new construction.

Renovations to existing single-family homes may include the addition of roll-in showers, handicap ramps, fire alarm systems, an additional bathroom if necessary, additional parking and the addition of more living space. A conventional existing home that is adapted to DDS standards will likely cost in the range of 15% more than standard renovation costs of upgrading an existing residence without special features or adaptations.

If an additional bedroom is added to an existing home, the construction costs will increase based on the additional new square footage, but the overall per bed cost should decrease because the basic renovation costs will be spread over a larger number of beds/units.

Please note, that the more extensive the renovations required, the less money is available for acquisition in order to stay within the cost thresholds, so it is imperative that the cost of renovation be carefully estimated and considered prior to purchase.

Acquisition and Site costs

New Construction

Site costs for a new community residence will vary by location and by the availability of utilities on site. For example, sites without sewer connection that will require installation of a septic system may be less expensive but increase the total cost of construction.

The site cost plus construction costs should not exceed the cost limits cited above.

From time to time, to meet the geographic balance needs of its portfolio or to respond to the clinical needs of a portion of the client population, DDS may require a location or site acquisition that will cause the project to exceed the cost limits. When high cost locations are required, DDS will instruct the developer as to the location required and work with the developer to assemble an appropriate financing package. The site cost may not exceed the appraised value of the property.

Existing Building

In reviewing potential sites for acquisition of existing homes, developers should review the existing property against baseline DDS requirements for existing homes. Cost estimates and plans to adapt the property to DDS standards should be considered before entering into a purchase and sale agreement to insure that the final product will be within DDS cost thresholds.

Soft costs and other expenses

Soft costs and other expenses including developer fee and developer overhead, must be appropriate and within the industry standards. CEDAC will review soft costs as part of the underwriting process to insure that they both are adequate and reasonable. In addition, Developer Fee, Overhead and Consultant costs may not exceed the DHCD allowable limit of 12%-15% of the TDC exclusive of fees and reserves.

Amount of FCF funding

The amount of FCF per project will be awarded by DHCD based on CEDAC's underwriting of project costs and financing gap. By statute, the amount of FCF may not exceed 50% of the TDC.

In making FCF funding recommendations to DHCD, CEDAC will confer with DDS and review the per project and per bed costs against DHCD cost limits, the unique circumstances of the project and clients needs, and amount of leverage obtained through other public and private funding sources.

In most cases, projects will leverage other public capital and operating subsidy funds from a combination of state, federal and municipal sources to complete the financing package. Together with FCF, the total of all public capital funds should not exceed the allowable TDC cost limit per bed.

If project costs exceed the cost threshold of \$170,000 per bed, the developer may be required to demonstrate either additional project cost savings, greater operating or service efficiencies, and/or a commitment of additional private funds to the project.

Summary

The *Siting, Program Design and Cost Parameters* should be reviewed at the earliest stage of project development to provide a framework for key project development and program decisions. The guidelines detail the siting, design and cost preferences and requirements of DDS and will inform the underwriting and project review that CEDAC and DHCD will perform before awarding FCF funding to a project. The principles articulated within may be modified by unique project circumstances but in general provide a guide for project development activity for FCF projects.

Recognizing that each project can have unique circumstances of location or program design, and may serve clients along a varied continuum of need, sponsors should review their program with DDS and with CEDAC at the earliest feasible time to insure that it falls within the design and cost parameters outlined in these guidelines.