

CHAPTER SIX

This chapter presents three designs for the Clayton Estates site. The first design explores the ways in which to create a neighborhood that meets the needs of the residents and fits the context of the surrounding neighborhoods. This design is then used to inform two other designs, an economical design and a retrofit of the existing development.

6.1 An Ideal Design for Clayton Estates Manufactured Housing Community

This design was done with the assumption that there had been no previous development upon the site. This allowed the design to proceed in its purest form without the constraints of an existing infrastructure.

House Type

After discussion with the manager of Clayton Estates, three house sizes were chosen as the basis for the design of the lots. The houses that are most in demand in the community are those that measure 16' x 76'. These houses have three to four bedrooms and are needed for young families with children.

For smaller families a house measuring 14' x 66' was chosen. These homes are in less demand in the local market. The third home is a small double-sectioned home measuring 24' x 56'. This home serves a small but growing demand among neighborhood residents for a home that is not long and narrow. Lots for any of the three houses can accommodate a smaller house.

Lot Design

In order to fit the context of the surrounding neighborhoods, Lot Type 3 – House Front Parallel to the Street (Chapter 3.4.4) was chosen for this design. Though only twenty feet of space between the houses placed end-to-end is required by the local code, it was

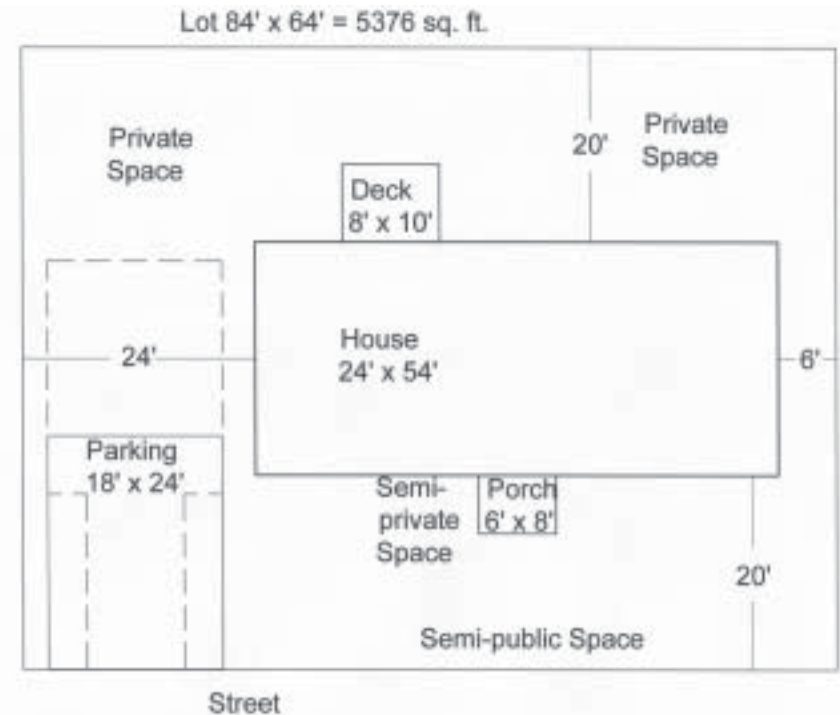


Figure 6.1 The lot layout chosen for Design One.



Figure 6.2 Sketch showing house front addressing street across a small lawn.

felt that a distance of thirty feet allows for better parking options and would create a more open character along the street. Parking pads that allow two cars side-by-side are the most convenient for the residents. The extra room is needed In order to place the parking pad away from the street, improving the aesthetics of the street. For these reasons Example 4 was chosen as the lot pattern for the development. (Figures 6.1 and 6.2) Example 4 allows for a good hierarchy of usable outdoor spaces. The backyard is large enough to provide for outdoor activity with family and friends away from the public realm of the street. Privacy can be increased by building a fence or planting a hedge to give visual privacy.

The front yard allows space for both semi-private and semi-public functions. There is room for a variety of sizes of porch or stoop, depending upon the inclinations of the owners. There is room in front for a lawn, a show garden and social activities that involve passersby on the street. The homeowner can increase or decrease the amount of space in front and back yards by varying the placement of the house forwards or backwards on the lot. Though Example 4 is the basis for the design of the lot layouts, slight adjustments are necessary to fit the block designs.

Block Design

Since Lot Type 3 was chosen as the basis for the lot design, Block Type 3 (Chapter 3.5.3) forms the basis for the block design of the new neighborhood. Of the three designs, it is felt that Example 3 with its strong focal point at mid-block provides the best opportunities for creating positive neighbor interaction and the claiming of primary and secondary territories. (Figure 6.3)

Concepts

The community concept is based on a hierarchy of shared community spaces. (Figure 6.4) These spaces are connected by pathways and designed to encourage relationships within the

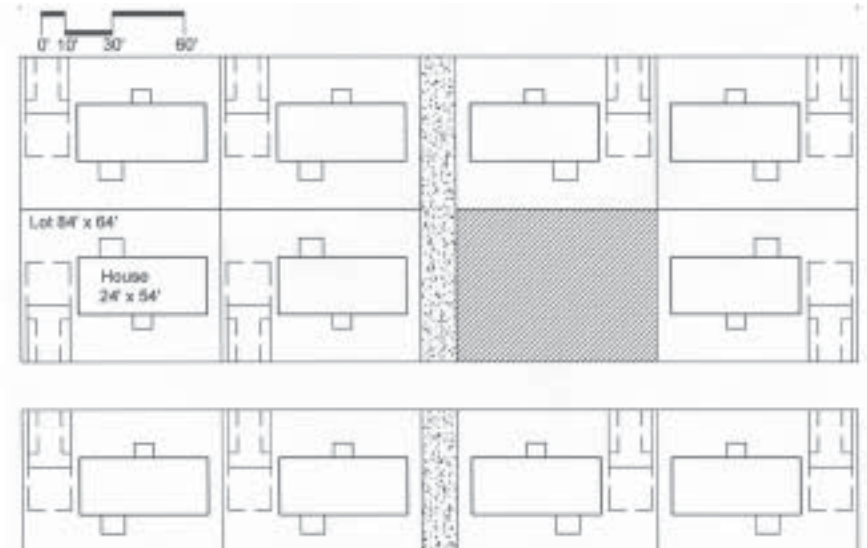


Figure 6.3 (above)
The block configuration chosen for Design One.

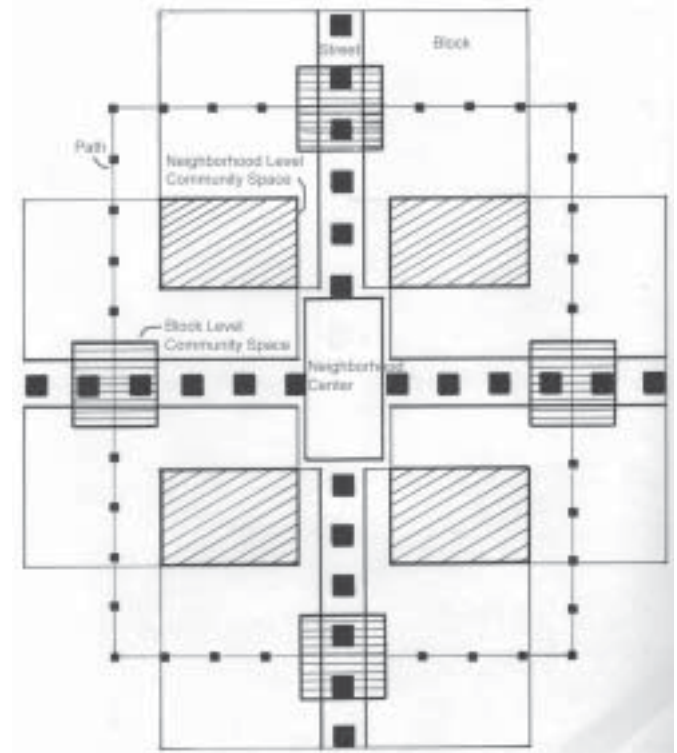


Figure 6.4
The conceptual plan for the neighborhood.



Figure 6.5 Master Site Plan for the Ideal Design, Clayton Estates

neighborhood that provide support and promote well-being among the members of the community.

The Design

The hierarchy begins at the lot level, where the homeowner is encouraged to claim the territory around their house by the clear delineation of boundaries. (Figure 6.6) The street edge marks the boundary between the public realm of the street and the semi-public realm of the front yard. The semi-public space is claimed as territory by the homeowner by the planting of trees, shrubs and gardens, the placing of ornaments or the erection of a barrier such as a small wire fence. (Figure 6.8)

The front porch or stoop serves as the transition between the semi-public area of the front yard and the private area of the house interior. The front porch has been traditionally used as a place to observe the neighborhood and socialize with neighbors and passersby in working class neighborhoods. Socializing with those passing by is a step towards claiming secondary territory beyond the immediate house and yard.

The back yard is a private outdoor space. The degree of privacy depends upon the boundaries that are set by the homeowner. A tall fence or hedge provides the most privacy for a space in a closely built neighborhood. But privacy doesn't have to be visual; it can consist of defending the territory from unwanted intrusion. If that is all that is wanted, psychological barriers might be all that is needed. Such barriers would include a low, split rail fence, a row of large rocks, a line of fallen tree branches or a boundary of wood posts with rope strung between. (Figure 6.7)

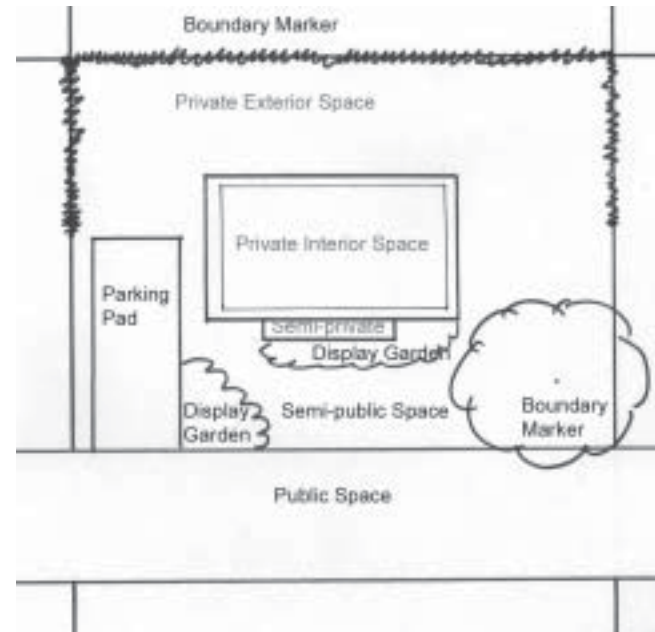


Figure 6.6 Conceptual diagram of the lot layout including the hierarchy of spaces.



Figure 6.7 Examples of inexpensive or found materials used as psychological boundary markers.

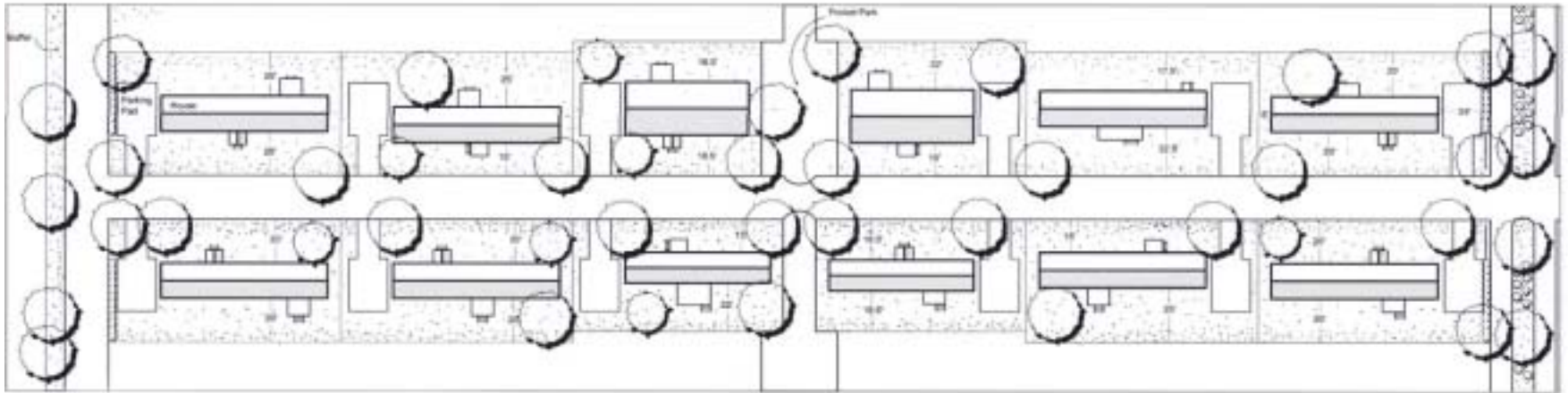


Figure 6.8 Planting plan for house along the street, showing the inclusion of street trees on the lot.

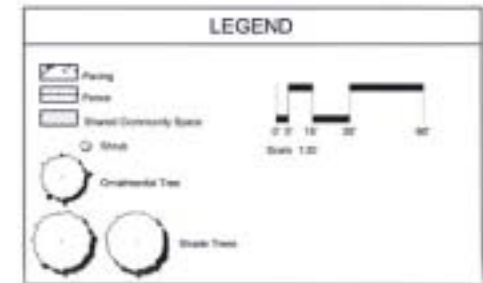
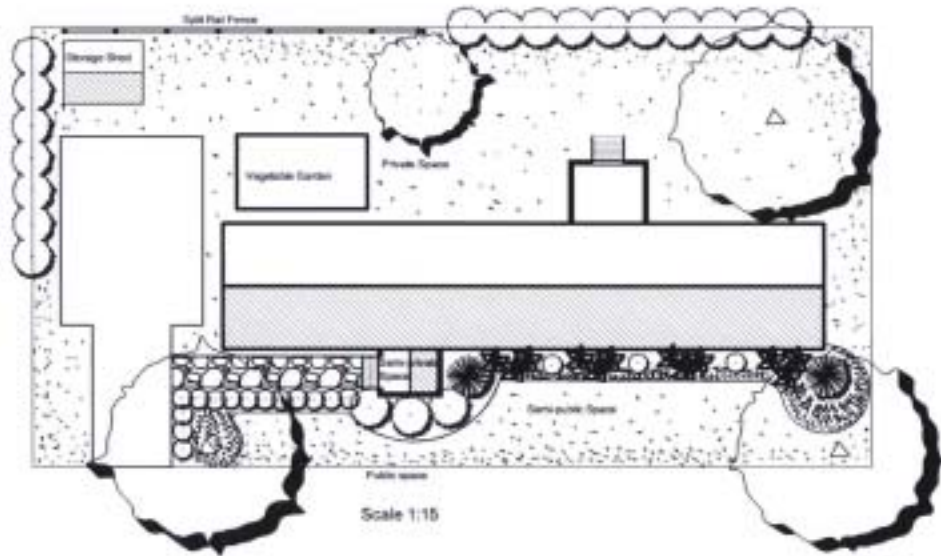


Figure 6.9 Site plan for block layout.

Once a homeowner has claimed the primary territory immediately surrounding the home, they need to begin claiming secondary territory beyond their yard. The next territory is the block they share with their immediate neighbors. The block creates the first of the shared community spaces of the hierarchy. (Figure 6.10)

The block is organized around the street which runs between the two rows of houses. The streets are arranged on a grid system that parallels the slope of the terrain. (Figure 6.5) This allows houses to be sited on the steeply sloping hillside of the site. Placing houses along this slope allows some of the residents increased vistas. Street trees are planted along the length of the streets, creating outdoor rooms within this space. (Figures 6.10 and 6.11)

The focal point of the block is centered on the conjunction of two connectors, the street and the pedestrian path. The paved pedestrian path is placed in a fifteen foot wide space that runs between two houses, perpendicular to the street. The first indication of the presence of a special place at this point is the presence of a “choke”. The choke is a traffic calming device that narrows the street to one lane, forcing cars to slow down to navigate the street safely. The choke is located at either side of the street and projects four feet out into the street. The choke can be landscaped with plants or bollards can be used to keep cars from driving over it. The pedestrian path passes through the choke. It is at this focal point that a meeting/greeting/gathering space is created. Room is accomplished for this space by placing two shorter lots for small double-section homes back to back with two larger lots. This adds twenty feet more width to the fifteen foot wide path space between the homes.

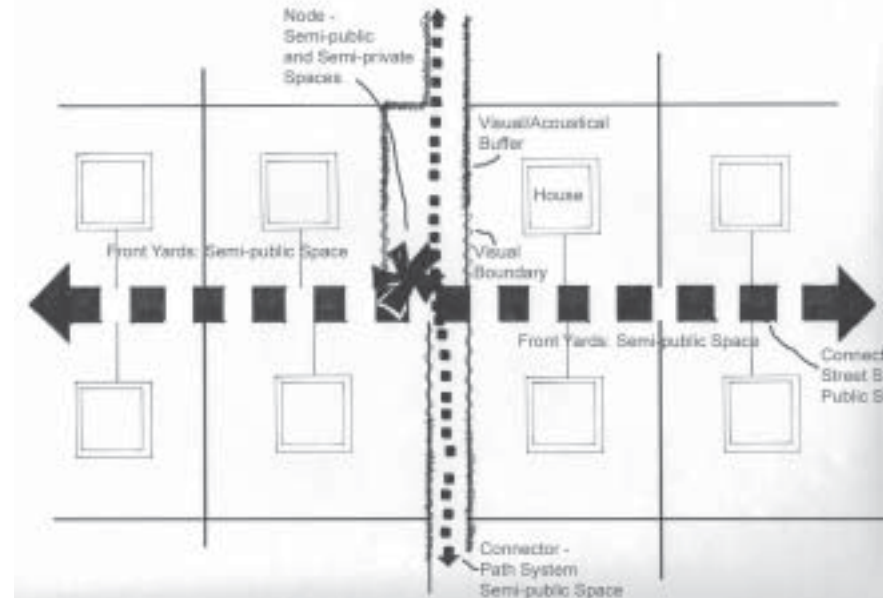


Figure 6.10 Block concept diagram.



Figure 6.11 Tree-lined, pedestrian-safe streets encourage the claiming of secondary territory.

This space, in the form of a pocket park, consists of three areas: two public spaces easily accessible from the street and open to view and a semi-public area behind a low buffer of fence or hedge. (Figure 6.12) The first public space is a service area or public activity space for the block and contains the mailboxes, a bulletin/announcement center and a bench. The mailboxes and bulletin center become a natural place in which to greet neighbors who are picking up their mail or reading neighborhood announcements. (Figure 6.13) A bench provides a place to sit while looking through the day's mail. (Figure 6.14)

In this space brick is used to incorporate a common material into the design of the neighborhood. Brick is used because it is a familiar material found in most of the surrounding neighborhoods' homes. Its use helps the development fit into the community's context. The mailboxes, bench and bulletin center all use brick in their construction. Where the pedestrian pathway meets the concrete paving of the space, a thin line of brick defines the service area from the adjacent space. A small rail fence separates the service area from the front yard of the home next door. (Figure 6.14)

Next to the service area is a space for a public garden or display of public art. The design for this area is very basic, a tree, some low shrubs and ground cover. As the residents begin to extend their claim to this territory, the design can be changed or enhanced by the residents of the block working together. The residents can use this shared community space to further define the character of their block, setting it apart from all the other blocks in the community. (Figure 6.14)

Behind these two public areas of the pocket park, there is room for a more private area, away from the public street. Again, a basic planting of ground cover, trees and shrubs is planted in this area until the residents are ready to claim the territory. This space could be used for a block garden, a tot lot, a place of quiet retreat

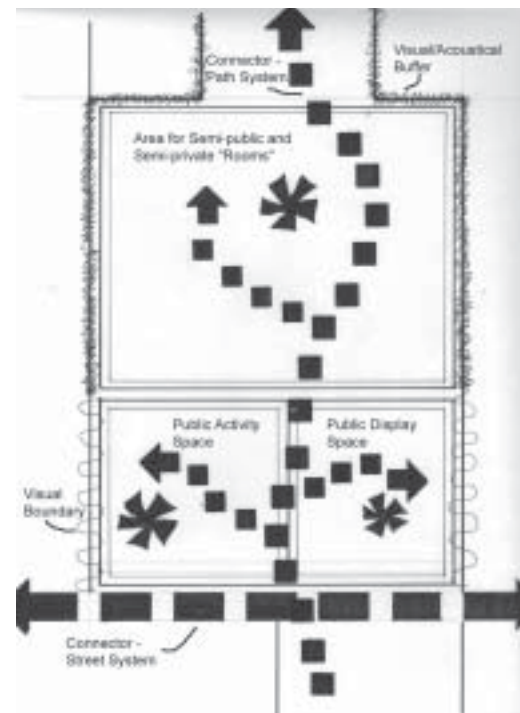
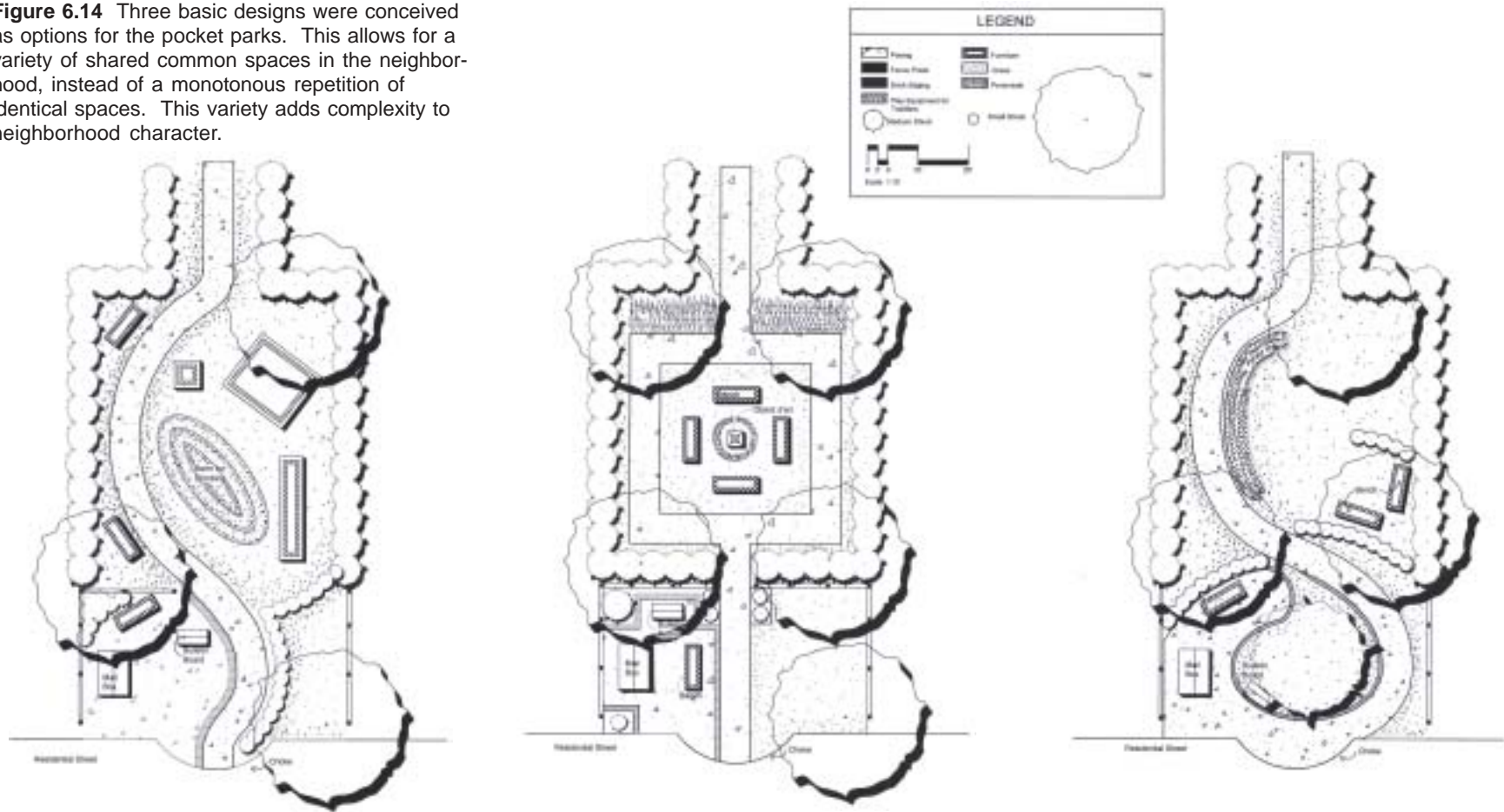


Figure 6.12 Conceptual diagram for the pocket parks. The three distinct spaces provide for a variety of uses and the claiming of secondary territory.

Figure 6.13 (below) Sketch for proposed pocket park, showing the public activity space. Brick is used in the construction of the mailboxes and bulletin board, as well as providing detail along the edge of the pathway.



Figure 6.14 Three basic designs were conceived as options for the pocket parks. This allows for a variety of shared common spaces in the neighborhood, instead of a monotonous repetition of identical spaces. This variety adds complexity to neighborhood character.



This design allows for the inclusion of a tot lot in the semi-private area of the park. Benches are placed so that caretakers can sit and watch the children playing. Commercial play equipment can be bought with donated or community raised funds. Other play spaces can be built by the residents. The small berm for climbing up and rolling down is one example of this.

The brick edging between the pedestrian path and the service area clearly marks this area as a separate zone. The fence and small shrubs separate the semi-public spaces from the semi-private spaces.

This formal design presents an atmosphere of order and neatness to the park. The seating area in the semi-private section is arranged around a small art piece such as an obelisk. The perennial beds which surround the seating area can be expanded by the residents with annuals and bulbs. If the residents are ambitious enough, the plant beds can be laid out in geometric designs. The formal design of the semi-private area is echoed in the semi-public area by the straight edges and the arrangement of the street furniture. A small lawn area occupies the second semi-public zone, representing the formal lawn areas of classical gardens.

This design creates an area of private rooms in the semi-private area. This more adult space can be used for meeting or relaxing with friends and neighbors. It also provides space for a block garden. The path winding its way through the garden creates a sense of relaxation and informality. The semi-public space provides an area for a focal point within the park. In this design an ornamental tree is placed as the focal point. A piece of folk art or public art could be placed here instead. This is a decision that could be made by the residents of the block.

or a space for neighborhood get-togethers. (Figure 6.14) The important thing about this space is that its eventual design should result from a block decision in order to foster a sense of community.

To create a sense of community for Clayton Estates it is necessary to go beyond the immediate block level, continually stretching the residents' definition of neighbor. The blocks of houses are joined not only by connecting streets, but also by a pedestrian pathway that runs perpendicular to the blocks' central streets. These are the same pathways that meet the street to form the pocket parks. By providing a neighborhood-wide path system, residents are encouraged to walk, bike or jog beyond their immediate confines. The paved paths also connect to the town's bike path that runs behind the property.

At specified places along the connectors, larger shared community spaces are placed. The smaller of these spaces are to serve as recreational spaces for the children living in the neighborhood. (Figure 6.16) A very basic set of playground equipment is provided with room for expansion. Once a sense of community is developed among the residents for their neighborhood, it will be possible for them to organize to provide for more play equipment. The equipment does not have to be purchased; it can be made from found or donated items such as old tires and fallen logs. (Figure 6.17) Developing the playground will take commitment and sweat equity from the residents, but it will help to further develop pride and a sense of ownership in the community.

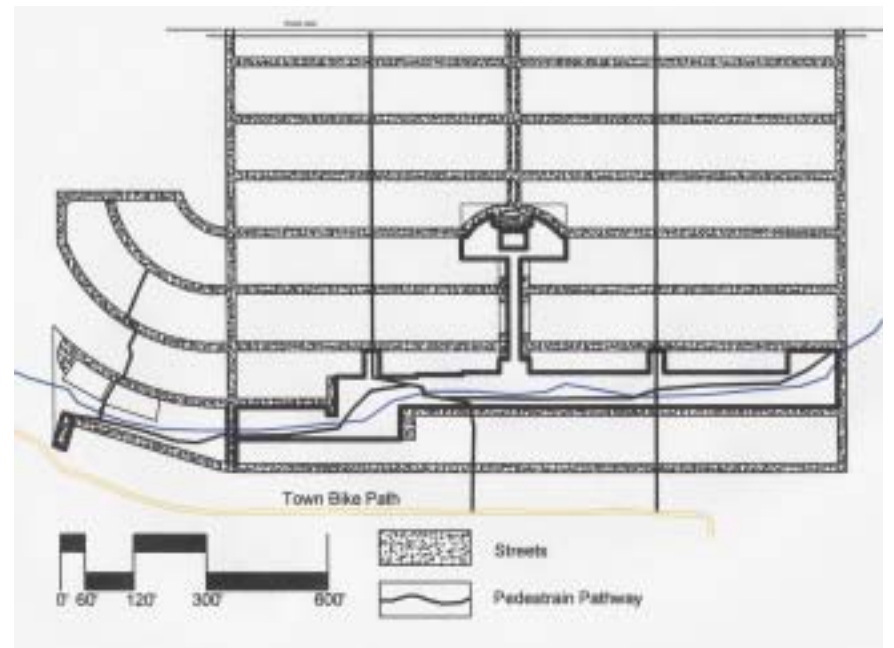


Figure 6.15 Plan showing the system of streets and pedestrian pathways.

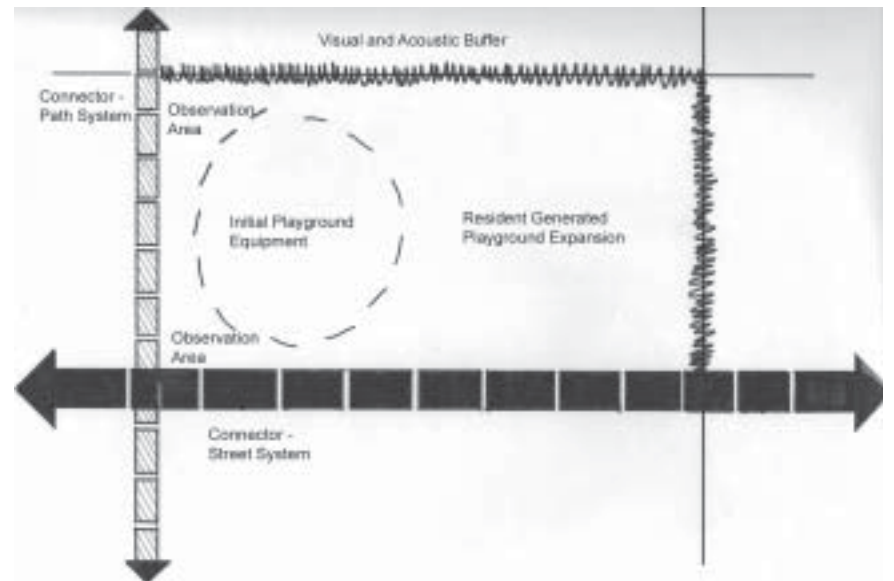


Figure 6.16 Playground concept diagram. Space is left for the residents to shape the area to meet their needs.

The largest of the shared community spaces runs the length of the neighborhood along the daylighted stream. This area will be a combination of planned activity areas and natural areas of meadow, woods and stream. A path surfaced in wood chips will meander through the different areas from one end of this park space to the other. The path will intersect the paved pedestrian pathway at several points, giving walking access to the park from all areas of the neighborhood. With the park running the length of the neighborhood, there is a potential for it to interconnect with similar spaces created on the adjacent properties. (Figures 6.18 and 6.19)

The park connects directly to the final shared community space. The symbolic center of the neighborhood is located close to the center of the site. It is centered at the end of a boulevard leading in from Givens Lane. The space contains the community's office and indoor meeting space. The axis of the boulevard is continued behind the building in a green corridor leading down hill to the large park. At the bottom of the hill is a green space large enough for community activities such as a Fourth of July picnic. In winter time, the green corridor becomes a snow covered hill for sledding; hence, no trees are planted along its length or at the bottom of the hill.



Figure 6.17 Sketch showing the types of play equipment that can be developed by the residents working together.

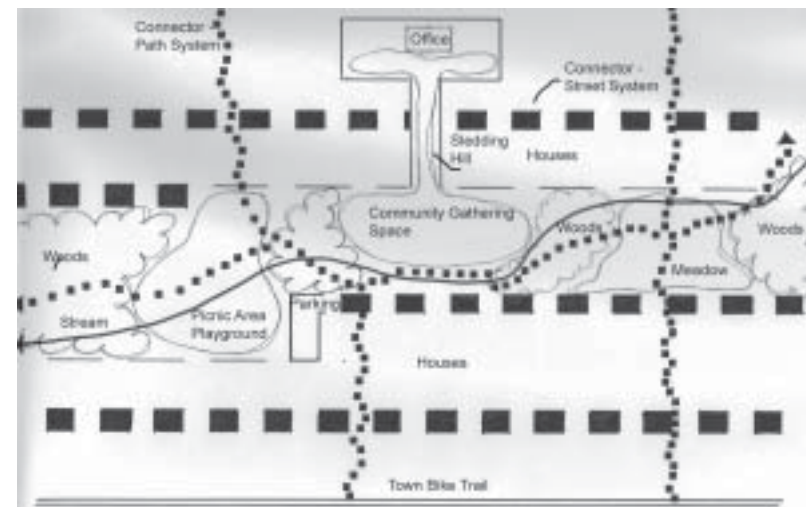


Figure 6.18 Natural park conceptual diagram.

Figure 6.19 Master Plan for the natural park.

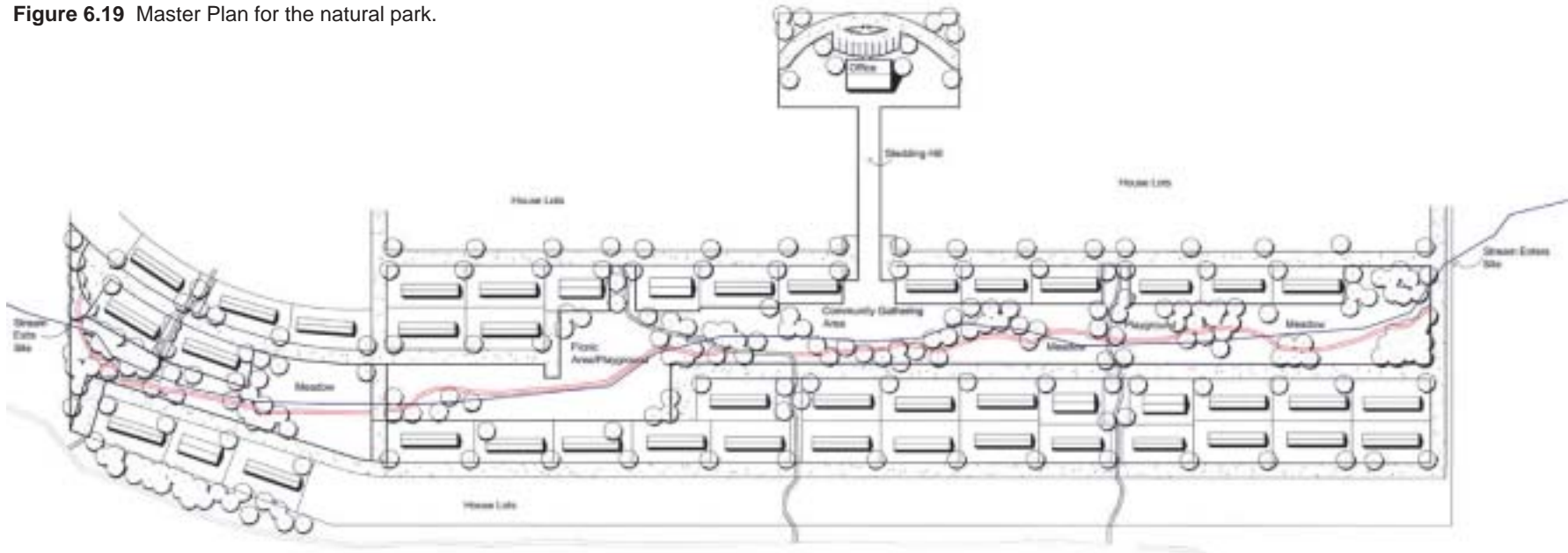


Figure 6.20 Sketch of proposed natural park showing the stream running through a picnic area.

LEGEND

- House Lot
- Community Meadow
- Property Line
- Proposed Stream
- Proposed Path
- Stream Bed Path

Scale: 1" = 50'

N

The boulevard leading to the office/community center is the main entrance into Clayton Estates. The boulevard is a divided road, thirty feet wide. (Figure 6.21) A series of ten foot wide islands runs down the middle, leaving two, ten foot wide lanes for vehicle traffic. Trees planted to either side of the boulevard and in the islands will grow to form a canopy over the street. Shrubs are planted between the trees of the island and along the back halves of the adjoining lots to create privacy and screen the parked cars from view. Where the street meets Givens Lane a brick and wood sign is placed in the island. (Figure 6.22) The use of brick for the sign columns introduces a common theme used throughout the design of the community and echoes the use of brick in the neighborhoods surrounding Clayton Estates.

Evaluation

Does the design meet the goals established in Chapter Four?

- To integrate local housing and neighborhood characteristics into the design.
 - This design accomplishes this goal through siting the houses to face the street, providing a small expanse of lawn area, introducing brick throughout the neighborhood, encouraging the building of covered stoops or porches instead of decks for the front entrance and a community entrance sign.
- Create a distinct and positive neighborhood identity.
 - The introduction of a series of pocket parks connected by streets and walkways is unique in this part of Blacksburg. The pocket parks and larger community spaces combine to give Clayton Estates a distinct and positive identity. Further distinction is gained by allowing the residents to guide the development of the parks on their block to reflect their desires.

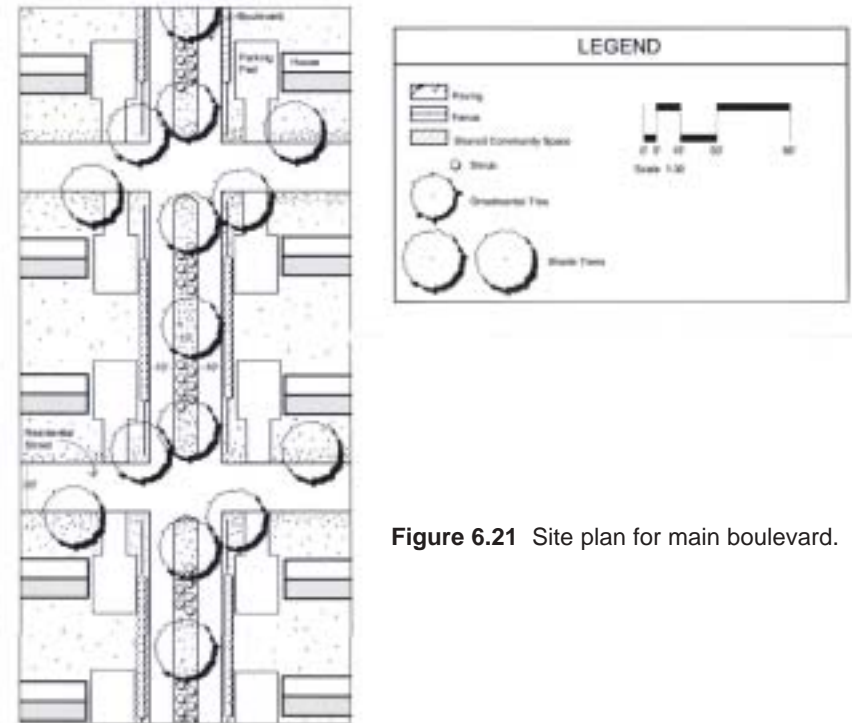


Figure 6.21 Site plan for main boulevard.



Figure 6.22 Formal entrance into the development.

- Keep lot rents affordable.
 - 222 house lots were created in this design. This exceeds the parameters established of 197 to 207 houses needed for the owners to make an acceptable profit. Because of that, lot rents can be kept low, if most of the lots are filled.

- Create a varied streetscape.
 - By placing the houses long side to the street, the lot lengths are also lengthened. This breaks up the monotony created by closely spaced narrow house ends placed close to the street.
 - By allowing the owners to decide how much front yard versus back yard they want, variety in yard size is achieved. This creates variety in the depth of spaces along the length of the street.
 - As home owners lay claim to the territory of their front yards, the look of each home and yard should become distinct from the neighbors, breaking up the monotonous look of identical lawns abutting long facades.
 - By mixing the size and type of houses along the street, interest is created and a cookie cutter character of identical houses is avoided.

- Create play spaces for children, both pre-school and school-aged.
 - Pre-school. Each house now has two yards which can be used for play areas. The addition of a private back yard gives added security to this space.
 - The pocket parks can be built to contain small tot lots on some of the blocks. This would be an easy decision for a block containing many small children.
 - School-aged. A variety of spaces are available for the use of school-aged children. The addition of the chokes on the streets should make the streets safe enough to play, skate and bicycle in. The front and back yards provide space for quiet activities.
 - The pedestrian path gives children safe access to other blocks, including those that contain playgrounds.
 - The paths also lead to the large natural park. This area provides several places for children to explore, socialize and engage in active play. Streams are a natural attraction for children and with rocks to climb on and toy rafts to sail, this area should be very popular.

- Designing the street system so that it slows down traffic traveling through the neighborhood.
 - “Chokes” were introduced at mid-block to force traffic to slow down in order to safely navigate them. If necessary bollards, landscaping or a curb could be added to the chokes to prevent vehicles from cutting across the chokes.

- Creating community facilities that are readily accessible to all the homes.
 - Mailboxes. Mailboxes are placed at mid-block of each block, making them readily accessible to the residents.
 - Trash dumpsters. Dumpsters have been eliminated on the basis of health, aesthetics and nuisance factor. With an easily navigable grid of streets, trash pickup can be made at each house.

- Management office and community center. By moving this building away from Givens Lane and into the center of the development, it is more accessible to the residents. The central location also has the added advantage of extending the community space around the building down into another community space, the natural park.
- Create private, semi-private and semi-public outdoor spaces for each house.
- This has been accomplished through the creation of a private back yard area and a semi-public front yard area. The semi-private area at the front of the house is centered on the house entrance. This can be expanded by the homeowner through the use of yard furniture and plantings.
- Create aesthetic views for the homeowners.
- The hilly terrain gives homeowners at the top of the slopes a good vista of surrounding mountains. Other homeowners further down the slopes will have views of the trees, meadows and stream in the natural park running through the valley of the site.
- Create adequate parking for each home which does not detract from the aesthetics of the neighborhood.
- By moving the parking pad away from the street, between the houses, the visual clutter of parked cars is reduced. If a homeowner needs more parking space, the parking pad can be extended into their back yard.

Conclusions

This design meets the goals for a good, low-cost housing neighborhood. It works with the terrain and other existing natural elements to create a space with aesthetics and efficiency. The design of the house lots encourages the claiming of primary territory. The variety and utility of shared community spaces encourage the claiming of secondary territory in the neighborhood. The claiming of territory is critical to the maintenance of homes and neighborhood. The maintenance of homes and neighborhood reduce the factors that cause NIMBY.

6.2 An Economical or Utilitarian Design

In some instances a more utilitarian design may be more desirable or appropriate because of land costs or to better fit the development into the context of the surrounding neighborhoods. Since utilitarian developments are notorious as crowded, poorly maintained eyesores, the challenge is to develop them with the same criteria outlined in Chapter Four that will result in a positive, healthy, good neighborhood.

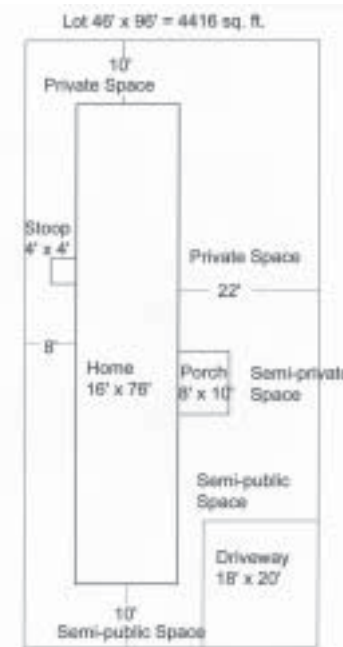
Organization

This design uses Lot Layout 2, Example 1 (Chapter 3.4.3) as the basis for siting the homes. (Figure 6.23) A variation of Block Type 2, Example 3 (Chapter 3.5.2) serves as the basis for the organization of the streets and shared community spaces. This block type uses a variety of lot lengths to create a shared community space or public square in the center of the street. (Figure 6.24)

The houses are positioned to run parallel to the steep terrain of the hill slope. (Figure 6.25) This resulted in six streets leading into the community from Givens Lane. In order to reduce that number and increase traffic safety, the streets running perpendicular to Givens Lane were turned into cul de sacs. Three of the streets continue to serve as entrances into the community and dead end at the far end. The other three streets terminate at Givens Lane. A cross street halfway along these streets provides access and egress.

A variety of shared community spaces is present in this plan: a system of pedestrian pathways, public squares, recreational areas and a large natural green space.

A system of pedestrian paths runs perpendicular to the six cul de sac streets, providing a walking route through the neighborhood. (Figure 6.26) This allows people who live at the end of the cul de sac a shorter means of traversing the neighborhood than following the streets. The path system intersects only half of the public



Figures 6.23 and 6.24 The lot and block layouts chosen for DesignTwo.

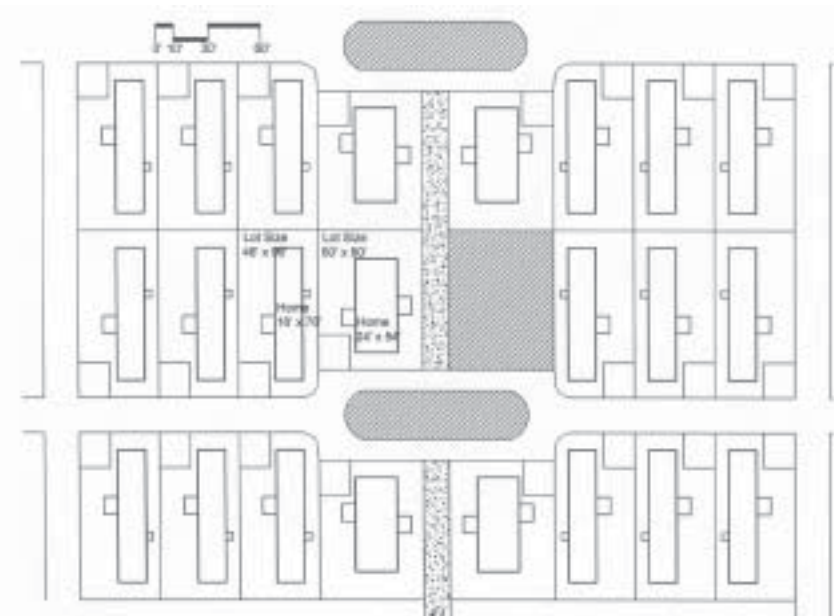




Figure 6.25 Master Site Plan for the Economical Design, Clayton Estates.

squares. It could be rearranged to intersect with all of them, but that would mean relocating the pathway towards one end of the block, rather than the middle, which defeats its purpose as a convenient alternative to walking along the cross street.

The public squares measure 34' wide by 105 feet long. They will provide space for trees, shrubs and other greenery to break up the monotony of the street and rows of narrow house facades. They will also provide enough space for block gatherings, both formal (block parties) and informal. A small service area will provide seating, mail boxes and a bulletin board. The public squares will serve as the block center, just as the pocket parks do in the previous design.

Two house lots have been left vacant to serve as playground space at the top of the hill. (Figure 6.25) The playgrounds are accessed by both the street system and the pedestrian system. Two more playgrounds can be located in the large, natural, green space at the bottom of the hill. This allows nearby access to play equipment for all the neighborhood residents.

The stream corridor running through the valley is used as a natural park area with planned spaces, meadows and woods. It is only accessed by the street system. Two pathways lead from the park, through the neighborhood to the town's bike path adjoining the site. The community office is located on a cul de sac adjacent to the park. This becomes the symbolic center of the community and provides ready access to kitchen facilities for any community gathering in the park.

Character

Since there is only ten feet of space between the houses and the streets (Figure 6.23), street trees are impractical in this design. Street character will have to be achieved by landscaping the public squares and by the display gardens of the homeowners. If the homeowners do not claim the primary territory outside of their homes, the street character can be very bleak. It will be important

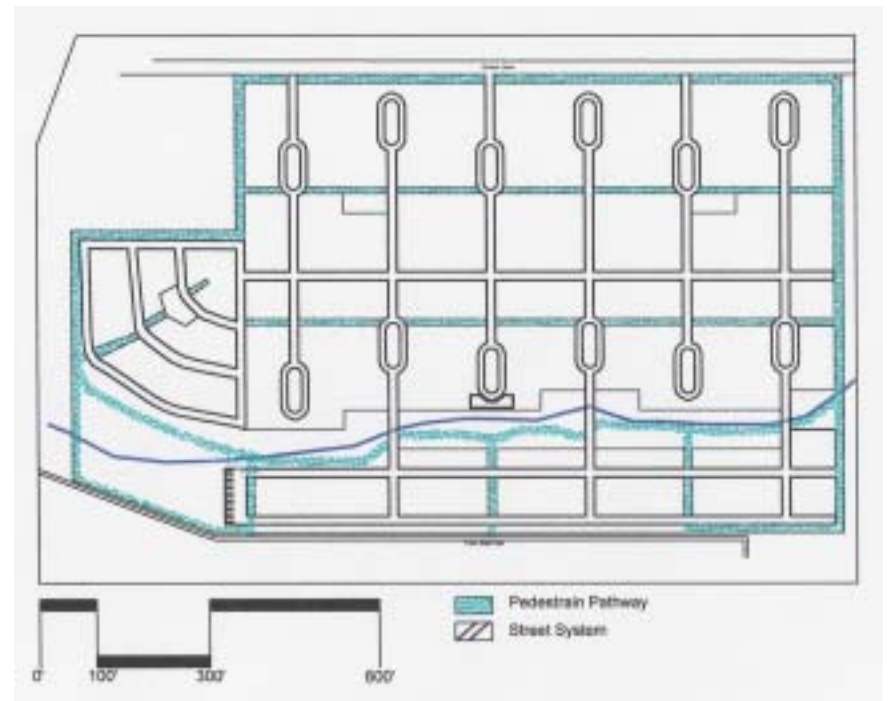


Figure 6.26 System of pedestrian pathways running perpendicular to the streets.

to clearly mark the boundaries of each lot to encourage the claiming of this territory.

With the narrow house facades and the public squares, this neighborhood will most closely resemble older urban neighborhoods. Careful selection of homes with finished narrow facades will enhance this resemblance, rather than a blank wall facing the street. Even better would be homes that have been designed with the front door opening on the gable end facade and therefore the street. (Figures 6.27 and 6.28)

Evaluation

Does this utilitarian design meet the goals set forth in Chapter Four?

- To integrate local housing and neighborhood characteristics into the design.
 - Since all of the neighboring developments have street systems that end in cul de sacs, the street system of this design resembles a community standard. The biggest difference between surrounding neighborhoods and this Clayton Estates design is in the manner in which the houses address the street. Long rows of narrow facades spaced only thirty feet apart does not fit into the local context. One reason the public squares are so important in this design is that they provide visual relief to the monotony of the house ends.
 - As in the ideal design, brick can be incorporated into the public squares, bringing a widely accepted material into the neighborhood.
- Create a distinct and positive neighborhood identity.
 - The landscaped public squares in the center of the street give the neighborhood a distinctive character as



Figure 6.27 and 6.28 These two photographs demonstrate the difference in character achieved by moving the entrance of the house to the gable end when using a utilitarian layout. (MHI)



this element is not evident in any of the nearby neighborhoods. The natural park at the bottom of the hill also lends distinction to the design. The four neighborhoods surveyed are bare of mature trees or have them only at the perimeters of the neighborhoods.

- To keep lot rents affordable.
 - Because the utilitarian layout uses less space, 233 house lots fit into this design. This is well above the target of 197 to 207 houses.
- Create a varied streetscape.
 - Each house has a small area between it and the street for a show garden. This small space if used can help to vary the streetscape. There is not enough room for the healthy growth of shade trees along the street, so smaller ornamental trees and shrubs will have to be used. The set back of the houses opposing the public square and the public square also add variety to the streetscape.
- Create play spaces for children.
 - There is room for at least four equipped playgrounds in the neighborhood. The natural park provides children with myriad opportunities to explore, socialize and play. The street parks are not very safe for use as tot lots unless fencing is installed around the area. The yards do provide play space for children, though unless fencing or a hedge is placed between the houses, the yards will not be a very satisfactory space.
- Designing the street system so that it slows down traffic.
 - While the culs de sac prevent through traffic, they alone, are not sufficient alone for slowing traffic on a long straight away. The street parks force cars to slow down to navigate successfully around them.
- Creating facilities that are readily accessible to all the homes.
 - All parks and facilities are accessible through the street or path system. The only shortcoming is in the lack of a path system in the upper section running parallel to the street and connecting with the natural park in the lower section and the town's bike path.
- Create private, semi-private and semi-public spaces for each home.
 - This will be more difficult to achieve than in the ideal layout. The private space along the front facade of the house is visible from the street. This tends to decrease the feeling of privacy and owned territory. By erecting barriers, even if only symbolic around this space, claimed territory will increase. The greatest drawback to this design is that one family's back door opens upon the private space of the next door family.
- Create aesthetic views for the homeowners.
 - As seen in the Lot Typology (Chapter 3.4.5.7) for the utilitarian lot layout, it is difficult to create good view lines from the windows or door of one house when the next house is only thirty feet away. The steepness of the land could help in this regard, but often the only view is of the neighbors' roofs.
 - Because of the lack of space at the front end of the lot, shade trees will probably not be a success planted along the street. The use of flowering ornamentals can create a pleasing streetscape, especially if the chosen trees have good fall foliage.

- Create adequate parking for each home which does not detract from the aesthetics of the neighborhood.
 - Because the yards are so small in this layout, the parking has been left next to the street to increase usable yard size. The cars will be a major intrusion into the streetscape. Each home has space for parking two cars.

6.3 Retrofit Design

This design is for a retrofit of the existing development as it stands today. The lots designed for the old developments, University Village and Crickets, are too small to fit many of today's manufactured homes, especially the new wider and longer single units. In addition to the ten criteria described in Chapter 3 and the Municipal Code for Blacksburg, there are three additional management criteria for this design. Discussions with the development manager have identified the following owner needs:

- Use as much of the existing infrastructure as possible to avoid additional costs.
- A majority of the lots should fit a home that measures 16' x 76'.
- There must be enough lots created to generate an income that is at least five percent over expenses.

The current neighborhood community is pieced together from three different parcels which creates a division within the street system, separating the old University Village section from the Cricket section. (Figure 6.29)

The University Village Park was laid out for older, smaller homes on correspondingly smaller lots than those needed today. The lots and homes were laid out in a utilitarian configuration where the narrow or gable end facade of the home faces the street. This layout creates a no-man's land between the homes where the residents are not sure where their lot ends and the neighbor's starts. In much of the neighborhood this has resulted in a lack of territorial claim around the houses. This lack of claim has resulted in a monotonous row of house ends set on fairly sterile lots. In some cases this translates into a lack of maintenance for the exterior of the home.

Large areas of the University Village section of the neighborhood are bare of trees which could soften the view of alien rows of closely spaced homes crowding the streets around which they are

organized. The character in the old Cricket section is much different because of the preponderance of tree cover. The homes fit into the space better giving, a sense of welcome and comfort, rather than stark utility. (Figure 6.30) Most of the homes are sited so that the front facade addresses the street, which gives this section more of a feeling of an older suburban area.

It will be necessary for the design to create a more unified character within the neighborhood. It will also be necessary to provide connections between the two old developments for vehicular traffic, as present residents have carved out a needed but highly insufficient dirt path for vehicle traffic.

The terrain as discussed in Chapter 5 is the other major factor posing problems for a new design of this neighborhood.

Design Organization

The design is organized around much of the existing road system and the terrain. These two factors divide the development into five fairly clearly defined areas or sections within the community. (Figure 6.31)

Section 1 is in the north corner of the site. It is organized around Yale Road and Duke Circle. Because of the distance between the roads the lots are best laid out narrow end addressing the street. A shared community space in the form of a public square has been divided off of the central unit of houses and the street has been routed around this square. This section contains the existing office.

Section 2 is to the west of Section 1. This section is organized around Princeton Road. Because of the width of the land between Yale, Princeton and Harvard Roads, it is necessary to site the houses two different ways; front facade facing the street on one side and gable end facade facing the street on the other side. To maintain a coherent character to the block, the gable end facade lots face each other across Princeton, allowing the front facade

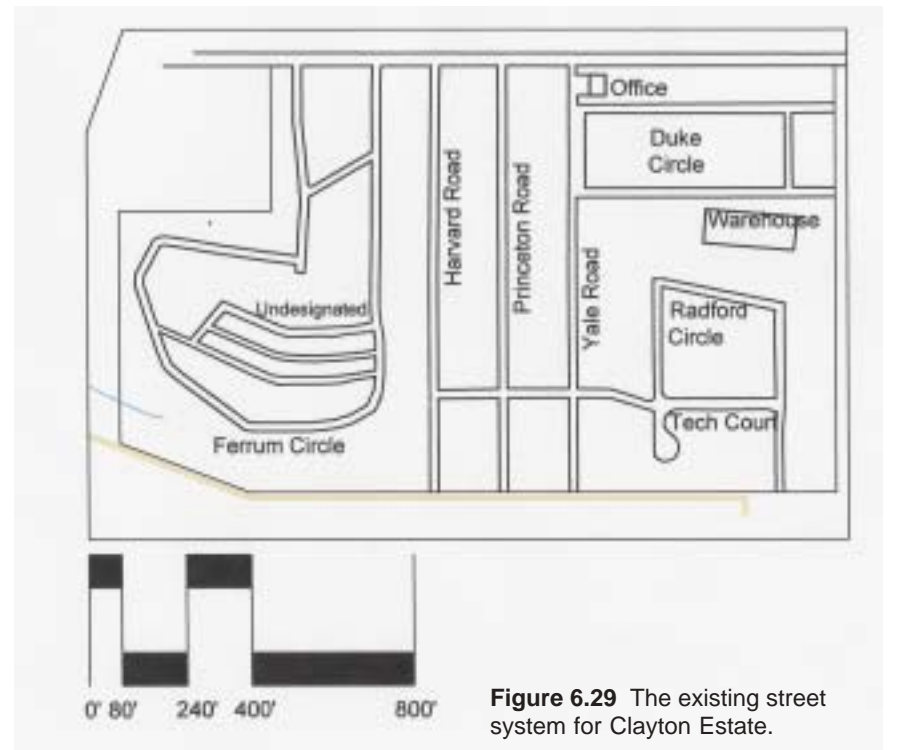


Figure 6.29 The existing street system for Clayton Estate.



Figure 6.30 This long narrow house is sited with the front door facing the street. The wooded lot provides a positive, aesthetic setting for the home. (Bean)

lots to face each other across Harvard and Yale. To relieve the monotony of Princeton's double row of narrow facades, a public square has been inserted into the street. This is made possible by locating four short lots adjacent to each other allowing for the widening of the street at this point. The public square can be lengthened if desired by increasing the number of shorter lots on the street.

Section 3 consists of the blocks facing Ferrum, Harvard and Virginia at the top of the hill. Because of the narrowness of the strip of land between Harvard and Ferrum, it is not possible to place a corresponding row of narrow facades on both sides of Ferrum.

These three sections sit upon the top of the hill and run to the crest. Where the slope of the hill steepens it dictates a different lot layout. To continue to run the homes perpendicular to the slope of the hill would result in the ground floor at the downhill end of the homes being up to fifteen feet above ground level. (Figure 6.32) Unless a very expensive solid foundation and wall system are going to be used, this is not practical and probably dangerous. In order to accommodate the space necessary for the new lot layout it will be necessary to abandoned much of the existing road structure in this area.

Section 4 is in the southwest quadrant of the development. It has the least change in the road system of the two remaining sections. By closing off one of the roads running parallel to the slope of the hill, it is possible to get enough land to place a double row of lots along each street. This keeps the block organized around a street and helps to maintain the feeling of an outdoor room along the street. An extension of the existing Ferrum Circle has been cut through an existing block to connect to the other sections of the community. This section of Ferrum Circle has been renamed Chapel Hill. Chapel Hill Road serves as a divider between Sections 1, 2 and 3 and Sections 4 and 5.



Figure 6.31 Map showing five sections of Retrofit Design.

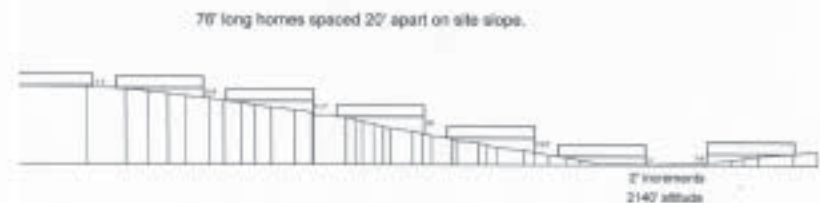


Figure 6.32 Section showing how homes placed perpendicular to the slope of the hill would rise above the ground at one end.



Figure 6.33 Master Site Plan for Retrofit Design, Clayton Estates.

Section 5 begins where the slope of the hill steepens and runs down into the valley and up the other side. It has the most extensive reworking of streets. Because of the terrain it is necessary to place the houses parallel to the slope of the hill. The old street system would not support this layout without a great deal of leftover space. Three new streets, Chapel Hill, Wake Forest and Florida State have been added, running across the face of the slope.

Except for the houses running along Maryland, the homes are sited with the front facade addressing the street. Houses along Maryland have the gable end facade addressing the street. Houses along Chapel Hill, Wake Forest, Georgia Tech and Florida State Streets all back on to a pedestrian path way, giving them a strong block orientation to the street and a weaker block orientation to the pathway.

Shared Community Spaces

There is still a strong hierarchy of shared community spaces in this design. (Figure 6.34) The entire community has a system of pedestrian pathways that run through the sections intersecting larger community spaces. Each block has a space that can serve as a small mail service area that will encourage neighbor contact. As in Design One, residents will be encouraged to direct the development of their shared spaces to meet the needs of their block.

The pathways all cross or end in a larger shared community space that provides recreational areas. (Figure 6.35) These can be picnic areas or playgrounds. The spaces are large enough to accommodate block-wide resident gatherings.

The largest shared community space is at the southern corner of the community. It consists of a daylighted stream, meadows and stands of trees. The natural areas will allow for plenty of active play and exploring by children as well as provide pleasant walking



Figure 6.34 Conceptual diagram for Design Three, showing the connections formed by the road system, path system and public spaces.

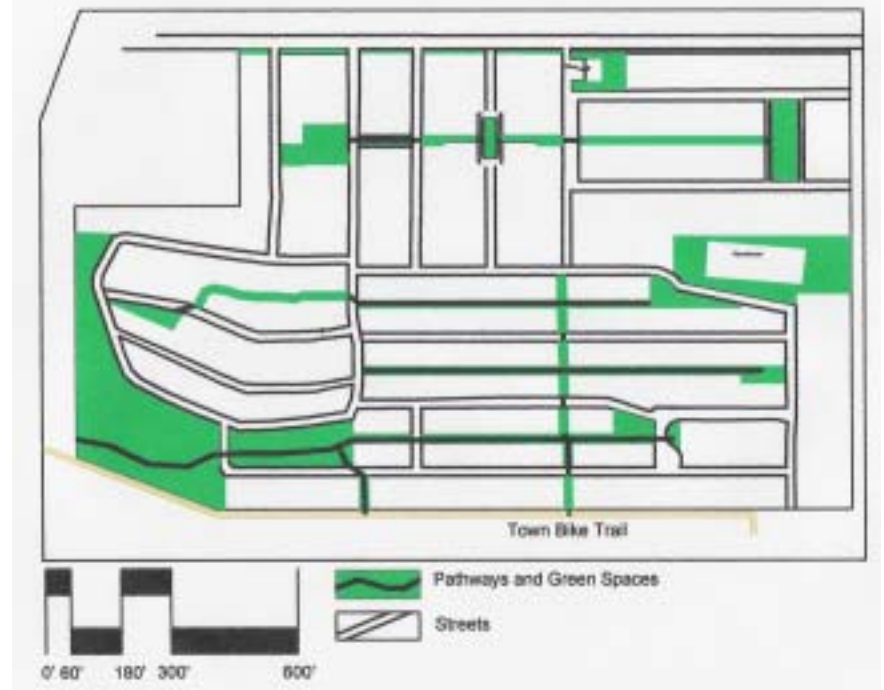


Figure 6.35 System of pathways and streets.

areas for adults. The meadow area fronting on Florida State Road is large enough to accommodate a community wide event.

Character

Because of the different way in which houses are sited, front facade and gable end facade, each section of the development will have a different street character. Sections 1 and 2 are reminiscent of an urban development based around a public square. Though all the houses do not face onto the square it is still a defining element in the streetscape. Street trees will not fit well into the space between the houses and street for most of the lots. The exception is the three extra deep lots at the north end of Duke Circle. Shade trees for the area will have to be planted along the pedestrian pathway and public square instead. Along the pathway the trees will create an allee' with views of the public squares anchoring the ends. Furniture for the shared community spaces will incorporate brick, which will help to tie the character of the community to the surrounding neighborhoods which use a great deal of brick.

To encourage residents of these two sections to claim the primary territory outside their homes, it will be necessary to provide or encourage the erecting of clear boundary markers between the side yards. If residents will not claim their primary

territory, it is unlikely that they will stake claim to secondary territory.

Sections 3, 4 and 5 will have characters similar in nature, the main difference being the terrain. The houses, except for one row on Ferrum Street, are all sited with the front facade facing the street. Because of the amount of room between the houses and street in this layout, there is plenty of room for the growing of large shade trees. In time, these trees should create a canopy over the street, further enhancing the feeling of an intimate outdoor room, with house facades for walls and tree branches for a ceiling. The shade and intimate character created should encourage residents to use the streets for walking and playing.

Recommendations

There are steps that the neighborhood management can take that will increase resident satisfaction and outside observer approval.

- Encourage the construction of covered porches rather than decks at the front entrance. (Figure 6.35) Both the preference study conducted for this paper and Nelessen's (2003) research show that people prefer a covered porch on a home. The presence of a covered porch helps to dispel the aura of impermanence that can cling to a basic manufactured home. A solid, built-on porch helps to



Figure 6.36 The covered porch on this home increases the perception of permanence over transience. (Bean)

visually anchor the home to the ground.

- Provide clearly marked boundaries for every lot. Residents cannot claim territory if they do not know where their lot begins and ends. A simple row of wooden bollards with thick hemp rope strung between them would not only mark the boundary, but also provide a physical barrier. This type of marker could later be replaced by the homeowner as they establish their territorial claim.
- Reward residents who keep up the appearance of their homes and lots.
- Help to establish a resident association. Such an association will help residents to begin to take responsibility for the whole neighborhood, not just their home. The association can also bring neighborhood maintenance problems such as potholes to the attention of the manager. It will also give the neighborhood an organization around which to develop projects for raising funds for playground equipment and community landscaping, community wide celebrations and for seeking outside help for those in need.
- Install a system of street addresses rather than lot numbers throughout the neighborhood. Residents of low-income housing do not want to be

seen as different from the rest of the community. Using a lot number for an address immediately identifies a resident in this area as coming from a low-income family living in a stigmatized “trailer park”. A complete system of street signs also needs to be installed throughout the neighborhood. This includes traffic signs.

- The management needs to enforce the rules about upkeep of yards and houses. When a house is allowed to deteriorate or a yard to become full of junk, it detracts from the appearance of the entire neighborhood and reinforces negative stereotypes about the residents of manufactured housing developments. A neighborhood association would be of a help in this area. When a resident is unable to make repairs to their house or maintain their yard, the association could organize neighbors to help.
- Work with nurseries or non-profit groups to provide low-cost trees and other plants for residents. Plants can be very expensive and low on the list for a working class family. By providing a source of free or low-cost plants, residents will be encouraged to landscape and care for their yards. A series of neighborhood lectures or demonstrations on gardening could further encourage this.

Evaluation

Does the design meet the goals established in Chapter Four?

- To integrate local housing and neighborhood characteristics into the design.
 - Some sections of the development will match the surrounding suburban neighborhood characteristics of lot and street organization, that of the front facade facing the street across a lawn of varying widths. Sections 1 and 2 most closely resemble an urban development or narrow lots facing the street.
 - The use of brick for street furniture will echo the extensive use of brick in surrounding neighborhoods without requiring residents to expend funds on brick foundation walls for their homes. A synthetic brick foundation skirt can be used, but only if a realistic one is available.
- Create a distinct and positive neighborhood identity.
 - By creating spaces around the homes which residents can readily claim as primary

territory, they are enabled to reach out into the community and claim secondary territory in the form of the streets and shared common spaces. This claiming of secondary territory will change the character of the spaces claimed as the users will leave their mark upon the spaces. Since the shared common spaces in this design are meant to be adapted by the residents for their communal needs, distinct and positive neighborhood identities should become a reality.

- Once territory is claimed, residents tend to maintain the space, whether it is their yard, their street or their park. Maintenance is a major factor in positive perceptions of a neighborhood.

➤ To keep lot rents affordable.

- The number of lots created for this space means that the lot rents can be kept in the affordable range. (See management criteria evaluation)

➤ Create a varied streetscape.

- Since the homes are purchased elsewhere and moved onto the lot, creating variety in housing

facade will not be a problem. Without unifying elements such as a limited range of setbacks, street furniture and street trees, the variety of facades might actually detract from visual coherence.

- By allowing the residents to determine the amount of front versus back yard that they desire (within regulated dimensions) it will be possible to create variety in the streetscape. Instead of a long row of similarly shaped houses set back an identical distance from the street, a variety of different sized spaces will be created. The size of the spaces will also change the ways in which the front yard is used and decorated by the home owners.

➤ Create play spaces for children.

- The first play space for children is created by providing a sufficiently sized yard with clearly marked boundaries. There is space in the shared common spaces for the construction of tot lots and playgrounds if the residents desire them. The large natural area in the south corner of the neighborhood provides ample

space for children to explore and play.

➤ Designing the street system so that it slows down traffic traveling through the neighborhood.

- All but one street entering the neighborhood from Givens Lane end in T-intersections after a short straightaway. This will force drivers to slow down to navigate the turn onto Chapel Hill Drive. Ferrum Street is the only street running through the neighborhood from Givens Lane. As pedestrian paths cross this street, chokes can be built at these locations to slow traffic and elevate pedestrian safety. Chokes should also be placed along Wake Forest, Georgia Tech and Florida State to slow traffic on these long stretches. The street trees planted along these streets should also help slow traffic down.

➤ Creating community facilities that are readily accessible to all the homes.

- All home have access to a pedestrian pathway and shared community spaces at three levels; block, section and community.

➤ Create private, semi-private and semi-public outdoor spaces for each.

- This design allows for the potential of creating these spaces for each home. The most difficult will be creating these spaces for the gable end facade homes, since the front yard of one home abuts the narrow back yard of the adjacent home. Clear boundary markers must either be provided or encouraged to delineate these spaces and allow the claiming of territory.

➤ Create aesthetic views for the homeowners.

- Some of the homes will have aesthetic views because of their locations. Because of the difficulties fitting the houses to the street system, arranging houses to take advantage of aesthetic views was not a major focus of this design. The natural park at the southern end of the site will provide residents on the hill a pleasant, natural view. Those homes on the highest ground have a view of distant mountains, though most will have to leave their houses to enjoy it.

➤ Create adequate parking for each home which does not detract from the aesthetics of the neighborhood.

- Homes that are sited with the front facade facing the street will meet this criterion best. The lots are wide enough that the parking pad can be extended back beside the house, moving the parked cars away from the street, making them less obvious a part of the streetscape.
- To move the cars away from the street for the homes sited gable end facade to the street would mean eating into the amount of semi-public space at the front of the lot. This design is not as successful as the front facade designs for parking.

Managerial Criteria

These are the three criteria stated at the beginning of this section, Chapter 6.3.

➤ To use as much as possible of the existing infrastructure of streets.

- In the upper part of the neighborhood, Sections 1, 2 and 3, it was possible to keep the existing street structure with only minor modifications.

- In the lower part of the development it was necessary to make drastic changes to the street layout because of issues with the terrain and the successful siting of the houses.

➤ A majority of the lots should fit a house that measures 16' x 76'.

- Seventy-four percent of the lots will accommodate a house that measure 16' x 76'.

➤ To provide for a sufficient number of houses that will generate enough income for a five percent profit over expenses.

- Using figures supplied by the development manager I determined that it would be necessary to provide 197 lots at \$200 a month rent to generate a five percent profit. This layout provides exactly 197 lots. The large community space at the southern corner of the site can be divided into lots if necessary, though it will destroy the integrity of the shared community space hierarchy.

Conclusions

Because of the mixture of house siting, including both front facades and gable end

facades, this design is not as aesthetically satisfactory as the other two. But by creating usable shared community spaces this design can overcome the limitations of the gable end facade layout and encourage residents to claim and maintain the exteriors of their homes and neighborhoods.

Though this design does not as successfully meet the criteria as the first or Ideal Design (Chapter 6.1), this layout can work to create a positive, healthy living environment for working class residents. It will be necessary for the development manager to work closely with the residents in determining lot boundaries, community space uses and overall maintenance of the neighborhood.