Windsor Village: A Case Study in the Psychological Impacts of Low Income Neighborhood Design

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Abstract

This project explores the potential for psychologically positive design in low income neighborhoods. The ultimate goal is to reverse the negative stereotype low income housing has borne throughout history. Analysis of basic human needs and perceptions as well as physical design characteristics that satisfy these needs provides a basis for the design of psychologically beneficial neighborhoods. Utilizing techniques that promote affordability while not disturbing this basis makes positive design a real possibility for low income housing. By evaluating the individual perceptions and values of the residents of such a community, the design can be catered to specific project sites. Finally, a case study of Windsor Village, a privately owned low income neighborhood in the city of Indianapolis, Indiana, displays how all these design techniques can be applied to revitalize and rehabilitate an existing community.
Introduction of Topic

Throughout history, low income housing communities have possessed a stigma of undesirability. Many people, visitors, scholars and residents, consider these areas unsafe and unattractive. People commonly associate “good” neighborhoods with greater expense, but this is not necessarily true. “Good neighborhoods are possible at all income levels, although they may have different features... The concept of a good neighborhood is relevant to all groups of the population.” (Brower, xiv) One must learn not to associate the word “good” with expensive materials and costly ornament, but with a positive mental state.

Of course, income levels often place limitations on design capabilities. However, communities with a lower income base need not suffer with poor design as a result. Studies have shown that “... in both city and suburban areas residents were willing to pay more for housing in neighborhoods with better-quality schools and which had less violent and less property crime.”(Taylor, 123) Does this mean low income families must be resigned to unsafe, unwelcoming and undernourishing communities?

If a physical space can create a sense of belonging and well being for an individual, regardless of expense, then it is a good neighborhood. How can physical design elicit such positive emotions? Numerous case studies demonstrate how physical spaces affect the people that use them in either positive or negative ways. Examining these is one mode of determining

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1 Low income is generally defined as an annual household income that is 31-80% of the Median Family Income, while 0-30% is very low income; Indianapolis Median Family Income is $34,917 annually (http://www.IndyGov.org/dmd/housing/jobs.htm; http://www.movingcenter.com/mc_costof_living.htm).
positive design characteristics for future design. In addition, research of human perception, including studies detailing human response to their environment, acts as an excellent design tool.

As human beings we all share the basic needs for food, shelter, warmth and interaction with others. However, numerous factors influence an individual's value system regarding their psychological and emotional needs. Income levels can affect psychological needs. Similarly, city-dwellers have different expectations from their environment than suburbanites. Neighborhood design can better promote psychological satisfaction when it is tailored to the needs and values of the unique community for which it is designed. This can be accomplished by means of interviews or surveys, allowing residents of the community to communicate their individual values regarding emotional well being within a built environment.

This "community" is not limited to the residents of the neighborhood specifically, but also includes surrounding neighborhoods, landlords and visitors to the area. These factors must be included because they are also affected, directly or indirectly, by the design of the neighborhood. Although it is vitally important to create a beneficial environment for the residents, for a neighborhood to survive, it also must have a psychologically positive impact on these other groups. If one neighborhood is of poor design, surrounding neighborhoods may soon suffer from association. Similarly, a landlord will soon lose tenants if they are not satisfied with the living environment, or be resigned to unsavory residents that perpetuate reputations of crime. Visitors unrelated to residents will simply become nonexistent in a poorly designed community. If the neighborhood prefers to be exclusive, this may be seen as positive. However, if the residents wish to share their open spaces with visitors and there is lack of interest as a result of
design or reputation, this is certainly negative.

The purpose of this project was to discover how the physical rehabilitation of an urban low income neighborhood could impact its community in a psychologically positive manner. It examined the psychological needs of people in general as well as those needs that vary dependent on individual lifestyles. This research was then applied to a case study site in Indianapolis in order to demonstrate how psychologically beneficial design solutions can be applied to the urban low income neighborhood.
Background Research

**Historical Impacts of Low Income Housing Communities**

Many stereotypes have plagued low income housing communities throughout the years. It is believed that they house drug dealers and gang members; decent people live in fear of drive-by shootings and crime. There are images of the residents as drug addicts, criminals, illiterate and unproductive troublemakers. Low income housing is often considered a necessary evil, but “not in my backyard.” People feel that it lowers the value of surrounding properties and its design has been criticized as being too concentrated, too monotonous, too alienating, poorly managed and poorly maintained. (Fisher, 49; Tener, 6; CQ Researcher, 804)

These common stereotypes are generally associated with public housing as it is the more studied form of low income housing. However, many of these same stereotypes have been applied to privately owned low income communities. Oftentimes these neighborhoods can suffer a poorer reputation than public housing. In Richmond, Virgina a public housing community called Gilpin Court was built to replace the severely deteriorated and substandard private housing sector of the city. (CQ Researcher, 804)

Though these stereotypes may have a historic basis, they remain a generalization of the reality of low income housing. Low income families are a contributing part of all communities and providing for all segments of a community improves and strengthens the community as a whole. Therefore, improving the image of low income housing communities not only improves the quality of life for the immediate users of the neighborhood, but the surrounding community, as well.
Psychological Needs for a Positive Environment

One vital component in improving the image of low income housing is better planning of the physical design of the neighborhood itself. For people to feel positive about the neighborhood and community in which they live, the space must provide for them in psychologically beneficial ways. If a space is designed with no consideration for the emotional and psychological needs of the users, then it is not likely to be a lively and well-used area.

Basic Human Needs

A commonly used basis for human necessity is Maslow’s Hierarchy of Needs. This hierarchy classifies human needs into five basic categories: physiological, safety, belongingness/love, esteem and self-actualization. The following table details the components of these five categories.

**Physiological**: This category includes basic survival needs of hunger, thirst, sex, activity, rest, homeostasis and bodily integrity.

**Safety**: This category refers to needs for orderliness, justice, consistency, routine, predictability, limits and physical safety.

**Belongingness/Love**: This category includes the basic human needs to love and be loved, the need for friendship, interpersonal relationships and a sense of identity with a group.

**Esteem**: This category contains two types of esteem, self-esteem and the esteem of others. Self-esteem refers to personal strength, achievement, adequacy, mastery, competence and independence. The need for esteem of others refers to prestige, reputation, status, dominance, recognition, attention and appreciation.

**Self-actualization**: The final category of human necessity refers to a sense of self-fulfillment, 'to become everything that one is capable of becoming.'

(Altman, 129)
There also remain two basic human needs that Maslow identifies as pervading his hierarchy. These are the need to know and understand our environment and the need to perceive beauty in our environment (Motloch, 50). Henceforth, these will be referred to as knowledge/understanding and aesthetics.

The physical design of a space cannot directly supply all of these basic human needs. However, several of them may be specifically considered while designing a neighborhood and others may be indirectly promoted through this process. Certainly, design can impact the safety aspect of a community and can provide a resident with the opportunities for rest and recreation. Although a designer cannot supply the resident with friendships and loved ones, a space can promote interaction with others and provide identity as a community. Regarding esteem and self-actualization, these needs may also be indirectly supported through good neighborhood design. Finally, knowledge and understanding of one’s environment can be promoted through clarity of design and aesthetics is certainly affected in any design situation.

Human Perception

In order to provide people with a psychologically positive environment, it is also necessary to be aware of how human perception functions. A better understanding of this allows for design to be better suited to human use.

Human perception is primarily horizontal with an approximate 180-degree range of vision from left to right and a much narrower range up and down. When moving, the upward range of vision narrows even further because of the tendency to look slightly downward to navigate. Therefore, the lower streetscape, pavement and ground floor of buildings are generally
all that is observed. People also engage in a majority of activity and conversation on this horizontal plane because it is more difficult to do so vertically.

Vision is also limited by distance. Although vision has the greatest range of any of the senses, in regards to seeing stars in the sky and so forth, there are limitations on a functional everyday level. In his book, *Life Between Buildings*, Jan Gehl defines our field of vision with several ranges. Our "social field of vision" ranges from 0 to 325 feet (See Figures 1a-1d), at which point people are still perceptible as humans, but it becomes difficult to perceive their actions and may be impossible to recognize them. Between 250 and 325 feet, general features such as gender, age and activities are perceivable and identity may be recognizable if the person is well known to the viewer. At 100 feet, facial features and hairstyle become clearer. "At [sixty to eighty feet] the meeting begins to become truly interesting and relevant in a social context." (Gehl, 67) As people draw even closer to each other, the remaining senses begin to play a part and the experience is intensified. From three to ten feet comprises a typical conversation distance. At this level people can perceive enough detail to constitute meaningful human interaction. (67-69)

These conversational distances may be further subdivided into their social context and
psychological impacts on the participants. Edward Hall has defined a number of "social distances" ranging from zero to twelve and more feet. He elaborates on the psychological and social associations with these distances:

*Intimate distance (0-1½’):* This distance is often associated with intense feelings such as tenderness, comfort, love and strong anger.

*Personal distance (1½-4½’):* This distance is most common in conversations among close friends and family, such as around a dinner table.

*Social distance (4½-12’):* This is the typical distance associated with ordinary conversation between friends, acquaintances, neighbors, coworkers, and so forth.

*Public distance (12’+):* This distance is typical for formal situations, with public figures, in teaching situations and is more commonly associated with one-way communication or perception of an event without physical involvement.

Hearing is very important in regards to conversational distances. Hall's definition places not limit on public distance. For reference, people can generally hold a conversation up to twenty-three feet. Up to 100 feet, one can hear a speaker and partake in a question and answer
period, but this is not real everyday conversation. Beyond this, only shouting may be effective and not suited to common conversation. (66)

The use of these distances and their impact on perception can be very critical in design. Density intensifies peoples' reactions to their environment. It increases liveliness and excitement within a space, which is the key to a successful community. However, if an existing situation or environment is negative, these perceptions will likewise be intensified by density. Density alone will not create a better community; many other factors must be considered, as well.

**Interaction with Others**

The most vital necessity next to food, shelter and warmth is the need for human interaction. Even if not in intimate contact with others, such as in familial or close friendship situations, being among other people is very beneficial. Interaction not only acts as an alternative to being alone, but also provides constant stimulus, impulses and contact. It gives people the feeling of participation in life and provides information about the community and the world. Interaction is also a source of inspiration. When applied to cities, promotion of interaction creates livelier, more populated environments.

**Neighborhood Needs**

In his book, *Good Neighborhoods*, Sidney Brower examines human needs at the neighborhood level. He describes three general qualities that are most desirable in a neighborhood, which he categorizes as Ambience, Engagement and Choicefulness. Brower then subdivides these categories into specific positive responses resulting from specific physical design characteristics (See Appendix A). It may be noted that several of these qualities appear to conflict with one
another. This is where we begin to see the individual level of positive psychological design. On the scale of Maslow's hierarchy, people share these basic needs in common. However, people are individual and may wish to fulfill and elaborate on these basic needs in differing manners. Therefore, there is a need in every neighborhood design project to assess the perceptions and values of the individual residents within a given community.

For this purpose, a survey for use in this case study was composed of a condensed list of terms based on the needs of Maslow's hierarchy and the qualities of neighborhood design presented by Sidney Brower (Brower, 98). This survey provided the resident with two identical lists of these need-based neighborhood qualities and asked them first to rate how successfully they felt their neighborhood was currently satisfying these qualities and second, to what extent they valued these qualities (See Appendix B).

The ten terms which generally represent a combination of Maslow's and Brower's psychological needs for neighborhoods are cleanliness, safety, beauty, friendliness, variety/interest, convenience, spaciousness, quiet, structure/identity and care/nourishment. Cleanliness refers primarily to the maintenance and appearance of the community, which is also closely related to the safety of a neighborhood. Safety concerns the physical needs of residents in a community as well as an emotional sense of stability and order within their environment. Beauty focuses primarily on the physical aesthetics of the community. Friendliness refers to the image a neighborhood displays to its surrounding community and whether it draws visitors. Variety and interest refer to the progression of movement through a neighborhood and the visual experiences encountered. Convenience primarily regards the ease of travel to commercial amenities. How-
ever, it also refers to convenience of travel within the neighborhood, especially for pedestrian use. Spaciousness refers to appropriate amounts of outdoor space within a neighborhood, including the delineation of space. Quiet is primarily a physical state, controlled by minimizing traffic or protecting the living space of the residents from traffic noise. It can also be an emotional state, a feeling of refuge or escape from the urban/industrial environment outside the neighborhood. This emotional influence of quiet is closely related to spaciousness, as well. Structure and identity are very important in creating a psychologically beneficial neighborhood. They refer to the sequence of experiences within the neighborhood and the unity and connection between these various events. Finally, the care and nourishment of the neighborhood is the sense of home and community a neighborhood provides for its residents.

Certainly, each of these neighborhood qualities is highly interrelated and designing for one will often affect the others. Figure 2 shows how this list of terms relates to the variety of human needs identified by Maslow and Brower.

<table>
<thead>
<tr>
<th>Survey Terms</th>
<th>Maslow's Human Needs</th>
<th>Brower's Neighborhood Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clannishness</td>
<td>Safety, Esteem, Aesthetics</td>
<td>1</td>
</tr>
<tr>
<td>Safety</td>
<td>Physiological, Safety</td>
<td>10, 19, 22, 27, 29, 30</td>
</tr>
<tr>
<td>Beauty</td>
<td>Esteem, Aesthetics</td>
<td>1, 7, 27</td>
</tr>
<tr>
<td>Friendliness (Microscope)</td>
<td>Belongingness</td>
<td>4, 11, 12, 13, 18, 19, 20, 21, 24, 25, 26, 27, 31, 32, 33</td>
</tr>
<tr>
<td>Variety/Interest</td>
<td>Safety, Esteem, Knowledge</td>
<td>3, 5, 7, 11, 12, 14, 15, 16, 31, 32</td>
</tr>
<tr>
<td>Convenience in commercial</td>
<td>Safety, Belongingness</td>
<td>5, 6, 8, 9, 15, 16, 17</td>
</tr>
<tr>
<td>amenities, public transportation, etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spaciousness</td>
<td>Physiological, Safety, Belongingness</td>
<td>3, 6, 25, 26</td>
</tr>
<tr>
<td>Quiet</td>
<td>Physiological</td>
<td>2, 10, 12</td>
</tr>
<tr>
<td>Structure/Identity</td>
<td>Belongingness, Esteem, Knowledge</td>
<td>3, 4, 5, 7, 11, 12, 24, 25, 26, 27, 28, 31, 32, 33</td>
</tr>
<tr>
<td>Nourishment</td>
<td>Belongingness, Esteem, Self-</td>
<td>2, 10, 19, 20, 21, 22, 23, 24, 25, 26, 31, 32, 33</td>
</tr>
<tr>
<td>(emotional/ a sense of home)</td>
<td>actualisation, Knowledge</td>
<td></td>
</tr>
</tbody>
</table>

![Fig. 2 Relations of Project Survey to Maslow's Human Needs and Brower's Neighborhood Qualities](image-url)
Physical Design to Meet Psychological Needs

A neighborhood is a place where people generally relax, eat, sleep, entertain guests, raise children and interact with neighbors. Outside of work, a person's neighborhood is where they spend most of their time. It is a destination point. A space so vital to daily life is not something to be designed carelessly. The design of such a space should strive to fulfill all the psychological needs of the user. Of course, physical space alone cannot meet all of an individual's needs. It cannot influence the quality of other users in the space or the quality of interaction with said users. However, it can provide opportunities for psychological fulfillment while remaining a positive and pleasurable space in which to go about daily life.

There are numerous methods and details of design which positively impact the desired qualities of a neighborhood and one design element often encourages several desired neighborhood traits. Therefore, in order to prevent redundancy, this section will deviate from the structure of the quality list and instead relate the list to a number of design alternatives.

Neighborhood Layout

On a large scale, the layout of a neighborhood and its internal structure can affect a number of the emotions produced by a community. The design reflects the social structure in an area. It should display a sense of hierarchy, creating destinations within destinations (See Figure 3), which promotes community strength. (Gehl, 59) The design should also encourage the desirable qualities of

Fig. 3 Hierarchy Within a Neighborhood
togetherness, community and interaction. From this first step the opportunities for community development within a neighborhood become more apparent.

Components of a Neighborhood

There are three primary components that make up the layout of a neighborhood. The streetscape is the most public area and consists of entries to the neighborhood, primary circulation routes (vehicular), buffer zones and intersections. The second, more semi-public portion of a neighborhood is the open space, which consists of secondary circulation routes (pedestrian) and destination points or interaction nodes, such as gathering space, playgrounds and bus stops. The most private area of a neighborhood is the housing and housing space itself. This is composed of entries to the homes, service areas (primarily for vehicles/driveways), a private or semi-private yard area and connections to the neighbors.

An analysis of the ideal relationships between these three is very important in determining a positive neighborhood layout. It is desirable when relating the streetscape to the open space to have a clear connection and visibility between the two (See Figure 4). People prefer to recreate in a space that is lively and where there is action to see or participate in. Children in residential areas will choose to play on streets or in parking areas rather than a designed play area if it has no outside activity or traffic to look at. (Gehl,27) Also, people passing in their cars will see activity and potentially stop or return to the area to participate. By relating the streetscape to the open spaces, activity and liveliness in
designated open spaces will increase rather than having busy streets and deserted playgrounds.

Open space and housing space also require a very close connection to each other. The housing is ideally clustered with the open space as a central focus (See Figure 5). The same rule of visibility applies in terms of liveliness. Children inside can see others playing and will be more likely to join in the activity. This visibility also increases the sense of security and responsibility for the shared space. Parents can watch their children and potential vandals or undesirables to the area are unlikely to disrupt a space that is well-defined and enclosed by housing. Community members will feel more responsible for the space, being a central focus to their neighborhood and this will prevent vandalism or undesirable activity, as well. This central focus to a community increases the sense of belonging to a group and again reflects the social structure of a neighborhood as being shared and focused.

Finally, the relationship between streetscape and housing space requires special treatment. To maintain a feeling of privacy and ownership for the residents, the traffic and activity of the streetscape should be buffered from the space immediately surrounding the housing (See Figure 6). This buffer is not an attempt to reduce visibility between the areas, because residents would still find...
interest in watching passing neighbors and visitors. However, they need to have an area that is a refuge, from which they can observe public life and choose whether or not to interact, but still feel the security of their ability to retreat.

One might also view these three relationships in terms of public versus private space. The streetscape is a public area, open to passersby, visitors and residents. The open space is more of a semi-public area. Certainly, visitors and passersby are welcome to enjoy the space, but it is more closely related to the neighborhood itself and the residents therein in terms of a sense of ownership and responsibility. Finally, the housing space is semi-private. It is space used almost exclusively by the resident and though bearing visual connections to the open space and streetscape, it limits the invasion of public and semi-public on the private area of the house itself.

Looking again at the relationships between these three spaces, it is desirable to have a gradual transition from public to private space (See Figure 7), which is maintained by placing open space or a buffer between streetscape and housing space. This transition increases the sense of security within a community, as well as making the open space more a part of the community, encouraging a sense of responsibility for maintenance (Gehl, 63).

**Layout Concepts**

From this analysis of the relationships between components of a neighborhood, the ideal layout for any given neighborhood can be developed. The three following concepts show how these relationships may be applied despite varying levels of restrictions due to the existing layout.
of a community. One must keep in mind the cost and labor involved in altering streets and/or moving houses. With several options adapting to existing conditions, positive design can still be achieved without these immense costs.

The first concept (See Figure 8) would be the ideal compilation of the three relationships (shown in Figures 5-7). This could be applied in situations where there are few to no constraints within the existing neighborhood for altering streets or houses to this layout or utilizing the existing street layout. In this layout the housing is clustered around the open space while the open area still maintains visible connections to the streetscape. The open space also acts as a buffer from the street, creating a gradual transition from the more private housing area.

However, the existing site may be constrained by a more traditional linear layout of the streets that cannot be so altered as in the first concept. Thus, concept two (See Figure 9) shows how certain lots could be transformed into pocket parks with linear open space along the street for buffering from the housing. In this case, there are still visual and physical connections between the open space and street, but the direct visual connection between the open space and
that housing not directly adjacent to it is replaced by a linear pedestrian connection.

In the previous concept, there was still some liberty taken with existing lots or structures by their conversion into pocket parks. The third concept (See Figure 10) shows the layout that could be created with even further constraints. For example, if all units are occupied and no empty lots are available, the open space is created with a linear zone in the setback between housing and street. This still provides a gradual transition between public and private spaces, but there is a different sense of community, with no central focus. The interaction occurs on a linear level.

![Figure 10 Neighborhood Layout Concept Three](image)

Within any one neighborhood, the existing layout may provide opportunities to apply all of these concepts at some level. These concepts display simple relationships between the components of a neighborhood. However, dependent on the existing site, a more complex combination of these concepts may be the most ideal solution.

**Design Details**

Within each of these neighborhood components: streetscape, open space and housing space, are many design details, which can impact a person psychologically. It is in these details that the richness of design emerges. The more consideration that goes into the psychology of each component of a neighborhood, the more positive the community will be.
Streetscape

As the most public area and the first impression of any neighborhood, the streetscape is very important in forming an identity and reputation. The entries should be well-defined to create an identity for the neighborhood and to signal to visitors that this area is special to its residents. The entries may be defined with trees, signs or accent plantings.

Another way to define a neighborhood apart from its' surroundings is with earth berms. Earth berms are one of the only ways to reduce noise from traffic aside from the construction of walls or other structures. If neighborhoods are adjacent to high traffic areas, they will have difficulty providing that sense of quiet and rejuvenation that a home should provide. Buffering noise level also eases conversations and interaction among neighbors and separates the neighborhood from high-speed passersby, giving it greater strength as an independent unit.

Once within the neighborhood, the streetscape can promote the identity of a neighborhood with street trees and pocket or median plantings. However, the streetscape is not only important in forming identity, but also in promoting safety and interaction. In residential areas, traffic is already generally slower than on highways or more high-traffic thoroughfares. However, street trees between the sidewalk and street can increase the sense of security for the pedestrian. Also, "slow traffic means lively cities" (Gehl, 79). Therefore, if a neighborhood can signal to drivers that it is a pedestrian, slow-traffic environment, it will promote interaction and liveliness. One way to signal to drivers to slow down is to reduce the widths of the roads (Sucher, 140). Another is to change the paving at crosswalks or create raised crosswalks at key crossing points for pedestrians (See Figure 11). These crosswalks are at the same level as the curbs, creating a
speed bump for cars and extra convenience for pedestrians. Another benefit of this would be the promotion of foot traffic in the neighborhood, which increases opportunities for interaction.

Fig. 11 Raised Crosswalk (Suche; 141)

A final detail improvement for streetscapes is the removal of parking from the street. This is both an aesthetic and safety issue. It is certainly more enjoyable to look down a street without cars, many of which may be “junkers” that the owner is in the process of repairing. However, it can also be much safer and more convenient. Firstly, children crossing the street cannot see beyond a parked car to tell whether a car is approaching or not. Also, people emerging from their cars must be careful of opening their door onto the street and then face the inconvenience of walking the greater distance from street to house. If parking is centralized to the housing or located directly adjacent to the housing it is more secure for the resident and can be more easily screened from view.

Open Space

Open space is probably the most important area of detail within a neighborhood as it ties together the public and private space and offers the most opportunity for community interaction. These areas should have well-defined entries that delineate while welcoming residents and visitors. Portals or gates can create this feeling, even if only composed of two distinct trees or accent plantings that mark an entry point. It needs to be clear that people are welcome, but also that this is a special part of the neighborhood that deserves respect.
In the same way, open space requires definition and limits. Limits refer in part to the amount of open space in any given neighborhood. One must be careful not to over-design open space or create open spaces in areas people would not naturally go. These areas tend to become unused or even breeding places for crime and vandalism. Open spaces should be located in natural stopping areas or areas central to the neighborhood. People will feel more responsible for their open space if it is clearly defined within their neighborhood and is therefore not a "no-man’s land." (Gehl, 173) Housing clustered around open space is the best way to create this clear definition because it relates the two areas physically and visually. Locating open space centrally also provides greater convenience for the residents and more opportunities for interaction.

The definition of open space also refers to the size of the area. "When the small dimensions of places exceed 450 feet, spatial definition is weak." (Jacobs, 277) One of the criticisms of low income housing has been that the open space is too big and undefined, making the resident feel exposed and insecure in this space (Gehl, 63). A small, well-defined area keeps the space manageable and comforting. Density of space also intensifies a person’s reaction to a space. If the open space provides enjoyable activity and interaction, clear definition and limits will intensify these positive emotions.

Within open space itself, people enjoy walking along the edges, which gives them the viewing diversity of both the edge detail and expansiveness of the open space at once. These edge areas also grant psychological security by allowing observation without involvement. People can watch from the sidelines and be a part of the action without feeling exposed. Because of people’s natural gravitation towards edges, there ought to be areas for standing or sitting. Promotion of
interaction occurs even at this smallest level of detail. For example, placing benches back to back or a great distance apart hinders conversation, while placing them face to face, or ideally at a 90-degree angle to each other aids interaction between people. In a pedestrian environment, such rest areas should be available at regular intervals, such as every 330 feet (164). This recommendation also relates directly to the convenience of pedestrian pathways.

For a neighborhood to be lively with foot traffic, it must be convenient as well as enjoyable to walk about. People desire the most convenient routes through a space. For example, if right angles are used in walking areas, pedestrians tend to take shortcuts. Therefore, designing with this in mind creates a more functional design that will also be enjoyed by the community. There are no useless paths this way. At the same time, it is better to avoid long, straight routes in the name of convenience. People desire variety and interest along the way to break up monotony. If there is a natural subdivision of a longer path with some degree of winding or destinations along the way, it will make the walk seem shorter and more manageable. This actually increases the convenience of the path psychologically despite slightly longer distances. Convenience of pedestrian areas also includes accessibility. People naturally resist changes in level to cross roads or reach a destination unless it is the only option available. Also, for disabled persons, curbs and steps can create complete inaccessibility. If a path must change from one level to another, the link ought to appear as "psychologically practicable" as possible (147). This can be achieved with ramps, long shallow steps, or an exciting visual connection that makes the destination especially desirable.
Housing Space

Though interaction is a primary component in a psychologically beneficial neighborhood, people still require space of their own as a private refuge. The private space of the home can help a person relax and revitalize their body and mind. Therefore, there needs to be clear definition to the entry of a home and a gradual transition from the semi-public open areas to the more private interior of the house. A clear definition of the entry gives greater security to the resident and makes it clear to outsiders that the area is not public domain. This also gives a greater sense of personal identity and ownership to the resident, increasing esteem levels.

A gradual transition from semi-public to private creates a semi-private space for the resident that allows involvement and connection to their community while still allowing an escape. This semi-private area surrounding the house would ideally create a natural "social distance" between the resident and passersby. As mentioned previously, Edward Hall defines the social distance as 4½ - 12'; the typical distance associated with ordinary conversation between friends, acquaintances and neighbors. Surveys in Australia, Canada and Denmark have shown that 10' is a good distance for front yards to allow conversation, but allow for escape from the intensity of too close contact (Gehl, 38). However, small spaces can create a sense of confinement, so the space must be defined psychologically without enclosing the space with physical elements that are overpowering. This also continues to promote visibility and interaction, aiding both safety and a sense of community.
Aesthetics, Integration of Uses and Visibility

There are three aspects of design details that are desirable throughout a neighborhood: aesthetics, integration of uses and visibility. These have been mentioned briefly in the previous sections regarding the components of a neighborhood. However, they permeate all aspects of a neighborhood so thoroughly that they must receive special mention here.

Aesthetics have often been a lower priority in affordable design. However, they play an important part in psychologically beneficial design by enhancing and giving identity to a community. People will not wish to stop in areas that are too bare, too featureless, or too regular in their design. In landscape design, a great part of aesthetics is dependent on plantings and greenspace (See Figure 12). The use of street trees can greatly enhance and soften the views down neighborhood streets. Vase-shaped trees are especially favored for this purpose because of their functional qualities of usable space under the branches along the street and their compatibility of shape with architecture and other plantings. Rounded trees can create comfortable areas of dense
shade and irregular trees create interest and contrast to the surrounding architecture. Evergreens provide year-round color while perennials and annuals can create pockets of seasonal color that brighten up streets, parks, entries and front yard spaces. Plantings can also be used to conceal parking areas or other undesirable views. The insertion of greenspace throughout a neighborhood can greatly increase its' value to the residents. The importance of aesthetics is obvious in recreation areas. People seek this out when looking to recreate. (Altman, 78) They would then naturally desire these same qualities in their living environment.

Interaction and the integration of uses are qualities of neighborhoods that have been mentioned many times previously in this book. However, they are vital to a psychologically positive neighborhood. A trend that began in the 1930s ignored the psychological aspects of design and moved toward spreading out and reducing outdoor activities in the name of funcionalism. (Gehl, 45-7) This has caused a decrease of human interaction in neighborhoods. Segregation of activity results in a self-perpetuating cycle of inactivity. Grouping common facilities and activity areas increases the opportunities for interaction, thereby strengthening the sense of community in a neighborhood. For example, if children are playing at a playground that is part of a larger park where older people are jogging or sunbathing, and there are also benches where others may sit and watch, activity continues to promote other activity. Visibility is closely related to this idea. If visibility exists between the different components of the neighborhood, people may be in another area and see activity occurring in the open space and therefore be drawn to participate. This also increases the amount of security within a neighborhood. People begin to feel involved in the spaces around them and therefore feel more responsible for the
appearance of that space. Obstructions such as privacy fences may define and enclose space, but they also suffocate small spaces and limit visibility. Lower fences, low walls or planting beds offer a better physical division without disturbing visual connections. Tall evergreens can cause similar issues with visibility, especially in terms of safety in park areas and near house entries. Evergreens are desirable for their year-round aesthetic qualities, but they must be used very carefully so as not to cause dangerous visibility issues within a neighborhood.

**Affordability for Low Income Housing Communities**

When designing for low income housing, so many of these design qualities are overlooked or dismissed in the name of affordability. However, good design is relevant to all life-styles and income levels. All neighborhoods can be psychologically positive, although the features may vary somewhat based on cost. Landscape costs are usually the first cut in a budgeted situation. It has been shown time and again, though, that good landscape planning can not only humanize and soften a neighborhood, but can also impact the psychological climate of a community.

There are two costs that are generally considered in any design: first time cost and long term affordability. Usually more emphasis is placed on first time cost rather than the long term. However, long term cost can really have a greater impact on the overall affordability of a design.

In dealing with first time cost, one of the best ways to alleviate this without sacrificing design quality is through the use of phasing and patience. Phasing spreads the design implementation over several months or years. This works because change does not happen overnight and it really doesn’t need to. A fresh new design is not likely to instantly revitalize a community,
Case Study

The first half of this book has discussed a number of general guidelines for psychologically positive neighborhood design. The second half shows how this knowledge can then be applied to a typical low income neighborhood. Certainly, when beginning with a new, as yet unbuilt neighborhood, psychologically positive design can be considered from the start. It is more of a challenge when dealing with a rehabilitation of an existing community of residents with its own history and character. In this case, new design elements must be integrated with existing ones and the values of the present users must be planned for.

Site Inventory and Analysis

This case study examines the neighborhood of Windsor Village, which is located in the city of Indianapolis, Indiana, to the east of downtown. The site is denoted by a blue-outlined star (See Figure 13). It is a small community of houses, shown in dark blue on Figure 14, situated within a larger neighborhood block. The entire neighborhood is bound by Arlington Ave. on the west, a rail line on the north, Shadeland Ave. on the east and 21st St. on the south. Interstate 70 touches just at the northeast.

Fig. 13 Site Context (not to scale)
Fig. 14 Direct Site Context (not to scale)

corner of the site. Surrounding the site within this block are primarily owner-occupied single family residences shown in light blue. There is also an apartment complex (in green) to the southwest corner which surrounds a small commercial area (in yellow). The commercial area contains a number of common amenities such as fast food, banking, a number of small stores and a gas station across the corner. Extending along the entire south face of the neighborhood across
21st St. is the Raytheon industrial plant shown in red. There are two churches directly adjacent to the site on the east and an elementary school just across Arlington Ave. on the west which are the pink symbols on Figure 14. There are many other such amenities: schools, both public and private; churches, medical centers, restaurants and hotels located very near the site, as well.

The site itself is composed of 184 double occupancy homes about half of which are actually occupied at present. The homes were originally built post World War II, from 1947-1951, as military officer housing for the Naval Air Warfare Center across the street (now Raytheon). After the United States Navy sold the housing, there were approximately fifty to sixty different owners until 1992, when the client began purchasing the homes, of which he now owns about ninety per cent. The annual income of the residents is generally between $10,000 and $20,000, and in some cases less than $10,000. According to the standard definition of low income and the current Median Family Income for Indianapolis (See footnote, p. 9), this figure is on the lower end. The housing itself tends to be repetitive in form (See Figure 15) and is characterized by large setbacks and bare lawns. There are essentially no trees within the site, while the surrounding neighborhood abounds in mature trees. The entries to the homes lack definition and often have no path from the sidewalk or driveway. The drives themselves are very exposed and inconsistent. Some are full-length to the house and some are half-length, just beyond the sidewalk. They are all composed of crushed stone.
The City of Indianapolis owns the park on the northern end of the site (See Figure 16). This park contains a number of nice amenities, including basketball court, swimming pool and an arts and crafts center. However, its location at the back of a neighborhood with a history of crime is less than ideal. It is in need of a better context within the neighborhood and a clearer connection to the surrounding community.

The vehicular circulation through the site, shown with a dashed line in Figure 17, is a combination of parallel linear streets and curvilinear streets near which houses have a more clustered feel. The street bordering the site on the east is Kitley. Parallel to this is Kenyon. Nimitz forms part of the northern border and connects Kitley and Kenyon to the apartments. Catherwood forms the western border and Admiral is the curvilinear road that runs through the site connecting Nimitz to 21st St. Finally, the small loop in the center is Commodore. Pedestrian circulation parallels the streets on both sides in the form of concrete sidewalks. The two main entries, shown as yellow stars in Figure 17, are at the corners of Catherwood Ave. on the west and Kitley Ave. on the east. Catherwood is the location of the realtor's office and parking area, while Kitley bears the entry sign and occupancy information (See Figure 18). There are four public bus stops, shown as orange ovals in Figure 17, providing more than ample convenience to public transporta-
Fig. 17 Circulation Routes, Entries and Public Transportation (not to scale)

Fig. 18 Windsor Village Entry Sign (60 Kitley Ave.)
Fig. 17 Circulation Routes, Entries and Public Transportation (not to scale)

Fig. 18 Windsor Village Entry Sign (60 Kitley Ave.)
tion. However, most of the residents work in the hotels and restaurants nearby and either walk to work or drive themselves. Probably only about ten to twenty percent of the residents use the public transportation.

Negative visual impacts to the site include the Raytheon industrial plant to the south and the apartment complex to the southwest. Because the housing was originally built to serve the facility that is now owned by Raytheon, historically there has been a need for a connection between the two. Now that the neighborhood is independent of this industry, it needs to develop an identity of its own. The industrial plant instead creates a need to buffer the neighborhood from its strong visual impact (See Figure 19). The apartment complex is a beneficial part of the community in terms of promoting mixed density and lifestyles. It also buffers the site from the nearby commercial area. However, the complex often turns its back on Windsor Village and views to it down Nimitz Ave are very exposed, thereby creating a definite negative visual impact on the site (See Figure 20).

In regards to auditory issues, only one area impacts the site significantly. The location of the railroad and Interstate 70 to the extreme northeast corner of the site and atop a high ridge
reduces any significant noise issues from these sources. However, 21st St. along the southern edge of the site is a four-lane high-traffic road. This is convenient for visibility of the neighborhood to the community, which presents opportunities to draw visitor in to utilize the park or the neighborhood. The traffic noise, though, is a clear detriment to the privacy and sense of peace and quiet within the neighborhood. It especially impacts those houses facing onto 21st St., as well as creating difficulty for those residents pulling out of their driveways along this street.

Psychologically, a major constraint to revitalization of the site is the past reputation this neighborhood has had for criminal activity. Between 1992 and 1996, it has been known as one of the worst crime areas in Indianapolis. According to the Indianapolis Police Department Uniform Crime Reports, the number of reported crimes in this area, including homicide, rape, aggravated assault, burglary and vehicle theft, rose from 201 in 1994 to 282 in 1996. However, since the client began purchasing the homes and working to eliminate
criminal activity, the crime levels have certainly decreased. In 1997, the numbers of crimes dropped suddenly to 197, still well above the average, but certainly a drastic improvement. One of the measures the client took towards decreasing the crime was the placement of temporary barricades across three intersections to cut off escape routes for criminals (See Figure 21). This approach was so successful that two of the barricades were removed and only the one adjacent to the site at the north edge of Nimitz remains today (See Figure 22). It is also beneficial that the barricades were removed because though they successfully reduced crime, they are not a positive component psychologically to the site. This type of barrier, like barbed wire around prisons, increases the sense that the area is unsafe to require such security measures.

A final important aspect to the analysis of Windsor Village is the resident distribution throughout the site. Figure 23 shows the relationship of occupied to vacant housing with the occupied areas in red and vacant structures in blue. This high rate of vacancy provides potential for open spaces and manipulation of the neighborhood layout.
Client/Users

Generally, in this type of design situation, the client is defined as the realtor or landlord of the housing, while the user is a combination of the residents within the neighborhood and the surrounding communities. When designing for a positive psychological impact, the primary focus of design should be the user. If the user is satisfied with their environment, the neighborhood will inevitably become livelier and more beneficial for its residents. If this is the first priority, the satisfaction of the client will inevitably follow as occupancy rates increase.

Program Requirements

Because the goal of this project is to utilize physical design to create a more psychologically beneficial living environment, the program emerges as a priority list of those needs that are most valued and most lacking in the existing community. As mentioned earlier, a survey was utilized for this project to determine resident perceptions and values regarding psychological qualities in their neighborhood (See Appendix B). Residents were asked to first rate how well their neighborhood on a scale from one to five, one signifying not at all and five signifying very well. On the second page, the residents were asked to rate how much they value each of the qualities from one (not important) to five (very important). Surveys were sent to all occupied addresses in Windsor Village and approximately seven percent were returned with responses. This quantity was a bit lower than desired. However, the responses were fairly consistent with each other despite varying ethnic diversity, income levels and family types and were also fairly consistent with expectations based on the analysis of the site.
To determine the program, the ratings for each quality were averaged and the averages were compared between the existing neighborhood and the value of the quality. From this comparison came the priority of needs to be addressed. Appendix C shows the calculations of these. The top priority for Windsor Village is safety. This is followed by a need for beauty and nourishment, which have the same priority level. The next priority is variety/interest, followed by quiet. Then came cleanliness, structure/identity, spaciousness and finally, friendliness. These qualities are all important in positive design of a neighborhood, but greater emphasis and more immediate consideration should be given to those most desired by the residents of a community.

**Master Plan**

For purposes of affordability, this master plan is laid out in three phases, to be implemented over time. The phases focus primarily on general layout and site planning recommendations, rather than specific planting design or detailed site design. Some specific materials are recommended in the interest of safety, aesthetics and affordability. General guidelines for plant materials are presented following the descriptions of all three phases, as well as a review of applicable methods of long-term affordability. Each design element is chosen to fulfill the needs expressed by the residents by utilizing elements of positive psychological design as defined in the background research.

**Phase 1**

The first phase (See Figure 24) deals primarily with safety issues in the streetscape and aesthetics of the neighborhood. The primary entries at Catherwood and Kitley both need more definition as entry points, welcoming visitors and creating identity and a sense of security for the
residents. Medians at these entries help to slow drivers upon entering the space and add color and identity to the neighborhood. The creation of an earth berm along 21st St. between Kitley and Kenyon increases this sense of identity by beginning to buffer the neighborhood from both the traffic of 21st St. and the visual impact of Raytheon. The berm also increases privacy and quiet for those residents living directly adjacent to 21st St. It is not continued along the entire southern end of the neighborhood in this phase because of driveways, which are the only access

**PHASE I**

Entries
Raised crosswalks
Earth berm
Narrowing of streets
Street and drive improvements
Lighting
Bus stop removal

Fig. 24 Master Plan-Phase 1 (not to scale)
The implementation of raised crosswalks at key intersections, entries and areas of future open space begin to define the neighborhood as more of a pedestrian environment while signaling drivers to slow down. This not only increases security and convenience throughout the neighborhood, but also improves the chances for interaction by slowing the pace of the circulation.

Fig. 25 Entry Section 21st and Kitley (not to scale)

The narrowing of Kitley, Kenyon and Nimitz, presently very wide streets, signals for drivers to slow down and creates greater psychological security by condensing the expanse of space. This narrowing of streets makes it necessary to remove the existing bus stop at the corner of Nimitz and Kitley. There are still ample bus stops along 21st St. and the removal of bus traffic from the neighborhood makes it safer and more pedestrian-oriented. Figure 26 shows improvements on the existing bus stop at 21st and Kitley.
Fig. 26  Entry, Berm and Bus Stop-21st and Kitley

The earth berm in combination with plantings and trees creates a pleasant waiting area sheltered from traffic and the visual impact of Raytheon while maintaining visibility down 21st to see buses approaching. Benches are placed looking down the street and inward to the neighborhood at an ideal angle for conversation.

Finally, street and drive improvements, which are more clearly visible in Figure 27 help unify the neighborhood and contribute to the security and aesthetics of the streetscape. This include street trees throughout the neighborhood, preferably a diverse assortment to maintain unity of design in case of difficulties with a single species. Street trees soften the hardscape of the street, provide shade for parked cars and soften views down the street.

Fig. 27  Close-up of Streetscape and Drives (not to scale)
Lighting must also be improved throughout the neighborhood for safety reasons. Considering the large setback on the lots, house lights are probably not sufficient to light the sidewalk areas. For this neighborhood, overhead tree lighting and grade-mounted uplighting (See Figure 28) is recommended to increase security without adding additional poles or structures to the site that deteriorate visibly over time.

Drive improvements and parking bays are added along certain streets, specifically the north side of Nimitz, the north and west sides of Commodore, the east side of Kenyon and along Kitler; the other areas will be developed differently in phase three. Basically, the plan adds consistency in length and placement to the driveways, adding visual unity to the streetscape and providing sufficient quantities of off-street parking for the residents. There is also a variation in the drive materials, shown in Figure 27, with the lower portion becoming a stamped asphalt concrete (See Figure 29) for a “cleaner” look closer to the street and extending across the sidewalk area. The upper portion of the drive remains as crushed limestone (See Figure 30), which is what exists presently. This variation adds visual interest to the driveways and improves the aesthetics of the streetscape without expensive
materials. Though the need for street parking is reduced with these driveway improvements, there may still be some need for extra parking for visitors.

The addition of parking bays, visible in Figure 27, within the streetscape provides a number of spaces while buffering the visual and safety impacts of parked cars with the narrower street areas. Because space is subtracted from both the street and the existing green areas between street and sidewalk to create the bays, there is the added convenience of stepping from car to sidewalk without the need for extra sidewalk construction. Figure 31 shows a completed view of how the street improvements soften the view to the apartments and buffer the impact of parked cars along the street.

Fig. 30 Section of Upper Driveway (not to scale)

Fig. 31 View to Apartments Down Nimitz
Phase II

The second phase is very important in unifying the entire site as a whole and creating a network of connections that increase the sense of security and belonging. Figure 32 shows the plan of the entire site at the completion of this phase. A central gathering area becomes the focus for the entire neighborhood from which pedestrian connections radiate out to different areas for

![PHASE II]

- Central open space
- Shelter conversion
- Connections to central space
- Entry/Office parking

Fig. 32 Master Plan-Phase II (not to scale)
convenient access. One such connection leads to the realtor’s office at the corner of 21st and Catherwood where this entry point is further developed with a parking area that supports the office, visitors and a few adjacent houses. This parking area is a prototype for others developed in phase three and to creates a cluster within the larger neighborhood group and focus the housing inwards, rather than to the high traffic 21st St. This also eliminates the need for these residents to enter and exit their driveways by means of this high traffic road.

The development of the open space (See Figure 33) is important in terms of integrating a variety of uses within a single area, which increases opportunities for interaction among the residents. The open space is created by the removal of the cul-de-sac and five vacant houses in the upper central portion of the site. Only the existing entry to the cul-de-sac remains as short-term parking for visitors. One of the existing houses remains and is converted into a shelter, half open and half enclosed with a grill and tables for picnics and community gatherings. The indoor area can be used on stormy or colder days or for a quieter meeting environment. A play area for younger children adjoins the open portion of the shelter for maximum visibility between the spaces. The central area would remain open for active
play and gathering space and a passive area enclosed with trees is located to the far western side of the park. The circulation within the park runs around the edges of the space with benches for resting and people watching. The paths are a Class II (See Figure 34), meaning they are four to five feet wide, accessible to all user groups with a crushed limestone surface compacted with limestone fillings for smoothness (See Figure 30). All the spaces within the park have visibility one to another and to the street. The greatest width, from the passive area to the play area is approximately 400 feet, which prevents the space from becoming too undefined. The smaller divisions of space also make the park more manageable. Housing enclosing the space defines the park as a part of the neighborhood, providing greater security and a sense of ownership and responsibility for the residents. Figure 35 shows what the shelter and children's play area might look like from the active open area.

Fig. 34 Class II Path Characteristics (not to scale)

Fig. 35 Central Park Shelter and Play Area
Phase III

This final phase completes the physical design of this project (See Figure 36). All the park and open space becomes unified with a linear park system along all the front setbacks. This area eases the transition from the public streetscape to the semi-private housing space by providing a semi-public area between the two. It creates an enjoyable environment for pedestrians.

**PHASE III**

- Linear parks
- Housing space delineation and improvements
- Parking clusters
- Continuation of 21st St. benchmark

Fig. 36 Master Plan-Phase III (not to scale)
throughout the neighborhood, connecting major nodes, such as the central open space and the city park at the north end of the site, and creating smaller nodes with colorful plantings and rest areas along its length. This area is delineated from the semi-private housing space by means of a low stone wall, visible only from the street side (See Figure 37). This wall signals to the passerby that the area is more private without suffocating the front yard of the home. The resident feels a

Fig. 37 Typical Section from House to Streetscape (not to scale)

sense of ownership for the more spacious park area in their setback while still having their own area that is more private, secure and manageable. As is shown in Figures 37 and 38, the front yard space varies in size from ten to twenty feet and the park area varies from twenty to fifty feet depending on the size of the setback. This adds variety to the front yard and porch areas and opportunities for the resident to have their own small gardens or porch areas in their front yard.
space. Figure 39 shows how the implementation of this linear park space in combination with street improvements can affect the appearance of the neighborhood.

It is also visible in this sketch that there are no driveways and no parking on the street. This is the final component of the master plan. This remaining area of housing (where driveway improvements were not made in phase one) becomes clustered around parking areas, forming groups within the larger neighborhood group (See Figure 36). This encourages interaction, provides security for parking, removes unsightly street parking and allows those houses along 21st St. to have more convenient access in and out of their homes. At this point, the berm can be completed along 21st St., providing even more buffering from traffic noise and the visual impact of Raytheon.
Neighborhood Lifestyles

In the completed master plan, three distinct living styles become apparent: three neighborhood types within one neighborhood to offer choice and variety to the residents. Figure 41 shows these three areas. The area in red is traditional linear housing, which is characterized by straight roads, driveways and only linear connections to neighbors and pocket open spaces connecting to the central park area. The second (in green) is the central park housing, which provides a cluster of housing around a central gathering space that is also accessible to the street and surrounding neighborhood. Lastly is cluster housing (in blue), in which driveways are removed and a cluster of housing shares a parking area. In this way, the parking is a secure area for those residents, those living along 21st St. have a new inward focus and needn’t enter and exit onto such a high traffic road. This area, also, is broken up by pocket open space connecting to the central park.

Planting Recommendations and Affordability Methods

Though this project does not focus on specific planting design, the careful selection of plants is very important to both psychological impacts of design and affordability. General guidelines for plant types in neighborhood design are identified in the background research (See p. 32). Those same recommendations apply in this case study, as well. It should also be mentioned that plant species should be selected based on their suitability to the climate and urban environment. For example, on this site plants along the street scape should be able to tolerate road salt. All plants should be durable, require little maintenance, not interfere with sidewalks or structures and not create safety issues from loss of visibility.
Durable, low-maintenance plant materials will naturally reduce long-term costs. For example, planting hardy perennials in medians and in beds along the linear park will eliminate or reduce the need to mow turf. Strategic planting of trees in order to shade housing from hot summer sun and shelter it from cold winter winds increases the energy efficiency of the structures, which also reduces long-term costs.

This scope of this project does not include an in-depth investigation into the development of neighborhood programs, but this is another great way of increasing interaction and reducing long-term costs of maintenance. As was mentioned in the background research, the community can work together to install trees and plantings throughout the neighborhood (See p. 34). The city can also become involved with the provision of materials and by hiring a member of the community as a coordinator for neighborhood maintenance. Though the physical design is very important in creating opportunities for the satisfaction of psychological needs, the community is who is ultimately responsible for making the effort to participate.
Summary

Certainly the physical design is only one step in the creation of a beneficial living environment. Social and economic factors are also extremely important. This project offers only a small portion of the potential methods for the design psychologically positive low income neighborhoods.

However, the primary goal is to stress the importance of considering the psychological impacts of design when approaching any one site. It is vital to create a space with the perceptions of the user in mind. Spaces should provide security, community, comfort, beauty and a true sense of home. The user is the only one who can determine if these needs are being satisfied in their neighborhood. Therefore, the user must be the central focus of any design.

This is especially applicable in low income neighborhoods. Numerous such communities were originally developed for pure functionality and affordability, with little consideration for the psychology of the space. This has resulted in neighborhoods that lack liveliness and interaction, that are bland, unsafe and undefined. These designs of the past must be re-evaluated for today's user needs. The presence of people in a designed environment must be recognized and nurtured so that neighborhoods such as Windsor Village will not linger and fade, but experience rebirth and revitalization.
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Appendix A

Sidney Brower’s Neighborhood Qualities
(Brower, 98-106)

Qualities Associated with Ambience

1. A place that is clean and well maintained.

   People want to live in a place that is clean and tidy, where buildings and spaces are well maintained. Such places look more attractive and safer. There is general agreement on this quality; nobody thinks that a neighborhood is better if it is dirty or poorly maintained. This is the most frequently mentioned quality in satisfaction studies.

2. A place that is quiet and relaxing.

   A good neighborhood is a place that is peaceful, that offers a break from the hurry and anxiety of the work place. It is a place where one can unwind. This shows up frequently in satisfaction studies.

3. A place that is entirely residential.

   It is good to live in an area that is dedicated solely to the needs of home and family life; where there is no need for compromise in order to satisfy competing uses. This is cited in many satisfaction studies. Its value is questioned by those who find the results to be lacking in interest and identity.

4. A place that has a definite center.

   There should be a central place that serves as a geographic focus, where everyone goes, and with which residents identify as a community. This is a basic form of spatial organization, popular with designers.
5. A place that is right in the center of activity.

   It is desirable to live in a place where you will be an on-the-spot participant in the latest events, activities, and fashions.

6. A place where neighboring homes are close to one another.

   One needs a certain density in order to achieve an active and lively environment and to support effective public transportation. This is associated with a desire for an active environment. It is a quality that is present in many models, and is much promoted by public planners as a way of achieving efficiency and creating a good place for walking.

7. A place that is full of surprises.

   It is good to live in a place that is constantly changing, one that is never altogether predictable, never gets boring. This is a quality whose aesthetic value is much favored by urban designers.

8. Living here, one can manage without a car.

   It is convenient to be able to walk to most places one wants to go and not to be dependent on the automobile. Walking environments are also healthier and more pleasant. This is a quality of in-town neighborhoods that is frequently cited in satisfaction studies. Walking neighborhoods of the past are cited as models for new development.

9. A place with convenient public transportation.

   Living in a place with public transportation increases the range of one's activities without having to use a car. This is frequently mentioned in satisfaction studies.
Qualities Associated with Engagement

10. A place where residents feel safe and secure.

One wants to live in a place where residents feel that their person and property are not threatened. This is a generally agreed-upon quality; nobody prefers an unsafe neighborhood. This was the most frequently mentioned quality in a number of satisfaction studies.

The following seven qualities (11-17) suggest engagement with many diverse people.

11. A place with world-class restaurants, stores, and cultural facilities.

People enjoy living in a place where there is always somewhere to go, where there is something interesting and desirable to see and do. It is often cited as a reason for choosing to live downtown, and its absence is cited as a reason for dissatisfaction with existing downtown areas. It is considered quite undesirable in many suburban neighborhoods.

12. A place where there are many tourists.

The presence of tourists means that there are always new people, that there are places to go that are unique and unusual, and that these places are economically viable. It is cited by residents who find satisfaction in a lively and diverse environment.

13. A place that suits the needs of newcomers.

No one wants to live in a place where one can easily get lost, and where one is unwelcome. Designers stress the need for a clear organization of the physical environment.


Many people, not only newcomers, want to live in a place where it is easy to make new friends and acquaintances and perhaps to meet a mate. It is a quality that is particularly attractive to young people and newcomers.
15. One can have an active social life close to home.

Having friends and acquaintances living nearby makes it easier to get together informally and on the spur of the moment. This is a quality that is credited with attracting people to in-town neighborhoods.

16. A wide selection of goods and services close to home.

It is convenient to be able to find what one needs without traveling outside the neighborhood. This appears as an important quality in many satisfaction studies.

15. One can have an active social life close to home.

17. Living here you do not have to spend as much time caring for the house.

People like being relieved of the chores of housekeeping. In the past, there have been many schemes for relieving the drudgery of housework. It is cited by people who move into apartments and condominiums. It is particularly attractive to singles and to families in which both parents work.

The next seven qualities (18-24) suggest a more intimate form of engagement, largely with people who are compatible, known, and familiar.

18. A place where neighbors are outgoing and friendly.

It is reassuring to live in a place where residents feel accepted and where they develop a strong sense of belonging. This is cited with great frequency in satisfaction studies. Oddly enough, it is cited both by people who prefer country life to city life and by those who prefer in-town neighborhoods to suburban ones.

19. A place to put down roots and settle.

It is good to live in a place that is stable, and one can make a long-term commitment to living there. This shows up in satisfaction studies. It is related to confidence in the future and willingness to invest.
20. A place where most people know one another.

Many people enjoy living in a place where they are known and where they do not have to deal with strangers.

21. A place where one will always meet people one knows.

One feels more at home in a neighborhood that has its own facilities and where these facilities develop a local flavor. This is related to the idea that local institutions bring residents together to promote friendship and a sense of community.

22. A place where people take care of one another.

It is good to live in a place where neighbors are kind and thoughtful and can be depended upon for help in case of need.

23. A place where relationships are long-lasting and personal.

Many people like to live among people whom they know well and whose friendship will withstand the test of time. This shows a preference for settled, stable neighborhoods where there is little change.

24. A place where residents are involved in community affairs.

One feels more in control in a neighborhood where residents take an interest in the common good and are prepared to work together to solve common problems. The importance of a strong community is cited in many satisfaction studies.

The next two qualities represent a somewhat different viewpoint—a wish not to engage with one’s neighbors.
25. A place where there is no pressure to socialize or join anything.

Some people prefer living in a place where they are free to participate or not as they want and where certain people do not try to impose their values on others. This is cited in some satisfaction studies. It is one of the reasons given for preferring life in a big city to that in a small town.

26. A place where residents are private and go their own ways.

Some people choose to remain anonymous. They prefer living in a place where the neighbors mind their own business, where they can have privacy without isolation. This is cited in some satisfaction studies.

**Qualities Associated with Choicefulness**

27. A place that has a reputation as a desirable place to live.

There is general agreement on this quality. No one prefers a place that has a bad reputation. It is good to live in a place where the people you respect live, and where property values appreciate. This quality is frequently mentioned in satisfaction studies.

28. A place where all residents have a similar life-style.

It is common to want to live among people who have the same values and customs as oneself; they are more predictable and more considerate of one's interests, and they are better role models for one's children. This is frequently cited in satisfaction studies. In-town residents, however, say that it makes for conformity and that it is this that made them move from the suburbs.

29. A place that is protected from the larger problems of society.

Some like to live in an area where they are not exposed to people who may threaten their values and way of life. This is cited in many satisfaction studies.
30. A place to raise children.

Parents prefer a place where their children need not be confined and where they will have friends, the schools are good, and the neighbors are suitable role models. This shows up frequently in satisfaction studies, especially in the responses of residents who live in suburban areas.

The following quality presents an alternative viewpoint.


It is interesting to live among people with different customs and viewpoints. In such an environment there is less pressure to conform to a norm, and you are free to be whoever you want to be. This is desired by people who choose to live in in-town neighborhoods.

Finally, there are different views about the level of sophistication that is desirable in a neighbor.

32. A place one can find sophisticated neighbors.

Some residents like to live among people who are educated, interesting, and not bound by tradition. This is one of the qualities that attracts young, ambitious people to cities.

33. A place where neighbors are genuine and down-to-earth.

Some like to live with people who are open and honest, who are easy to befriend, and are not fooled by pretensions and superficial impressions. This reflects a desire to return to the simple life, where people do not try to dissemble and things are the way they seem.
Appendix B

Resident Perceptions/Values Survey

Existing Neighborhood

The purpose of this second group of questions is to evaluate how you feel about your neighborhood in its present state: what you like or dislike about its appearance or layout. I have listed a number of emotions and feelings a neighborhood can produce. Please rate each from 1 to 5, meaning that your neighborhood provides this very well and 1 meaning that your neighborhood does not provide this at all.

<table>
<thead>
<tr>
<th>NOT AT ALL</th>
<th>SOMewhat</th>
<th>VERy WELL</th>
</tr>
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<tr>
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<td></td>
</tr>
<tr>
<td>Safety</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Beauty</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Friendliness (Welcoming)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Variety/Interest</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Convenience (to commercial amenities, public transportation, etc.)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Specialness</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Quiet</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Structure/Identity</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Nourishment (emotional/sense of home)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

If you would like to make more specific comments on how your neighborhood does or does not produce these emotions or qualities, please write them on the back of this sheet.
Values

The final portion of this survey will list the same set of emotions or feelings as the previous page. However, for this section, I would like you to answer not according to what your neighborhood provides, but according to how much you value those qualities in a community. Please rate each on a scale of 1-5, 5 meaning something you value greatly and 1 meaning something you don’t feel is very important at all.

<table>
<thead>
<tr>
<th>NOT IMPORTANT</th>
<th>SOMEWHAT IMPORTANT</th>
<th>VERY IMPORTANT</th>
</tr>
</thead>
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<tr>
<td>Cleanliness</td>
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<td>Safety</td>
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<td>2</td>
</tr>
<tr>
<td>Beauty</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Proximity</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Proximity</td>
<td>(Welcoming)</td>
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</tr>
<tr>
<td>Variety/Interest</td>
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<td>2</td>
</tr>
<tr>
<td>Convenience</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(to commercial amenities, public transportation, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spaciousness</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Quiet</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Structure/Identity</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Care/Neighborhood</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>(emotional/sense of home)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you would like to make more specific comments on what you value or don’t value about those emotions or qualities, please write them on the back of this sheet.
### Appendix C

**Survey Results**

<table>
<thead>
<tr>
<th>Needs</th>
<th>Existing Neighborhood</th>
<th>Values</th>
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</thead>
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<td>3.77</td>
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<tr>
<td>Convenience</td>
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<td>4.31</td>
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<tr>
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<tr>
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<td>2.31</td>
<td>4.23</td>
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<tr>
<td>Structure/Identity</td>
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</tr>
<tr>
<td>Care/Nourishment</td>
<td>2.23</td>
<td>4.54</td>
</tr>
</tbody>
</table>
Needs in Priority Order

» Safety 2.46
» Beauty 2.31
» Care/Nourishment 2.31
» Variety/Interest 2.00
» Quiet 1.92
» Cleanliness 1.77
» Structure/Identity 1.69
» Spaciousness 1.62
» Friendliness 1.54
» Convenience 0.54