

# Core Commercial Areas

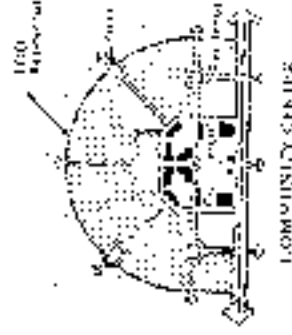
## Core Commercial Areas Size and Location

The core commercial area may mix ground floor retail, office, and commercial space. It must occupy at least 10 percent of the total town square area and have a minimum of 1,000 sq-ft of retail space adjacent to the transit stop.

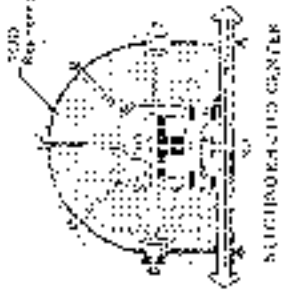
Mixed use core commercial areas are the primary link between transit and land use. Sufficient retail and commercial space must be provided to form a central shopping center and create opportunities for residents and employees to run errands during lunch time or while traveling to and from work. Without shopping opportunities within convenient walking distance, residents and workers will use their cars for more trips and will lose an incentive to use transit.

While commercial uses do not need to be concentrated in a single location, a minimum amount of retail space should be directly accessible from the transit stop. Appropriate uses include retail shops, professional offices, service companies, dry cleaners, restaurants, cinemas, health clubs, and other entertainment facilities. Small hotels, pet shops, and single room occupancy hotels are also encouraged to provide a greater sense of accommodation and potential transit destinations and to provide needed housing.

The size and mix of uses in each core commercial area can vary depending on the size, location, and overall function of the site in the region. It should, at a minimum, serve as a convenience shopping area for both the Secondary Area residents



and employees. Types of commercial uses include: convenience shopping and service (10,000 to 25,000 sq ft); neighborhood centers with a supermarket, drugstore, and support uses (5,000 to 10,000 sq ft); specialty retail centers (5,000 to 10,000 sq ft); and community centers with convenience shopping and department stores (10,000 sq ft or greater). Other employment generating uses can be included within the core commercial area to provide a balance to shopping and residential uses.



Street-level retail, office, and service commercial space should form a pedestrian-oriented circulation system that is accessible from the surrounding neighborhood without requiring use of an arterial street. Office and employee-intensive light industrial uses should be located adjacent to the shopping portion of the core commercial area. In redevelopment areas where a connecting street is not possible, at least one pedestrian pathway is required from surrounding areas. Core commercial areas should also be designed to encourage shopping during travel to and from the transit stop or at mid day by office workers.

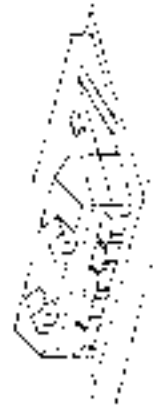


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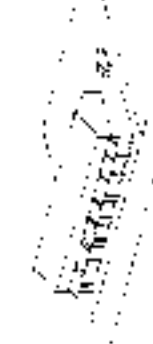
## Office and Retail Intensities

Intensive office and retail development is strongly encouraged to best utilize land surrounding transit stops. Where feasible, structured parking is encouraged. Offices without structured parking must have a minimum 0.35 Floor Area Ratio (FAR).

Retail must have a minimum FAR of 0.30 with surface parking. For both office and retail development, higher than minimum FARs are strongly encouraged; maximums should be set by local plans.



0.60 FAR



0.35 FAR



0.30 FAR

As land values in a region rise, structured parking in selected locations will become economically feasible. This guideline encourages development of multi-story buildings for office and retail uses with structured parking, thereby allowing more efficient use of land in a TOD. Floor Area Ratios represent the proportion of building square footage to land area. For example, an FAR of one would allow either full coverage of the site with a single-story building, or a two-story building that covers only 50% of the site. Additional setback and build-

ing height standards further clarify the intended character of a building.

Office areas should promote efficient utilization of land near transit stops. These can encourage multi-story buildings and structured parking whenever possible. Larger office areas should be located in Urban TODs to create a major focus of symbiotic uses. Smaller, local-serving office areas create opportunities for small businesses in close proximity to retail and transit. Personal offices with attendant-serving uses should be given priority in location.

## Core Commercial Configuration

The configuration of shops at the core areas must balance pedestrian and auto convenience, visibility, and accessibility. While anchor stores may need to orient to an arterial road parking lot, smaller shops should orient to pedestrian "Main Streets" and plazas. Direct local street access from the local neighborhood is required.

The typical form of a suburban retail center is oriented entirely to the auto and parking. Smaller shops are dependent on their relationship to the anchor stores when arrival is only by car. TODs offer the opportunity for a

more diverse patronage, both from the traditional street access and from the walk-in neighborhood and transit activity. To attract foot traffic to local shops, the configuration of streets, entrances, and parking must





## Commercial Building Facades

Building facades should be varied and maintained to provide visual interest to pedestrians. Street level windows and numerous building entries are required in the core commercial area. Arcades, porches, bays, and balconies are encouraged. In no case shall the streetside facade of a building consist of an unarticulated blank wall or an unbroken series of garage doors.

Varied and interesting building facades are key to making a place "pedestrian-oriented." Streets with monotonous and unarticulated buildings are not conducive to pedestrian activity and make walking less appealing.

Building designs should provide as much visual stimulus as possible, without creating a chaotic image. Buildings should incorporate design elements at the street level that draw in pedestrians and reinforce street activity.



Streetside buildings should encourage window shopping, heavy foot traffic in and out of stores, and people watching from outdoor seating areas. Facades should vary from one building to the next, rather than create an overly unified frontage. Building materials such as concrete, masonry, tile, stone, and wood should be encouraged; glass curtain walls and reflective glass should be discouraged.

## Commercial Building Entries

Primary ground floor commercial building entrances may orient to plazas, parks, or pedestrian-oriented streets, not to interior blocks or parking lots. Secondary entries from the interior of a block are also permitted. Auction/tenant retail build-ings may have their entries front of street parking lots; however, on-street entries are strongly encouraged.

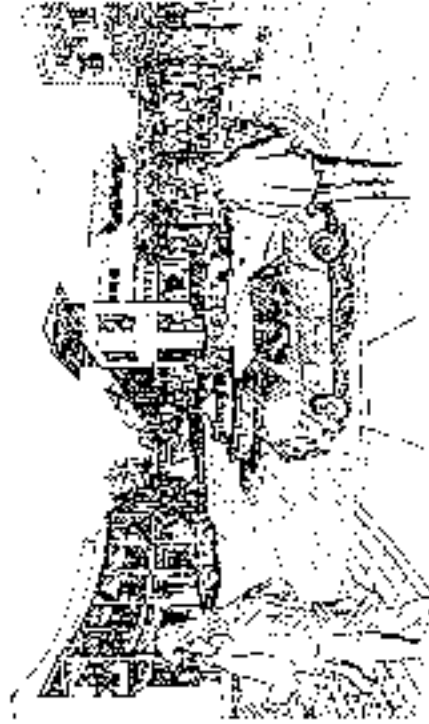
The pedestrian life of a building is at its entry. If the entry orients to parking lots, it steals the activity and life from the street. The main pedestrian route, while signaling that way, access is preferred.

Entries into small shops and offices should face directly onto a pedestrian-oriented street. Buildings with multiple retail tenants should have numerous entries to the street; small single entry malls are discouraged. Off-

street parking should also be located at the rear of buildings with "paseos" leading to the street and primary entrances. Handicapped access must be incorporated into the overall commercial area design.

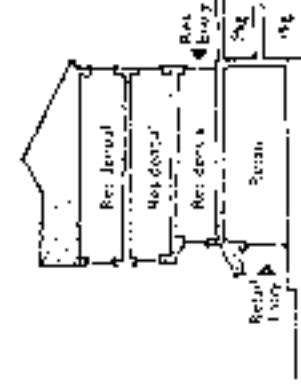
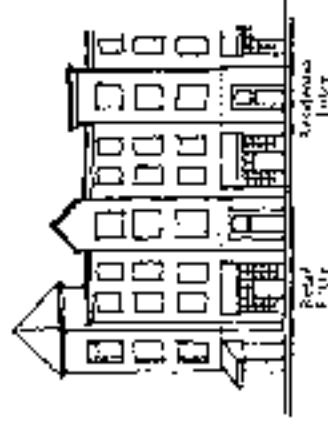
Some retail anchor stores (grocery stores, such as grocery stores, need parking, but access to the primary entry. In these cases, pedestrian access to the entry should also be provided from the street and configured so pe-

entrances are not required to walk through the parking lot to enter the store. Along walls without entries, building elevations should include windows and display areas, and/or be lined with small retail shops; secondary retail signage above these walls is also permitted.



### Upper-Story Uses

Retail developments in the core commercial area may exceed Floor Area Ratio standards by adding additional floors of residential and/or office uses. When using this bonus, the intensity of the retail use must not be reduced. The required amount of retail parking may be reduced while parking for residential units and office space must be added.

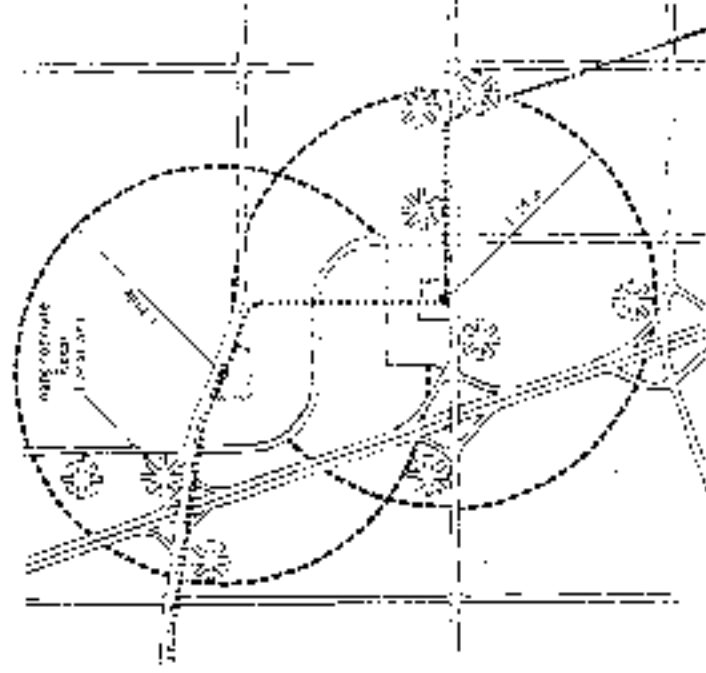


This density bonus for retail buildings is designed as an incentive for developers to provide office and residential uses in the core commercial areas. The amount of upper floor office or residential use may be determined on a site specific basis through the community plan or specific plan process. Special care must be given to the design of residential units to ensure privacy and security.

Taller buildings are encouraged in the core commercial areas to provide visual interest, a more urban character, street security at night, and to concentrate pedestrian activity. In addition, upper floor residential or office space can support the retail by bringing a greater number of lunch time and after-work shoppers.

## Proximity of Competing Retail

New neighborhood and convenience retail centers should be incorporated into TODs, as much as possible. New competing retail uses should be strictly limited within one mile of the core commercial area.















TODs engage in retail uses for a focus and pedestrian destination. Competing centers at locations which do not support transit or pedestrian-oriented neighborhoods can diminish the opportunity to build transit-oriented mixed use centers. Many General Plans, in fact, specifically encourage for commercial sites, thus disparaging the ability of an area to concentrate retail uses and create activity centers. Each growth area should be examined to determine whether the location of these commercial uses may be in conflict with the goals of promoting transit usage, encouraging walking or biking for some daily needs, and providing a network of streets that allows auto users to travel to local shops on local streets.

In order for the core commercial area to attract major anchor tenants and be economically viable, new competing retail centers must be limited through zoning amendments within the TOD's market area. This provides an incentive for development in Redevelopment and Infill Sites and is a key guideline to enable linear areas to function as strips. Strip commercial uses that extend beyond a reasonable walking distance of a transit stop should be limited so that businesses that fit transit use can capitalize upon their location and proximity to transit.

# Residential Areas

## Residential Densities

Residential densities within Neighborhoods must be a minimum of 7 units per net acre and a minimum average of at least 10 units per net acre. Residential densities within Urban areas must be a minimum of 12 units per net acre and have a minimum average of at least 15 units per net acre. Maximum densities should be set by local plans.

|   |   |   |  |  |   |   |   |   |   |   |   |
|---|---|---|--|--|---|---|---|---|---|---|---|
| <br>14-18<br>Acres | <br>16-14<br>Acres | <br>7-6<br>Acres | <br>8-70<br>Acres | <br>15-22<br>Acres | <br>16-42<br>Acres | <br>14-18<br>Acres | <br>10-45<br>Acres | <br>10-45<br>Acres | <br>10-45<br>Acres | <br>10-45<br>Acres | <br>10-45<br>Acres |
|---|---|---|--|--|---|---|---|---|---|---|---|

The range of permissible densities is designed to encourage transit ridership, as well as provide a variety of housing types. Residential densities are measured in net densities on residential land area. Minimum densities are established to avoid "squeezing" valuable transit-accessible land.

Small lot single family homes can range from seven to ten units per acre. Single family homes with ancillary units are feasible between 15 and 17 units per net acre. Ancillary units are calculated as 1 unit per lot. For example, a 4,000 sq-ft or smaller lot will create densities of 16 units per acre or greater if developed with an ancillary unit. Townhouses can provide between 15 and

29 units per acre. Apartment buildings up to three stories can provide densities of 35-50 units per acre. Actual densities should strike a balance between emphasizing the impact of development around transit stops and blending in with existing surrounding neighborhoods.

The required "minimum average" density requirement allows flexibility to respond to changing market conditions and encourages a mix of housing types. The range of permissible residential densities which can be combined to achieve this "minimum average" density is broad, with its maximum determined by the nature of the surrounding community.

## Ancillary Units

Ancillary "granny" units are encouraged to increase affordability and diversity. These units should be located in the single family portion of residential areas. The additional unit will be counted toward meeting the minimum average density requirement.

Ancillary units, or second units, create affordable rental units without changing the character and quality of single-family areas. They can also serve to offset housing

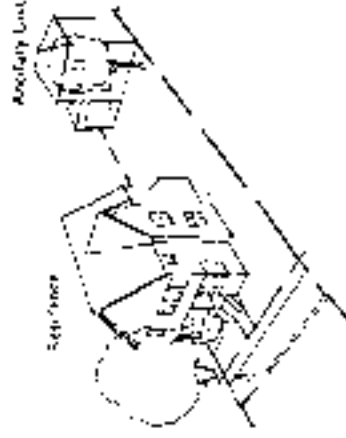
costs for the primary unit, provide needed space for a teenage or elderly family member, or act as transitional single family housing. Ancillary units can be

provided in residential areas, either as part of the primary home or above a garage. At least one off-street parking space is required for the ancillary unit. Development fees should be waived at recognition of the larger benefits provided by this type of housing.

Ancillary units will be calculated as an additional unit per lot. The following table illustrates the resulting density when ancillary units are provided.

| LOT AREA       | LOT SIZE   | NET DENSITY PER ACRE BY UNIT |             |
|----------------|------------|------------------------------|-------------|
|                |            | SECOND UNIT                  | SECOND UNIT |
| 7000           | 37' x 170' | 11 UDS                       | 22 UDS      |
| 1000           | 47' x 177' | 9 UDS                        | 18 UDS      |
| 700            | 43' x 159' | 8 UDS                        | 16 UDS      |
| Secondary Area | 37' x 150' | 7 UDS                        | 14 UDS      |
| Secondary Area | 43' x 150' | 8 UDS                        | 16 UDS      |

Ancillary units are strongly encouraged to provide rental housing opportunities and to meet the increasing demand for a variety of housing types. They also increase the density of an area without changing the pattern of single lot private ownership which traditionally has a very strong market. As a source of affordable rental housing they avoid the "institutional" character of many apartment projects and the segregation of low-income groups.



## Residential Building Setbacks

Residential building setbacks from public streets should be minimized, while maintaining privacy. Minimum and maximum front setbacks should be established that reflect the desired character of an area and ensure that residential address streets and sidewalks.

In most new residential areas, building setbacks should be between 10 and 15 feet from the property line at the sidewalk. In Redevelopable Areas and Infill Sites, residential setbacks should complement the setback of surrounding buildings. Where units are set above finished grade, such as over depressed parking areas, the setback may be reduced. If housing occurs over first floor commercial space, no setback is required. Poles, bays, and balconies should be allowed

to project into these setbacks to contribute to a street's human scale and activity. If resident all units are set back from the street, the area should be landscaped.

In residential areas, minimal front yard setbacks encourage reserved garages and dedicate a greater portion of the lot to private back yards. Reduced setbacks also create safer and more active streets. Residents can more easily watch over the street and know their neighbors.





## Residential Building Facades

Building facades should be varied and articulated to provide visual interest to pedestrians. Frequent building entries and windows should face the street. Front porches, bays, and balconies are encouraged. In no case shall a facade of a building consist of an unarticulated blank wall or an unbroken series of garage doors.

Varied and human-scaled building facades are key to making a place "pedestrian oriented." Building designs should provide a high level of visual interest, without creating a chaotic image. Residences should include design elements that enhance the streetscape and address the street. Porches and bays should face the street. Facades should vary from one building to the next to avoid a monotonous streetscape.



Varied and human-scaled facades enhance pedestrians' visual interest and sense of security along streets. Streets with porches and near facades building footprints make walking less appealing and are not conducive to pedestrian activity. Porches are the semi-private spaces that create opportunities for social interaction within a neighborhood and bring eyes onto the streets, rather than isolating communities behind garage doors.

## Residential Building Entries

Primary ground floor residential entries to multi-family buildings must orient to streets, not to interior blocks or parking lots. Secondary and upper floor entries from the interior of a block are acceptable. The front door to single-family homes, duplexes, and townhouses must be visible from the street.

In residential areas, the front door and guest entry should orient to the street. Private backdoor entries can provide access from alleys, garages, and parking lots. A

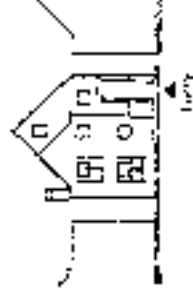
single security entry from an interior courtyard is permitted if additional entries are provided from the street. Accessory units and upper-floor units in multi-family or apart-



ment complexes may be accessed by rear entries.

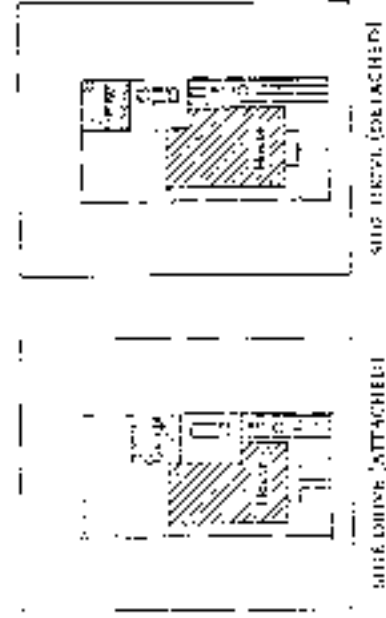
As with commercial uses, residential entries should face the street to encour-

age public activity and to welcome visitors from the on-street guest parking. Housing which "turns its back" on the street decreases the community and safety of a neighborhood.



## Residential Garages

Residential garages should be positioned to reduce their visual impact on the street. This will allow the active, visually interesting features of the house to dominate the streetscape. At a minimum, the garage should be set behind the front facade of the residential building. In single family areas, garages may be sited in several ways: (1) rear accessed from an alley, as the rear accessed by a side drive, or (2) the side recessed behind the front facade by at least 5 feet.

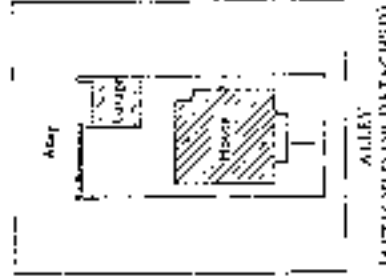


An active, pleasant, and safe pedestrian environment is created along streets when residents face the street directly. By recessing garages, more active living areas can overlook the street, allowing residents to keep a watchful eye on playing children and participate in neighborhood activity. This configuration also creates a more human-scaled and less monotonous environment by minimizing the visual impact of large, blank garage



doors and by minimizing the street with a variety of active room elements, such as windows, bays, and porches.

Garages must be sited away from the street, behind or below residential buildings. Where the garage is below residences, it should be depressed so that the first floor of living units is not more than about four feet above finished grade. Tandem parking is permitted and encouraged in garages.

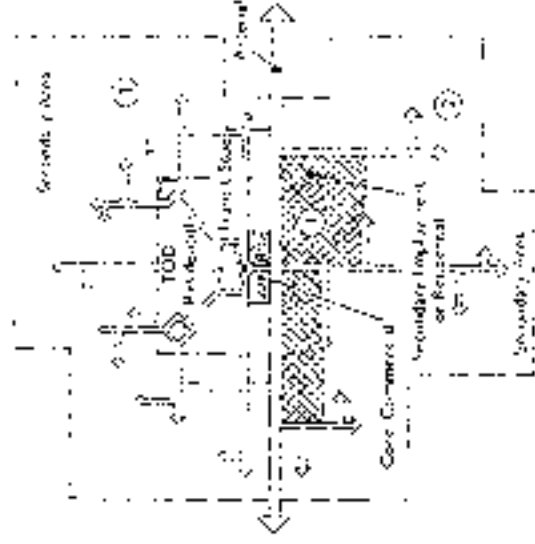


# Secondary Areas

## Types and Proximity of Secondary Areas

There are three types of Secondary Areas: (1) those separated by an arterial but close to the transit stop; (2) those separated by two arterials but further from the transit stop; and (3) those of greater distance but without arterial separation. Secondary Areas located across an arterial, but in close proximity to the transit, may be best suited for large scale employment, while those further from the core area should provide low density residential housing. Those with direct adjacency should provide low density housing, public schools, and community parks.

Secondary Areas provide an important support base for both the core commercial area and transit ridership. They also provide opportunities for low density residential development and large employment areas. If properly designed, Secondary Areas can reinforce the viability of the core and provide sites for land-intensive uses such as school sites, open space, and large community parks, as well as smaller employment too large to fit in the core.



The variety of uses possible within Secondary Areas should be placed in appropriate locations. Large employment sites should be located directly across the arterial from the transit and commercial core. Schools should be located for easy pedestrian access from all residential areas. Parks should be distributed within each neighborhood. Small convenience retail shops can help create neighborhood sub-centers along with parks and daycare facilities.

## Residential Quantities and Densities in Secondary Areas

The proportion of single-family to multi-family housing within a growth area should approximate demand based on local income and demographic trends. The minimum average residential density within Secondary Areas should be 6 units per net acre. Ancillary units will be counted as an additional unit per lot.

Secondary Areas provide opportunities for low density residential housing types that should not be accommodated in cores but are essential to ensuring diversity and choice. Secondary Areas also provide housing for the "move up" market and for larger families which still seek the advantages of proximity to the core. In some regions,

such as Postlards, goals are adopted to achieve a 30% split between single-family and multi-family housing. On average throughout the country, however, the split is closer to 60% single family 40% multi family. In other areas, a 70%/30% ratio may be more appropriate. Regional and sub-regional, socioeconomic income, age, and site trends should be used to establish the most appropriate ratio target goals.

A variety of low-density housing types and densities should be provided in Secondary Areas such that a minimum average density of 6 units per acre is maintained. To help meet this minimum average density, higher-density half-plexes and duplexes may be located on street corners or ancillary units could be provided. Customer facades at three units per acre can be balanced with small-but-ugly family units with granny flats.

## Non-Residential Uses in Secondary Areas

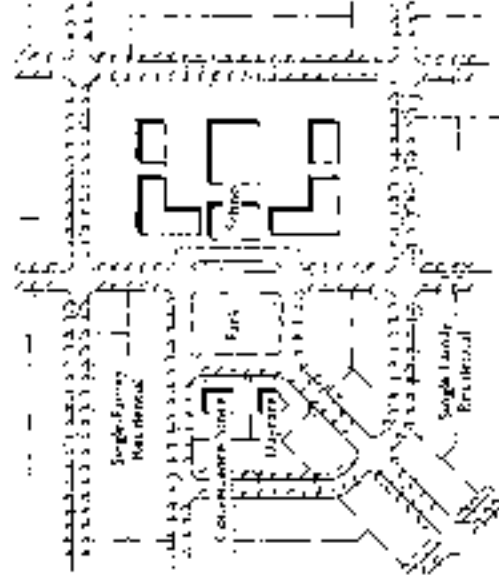
Those parts of Secondary Areas that are closest to the road may have select employment-generating uses and/or park-and-ride lots to complement the transit and commercial center. Daycare, neighborhood parks, schools, and small convenience stores, and public recreation facilities may also be combined to create neighborhood subcenters in Secondary Areas.

Secondary Areas should contain uses that support the road, but do not compete with the major retail, professional office, service commercial, and public uses in the core commercial area. In most cases, Secondary Areas will primarily comprise of low-density single family neighborhoods and parks. In limited cases, large single-use offices or light industrial uses with sufficient employment density to support transit may be located across the arterial from the core commercial area. These uses must generate an equal

Secondary Areas, but low intensity light industrial uses would not be considered transit-supportive.

Neighborhood parks, daycare, schools, and small convenience retail shops should be distributed throughout the Secondary Area to provide focus and identity for sub-areas. These sub-centers should not compete with the central commercial center but can provide a recreational and convenience destination within walking distance of each home. They should be organized to focus individual neighborhoods.

to generate an equal or greater number of persons per acre as generated by residential uses at a density of 2 dwelling units per net acre (approximately 16 persons/acre). For example, a typical office development will generate between 30 and 40 employees/acre, while standard industrial development only generates 10 to 15 employees per acre. A mix of these employment types would be appropriate for a close-in



Secondary Areas. Schools and large community parks are important elements shared by both the Secondary Area and the core. They should be located to provide easy and direct access to all the residential areas, most easily accomplished at the edge between Secondary Area and road. They should also be used as part of the bike and pedestrian linkage between the two areas.

## Streets and Bikeways in Secondary Areas

The primary roadway system in Secondary Areas must provide strong, direct connections to the top core commercial area and transit stop. Neighbored streets should provide non-segregated bikeways while central "connector" streets should provide marked bike lanes.

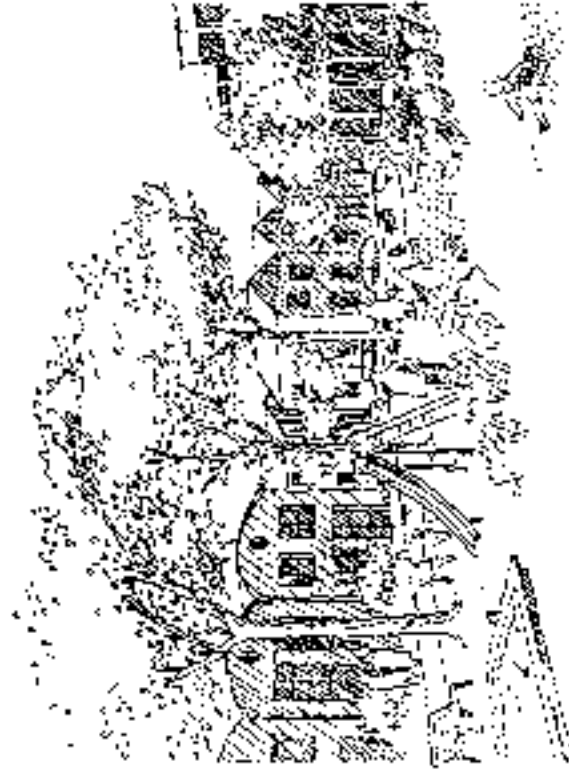
The street system within a Secondary Area differs from typical single family areas, because its street system allows direct access to the TOB and its commercial area without use of an arterial. In contrast, most suburban streets lead to collector streets and then to arterials as the only access to local destinations. A series of smaller "connector streets" that are pedestrian and bike-friendly should provide direct access to the center. Multiple connector streets will have lower auto speeds and smaller traffic volumes because the streets are narrow and because traffic is dispersed over several routes.

Because of the distances, bicycles are one of the most likely modes of travel for Secondary Area residents who are apt to use public transit. Strong bicycle connections that follow the shortest possible routes will provide additional management for Secondary Area residents to use transit. Arterials and selected connector roads ways in Secondary Areas must provide safe, separated or marked bicycle lanes allowing quick travel to the transit stop. Secondary Area bicycle paths should connect with the TOB bicycle system.

# Parks, Plazas, and Civic Buildings

## Location of Parks and Plazas

Parks and plazas should provide a public focus for each neighborhood. They should be located next to public streets, residential areas, and retail uses. Parks should not be formed from residual areas, used as buffers in surrounding developments, or used to separate buildings from streets.



Public parks and plazas are fundamental features of livable and enjoyable higher density communities. Parks and plazas in towns act as neighborhood meeting places, sustenance of activity centers, child care facilities, and lunch time picnic spots. Because their function is primarily "public activity," they are most appropriately located central to residential or core areas.

Park and plaza sites should reinforce retail and residential areas by creating places suitable for informal

gatherings or public events. Appropriate sites are centrally located and adjacent to streets and shopping areas. In many communities, parks and plazas are located on sites that are not suitable for other types of uses, such as under freeways, on oddly shaped parcels at the edge of a development, or within private residential or office complexes. These sites are not appropriate for public parks and plazas and rarely function effectively as such

## Size and Frequency of Parks

Parks should be developed throughout towns and surrounding Secondary Areas to meet on-site population needs. One- to four-acre village parks should be placed within two blocks of any residence. Five- to ten-acre neighborhood parks with large playing fields should be located at the edge of the city or adjacent to schools. Ten- to thirty-acre community parks should be placed along regional open space or bicycle networks. Total park acreage should be based on the quantity of residential development and/or equivalent to roughly 3 to 5% of the site area.

Small and frequent parks should be dispersed throughout residential areas to provide accessible destinations for children within a 100-foot or often, pass are appropriate for maintenance costs, and become too remote to be safe for foot or bike access. One- to four-acre sites can easily accommodate a useful range of active and passive uses for a variety of age groups. Bas-ketball, tennis, net-puts, picnic areas, gardens, and strolling areas are feasible at this scale. While two acres in typical city blocks is not



schools, where active play areas can be jointly used, and evening lights and occasional crowds can be managed. Their size reflects the needs of a large residential population and therefore they are typically shared by a TOD and its Secondary Area.

Many cities are now planning for very large "community parks." These 100- to 300-acre parks tend to serve populations of 25,000 or more and should be strategically placed to provide easy access for the broader community along both street and bicycle networks. Open space features, such as creeks, rivers, trails, and woodlands, can be incorporated as park amenities.

These smaller parks are also added; they are shallow enough for street and residential surveillance and they easily become the informal responsibility of local residents.

To preserve the compact, mixed-use character of towns, larger parks and playfields should be located in Secondary Areas. Mid-sized neighborhood parks, with soccer, baseball, and football fields, are often successfully placed next to elementary and middle

Open space features, such as creeks, rivers, trails, and woodlands, can be incorporated as park amenities. The standards for the ratio of park area to number of residents varies widely from city to city. A minimum of 3.5 acres per thousand population is advisable in towns, as parks enhance the quality of the public domain, create more convenient recreation areas, and provide open space for moderate- to high-density housing.

## Village Greens and Transit Plazas

Village greens and transit plazas may be used to create a prominent civic component to core commercial areas. Village greens should be between 1 and 3 acres in size; transit plazas may be smaller. They should be placed at the juncture between the core commercial area and surrounding residential or other uses.

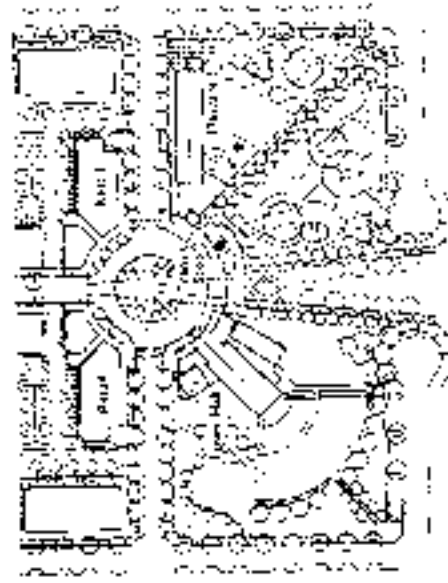
In most communities, the traditional "commons" has been lost to unroofed shopping centers and parking and mid-rise. Village greens, where workers meet during lunch time and shoppers see their neighbors, are rarely considered in modern sub-

urban. This essential piece of the commons once gave identity to the large community and acted as the physical glue between residential neighborhoods, commercial centers, and civic services.

A central public space may be used to reintroduce the public realm into the

core commercial area. Village greens and transit plazas should be placed adjacent to retail shops or the transit stop. Their character should vary based on their size, function, and purpose. In some cases, public buildings,

such as a town hall or day-care facility, may be placed within a village green. Transit plazas may incorporate "kiss-and-ride" drop-off zones, but should not be separated from the transit stop itself. Clear pedestrian arrows must be provided from the green or plaza to surrounding employment and residential areas.



## Park and Plaza Design

Public parks and plazas should be designed for both active and passive uses. They should reflect and reinforce the character of the surrounding area and accommodate the anticipated intensity of use. Their form should be coherent and identifiable, rather than residual. Their design should respect vistas created by streets. Plant types must reflect the local climate and history.

Various types of parks and plazas can be designed to establish an identity or character for each neighborhood. For example, plazas in commercial core areas may be more appropriately designed with finished hardscape materials such as stone or brick, and include fountains and seating areas; parks in residential areas could be developed with grassy fields, play equipment, and



sports facilities. Parks should not be situated on oddly shaped parcels or within private areas.

Because parks and plazas will be focal points of neighborhood activity, special consideration should be given to making these public spaces not only functionally appropriate, but consistent with the character and density of the surrounding area. Sensitive integration



of public spaces is also critical to public acceptance and commercial success.

Park and plaza landscaping should provide trees and plants that make comfortable, relaxing environments. The amount and location of such landscaping should be appropriate to and complement the character and design of the space. Landscaping should allow comfortable use in both summer and winter months.

Because parks and plazas form the spine of urban public spaces, trees and umbrellas to streets and other public spaces and buildings must be respected and

reinforced through design elements. For example, paths should align with important viewpoints; trees should not block views of significant public monuments or buildings; and perimeter landscaping should allow views into a park.

Public park and plaza landscaping should create places that are comfortable, safe, and linked with the overall network of public spaces. Flexible landscaping guidelines should be permitted so that a variety of spaces are created which reflect the role and character of the place.

## Community Buildings

Care services, such as community buildings, government offices, recreation centers, post offices, libraries, and daycares, should be placed in central locations as highly visible focal points. Where feasible, they should be close to the transit stop.

The reintegration of our civic and commercial world is essential to creating strong communities. Daycares, libraries, police and fire stations, and post offices should be located with retail areas or adjacent to village centers. Daycare should also be located in association with major neighborhood parks in Secondary Areas to contribute to the sense of identity of single family neighborhoods.

Community buildings can enhance the identity of an area, as well as reinforce connections with the past in older neighborhoods. Civic structures will contribute to the level of activity in TOD commercial centers and encourage walking and transit use by providing and employees. Community buildings associated with parks can contribute to the "defining" aspects of Secondary Area neighborhood



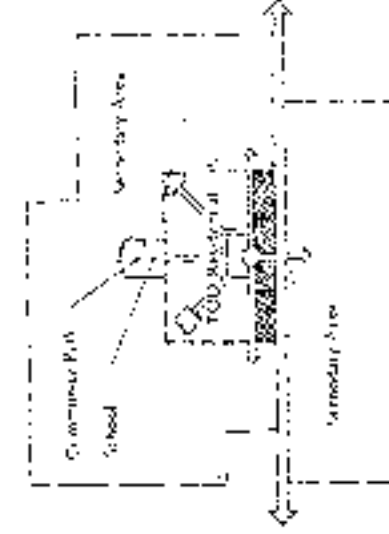
lands, as well. These parks and community buildings will help to differentiate one neighborhood from the next, and help to create a sense of activity apart from the core area.

The architectural quality of community buildings can elevate their prominence and user importance. Major building centers should face public streets and be strongly articulated. Massing and architectural features should be designed to take advantage of vistas along streets to visually connect these civic buildings with their surrounding neighborhoods. Major public buildings should have a civic presence enhanced by their height, mass, and materials. The architecture should convey a sense of permanence and importance.

## Schools and Community Parks

If needed, school sites and community parks should be located at the edges of cores within Secondary Areas. Strong pedestrian and bike links should connect these sites with the commercial and transit core.

While schools and community parks are not necessary appropriate uses within the TOD, they may be needed to serve the larger population. Schools and community parks should be located within convenient walking distance of the TOD, along pedestrian paths, streets, and bikeways which follow the shortest route to the commercial and transit core.

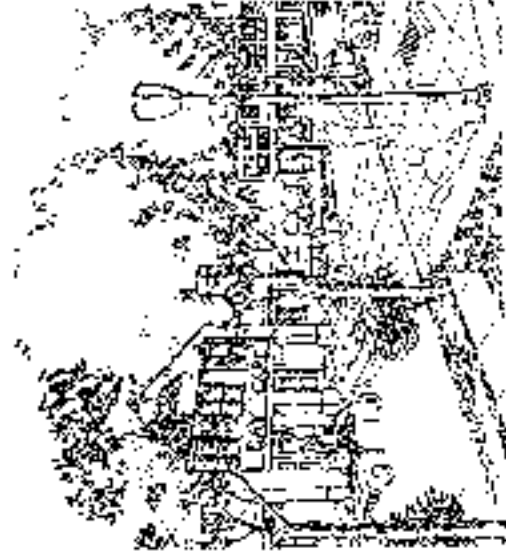


Studies of travel behavior indicate that roughly half of all daily trips are to local destinations such as schools, recreation, and shopping. If only a portion of those trips were made on foot or bike, the reduction of vehicle miles traveled would be significant. This further supports the importance of providing safe and direct street and bicycle routes for children.

## Daycare

Sites for pre-school daycare facilities should be provided in all TODs and Secondary Areas. They should be located en route in transit or within the core commercial area.

More households are and will be headed by double-income or single parents, creating a strong demand for childcare services. A basic objective is to provide housing opportunities for a variety of household types, and daycare facilities are increasingly a necessary daily part of residents' lives. Additionally, many parents now lengthen early morning and evening auto trips by driving to a childcare facility before commuting to work. Locating childcare facilities in TODs will not only provide a necessary service, but will allow parents to make the daycare



should be located at a local site to meet the needs of each school's students.

part of their transit commute trip, thus reducing vehicle miles traveled.

Daycare facilities should be convenient and accessible to local residents and employees. Sites should be located within residential neighborhoods, adjacent to parks, core commercial areas, and office buildings. The precise parcel size and size of the facility should be determined in conjunction with appropriate local agencies. Daycare facilities for school age children

# Street and Circulation System

## Street Dimensions and Design Speeds

Street widths, design speeds, and number of travel lanes should be minimized without compromising user safety on street parking, or bike access. Streets should be designed for travel speeds of 15 miles per hour. Travel lanes should be 8 to 10 feet wide.

The street network should create a safer, more comfortable pedestrian and bicycling environment. Narrower streets slow traffic and reduce accidents by requiring the driver to be cautious.

Local and "connector" streets should be designed or redesigned with their lane widths, design speeds, and number of travel lanes set to a minimum without compromising auto safety. This will help provide space for landscaping, bicycle access and on street parking.

Minimum street dimensions are amended to make streets more intimate in scale while providing for non-automobile service vehicle access. In areas where local

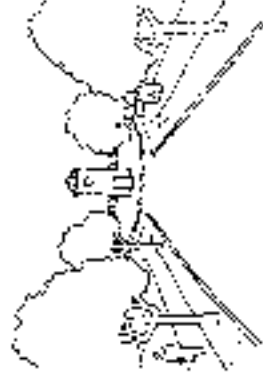


streets already exist, street widths should be evaluated to determine if improvements could be made to narrow pavement widths, for maintenance safety. Smaller street sections will also reduce crosswalk dimensions and result in curb savings which can in turn be allocated for pedestrian amenities. Slower design speeds will help keep traffic in residential areas moving slowly and safely. A high design speed often results in the broadening of street configurations that invite drivers to exceed speed limits. Within the quarter mile of the TOD there is no reason for a significant time saved by traveling faster than fifteen miles per hour.

## Street Vistas

Where possible, streets should frame vistas of the core area, public buildings, parks, and natural features.

Streets that frame vistas will establish a series of pedestrian "landmarks" to help make the community spatially memorable. Streets should be designed so they terminate at important buildings and places. Straight streets, in particular, allow clear views to landmarks and are encouraged, in a city with steep slopes, the street system should work



with the natural topography to accent important landmarks.

Visible landmarks help orient pedestrians and make walking routes interesting and memorable. Straight streets make destinations more accessible by making them visible; if a destination is visible, a person is more likely to walk to it.

## Street Trees

Shade trees are required along all streets. Street trees should be spaced no further than 30 feet on center in planter strips or tree wells located between the curb and sidewalk. Tree species and planting techniques should be selected to create a unified image for the street, provide an effective canopy, avoid sidewalk damage, and minimize water consumption.

Many streets are identified and re-numbered by their street trees. Streets should be lined with a limited selection of trees to give them a unified and distinct image. Adequate sight distances must be maintained in order to ensure safety. Within rows, trees should be placed in a planter strip or tree well between the street and sidewalk. In Secondary Areas that do not have planter strips, the trees should be kept close to the sidewalk to provide shade and should be aligned to visu-



ally frame the street. In all cases, trees should be trimmed regularly to accommodate bases and see-ice vehicles. Tree maintenance should be ensured through the creation of Landscape Maintenance Districts or other means.

Shade for the comfort of the pedestrian is key to creating a viable walking environment. Street trees help reduce heat build-up from large asphalt areas and create a cooler micro-climate. Trees also provide habitat for local birds and help create a beautiful community.

## Sidewalks

Sidewalks are required on all streets and must provide an unobstructed path at least 5 feet wide. Larger sidewalk dimensions are desirable in core commercial areas where pedestrian activity will be greatest and where outdoor seating is encouraged.

Comfortable sidewalks encourage pedestrian environments. The comfort and convenience of the pedestrian trip will reduce internal auto trips and restore the efficiency of the transit system by reducing destinations which are attainable without a car and origins which do not depend solely on park-and-ride transfer.

Many communities have discontinuous sidewalks. Plans must ensure that sidewalk improvements are pro-



vided throughout and constructed in a coordinated manner. A 5-foot clear sidewalk is a minimum width for two people to walk abreast comfortably. Larger sidewalk dimensions are desirable in the core commercial area where pedestrian activity

will be greatest and where outdoor seating is encouraged. Generally, sidewalk widths should be between 5 and 10 feet wide in rows; width should be determined based on location, context and role within the area.

## On-Street Parking

On street parking is encouraged on all streets, except arterials. On Redevelopable and Infill Sites, existing streets should be modified, as feasible, to provide on street parking and landscaping. Parking lanes should be seven to eight feet wide.

Street-side parking is even better to keep the focus of a community on the street rather than on the interior of lots. On street parking helps to create street activity, as well as provide functional spaces. It supports creating building entries to the street by providing convenient access for guests and patrons. Partial parking should be used most often; however, on street parking is encouraged along shopping streets within core commercial areas, where slow drive by traffic is desired. To maintain low speeds and emergency vehicle access, on-street parking should not be permitted on arterials.

On-street parking on local streets can also be compatible with bicycle travel, provided that auto speeds are



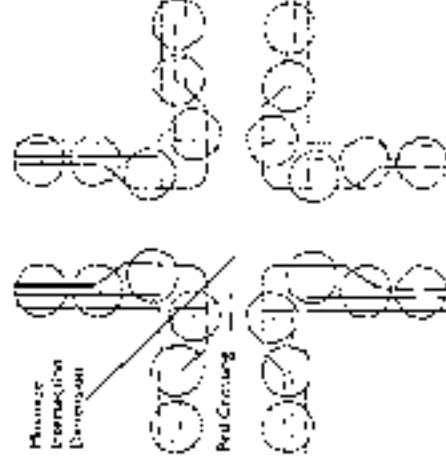
slow enough (15 to 20 miles per hour) to allow bikers to travel in the street at the same speed as the cars. However, on selected high-volume commercial streets where on-street parking is to be retained, it is desirable to include sufficient room within the roadway for bike lanes.

On-street parking helps to "revitalize" the street for pedestrians by creating a buffer between moving cars and the sidewalk. The additional parking helps to reduce areas devoted to large off-street surface parking lots and places the parking near the desired street-side building entries. On-street parking tends to slow the flow of through traffic and helps to develop a pedestrian environment where walking is desired.

## Intersection Design

Intersections should be designed to facilitate both pedestrian and vehicular movement. Intersection dimensions should be minimized while providing adequate levels of service.

Since the city street is conceived as more than a conduit for cars, street and intersection widths should be kept to a minimum. Intersections should be designed to slow traffic and to reduce pedestrian crossing distances. Unless absolutely necessary for facilitating safety, right and left turn lanes at intersections should be avoided.



A street system should balance the needs and viability of the pedestrian, as well as the car. Reduced auto speeds improve pedestrian accessibility and safety, and can continue to accommodate safe vehicular movement. Minimum curb radii at the intersection will reduce the pedestrian crossing distance while reducing the speed of the car through the intersection.

## Retrofit of Existing Streets for Pedestrian and Auto Connections

Existing on-site pedestrian, bike, parking, and auto circulation systems should be redesigned to encourage pedestrian/bike access between uses, public spaces and Secondary Areas.

Every effort should be made to encourage and facilitate pedestrian access at sites that are redeveloped into TODs. In some cases this may require redesigning existing streets and pedestrian systems. Connections between TODs and surrounding areas are vital to providing all of the advantages that a walkable, mixed use, and transit-oriented development can provide.

On sites that will be retrofitted or redeveloped into TODs, existing roadways and pedestrian networks may need to be redesigned to facilitate pedestrian access between buildings and transit, regardless of parcellation patterns. Connections to the core and transit, and ar-



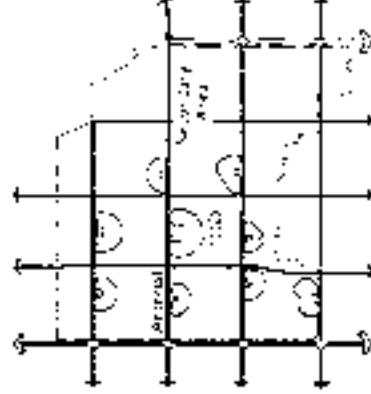
tween the TOD and surrounding areas, are especially critical. Improvements should be made to open walking paths between uses, to protect important transit, to connect with existing trail systems, and to slow auto traffic. Handicapped access strategies should be incorporated into all street and pathway retrofits. In auto-oriented suburban areas, pedestrian access may be improved by opening key rail-decks to bike-totals. In areas dominated by "superblocks," new arterial streets should be built to provide pedestrian-friendly connections to workplaces and other destinations.

## Arterial Streets and Thoroughfares

Arterial streets and thoroughfares should allow efficient conveyance of through traffic and must not pass through TODs—they are a barrier to pedestrians. Portions of Secondary Areas may be located across an arterial from a TOD.

The regional traffic circulation system is dependent upon an efficient and smooth flowing network of arterial and thoroughfare streets. Traffic on arterial streets should not be slowed by activity in the TOD. TOD streets should be selected such that arterial and thoroughfare streets are located at the TOD's periphery, not through its center.

In many communities, the main spine of the transit system will follow arterial streets and major thoroughfares. These front-to-back streets are barriers to pedestrian activity and thus should not be the focal point for the TOD. If possible



the transit stop should be located within the site or at least to one side of the arterial.

Arterials may be located between the TOD and the Secondary Area. The lower-intensity uses in the Secondary Area can buffer from proximity to the core commercial area, permitting workers and bicyclists access to daily services. Convenient pedestrian and bike crossings should be provided wherever cross-arterial connections are made, providing on-demand pedestrian-activated signals. Under- and over-crossings are expensive and generally unused; they are discouraged unless absolutely necessary in already developed areas.

## Connector Streets

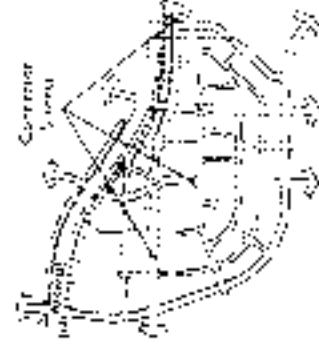
"Connector" streets should provide linkages within *route* and *Secondary Area* to core commercial areas, schools, and community parks without requiring the use of arterials. They should be designed to carry moderate levels of local traffic smoothly, in a way that is compatible with bicycle and foot traffic. A network of connections should provide several alternative paths through neighborhoods to the center. The connector network should not provide a through-route alternative to arterials.

Rather than the current system of "collector" streets which focus traffic and direct it to the arterials, "connectors" provide multiple routes to local destinations. Connector streets should form a network of routes that provide alternative paths through neighborhoods and to major destinations, such as core commercial areas, transit stops, schools, and parks.

Connectors are intended to carry moderate levels of local traffic from neighborhoods to arterials and major destinations. Their design and alignment should balance efficient vehicular travel with the safety and livability of residential areas. Providing a connector network with frequent, alternative paths will distribute traffic volumes over more routes. The resulting trip distribution will permit connectors to be lined with residences and provide an en-

vironment oriented towards pedestrians and bicyclists. "T" intersections and "dog leg" alignments should be used to reduce through traffic and reduce speeds. The width of connector streets should be minimized, especially where traffic volumes are not high.

On-street parking should be provided. Connectors should include bike ways where bicyclists share the street with a delineated bike lane. Unlike the back yards and sidewalks of collector streets, houses should front onto connector streets. Driveway cuts should be minimized and alley access to rear garages encouraged, to minimize potential conflicts among autos and bicyclists, and for the convenience of residents along connectors. Connectors should be aligned along the edge of parks and open spaces to enhance the character of the route.



## Commercial Streets

Commercial streets located in the center of core commercial areas should be designed to accommodate pedestrians, slow traffic, provide on street parking, and create pleasant shopping environments.

Commercial streets can create a pleasant and active environment by providing a pleasant shopping environment. Slow traffic and comfortable pedestrian environments will

encourage walking for many shopping trips, thereby reducing reliance on the automobile and creating an active "Main Street."



Commercial streets should have two travel lanes and on-street parking in order to create an intimate shopping environment that maintains drive-by visibility to stores. Wider sidewalks, limited



curb cuts, street trees, awnings, and arcades should be used to accommodate this active, pedestrian environment. Sidings should front onto commercial streets with minimal setbacks.

## Local Streets

Local streets should have travel and parking lanes sufficiently narrow to slow traffic and allow trees to form a pleasing canopy over the street, while providing for adequate access for automobiles and service vehicles.

Local streets should be designed to serve low volumes of traffic through a pedestrian-oriented environment. Travel and parking lanes should only be wide enough to allow two vehicles to slowly pass each other. Emergency and service vehicles may use both travel lanes. Parking on each side of the street serves to slow traffic and provide a physical barrier for the pedestrian. Bicycles are encouraged in the street, rather than on

separated bikeways. Street trees should be provided to enhance the quality of the neighborhood and provide relief from summer heat.

Local streets are the public open space in which children often play and around which neighbors interact. Vehicular movement should be controlled and prohibited but within this context. Less often the rule of the road to achieve the same ends of slower traffic and safety

## Alleys

When possible, alleys should be used to serve residential and commercial uses within lots. They are particularly appropriate for lots facing onto parks and connector streets in 50' curbside Access.

In areas where walking is to be encouraged, streets lined with garages are undesirable. Alleys provide an opportunity to put the garage to the rear, allowing the more "social" aspects of the home to front the street. Streets lined with porches, entries and living spaces are safer because of this visual surveillance. Alleys in commercial areas place service vehicle access and parking away from the street and sidewalks, affording a more interesting and comfortable streetscape.



Alleys provide relief to the street system and a secondary access to individual parcels. Alley-accessed garages relieve the street side of the house from being dominated by storage doors and crumpled by stub cuts. Design of alleys should provide sufficient lighting to ensure nighttime safety, ancillary housing units facing onto alleys should be provided adequate parking. Where alleys intersect with streets, adequate sight distances and building setbacks should be provided.



# Pedestrian and Bicycle System

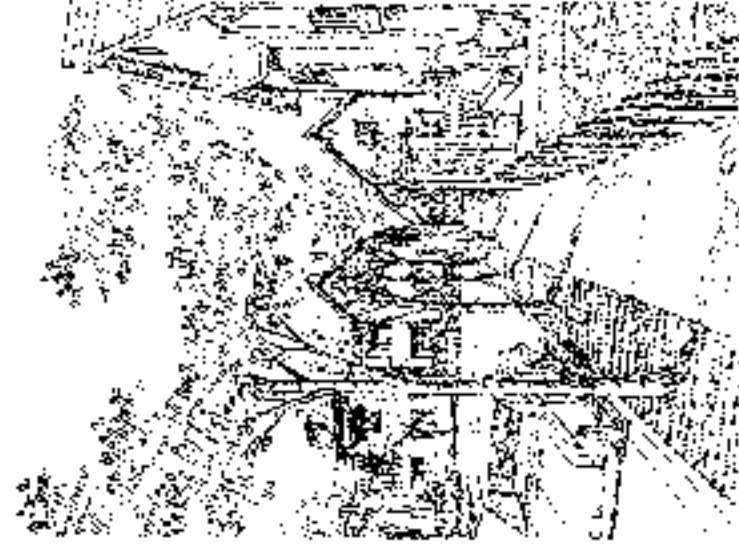
## Pedestrian Routes

Pedestrian routes should be located along or visible from all streets. They must provide clear, comfortable, and direct access to the core commercial area and transit stop. Primary pedestrian routes and bikeways should be bordered by residential fronts, public parks, plazas, or commercial uses. Where street connections are not feasible, short pedestrian paths can provide connections between residential and retail areas. Routes through parking lots or at the rear of residential developments should be avoided.

Too often pedestrian paths have been separated from streets, giving a confusing message to pedestrians. This can be dangerous because these routes lack adequate surveillance and auto access. The primary pedestrian path system should coincide with the street system. Where a street connection is not feasible, pedestrian connections can be made at the end of cul-de-sacs and by providing passageways through walks surrounding commercial centers.

Paths through parking lots and away from streets should be avoided. Alternative routes around parks should be provided for night use. Safe pedestrian crossings across arterials should be provided where major pedestrian movement is anticipated. On demand pedestrian signals should be provided during off peak hours in these locations.

Although the street and sidewalk system will occur



where many destinations, the primary destination will be the commercial core and transit stop. Direct paths to the transit stop should be lined with activities and be shaded. The configuration of parking, shopping, and pedestrian routes should reinforce access to transit.

Up to 75 percent of all household trips are auto-job related. Many of these non-commute trips can be captured within the 100 or within a short transit connection. Combining retail uses with a transit stop provides the opportunity for people to accomplish several tasks with one trip. Interruptions in the path and inconvenient walking routes discourage pedestrian travel for these types of trips. Pedestrian access is critical to the displacement of auto trips and to encourage as much transit use as possible.

## Arterial Crossings and Pedestrian Bridges

Crosswalks should be provided at all signalized arterial intersections. Undercrossings or bridges designed for pedestrians and bicyclists are discouraged, unless necessary in already developed areas to solve critical access problems.

Crosswalks at signalized intersections should provide easy and safe pedestrian and bicycle movement across arterials or to difficult-to-reach transit stops. On-demand signals can be located at strategic intersections, such as where a connection would be made to a transit stop or to a commercial area, which could be activated during off-peak commute hours. Underpasses or pedestrian bridges are discouraged because they are expensive and are generally long, circuitous routes that are often unused. However, in some limited cases, where existing development patterns prevent any other convenient street

crossings, an under or overpass may be appropriate; direct stairs in addition to handicapped access ramps could be provided to shorten walking distances.

Pedestrians and bicyclists must be guaranteed to move easily and safely across arterials if an environment that is not reliant on the automobile is to be created. Intersections should be designed to provide direct pedestrian and bicycle connections between core commercial areas, employment areas, parks, schools, residential areas, and other destinations.

## Bikeways

A coordinated system of bikeways should be provided in conjunction with TODs or a series of TODs. Important destinations, such as core commercial areas, transit stops, employment centers, parks, open spaces, schools, and other community facilities, should be linked by these bike routes.

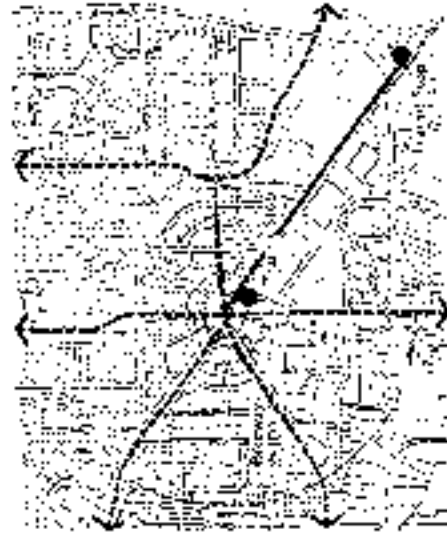
Biking can be a major alternative to the auto for local trips, trips to the transit stop, or trips to work. Separated or marked bike lanes on several primary routes to the core area will support this alternative, as will the bike paths along greenways between TODs and employment destinations. On smaller streets, bikes sharing the travel lane will help slow cars to speeds more appropriate for residential streets.

Selected routes to the transit stop should provide marked or separate bikeways connecting with the Secondary Areas and other key destinations. Designated bike lanes should be provided on selected

connector streets and a limited number of local streets that converge upon the commercial and transit centers. Bicycle routes are encouraged on small residential streets, but designated or marked bike lanes are not required.

Separated bike paths should also be provided along greenways and arterials, and through open space corridors.

Bikeways should be well identified by bikeway signs that mark the beginning, end, and route of the bikeway. Clear destination signs should be provided that direct riders to key activity centers, such as shopping areas, transit stops, recreation facilities, schools, and bike parking facilities.



## Bike Parking

Bicycle parking facilities must be provided throughout core commercial areas, in office developments, and at transit stops, schools, and parks.

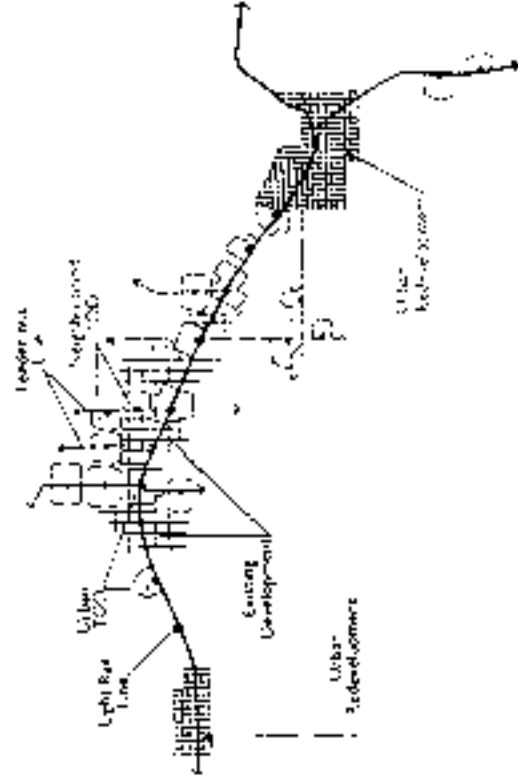
Secure bike lockers are especially important to "bike-and-ride" transit use, as few will leave their bike unattended for a full working day. Bicycle parking facilities include bike racks, "chocks," and lockers. Bike racks must be provided at shopping, school, and recreational destinations in TODs and Secondary Areas. More secure bike parking facilities must be provided at all offices.

employment uses and at major transit stops. Signs indicating the location of bike parking facilities must be clearly posted. Bike parking may be shared between uses, but should be centrally located, easily accessible to parking entries, closer to the building than auto parking areas, and visible from streets or parking lots. These facilities should not block pedestrian routes.

# Transit System

## Transit Line Location

Transit lines must help define the density, location, and quality of growth in a region. They should be located to allow maximum area for new towns, to access future Redevelopable or Infill Sites, and to serve existing dense residential and employment centers.



Too often transit lines are located in areas that are not transit supportive because they have too little density, no pedestrian quality, and little opportunity for redevelopment. Lines through ex-urban suburbs often make that mistake and become dominated by a "park-and-ride" auto access strategy. The alternative is to balance these conditions with alignments that run through New Growth Areas designed for higher densities, mixed use, and walkability. In urban urban areas, neighborhoods which have these qualities should be targeted for new transit, along with areas which could redevelop. Major employment centers, regional destinations, colleges,

airports, and cultural facilities are, of course, prime focal points for any system.

A mix of station quantities is important to a successful transit line. Existing railroad or freeway rights-of-way play a large role in determining the routing of fixed-rail transit lines. In some cases this is positive, as is when the case with underutilized freight lines, which can provide sites for redevelopment and infill. Using freeway rights-of-way often provides sites viable for mixed-use development and controllable pedestrian access. Where necessary, these freeway alignments can form the logical location for the park-and-ride facilities.



## Access to Transit Stops

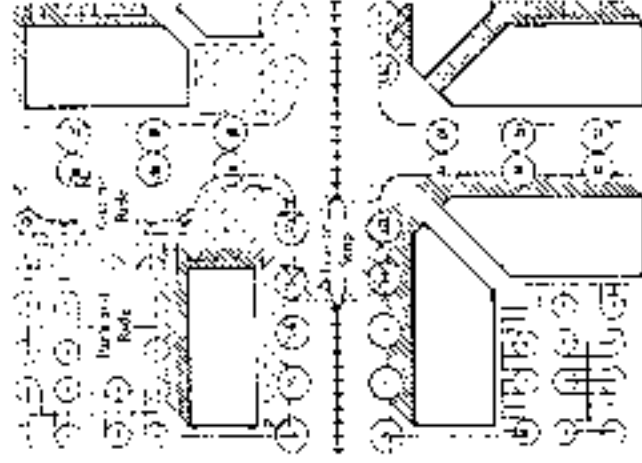
Streets must be designed to facilitate safe and comfortable pedestrian crossings to the transit stop. Park and ride lots, "kiss and ride" and major bus drop off areas should not isolate the station from local pedestrians.

Most people will use transit only if it is fast, safe, and very convenient. Accessibility to transit stops must be given high priority in the design of streets in order to promote transit ridership. Street crossing placement, design, and markings should recognize the need for fast and flexible access to the stop.

One of the greatest design flaws of station configuration is to surround it with parking and costly bus areas. This separates the station from the pedestrian and effectively makes the station a detriment to any mixed-use development. Residents rarely enjoy a view of a park and ride lot or the noise of a bus zone. These all-too-common configura-

tions destroy the opportunity for an urban environment to evolve in a station area. Often these undesirable facilities can be placed on one side of the station, leaving the other for pedestrian-oriented environments to develop.

Transit passengers are likely to make frequent street crossings, some at mid-block, depending on the location and design of the transit stop. Adjacent street design may recognize the need for easy, and fast pedestrian access, by providing sufficient auto and pedestrian visibility distances, stop signs or manually operated traffic signals, hand-raised access, and clearly marked pedestrian crossings at sign-raised street



## Park-and-Ride Lots

Park-and-ride lots are not appropriate for all transit line stops. Surface parking lots specifically devoted to park-and-ride should not be provided in yards. Rather, they should be located at the ends of trunk lines, at stations with little possibility for mixed-use development, or in Secondary Areas adjacent to the boundaries of trons. Alternately, park and ride lots may be provided within structured parking lots located close to the transit stop.

While park and-ride lots are extremely important components to making the ridership of the overall transit system, they do not necessarily augment the user's activities, and depend on a mixed use, transit oriented neighborhood. The location and type of park and ride lots should be considered in terms of the goals and mission of the entire transit system.

Park and-ride lots are best located adjacent to trons or at other transit stops. Surface parking lots specifically designed for park and ride should be located in

close Secondary Areas, just across an arterial, or at the end of the trunk transit line.

Recognizing the need for parking facilities within Urban trons to serve both the core commercial area and the transit stop, structured parking lots available to the public may be provided. The size of the street used parking facility should be based on projected station and commercial area needs. These parking structures should be financed and constructed in conjunction with other public improvements.



# Parking Requirements and Configuration

## Parking Standards

Reduced parking standards should be applied to Urban TODs in recognition of their proximity to high frequency transit service, their walkable environment, and mix of uses. Standard parking ratios are recommended for Neighborhood TODs and Secondary Areas.

Limited, rather than ample, parking supplies encourage commuter use of transit service. Minimum requirements help to avoid "spillover" parking in retail areas or nearby neighborhoods; maximums guard against overly generous parking supplies that discourage transit use and contribute to construction of large surface parking lots. The most effective location for implementing reduced parking standards is in Urban TODs located along the trunk transit line network.

For non-residential development, parking standards vary based upon community characteristics such as pedestrian orientation and transit availability. The highest minimum parking requirements are generally found in the newer, more suburban communities as follows:

|                  |                        |
|------------------|------------------------|
| Office           | 4.5 spaces/1,000 sq ft |
| Retail           | 5.0 spaces/1,000 sq ft |
| Light Industrial | 4.5 spaces/1,000 sq ft |

For TODs, reduced minimum parking standards should be permitted based on detailed analysis of the conditions in the area. In addition, maximum parking ratios should be established for non-residential uses.

Based upon area specific study, parking requirements should be set approximately within the following ranges:

|                  |                        |
|------------------|------------------------|
| Office           | 2-4 spaces/1,000 sq-ft |
| Retail           | 3-5 spaces/1,000 sq-ft |
| Light Industrial | 1-3 spaces/1,000 sq-ft |

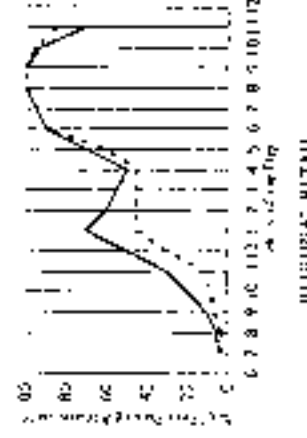
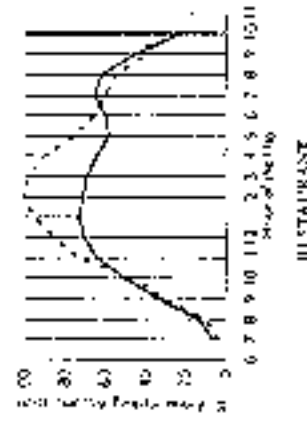
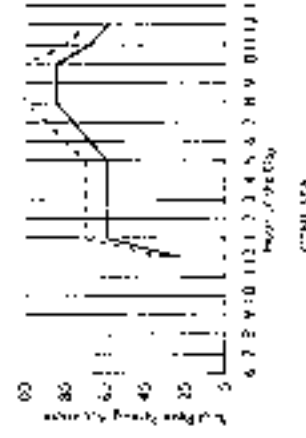
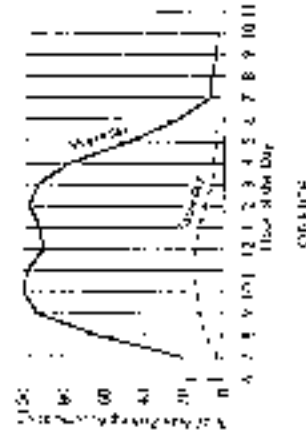
In preparing and implementing a parking ordinance, the following should be taken into consideration:

1. Communities using parking standards which differ from the typical suburban requirements described above should be reviewed to determine the appropriate minimum and maximum standards.
2. Bike parking standards should be established for non-residential uses.
3. Parking ratios should be contained as necessary to encourage projects that have been granted parking reductions. If recommended by such studies, feasible reductions should be implemented and included as features in future projects.



## Joint Use Parking

Joint parking allowances are recommended for adjacent uses with staggered peak periods of demand. Retail, office, and entertainment uses should share parking areas and quantities. A portion of any project's parking requirements may be satisfied by on street parking.



Projects with a mix of uses should seek to reduce the total number of parking spaces by comparing peak demand of each use by hour of day of the week, and season. Where the varied parking demand for proximate uses allow joint use of a single parking facility, a reduced number of spaces is strongly encouraged. Shared parking areas should be conveniently located to all uses, but do not need to be located on the same parcel as the use.

The complementary relationship between land uses in a mixed use area encourages multipurpose trips. Thus, a single parking space can serve several land uses. Additionally, peak parking demand for different land uses is often generated at different times during the day, week,

or season. This also allows joint use of the same parking spaces for several uses. Reducing the amount of land devoted to parking allows more efficient use of land closest to transit.

Utilizing on street parking spaces to fulfill a portion of the total parking requirement will also help reduce the amount of land devoted to parking, while continuing to provide the necessary amount of parking spaces. The number of on-street parking spaces available on the contiguous street frontage of retail, office, or public use sites, may count against the total required number of parking spaces. To ease parking problems, on-site on-street parking is strongly encouraged.



## Parking Mitigation Measures

When reduced parking standards are utilized, mitigation measures should be considered to guard against "spillover" parking impacts. Preferential parking zones should be considered in residential neighborhoods and short term parking controls may be utilized in core commercial areas.

Where parking lot use significantly reduced to take advantage of proximity to transit, analysis should be made to determine whether adjacent neighborhoods and shopping areas could be negatively affected by spillover parking during peak hours. Residence of parking permits should be considered for neighborhoods; meters or short term parking zones should be considered for shopping areas.

The parking guidelines are intended to not overly restrict parking supply in order to encourage carpooling, bicycling, and transit use. But, in some cases the maximum parking demand for a particular area may be exceeded. Spillover parking can negatively affect surrounding neighborhoods and discourage shopping in core commercial areas. Specific projects should be evaluated to determine if mitigation measures would be beneficial

## Parking Configuration

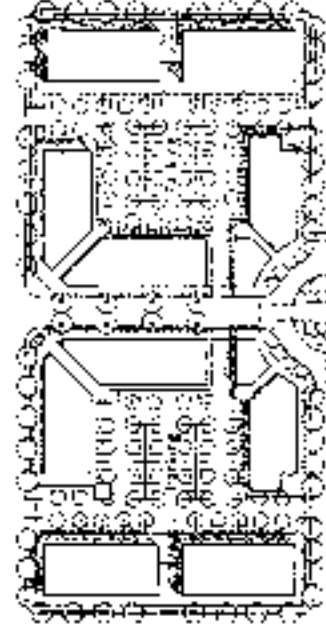
Parking lots should not dominate the frontage of pedestrian oriented streets, interrupt pedestrian routes, or negatively impact surrounding neighborhoods.

Lots should be located behind buildings or in the interior of a block whenever possible. Structured parking is also encouraged and future intensification with structured parking should be considered when designing development plans.

An active pedestrian environment is stimulated by buildings at the sidewalk with numerous entrances; surface parking lots are "dead" spaces for pedestrians and drain the life of a street. When possible, parking lots should be placed behind buildings. Since surface parking can

also lower densities and intensities - reducing transit catch-up - surface lots should be minimized with structured parking and shared parking.

Parking lots that serve buildings facing pedestrian-oriented streets should be located to the rear of buildings. Parking lots should not occupy more than roughly 25% of the frontage, or no more than 75 feet, of a



pedestrian oriented street, such as retail "Main Streets" and local streets. Other streets may not be able to maintain this criterion.

Structured and below-grade parking is strongly encouraged on Ruedredopoble and Jubill Streets in conjunction with new

development as part of a comprehensive reuse plan; it is encouraged, but not required, in New Growth Areas. Underground parking is preferred over above ground structure parking. If structured parking is not immediately economically viable, development plans should include how structured parking and more intensive uses could be integrated into the site in a later date.

## Size of Surface Parking Lots

Large surface parking lots should be visually and functionally segmented into several smaller lots. The size of any single surface parking lot should be limited to three acres, unless divided by a street or building.

Too often, the front facades of new shopping and office complexes are dominated by large surface parking lots. These expanses of asphalt are hostile to pedestrians and are deterrents to walking. To make this type of parking lot more human-scale, they should be seg-

mented into smaller lots by placing a street through two parking areas or by placing a building between parking areas. If a single use will require a surface parking lot in excess of three acres, structured parking should be strongly encouraged.

## Surface Parking Redevelopment

Land devoted to surface parking lots should be redeveloped through redevelopment and construction of structured parking facilities. The layout and configuration of surface parking lots should accommodate future redevelopment; design studies showing placement of future buildings and parking structures should be provided.



EXISTING SURFACE PARKING LOT

Opportunities for redeveloping existing surface parking lots with buildings and structured parking should be strongly pursued in order to more efficiently utilize land near transit stops.

Additionally, in early phases of development, when land values are still relatively low, some sites may be developed with surface parking lots. Potential redevelopment of surface parking should be considered when



FUTURE INTENSIFICATION

the project is completed, and should be strongly encouraged to redevelop with more intensive uses as the area matures.

Land in the vicinity of the transit stop should be developed with the greatest intensity in order to provide the most opportunities for transit ridership. As land values increase, redevelopment of surface parking lots to more intensive uses will augment this desired density.

## Retail in Structured Parking Lots

Parking structures should not be allowed to dominate the street frontage. Retail uses should be encouraged on the first floor of street-side edges of parking structures.

Take surface parking lots, parking structures that face streets do not provide interest, safety, or shelter for the pedestrian. Retail uses should be located on the ground floor of parking garages and incorporated into the building's design. Office buildings can also be designed so that the active



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use portions of the building face the street and wrap around an interior parking structure rather than sit on top of a podium of parking.

Minor portions of parking structures that do not have first-level retail uses must be cut canted and otherwise have an appearance similar to the buildings they serve.



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## Parking Lot Landscaping

All parking lots should be planted with sufficient trees so that within ten years 70 percent of the surface area of the lot is shaded. Additionally, parking lots should be screened from streets by non-bearing landscape treatments. Where possible, overflow parking areas should be developed with a permeable surface.

This guideline is intended to achieve an environment that is comfortable for pedestrians. Trees should be located along walkways; perimeter landscaping should screen views of cars, but not block views of retail facades. Tree canopies should be trimmed to provide shade, but should allow building visibility. Asphalt area can be limited by converting the peak parking areas to permeable surfaces such as gravel. This will allow water to percolate into the water table and will



usually limit the "heat of asphalt" atmosphere many major shopping areas develop.

Trees and other landscaping are particularly important for surface parking lots which absorb significant amounts of solar heat and create unforgivable places for pedestrians. Landscaping along parking lot perimeters should also be provided to soften the visual impact of rows of parked cars and define the edge of the sidewalk.

SEE DESIGN GUIDELINES