



Parking and Loading

	Parking Facilities	92
Parking in Residential Neighborhoods		93
Parking in Non-Residential Developments		95
General Guidelines		95
Orientation of Parking Facilities to the Building they Serve		99
Access to/Circulation in Parking Facilities		101
Pedestrian Movement in Parking Facilities		105
Design and Material Treatment of Surface Parking Facilities		106
Lighting of Parking Facilities		107
Screening and Landscaping		108
	Loading/Unloading Areas	110



PARKING AND LOADING

New residential, commercial, office, institutional and industrial development to support the City of Surprise's growth, brings new demands for parking and loading and unloading facilities. The guidelines included herein are intended to provide site planning and design approaches to developing parking and loading facilities that not only provide efficient and convenient access to adjacent buildings and activities, but also contribute to the formation and structure of the community open space system for the City of Surprise. Specific focus is directed to providing guidelines that will encourage creative design and landscape approaches to developing parking facilities that appear as part of the surrounding landscape and soften the harshness of vast areas asphalt and parked automobiles. The following guidelines are intended to encourage the development of new parking facilities that:



- provide safe, efficient and convenient access to facilities while minimizing interference to the flow of traffic on adjoining streets;
- recognize and enhance the quality and character of adjacent developments and insulate surrounding land uses from adverse impacts;
- include mature landscaping and landscaping techniques to: screen parked automobiles from surrounding streets; and to contribute to the implementation of a continuous, community-wide open space system where the streetscape and parking facilities are a key element in forming the open space system;
- accommodate the safe movement of pedestrians and cyclists through and around the parking facility;
- contribute to the overall quality and character of the community.



PARKING FACILITIES - *Guidelines address the provision of both existing and proposed on- and off-street, residential and non-residential parking facilities within the City of Surprise. Attention is given to the location, orientation and design of parking facilities; and to the landscaping, lighting, pedestrian and vehicular access and other elements necessary to provide a parking facility that will have minimum visual and traffic impact on adjacent development and the total community.*

PARKING IN RESIDENTIAL NEIGHBORHOODS

- To achieve the community’s desire for developing pedestrian-friendly streets, all new residential development should consider the use of staggered or off-set parking bays, parking “one-side-only”, or other alternative means of accommodating on-street parking of vehicles on local streets; particularly in those residential neighborhoods where narrow paved streets are encouraged.

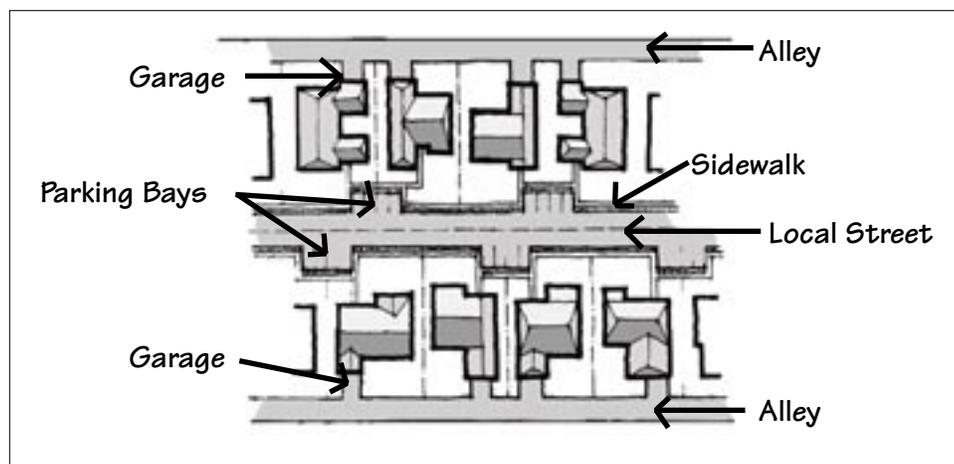


figure 5.1: Parking Bays with Garage Access from Alleyways



- The combined use of local residential streets for on-street parking, motorized vehicles, pedestrians, skaters, and cyclists is encouraged, provided the street cross-section and speed limit serve as a deterrent to speeding traffic.

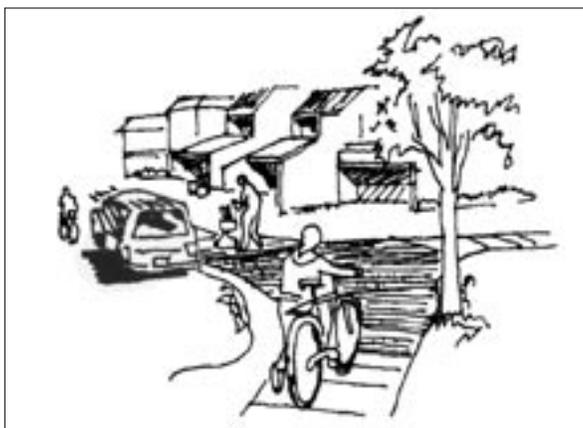
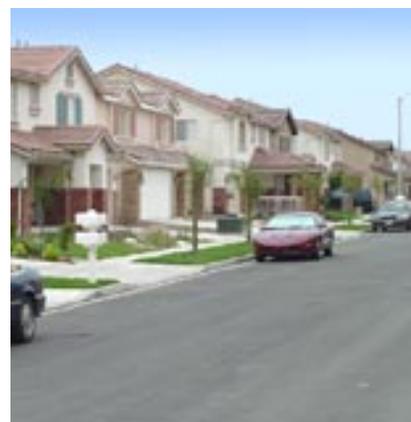


figure 5.2: On-Street Parking and Street Activity



- The widths of paved driveways and driveway cuts at the curb should be as narrow as possible, and in no case wider than the predominant block pattern; and spaced to preserve the maximum number of curb parking spaces.
- Recreational vehicles, large trucks and/or inoperable vehicles should not be permitted to park on local streets.
- In order to reduce or minimize impediments to pedestrian movements, the use of landscaped, curb-separated sidewalks is encouraged to prevent parking on or over the curb.





- In multi-family residential developments, all parking should be off-street and accommodated internally on the site in well-landscaped, shaded parking clusters, or in garages or carports that are attached and integrated into the architecture of the building.

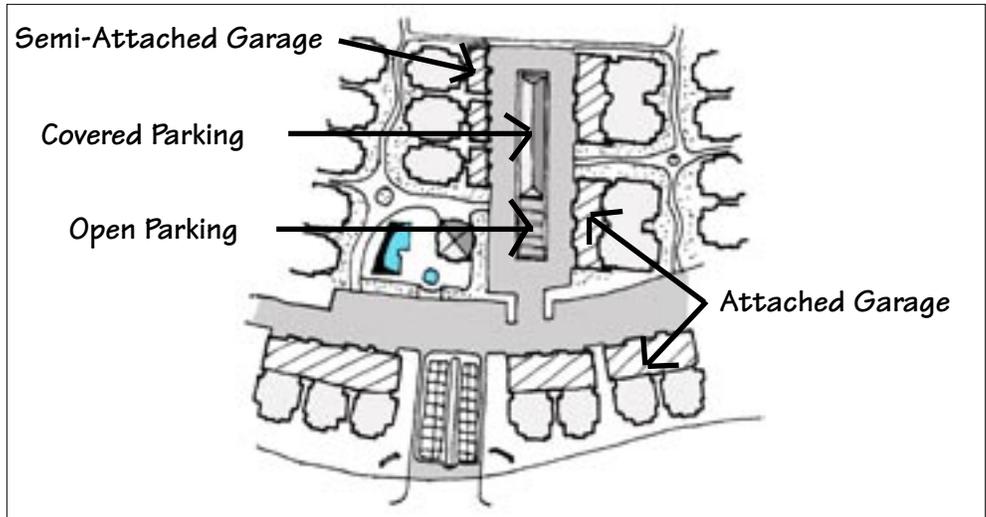


figure 5.3: Parking in Multi-Family Residential Complex

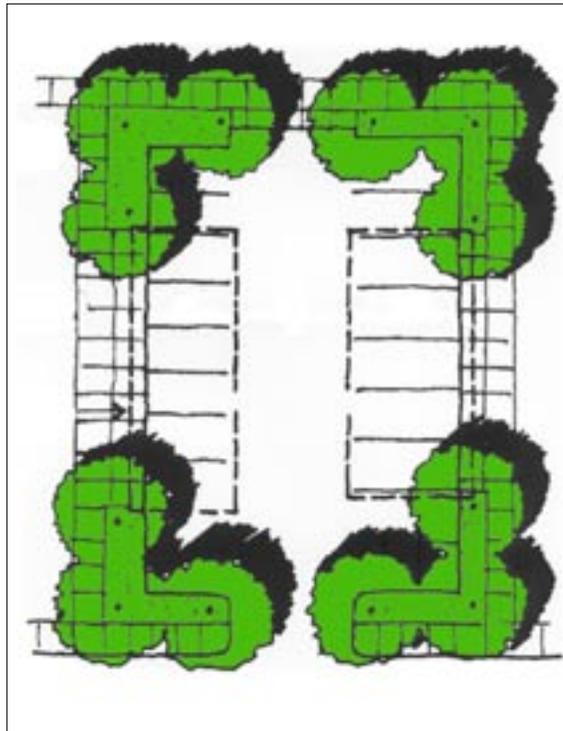


figure 5.4: Parking Bay, Multi-Family Development

- Where covered parking is not attached and integrated into the actual multi-family residential building, covered parking in the form of carports may be permitted, provided they are located throughout the complex in clusters which contain not more than six (6) parking spaces; hidden and heavily screened from surrounding streets and adjoining developments by mature landscaping; and designed and constructed of non-reflective materials that are an extension of and compatible with the overall architecture and character of the complex.

- The use of staggered, well-landscaped and shaded parking bays on the internal streets of a multi-family residential development is strongly encouraged.

PARKING IN NON-RESIDENTIAL DEVELOPMENT

Non-residential development includes retail commercial, general office, governmental, and industrial uses. The following guidelines for the planning, design and development of off-street surface and garage parking apply to all non-residential uses.

General Guidelines

- The visual impact of surface parking lots and the vehicles parked therein, should be minimized and not dominate the building site.



figure 5.5: Minimizing Visual Impact of Surface Parking



- Shared parking facilities in large commercial and mixed use developments are strongly encouraged in order to reduce the number of parking facilities required for large commercial and mixed use developments,

- The number of parking stalls in shared parking facilities should be based upon actual usage of parking stalls as they relate to operating hours of business establishments served.

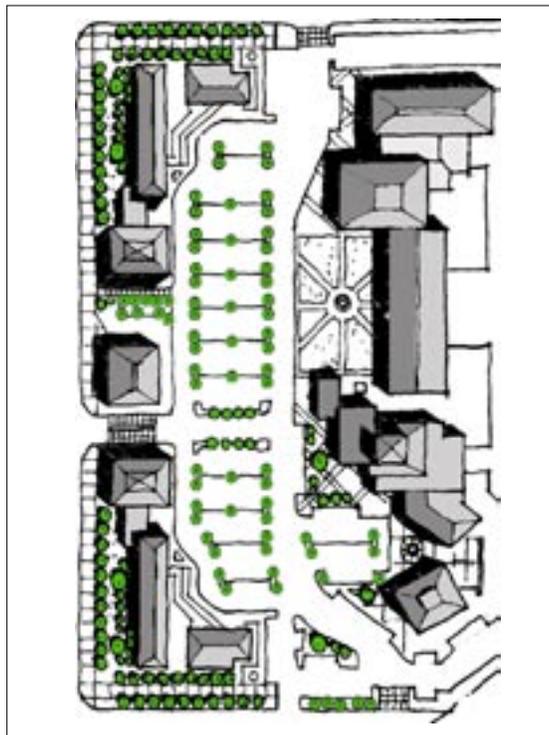


figure 5.6: Shared Parking



- Large commercial and mixed use developments are encouraged to provide shared parking facilities in the form of underground structures whose roof tops can be developed as landscaped, pedestrian plazas, as well as for retail and dining uses.

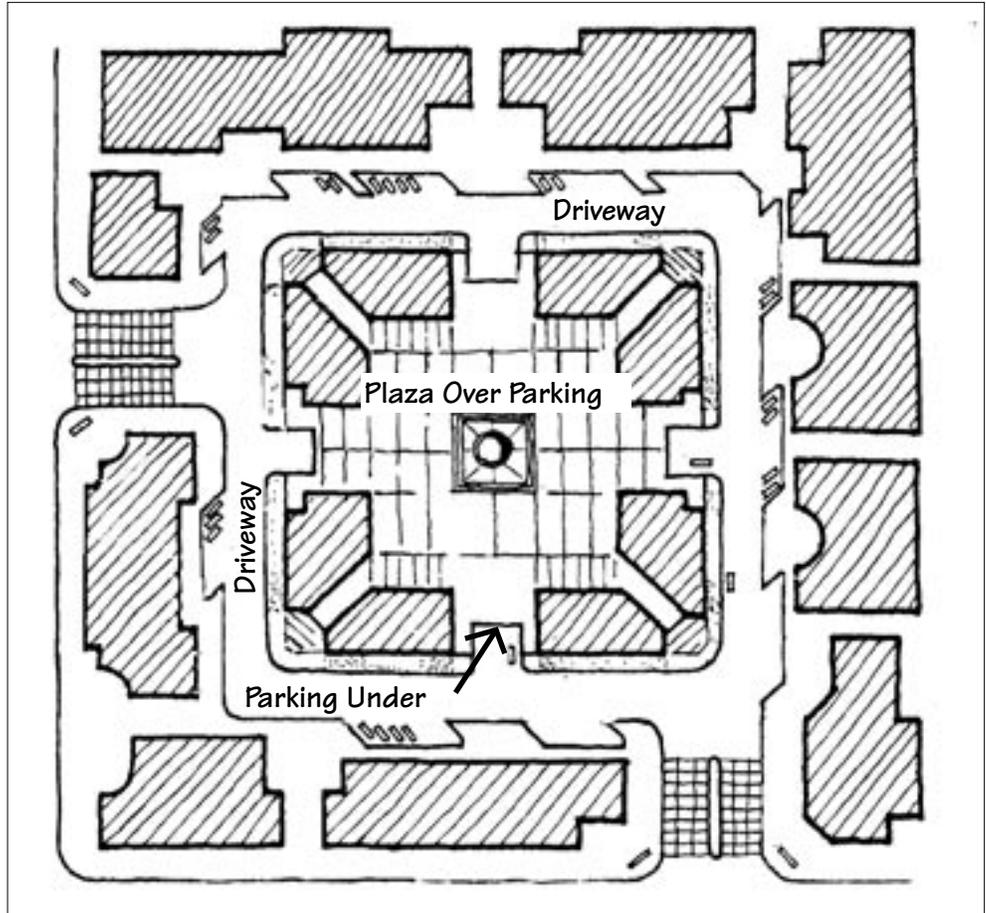


figure 5.7: Shared Parking in Submerged or Underground Garage

- All surface parking facilities should provide a master landscape plan that delineates mature landscaping along the perimeter of the lot, as well as throughout the interior of the lot.
- In order to reduce the visual impact of surface parking lots on surrounding streets and neighborhoods, and reinforce the urban design guideline encouraging developers to move commercial, office and other non-residential buildings forward toward the street to provide definition and scale to the streetscape and avoid the appearance of “strip malls”; all surface parking lots in major non-residential developments should be located to the rear or side of a building pad, away from the street and street intersections. (figure 5.8)

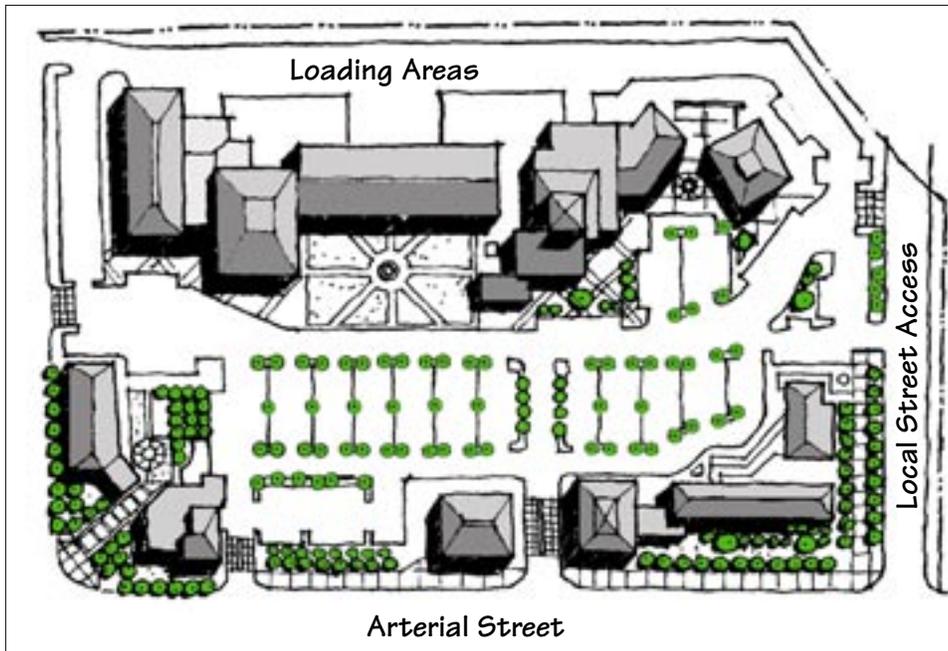


figure 5.8: Parking Located Away from Street

- Private parking lots in non-residential developments that are adjacent to one another, but operate under separate property ownership, should be designed and located contiguously to each other and have shared access and an internal circulation system that provides for the safe and efficient internal site movement of motor vehicles, pedestrians and cyclists from one property to another without having to re-enter the street serving the developments.

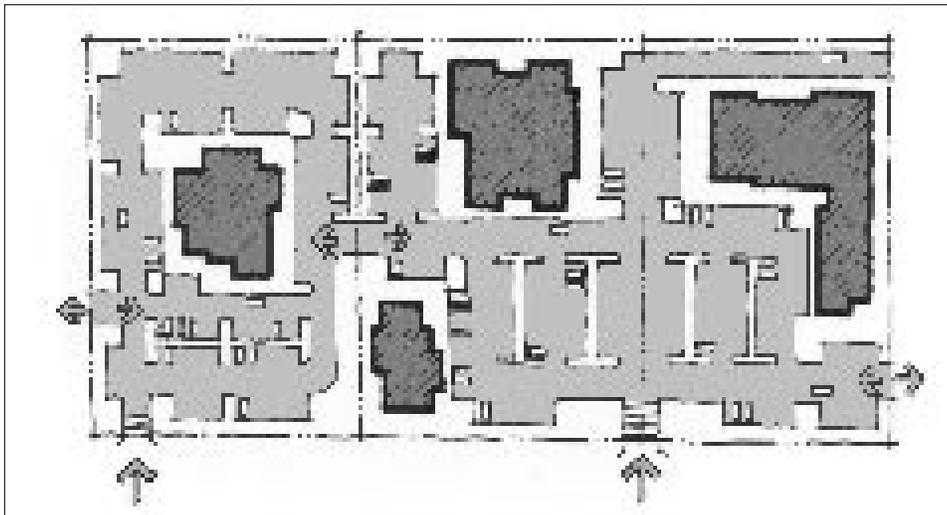


figure 5.9: Shared Site Access

- Parking lots that contain over one hundred (100) spaces should be designed with a clear hierarchy of on-site vehicular circulation consisting of: major access drives with no parking; major internal circulation drives with no parking, and parking aisles for direct access to parking spaces.

- Large surface parking lots should be functionally divided into smaller, well-landscaped and shaded parking clusters containing fifty (50) cars or less.
- Parking clusters should be interconnected by the parking lot's internal circulation system and separated by ten-foot (10') wide, or greater, landscaped pedestrian walkways that are located between each parking aisle.

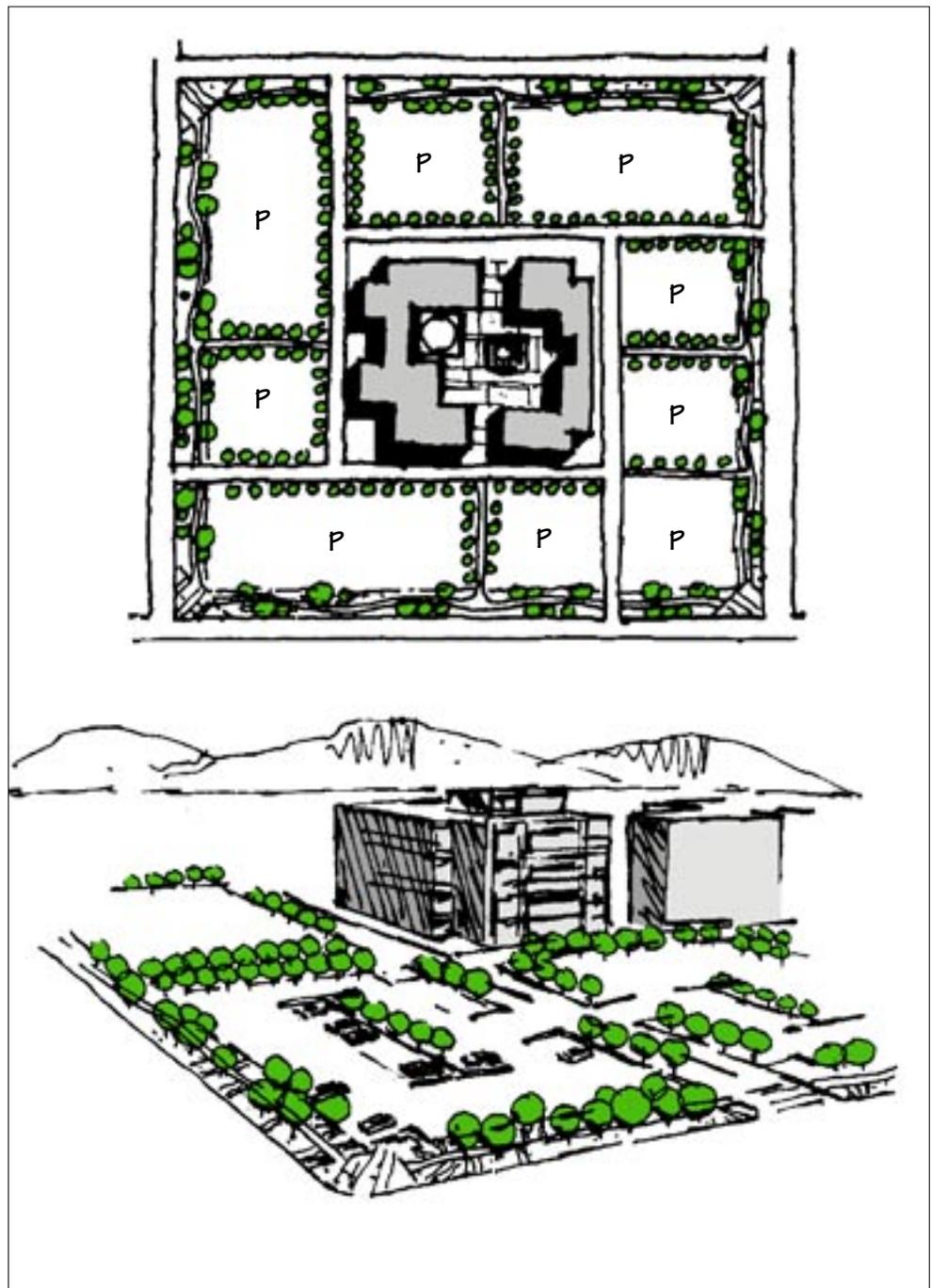


figure 5.10: Parking Clusters

- Parking garages should be integrated into the building form and consist of materials of the primary structure served; or developed on the site as an underground or partially sunken facility with the roof area developed as an integral part of the development's pedestrian plaza and open space system.

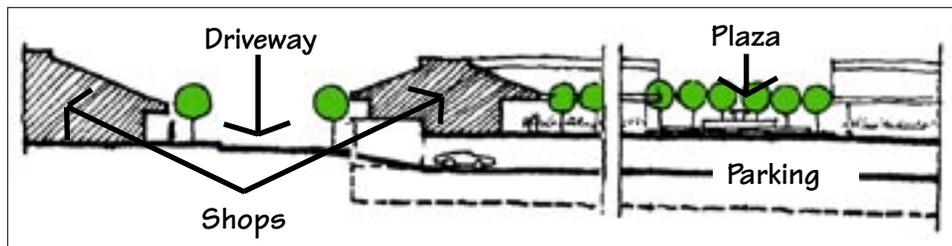


figure 5.11: Underground Garage Roof Treatment



- All surface and garage parking facilities should be designed for durability and ease of maintenance.
- Parking areas throughout the City should be designed and located to incorporate all American For Disabilities Act (ADA) requirements governing access to parking facilities, location of handicap spaces, and access to buildings served by the parking facility.
- Parking facilities within the City should have a minimum of two (2) ingress/egress points, and be designed to ensure full and adequate regular and emergency vehicular access to parking facilities and the buildings they serve.
- All new non-residential parking lots and garages should provide parking for bicycle, motorcycle and golf carts, separately and apart from vehicular parking; and in areas of the site nearest the main entry of the building(s) served.



Orientation of Parking Facilities to the Buildings they Serve

- Parking lots in major commercial, office, institutional, government and industrial developments, should be located to the rear and side of buildings, and include direct pedestrian access to the building(s) served.
- The location of parking areas in the front of buildings in neighborhood and convenience shopping centers may be considered; provided the parking lot is setback at least thirty-five feet (35') from the street right-of-way and heavily screened from the street and adjoining uses by landscape materials and landscape berms.
- Common reciprocal driveways that provide vehicular access to adjacent parcels are strongly encouraged; as are shared parking and circulation aisles that have been coordinated between adjacent businesses.



- Parking and circulation aisles should be perpendicular to the entry facades of the buildings to minimize conflicting movements by pedestrians and vehicles.

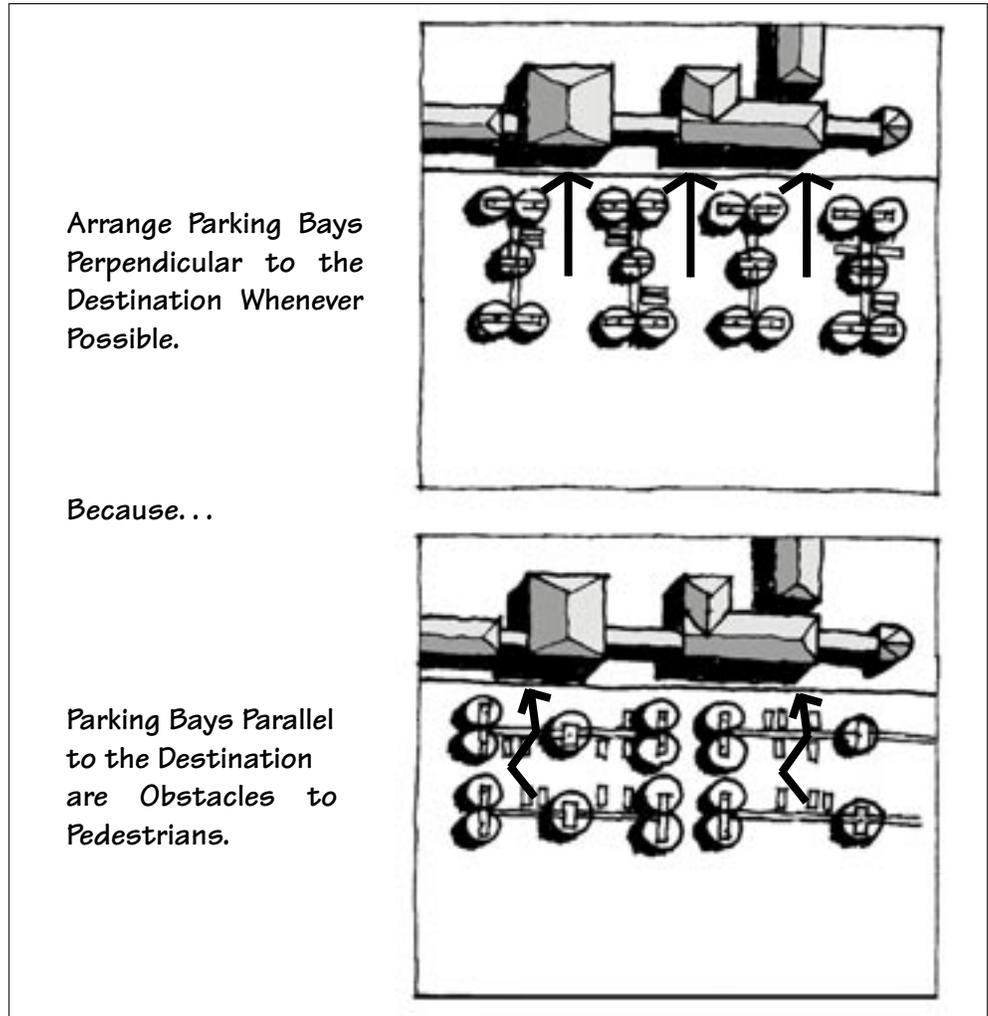


figure 5.12: Parking Aisles / Pedestrian Circulation

- Placement of parking garages along the street in mixed used developments is encouraged, provided they incorporate ground floor retail and other compatible uses. Otherwise, parking garages should be located to the rear or side of buildings, placed underground.

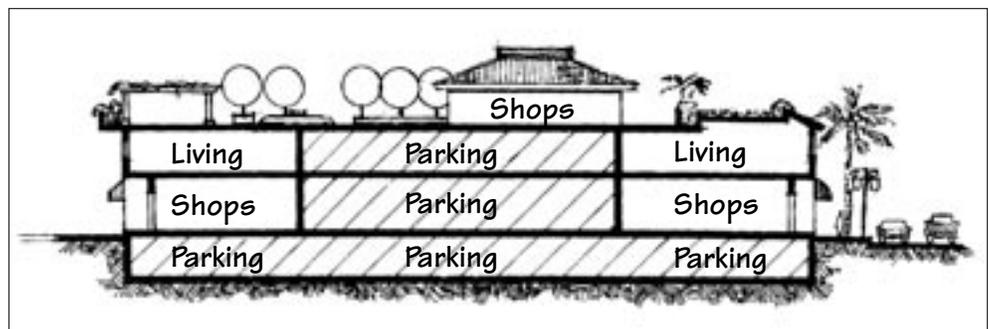


figure 5.13: Mixed Use Development with Parking

- In large commercial and/or mixed use developments, a surface parking lot should be separated from the front elevation and entry of the building(s) served by a raised pedestrian/landscaped, strip having a minimum width of thirty (30) feet; and from the side and rear elevations of the building by a raised sidewalk and landscape strip having a width of at least seven (7) feet.
- Surface and garage parking facilities should be located and oriented to provide walking distances to the main entrance of the use served of three hundred (300) feet for customers and visitors, and four hundred (400) feet for employees; with the distances measured from the near corner of the parking facility to the main entrance via the shortest pedestrian route.

Access To/Circulation In Parking Facilities

- The number of ingress and egress points serving non-residential parking facilities should be minimized; and they should be located to prevent interruption in the efficient movement of traffic on adjoining streets.

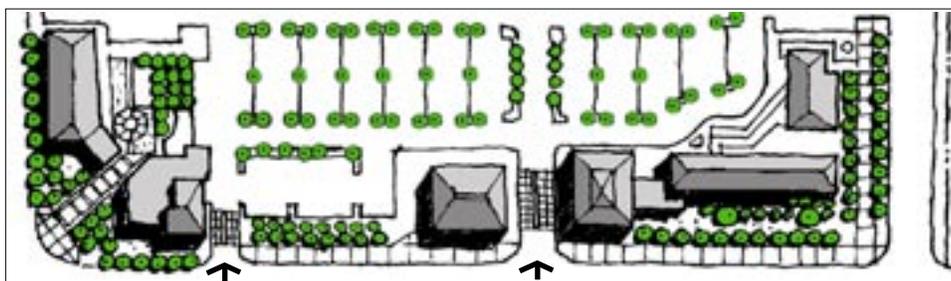


figure 5.14: Commercial Center Ingress / Egress

- Placement of ingress/egress points for parking facilities should be coordinated with median openings and existing driveways opposite the new development.
- All parking facilities providing over one hundred (100) spaces that are located on a major arterial street should provide deceleration lanes at the major entry of the development.
- In order to maintain efficient traffic flow on major streets, access points serving non-residential developments should be located on side streets whenever possible.
- Access points to a major non-residential development should be well designed and utilize landscaping, lighting, signage, walls, earth berms and water features to provide a clear definition of the entry to the development.

- All entry drives should be designed to provide a minimum depth of fifty (50) feet, extending from the property line to the first bisecting parking aisle, in order to provide adequate “queuing space” to prevent the stacking of vehicles entering the parking lot. into the adjoining street
- Main entry drives serving large surface parking lots should extend from the public street to the front cross aisle adjacent to the front of the building(s) served and include:
 - a minimum seven (7) foot wide landscaped median separating two, eighteen (18) foot wide, one-way entry drives that extend from the property line to the first bisecting parking aisle;
 - a curb-separated, landscaped pedestrian way on both sides of the entry drive having a width of at least ten (10) feet and incorporating a minimum five (5) foot wide sidewalk and a five (5) foot landscape strip;
 - continuation of the two (2) ten (10) foot wide pedestrian ways on both sides of the entry drive, extending from the first bisecting parking aisle to the front cross aisle; and
 - special pavement enhancement from the property line through the entry median-separated drives to the first bisecting parking aisle.

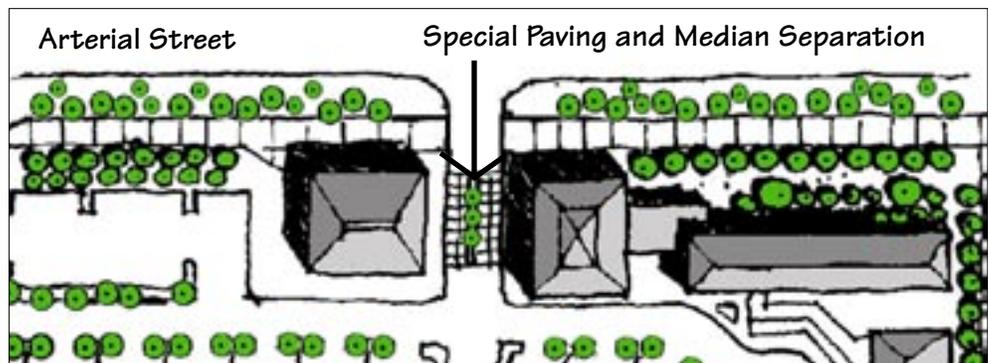


figure 5.15: Paving Enhancement and Median-Separated Drives

- Entry drives that provide access to non-residential parking facilities, and that are located adjacent to a major arterial, should be separated by a distance of not less than three-hundred (300) feet; and should be at least two-hundred (200) feet from the street intersection property line to the entry drive centerline.
- Visibility should be maximized for vehicles: entering individual parking spaces; circulating within a parking facility and entering and exiting a parking facility.
- Parking should not be permitted along entry drives or adjacent to major circulation aisles of large commercial and mixed use developments.

- End aisles are the primary areas for traffic circulation, and should be designed and located within a parking facility to provide a definitive end to a parking bay.
- Raised and curbed landscaped islands should be:
 - extended into parking bays every ten (10) parking spaces;
 - located between each 50 space parking cluster; and
 - provided between the end of each parking bay and end aisle in lieu of painted areas in order to prevent vehicles from parking and obstructing visibility and eliminating maneuvering room for vehicle access to parking aisles;
- The use of signs and pavement markings to reinforce traffic circulation and flow should be designed in a manner consistent with the character of the development.

- **Angle** used for all parking facilities, with the angle and design of parking stalls and aisles consistent throughout the development.

- **Angled parking** should be designed with one-way angled parking aisles and alternating directions for adjacent aisles.

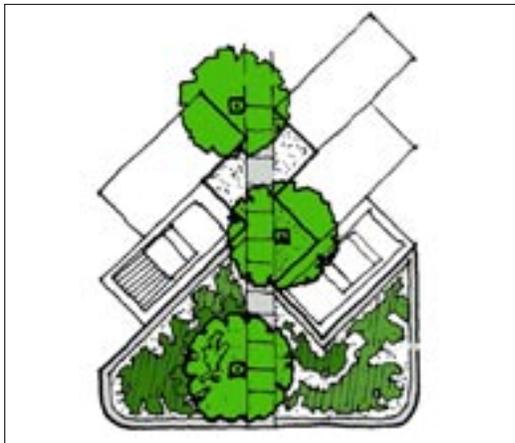


figure 5.16: Parking with Pedestrian Way

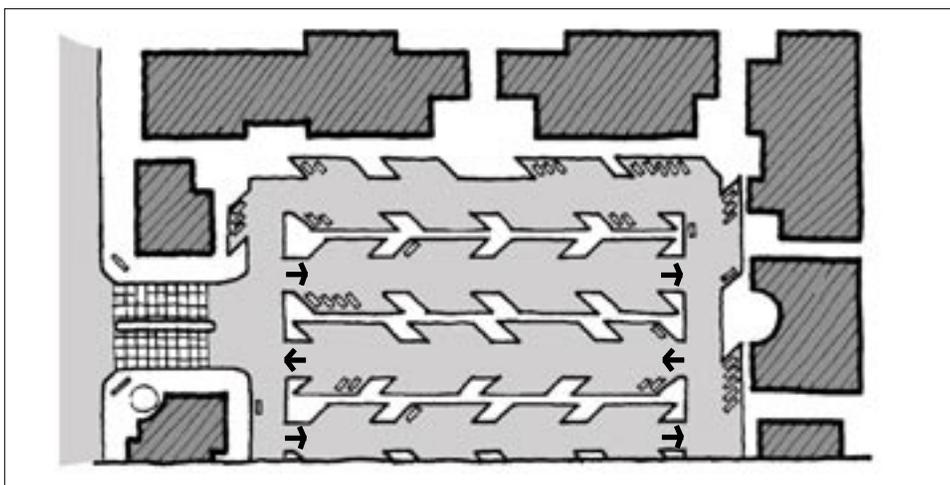


figure 5.17: Angled Parking Stalls in Commercial Areas



- The use of safety barriers, fencing, wheel stops, curbing, bollards or other restrictive barriers to assure safety, efficient parking lot utilization and protection to landscaping are encouraged; provided they are designed to enhance, rather than detract from, the character of development.
- Access to parking garage facilities should be designed and located to accommodate the queuing of vehicles within the garage or on the garage site, and not on adjacent streets.
- In order to prevent potential conflicts between pedestrians and vehicles, entries and exits for parking structures should contain well-marked and signed pedestrian crosswalks; and have driveways that are sufficiently wide and open to provide adequate sight lines for vehicles entering and exiting the structure.
- Parking structure ingress and egress should not interfere with street movement or pedestrian circulation.
- For adjoining non-residential and multi-family residential developments where no shared access drive is provided, access to the site should be located a minimum of twenty (20) feet from the side property line.
- Internal circulation driveways and parking aisles should intersect at right angles, and where they are intersected by crossing traffic, the centerlines of the driveways and parking aisles should be aligned.
- Continuous vehicle drives or circulation aisles that are adjacent to and parallel the front of buildings in a development, should not exceed four hundred (400) feet in length in order to further reduce conflicting pedestrian and vehicular movements and discourage high speeds of travel through the parking lot.
- The application of speed bumps and humps as traffic calming devices should be discouraged in parking lots and parking garages for new developments; while the use of narrower circulation aisles and parking lot layouts should instead be utilized to reduce speeding in the lot.
- The minimum width for an internal drive or circulation aisle with no parking should be twenty-four (24) feet for two-way traffic, and twelve (12) feet for one-way traffic.
- In developments containing “drive-through” activities, the drive-through area should be separated from any other circulation or parking aisle in the parking lot, and have a queuing area sufficiently deep to prevent queued vehicles waiting for service extending into parking and circulation aisles.

Pedestrian Movement In Parking Facilities

- Developments with surface parking lots that contain one hundred (100) parking spaces and greater, or two (2) commercial pads, should be required to submit a Master Pedestrian Circulation Plan that:
 - clearly defines the separation of cars and pedestrians;
 - demonstrates connection of the onsite pedestrian circulation system to the offsite public sidewalk or multi-use pathway system and community open space system;
 - identifies pedestrian linkages to nearby, adjacent, residential neighborhoods and other non-residential development.
 - incorporates a clearly defined, well-landscaped, shaded and lighted pedestrian walkway system that interconnects parking clusters with one another and extends throughout the site to link all parking areas with primary building entrances.
- In large non-residential developments containing “big box” commercial or industrial buildings, drop-off points located near major building entries and plaza areas should be permitted; provided the vehicular circulation aisle has been designed with a wider aisle to accommodate the drop-off point without deterring the movement of vehicles.
- Where transit/bus stops are located adjoining a major parking facility, clearly defined pedestrian access should be provided from the transit stops through the parking lot to primary building entrances.
- All parking facilities should be designed so that pedestrians walk parallel to moving cars in parking aisles; and any need to cross parking aisles is minimized.
- Pedestrian walkways should be raised and protected from the drive aisle by a six-inch (6”) high curb



- A twenty (20) foot pedestrian walkway placed perpendicularly to the main entry of a building in a commercial and/or mixed use development, should be provided when the square footage of the building, or combination of buildings, is thirty thousand (30,000) square feet or greater.

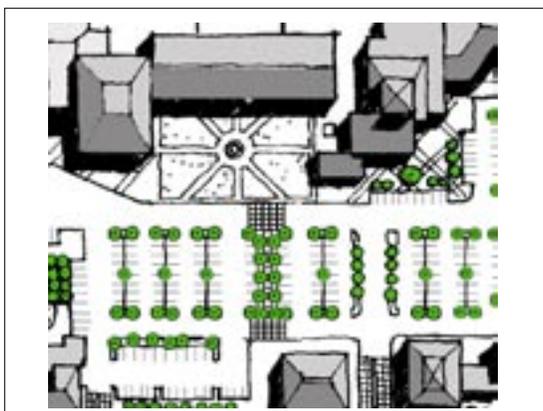


figure 5.18: Pedestrian Connectivity





- Primary pedestrian walkways extending through large surface parking lots should have a minimum width of twenty (20) feet , and should be heavily landscaped with shade trees, decorative paving patterns and materials, and lighting standards that are consistent with the character of the development.
- Pedestrian walkways that cross major vehicular circulation aisles in a parking lot should be raised and distinguished by a different paving material.
- At building entries, pedestrian crossings of driveways and major parking aisles should be emphasized by extending the sidewalk or pedestrian way out into and through the vehicular circulation lane in front of the building.

Design and Material Treatment of Surface Parking Facilities

- Textures, patterns and colors are encouraged in the design of surface parking lots in order to provide breaks in large monolithic areas of asphalt and distinguish between pedestrian and vehicular movement within the parking facility.

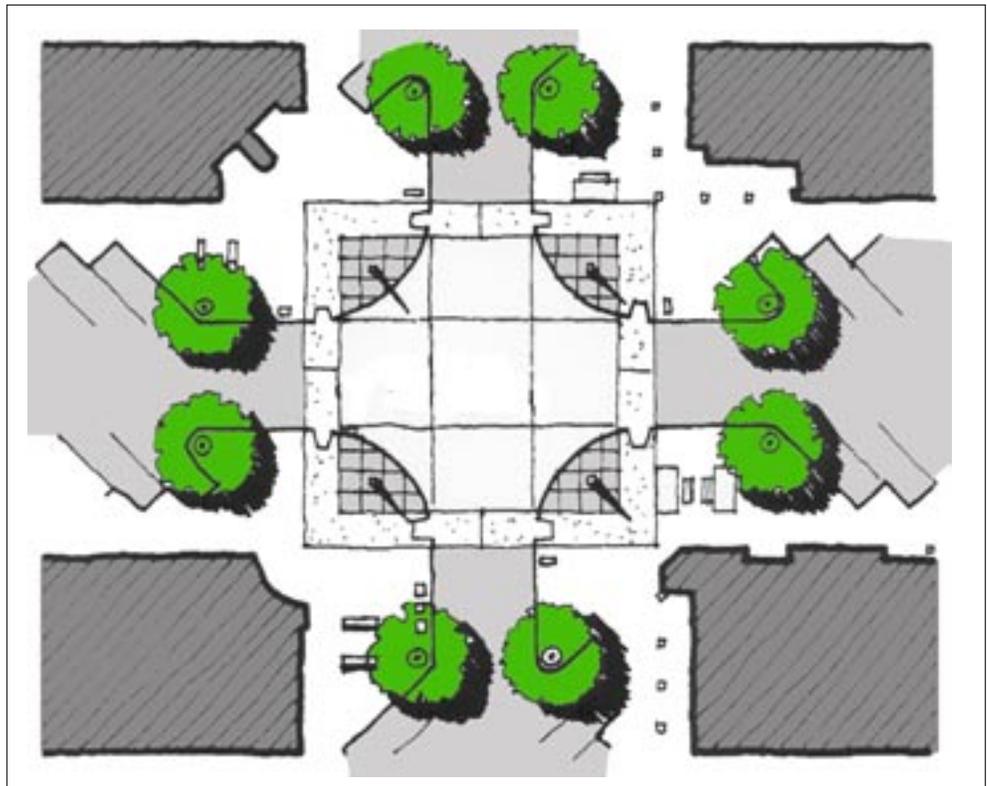


figure 5.19: Design and Material Treatment in Surface Parking Areas

- Surface parking areas should be designed to maximize visibility for vehicles entering parking aisles and individual spaces, circulating within the parking lot and entering and exiting the parking facility.

- All outdoor parking facilities should be surfaced and maintained with asphaltic concrete, portland cement concrete or other permanent hard-surface material to prevent dust, mud and loose material.
- “No Parking – Fire Lane”, or other informational signs and curb markings in parking lots should be designed and placed in a manner that enhances, rather than detracts, from the quality and character of the development.
- Access aisles should be designed with appropriate inside and outside turning radii to accommodate emergency operational vehicles.



LIGHTING OF PARKING FACILITIES

- All parking lot and parking garage lighting should consist of lighting fixtures and systems that are designed and located to:
 - provide maximum public safety and security for the user of the parking facility;
 - ensure preservation of the City of Surprise’s nighttime visual environment; and
 - minimize the amount of energy consumed.
- Exterior lighting in parking lots should be architecturally integrated with the building style, materials and colors of the development.
- All parking lot light fixtures should use fixture cutoffs and/or be optically controlled to control light spillover and glare beyond the boundary of the development.
- All outdoor lighting should be energy efficient and should be oriented and shielded in a manner to prevent direct illumination above the horizontal surface passing through the luminaire.
- The use of high-mounted, widely spaced pole fixtures that illuminate large areas and that are directed at building walls from a single source should not be permitted.
- Lighting fixtures in parking lots should be placed within the raised and curbed, landscaped areas and along pedestrian walkways; and done so in a manner that prevents lighting from being obscured by mature landscaping and trees.





- The type of parking lot lighting fixture and the mounting height of the fixture should be appropriate for the setting and character of the development; and in no case should the height of the fixture exceed sixteen (16) feet, measured from finish grade to the top of the light fixture.
- The use of low, bollard-type lighting fixtures that are three (3) to four (4) feet in height are encouraged for pedestrian area lighting.
- Raised base pedestals for pole-mounted lighting fixtures with should not exceed two (2) feet in height, and should be included in the overall height of the fixture. Pedestals should be attractively designed and well detailed to be compatible with the character of the overall development.
- Mounting heights that are less than sixteen (16) feet are encouraged in smaller parking lots, or where parking lots are adjacent to residential areas or other sensitive land uses.
- Building mounted light fixtures should be in scale with the elevation of the building, and oriented in a manner so as not to produce glare.
- The distance separating parking lot lighting fixtures should be determined by the type of lighting fixture used; the need to ensure a solid light wash of the parking surface and the elimination of any dark spots; and the design and layout of the parking facility.
- The use of metal halide, high pressure sodium and similar light sources should be utilized in lighting all parking lots.

SCREENING AND LANDSCAPING

- Peripheral site landscaping for screening purposes should consist of low maintenance, low-water shrubbery and trees in sufficient quantity and mature size to serve as a heavy screen. All trees to be installed should be forty-eight inch (48”) box or larger with a minimum three (3) inch caliper.
- All landscaping within a surface parking lot should be placed in raised planting beds; with a minimum of two (2) trees for every six spaces, and distributed evenly throughout the parking lot.

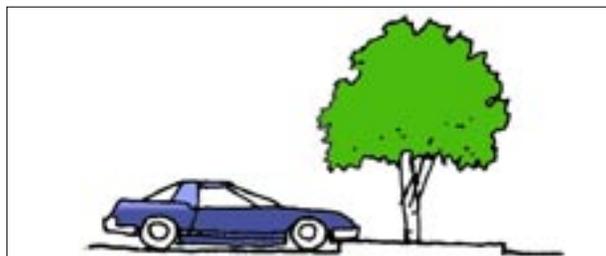


figure 5.20: Vehicle Parking and Pedestrian Walkway

- Where wheelstops are not used, and vehicles extend over the pedestrian/landscape walkway, the planting area should be increased in width.

- Upper levels of multi-level parking garages that are visible from public streets, pedestrian pathways, adjacent buildings or residential developments should contain planting boxes for hanging landscape materials.
- All surface parking lots should be screened at their periphery by utilizing one or a combination of the following basic screening techniques:

landscaped, earth berms;

low-level opaque masonry walls;

evergreen-type hedges that create a solid hedge; and

lowered parking lot grades below the level of the adjacent street.

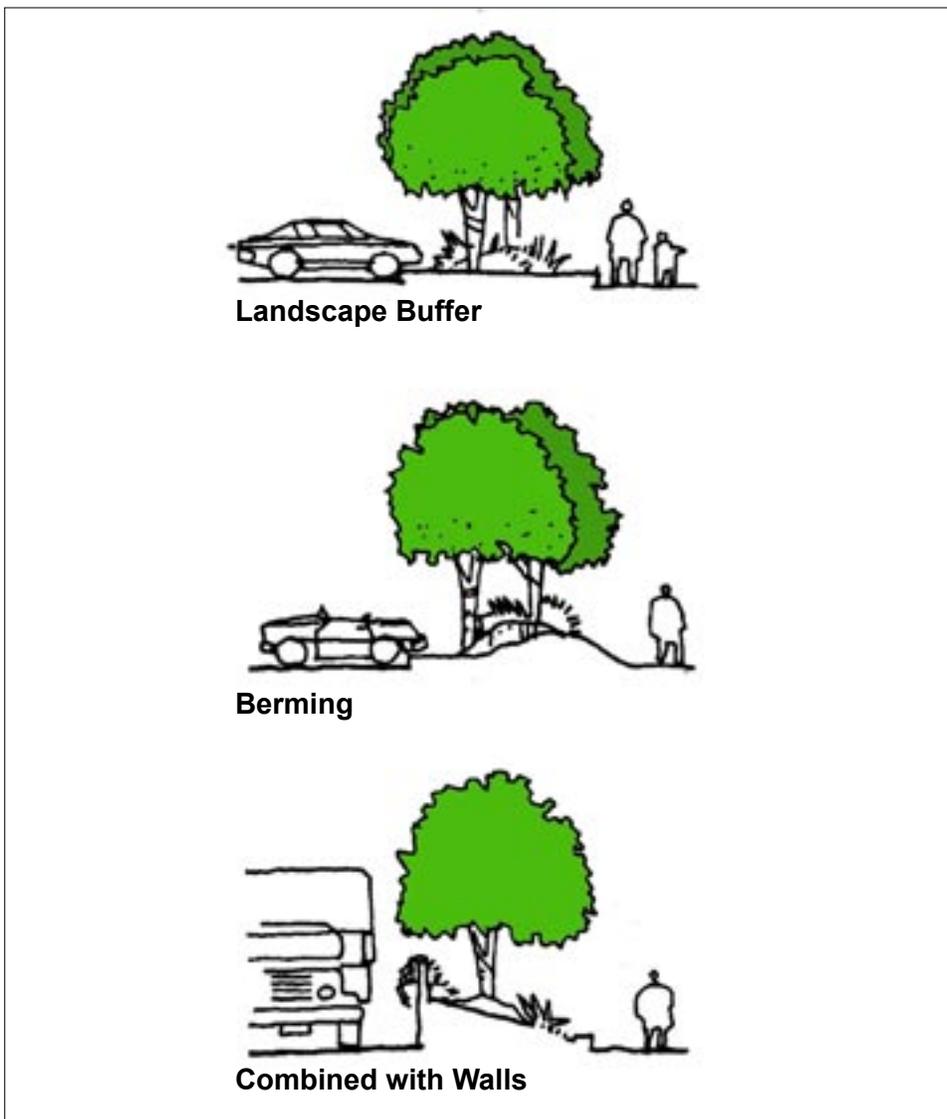


figure 5.21: Landscape Screening Techniques



LOADING/UNLOADING AREAS - *Guidelines set forth design considerations for loading and unloading areas in non-residential areas. Specific focus is placed upon the location and orientation of service areas in a manner that minimizes their visual and operational impact upon adjacent uses, adjoining streets and the developments they serve.*

- Truck delivery and circulation routes related to major commercial, mixed use and industrial projects should always be contained wholly within the development; and should be separated from customer circulation and parking areas throughout the site, with delivery and service activities served by access points from the least traveled street adjacent to the development.
- Loading and unloading facilities should never be located at the front of a building, and should always be screened and not be visible from a public street.
- Loading/unloading docks should be located no nearer than thirty feet (30') from the property line of any residential neighborhood.
- All new non-residential development is encouraged to place loading/unloading facilities either at the rear, or along the side of a building.
- For each freestanding eating establishment, a loading space should be provided.
- Loading/unloading areas should utilize similar landscape screening techniques used for surface parking lots to ensure that areas have minimum noise and visual impact on adjacent areas; and lighting of areas should not result in glare or project beyond the loading area of the building served.

