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SECTION 9 - PARKING LOT LAYOUTS

9.1.0 GENERAL

The principal design objectives for any off-street parking facility are the provision of safe customer service and convenience coupled with minimal interference to street traffic flow. Specific ordinance requirements for parking facilities are provided in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition.

The following supplemental guidelines have been developed as an aid in designing parking facilities in conformance with accepted principles of traffic engineering and safety. These guidelines and principles will be routinely applied during the site plan review process. Such reasons will generally be limited to severe environmental or topographical constraints associated with a specific site or to questions of traffic safety unique to a specific site that are not adequately addressed by the guidelines.

9.2.0 PARKING LOT DESIGN

All parking facilities shall be designed and constructed in accordance with the dimensions provided in Table 9-1 (together with Figure 9-1, in Section 9.8.0 of this Manual). Additional design requirements are listed below.

1. Where angled parking is used, the angle and design of parking spaces and aisles shall be relatively consistent throughout a unified development. One-way angled parking aisles shall be designed to alternate the direction for adjacent aisles. Proper signs and markings shall be required to reinforce traffic circulation and flow.

2. Each parking space shall be independently accessible and shall have a vertical clearance as specified in the City of Round Rock Building Code. Tandem parking spaces (one car behind another, so that one car must be moved before the other can be accessed) are allowed for single-family detached, single-family attached, duplex, small lot residential, two-family residential, and townhome residential uses provided the conditions of Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition are met. Tandem parking spaces are allowed for condominium and multi-family residential uses only under the following conditions, which must be included as a note on the site plan:

   a. The spaces must be reserved and assigned to dwelling units which are required to have two (2) or more parking spaces per unit (i.e. units with two or more bedrooms).

   b. At least one of the spaces must be located within an enclosed garage, in order to avoid visual clutter.

c. Both of the spaces must be standard size; no compact or handicapped accessible tandem spaces are permitted.

d. At least ten (10) percent of the total parking spaces on the site must be unassigned spaces which are available for the use of visitors.

e. Each parking and loading space shall have adequate drives, aisles and turning and maneuvering areas for access and usability.

f. Signs and curb markings may be required to indicate "No Parking -- Fire Zone." Access aisles shall be designed with an appropriate twenty-five (25) foot inside turning radius and a fifty (50) foot outside turning radius at turns to accommodate operational fire department apparatus.

g. Parking and loading facilities accessed from a Type I, Type II, on Type III or driveway approach shall be surfaced and maintained with asphaltic concrete or other permanent hard surfacing material sufficient to prevent mud, dust, loose material and other nuisances. Materials may allow for infiltration of stormwater but must be included as impervious cover. For lots at least one acre in size, gravel surfacing is permitted for a single-family residence.

   In such cases, the gravel surfacing must be limited to parking stall areas within the critical root zone of the trees and must be confined by curbing or other barriers to prevent it from being carried into public roadways and drainageways. Gravel surfacing will not be permitted on slopes greater than five (5) percent, within handicapped parking spaces, or along accessible pathways between handicapped parking and the building entry. Gravel used for parking must be crushed, angular stone, with a minimum 3/4" aggregate size, and must be included as impervious cover.

h. Safety barriers, fencing, wheel stops or curbing or other restrictive barriers and directional markers shall be provided to assure safety, efficient utilization, protection to landscaping and to prevent encroachment onto adjoining public or private property.

i. Visibility of and between pedestrians, bicyclists and motorists shall be assured when entering individual parking spaces, when circulating within a parking facility and when entering and exiting a parking facility.

j. Each parking space intended for use by the handicapped shall be designed in accordance with the latest edition of the Texas Accessibility Standards (TAS).

k. Bicycle spaces shall be racks or lockers anchored so that they cannot be easily removed. Each space allocated for this kind of parking shall be a minimum of two (2) feet wide and six (6) feet long. Bicycle parking facilities shall be classified as follows:

   - Class I - highest security - a completely enclosed parking space which protects the bicycle from inclement weather and designed so that an unauthorized person cannot remove a bicycle from it. Examples of

Class I parking include bike lockers or locked storage rooms, bike check-in systems under control of an attendant, and bike storage facilities in a parking garage under constant personal or electronic surveillance.

- Class II - medium security - a bike rack where both wheels and the frame can be secured with only a user-supplied lock without removing a wheel.
- Class III - standard bike rack - a bike rack with the ability for the user to lock one (1) wheel and the frame, with the user providing the lock. Racks which secure only one wheel are not permitted.

A detail of the appropriate bike rack must be included on the site plan.

l. The City of Round Rock Fire Department (RRFD) requires a minimum three (3) foot radius clear space be maintained around all fire protection devices (i.e., fire hydrants, fire department connectors, system control valves, system test pipes/headers, etc.).

m. The RRFD requires the following in regard to access roadways:

- Where the RRFD access roadways are longer than one hundred and fifty (150) feet and terminate at a dead end, approved provisions for turning around RRFD apparatus shall be provided. The RRFD will approve a cul-de-sac with a minimum fifty (50) feet unobstructed radius. A thirty (30) foot by eighty (80) foot "T" section or "Hammerhead" turn around is also acceptable, provided that an additional ten (10) feet of right-of-way around the thirty (30) foot by eighty (80) foot dimension can be provided with no obstruction over one (1) foot high.
- Access roadways shall be designed with an appropriate twenty-five (25) foot inside turning radius and a fifty (50) foot outside turning radius at turns to accommodate any operation RRFD apparatus.
- The RRFD requires that all weather pavement be of either concrete or asphalt construction.

  Access roadways shall be finished by application of an all weather driving surface with a flexible base capable of supporting loads imposed (not less than 80,000 pound live vehicle load) by all RRFD apparatus and must conform to the City's DACS - Standard Specifications Manual. Any previous/decorative paving within one hundred (100) feet of any building must meet the same vehicle loading requirements.
- Asphaltic hot mix concrete access roadways shall be engineered not to exceed thirteen (13) percent in grade. Concrete roadways shall be designed not to exceed fifteen (15) percent in grade. As an alternative, where maximum road grades of thirteen (13) or fifteen (15) percent cannot provided, a professionally designed sprinkler system may be installed as an alternative, provided the building being considered is fully protected and the system is approved by the RRFD. Road grades

must also be approved by other regulating departments in addition to the RRFD approval.

n. Parking spaces within an automotive repair facility or service station may be counted as required parking spaces as long as they are independently accessible.

o. Parking bays should be no more than three hundred (300) feet in length. Cross-aisles or turnarounds should be provided in order to avoid long dead-end aisles.

p. End islands should be used to delineate primary traffic aisles and to protect cars parked at the end of parking bays from turning vehicles. Concrete islands in lieu of painted areas should be provided in order to prevent vehicles from parking in such areas and thereby obstructing sight distance triangles (see Figures 9-2 through 9-6, in Section 9.8.0 of this Manual) Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition should also be consulted regarding landscape requirements within parking lots.

q. Parking is discouraged along entrance drives and should be limited adjacent to major circulation aisles of large developments and major retail centers.

r. Parking spaces should be located in such a manner as to be convenient to the uses which they serve. No more than ten (10) percent of all the spaces should be located in the service areas at the rear of shopping centers and other locations with poor pedestrian access to the building entrances.

s. At least forty (40) percent of the required parking spaces at service stations or convenience stores with gasoline pumps should be spaces which do not abut air, water, or vacuum facilities.

9.3.0 LOADING

Requirements for loading spaces are provided in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition. Additional design criteria are provided below.

A. Each off-street loading space shall consist of a rectangular area not less than twelve (12) feet wide and forty-five (45) feet long, with a vertical clearance of not less than fifteen (15) feet. Dimensions for off-street loading spaces in Central Business District (CBD) are contained in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition.

B. Freight loading and trash collection facilities should be designed and located to minimize intermixing of truck traffic with other vehicular and pedestrian traffic on site. Such facilities shall be located off the main access and parking aisles and away from all pedestrian corridors. Trash dumpsters shall be located to provide adequate access and maneuverability for service vehicles.

C. Maneuvering areas for loading facilities shall not conflict with parking spaces or with the maneuvering areas for parking spaces. Public right-of-way shall not be used for maneuvering. All maneuvering shall be contained on-site.

D. Rear-loading freight docks are greatly preferred to side-loading docks. For such rear-loading docks, truck circulation patterns and dock positions should be designed for left-side, back-in maneuvers to allow for better driver visibility (see Figure 9-7, in Section 9.8.0 of this Manual). The apron space should be adequate to allow the truck to back and pull-out in one (1) maneuver. Where semitractor/trailer combinations are expected, the critical maneuvering and circulation areas shall be designed to accommodate trucks with a WB-50 design.

E. Service stations, convenience stores and other outlets where fuel is dispensed must provide an adequate maneuvering and unloading area for fuel delivery vehicles. Such facilities or areas shall be designed to enable trucks to deliver fuel without interfering with on-site parking, queuing areas, internal circulation or driveway access.

TABLE 9-1
PARKING LOT CRITERIA

A	B	C	D		E	F	
Angle of Parking (degrees)	**Width of stall (ft)**	**Depth of stall 90° to aisle (ft)**	**Width of aisle (ft)**		**Width of stall parallel to aisle (ft)**	**Module Width (ft)**	
			One Way	**Two Way**		**One Way**	**Two Way**
Standard Parking Spaces							
30	8.5	16.9	12.5	28	17.0	47	62
30	9.0	17.3	12.5	26	18.0	47	61
30	9.5	17.8	12.5	25	19.0	48	61
30	10.0	18.3	12.5	25	20.0	49	62
45	8.5	17.5	13.0	28	12.0	48	63
45	9.0	17.5	12.5	36	12.7	48	61
45	9.5	17.5	12.5	25	13.4	48	60
45	10.0	17.5	12.5	25	14.1	48	60
60	8.5	19.0	18.0	-	9.8	56	-
60	9.0	19.0	16.0	-	10.4	54	-
60	9.5	19.0	15.0	-	11.0	53	-
60	10.0	19.0	15.0	-	11.6	53	-
75	8.5	19.5	25.0	-	8.8	64	-
75	9.0	19.5	23.0	-	9.3	62	-
75	9.5	19.5	22.0	-	9.8	61	-
75	10.0	19.5	22.0	-	10.3	61	-
90	8.5	18.5	-	28	8.5	-	65
90	9.0	18.5	-	26	9.0	-	63
90	9.5	18.5	-	25	9.5	-	62
90	10.0	18.5	-	25	10.0	-	62

TABLE 9-1 (Continued) PARKING LOT CRITERIA							
A	B	C	D		E	F	
Angle of Parking (degrees)	Width of Stall (ft)	Depth of Stall 90° to Aisle (ft)	Width of Aisle (ft)		Width of Stall Parallel to Aisle (ft)	Module Width (ft)	
			One Way	Two Way		One Way	Two Way
Parallel Parking Spaces							
0	8.5	8.5 (Width)	12.5	25	22.0 (Length)	30	42

9.4.0 QUEUING

Queuing spaces or queuing areas shall be designed in accordance with the following criteria for uses as required by Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition.

A. Queue spaces or queuing areas may not interfere with parking spaces, parking aisles, loading areas, internal circulation or driveway access.

B. Each queue space shall consist of a rectangular area not less than ten (10) feet wide and eighteen and one half (18.5) feet long with a vertical clearance as specified in the City of Round Rock Building Code. Queue spaces are not interchangeable with parking spaces.

C. A twelve (12) foot by-pass lane may be required adjacent to queue lines to allow vehicles an opportunity to circumvent the drive-through activity and exit the site.

D. Although drive-through activities are not required to be completely separated from other activities on site, the queuing areas should be designed to enable the driver to readily identify and distinguish queuing areas from other activities on site. It is strongly recommended to locate queue lines and service areas towards remote areas of a site to avoid conflicts with parking and circulation areas. Queue areas and drive-through facilities shall be clearly identified with the appropriate signing and marking.

E. Queuing areas for service station islands and fuel dispensing pumps shall be designed according to Figure 9-8, in Section 9.8.0 of this Manual. The minimum queuing requirement dimension is measured from the ends of the service island or protective bollards. By-pass lane(s) are required to provide on-site circulation. Parallel adjacent islands with three (3) or more pumps on each island shall maintain a circulation aisle between queuing spaces or other obstructions. Specific requirements may vary based upon individual site design. Consult with the Transportation Services Department for specific requirements prior to site design.

F. Spaces within an automobile washing facility or drive-through lubrication service may be counted toward the queuing requirement.

9.5.0 INTERNAL CIRCULATION

Internal Circulation shall be designed in accordance with the following criteria:

A. The minimum separation between the edge of the street pavement and the first conflict point within a parking area shall be determined according to the requirements listed in Section 5 of this Manual.

B. Entry driveways equipped with controlled access gates must provide a minimum of forty (40) feet of storage space measured from the gate to the property line. A different storage length may be required by the Director of the Transportation Services Department. Additional storage space may be required if indicated by a TIA or traffic report.

C. All semicircular drop-off driveways shall be designed to operate in one (1) direction only. Figure 9-9, in Section 9.8.0 of this Manual, provides specific design criteria for semicircular drop-offs.

D. All internal circulation and queuing areas must be designed to accommodate the turning radii of the vehicles that will be using the site. The critical design criteria are provided by the American Association for State Highway and Transportation Officials (AASHTO) for various design vehicles according to their wheelbase.

E. The minimum width for an internal drive or circulation aisle with no parking is twenty (20) feet for two-way traffic and ten (10) feet for one-way traffic. Additional width, up to twenty-five (25) feet for two-way traffic and fifteen (15) feet for one-way traffic, may be required where traffic volumes are heavy or where obstructions or circuitous alignment necessitates a wider drive for clearance of turning vehicles.

F. Speed bumps are prohibited along routes, which are designated as accessible for the disabled.

The following design features are not City requirements but are recommended practices:

G. Parking along the curb line adjacent to building fronts should be discouraged to provide for good pedestrian visibility. The designation of the building front curb as a fire lane to aid in the enforcement of the parking prohibition is encouraged.

H. The use of speed bumps to reduce internal travel speeds is discouraged for new construction. Buildings and lots should instead be configured to reduce speeds.

I. Continuous travelways adjacent to building fronts should be no more than four hundred (400) feet in length to discourage high speeds and to reduce conflicting pedestrian and vehicular movements.

J. Internal driveways or parking aisles should intersect at angles of between eighty (80) and one hundred (100) degrees, with ninety (90) degrees being preferred.

K. Internal driveways or aisles that are intersected by crossing traffic should either have their centerlines aligned or offset by at least sixty (60) feet.

L. Traffic squares or circles should carry low traffic volumes, be designed to encourage one-way traffic flow, and have no more than four (4) intersecting driveways or aisles.

9.6.0 MIXED-USE PARKING (Shared Use Parking)

The following guidelines are intended to serve as criteria for evaluating proposals for shared parking under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition. Under this provision, the Director of the Planning and Community Development Department may authorize an adjustment in the total parking requirement for separate uses located on the same site or on adjoining sites if served by a common parking facility.

These guidelines also apply to off-site or remote parking under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition if the off-site parking is shared by two (2) or more land uses.

9.6.1 Definitions

For the purpose of these guidelines, the following definitions shall apply:

A. Mixed Use: A single development containing two or more significant land uses which are functionally and physically integrated and are developed under a coherent plan.

B. Shared Parking: Parking that can be used to serve two or more individual land uses without conflict or encroachment.

9.6.2 General Requirements

A. **Site Plan.**

All requests for shared parking must be accompanied by a site plan which meets the requirements of Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition and includes sufficient information to identify the type and intensity of the uses which are proposing to share parking.

For projects which are subject to site plan review only because of a request for shared parking, the Director of the Planning and Community Development Department may modify the normal site plan submittal requirements if some material is determined to be unnecessary.

B. **Ownership.**

When first approved, the shared parking facility must be under common ownership or under the control of a single site plan. All requirements and conditions imposed upon the shared parking facility shall be listed on the site plan and shall be binding upon all subsequent purchasers.

C. **Time of Submittal.**

All requests for shared parking must be submitted in writing at the same time as an application for site plan review. For Planning and Zoning Commission approved site plans, any supplemental information required by the staff in order to complete the review must be submitted at least eighteen (18) working days prior to the date on which the project is scheduled for consideration by the Planning and Zoning Commission.

D. **Review Criteria.**

All requests for shared parking shall be reviewed by the Director of the Planning and Community Development Department in accordance with this Manual. The Director of the Planning and Community Development Department shall determine whether shared parking is feasible at the proposed site and specifying the reasons for approval or disapproval.

9.6.3 Suitable Applications of Shared Parking

A. **Location.**

Shared parking will not normally be considered in areas characterized as Central Business District (CBD). A development within the CBD districts is required to provide no less than twenty (20) percent and no more than sixty (60) percent of the normal parking requirement.

B. **Uses and Square Footage.**

The project must contain at least two (2) of the following uses which are functionally and physically related:

- Office
- Retail
- Restaurant
- Cinema
- Residential
- Hotel

For parking analysis using the Urban Land Institute (ULI) "Shared Parking" software or report, the minimum square footage for each of the land uses to share common parking shall be as follows:

- Office: 45,000 square feet Gross Leaseable Area (GLA)
- Retail: 135,000 square feet GLA
- Restaurant: 5,000 square feet
- Cinema: 800 seats
- Residential: 60 dwelling units

- Hotel: 240 rooms

For projects which: (1) are smaller than these minimum sizes; or (2) contain other land uses; or (3) have operating hours which do not overlap, shared parking may be considered if the applicant furnishes reliable data signed by a Professional Engineer or other state-licensed professional with training or experience in the design of parking facilities and/or shared parking documenting: (1) the appropriateness of shared parking in similar situations; or (2) modifications to the ULI methodology. Nevertheless, site plan characteristics, public transit availability, adequacy of roadways and access, the methodology stated below, the design characteristics in Section 9.6.5 below and the land uses selected are the primary variables used in determining the appropriateness of shared parking.

9.6.4 Methodology

A. **Responsibility.**

The preparation of a proposal for shared parking shall be the responsibility of the applicant. A pre-application consultation with the Planning and Community Development Department staff is encouraged. A shared parking proposal must be prepared by a registered Professional Engineer or other individual with training or experience in the design of parking facilities. Statements of qualifications may be required in order to document such training or experience.

B. **Analysis Methodology.**

A proposal for shared parking shall be based upon the ULI's "Shared Parking" Report (1983) and Software (1984) or using other methodologies approved by the Director of the Planning and Community Development Department. Applicants should refer to the Shared Parking report for a complete discussion of the variables analyzed.

Any methodology other than the ULI procedure shall be thoroughly documented in a similar level of detail by a Professional Engineer prior to review of the parking analysis by the staff. The Director of the Transportation Services Department shall determine the appropriateness of other methodologies for each specific application.

C. **Parking Ratios.**

Regardless of the methodology, City parking ratios contained in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition shall be the minimum acceptable rates for calculating peak parking requirements for each use. Reductions in the total parking requirement may be made only to reflect different hours of operation; different hourly, daily or monthly peaks; interaction among land uses; or incentives for use of transit or car pooling.

D. **Internal Capture.**

All assumptions for internal capture or interaction among land uses must be

documented by information provided to staff during the review. The Director of the Transportation Services Department shall determine the appropriateness of the assumptions for each specific application.

E. **Use of Public Transportation.**

Any reduction in parking requirements due to the use of public transportation or other high-occupancy vehicles must be supported by firm commitments, as determined by the Director of the Planning and Community Development Department , for provision of such services and incentives for their use.

F. **Auto Occupancy.**

Assumptions regarding automobile occupancy rates must be documented if nonstandard ratios are used. The Director of the Planning and Community Development Department shall determine the appropriateness of the assumptions for each specific application.

9.6.5 Design Considerations

A. **Compact Parking.**

Compact parking spaces are not allowed.

B. **Pedestrian Linkages.**

Pedestrian links between the development and shared parking areas shall be specifically designed to assure readily visible relationships between the use and the available parking. Special attention shall be paid to sidewalk design, paving materials, access across internal drives and streets and access within parking structures.

C. **Distribution of Spaces.**

All shared parking facilities shall be easily accessible to all land uses and adequately distributed on the site to provide the required parking for any use within five hundred (500) feet of the entrance, measured from the closest point of the parking facility.

For hotel and restaurant uses only, longer distances may be considered if a commitment is made for a valet parking plan acceptable to the Director of the Planning and Community Development Department.

D. **Reserved Spaces.**

Parking spaces which are reserved for employees or other individuals shall not be included in shared parking unless hours of use are such that parking is available for others to use at different hours.

E. **Fees and Access Controls.**

Any parking fees and any access controls to a parking area (such as gates or attendants) shall be identified in the shared parking proposal.

F. **Hours of Operation.**

For projects using the ULI report and software, the hours of operation should be consistent with the ULI peak hour methodology.

G. **Peak Hour Parking Demand.**

For uses that are smaller than the minimum size listed above, one hundred and five (105) percent of the peak hour parking demand determined under the ULI methodology may be required in order to provide for drivers searching for available spaces. For uses that comply with the minimum size, the peak hour demand determined in a manner consistent with the ULI methodology will be used as the parking requirement.

H. **Handicapped Parking.**

Spaces designated for handicapped use shall be provided in a quantity equal to the sum of the minimum requirements for each individual use in the mixed-use development as set forth in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition. Handicapped parking spaces may not be included in shared parking.

9.6.6 Revisions

A. **Change in Uses.**

After a shared parking facility has been approved, any subsequent change, addition, or deletion in the type or intensity of the original mixed land uses which results in an increase in the parking requirement shall require site plan approval in accordance with Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition. No certificate of occupancy for the new or changed uses shall be issued without site plan approval for the revised shared parking facility or, absent such approval, the provision of sufficient parking spaces to match the sum of the minimum requirements for each individual use.

B. **Change in Operations or Design.**

After a shared parking facility has been approved, any subsequent change in operations or design, including use of compact parking, modification of pedestrian facilities, relocation of parking spaces, addition or deletion of reserved parking spaces, addition or deletion of reserved employee parking spaces, addition or deletion of access controls, or significant changes in hours of operation, shall require administrative approval by the Director of the Planning and Community Development Department. In approving such revisions, the Director of the Planning and Community Development Department must determine that the circumstances and conditions applicable at the time of the original approval remain valid, and that the changes would not affect the suitability of the site for shared parking. The Director of the Planning and Community Development Department will determine submittal requirements for each revision based upon the nature of the change requested.

9.6.7 Monitoring

In order to ensure adequate parking capacities and establish a data base for better evaluating the adequacy of shared parking, all projects approved for shared parking will be required to conduct a follow-up evaluation of the actual utilization of the parking facility. Such an evaluation shall be signed by a Professional Engineer or other state-licensed professional with training or experience in the design of parking facilities. The study shall be performed in accordance with standards established by the Director of the Planning and Community Development Department, as outlined in Paragraph A below. The evaluation shall be conducted following completion and occupancy of the project within a time period specified at the time of approval, depending on phasing, project size, occupancy and utilization. The study shall take into account any variations due to building occupancy rates and hourly, daily or monthly peaks in parking utilization.

In the event that the evaluation is not submitted within the agreed-upon time frame or identifies a deficiency in the number of parking spaces needed to satisfy the demand, the Director of the Planning and Community Development Department will notify the owner that no additional permits will be issued for changes in occupancy until the parking supply is brought into compliance with the demand. The owner may correct the deficiency through provision of additional parking spaces, a change in the tenant mix, changes in the operating hours or use of other strategies approved by the Director of the Planning and Community Development Department. Appeal of the Director's decision in this case may be made by the applicant through the normal site plan appeal procedure as specified in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition.

Procedures for Monitoring of Shared Parking.

A follow-up evaluation of an approved shared parking application shall contain the following elements:

A. A site plan including an inventory of all parking provided on the site, identifying the quantity of spaces in each parking area.

B. An inventory of all uses on the site as shown on the site plan, identifying gross square footage of floor area, type of business, normal operating hours, and any unoccupied floor space.

C. An hourly count of all vehicles parked on the site, beginning one hour before the earliest opening hour of a business within the project and ending one hour after the latest closing hour, with the condition that no counts need be taken before 6:00 a.m. or after 12:00 midnight. To substantiate the peak day, these counts must be taken on three different weekdays and on one Saturday as specified by the Director of the Planning and Community Development Department. Counts must not be taken on days with inclement weather. Data must be recorded on a form similar to the "Parking Tally Form" (Table 9-2) and must be submitted for staff review. The data must identify the number of vehicles which are illegally parked outside designated parking stalls (within

right-of-way, in aisles, in loading zones, etc.).

D. Documentation of any existing transit usage or ridesharing programs.

E. Adjustment of the empirical data to represent the peak hours, days, and months, using the factors contained in the ULI's Shared Parking Report, latest edition, as well as compensation for any transit usage. Adjustments for internal capture or auto occupancy may be made only if supported by empirical data.

F. An assessment of the adequacy of the available shared parking at the peak periods identified in the ULI's Shared Parking Report, latest edition, for the uses contained in the project.

G. Recommendations for addressing any deficiencies identified in the parking supply.

Table 9-2

Parking Tally Form

Parking Tally Form		
SITE: AREA:	DATE: WEATHER:	
Time	Total Vehicles	Illegally Parked Vehicle
6:00 a.m.		
7:00 a.m.		
8:00 a.m.		
9:00 a.m.		
10:00 a.m.		
11:00 a.m.		
12:00 Noon		
1:00 p.m.		
2:00 p.m.		
3:00 p.m.		
4:00 p.m.		
5:00 p.m.		
6:00 p.m.		
7:00 p.m.		
8:00 p.m.		
9:00 p.m.		
10:00 p.m.		
11:00 p.m.		
12:00 p.m.		
TOTAL		

9.7.0 CALCULATION OF PARKING REQUIREMENTS

Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition states that off-street parking shall be provided for any addition or enlargement of an existing building or use, or any change of occupancy or manner of operation that would result in additional parking spaces being required in excess of the number of existing parking spaces. The additional parking shall be required only for such addition, enlargement, or change, and not for the entire building or use.

9.7.1 Change of Occupancy

The following guidelines are used in calculating parking requirements for a change of occupancy. In all cases, the existing use must either have a valid certificate of occupancy for its current use or be recognized as an established legal non-conforming use, or else the last use for which a valid certificate of occupancy is on file will be considered to be the existing use.

A. If the existing use complies with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, the new use must also comply with the parking requirements in the table.

B. If the existing use does not comply with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, and the new use has a required parking ratio less than or equal to the required parking ratio for the existing use, no additional parking is required, regardless of the actual number of spaces available on the site.

   For example, assuming the correct zoning, a Financial Service, with a required parking ratio of 1 space per 200 square feet, could occupy a building formerly occupied by a Personal Service (1 space per 200 square feet) or an Indoor Entertainment facility (1 space per 100 square feet) without adding any parking, even though the number of spaces actually available on the site may not comply with the requirement of 1 space per 200 square feet. The existing parking is considered to be non-complying with regard to any use with the same parking ratio or a lesser parking ratio.

C. If the existing use does not comply with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, and the new use has a required parking ratio greater than the required parking ratio for the existing use, the new use is not required to make up the parking deficiency for the current use, but only to provide the additional spaces needed for the new use. The number of spaces required for the new use is the number of spaces, minus the existing deficiency.

   For example, consider a 4500-square foot retail use which is being converted to a restaurant. The normal parking requirement for a restaurant would be one (1) space per seventy-five (75) square feet, or sixty (60) spaces. The normal parking requirement for a retail use would be one (1) space per two hundred (200) square feet, or twenty-three (23) spaces. However, this structure was built prior to existing regulations and has only twenty (20) spaces. In this case the parking requirement for the restaurant would be

computed as follows:

Retail use:

Normal requirement (4500 sq. ft. x 1 space/200 sq. ft.)	= 23 spaces
Parking provided*	- 20 spaces
Existing deficiency	3 spaces

Restaurant:

Normal requirement (4500 sq. ft. x 1 space/75 sq. ft.)	= 60 spaces
Existing deficiency	- 3 spaces
Required Parking	57 spaces

The exception to this rule is a cocktail lounge or late-hours restaurant. Under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, these facilities must meet current code requirements whenever a change in use is requested. In the example described above, if the building were being converted to a cocktail lounge instead of a restaurant, the parking requirement would be ninety (90) spaces (4500 sq. ft. x 1 space/50 sq. ft.).

* If there is a site plan or other documentation of the number of parking spaces required at the time the use was originally approved, that number must be used instead of the number of spaces actually provided.

D. In the CBD where a use is required to provide no less than twenty (20) percent of the normal requirement and no more than sixty (60) percent of the requirement, the requirement is computed in a similar fashion to the preceding case, but the parking ratios are reduced by twenty (20) to sixty (60) percent.

As an example, consider the same 4500 square foot retail use which is being converted to a restaurant, but assume that it is located in the CBD and has only two (2) existing parking spaces. The minimum parking requirement for the cocktail lounge would be computed as follows:

Retail Use:

Normal requirement (4500 sq. ft. x 1 space/200 sq. ft. x .2)	= 5 spaces
Parking provided	= -2 spaces
Existing deficiency	= 3 spaces

Restaurant:

Normal requirement (4500 sq. ft. x 1 space/75 sq. ft. x .2)	= 12 spaces
Existing deficiency	= -3 spaces
Minimum required parking:	9 spaces

The maximum parking allowed for the restaurant would be: 4500 sq. ft. x 1 space / 75 sq. ft. x 0.60 = 36 spaces.

9.7.2 Expansion Or Addition

The following guidelines are used in calculating requirements for an expansion or

addition:

A. If the existing use complies with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, the expanded facility must also comply with the parking requirements in the table.

B. If the existing use does not comply with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, the expansion or addition is not required to make up the parking deficiency for the current use, but only to provide the additional spaces needed for the expansion or addition. The total number of spaces required for the expanded facility is the number of spaces under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition for the addition or expansion, plus the number of existing spaces for that use.*

   For example, assume that an existing restaurant of two thousand (2000) square feet has only fifteen (15) parking spaces, instead of the twenty (20) that would be required under current regulations (1 space per 100 square feet). If the restaurant adds four hundred (400) square feet, the total requirement would be:

Expansion (400 square feet x 1 space/100 square feet)	= 4 spaces
Existing:	+ 15 spaces
Total Requirement	19 spaces

   * If there is a site plan or other documentation of the number of parking spaces required at the time the use was originally approved, that number must be used instead of the number of spaces actually provided.

   The exception to this rule is a cocktail lounge or late-hours restaurant. Under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, a cocktail lounge or late-hours restaurant which expands must comply with the current parking requirement for the entire structure, not only for the expansion.

   For example, assume that an existing cocktail lounge of two thousand (2000) square feet has only fifteen (15) parking spaces, instead of the twenty (20) that would be required under current regulations (1 space per 100 square feet). If the cocktail lounge wishes to add four hundred (400) square feet, the total requirement would be: 2400 square feet x 1 space/100 square feet = 24 spaces.

C. If the existing use complies with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, and the addition or expansion would increase the total floor area to a level that would require a higher or lower parking ratio than the existing structure provides, the higher or lower parking ratio is applied to the total structure, not only to the addition or expansion. In this case, the expansion constitutes a "change in the manner of operation" and the total floor area must be considered in determining the parking requirement.

For example, the parking ratio for restaurants is one (1) space per one hundred (100) square feet if the floor area is 2500 square feet or less, and one (1) space per seventy-five (75) square feet if the floor area is over 2500 square feet. If an existing restaurant of 2000 square feet provides the twenty (20) spaces required and wishes to add five hundred and fifty (550) square feet, the parking requirement for the total structure (2550 square feet) would be:

2550 square feet x 1 space/75 square feet = 34 spaces

D. If the existing use does not comply with the parking requirements in Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, and the addition or expansion would increase the total floor area to a level that would require a higher or lower parking ratio than the existing structure provides, the parking requirement for the expanded facility is computed in a similar manner to the preceding example; however, the existing use is not required to make up the existing deficiency in parking. The existing deficiency would be subtracted from the calculation in order to determine the total number of spaces required.

For example, if an existing restaurant of two thousand (2000) square feet provides only fifteen (15) spaces, instead of the twenty (20) required by current regulations, and wishes to add five hundred and fifty (550) square feet, the parking requirement would be:

2550 square feet x 1 space/75 square feet	=	34 spaces
Existing deficiency		- 5 spaces
Parking requirement		29 spaces

The exception to this rule is a cocktail lounge or late-hours restaurant. Under Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition, a cocktail lounge or late-hours restaurant which expands must comply with the current parking requirement for the entire structure, not only for the expansion. In the example cited above, if the facility were a cocktail lounge instead of a restaurant, the parking requirement would be: 2550 square feet x 1 space/75 square feet = 34 spaces.

9.7.3 Multiple Uses Within A Structure

In general, when there is more than one use within a structure, the parking requirement will be based on the primary use within the structure, as determined by the City of Round Rock Building Official, unless:

A. The use is subject to Chapter 11, Zoning, City of Round Rock Code of Ordinance, 1995 Edition; or

B. The uses have separate outside entrances and are not connected by any internal doors; or

C. The City of Round Rock Building Official determines that the uses are functionally separate.

9.8.0 FIGURES

Figure 9-1 Parking Lot Design

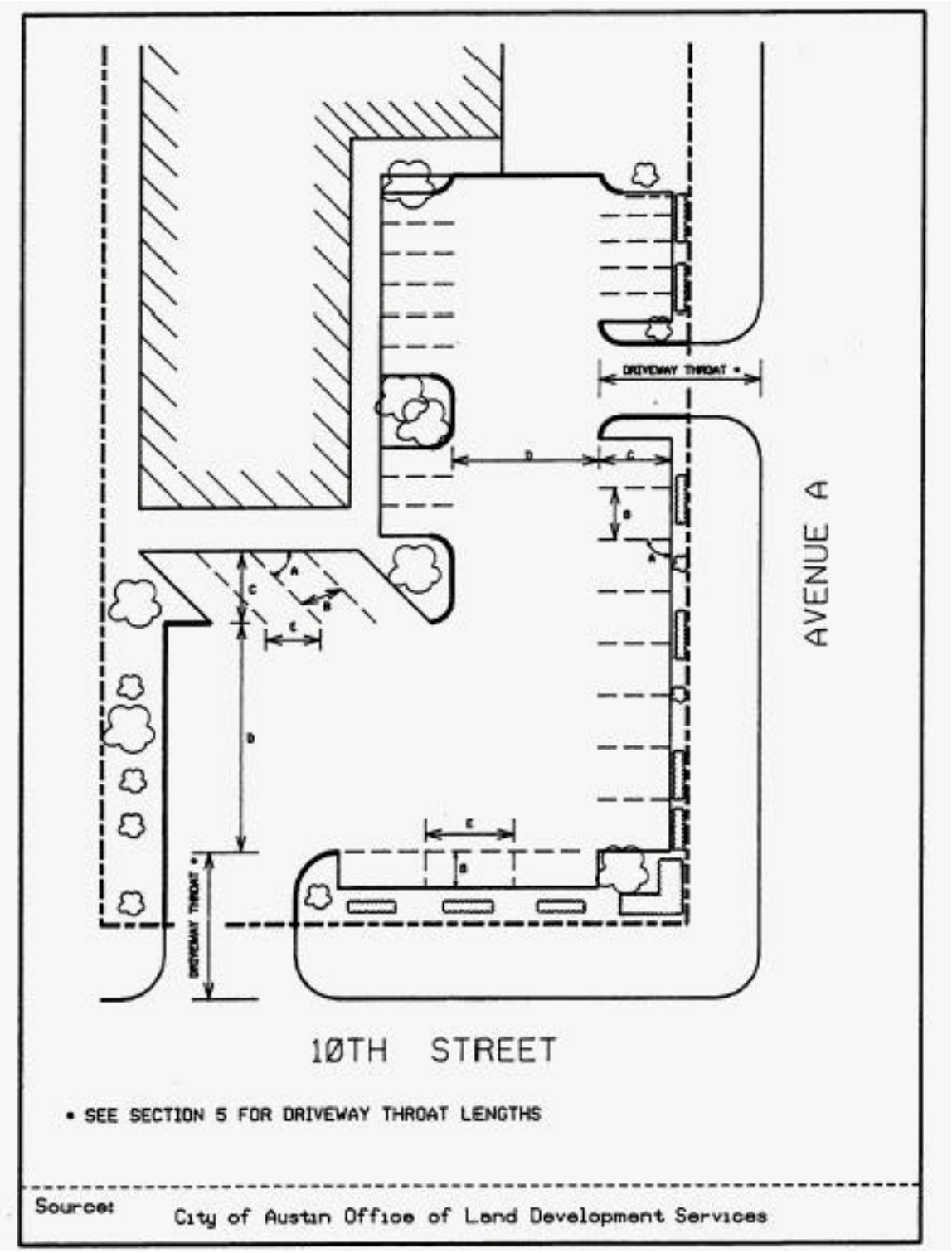

Figure 9-2 Fire Access Parking Lots

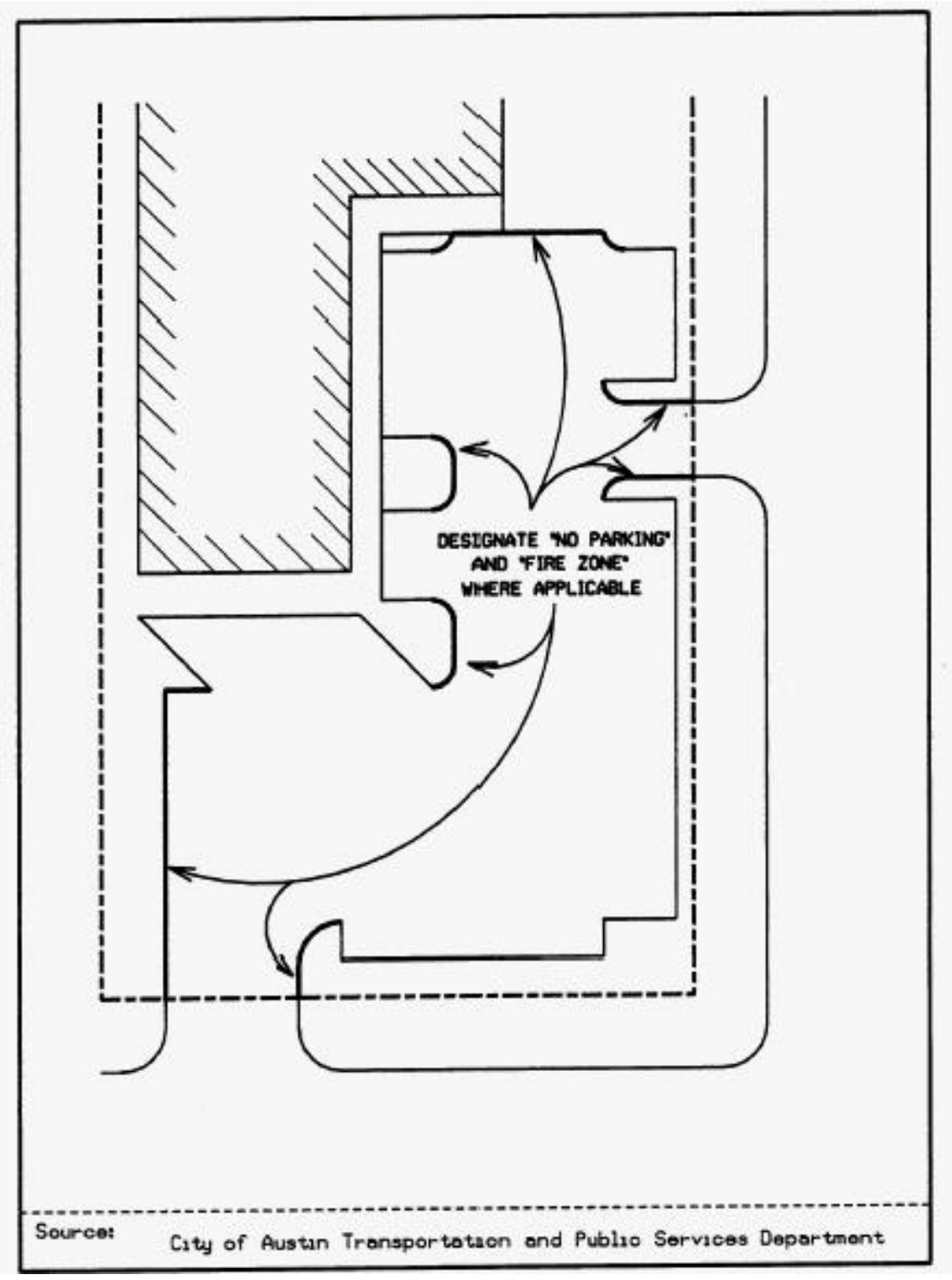

Figure 9-3 Planted Strips to Prevent High Speed Diagonal Movements

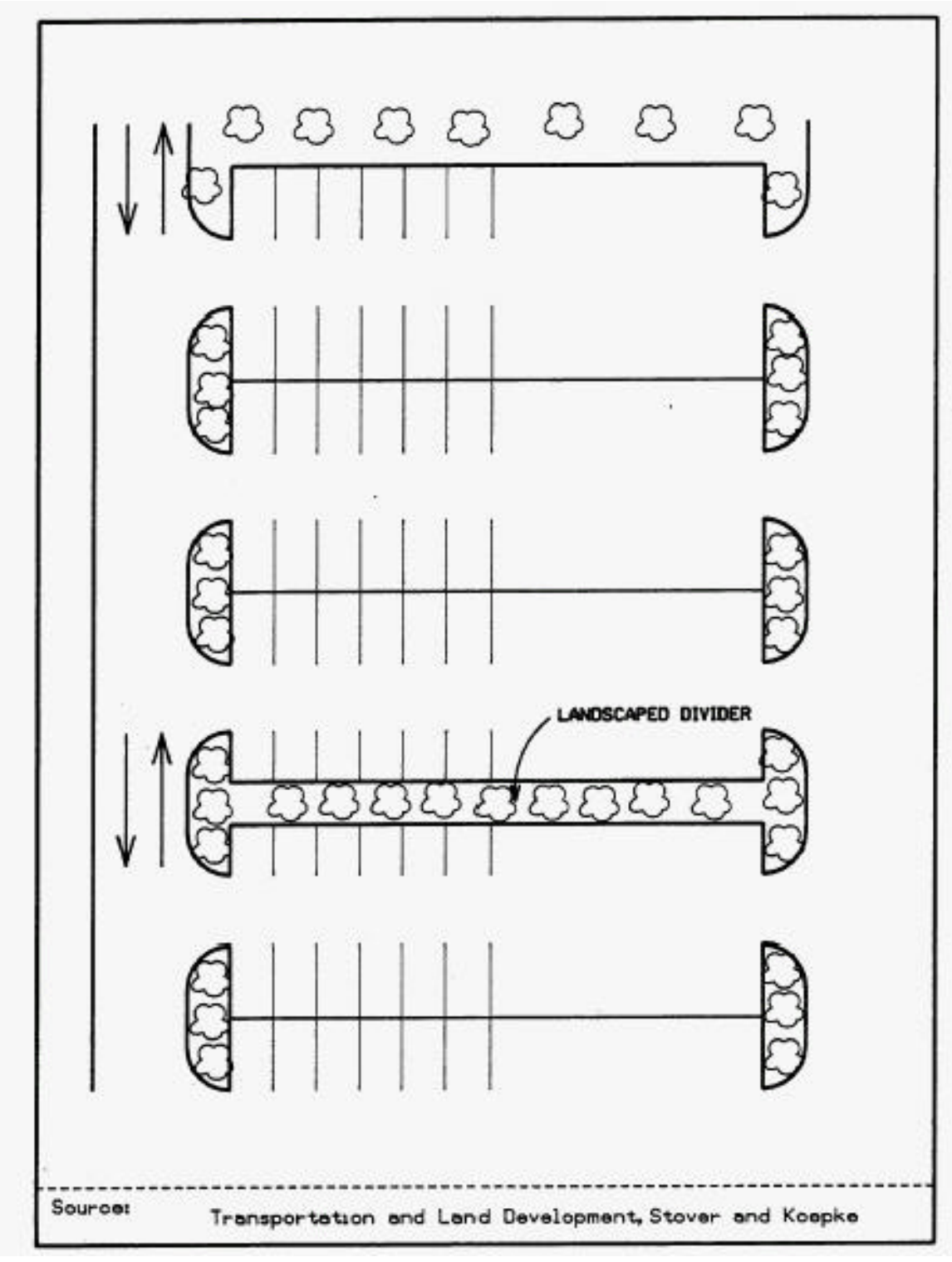

Figure 9-4 Curbed End Islands and Sight Triangles

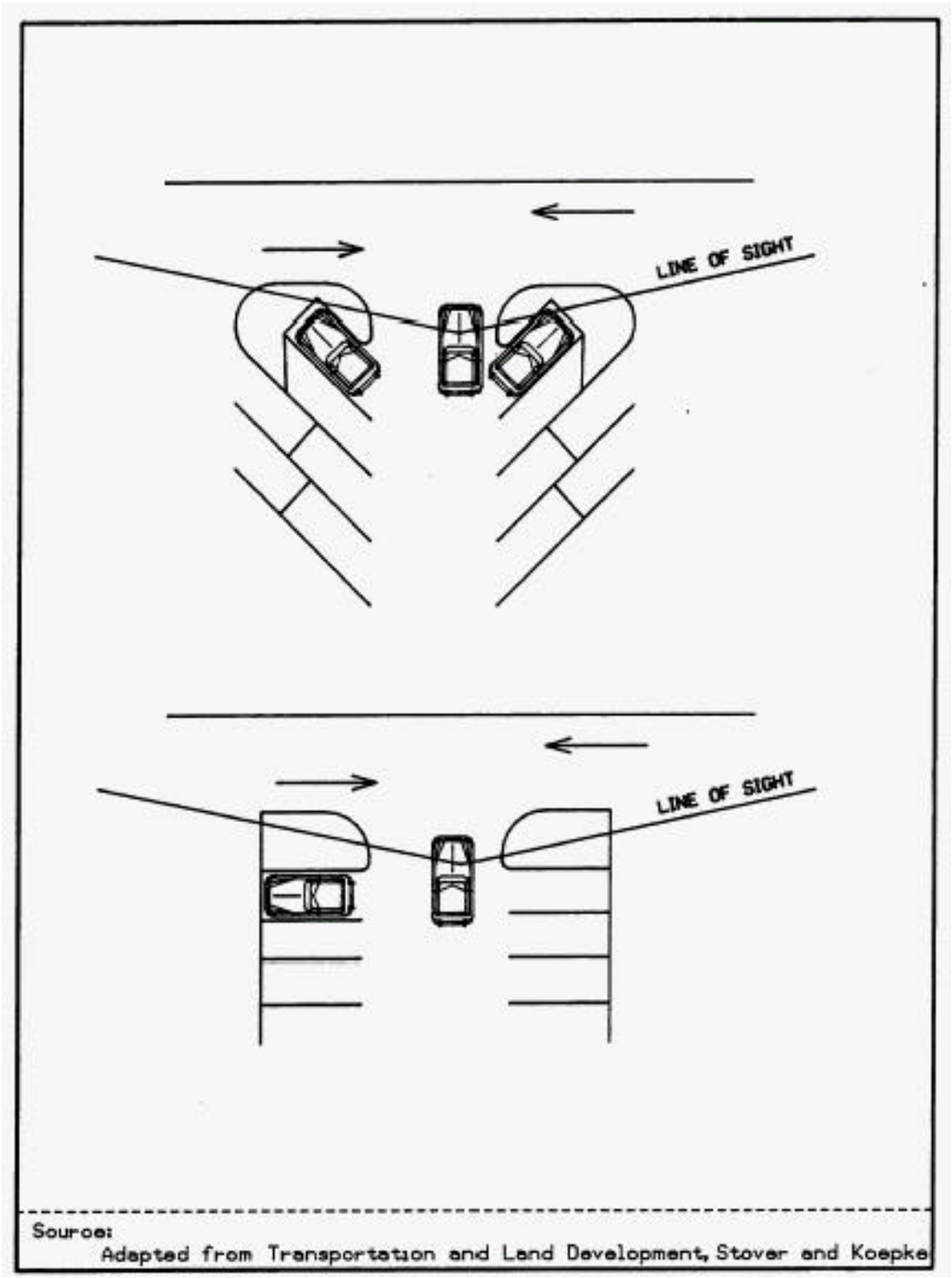

Figure 9-5 Typical End Island Designs (60 Degree Parking)

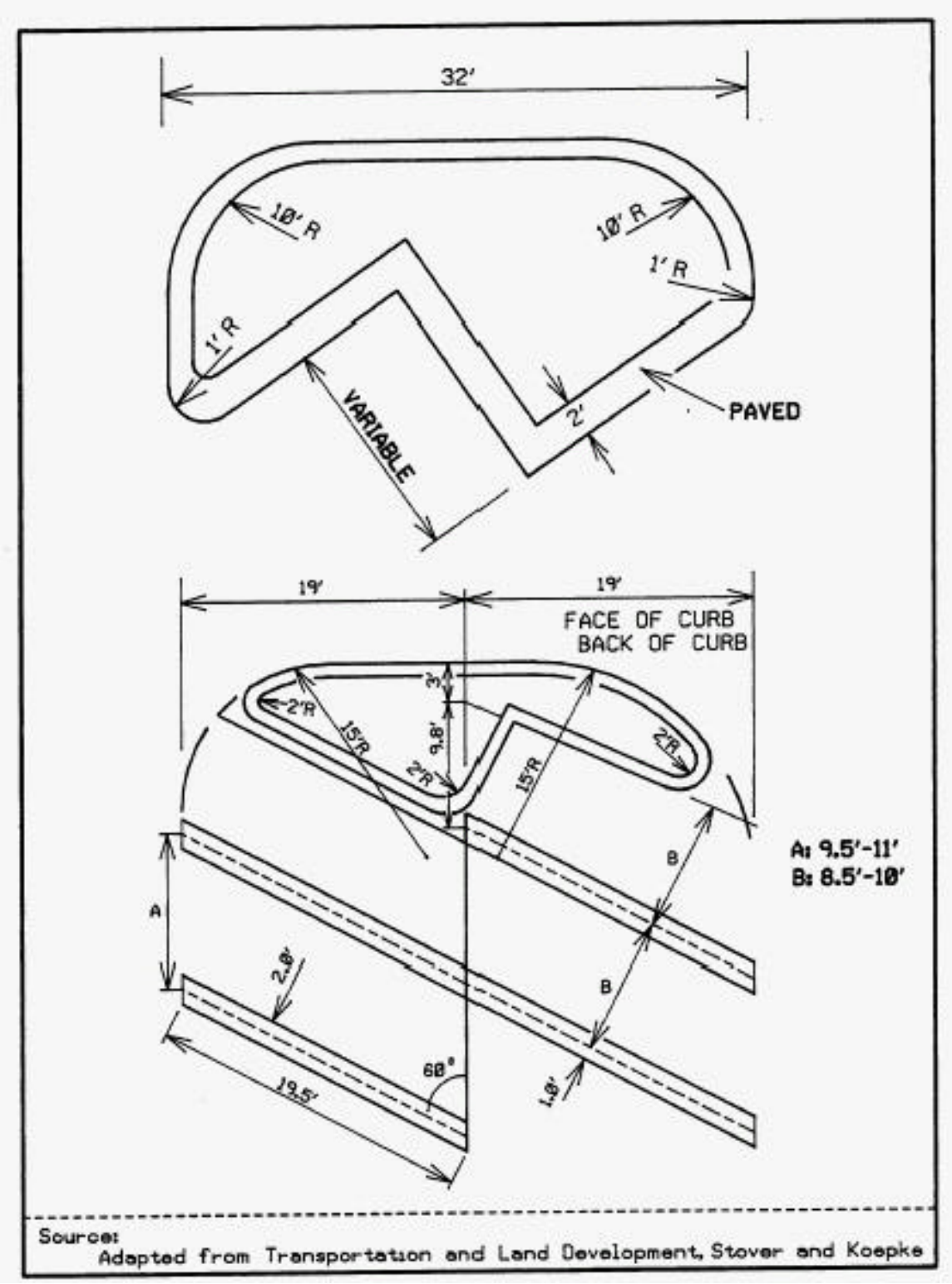

Figure 9-6 Loading Dock Dimensions

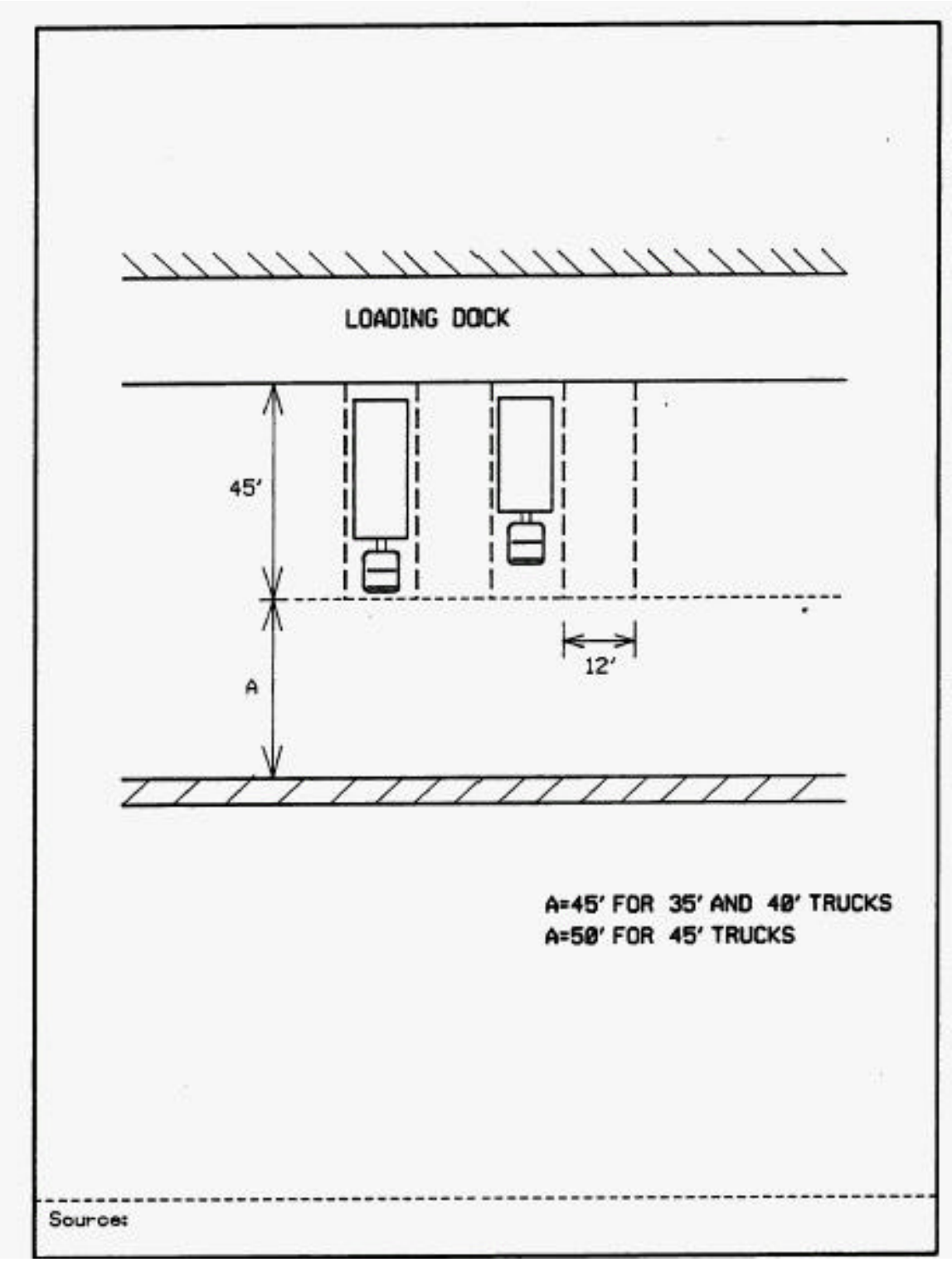

Figure 9-7 Service Station Queuing

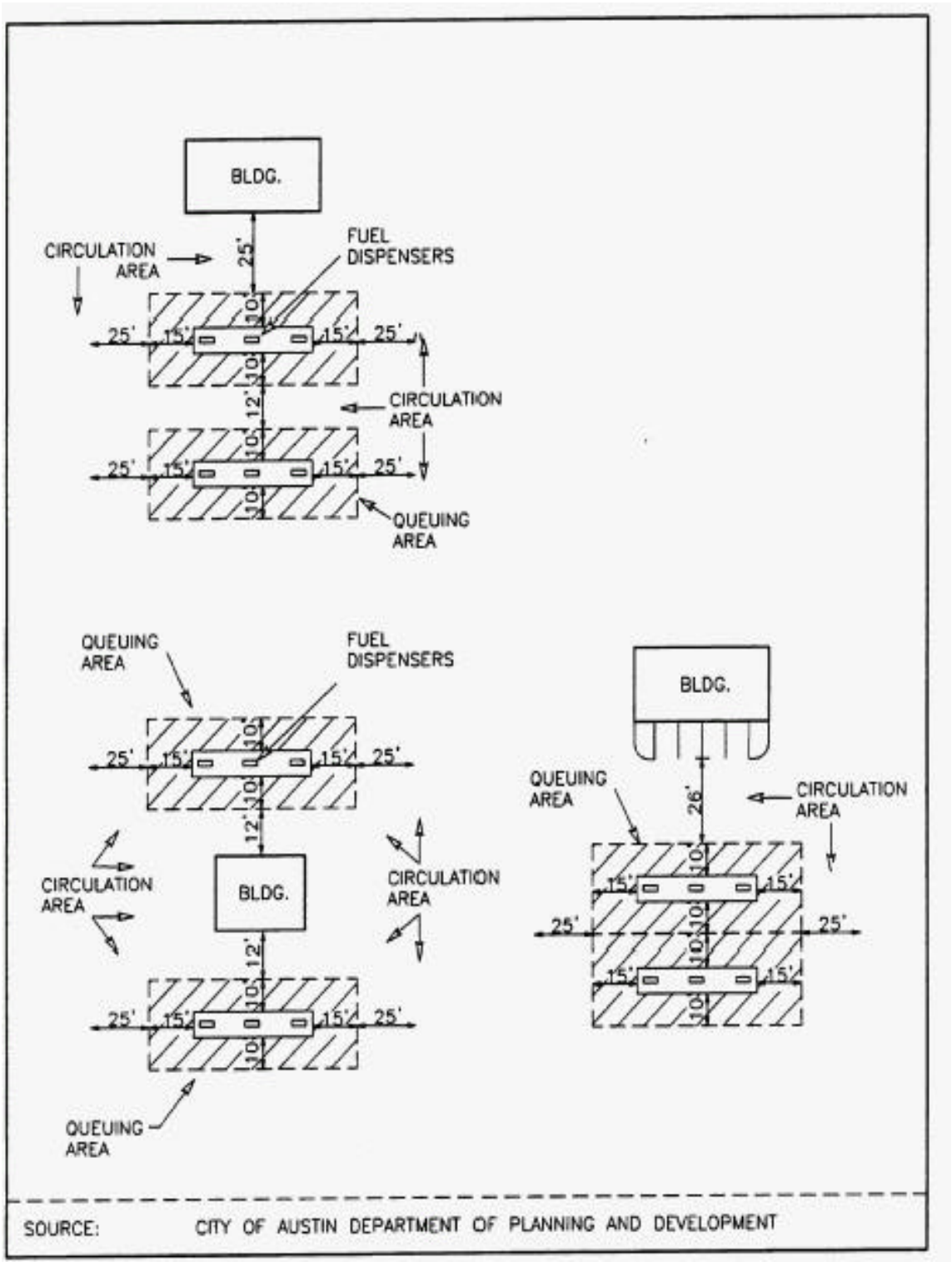

Figure 9-8 Design Criteria for Semicircular Drop-offs