

### 3.5 TURNOUT REQUIREMENTS

All entrance and exit driveways shall be located to afford maximum safety to drivers and pedestrians, provide for safe and convenient ingress and egress to and from the site, and to minimize conflict with the flow of traffic.

Where commercial or residential turnouts access Federal or State Highways, turnout design and permit information shall also be as required for approval by the Alabama Department of Transportation.

#### 3.5.1 Sight Distance

All exit driveways or driveway lanes shall be so designed in profile and grading and shall be located to provide the following minimum sight distance measured in each direction along the roadway. The measurements shall be from the driver's seat (3-1/2 feet above the pavement) of a vehicle positioned on the portion of the exit driveway that is immediately outside the edge of the road right-of-way.

<u>Roadway Speed</u>	<u>Required Sight Distance</u>
25 MPH	150 ft.
30 MPH	200 ft.
35 MPH	250 ft.
40 MPH	300 ft.
45 MPH	350 ft.
50 MPH	400 ft.
55 MPH	450 ft.

#### 3.5.2 Turnout and Street Intersection Spacing

The minimum spacing between adjacent turnouts for private commercial or residential turnouts along the same side of the street shall be as follows:

<u>Street Classification</u>	<u>Turnout Spacing (feet)</u>
Arterial	400
Major Collector	200
Minor Collector	100
Local	(See Below)

Note: Connection spacing on local streets shall be dependent upon zoning densities and lot widths.

Spacing distance shall be measured from the projected edge of the turnout to the closest projected edge of the neighboring turnout, and shall be measured along the edge of street pavement.

### 3.5.3 Corner Clearance at Intersections for Isolated Corner Properties

For commercial parcels located at the intersection of two streets, the minimum distance from the turnout to the intersection on a principal arterial, minor arterial, or collector shall be as follows:

<u>Position</u>	<u>Access Allowed</u>	<u>Spacing (feet)</u>
Without Restrictions:		
Approaching Intersection	Full Access	125
Approaching Intersection	Right In Only	100
Departing Intersection	Full Access	125
Departing Intersection	Right Out Only	100
With Restrictions:		
Approaching Intersection	Right In/Out	100
Approaching Intersection	Right In Only	75
Departing Intersection	Right In/Out	200
Departing Intersection	Right In Only	100

The minimum distance from the turnout to the intersection on a local street, for both commercial and residential land parcels, shall be 125 feet.

Note: Distances shall be measured from the closest projected edge of the turnout connection to the closest projected edge of the parallel roadway, and shall be measured along the edge of roadway.

Access restrictions are raised concrete medians, grassed medians, and stacking lanes at intersections for left turns. The minimum length of the left turn stacking lane at an intersection shall be 200 feet (100' taper + 100' vehicle storage), and shall be measured from the stop bar in the stacking lane. A reversible left turn lane in the center of the roadway shall not be considered as an access restriction, except where a stacking lane is marked for left turns.

### 3.5.4 Turnout Width

The dimensions of turnouts shall be designed to adequately accommodate the volume and character of vehicles anticipated to be attracted daily onto the land development for which a site plan is prepared. The required maximum and minimum dimensions for turnouts are indicated below. Driveways serving large volumes of daily traffic or traffic with over fifteen percent (15%) truck traffic shall be required to utilize maximum dimensions.

<u>Type of Development</u>	<u>Two-Way Operation Driveway Width</u>	<u>One-Way Operation Driveway Width</u>
Commercial	24 - 36 ft.	15 - 24 ft.
Multi-Family Residential	24 - 36 ft.	15 - 24 ft.
Single-family Residential	(Not allowed)	10 - 12 ft.

### 3.5.5 Turnout Radius Entering Commercial Developments

The minimum curb radius for a perpendicular turnout entering a commercial development shall be as follows:

<u>Street Classification</u>	<u>Radius</u>
Arterial	30 feet
Major Collector	25 feet
Minor Collector	20 feet
Local/Residential	15 feet

For non-perpendicular turnouts where the vehicle must maneuver a turn greater than 90 degrees, the radius of the acute angle shall be increased by one foot per degree from perpendicular. The maximum acute angle shall be 75 degrees.

### **3.5.6 Turnout Radius Exiting Commercial Developments**

The minimum curb radius for a perpendicular turnout exiting a commercial development shall be as follows:

<u>Street Classification</u>	<u>Radius</u>
Arterial	20 feet
Major Collector	20 feet
Minor Collector	15 feet
Local/Residential	15 feet

For non-perpendicular turnouts, the radius shall be increased as specified above for turnout radii into the development.

### **3.5.7 Deceleration Lanes into Commercial Developments**

A full deceleration lane shall be required at the approach to a turnout when the peak right turn traffic volume exceeds 60 vehicles per hour (vph). A taper between the edge of pavement and the turnout radius shall be required at the approach to a turnout when the peak right turn traffic volume exceeds 30 vph. The minimum taper length shall be 50 feet and the taper width shall be one full traffic lane.

### **3.5.8 Exclusive Left Turn Lanes into Commercial Developments**

An exclusive lane for left turns shall be required at the approach to a commercial turnout when one or more of the following conditions are present:

1. Left turn volumes exceed 20 percent of the total approach volume.
2. Left turn volumes exceed 100 vehicles per hour in the peak hour.
3. Intersection geometrics result in inadequate stopping sight distance. Minimum stopping sight distances are listed in Section 3.5.1.

### **3.5.9 Turnout Throat Lengths into Commercial Developments**

Turnouts into commercial developments shall provide a throat, or a restricted access lane area. A throat reduces the probability of inbound traffic blocking the intersection, which reduces confusion and indecision for both entering and exiting drivers. Throat lengths shall be established at the rate of 20 feet (one passenger car length) per 20,000 square feet of gross leasable floor space in the development. The minimum throat length shall be 40 feet (2 passenger car lengths), while the maximum throat length shall be 200 feet (10 passenger car lengths). The throat length may be adjusted at the discretion of the Engineer if unusual site conditions warrant a reduction.

### **3.5.10 Turnout Grades**

Turnouts shall be designed so a vehicle will rest on a fairly even grade where the turnout connects into the street. The turnout grade within the right-of-way area shall not exceed eight (8) percent. To avoid bumper scraping on the pavement, sag curves in turnouts shall be designed so the change in grade shall not exceed twelve (12) percent within any ten (10) feet of distance. To avoid bottoming on the pavement, crest curves in turnouts shall be designed so the change in grade shall not exceed eight (8) percent within any ten (10) feet of distance. These grade changes are minimum standards for passenger cars and small trucks; grade changes for large trucks and buses shall be less.

### **3.5.11 Driveways for Single-Family Residences**

The minimum width for driveways into single-family residential lots shall be ten (10) feet. The maximum width of the driveway at the street shall be twelve (12) feet. The minimum driveway radius at the connection to the street shall be six (6) feet. A flare width of five (5) feet may be used in place of the radius. "Loop-type" driveways on residential lots shall be allowed when their spacing meets the minimum requirements in Section 3.5.