

COLLECTOR STREET PLANNING

WHAT ARE COLLECTORS? The tributaries of the local transportation network, collectors provide critical connections throughout the network and bridge the gap between local streets and the thoroughfares of a community.

BENEFITS

- Promote street connectivity
- Provide connections between thoroughfares
- Connect adjacent neighborhoods
- Facilitate efficient dispersion of traffic
- Provide opportunities for bicycling and walking
- Promote reasonable street spacing
- Anticipate/facilitate effective future street connections



TYPICAL CONTEXT

Collector design in Fort Worth is a careful balance between providing direct connectivity and attracting no more traffic than is appropriate.

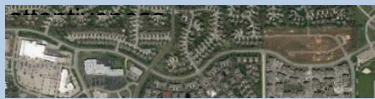
	Residential areas		Non-residential / mixed-use areas
	With fronting single-family homes*	No fronting single-family homes	
Typical trip length	≤ ½ mile	≤ 1 mile	up to 2 miles
Upper limit daily traffic volume (both directions)	2,000	5,000	10,000
On-street parking	Required	Allowed but not required	Allowed but not required

* Collectors without fronting homes are preferred.

DESIGN APPROACHES Design features must strongly encourage speeds of 25 mph or less and should provide visual cues to drivers that the street is not intended for long-distance trips. Several techniques that can be considered:

Curvilinear street design

Promoting low speed and increased driver



Neighborhood entry features

Visually discouraging cut-through traffic by identifying as a neighborhood street



Traffic calming measures

Additive design features to slow traffic (roundabouts, on-street parking, etc.)



Subdivision layout

Designing the network to achieve the desired balance between speeds and traffic flows



Network discontinuities

Designing offsets, gaps, and L-shaped streets to discourage cut-through (not first preference)



CONNECTIONS AND SPACING If collectors are spaced too far apart, they begin to lose their value as connections for the overall network. Depending on the setting, Fort Worth prescribes a set of desired **maximum spacings** to promote network connectivity.

Land Use		Dwelling Units/Acre	Access Function	Desired Maximum Spacing between Collector Intersections along a Thoroughfare (feet)
Residential	Rural	< 2	N.A.	N.A.
	Suburban	2-4	High	1,500 – 3,000
	Urban	>4	High	750 – 1,500
Non-Residential & Mixed-Use		N.A.	Medium	750 – 1,500

Additional connectivity considerations:



Collectors must include **pedestrian facilities** on both sides.



Using collectors as connecting links in the city's **bicycle network** is highly encouraged.

Collectors must only **terminate at an intersection with a thoroughfare or another collector** (unless prevented by natural barriers or stubbed for a future extension).

Collectors must connect to thoroughfares at **full median opening** locations.

Where feasible, collector/thoroughfare connections should be made at **signalized intersections** or locations suitable for future signals.

COORDINATION

With respect to collectors, development reviews must consider the transportation context of all other plans – and existing developments – in the thoroughfare-bounded area that includes the proposed development. A new development's street system must include appropriate contributions and connections to a successful collector system.

The ideal method for ensuring proper collector spacing and function is to develop a **small-area collector plan**, when resources, property ownership conditions and timing make it possible. Such a plan illustrates the ultimate collector network in an area bounded by thoroughfares.

Even if such a plan is not prepared, several collector-related considerations should be part of each planned development's roadway network:

- A network of on- and off-site connections and roadways to allow for movement between destinations without using the thoroughfare network.
- Connection with stub streets.
- The potential for a collector as a boundary between adjacent land uses of differing types (e.g., residential vs. commercial).
- The preference to align offset intersections across thoroughfares (unless cut-through traffic is a major concern).
- The need to coordinate with adjacent agencies at jurisdictional boundaries.