Street Development Standards

Introduction:

The Master Thoroughfare Plan (MTP) and "Roadway Standards" guide roadway network decisions in planning and development of the City's infrastructure. The purpose of these street standards is to provide for the safety, health, and well being of the general public by providing adequate streets and drainage facilities in all subdivisions within the City of Fort Worth and its extraterritorial jurisdiction (ETJ). Existing infrastructure is utilized to the extent possible.

These standards are based on three fundamental principles. The first is that residential neighborhood streets should have low speeds and low vehicular traffic volumes. Second, arterial streets should be designed and located to move higher volumes of traffic at higher speeds. The third principle is that residential areas and major thorough-fares should be physically separated through proper subdivision design. These principles are applied to different levels of development based on traffic capacity and land uses.

Closely associated with the Master Thoroughfare Plan and "Roadway Standards" are the traffic study guidelines. The use of traffic studies will allow the development of a Master Thoroughfare Plan that provides adequate circulation and traffic flow based on normal development. Where more intensive development occurs, additional roadway widths, turn lanes, signalization, etc., may be required. Traffic studies ensure an active process for good mobility addressing localized developments that influence the immediate area but not the entire system.

Street Development Standards

The street system consists of a hierarchy where each category of road places a different emphasis on traffic mobility and property access. There are many advantages in providing specialized facilities for similar types of traffic. Each classification of roadway serves a specific function. Taken together, they provide a balance of mobility and land access (see Figure 1 below).

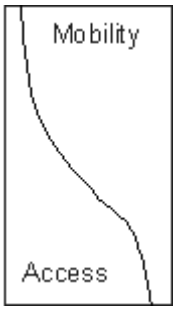

Figure 1 – Mobility / Access Relationship

Right-of-Way Dedication

Right-of-way (ROW) refers to the width of land necessary to construct roadways, medians, parking lanes, sidewalks, and utilities. The expanding use of public rights of way by utilities and telecommunication networks places greater demands on public spaces. Most ROW is dedicated during final subdivision platting. If the roadway is a border street, each adjacent owner is

expected to dedicate a maximum of one-half of the required ROW. Additional ROW may be required at major intersections and interchanges for turning lanes. The amount and location of right of way required are reflective of the specific roadway and its environment.

Arterial Street Intersections

The main objective of intersection design is to increase traffic flow and reduce the severity of potential conflicts between vehicles and/or pedestrians while increasing safety and convenience of pedestrians crossing the intersection. Principal arterials should have dual left turn lanes at all intersections with principal and major arterial streets and single left turn lanes at residential streets. Major arterials may have single or dual left turn lanes. Intersections along any arterial street may require additional right turn lanes and/or dual left turn lanes. These standards provide for necessary traffic capacity while minimizing the streets' basic right-of-way requirements.

Sidewalks

Sidewalks are required to be constructed on both sides of new streets. In order to provide a buffer between pedestrians and moving vehicles, sidewalks are normally constructed along the property line. The standard width of sidewalks is 4 feet except when it is adjacent to the curb. At this location, it would be a minimum of 5 feet wide. Sidewalks may meander in the parkway, but should come no closer to the curb than 4 feet. Additional sidewalk widths may be required at mail boxes, street light poles, etc., in order to conform to ADA requirements. Where people are dropped off and/or picked up (such as schools, bus stops, etc.), additional sidewalk width (8' to 12') may be required adjacent to the curb.

Turning Lanes

Standard curb radii at intersections have been established to accommodate right turning vehicles. Generally, the larger the width of the intersecting streets, the larger the curb radii. Adding designated left and/or right turn lanes with storage and deceleration areas can also increase the capacity of streets. The length of these storage areas is a function of the number of vehicles expected during peak traffic flows. Adequate length is needed to prevent turning vehicles from blocking through lanes. The deceleration lane design depends upon the vehicular speeds on the street.

Driveways

Driveways provide access to adjacent private property. The number and location of driveways can affect the safety and operation of the adjacent roadway. Commercial driveways along streets with low pedestrian traffic should have larger (36' to 48') widths with 15' to 30' turning radii. Industrial street driveways should also have large widths and curb radii to reflect the type of vehicles using them. Construction easements may be used to construct driveways with larger curb radii. Depending on the volume and type of vehicles utilizing it, the driveway may be built and operated as a "street" intersection. All commercial access driveways that are signalized must be designed as a "street" cross section.

Median Openings

Median openings may be permitted between intersecting streets if there is adequate distance for necessary transition and storage lanes based on existing and/or anticipated traffic volumes. Generally, distances between median openings vary from 400 to 800 feet for major arterials and 600 to 1200 feet for principal arterials. Special designs that only allow one-way access may be permitted.

Urban and Alternative Street Standards

New roadway designs have been developed for Urban and Alternative Street Standards. The designs are based on street classifications, types of development, and lot sizes. The street design standards include street and pavement cross sections for streets within the City and/or in the ETJ. Since the street cross sections are primarily designed for new streets, they will not be applied to existing streets for marginal adjustments. The street cross section standards may be modified to reflect planning and urban design objectives and existing street cross sections, while maintaining public safety. Commercial corridors, designated urban villages, and mixed-use growth centers, and redevelopment projects in the central city may require unique street designs that more appropriately support the land-use, urban design and circulation objectives of these districts. The objective of all street designs is to provide good mobility but recognize and reflect the environment in which the street exists.

Street standards are established for new developments within the City of Fort Worth as well as within its ETJ. The following criteria will be used to identify the appropriate street standard:

Urban Standards will apply to all streets that are:

- Within the City;
- Within subdivisions in the ETJ with individual lots less than one acre (net); and
- May apply to any subdivision in the ETJ.

Alternative Standards will apply to streets that are:

- Within the ETJ; and
- Within subdivisions in the City with individual lots that are equal to or greater than one acre (net) and fronted by lots with a minimum of 200' frontage.

Street Cross Sections

The design of street cross sections influences speeds and volumes of traffic on the various types of roadways. They also have significant impacts on the adjacent properties. The street sections establish right-of-way and roadway widths based on anticipated traffic flows. The cross sections and locations of arterial streets provide for a more effective street system that is easier to construct and a network which can move traffic more safely and efficiently. The standards also recognize the needs of various types of traffic using the streets (bicycles, trucks, buses, etc.). With wider rights-of-way and roadway widths on major streets, access between the roadways and intersecting driveways should improve safety and operations for the motoring public. Larger widths and radii of driveways also fit into these design considerations.

The reduction of rights-of-way and roadway widths for residential streets (as well as limits on the number of residential units and the length of these streets) can improve the livability of residential subdivisions. The new subdivision designs should also provide slower speeds ("calm traffic") in future residential developments. These changes should make neighborhoods safer and provide a better environment in which to live. As appropriate, these cross sections may be modified to reflect appropriate vehicular and pedestrian needs based on specific development design principles and engineering judgment.