

DRAFT

Chapter 6 – Transportation

Taylor Comprehensive Plan - 2004

The purpose of this chapter is to identify local travel and mobility needs and address orderly development of the City's thoroughfare system. It includes an overview of existing transportation and travel characteristics, transportation planning criteria and facility design standards. Within the context of this study, the Thoroughfare Plan will be updated and a new plan will be presented to the City of Taylor. By identifying the current street classifications and comparing these to the future land use analysis results, an updated Thoroughfare Plan will be prepared. This Thoroughfare Plan will serve as the guide for current and future roadway requirements, rights-of-way, upgrades, improvements and extensions to the existing network of streets, roads and highways within the City and its Extraterritorial Jurisdiction (ETJ). The Transportation element is closely coordinated with the Land Use and Downtown Revitalization chapters.

Key Issues

A preliminary part of the plan development was the Town Meeting held during January 2004 at which citizens could identify transportation issues that were important to them. In the development of the Comprehensive Plan, work by the Steering Committee, Town Meeting participants and City staff identified the following key transportation issues:

- ❖ **Roads in need of repair, replacement and maintenance**– Overall, many of the streets and roadways in the City of Taylor are in general need of repair and/or replacement, especially those streets within the older, original sections of town. Gutters and sidewalks, where constructed, need to be cleaned and repaired. Gutters and/or sidewalks need to be constructed in many areas where there are none. This is especially true in the residential areas where the sidewalks are used by schoolchildren.
- ❖ **Completion of the Loop** - The completion of the Loop will provide easier access to the yet developed areas: residential and commercial. In addition this loop will provide relief by reducing both truck noise and roadway congestion by removing some of the through truck traffic. However, in order to provide adequate mobility along this loop, limited access should be considered. Commercial nodes/clusters (limited access points) should be developed rather than “strip” developments (multiple access points), particularly on the south side of the City.

For the purposes of this study, the loop is considered to be divided into two sections: western and eastern, with the dividing line being SH 95. The southwestern and southeastern portions of the Loop are completed and constructed to the Major Arterial requirements; while the northwestern portion exists, it is not constructed as a Major Arterial, rather a Minor Arterial with no constraints on access. The

northeastern section between SH 95 (north) and US 79 (east) does not exist and is proposed to be constructed as part of this study.

- ❖ **Lack of a transit system** - An adequate public (bus) or private (taxi) transportation system is lacking. To a limited extent, CARTS is available, but there is nothing that directly serves the citizens of Taylor for local and regional trips.
- ❖ **Inadequate Bicycle Facilities** - Taylor has a hike and bike system, but it does not connect to all parts of the City. Parks, schools, activity centers, and neighborhoods need to be connected with off-street means of transportation. In addition, bike lanes need to be provided from residential areas to the surrounding schools.
- ❖ **Local Airport Issues** - Although the existing local airport is a potential source of noise problems, future use of the airport must be considered. There is a potential for development of new businesses around the area, as well as travel and shipping opportunities.
- ❖ **Railroad Presence** - There is major regional commercial train traffic through downtown Taylor that is also a source of considerable noise. The City of Taylor should consider participating in the development of a commuter rail line that would allow residents to travel to and between surrounding cities.
- ❖ **Lack of Parking** - There is a perception of inadequate parking throughout many areas of the City. Appropriate signage and new parking spaces may address the problem.
- ❖ **More Sidewalks and Trails** – Walking, bicycling, and jogging are important activities in Taylor. Sidewalks and trails should be encouraged within both existing and new neighborhoods and parks. Sidewalks can be encouraged by maintaining the existing sidewalks and the construction of new sidewalks and trails throughout the City.

It should be noted that while not each of these issues is addressed individually within this chapter, all are addressed and discussed throughout the entire report.

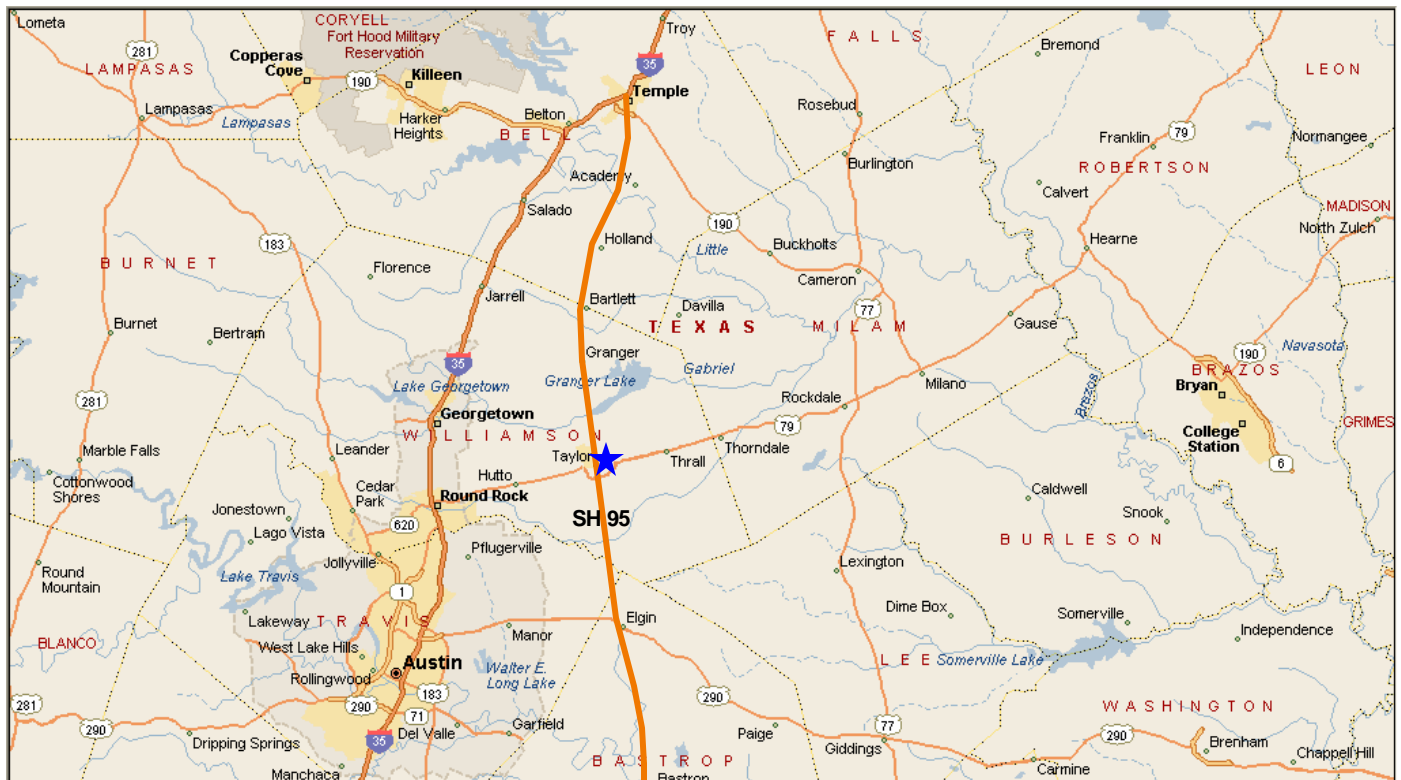
Role of City Government

The City is responsible for the safe operation and maintenance of streets, traffic control, and speed limits through the administration of Taylor Code of Ordinances. Design and construction of new streets are controlled through the requirements of the Public Works Department. The City works with State and Federal entities such as the Texas Department of Transportation (TxDOT) and the Capital Area Metropolitan Planning Organization (CAMPO) on regional transportation issues. The City also coordinates with TxDOT concerning state maintained local roadways and intersections.

Regional Setting and Major Thoroughfares

In order to understand the relationship of the highways and streets to the mobility needs of the residents, the regional setting and the existing roadway system must be considered, as depicted in **Figure 6.1 – Existing Regional Transportation System**. Taylor is located in one of the fastest growing counties in Central Texas (Williamson). Two major roadways divide the City into four quadrants: US Highway 79 (east west) and State Highway 95 (north south).

Figure 6.1
Existing Regional Transportation System



In addition, several smaller roadways provide regional connections between the numerous communities surrounding Taylor. Farm-to-Market (FM) Roads 112, 397, and 973 provide additional regional and local connections, as do the many County Roads, which are shown on **Figure 6.2**.

Major City Streets

Taylor's existing system of regional highways is supported in the City by a major street system that brings local traffic to and from the highway and provides interconnection between the highways. The location and character of land uses that generate large numbers of trips influence traffic volumes and flow patterns. The following roadways serve the City of Taylor as major roadways and are illustrated in **Figure 6.2**.

Roads and streets are grouped into functional classes according to the type of service they are intended to provide in terms of traffic movement and access. A schematic illustration of a functionally classified roadway network is shown in **Figure 6.3 - Example of a Functionally Classified Thoroughfare Network**. Taylor's thoroughfare network includes the following functional classes: Major Arterials, Minor Arterials, Collectors and Local/Residential streets.

Criteria used in determining the functional classifications of roadways are shown in **Table 6.1 - Thoroughfare Classification System**. Classification is based on each roadway's functional role in the overall network, the existing and future travel patterns, and areas served.

Functional Classifications

As stated previously, each of Taylor's streets and roads, existing and future, has been assigned one of the following classifications: Major Arterial, Minor Arterial, Collector and Local Street, with the Major Arterial being the highest classification, and the Local Street the lowest.

Major Arterials are streets and highways that provide a high degree of mobility, serve relatively high traffic volumes, have high operational speeds and serve a significant portion of through-travel or long-distance trips. Freeways and Major Arterials together typically accommodate about 30 to 40 percent of a region's travel on 5 to 10 percent of the total roadway network. Major Arterials serve as primary routes through a region and between regions. They are continuous over long distances (greater than five miles) and accommodate both intraregional

and interregional travel. These facilities generally serve high-volume travel corridors that connect major generators of traffic, such as the central business district, other large employment centers, suburban commercial centers, industrial centers, major residential communities and other major activity centers within the urban area.

Currently, Business US 79 (outside the Loop), South Loop, and SH 95 (outside the Loop) function as Major Arterials. Interregional mobility is one of the primary functions of these roadways. These roadways serve traffic entering and existing the city of Taylor as well as traffic moving through Taylor to other parts of the central Texas area. Traditionally these roadways are owned, operated, and

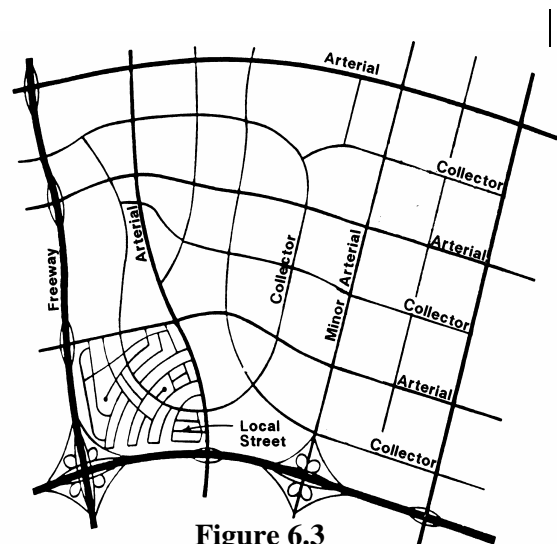


Figure 6.3
Example of a Functionally Classified
Thoroughfare Network

maintained by TxDOT. Thus, the number of lanes and physical appearance is controlled by TxDOT, though they will work with local jurisdictions to incorporate local concepts for roadway appearance and needs for access.

Major Arterials typically operate at speeds between 40 to 55 MPH. Typically, to expedite the movement of traffic, access to adjacent properties is minimized, on-street parking is prohibited and signals are spaced at not less than ½ mile intervals and are typically limited to only those intersections where the intersecting street is of a classification of Minor Arterial or higher. Where two Major Arterials intersect, a grade separation should be considered. At an interchange of a Major Arterial and a tollway or freeway, a cloverleaf or similar indirect ramping system is desirable to minimize the impedance of through-traffic. Where intersections on Major Arterials are installed, they are typically designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 MPH. **Table 6.1 –Thoroughfare Classification System** on the following page illustrates the varying criterion for the different roadway systems.

Table 6.1
Thoroughfare Classification System

Criterion	Major Arterial	Minor Arterial	Major/Minor Collector	Local Street
Functional Role	Mobility is primary, Access is secondary; Connects highways and other Arterials	Connect Major Arterials and lower classes Access is secondary	Collects traffic; Connect Arterials to Local Streets; also land access	Access is primary; Little through movement
Roadway Continuity	Connect Highways, Arterials and lower classes; Connect major activity centers	Connect Major Arterials to lower classes	Continuous in spaces between Arterials. Connect Arterials to local streets; extend across Arterials	Discontinuous Connect to Collectors
Purpose	Serve trips entering and leaving the urban area as well as trips within	Serve shorter distance trips than Major arterials.	Provide direct access to residential, commercial and other land uses.	Provide direct access to residential and commercial properties.
Roadway Length	Usually more than 5 miles long	Usually more than 3 miles long	Varies from about 1/2 mile to 2 miles	Generally less than 1 mile long
Traffic Volumes	12,000 to 50,000 VPD	3,500 to 18,000 VPD	1,500 to 8,000 VPD	100 to 1,500 VPD
Desirable Spacing	2 miles or more between Major Arterials	Generally 1/2 to 2 miles between Minor Arterials	Generally 1/4 to 1/2 miles between Collectors	Varies with block length, min. >125 ft.
Posted Speed	40 to 55 mph	30 to 45 mph	30 mph or less	20 to 30 mph
Peak Period Speeds	30 to 35 mph	20 to 35 mph	-	-
Access	Intersect with Arterials, Collectors and Local Streets; Restricted driveway access	Intersect with Arterials, Collectors, and Local Streets, Limited driveway access	Intersect with Arterials and Local Streets; Driveways permitted	Intersect with Collectors and Arterials; Driveways permitted
On-Street Parking	Restricted	Restricted	Generally permitted	Permitted
Intersections	Intersections should be designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 mph		Higher speed differential and closer intersection/access spacing can be used than on Arterials	
Percent of Roadway Network	5 to 10 percent	15 to 25 percent	5 to 10 percent	65 to 80 percent
Percent of Total Motor Vehicle Travel	30 to 40 percent	40 to 60 percent	-	-
Community Relationship	Define neighborhood boundaries	Define and traverse neighborhood boundaries	Internal and traverses boundaries	Internal
Through Truck Routes	Yes	Permitted	No	No
Bikeways	No	Limited	Yes	Yes
Sidewalks	Yes	Yes	Yes	Yes

Minor Arterials function similarly to Major Arterials, except that their primary function is to accommodate only intraregional mobility, to serve as connections to/from Major Arterials. Minor Arterials are from one to five miles in length, operate at lower speeds (35 to 45 MPH), and provide more direct access to adjacent properties and the local street network. Signals and driveways are more frequent on Minor Arterials; with signals every block in heavily urbanized districts. Unlike Major Arterials, on-street parking is sometimes permitted on Minor Arterials. Major and Minor Arterials are generally spaced at one mile intervals in an alternating grid pattern. The integrated system formed by Major Arterials and Minor Arterials typically includes 15 to 25 percent of the total roadway network and serves 40 to 60 percent of total motor vehicle travel.

Currently, Business US 79 (inside the Loop) SH 95 (inside the Loop) function as Minor Arterials. Connectivity is one of the primary functions of these roadways. These roadways serve as connections from the existing Major arterials – US 79 and SH 95 (both outside the Loop) and they bring traffic from these into the city and disperse it within the local street network of collectors and local streets.

Collector Streets are the connectors between Arterials and Local Streets, which serve to collect traffic and distribute it to the Arterial network. Collectors also serve to provide direct access to a wide variety of residential, commercial and other land uses, and their design involves site-specific considerations. They provide direct service to neighborhoods and other local areas, and may border or traverse neighborhood boundaries. Parking is generally permitted on Collectors.

Since Collectors are used for short distance trips between Local Streets and Arterials, they should be continuous in the spaces between Arterials. Collectors should not be more than two miles in length. Collectors should generally line up across an Arterial, to promote connectivity between neighborhoods and reduce short trips on the arterial, but such alignment should be carefully considered as to not promote the misuse of the Collectors as an Arterial. To provide efficient traffic circulation and preserve amenities of neighborhoods, Collectors should desirably be spaced at about one-quarter to one-half mile intervals, depending on development density. Subdivision street layout plans should include Collectors as well as Local Streets in order to provide efficient traffic access and circulation.

Since Collectors generally carry higher traffic volumes than Local Streets, they require a wider roadway cross section. An Urban Collector (usually designed for suburban residential subdivisions) should be designed to accommodate two travel lanes and two parking lanes for a total of 36 feet. A Collector should rarely be designed to accommodate more than two travel lanes throughout its length; such a design will encourage the misuse of the Collector as an Arterial. A Collector should be designed for an operating speed of 30 to 35 MPH. Collectors typically make up about 5 to 10 percent of the total street system.

Collectors serve an important role in collecting and distributing traffic between Arterials and Local Streets. Their identification is essential in planning and

managing traffic ingress/egress and movement within residential neighborhoods as well as commercial and industrial areas.

Streets within Taylor that currently would be considered Collector Streets would be: Lake Drive, North Drive, West Seventh Street, West Fourth Street, Davis Street, Mallard Lane, T.H. Johnson Drive, Meadow Lane, Turner Road, Sloan Street, Howard Street, Thorndale Road, FM 112, Rio Grande Street, Wekh Street, and Old Coupland Road. These streets provide much of the circulation within the City.

Local Streets include all other streets and roads that are not included in higher classes. They include internal and access streets that allow direct access to residential and commercial properties and similar traffic destinations. Direct access to abutting land is their primary role, for all traffic originates from or is destined to abutting land. Use of appropriate geometric designs, traffic control devices, curvilinear alignments and discontinuous streets should discourage through-traffic and excessive speeds. On-street parking is generally permitted. Trip lengths on Local Streets are short, volumes are low and speeds are slow, typically 25 to 30 MPH. A typical local street should accommodate one travel lane and two parking lanes and a width of 26 to 28 feet of pavement is desirable, although cross-sections as wide as 34 feet can be acceptable. Often on rural Local Street sections with open-ditch drainage and unpaved shoulders, portions of the shoulder and drainage ditch slope are used for parking. Local Streets typically comprise about 65 to 80 percent of the total street system in urban areas. Examples of Local Streets include: Mills Street, Talley Street, and Bland Street.

Traffic Movement Versus Land Access

One important principal of thoroughfare planning is the "traffic movement function versus land access" function. Each class of street shares a portion of each function, as illustrated by the graph in **Figure 6.4 – Traffic Movement Versus Land Access**.

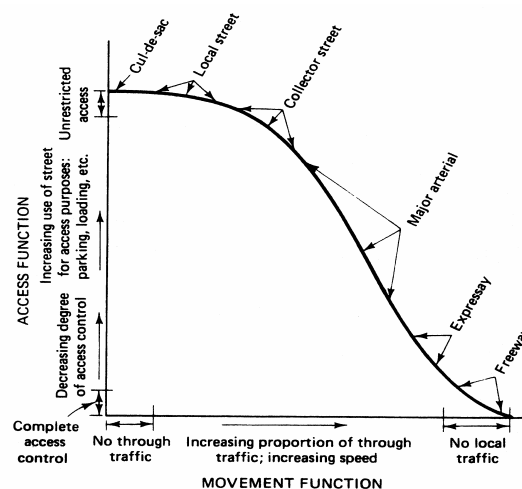


Figure 6.4

Traffic Movement Versus Land Access

For Major Arterials, emphasis is placed upon the movement function--moving vehicles across town with a controlled number of intersecting streets and driveways that conflict with the movement of traffic.

On the opposite side of the scale, the function of local streets is to provide access to adjoining land. A residential cul-de-sac is one example--the traffic service function is non-existent. In theory, only trips having an origin or destination at a lot on the cul-de-sac would be made on such a street.

On many other streets, the two functions are shared more evenly. SH 95 through downtown Taylor is an example of a Major Arterial street where both access *and* movement are emphasized. The mix of functions results in relatively high traffic volumes, particularly during peak periods. In other words, traffic movement is sacrificed for the benefit of land access.

Both functions are important. Without the land access function being served, motorists would be trapped in their cars with no ability to arrive at a destination. It is important that the street network allow traffic to flow smoothly and safely within and through the city for all trips.

Traffic Operations

For evaluation purposes, general guidelines developed by the National Academy of Sciences Transportation Research Board's Highway Capacity Manual (HCM) were used. The HCM identifies a comparative quality of operation on roadways based upon the number of cars per travel lane during a one-hour period, for various types of roadway. Level of Service (LOS) is used as a measure to represent different gradations of flow conditions, with LOS A being essentially free flow, LOS B through D becoming gradually more congested, LOS E being very congested, and LOS F extremely congested. LOS D represents moderate congestion, a condition that should be a tolerable quality of service for peak traffic period conditions in Taylor.

Level of Service (LOS) is a qualitative measure of operating conditions at intersections or along a roadway section. The LOS is directly related to the volume-to-capacity ratio along roadways.

Thoroughfare Plan

In order to adequately plan for the future growth and development of the City, a comprehensive transportation plan must be completed. This is completed through the implementation and adoption of the thoroughfare plan. The thoroughfare plan provides for an orderly, efficient transportation system and is the result of orderly thoroughfare planning and ensures the preservation of adequate rights of way and appropriate alignments for existing and future major thoroughfares. Such planning influences the pattern of land development in the city and therefore is interrelated with other components of comprehensive planning and urban development.

The proposed Thoroughfare Plan is graphically displayed in **Figure 6.5 - Thoroughfare Plan**. This plan/map identifies the thoroughfare system of

arterials, collectors and local streets. It serves as the City's general plan for guiding thoroughfare system development, including planned widening and extension of its roads, streets, and public highways. A Thoroughfare Plan should be considered in platting of subdivisions, right-of-way dedication and construction of major roadways. It does not, however, show future alignments for new local streets, because these streets function principally to provide access to adjacent land. Future alignments will depend upon specific development plans.

The Thoroughfare Plan (Figure 6.5) represents a functional, feasible plan and classification scheme for Taylor's existing and proposed major streets. Existing major streets are color-coded and classified according to their relative function within an overall street circulation system. Where existing streets tend to carry more than ideal traffic volumes; extensions and new street construction are anticipated to increase capacity or divert the traffic load. Any proposed street construction that is proposed is shown as a dashed line in the proposed roadway classification roadway color.

The new streets proposed by the Thoroughfare Plan will function to serve newly developing areas of town, provide better access to existing trip-generating land uses encourage the completion of connecting sidewalks and bike paths, and more evenly distribute existing and projected traffic loads. One of the principal characteristics of the Thoroughfare Plan is the projection of additional major streets. These new streets, in conjunction with other major street development, will provide Taylor with an effective street system for both existing and future residents.

In addition, the thoroughfare plan will enable the City Planners and developers an opportunity to plan for future pedestrian and bicycle oriented facilities. These facilities can be incorporated into the roadway design phase by planning ahead for roadway expansions and/or new construction.

As proposed, the Thoroughfare Plan will allow the City of Taylor to plan for all future transportations needs well into the future. It is recommended that as each new development is proposed a more thorough analysis be completed to determine specific roadway needs.

Advance planning for major street construction is critical as many projects require significant participation from the Texas Department of Transportation, and thus must be placed on the State's five-year plan.

Thoroughfare Planning Principles

Population growth and expansion of the City and its Extraterritorial Jurisdiction (ETJ) make it necessary to review and update the Thoroughfare Plan and expand the geographic scope of the map. The process of amending and updating the Thoroughfare Plan reaffirms the importance of establishing an efficient and coordinated transportation network to serve the city's growing population and expanding area of development. As in the past and for the foreseeable future, the

automobile will continue to be the most significant transportation mode, necessitating the development of new streets and the improvement of existing streets. Through adoption of this Thoroughfare Plan amendment and careful monitoring of building activity in the City and its ETJ, major street rights-of-way can be protected for future use and segments of the proposed streets can be developed in conjunction with subdivisions and other developments.

Assignment of streets (both existing and proposed) to one of the three thoroughfare classifications is determined largely by "future intended function"--not solely by the street's current function and as future developments are proposed, it is recommended that a more thorough analysis be completed. That criterion helps to explain why some street segments are assigned thoroughfare status even though existing traffic volume or right-of-way width falls short of the standard for a particular category of thoroughfare.

City staff must continue to study existing major and minor streets to determine rights-of-way and traffic control needs and other problems related to existing street improvements. This information will be used to determine priorities for a systematic street development and improvement program. Implementation of the program will be driven by new private developments, subdivisions, and improvement districts and, in some cases, through the City's annual Capital Improvements Program. The City should continue to seek State and Federal funding to aid in the construction of roadways included within the plan.

Implementation of the Thoroughfare Plan, a long-range planning tool, is also linked to the City's CIP. This mid-range planning tool guides the timing of future thoroughfare development and other street network and traffic control improvements where the City takes the lead. Timing of some major street segments will be dictated by private development initiatives. This, coupled with ever-present funding and land development uncertainties, makes it impossible to precisely schedule future thoroughfare development more than a few years into the future.

Thoroughfare Requirements and Standards

Outlined in the following text are typical criteria for certain characteristics of street and land development, incorporated as a part of a City's thoroughfare development standards, Zoning Ordinance and Subdivision Regulations in the city and in the Extraterritorial Jurisdiction.

- ❖ The general **location and alignment of thoroughfares** must be in conformance with the Thoroughfare Plan. Subdivision plats should provide for dedication of needed rights-of-way for thoroughfares within or bordering the subdivision. Any major changes in thoroughfare alignment that are inconsistent with the plan require the approval of the Planning and Zoning Commission and City Council through a public hearing process. A major change would include any proposal that involves the addition or deletion of established thoroughfare

designations, or changes in the planned general alignment of thoroughfares that would affect parcels of land beyond the specific tract in question.

- ⊛ The **pavement width and rights-of-way width** for thoroughfares and other public streets should conform to minimum City standards unless the Planning Commission grants a waiver. Properties proposed for subdivision that include or are bordered by an existing thoroughfare with insufficient right-of-way width should be required to dedicate land to compensate for any rights-of-way deficiency of that thoroughfare. When a new thoroughfare extension is proposed to connect with an existing thoroughfare that has narrower rights-of-way, a transitional area should be provided.
- ⊛ Existing streets in adjacent areas should be continued and, when an adjacent area is undeveloped, the street layout should provide for future **projection and continuation of streets** into the undeveloped area. In particular, the arrangement of streets in a new subdivision must make provision for continuation of rights-of-way for the principal existing streets in adjoining areas or where new streets will be necessary for future public requirements on adjacent properties, which have not yet been subdivided. Where adjacent land is undeveloped, stub streets should include a temporary turnaround to accommodate fire and other emergency vehicles.
- ⊛ **Locations of new intersections of subdivision streets** with existing thoroughfares within or bordering the subdivision should be planned to align with existing intersections, where feasible, to avoid creation of offset or "jogged" intersections and to provide for continuity of existing streets, especially Collectors and higher classes of thoroughfares.
- ⊛ The **angle of intersection** for street intersections should be as nearly at a right angle as possible. Corner cutbacks or radii should be required at the acute corner of the right-of-way line, to provide adequate sight distance at intersections.
- ⊛ **Offset or "jogged" street intersections** should have a minimum separation of 125 feet between the centerlines of the intersecting streets.
- ⊛ **Cul-de-sac** streets should have a maximum length of no more than 500-600 feet measured from the connecting street centerline to centerline of radius point, with a paved turnaround pad of at least 60 feet and a right-of-way at least 50 foot radius in residential areas. As an alternative, the street length may be longer if there is a density of no more than 24 lots. Cul-de-sacs should generally be discouraged in commercial and industrial developments, however when used there should be at least 180 feet radius of paving with a 100 foot right-of-way radius in commercial and industrial areas.

- ❖ Subdivision layout should generally avoid the creation of **residential lots fronting on Arterials**, with direct driveway access to the Arterial street. Lots should be accessed from Collector or Local/Residential streets within or bordering the subdivision or an auxiliary street designed to accommodate driveway traffic.
- ❖ Subdivision layout should minimize the arrangement of **residential lots fronting on Collectors**, particularly within 180 feet of an intersection. To the extent possible, lots should be accessed from local residential streets.
- ❖ Requirements and guidelines for the **geometric design of thoroughfares and public streets** should be provided in the City's Subdivision Ordinance and standard specifications. This includes special provisions for lot width and building setbacks on corner lots to preserve sight distances at adjacent intersections.
- ❖ The Planning and Zoning Commission may approve a plat containing **private streets** when design requirements are met. Ongoing maintenance, future replacement, access by emergency vehicles, number of lots served, and acceptance into city system are criteria to be considered.
- ❖ Within the boundaries of a subdivision, **sidewalks** should be installed on both sides of Arterials, Collectors and Local/Residential Streets.

Standard Street Cross-Sections

Cross-sections of a roadway are related to anticipated traffic volumes and design capacity to provide a desired level of service, but also to the desired pedestrian accommodations and streetscape. It should be noted that, where feasible, provisions for pedestrian and bicycle facilities should be made on all newly constructed or reconstructed roadways. Some examples of typical cross-sections are shown in the following figures: **Figure 6.6A and 6.6B – Major Arterial, Figure 6.7 – Minor Arterial, Figure 6.8 – Collector, Figure 6.9 – Urban Local, and Figure 6.10 – Rural Local**. Included after the figures is a brief discussion of the roadway's functionality as well as City streets that are included within this classification.

Figure 6.6A
Major Arterial 100' ROW

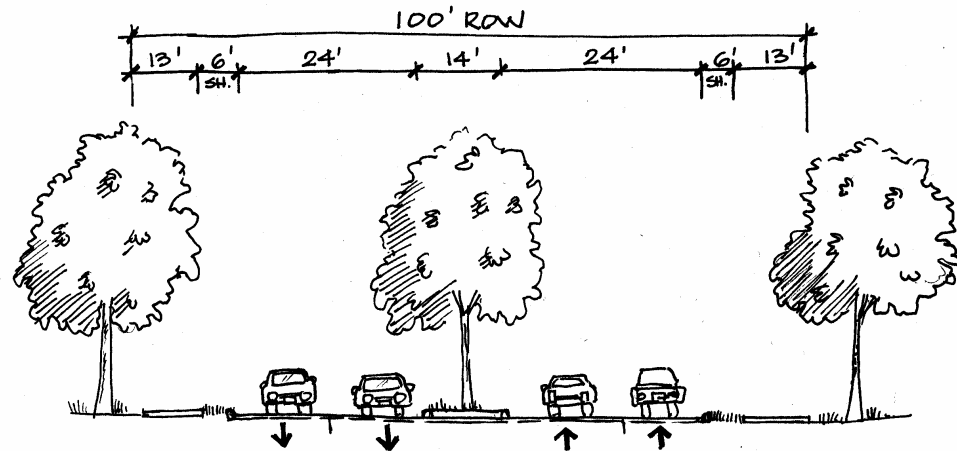
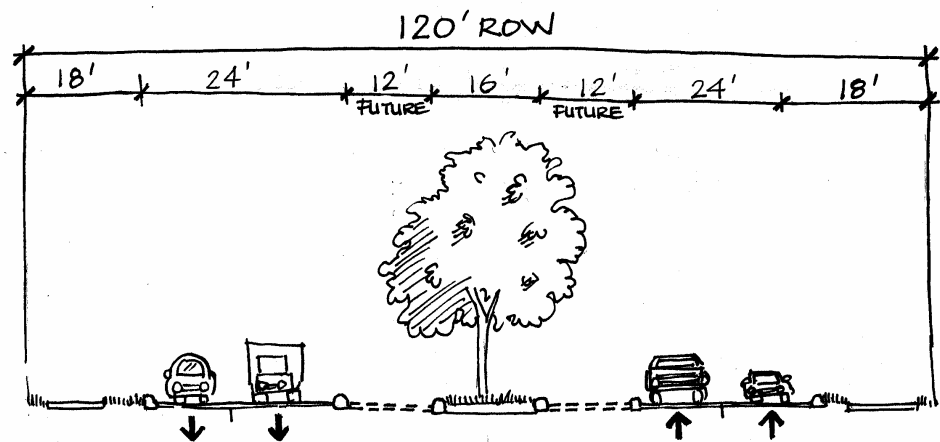


Figure 6.6B
Major Arterial 120' ROW



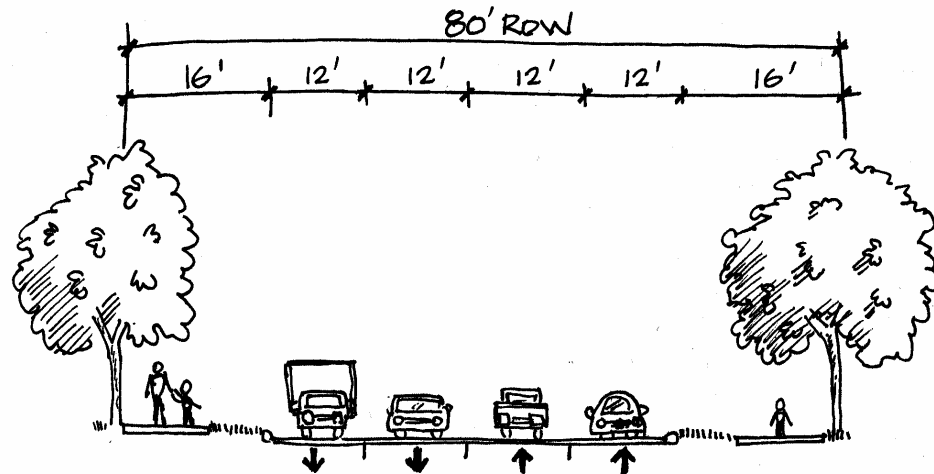
Major Arterial – The primary function of this roadway classification is to provide high traffic volumes with a high degree of mobility at a high rate of speed; thus, land access and on-street parking are restricted. Major Arterials serve a significant portion of the through traffic. As proposed in the Thoroughfare Plan, both US 79 and Highway 95 (outside the Loop) are considered Major Arterials. In addition, the extension of the Loop to the north and east of the City (along FM 619) is also proposed to be a major arterial. Two new Major Arterials are planned for this area, one is proposed by Williamson County and the other is a proposal from the City of Taylor. Williamson County

is proposing the extension of Chandler Road. This extension will be north of the City of Taylor and will connect existing Chandler Road to FM 619; thus, forming the northeastern section of the Loop. With the potential increase in land development and accompanying traffic volumes, this extension should be planned as a Major Arterial. Also, given the planned developed in the north-west quadrant, the city should plan for a Major Arterial closely following the existing alignment of FM 366.

The photograph shown in **Figure 6.6C** is an existing Major Arterial (southern section of the Loop) within the City. Vehicular mobility is a high priority while land access is limited. Both on-street parking and pedestrian/bike access are prohibited.

Figure 6.6C
South Loop – Taylor, Texas



Figure 6.7A**Minor Arterial**

Minor Arterial – While Minor Arterials function similarly to Major Arterials, their primary function is to serve interregional activity as opposed to long distance trips. It should be noted, that mobility is still a key component and land access is secondary. Minor Arterials serve to connect lower roadway classifications (Collectors and Local streets) to high roadway classifications (Major Arterials). Trips made along Minor Arterials are typically shorter (less than three miles) while traffic volumes and speeds remain relatively high. In addition, where it is feasible, bicycle facilities should be incorporated into newly constructed or reconstructed minor arterials. As proposed in the Thoroughfare Plan, the following roadways are Minor Arterials:

Business 78/2nd Street – Within the Loop.

State Highway 95/Main Street – Within the Loop

FM 397 (north and eastern extension of the Loop) - From US 79 to FM 619

Gravel Pit Road/FM 409 – Business US 79 to Northeast extension of the Loop

Rio Grand Street – South Loop south to study boundary

The photographs shown in **Figures 6.7B and 6.7C** show an existing **Minor Arterials**. Figure 6.7B is US 79 coming into the City from the east and Figure 6.7C is SH 95 southbound within the City CBD. These pictures show the various roadway geometrics that can be applied to a Minor Arterial. Where pedestrian/bike access and/or on-street parking is not wanted, the roadway geometrics can be constructed such that these things are discouraged (Figure 6.7B – US 79). On the other side, where these things are encouraged on-street parking can be reserved and sidewalks can be made more pedestrian friendly (Figure 6.7C – SH 95).

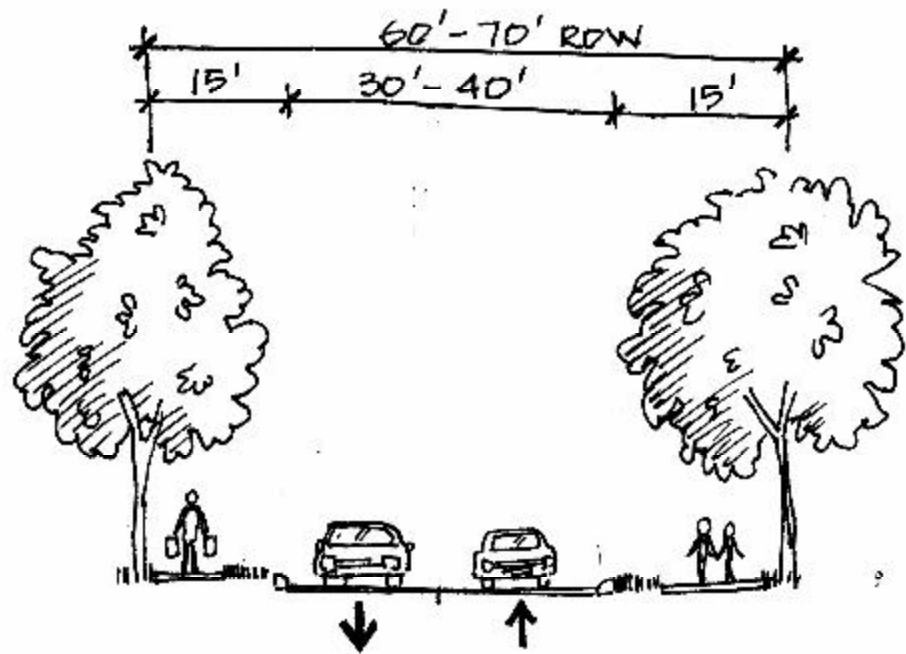
Figure 6.7B
Us 79 Westbound – Taylor, Texas



Figure 6.7C
SH 95 Southbound – Taylor, Texas



Figure 6.8A
Collector



Collector – The primary function of Collector Street is to connect arterials to local streets and distribute traffic within the arterial network. Another major function of this classification is to provide direct land access including residential, commercial, and retail areas. Since Collectors connect the various roadway types, it is important that the roadways be as continuous as possible but not so much that they inadvertently become used as an Arterial. Trips made along Collectors are typically short in length. The roadway geometrics should accommodate no more than two travel lanes and outside parking lanes. In addition, bicycle facilities should be incorporated into any newly constructed or reconstructed collector street. As proposed in the Thoroughfare Plan, the following roadways are Collectors:

Lake Drive	Mallard Lane
Johnson Drive	Thorndale Road
Walnut Street	Rio Grande Street
Doak Street	4 th Street
7 th Street	Davis Street
Howard Street	North Drive
Meadow Street	Sloan Street

The photographs shown in **Figures 6.8B and 6.8C** show existing **Collector Streets** within the City of Taylor. Figure 6.8B is Davis Street and Figure 6.8C is Lake Drive, both of which are within the City. These pictures show the various roadway geometrics that can be applied to a Collector. Within Taylor, these

street types are typically in the residential areas and tend to serve as connections for the local streets. Consideration should be given to the addition of both sidewalks and bike lanes (where room permits), especially in those areas close to schools.

Figure 6.8B
Davis Street



Figure 6.8C
Lake Drive



Figure 6.9
Local Street

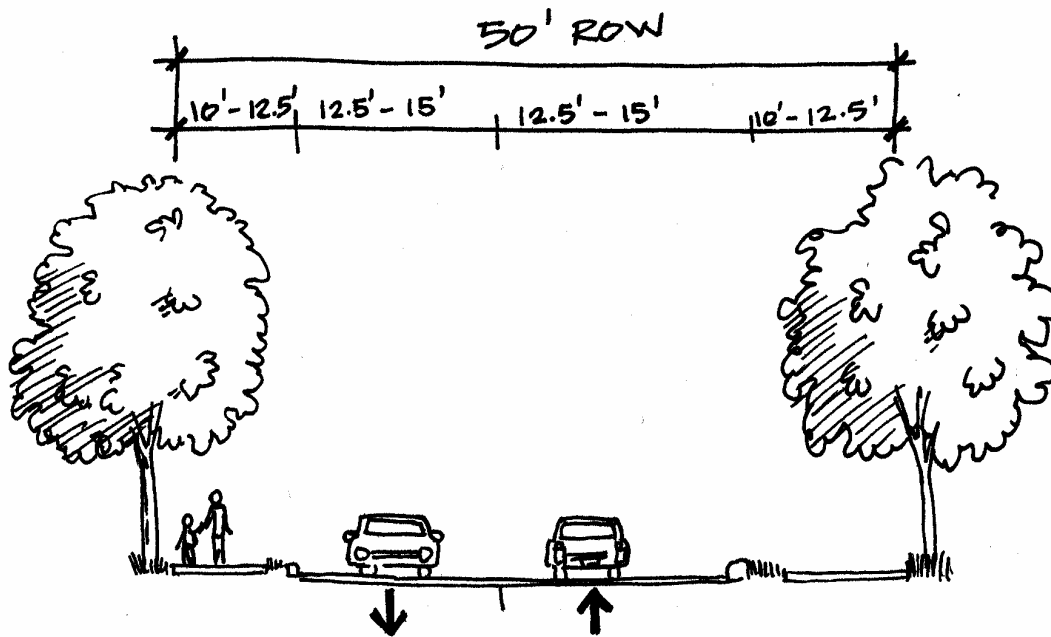
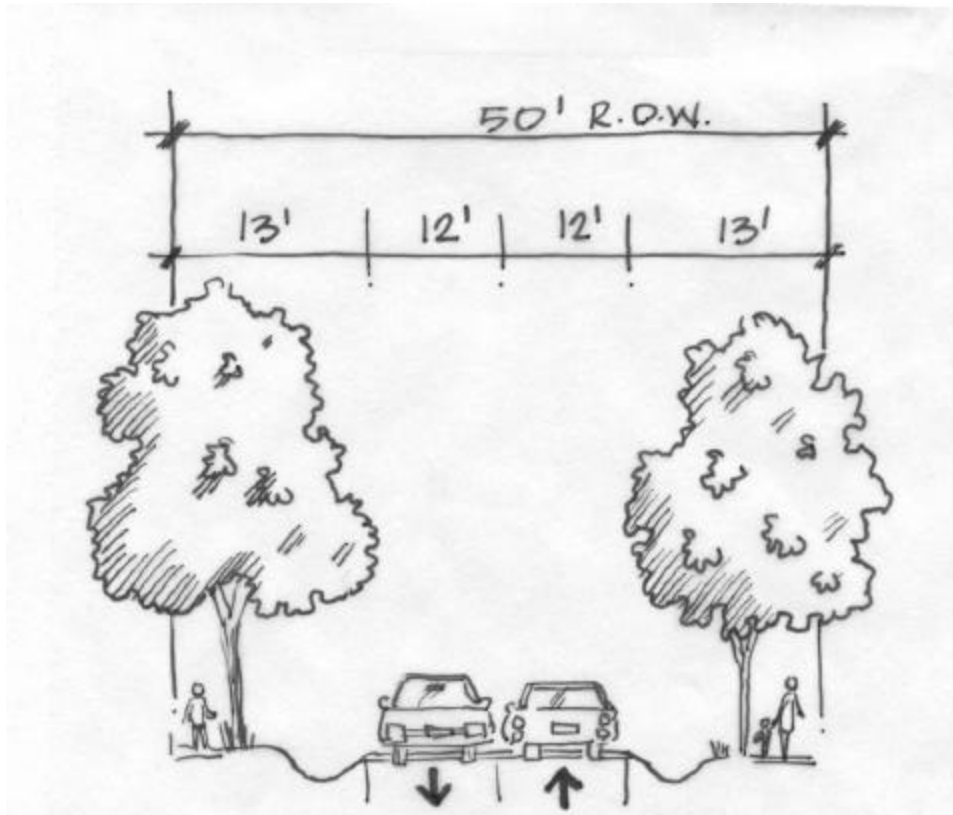


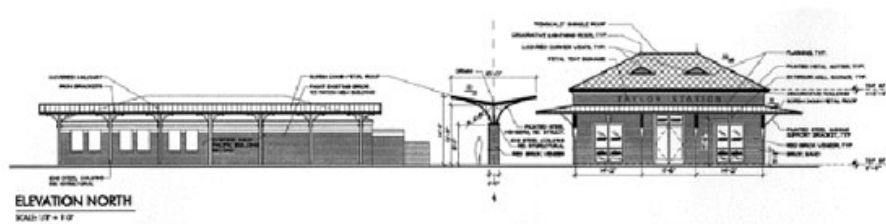
Figure 6.10
Rural Street



Regional Rail Station

The City of Taylor, working with the city's Main Street program, CARTS (Capital Area Rural Transportation System), TxDOT (Texas Department of Transportation), and Union Pacific Railroad, have received funding for the construction of an intermodal transportation facility to the City of Taylor. As envisioned, this intermodal station will serve Amtrak as well as a hub for the possible fixed route bus services, commuter bus routes, vanpool routes, and park-and-ride routes. **Figure 6.11- Taylor Intermodal Station** shows a preliminary schematic of the proposed station.

Figure 6.11
Taylor Intermodal Station



Non-Vehicular Modes of Transportation

Sidewalks

An area of great concern to many of the citizen of Taylor is the lack of sidewalks especially in and around the schools and parks. Consideration is given to constructing sidewalks on any newly constructed and/or reconstructed roadways. Sidewalks are required in new development by Subdivision Regulations. Widths are four (4) feet when separated from the curb and five (5) feet when immediately back of curb. Currently in Taylor, many of the sidewalks do not meet ADA requirements and/or are in less than safe repair. A program for the reconstruction of sidewalks should be considered.

Sidewalks should be provided around schools, parks, and areas where children and adults are outdoors. Sidewalks provide a safe route for children and adults walking to and from the schools, parks, and outdoor areas. The locations for new and proposed schools were highlighted and are discussed in the land use section of this report. The surrounding transportation system is an important issue when considering school location and access points. When a new school is planned or constructed care should be taken so that the main access points are not located along major, high-speed, high-volume, roadways. Such is the case for the two schools constructed along the northern section of the Loop. Currently children cross the Loop, which creates a major safety issue. In addition, school buses and parents waiting to pick-up their children from school form queues that sometimes extend onto the Loop, again creating a safety concern. If possible, the main access points should be taken from a side street or a newly constructed street that serves the school. Areas for sidewalks are shown in **Figure 6.12 – Sidewalks**.

Bike Lanes

As an alternate means of transportation as well as recreation, bikes lanes can provide the residents of Taylor an alternative to the automobile. Bike lanes indicate a preferential or exclusive space for bicycle travel along an arterial street. Bike lanes have been found to provide more consistent separation between bicyclists and passing motorists. Bike lanes are typically designated by striping and/or signing, although colored pavement has also been used in certain situations. Bicycle lanes also provide a buffer between motor vehicle traffic and pedestrians when sidewalks are immediately adjacent to the curb. **Figure 6.13 – Bike Lanes** shows where there are and could be safe routes for bicycles.

Regional Transit

One of the concerns as pointed out in the January community meeting was that there was a general lack of transit options for the citizens of Taylor. Currently CARTS (Capital Area Rural Transportation System) delivers transportation tailored specifically for each of the one hundred and twenty-three communities in central Texas. Taylor is one of those communities. Intercity services are provided on selected days Monday through Friday to Austin, Georgetown, Granger, Round Rock, and Temple from 8:30 AM to 4:00 PM. In the future, expansion may include local services similar to Bastrop and San Marcos.

CARTS serves the citizens of Taylor but on an extremely limited basis and generally provides services from Taylor to surrounding communities as opposed to fixed-route services within Taylor. With the recent construction of the H-E-B and Wal-Mart sites along north SH 95, many residents are in need of a fixed route transit service that can provide daily service to these sites. Consideration should be given to encourage CARTS and the City of Taylor to work together and create a fixed-route system serving the needs of the citizens. **Figure 6.14 – Transit Route Destinations** shows areas that would benefit from expanded transit service within the City and ETJ.

Goal, Objectives, and Actions

Goals, objectives, and actions form the basis of the Comprehensive Plan and will serve in guiding future thoroughfare development decisions in Taylor. The following goal was created based upon input from citizens and Steering Committee members.

Transportation Goal: Provide access to neighborhoods and businesses while serving overall mobility needs of residents and businesses.

Objective T1: Ensure the road system in the City provides appropriate access for residents while discouraging commercial traffic in neighborhoods.

Action T1.1: Use the Thoroughfare Plan to determine where arterial and collector streets are needed in new residential and commercial developments.

Action T1.2: Work with the City of Taylor and develop a program that allocates city funds to repair and/or replace streets that will benefit the community as a whole.

Action T1.3: Improve roadways to attain a LOS “D”. *Types of improvements will be determined following traffic analysis.*

Objective T2: Explore alternative transportation modes that could be available to the residents of the City.

Action T2.1: Provide designated on and off street bike routes.

Action T2.2: Provide trails, sidewalks and crosswalks on all arterial and collector streets.

Action T2.3: Work with CARTS to expand existing routes to provide service to major retail and service establishments within the City.

Action T2.4: Continue to work with Taylor’s Main Street program, CARTS, TxDOT and the Union Pacific Railroad to assure the construction of an intermodal transportation facility to the City of Taylor.

Objective T3: Create a “front door” entry and identity for the City.

Action T3.1: Develop a design for city entrance signs and landscaping that reflect the character of Taylor.

Action T3.2: Require that major entry roads reflect the character of Taylor with landscaping, additional setbacks, preservation of existing trees and planting of additional trees.

Objective T4: Ensure adequate access and circulation within the City.

Action T4.1: Complete continuous loop around Taylor to create additional access in and around the City.

Action T4.2: Improve appearance and function of streets so that they are similar to Lake Drive through landscaping and sidewalks to increase “walkability” and access.

Objective T5: Ensure that all airport plans be incorporated into future City plans.

Action T5.1: Work with the area residents and develop a plan that works with the existing local airport to ensure that the airport does not hinder growth in this part of the City.

Action T5.2: Work with TxDOT and the Airport developers on ensuring that the Taylor residents are kept informed of all decisions affecting this airport.

- Action T5.3:** Review all development in and around the flight zones in accordance with the Future Land use plan to ensure the protection of any future neighborhoods as well as preserving the functional ability of the airport.

Thoroughfare Plan Implementation

Construction of thoroughfare system improvements occurs in stages over time as the City grows and, over many years, builds toward the ultimate thoroughfare system shown in the Thoroughfare Plan. The fact that a future thoroughfare is shown on the Plan does not represent a commitment to a specific time frame for construction, nor that the City will build the roadway improvement. Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including the City of Taylor, Williamson County, and the Texas Department of Transportation as well as private developers and land owners for sections of roadways located within or adjacent to their property.

The City, Williamson County, and Texas Department of Transportation, as well as residents, land owners and developers, can utilize the Thoroughfare Plan in making decisions relating to planning, coordination and programming of future development and transportation improvements. The City's review of preliminary and final plats for proposed subdivisions should include consideration of compliance with the Thoroughfare Plan in order to ensure consistency and availability of sufficient rights-of-way for the general roadway alignments shown in the plan. By identifying thoroughfare locations where rights-of-way are needed, land owners and developers can consider the roadways in their subdivision planning, dedication of public rights-of-way, and provision of setbacks for new buildings, utility lines, and other improvements located along the rights-of-way for existing or planned thoroughfares.

Plan Amendment

It will be necessary for the City to periodically consider and adopt amendments to the Thoroughfare Plan to reflect changing conditions and new needs for thoroughfare system improvements and development. A systematic procedure should be developed for making Plan amendments. The procedure should include policies governing developer driven amendments as well as including a schedule for annually inviting the submittal of proposed changes.