



8 | INFRASTRUCTURE

Infrastructure Principles

- PRINCIPLE 1:** Identify, prioritize and adopt a funding strategy, based on preliminary cost estimates, for the infrastructure projects necessary to support new construction so that the improvements are in place when they are needed.
- PRINCIPLE 2:** Give the same level of importance and attention to the maintenance of infrastructure as to the construction of new facilities.
- PRINCIPLE 3:** Prioritize infrastructure improvements and maintenance projects to provide the best economic return to the City.

Components of the City's Infrastructure

The basic infrastructure necessary to support the existing and future development in Frisco is largely in place, including streets (which are addressed in more detail in *Chapter 9 Transportation/Mobility*), trails, utilities and other municipal services. The adequacy of the services and facilities required to accommodate new development in the vacant portions of the city and in the ETJ—the Extraterritorial Jurisdiction; unincorporated area adjacent to Frisco that is not part of any city, but which may be annexed at some point in the future—should be assessed periodically on the basis of the type, intensity and location of various land uses as expressed in this plan. Projects of this nature tend not to be as exciting to citizens as watching the construction of new buildings, but they are just as critical to the community's success and long-term resiliency.

Public buildings and open space should also be considered essential infrastructure for a fully functioning city. These components, which may not immediately come to mind in the context of a discussion on infrastructure, would include buildings like the municipal center and library, police and fire stations, the senior center and other recreation facilities as well as parks, plazas and trails and the parking that supports these facilities and operations.

The City of Frisco has learned from the experience of some of the more mature communities in the Metroplex. City officials have demonstrated that they recognize the importance of having a reliable infrastructure system as it pertains to their success in attract new development to Frisco. They also recognize that maintenance of the infrastructure already in place is critical to the City's ability to retain existing residents and businesses and to capitalize on the capacity that is already available. Together, the two strategies—providing the infrastructure required for new development and maintaining the existing infrastructure—form the basis for the attraction and retention of retail, residential and employment development.



Existing Infrastructure

It is important for the City to evaluate existing infrastructure on a regular basis, not only to determine its current state of repair and functionality, but also to assess whether there is capacity to support new growth. In 2011, a Micropaver Implementation and Pavement Condition Index Survey project was undertaken to rate the condition of the City’s streets as part of the capital improvements planning process. This type of assessment should be updated every three to five years so that the City can plan and budget for the necessary repairs or replacements, (see also Chapter 10, Implementation, Strategy C05, p. 96, and Strategy E06, p.98).

The use of the existing infrastructure should be optimized by planning for new development of the type and intensity that will utilize the capacity already available and by encouraging development in infill locations—vacant properties surrounded by developed sites.

Reinvestment in infrastructure in the older parts of the community should be a priority so that the viability of these areas, and thereby the overall community, is ensured. As part of the City’s *Neighborhood Partnership Plan*, infrastructure deficiencies, particularly in these older areas of Frisco, can be identified so that plans can be made to address these situations.

Infrastructure maintenance projects vary in scope and complexity, but even relatively minor rehabilitation or reconstruction projects are essential to addressing existing situations today and to supporting new development in the future. Projects of this type could include:

- Performing repairs on sewer pipes that aren’t operating at optimum levels due to breaches in the lines or the infiltration of tree roots;
- Repairing water lines and making drainage improvements;
- Rehabilitating or reconstructing failing pavement sections or adding alley pavement, curb and gutter or sidewalks where they don’t currently exist;
- Enhancing or replacing aging bridge structures;
- Upgrading play equipment or adding new facilities in existing parks;
- Rebuilding or rehabilitating soccer and baseball fields;
- Adding turn lanes or widening intersections to improve traffic flow and minimize congestion; and
- Expanding or repairing public buildings.

The City should seek out opportunities to partner with outside agencies to fund repairs, upgrades and extensions to the infrastructure system currently in place and work closely with other basic service providers to ensure that the existing systems are fully functional or that the required improvements are made (see discussion below about cost-sharing).

New Infrastructure

In terms of the infrastructure necessary for the future, the City has been strategic about when and where it is constructed. Projects have included new and upsized utility lines, new parks and fire stations. These projects are very costly, and depending on their scope

and scale, may have been funded through the sale of bonds. These bonds may be subject to voter approval, and since elections can only be scheduled at certain times of the year under State law—in May and November—it is even more critical to have a strategy in place. Over the years, the City has been very effective in its efforts to anticipate the need for new infrastructure, (see also Chapter 10, *Implementation, Capital Investments, p. 96.*)

New improvements should be anticipated based on population and land use projections and development discussions, and these improvements should be included in the City’s Capital Improvements Plan, (see also Chapter 3, *Place Making & Resiliency and Appendix A2, Placemaking & Resiliency*). In general, in order to maintain a fiscally sound community, improvements should be planned and constructed where new development is likely to occur first and where the City will reap the most economic and community benefit for the costs incurred. The City has taken this approach in the past and has been successful with this strategy.

Cost-sharing opportunities should be explored for some of these projects, particularly transportation improvements like street extensions or widenings, sidewalk installations along school walking routes, ADA-compliance retrofits and trail extensions or connections where there are gaps. The City should seek out opportunities to partner with outside agencies for the funding and construction of new infrastructure and work closely with the providers of other basic utilities to ensure that all of the services required are available throughout the community, (see also Chapter

10, Implementation, Partnerships, p.97.)

Entities that often participate in the costs for these types of projects include:

- The federal government, particularly in the distribution of funds by the North Central Council of Governments, which serves as the North Texas region’s Metropolitan Planning Organization;
- The Texas Department of Transportation (TxDOT);
- The county in which the improvement will be located;
- The transit agency serving the community; and
- The North Texas Municipal Water District, which bears the responsibility for extending, replacing and upgrading major water system trunk lines.

New development should be encouraged in areas where the use of existing infrastructure can be optimized. New infrastructure is typically constructed to address deficiencies or the lack of facilities necessary to accommodate new development when it occurs. These improvements could include:

- Constructing or extending hike-and-bike trails;
- Building fire stations as new neighborhoods develop;
- Building new roadways to support or attract commercial development;
- Constructing new city gateway features; and
- Constructing new public buildings or replacing old buildings that don’t meet current user demands or operational requirements



These projects tend to be less cost-intensive than new construction because they are often of a smaller scale, but as retrofits, they may be more challenging due to existing conditions, adjacent land uses and the likelihood of service interruptions. Nonetheless, a city cannot afford to let these facilities decline or the entire community will pay the price.

It should also be noted in this discussion that the services and facilities discussed above are typically the responsibility of the local government except as indicated. There are, however, other types of infrastructure that are provided by outside agencies and organizations, most notably electrical power, natural gas and the communications infrastructure. While the City does not construct or maintain these improvements, it should work closely with the providers to ensure that the necessary easements and franchise agreements are secured and that businesses and residents have the services they need to maintain a high quality of life and to support successful business operations, (see also Chapter 10, Implementation, Partnerships, p.97).

Conclusions

The majority of the growth in Frisco has occurred in the last 15 years, and the City has been proactive in upgrading its infrastructure to support this development. Much of the infrastructure in place today is relatively new, but as with any other asset, it will age and deteriorate over time. Even now, there are certain parts of town where the streets and

utilities have been in place for decades and where parks and other public facilities may not meet modern planning and design standards.

The City should continue to make decisions regarding infrastructure improvements in a strategic manner by:

- Assessing the status of existing improvements;
- Making the best use of the infrastructure already in place;
- Reinvesting in existing infrastructure, where necessary; and
- Planning infrastructure for new construction based on anticipated population, land use types and intensities and discussions with landowners and prospective developers.

This approach addresses at least three of the Council's *Strategic Focus Areas*—Infrastructure, Long-Term Financial Health and Sustainability, (see also, Appendix A1, *Strategic Focus Areas*).

The City should evaluate its infrastructure policy and Capital Improvements Plan regularly and make refinements, if necessary. The City should also consider which of these improvements will yield the most community benefit and the best short-term economic return for the costs incurred, (see also Chapter 10, Implementation, Strategy CO3, p.96).

