

Transportation Recap Plano Tomorrow Comprehensive Plan

On August 18, 2014, the Planning & Zoning Commission completed a work session for the Transportation component of the Plano Tomorrow plan. The Commission was provided a summary document containing descriptions of each topic along with policy statement recommendations. After review and discussion with staff, the Commission recommended the following policy statements to address the Transportation issues.

Roadway System:

Recommended Policy: Plano will develop an integrated, multimodal transportation system, through the utilization of technology and innovative concepts that improves the safety and efficiency of the roadway system for all users.

Bicycles:

Recommended Policy: Plano will enhance and maintain a safe regional bicycle system to provide a viable option for travel to destinations, which is accessible to all users.

Public Transit:

Recommended Policy: Plano will provide access to a convenient transit network focused on increased travel options and direct connections to major local destinations.

Pedestrian Environment:

Recommended Policy: Plano will pursue a universally accessible and well-connected pedestrian system that promotes walkability, improves navigation of major thoroughfares, and encourages connections between residential areas and neighborhood centers.

Plano Tomorrow Vision

Plano is a global leader, excelling in exceptional education, abounding with world class businesses and vibrant neighborhoods.

TRANSPORTATION

Transportation is a critical component of city planning. The chosen mode of transportation impacts the physical design of a city. Plano's transportation system and physical design were built to accommodate the automobile. The backbone of the city's roadway system is six lane thoroughfares built mostly on a one mile grid. A total of four expressways connect Plano to the rest of the Dallas-Fort Worth region. As noted in the Regionalism component, automobile traffic has increased greatly in the region and the area is considered non-attainment with air pollution due to increased levels of ozone in the atmosphere from mobile source emissions. The increasing amount of traffic on the roadways, air pollution issues, and the rising cost of automobile ownership are beginning to impact the travel choices of Plano residents.

In 1986, the City of Plano joined the Dallas Area Rapid Transit (DART) system and has been receiving public transit services in the form of buses and beginning in 2002, light rail. Also, Plano has been working over the last 40 years to create an extensive on and off street bicycle trail system and pedestrian pathways.

These efforts provide Plano residents with increased transportation options. In the Regionalism component, there were policies developed that provided direction on regional roadway infrastructure located within the city. However, there are 2,900 lane miles of roadway that the city controls and maintains. The Transportation policies should enable the city to maximize benefits from the current transportation infrastructure and accommodate future population and employment growth. The direction from the Plano Tomorrow Survey, as well as the Council and Commission June 30 joint work session will be presented in this summary to address the following topics:

- Roadway System
- Bicycles
- Public Transit
- Pedestrian Environment

ROADWAY SYSTEM

Current Comprehensive Plan Strategies:

- Work closely with federal, state, and regional agencies to provide for a range of transportation options to meet the changing needs of Plano residents.
- Allow for amendment to the Thoroughfare Plan map between updates only when essential to the development of land when supported by a study of local and system wide impacts of the proposed changes.
- Conduct an annual review of existing transportation facilities, particularly major intersections, and their performance and safety records to improve traffic capacity and safety.
- Where possible, acquire rights-of-way for additional turn lanes at major intersections.
- Through the development review process and Community Investment Program (CIP), provide safe, reliable street access for daily use and for emergencies to all developed properties.
- Complete missing links of the thoroughfare system and develop roadways in accordance with design standards as indicated on the Thoroughfare Plan standards ordinance.
- Coordinate with neighboring communities to explore regional transportation approaches that would improve traffic flow within and between jurisdictions.
- Participate in the development and implementation of NCTCOG's Regional Transportation Plan and other regional coordination programs.
- Develop criteria to prioritize transportation improvement projects and programs that will receive funding from Plano's Community Investment Program (CIP).
- Require developers to submit site circulation plans for major development projects to improve on-site circulation and vehicle access to and from the property.

Plano Tomorrow Regionalism P&Z Direction from March 3, 2014 Work Session

Regional Transportation – Plano will be open to the expansion of existing roadway and expressway systems within the city to improve traffic flow. The city will work with neighboring communities to facilitate bicycle trail connections and encourage expansion of regional mass transit to non-member cities.

Plano Tomorrow Environment P&Z Direction from March 17, 2014 Work Session

Transportation Demand Management – Plano should commit to a Transportation Demand Management Program and meet with local corporations to identify the best policies for the program. Plano should actively pursue corporations to take advantage of the program.

Multimodal Roadways

Multimodal roadways are gaining popularity in cities across the United States. This is the concept of altering existing roadways to accommodate a variety of transportation uses. An existing roadway might be modified to provide space to accommodate bicyclists and mass transit while improving pedestrian safety through increased distance from vehicular traffic. These types of roadways function most efficiently when designed as a coordinated and interrelated system.

Traffic Control Systems and Innovations

In the Environmental component, Transportation Demand Management (TDM) was presented as a method to improve air quality through the reduction of vehicular traffic during peak travel times. Intelligent Transportation Systems (ITS) provide real-time information to monitor the flow of vehicles. This can maximize efficient movement and minimize fuel consumption and vehicle emissions. ITS may allow people to make informed decisions about their trips to minimize time and cost.

A current example of ITS is the managed toll lanes that have recently been implemented on Interstate 635 in Dallas and are being considered for use on U.S. 75. These toll lanes raise and lower fees dependent upon traffic conditions. Other technological innovations are occurring at a rapid pace and researchers are seeking new ideas to improve traffic flow and safety. The Federal Highway Administration (FHA) has recently explored the concept of Solar Roadways. This system would allow for changeable traffic control as well as provide solar energy.

By 2030, some experts predict that there will be driverless vehicles on the road nationwide. California, Florida, Michigan and Nevada have already adopted legislation that allows for driverless vehicles on their roadways. The driverless vehicles monitor the conditions and traffic around them and have the potential to improve traffic conditions by eliminating crashes and allowing for reduced space between automobiles thus accommodating greater roadway capacity without infrastructure expansion. The city should be prepared to evaluate new technologies and develop criteria to determine the effectiveness within our community.

Pilot Project Programs

Plano has utilized pilot projects as a way to implement and test new transportation concepts. These projects allow for the public to test and provide feedback on potential transportation improvements. Developing metrics in advance of improvements are strongly encouraged to measure the effectiveness of a pilot project. Additionally, adequate time should be provided to record the metrics under all traffic conditions and seasons.

Plano Tomorrow Survey

Plano residents believe that maintenance of and improvements to the existing roadway system are critical to Plano's future mobility. The city has tried traffic calming measures such as speed humps and cushions on collector streets to reduce vehicle speed. While some residents like this effort, others think it is a nuisance or the number of such

devices should be reduced on various sections of roadways. Additionally, many people think that traffic signal timing needs adjustment and that there are too many signals in the city. Other responders would like to see reflective markers on curbs and medians to illuminate objects at night.

Council and Commission Direction

Two policy statements that addressed the roadway system were evaluated by the Council and Commission members as follows:

Development Policy Survey Responses

“Regional Mobility – Plano’s economy and attractiveness as a place to live is dependent on regional transportation and the city must place a priority of expanding the capacity of all modes of transportation even when it is disruptive to established business and residential development.” **Disagree 10-7**

“Balanced Mobility – Improving regional mobility is important, but the projects must be balanced with their impact on residential and business development. Plano and the region must increasingly rely on expanding transportation choices, demand management and trip reduction strategies to meet mobility needs.” **Agree 16-1**

While these statements focused on regional mobility, staff considered these concepts for application to the local roadway system. There was strong support for balanced mobility. The focus is to protect the cities’ existing businesses and residential areas by controlling infrastructure expansion and providing increased transportation options and reducing vehicle trips required.

Proposed Plano Tomorrow Policy:

Plano will develop an integrated, multimodal transportation system, through the utilization of technology and innovative concepts that improves the safety and efficiency of the roadway system for all users.

BICYCLES

Current Comprehensive Plan Strategies:

- Work closely with federal, state, and regional agencies to provide for a range of transportation options to meet the changing needs of Plano residents.
- Develop and maintain a system of bicycle routes and recreational trails for destination and recreational use that lead to cultural attractions and employment areas, mass transit facilities and residential neighborhoods.

Bicycle Transportation Policy Statements:

- Develop and maintain an interconnected network of bikeways, made up of both on-street bicycle routes and shared use paths, as designated on the Bicycle Transportation Plan to provide access to transit, schools, libraries, parks, recreation facilities, shopping, employment, and other cities.
- Develop and maintain a system of bikeways with appropriate signs, signalization, or grade-separations to ensure safe roadway crossings.
- Develop and update educational materials that inform motorists and bicyclists about the city's Bicycle Transportation Network and its proper use on a regular basis.
- Encourage employers to implement trip reduction programs and provide bicycle storage facilities and changing rooms for employees who commute to work by bicycle.
- Encourage bicycling within the city with a bicycle network map and way finding signage.
- Encourage the installation of adequate, safe and secure bicycle storage at transit facilities.
- Designate a law enforcement liaison to the cycling community.
- Implement enforcement of the Safe Passing Ordinance.
- Study and evaluate the effectiveness of bikeway crossings of all roadways including highways, and where bikeways interconnect with neighborhoods, transit, education, recreational, commercial and cultural facilities and other bicycle facilities in surrounding cities.
- Measure the amount of usage taking place on bikeways in the community.

Plano Tomorrow Regionalism P&Z Direction from March 3, 2014 Work Session

Regional Transportation – Plano will be open to the expansion of existing roadway and expressway systems within the city to improve traffic flow. The city will work with neighboring communities to facilitate bicycle trail connections and encourage expansion of regional mass transit to non-member cities.

Plano Tomorrow Environment P&Z Direction from March 17, 2014 Work Session

Plano should pursue additional open space and trail connections to improve the quality of life for its citizens. This would include purchasing vacant and underutilized land for parks and open space and/or purchasing floodplain for trail connections.

Plano Tomorrow Quality of Life II P&Z Direction May 5, 2014 Work Session

Plano will expand its trail system to connect existing trails in Plano and neighboring communities. Plano will also enhance new and existing trails by providing safety and leisure amenities. Plano will seek private and public partnerships to assist with constructing trail amenities.

Bicycle Facilities

Bicycling is very important to the City of Plano as evidenced by the extensive trail system. The city has three off-street, shared-use paths (Bluebonnet Trail, Chisholm Trail, and Preston Ridge Trail) along with 168 miles of on street marked routes. The Parks and Recreation Department is responsible for the construction and maintenance of bicycle trails and has a Trail Planner on staff dedicated to bicycle transportation and pedestrian access. More details regarding Bicycle Transportation and the city's trail hierarchy can be found in the Bicycle Transportation Policy Statement at the following link: <http://www.plano.gov/DocumentCenter/View/742>

Bicycling as a Transportation Option

There are a variety of bicycle users within the city, including: school-aged children; casual riders; active, social cycling clubs; semi-professional cyclists; and individuals that have bicycles as the sole means of transportation. Ultimately, the bicycle system should accommodate all types of users. The existing bicycle trails in the city tend to serve as recreation facilities rather than an alternative mode of transportation. In order for the bicycle to serve as a transportation option, trails and routes need to connect residential neighborhoods with destination locations such as schools, city facilities, shopping, entertainment, cultural facilities, and employment areas.

Texas statutes allow bicycle use of all roadways within the state. Plano has a network of on-street routes, which provide access to destination places around the city. The city utilizes a shared lane concept where bicycles and automobiles share the whole roadway.

Dedicated bicycle lanes could be a step towards multimodal use of Plano's street system. The existing roadway could be altered to provide a dedicated lane for bicycle use. The bicycle lanes would then be identified by a paint stripe, lane separators, concrete barriers or curbs. Additionally, the width and/or number of roadway lanes for automobile use could be reduced to encourage lower speeds, improving safety for both bicycles and cars.

Electric bicycles, or e-bikes, may be another innovative option for people using bicycles as an alternative transportation option. These are gaining popularity in Asia and Europe

and, in the future, these units may affect Plano's bicycle planning. Riders still provide the pedaling motion but the electric motor enhances performance to generate a constant speed up to 20 to 25 miles per hour, which would improve the bicycle's viability of sharing roadway space with automobiles.

Plano Tomorrow Survey

Respondents to the Plano Tomorrow survey stated they would like to see expansion and maintenance of existing bicycle and pedestrian pathways. Trails should interconnect with bicycle facilities in neighboring cities as well as connect residential areas with destination places within Plano. Bicycle crossings with major thoroughfares should be improved and many respondents would like to see the addition of dedicated bicycle lanes on major roadways. However, not all respondents view bicycles in a positive light. Some respondents stated that they found bicycles on the city's street system dangerous during the evening and morning commutes.

Council and Commission Direction

Two policy statements that somewhat address bicycle transportation were evaluated by the Council and Commission members as follows:

Development Policy Survey Responses

“Regional Mobility – Plano’s economy and attractiveness as a place to live is dependent on regional transportation and the city must place a priority of expanding the capacity of all modes of transportation even when it is disruptive to established business and residential development.” **Disagree 10-7**

“Parks and Open Space – Great cities are known for great parks and open space that noticeably contribute to the image of the city and its quality of life. Increasing the amount of park land to meeting the needs of a growing population, filling service voids and completing linear trails and regional connections are priorities.” **Agree 10-7**

A small majority of the Council and Commission members agree with the Park and Open Space policy statement and one member expressed that every effort must be made to connect the city's trail system to existing and new residential neighborhoods. The primary reason for disagreement with the statement was directed towards increasing the amount of park land.

Proposed Plano Tomorrow Policy:

Plano will create and maintain a safe and comprehensive bicycle system to provide a viable option for commuting trips and travel to destinations, which is accessible to all users.

PUBLIC TRANSIT

Current Comprehensive Plan Strategies:

- Work closely with federal, state, and regional agencies to provide for a range of transportation options to meet the changing needs of Plano residents.
- Maintain a close working relationship with DART and monitor its development of plans and programs to ensure Plano's transportation needs are properly understood and addressed.
- Work with DART to identify and implement new bus transit alternatives in Plano. In particular, explore the provision of bus rapid transit between Legacy and Parker Road station.
- Support DART's efforts to improve east-west transit service, including a connection to DFW International Airport.
- Work with DART and other transportation service agencies to develop plans and programs to provide transportation services for the disabled and seniors.
- Encourage expansion of DART services to new member cities using equitable funding policies.

Plano Tomorrow Regionalism P&Z Direction from March 3, 2014 Work Session

Regional Transportation – Plano will be open to the expansion of existing roadway and expressway systems within the city to improve traffic flow. The city will work with neighboring communities to facilitate bicycle trail connections and encourage expansion of regional mass transit to non-member cities.

Public Transit Services

Dallas Area Rapid Transit (DART) provides public transit services to the City of Plano through use of local and express bus routes, on-call and flex bus service, and light rail. The 2012 American Community Survey states that 1.2% of employed Plano residents use public transportation to commute to work. Ridership on DART's light rail system has been more popular with city residents than using buses. Some of the challenges with bus ridership include unfamiliarity with Plano bus route destinations, lack of shelters at bus stops, and limited service routes within the city. DART's light rail stations have more amenities for waiting passengers than bus stops and more extensive advertisement of train routes and destinations.

Service Enhancement

Additional service areas may encourage more Plano residents to utilize public transit. Some city leaders and residents believe increased public transit service may encourage redevelopment of underperforming retail areas around the city. Trolleys could provide connections between a redeveloped Collin Creek Mall and Downtown Plano or Legacy Town Center and the proposed development at Legacy West. Many people desire an

east-west transit connection. Bus Rapid Transit, utilizing a dedicated service lane on a major thoroughfare, could also be a possible solution. Additionally, bus rapid transit, light rail or commuter rail could share existing rights-of-way to provide a variety of public transit services within Plano.

Service Expansion

Expanding DART services into neighboring cities has been discussed for several years. Allen, Frisco, McKinney, and Murphy are not members of DART; however, some of the residents from these cities use the system and desire public transit services. DART also owns the railroad rights-of-way for the Cotton Belt rail line eastward to Murphy and Wylie as well as from Plano to Sherman. The delay in membership entry is both political and financial. However, DART is considering changing policies for non-member cities to join the organization.

Collin County is also served by the Texoma Area Paratransit System (TAPS), which provides a transit option for many of these non-member cities. TAPS is in seventeen North Texas counties as a “fully demand responsive transport”, which is defined as “on-demand, call-up, curb-to-curb service from any origin to any destination in the service area.” While many know TAPS as a service for the senior population, the organization’s stated goal is to provide for the mobility needs of all persons.

Private Service Providers

Public transit organizations in the Dallas-Fort Worth area are beginning to face competition from a new form of private rideshare service provider, such as Uber, Lyft, and Curb. Rideshare companies put together drivers with riders but are not a formal taxi service. Service is arranged through smartphone or tablet “apps”, which increases accessibility and convenience. Since these private car companies are not regulated as taxis, the fees are often more affordable. However, some of these companies will increase charges during peak demand times. Curb is working with existing Dallas area taxi companies to provide transportation services at a set price but using an “app” for greater access. Cities are beginning to investigate how to better regulate these rideshare companies since the insurance and fees required of taxi services do not apply to these services.

Plano Tomorrow Survey

Plano residents believe that some type of east-west transit service is necessary to connect residential neighborhoods to employment areas. Light rail and buses are viewed as a way to reduce auto dependence. Some of the survey respondents believe seniors need more transportation options that provide direct service from their homes to medical facilities and shopping. Many think that DART should expand its commuter rail service and provide an east/west link from Plano to the Dallas-Fort Worth International Airport.

Council and Commission Direction

The Council and Commission identified several locations for expanded bus service, bus rapid transit routes, and trolleys during the map exercise:

- U.S. 75 and Spring Creek Parkway in the area of Plano Centre and Garden Ridge Shopping Center
- Future Cotton Belt Commuter Rail Station at 12th Street and the DART light rail red/orange line crossing
- Future Cotton Belt Commuter Rail Station at Shiloh Road
- Parker Road DART Station
- Several suggestions on bus lines, bus rapid transit and bus loops - no overall consensus as to specific location
- Trolley service
 - Legacy and Legacy West
 - Collin Creek Mall and Downtown Plano
- Rail extensions – DART red/orange line to Spring Creek Parkway and U.S. 75

Two policy statements that addressed public transit were evaluated by the Council and Commission members as follows:

Development Policy Survey Responses

“Regional Mobility – Plano’s economy and attractiveness as a place to live is dependent on regional transportation and the city must place a priority of expanding the capacity of all modes of transportation even when it is disruptive to established business and residential development.” **Disagree 10-7**

“Balanced Mobility – Improving regional mobility is important, but the projects must be balanced with their impact on residential and business development. Plano and the region must increasingly rely on expanding transportation choices, demand management and trip reduction strategies to meet mobility needs.” **Agree 16-1**

A few Council and Commission members had differing opinions regarding the importance of DART and mass transportation services for Plano. One city leader stated that Plano must expand public transit services from DART as this will be important for the city’s future viability and to increase benefits for residents’ and their investment in the organization. Another stated that membership with DART is not worth the investment as many residents receive few benefits from the city’s membership.

Proposed Plano Tomorrow Policy:

Plano will provide access to convenient transit network focused on increased travel options and direct connections to major local destinations.

PEDESTRIAN ENVIRONMENT

Current Comprehensive Plan Strategies:

- Work closely with federal, state, and regional agencies to provide for a range of transportation options to meet the changing needs of Plano residents.

Plano Tomorrow Environment P&Z Direction March 17, 2014 Work Session

Plano should pursue additional open space and trail connections to improve the quality of life for its citizens. This would include purchasing vacant and underutilized land for parks and open space and/or purchasing floodplain for trail connections.

Plano Tomorrow Quality of Life II P&Z Direction May 5, 2014 Work Session

Plano will expand its trail system to connect existing trails in Plano and neighboring communities. Plano will also enhance new and existing trails by providing safety and leisure amenities. Plano will seek private and public partnerships to assist with constructing trail amenities.

Walkability in Plano

While Plano has an extensive network of sidewalks, walking from residential neighborhoods to employment areas and retail centers can be a challenge. Some examples of issues that may discourage walking include: distance, sidewalk conditions, current urban design of residential and commercial areas, crossing major thoroughfares as well as walkway and street design issues. However, there have been some positive developments for pedestrians within the city. As mentioned previously within the bicycle section, there are three paved shared use paths with pedestrian access; the Bluebonnet, Chisholm, and Preston Ridge Trails. Shared use paths are facilities that accommodate both bicyclists and pedestrians. The Chisholm Trail is unique in design with underpasses at most major thoroughfares, thus eliminating crossings with major streets.

Downtown Plano and Legacy Town Center are examples of pedestrian-oriented, urban centers with a mix of entertainment, office, retail, and residential uses. Both urban centers narrow streets at intersections to reduce the distance required to cross the street as well as slow traffic. This concept could be applied at other locations around the city to improve the safety of pedestrian crossings at major thoroughfare intersections. The redevelopment of existing neighborhood retail centers also provides an opportunity for pedestrian access between commercial and residential areas.

Plano Tomorrow Survey

A few survey respondents commented that walkable, pedestrian oriented residential and commercial neighborhoods are desired. Others noted a need for maintenance and expansion of hiking trails. Some residents want walking access from their homes to neighborhood retail centers, yet are challenged by crossing major thoroughfares.

Council and Commission Direction

Council and Commission members identified additional pedestrian-oriented, mixed-use urban centers in locations throughout the city during the June 30 Joint Work Session. Additionally, all map exercise groups identified a Klyde Warren Park concept over the Dallas North Tollway to connect Legacy Town Center and the proposed development at Legacy West.

There were two policy statements from the development policy survey that addressed pedestrian access as follows:

Development Policy Survey Responses

“Regional Mobility – Plano’s economy and attractiveness as a place to live is dependent on regional transportation and the city must place a priority of expanding the capacity of all modes of transportation even when it is disruptive to established business and residential development.” **Disagree 10-7**

“Placemaking – Urbanization not only provides expanded opportunity for housing and employment, it offers great opportunity for creating rich, walkable mixed-use centers enriching the community’s visual character and quality of life.” **Agree 14-3**

A city leader stated that placemaking could help create walkable mixed-use neighborhoods in Plano. They also commented that it is important for pedestrian oriented neighborhoods be identified and supported by an efficient transportation system. A few of the Council and Commission members disagreed with the “placemaking” statement above stating that urbanization alone does not necessarily create a pedestrian-oriented environment.

Proposed Plano Tomorrow Policy:

Plano will pursue a universally accessible and well-connected pedestrian system that promotes walkability, improves navigation of major thoroughfares, and encourages connections between residential areas and neighborhood centers.