



City of Melissa 2015 Comprehensive Plan Update

Chapter 6: Parks and Trails Plan





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Introduction

A vital component of an urban area is the space devoted to satisfying active and passive community recreational needs. The quantity of this space and its distribution within the population generally indicates the quality of the local park and recreation services. Furthermore, all these spaces collectively are considered to be elements that enhance and contribute to the quality of life found in the community.

The purpose of this element of the Comprehensive Plan is to examine and analyze existing park and recreation spaces and facilities, to identify issues related to present and future community needs, and to make recommendations on how the City's park and recreation facilities can be integrated into a cohesive system. The service area for this Parks and Trails Plan is the entire City, and this chapter is supported by the demographic and socio-economic data within Chapter 1, Existing Conditions Analysis. This Parks and Trails Plan establishes criteria for park types, evaluates existing facilities, provides a comparative analysis of Melissa's park system to accepted park standards, and identifies demand-based needs that Melissa will need to address in the short-term (1 to 5 years), as well as in the long-term (5 to 10 years). Generally, the timeframe for this Parks and Trails Plan is 10 years. This Parks and Trails Plan should be considered an update of the City's Parks and Recreation Master Plan, which was prepared by the Parks Board in November of 2004.

Frederick Law Olmstead, the man considered to be the father of landscape architecture in this country, advocated the concept that parks, recreation areas, and public open spaces should be "planned as integrated systems so that the components could function in conjunction with one another."

Source: Alexander Garvin, December 2000, "Parks, Recreation, and Open Space: A Twenty-First Century Agenda," American Planning Association, Planning Advisory Service Report Number 497/498, p.13.

Goals and Objectives

This Parks and Trails Plan endorses the following goals and objectives from the previously adopted Parks and Recreation Master Plan.

Goal #1. Provide parks and common open spaces adequate in size, distribution, and conditions to serve all citizens.

Objectives:

- a. Include within the entire park system a combination of pocket parks, neighborhood parks, linear/greenbelt parks (i.e., trails), and community parks, some of which may be HOA parks.
- b. Utilize alternative sources of land such as school sites, other City departments' vacant or under-utilized land, existing street right-of-way, and joint City/County purchases or leases to lessen land acquisition costs.
- c. Develop a visible and accessible linear/greenbelt park system through layout and design of the surrounding roadway network.
- d. Work with the appropriate governmental and other organizations to coordinate parkland acquisition with long range growth and development planning.



Goal #2. Provide recreational facilities and activities to meet the leisure interests and health needs of Melissa citizens.

Objectives:

- a. Encourage civic participation in the on-going development, implementation, and evaluation of recreational facilities and programming.
- b. Develop facilities in areas which are underserved and assure their equitable distribution with regard to population characteristics and density.
- c. Coordinate linear/greenbelt park (i.e., trail) development with other governmental organizations for comprehensive pedestrian and bicycle connectivity.

Goal #3. Use the park system to preserve and protect environmentally significant areas for public enjoyment and education.

Objectives:

- a. Enhance and expand the linear/greenbelt park system along creeks and streams in cooperation with Collin County and the Collin County Flood Control District.
- b. Limit use within environmentally sensitive areas to passive recreation.

Goal #4. Maintain, secure and manage parks in a manner which encourages their appropriate use.

Objectives:

- a. Continue restoration of existing parks.
- b. Ensure that Melissa's parks and recreational facilities are safe and accessible for all users.
- c. Redefine the neighborhood park to provide a more even balance of passive and active uses.
- d. Continue established public participation opportunities to assist in park and recreational facility redevelopment activities.
- e. Recognize that park and recreation needs evolve over time with changes in the population characteristics of surrounding service areas.
- f. Design parks that are durable, easily maintained and are not detrimental to surrounding uses.



Goal #5. Maximize public/private partnerships to assist in all aspects of park and recreation planning and development.

Objectives:

- a. Utilize partnerships, wherever appropriate, to help develop, manage, and maintain parks and recreation facilities.
- b. Seek new ways to involve communities and organizations in public finance strategies to accelerate park system improvements.
- c. Encourage sharing of facilities owned by the City, County, school districts, other public agencies, and private institutions and organizations.

Plan Development Process

As part of the undertaking of the 2006 Comprehensive Plan for Melissa, it was determined that an update of the Park and Recreation Master Plan was needed. This chapter was fully updated at that time, with a minor update occurring in 2015.

Immediate needs for Melissa's park, recreation and trails system were identified in three primary ways. One, a public workshop was held (in December 2005) during which local citizens expressed their viewpoints on what types of recreational facilities were most needed and/or lacking in Melissa. Two, a Citizen Questionnaire was sent out by the City to receive input on numerous issues, including parks, recreation, and trails. And three, Comprehensive Plan Advisory Committee (CPAC) members were invited to provide their input on local park needs. The policies and recommendations contained within this Parks and Trails Plan are intended to incorporate all of the input received.

Public Workshop Input

The Public Workshop held on December 15th, 2005 was extremely well-attended, with approximately 65 interested citizens in attendance. The input that was received specifically on issues related to parks and trails is outlined in the following.

- When asked what they thought were the most important issues facing Melissa, citizens responded with the following:
 - Parks – Open spaces, trails for walking/biking (recreation in general)
 - Preservation of nature – trees, natural areas
 - Ordinances for development
- When asked what they thought the City had done well, citizens stated that Melissa has a good park system started. Zadow Park was named as a specific example.
- When asked what the City could do better, citizens responded with the following:



- Preserve open space
- Establish a trail system
- Preserve trees
- Create places for more community events
- Increase bike friendliness (need wide streets for bikers to have their own lane)
- When asked what citizens want in general, many responses involved parks, trails and recreation:
 - Parks and trails should be integrated with development
 - Development should be pedestrian-oriented (i.e., have trails)
 - There should be things within Melissa for people to do; for example, culture and entertainment for adults, and a community center with activities for youth
 - Open space should be preserved to the fullest extent possible

Citizen Survey Input

In order to receive additional public input and to supplement the input provided at the Public Workshop, the City conducted an online survey in early 2014. The overall results of the questionnaire are outlined in Chapter 2 of this Comprehensive Plan. For the purposes of this Parks and Trails Plan, it is important to outline results that relate to the provision of parks, recreation and trails within Melissa. It should be noted, therefore, that some questions did not relate to parks recreation or trails, so the answers to those questions are not discussed here.



Question #3: What service or facility would you like to have in Melissa that the City does not currently have or that the City has, but needs to expand?

Three of the six answer choices to this question related to parks, recreation or trails, and gave citizens the opportunity to show that they feel that such services/facilities are very important for the City to provide. As can be seen in Table 6-1, *Recreation/Community Center* received a 39.1 percent response, Trails an 18.5 percent response, and Parks a 12.9 percent response. The *Other* category received 24.8 percent of votes; Grocery store was written into the *Other* category 56 out of 101 times.

Table 6-1. Responses to Question #3

Answer Option	Percentage
a. Parks	12.9%
b. Library services	1.9%
c. Trails	18.5%
d. Public transportation	2.8%
e. Recreational/community center	39.1%
f. Other (please specify)	24.8%

Question #4: Would you agree or disagree with the City taking action to address the following?

This question examined whether the City should take action on many different things, but only park-related items are relevant for the purposes of this chapter. Table 6-2 shows that there is strong agreement on the City taking action to preserve open space and to have developers participate in provision of park land or funding.

Table 6-2. Responses to Question #4 (Park-Related Portion Only)

Answer Option	<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
Preserving open space	39.3%	39.7%	14.3%	5.8%	0.9%
Having developers provide park land or funding for parks	43%	40.2%	10.5%	4.5%	1.8%



Table 6-3. Responses to Question #7

Answer Option	Percentage
a. Increase the # of parks	18.9%
b. Increase the # of parks that connect people to destinations	47.6%
c. Improve the existing facilities	24.5%
d. Other (please specify)	9%

Table 6-4. Responses to Question #8

Answer Option	Percentage
a. Very important	52.5%
b. Somewhat important	34.9%
c. Not important	12.6%

Table 6-5. Responses to Question #9

Answer Option	Percentage
a. Very important	59%
b. Somewhat important	34.1%
c. Not important	9.5%

Question #7: How could the City improve the parks and trails to better meet your needs?

Nearly half of the participants said that an increased number of trails that connect people to destinations would better meet their needs. Improve the existing facilities was the next largest category. The *Other* responses included: swimming pool, safety features, dog park, bike trails and sports fields.

Question #8: How important is it to you that trails and sidewalks are provided within Melissa?

Over 87 percent of citizens feel that trails and sidewalks are important, with only 12.6 percent disagreeing.

Question #9: How important is conservation of the natural feel/rural environment in Melissa?

Over 93 percent of citizens feel conservation of the natural feel/rural environment in Melissa is important.

Conclusions from the Online Survey

Park-related issues were featured throughout the Online Survey. Citizens of Melissa seem to be very much in favor of the City expanding the local park system, but also preserving open space areas. Increasing walkability and providing trails also seem to be important to respondents.



Park Concepts and Standards

In order to provide the parks, recreational, and open space facilities needed by the City's residents, a set of standards and design criteria should be followed. The National Recreation and Park Association (NRPA) has developed such standards for parks, recreation, and open space development. These standards are intended to guide communities in establishing a hierarchy of park areas. Recommended park acreage for each type of park is discussed in the following section of this chapter. This section describes a commonly used classification system that follows guidelines similar to those set forth by the NRPA. The park areas discussed are defined by the various types of activities that are to be furnished, and by their type, size, and service area. Each park type is discussed below in order to:

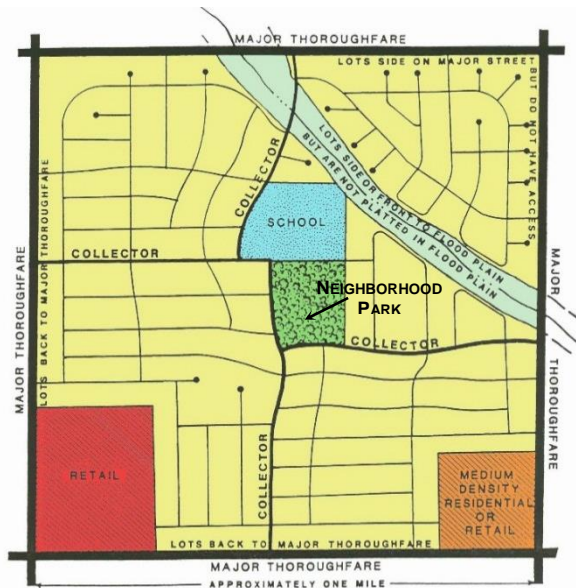
- Identify the function of each park type;
- Specify the recreational activities generally associated with each park type; and
- Define the general service area and the physical relationship of each type of park to the population residing within its service area.

Pocket Park

A pocket park is a small area generally used as a children's playground or as a passive or aesthetic area by senior citizens. Pocket parks are designed to serve a very small population area and are often owned or maintained by a property association. These parks normally serve a population base of 500 to 1,000 persons, and although they range in size, they



are typically about one acre. The primary function and use of this type of park is to provide recreational space for preschool-age children and elementary school-age children near their residences. These parks, although they should be used to calculate the amount of park acreage a community has, are generally not conducive to ownership by municipalities due primarily to required maintenance costs. Currently, there are about ten parks composing about 19 acres in Melissa that could be classified as a pocket park.



Neighborhood Park

The neighborhood park, sometimes referred to as a playground, is generally thought of as one of the most important features of a park system, and is often considered to be one of the major cohesive elements in neighborhood design. Its primary function is the provision of recreational space for the neighborhood that surrounds it.

When it is possible to combine an elementary school with this type of park, the two features further enhance the identity of the neighborhood by providing a central location for recreation and education and by providing a significant open space feature within the neighborhood. Facilities normally provided at a neighborhood park consist of the following.

- Playground equipment for small children
- A multiple-purpose, surfaced play area
- An athletic area (non-lighted) for games such as baseball, football and soccer, and a surfaced area for such sports as volleyball, basketball, tennis, and similar activities

Other desirable elements for neighborhood parks include

- Pavilions with tables and grills for picnics
- Restrooms
- Drinking fountains
- A passive area with landscaping, trees and natural elements.

Neighborhood parks are designed to serve a small population area. An appropriate standard in relation to size and population for this type of park is 2.5 acres per 1,000 persons. These parks normally serve a population base of 1,000 to 2,500 persons, and they generally range in size from five to 10 acres. The park created as part of the Liberty subdivision is an example of a neighborhood park.



Community Park

A community park is larger than a neighborhood park, and is oriented toward providing active recreational facilities for all ages. Community parks serve several neighborhood areas, and sometimes an entire city, depending on the size of the city. {Note: The City's previous Parks and Recreation Master Plan used the terms "community park" and "city park" separately; however, their definitions and descriptions within that document were very similar. Therefore, this Parks and Trails Plan does not distinguish between the two terms, and the discussion is concentrated on "community parks" as described herein.} Activities provided in community parks generally include:

- Game and practice fields for baseball, football, soccer and softball;
- A community building/recreation center;
- Tennis courts;
- A surfaced multiple-purpose play area;
- Playground structures;
- A passive area for picnicking; and,
- Other special facilities, such as Frisbee golf, if space is available.

The service radius of a community park play field is one-half to two miles, and a location adjacent to, or as a part of, a junior high or high school is considered desirable. An appropriate size standard for these parks in relation to acreage and population is 5 acres per 1,000 persons. These parks normally serve a population base of 2,500 to 5,000 persons, and they generally range in size from 40 acres to 100 acres. Zadow Park, located along State Highway 5 in the central part of Melissa, is approximately 14 acres. Although it is less than the 40-acre minimum stated above, Zadow Park functions as a community park; it is therefore classified and discussed as a community park for park planning purposes.





Large/Regional Parks

Areas that are 100 or more acres in size, which provide both passive and active recreational facilities, are considered to be large/regional parks. These parks can serve all age groups, and often have athletic fields. It is desirable that a balance of active and passive recreational facilities be provided in a large/regional park. Such facilities may include picnicking, fishing, water areas, and hiking and natural areas. Dependent upon location, need, and possibly topography, some community park features may be placed in a large/regional park. These parks are also often lighted and have multi-purpose functions. A standard of 7.5 acres per 1,000 persons is commonly recommended for large or regional parks, and they normally serve a population base of 5,000 to 7,500 persons. There are no large or regional parks within Melissa at this time. The citizens of Melissa do have access to several regional parks located in nearby cities for the purpose of little league or other types of team sports.

Special Recreation Areas

Golf courses, country clubs, school parks, botanical gardens, and special athletic and community centers, including youth centers (e.g., YMCA) and civic centers, are considered to be special types of recreational facilities. Standards for this type of facility are variable and dependent upon the extent of services provided by the particular facility. There are no special recreational areas within Melissa at this time. However, if a community center and/or YMCA facility are established within the new open space area that the City has recently acquired, these facilities would be considered special recreation areas when they are developed.



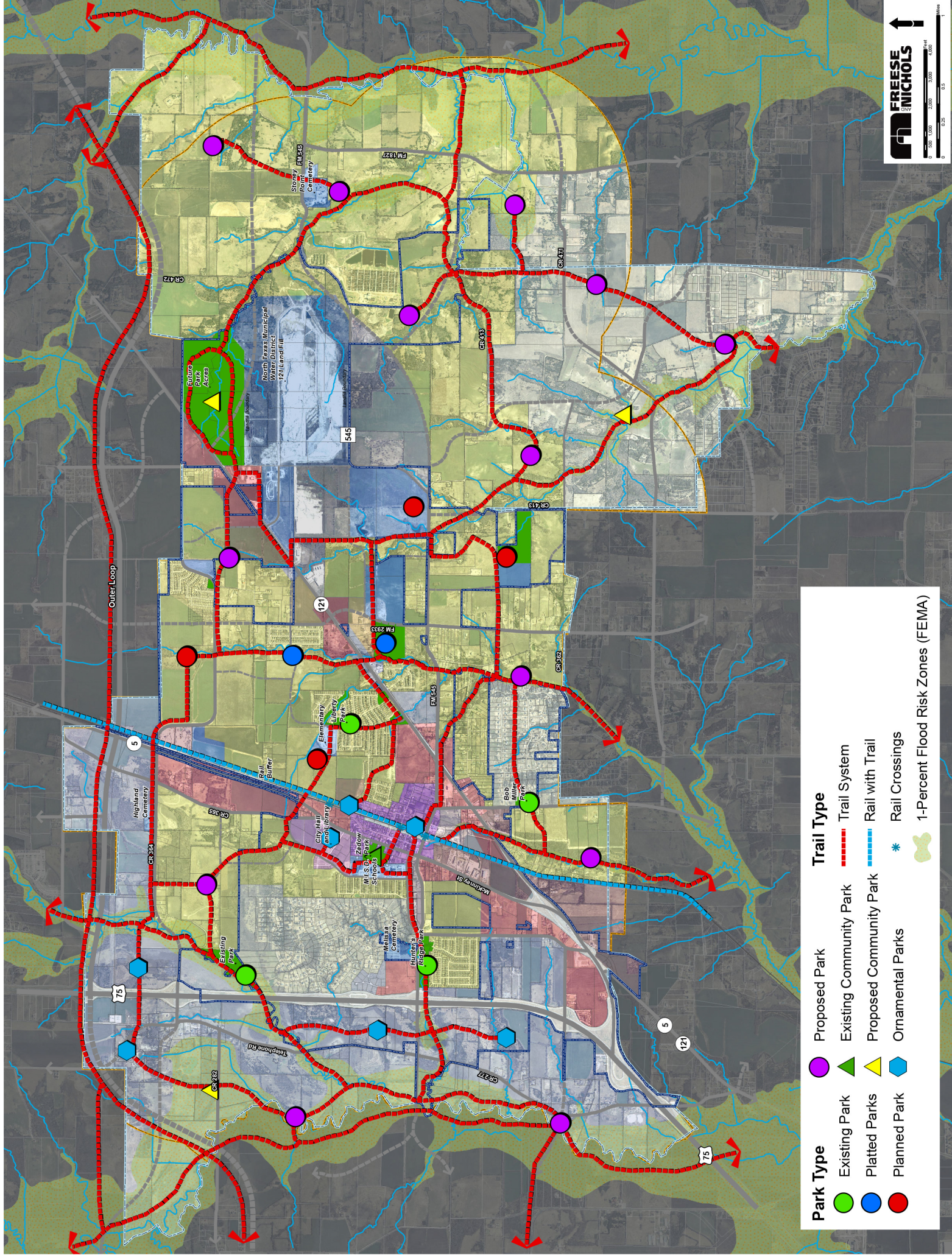
Parkways and Ornamental Areas

Plazas, street medians, scenic drives, grounds of public buildings (i.e., with benches, fountains, etc.), trailheads and trail rest areas, and similar facilities are within this park category. These types of areas can be important to the visual appeal of a community, and can provide passive recreation space. One area within Melissa that could be considered an ornamental area would be at the entrance to the Liberty subdivision (shown top left). There are no other areas within the City at this time that would be considered a parkway or ornamental area. If the City establishes an extensive trail system (as is recommended later within this chapter), the rest areas along these trails would fall within this category. Also, the public square that is planned as part of the new Town Center would be a park of this type.



Open Space, Reservations, Preserves and Linear Parks/Greenbelts

These types of parks are generally areas that are natural and undisturbed. Although active recreation can be accommodated within these areas, they are primarily intended for passive recreational use. Floodplains are often made into this park type because of they are unable to be developed with other types of land use. Melissa has several undeveloped floodplain areas that are shown on **Figure 6-1**. Also, the City's tract of land adjacent to State Highway 121 at the northern City limits is currently within this park category, although active recreation is envisioned for this area in the future. It should be noted for the purposes of this Parks and Trails Plan, the term "linear park/greenbelt" is used interchangeably with "trail."





Current Park Inventory

Melissa has three park areas, along with a large open space tract of land. These areas are shown in **Figure 6-1**. Zadow Park is considered a community park, and Bob Miller, Hunter's Ridge, and Liberty parks are considered neighborhood parks. The following table describes the amenities provided in each park. Open space area is not included in the table because it is not yet developed, nor have its intended amenities been programmed. Pocket parks are also excluded from this inventory.

Table 6-6. Existing Parks in Melissa

Park	Acres	Park Amenities							
		Shelter	Restroom	Picnic Tables	Playground	Athletic Fields	Basketball Courts	Volleyball Courts	Tennis Courts
Zadow	13.5	2	2	8	1	3	2	1	0
Bob Miller	4.9	2	1	0	1	0	0	0	0
Hunter's Ridge	14.4	1	1	0	1	0	0	0	0
Liberty Park	6.5	1	1	0	1	0	0	0	0
Park	Park Amenities								
	Pool	Trail Miles	Soccer Field	Irrigation	Nature Area	Fishing	Rec Center	Parking	Horse-shoe Pits
Zadow	0	0.5	0	Yes	Yes	0	0	161	2
Bob Miller	0	0.5	0	Partial	0	0	0	46	0
Hunter's Ridge	1	0.5	0	Partial Planned	Yes	0	0	28	0
Liberty Park	2	0	1	No	0	0	0	30	0

Source: Melissa Parks and Recreation Master Plan, page 31, prepared by the Parks Board, November 2004.



Standard-Based Needs

The general standard established by the NRPA for park acreage per 1,000 people is approximately 15 to 17 acres. **Table 6-7** shows current park acreage and standards related to the NRPA. Melissa currently has approximately 105 acres of parkland, including Zadow Park and the open space area that the City has purchased (refer to **Figure 6-1. Parks and Trails Plan Map**). This amount is slightly less than the NRPA's recommended 128 acres for a population of Melissa's size utilizing a standard-based assessment. Calculations for future park standard-based needs for the projected population of 22,127 in 2025; 35,635 in 2030; and 119,072 at ultimate capacity are shown in **Table 6-8**.

It will be a challenge for the City to continue to be above NRPA standards, given the rapid population growth that is anticipated. In addition, in recent years, park and recreation experts have begun to rely more heavily on facility-based park planning than on acreage-based. For example, a community may not have enough park acreage to meet NRPA standards, but may have an extensive trail system that is effectively meeting the needs of its citizenry. The demand-based discussion in the following section and the park policies at the end of this chapter address these considerations (see Parks and Trails Policy 5).

Table 6-7. NRPA Standards Related to Melissa's Current Park Acreage

Park Type	NRPA Standard of Acres per 1,000 People	NRPA Standard for Planning Area Current Population of 7,755	Existing Park Acreage	Acres per 1,000 People for Current Population of 7,755 People
Neighborhood	2.5	19	25	2
Community	3	23	13	2
Special/Pocket	3	23	19	-
Open Space	8	62	48	6
Total	16.5	128	105	14

Table 6-8. NRPA Standards Related to Melissa's Projected Population

Park Type	NRPA Standard for Projected Population of 22,127 People in 2025	NRPA Standard for Projected Population of 35,635 People in 2030	NRPA Standard for Ultimate Population Capacity of 119,072 in the City and ETJ
Neighborhood	55	89	298
Community	66	107	357
Special/Pocket	66	107	357
Open Space	177	285	953
Total	365	588	1,965



Demand-Based Needs

The following discussion of Melissa's specific park and trail needs is based partly on traditional standards, as in the previous section, but also on what is truly desired from a local perspective. Principally discussed are neighborhood parks, community parks, ornamental parks, and trails. A description of how such parks should be developed and their related costs are also included.

Additional Neighborhood Parks

Platted and Planned Parks

There are numerous platted and planned neighborhood parks within the subdivisions that the City as already approved (refer to the Future Land Use Plan). These parks are shown as blue and red circles, respectively, in **Figure 6-1**. These parks are anticipated to be developed in the short-term (five to 10 years), and would result in the City having an additional six neighborhood parks. At that point, the City would have a total of 10 neighborhood parks.

Proposed Parks

In addition to the platted and planned parks, other neighborhood parks have been proposed. The recommended locations of these other proposed parks, shown as purple circles on **Figure 6-1**, are related to ensuring that remaining areas are covered in terms of service area. (As previously mentioned, the service area of a neighborhood park is one-half to three-fourths of a mile.) In addition, the trail system has been recommended to link each of these parks with pedestrian access. It should be noted that **Figure 6-1** shows the recommended location of these proposed neighborhood parks in a generalized manner; their specific locations should be determined as development occurs. With all of the neighborhood parks shown on **Figure 6-1** built and located generally in accordance with the Parks and Trails Plan Map, they should serve Melissa's ultimate population needs in a convenient and equitable manner.



Neighborhood Park Cost

Table 6-9 contains information on the cost for a typical neighborhood park, with various elements itemized that are often included as part of a neighborhood park. The total estimated cost for a neighborhood park, including a 10-foot wide trail, is approximately \$679,000. It should be noted that the cost estimate does not include land acquisition costs.

Table 6-9. Estimated Neighborhood Park Costs

Facility-Type	Estimated Cost	Possible Funding Sources
10-Foot Wide Concrete Trail, ½ Mile Long ⁽¹⁾	\$105,000	Texas Parks & Wildlife Department Grants, Donations, Park Dedication Ordinance Fees, Bonds, Tax Revenue
Playground	\$100,000	
Practice Backstop	\$10,000	
15-Space Parking Lot	\$25,000	
Multi-Purpose Court	\$35,000	
Turf & Irrigation (10 acres)	\$315,000	
Drinking Fountain	\$5,000	
Picnic Shelter (5 Tables)	\$80,000	
Park Bench (and Pad)	\$4,000	
Total Estimated Cost	\$679,000	

(1) Based on \$4 per square foot of trail.

Note: Estimated cost does not include land acquisition.



Community Parks

As stated previously, Zadow Park is currently serving the City's community park needs. However, several additional community parks will likely be needed to meet the needs of Melissa's ultimate population of approximately 119,072. Location, accessibility, and land use are prime considerations for these proposed community parks.

One of the proposed community parks is shown on the City's recently acquired tract of land in the northeastern part of the City, adjacent to State Highway 121. In addition to the traditional elements of a community park being provided in this location, facilities such as a YMCA and/or community center would be appropriate. This community park would have direct access from State Highway 121, making these facilities easily accessible from a major roadway. In addition, the proposed trail system traverses this park location, ideally making it accessible to pedestrians and bicyclists as well as to automobiles.

Another community park has been recommended in the southeast area of Melissa. This area of the City remains relatively undeveloped, and the City could proactively plan for its location (i.e., as development occurs). In addition, the presence of floodplain adjacent to the proposed location could be used to enhance the aesthetics of the park, for example with water features, view areas, special nature areas, etc.



Community Park Cost

Table 6-10 contains information on the cost for a typical community park, with various elements itemized that are often included as part of a community park. The total estimated cost for a park of this type, including a 10-foot wide, one-mile in length trail, is likely over \$4,000,000. It should be noted that the cost estimate does not include land acquisition costs.

Table 6-10. Estimated Community Park Cost

Facility-Type	Estimated Cost	Possible Funding Sources
10-Foot Wide Concrete Trail, 1 Mile Long ⁽¹⁾	\$210,000	Grants, Donations, Park Dedication Ordinance Fees, Bonds, General Budget
Playground	\$100,000	
4 Lighted Soccer Fields	\$500,000	
4 Lighted Little League Fields	\$800,000	
4 Adult Softball Fields	\$1,000,000	
1 Concession/Restroom Facility	\$250,000	
Picnic Pavilion with 10 Tables	\$180,000	
50 Parking Spaces (Concrete) Per Field – Total of 600 Parking Spaces	\$960,000	
Other Elements (<i>Concrete Access Park Roads, Water & Sewer Lines, Electrical Services, Irrigation & Turf Establishment</i>)	Dependent on Site	
Total Estimated Cost	\$4,000,000+	

(1) Based on \$4 per square foot of trail

Note: Estimated cost does not include land acquisition.

Ornamental Parks

Ornamental areas are shown on the Parks and Trails Plan Map within some of the areas recommended for mixed use development. Policy 3 within the Future Land Use Plan discusses the various elements that should be included in a mixed use area. One such element is a *central gathering space or focal point that helps create an identity for the development and that often establishes an obvious pedestrian focus*. A gathering space or focal point can be in many forms, including a private open space area, plaza, gazebo, fountain, or civic building. It is this type of element that is envisioned for the ornamental areas recommended within this Parks and Trails Plan.



Hike-and-Bike Trails

Both citizens and CPAC members expressed a strong interest in and need for hike-and-bike trails of at least 10 feet in width within Melissa. The integration of a trail system in Melissa is strongly supported by this Parks and Trails Plan. There are numerous reasons that such a system would be a positive element for the City. First, an integrated, cohesive hike-and-bike trail system would set Melissa apart from other communities in the area; no other city in the vicinity has such a system. Second, trails are a recreation amenity that can be used and



enjoyed by all age groups, which is not true of a playground or ballpark; all citizens, young and old, benefit from the availability of trails. And third, it has been proven in recent studies that property values are positively affected by being in proximity to a trail; people are generally willing to pay an increased amount for such a residence. A recent survey⁶⁻¹ supports this.

- Urban trails are regarded as an amenity that helps to attract buyers and to sell property. For residents of single-family homes adjacent to a trail:
 - 29 percent believed that the existence of the trail would increase the selling price of their home (and 43 percent said it would have no effect);
 - 57 percent of the residents felt that the trail would make the home easier to sell (with 36 percent saying no effect);
 - 57 percent of these residents had lived in their homes prior to construction of the trail;
 - 29 percent of those surveyed were positively influenced by the trail in their decision to buy the home.
 - Results were similarly positive for residents who lived near but not adjacent to the trail.

General Considerations

Pedestrian access between parks, public spaces, and neighborhoods can enhance citizens' sense of community. This type of access can also provide a means for residents to move through the community and meet their neighbors and can provide a safe way to increase the mobility of children and the elderly. A functional network of hike-and-bike trails will provide Melissa with a uniqueness, allowing the City to set

⁵⁻¹ Suzanne Webel, "Trail Effects on Neighborhoods: Home Value, Safety, Quality of Life", Boulder Area Trails Coalition, Resources and Library Directory; ADDRESS: <http://americantrails.org/resources/adjacent/sumadjacent.html>.



itself apart from other Metroplex communities. The City is well-positioned for such as system, given that it is bounded on the east and west by extensive floodplain areas and creeks.

Figure 6-1 shows the recommended hike-and-bike trail system with a red dashed line. The general concept in laying out a trail system is to incorporate as many positive features of an area as possible. Elements to consider when making decisions regarding trail locations include the following⁵⁻²:

- Natural openings and scenic views
- Light brush
- Access to, and view of, waterways, such as creeks
- Safe crossings of roads, railroads, and waterways
- Existing platted or vested subdivisions
- Minimal conflict with existing land use



Each of these elements was a consideration when determining the most appropriate layout for Melissa's trail system. Existing land uses were a primary consideration; in order to minimize conflicts, the trail was placed along existing road ways in developed areas. The recommended trail lengths in undeveloped areas are generally shown off-street and adjacent to creeks and within floodplain areas to the furthest extent possible. It should be noted that participation in the hike-and-bike trail system in developed areas will most likely be the responsibility of the City of Melissa, but developer participation can be solicited in areas that are currently vacant as they develop.

Specific Considerations

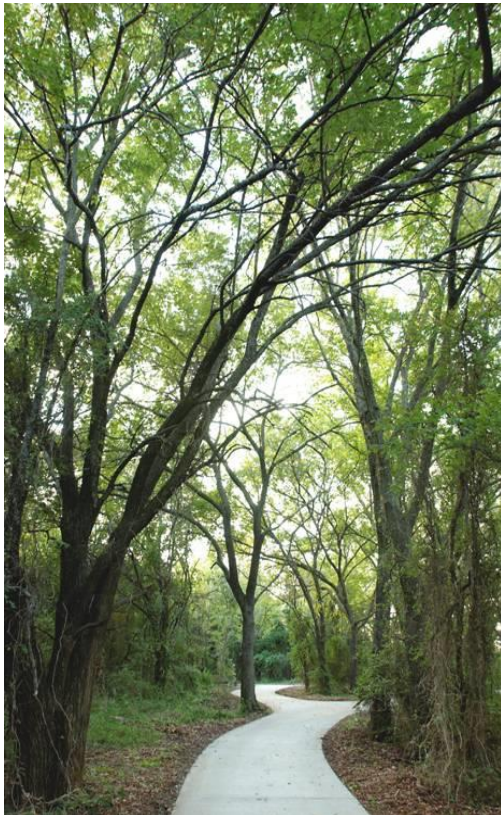
The primary concept for this trail system was to provide for a continuous pedestrian connection throughout the City. The need for continuity in Melissa's trail system was a suggestion made numerous times by CPAC members, and this Parks and Trails Plan supports that suggestion. Consideration was also given to providing continuous access between the following important features within the City:

- The extensive floodplain areas and creeks that create the east and west boundaries of the City

⁵⁻² "Trail Design," from the University of Florida School of Forest Resources and Conservation; ADDRESS: <http://www.sfrc.ufl.edu/Extension/pubtxt/for5b.htm>.



- Zadow Park
- The Old Town area
- The new Town Center
- The planned transit stop
- Existing schools and future school sites
- The City's recently purchased large open space area



Trail Width and Integration

Hike-and-bike trails should be no less than eight feet wide and should be ten feet wide wherever possible. Melissa will have opportunities in the future as development occurs to integrate the trail system in other ways, perhaps along a creek or through a park area. However, in previously developed areas, the City will have to decide the best way in which to establish trails (see Parks and Trails Policy 2). Opportunities within existing neighborhoods are more limited, and many will likely have to be on-street trails, depending primarily upon the amount of right-of-way available.

Trail Construction Materials

The materials used for trail construction vary widely, however some are better than others in terms of maintenance and impact on the pedestrian. Construction materials also must meet the requirements of the Americans with Disabilities Act (ADA), which is another important consideration. Concrete material is the best long-term for maintenance and meets ADA requirements. Although there are concerns about the adverse impacts that long-term walking and running on concrete can have on users, other materials sometimes used for trail construction have maintenance and cost issues. For instance, asphalt is less expensive than concrete but has proven to be more maintenance-intensive long-term. Another material that could be used is rubberized material (usually red or black in color), which is low-impact on users and requires only slightly more maintenance than concrete, but is cost-prohibitive for most cities.



Figure 6-2. Location for Possible Rail-with-Trail (blue dashed line)



The Rails-With-Trails Concept

The Rails-With-Trails idea evolved from the concept of Rails-to-Trails, which is based on converting abandoned or unused rail corridors into public trails. The difference between these concepts is that Rails-With-Trails utilizes unused portions of railway rights-of-way along railroad lines that are still active. Melissa's rail line is anticipated to be active when the Dallas Area Rapid Transit line is extended north to provide light rail; therefore, the rails-with-trails concept is more applicable for the City.

In considering the rails-with-trail concept, the most common concern is that establishing a trail within a railroad right-of-way, in close proximity to an active rail line, would be a dangerous proposition. In fact, the Rails-to-Trails Conservancy maintains that "rails-with-trails can be safer than trails next to roads"⁵⁻³. Some factors to give special attention to in terms of safety are as follows⁵⁻⁴:

- Ensuring adequate distance between the trail and the railroad track – the average separation distance is approximately 33 feet;
- Constructing and maintaining a barrier and/or grade separation between the trail and the railroad track;
- Designing safe railroad crossings, either at-grade or otherwise;
- Establishing adequate trail-user signage.

⁵⁻³ "Rails-With-Trails: Design, Management, and Operating Characteristics of 61 Trails Along Active Rail Lines," from the Rails-to-Trails Conservancy, November 2000, p.7.

⁵⁻⁴ Ibid.

**Table 6-11. Estimated Trail Length Cost for a Trail One Mile in Length**

Facility-Type	Estimated Cost ⁽¹⁾	Possible Funding Sources
8-Foot Wide, Concrete	\$170,000	Grants, Donations, Park Dedication Ordinance Fees, Bonds, Tax Revenue
10-Foot Wide, Concrete	\$210,000	

(1) Based on \$4 per square foot of trail

Note: Estimated cost does not include land acquisition.



Example of a trail constructed according to Rails-With-Trails concept

One long length of trail has been recommended to run along Melissa's rail line. It is along this length that the rails-with-trails concept would be important to Melissa's trail system implementation. This has been shown in **Figure 6-1** in a blue color and in the detail illustration at the right. This concept is also supported in Parks and Trails Policy 2 in the next section of this chapter.

Trail Cost

The cost of establishing lengths of trail can vary, depending on the construction materials, local labor costs, the cost of clearing land, and other related items. The width of the trail is also a primary consideration. **Table 6-12** contains information on estimated costs for both an eight-foot wide and a ten-foot wide trail, one-mile in length and constructed with concrete materials. It should be noted that these cost estimates do not include land acquisition costs and are based on a material cost of four dollars per square foot. Possible funding sources have been outlined. As may be expected, it is less expensive to construct an eight-foot wide trail, but a ten-foot wide trail would allow for a greater number of users, and would likely be more beneficial to the City in the long-term.



Demand-Based Calculations

Acreage calculations for various park types were previously provided within the *Standard-Based Needs* section of this chapter. The following table shows the calculations of the demand-based needs that have been discussed within this section. These calculations correlate to the Parks and Trails Plan Map, **Figure 6-1**. The total recommended is actually less than the total recommended on a standards basis by the NRPA. Because ultimate capacity or build-out will not be reached in the foreseeable future, this is a long term consideration for Melissa. The City should continue to identify additional site for possible parks in the ETJ as development occurs. This will ensure that the recreational amenities will adequately serve Melissa's ultimate population.

Table 6-12. Demand-Based Calculations Based on Plan Map

Park Types	Number of Proposed Parks	Acres		Total Acres
Neighborhood	17	10		170
Community	3	100		300
Special - MU Plazas	7	1		7
Greenbelts/Trails & Open Space (Major Trails)	Linear Feet	Easement Width	Square Feet	120
	209,335	25	5,233,375	
Greenbelts/Trails & Open Space (Feeder Trails @ 30%)*	Linear Feet	Easement Width	Square Feet	26
	62,801	18	1,130,409	
Total Future**				623
Total Existing				105
Total Ultimate Parks and Trails				728

**Feeder trails are not specifically shown on the map, but are envisioned to be narrower trails that provide for secondary connectivity within neighborhoods, developments, and along roadways.*

***Note that some of these parks have not been indicated on the Future Land Use Plan Map because the exact locations are conceptual*



Recommended Parks and Trails Policies

Following are the recommended policies related to future parks and trails in Melissa. The Parks and Trails Plan Map, **Figure 6-1**, is intended to be used in conjunction with these policies. The Implementation Plan, Chapter 9, will outline specific ways in which the City can implement the transportation policies, along with other recommended policies from within this *2015 Comprehensive Plan Update*.

Policy 1: Integrate Parks and Trails with Development

In many communities, parks and trails must be driven to; they cannot easily be accessed on foot. This is especially true in relation to community and regional parks. In Melissa, parks and trails should be designed such that they are an integral part of the community in all types of development – residential, nonresidential, mixed use, etc.

PT1.1 | The City should consider the way in which developments are configured, with residential lots adjacent to parks and access to trails optimized.

- To ensure that the maximum value accrues to both parks and homes, adjacent homes should directly face park areas, whether or not there may be an intervening street.⁶⁻⁵
- All park areas should either be bounded by lots or bounded by streets with lots fronting onto the streets and adjacent park areas.
- In neighborhoods, smaller residential lots or more dense residential areas should be located in the closest proximity to any parks and open spaces provided. This will maximize the value of those lots and areas, and the parks and open spaces offset smaller lot sizes.
- Trails should be used as commonly as roadways in and between new developments.
- All new subdivisions should provide trails as well as access to trails adjacent to the subdivision. For example, at least two points of access to an adjacent trail length required for every 75 lots.

PT1.2 | The City should encourage unique park/open space areas that enhance the aesthetic appeal of Melissa.

- Park areas that are ornamental should also be part of Melissa's park system. Areas, such as large landscaped medians, water features, village greens, and plazas provide a uniqueness that will help set Melissa apart from other communities.

⁶⁻⁵ Miller, Andrew Ross. *Valuing Open Space: Land Economics and Neighborhood Parks*. Massachusetts Institute of Technology (MIT), February 2001.



Policy 2: Prioritize Trail Construction

The provision of trails is strongly supported by the public input received as part of this planning process, from citizens in general and from the CPAC. An integrated trail system would be an element seldom found in other cities, thereby helping Melissa stay sustainable in the long-term, in the years following the anticipated population growth in the short-term.

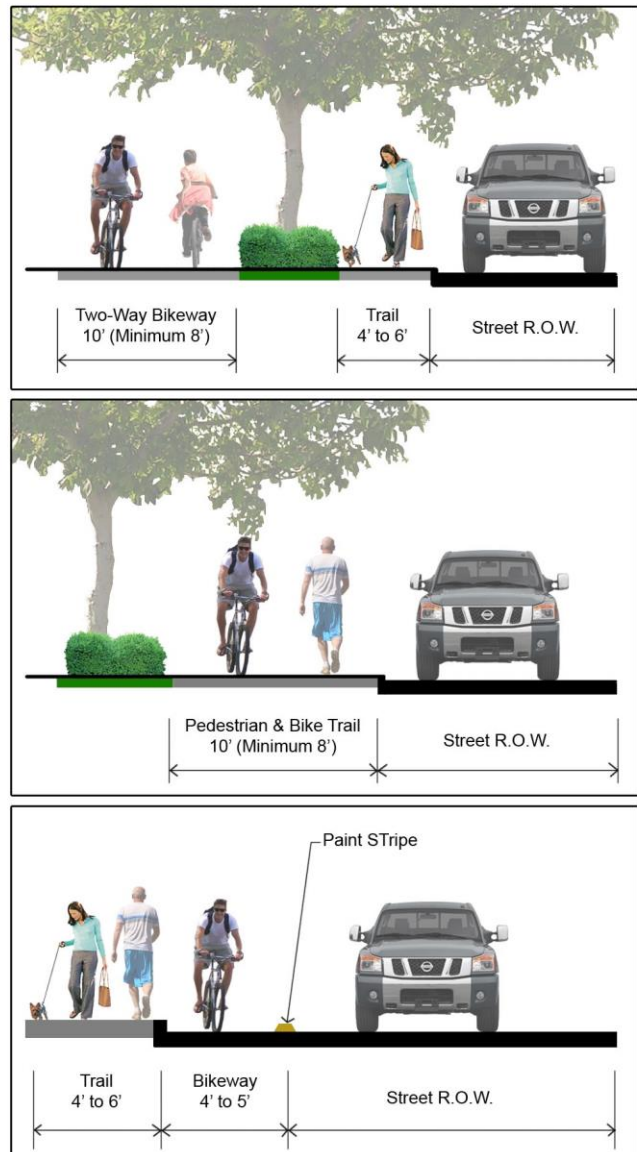
PT2.1 | The City should continue to make the establishment of a City-wide trail system a priority.

- The hike-and-bike trail system, constructed in accordance with the Parks and Trails Plan Map (**Figure 6-1**), should connect homes, parks, schools, retail, mixed use areas, and other types of development.
- Funds should be allocated on a regular basis (e.g., annually) toward the construction of trail lengths.
- Trail connections should be primarily off-street trails, located adjacent to streets only where necessary for continuity.

PT2.2 | The City should have specific requirements for trail construction.

- Hike-and-bike trails should be no less than eight feet wide and should generally be 10 feet wide. In most areas this width would require an easement of approximately 25 feet.
- Concrete material should be used for construction of trails in Melissa. This will ensure that trails can be used for various modes of transportation (e.g., bicycles, in-line skates), will be as low-maintenance as possible, and will be ADA-accessible.

Figure 6-3. Examples of Integrating a Trail into a Roadway





- On-street trails should be safe above all else. The illustrations at the right show three ways in which trails can be located safely along roadways. Roadway sections in the Transportation Plan (Chapter 5) are recommended such that enough right-of-way is available to accommodate trails.
- The trail construction requirements should be formalized, and dedication requirements should be added to the ordinance.

PT2.3 | The City should investigate how trails can be integrated into developed areas and tie to the existing system.

- Residents and neighborhood associations should be asked to provide input on how citizens would like trail construction to be accomplished in their areas.
- Oftentimes, existing easements or rights-of-way can be used to retrofit trails. The illustrations on the previous page should be used to guide the construction of new trails within existing street rights-of-way.

PT2.4 | The City should investigate the Rails-With-Trails concept.

- Using the railroad right-of-way for a trail would be advantageous for the City. It would mean that the City would not have to expend monies on land acquisition to establish a long length of trail through the heart of Melissa.
- Prime consideration should be:
 - The trail would in no way negatively impact the possibility of the City obtaining transit rail service and a transit rail stop. Transit provision should be the first priority, since trail lengths can be rerouted to areas outside of the railroad right-of-way.
 - The current owner of the railroad right-of-way is amenable to the establishment of a trail in the railroad right-of-way
 - Dallas Area Rapid Transit (DART) is amenable to the establishment of a trail in the railroad right-of-way.



Policy 3: Investigate Increased Developer Participation in Parks and Trails

Provision

It is very difficult for cities to provide enough parks and trails to meet population needs with only public funds. Developer participation in meeting these needs should therefore be considered.

PT3.1 | The City should investigate a park dedication ordinance requiring park and trail integration in Melissa.

The primary advantage to having a park dedication requirement is it provides cities with the increased ability to provide parks and trails in accordance with the local level of population growth. If population growth is not occurring, then park dedication is not needed or required. With a community like Melissa, expecting rapid population growth, park dedication would be an effective way to meet increased park needs in accordance with increased population.

- Other cities' park dedication ordinances should be examined to determine whether such requirements would be appropriate for Melissa.
- If determined to be appropriate, the City should draft a park dedication ordinance. Advice from an outside consultant or attorney may be needed to determine the appropriate fee for each type of facility, such as neighborhood parks, community parks, and trails.
- The City currently allows fees in lieu of dedication, which is a practice that should be continued.

Policy 4: Require Small Parks to be Privately Maintained

Small park areas that primarily provide play structures are commonly established as part of multiple-family or medium density developments. Such areas may also be provided in single-family developments. These areas are expensive to maintain.

PT4.1 | The City should require pocket parks or other small parks be maintained by the owner of the property or by an association of owners.

- A certain size area for requiring private maintenance should be established. For instance, parks areas equal to or less than two acres in size are likely cost-prohibitive for the City to maintain in the long-term.
- For developments with park areas of this size to be approved, a property owners' association should be required.





Policy 5: Provide Neighborhood and Community Parks to Meet Population Needs

PT5.1 | The City should plan quality parks and trails for the ultimate population.

- Melissa should generally plan its park and trail system on the basis of its calculated build-out population. However, concentration should not be on simply providing park acreage, but on providing facilities that meet the specific needs of the local population. Providing quality facilities is more important than ensuring that the proper amount of acreage (in accordance with the NRPA) is available. **Table 6-12** should be used to calculate demand-based needs.
- The City should also concentrate principally on the trail system, due to the fact that this trail system represents an opportunity for Melissa to provide a facility to its citizenry that is not commonly available in other communities.

PT5.2 | The City should provide neighborhood parks in appropriate locations and with appropriate facilities.

- Neighborhood parks should generally be located near the center of a neighborhood, within a walkable distance of homes (one-half mile to three-fourths of a mile).



- Safe and convenient pedestrian access (sidewalks/ trails) is important to a neighborhood park location, and parking should be minimal.
- Neighborhood parks should not be adjacent to an arterial roadway.
- The Parks and Trails Plan Map should be used as a guide for neighborhood park locations as developments are approved.

PT5.3 | The City should provide community parks in appropriate locations and with appropriate facilities.

- Community parks should be located to serve several neighborhoods, and should be within a walkable distance of as many homes as possible.
- Safe and convenient pedestrian access (sidewalks/ trails) is also important to a community park location.
- Off-street parking should be provided.
- Community parks should be adjacent to arterial or major collector roadways.



- The Parks and Trails Plan Map should be used as a guide for community park locations as new locations are needed. The City's new tract of land along State Highway 121 should be the first new location for a community park.
- An in-depth examination of needs related to active league play should be conducted. Local citizens involved in various types of league play, including little league and adult sports, should be asked to provide specific input on needs. Such information should then be used to create a master plan for a community park on the new tract of land along State Highway 121.

Policy 6: Use Floodplains and Creek Areas for Parks and Trails

The City is fortunate to have many beautiful floodplain and creek areas that can be integrated into the local park and trail system. Melissa is bounded to the east and west with large floodplains and major creeks. These natural features can become key components of a City-wide framework of trails.

PT6.1 | The City should ensure that 100-year floodplains and creeks are protected by making them part of the park and trail system.

- This policy should apply to creeks and tributaries that drain 75 acres or more.⁶⁻⁶
 - Drainages within Melissa are the Throckmorton Creek in the Northwest Sector, the East Fork of the Trinity River along the West boundary, the Fitzhugh Branch in the South Central Sector, the Clements Creek which drains the Central Sector, and Stiff creek located in the East Sector as well as Sister Grove Creek drainage area.
 - Many of the creeks should be developed into future parks and open space for the City.
- All 100-year floodplains should be preserved with a minimum of fifty feet in width (see **Figure 6-4**).
- The floodplain area/drainage way just west of Interstate Highway 75 provides a major opportunity for a nature trail. This is a wide area, is heavily treed, and has much varying topography. A trail (at least 10 feet in width) in this location could also be



⁶⁻⁶ This policy from the previous Parks and Recreation Master Plan should be continued.

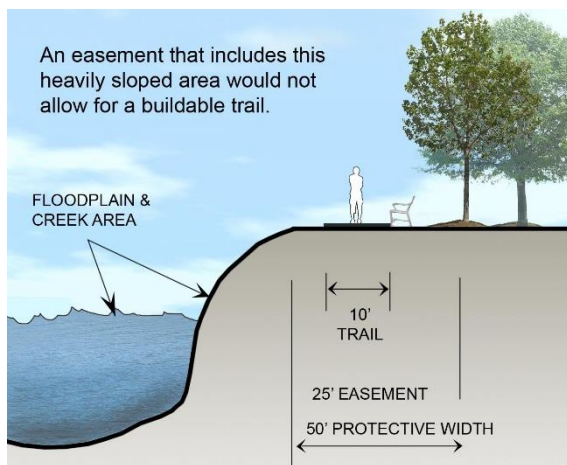


connected to McKinney's trail system, providing the possibility of a regional trail connection. This trail connection should be a priority.

- When a development is occurring adjacent to a creek area, lots should not be platted such that they back onto the creek.



Figure 6-4. Example of Easement for Trail in Relation to Floodplain/Creek Area



- Backing lots to a creek often results in homeowners "taking ownership" of the creek by doing things such as building structures into the creek area, damming the creek, etc. It also often becomes difficult for cities to ensure proper maintenance of creeks.
- A better solution is to treat lots adjacent to creeks in the same way that has been recommended for lots adjacent to park areas – lots should be configured to front onto creeks. A small street could be placed in between the lots and the creek. This solution allows more lots to have the increased value that is associated with lots near creeks.
- When a development is occurring adjacent to a floodplain or creek area, trails that are at least 10 feet in width should be required adjacent to the area (see **Figure 6-4**).
 - These areas provide prime opportunities for trails because they naturally extend across subdivisions and throughout the City.
 - A trail along a floodplain or creek in one neighborhood can be easily connected to a continuing trail connection along the same floodplain or creek in an adjacent subdivision.
 - In addition, these areas cannot be developed, so they make good locations for trails by not decreasing the amount of land that would otherwise be able to be developed if trails were not required.



- Easements for trails along floodplains and creeks should be provided on relatively flat land (see **Figure 6-4**). If the easement is provided on heavily sloped land, construction of a trail length may be cost prohibitive for the City, given that ADA requirements must be met. A specific, engineered cross section (much like an engineered street cross section) of how an easement should be provided along floodplains and creeks should be created using the figure above as a guide. This cross section should then be incorporated into the City's subdivision regulations.

Policy 7: Work With Other Governmental Entities to Provide Cost-Effective, Quality Parks and Trails

Inter-jurisdictional cooperation is strongly supported by this Parks and Trails Plan. The City has a proven ability to work with surrounding cities, such as Anna, as well as Collin County.

PT7.1 | The City should investigate ways in which it can work with Collin County to provide parks and trails.

- For example, Collin County has funding available to area cities for various types of projects including parks. Matching funds from the cities is often a requirement for Collin County funds. Melissa has been fortunate to receive some of these funds in the past, and should continue to try to procure aid from the County to provide local parks and trails.

PT7.2 | The City should work with the Melissa Independent School District to provide parks and trails.

- The school district has to provide recreational facilities on-site for its students. Therefore, it is a mutually beneficial situation financially for the City and the MISD to work together on the funding and utilization of parks that will provide facilities that both students and citizens-at-large can use.

PT7.3 | The City should investigate ways in which it can work with adjacent communities to provide parks and trails.

- Provision of park and trail facilities is not inexpensive, and community parks are especially costly given the common elements provided (e.g., sports fields). The development of a community park on the tract of land along State Highway 121 could be more economically feasible in a shorter period of time if the adjacent city of Anna participated. This would be a mutually beneficial situation, providing Anna with a community park nearby that it can use, and providing Melissa with a new community park in the short-term.
- The trail system that is part of the extensive floodplain on the western boundary of the City is adjacent to the City of McKinney. When this trail is specifically designed and engineered, Melissa should try to work with McKinney to achieve connections with McKinney's trail system. This would provide a regional trail connection between Melissa and McKinney, increasing the chances that this trail would provide an alternative to the automobile for users in both cities.



Policy 8: Prioritize Park and Trail Improvements

The Five-Year Action Plan/Priority List outlined in **Table 6-13** represents the culmination of this Parks and Trails Plan. Public input was an important factor in this priority listing. Input was received through the December 2005 public workshop, the Citizen Questionnaire, the 2014 Online Survey, and CPAC members. The service area for this Parks and Trails Plan and therefore the priority listing is the entire City, and the timeframe for this Plan is 10 years.

PT8.1 | The City should consistently utilize the priority listing in Table 6-13.

- This listing will provide a solid basis with which to analyze needs and expenditures for land acquisition, improvements, and new facilities that will ultimately enhance Melissa's parks and trails system.

Table 6-13. Five-Year Action Plan/Priority List

Priority	Facility	Timing	Estimated Cost	Possible Funding Sources
1	Multi-Use Trails	2015-2020	\$210,000 per mile	Grants, Donations, Park Dedication Ordinance Fees, Bonds, Tax Revenue
2	Picnic Tables	2015-2020	\$1,500 each	
3	Playgrounds	2015-2020	\$100,000 per structure	
4	Youth Soccer Field	2015-2020	\$175,000	
5	Youth Baseball Field	2015-2020	\$175,000	

Note: Estimated cost does not include land acquisition.

