CHAPTER 9

TRANSPORTATION

Transportation System . . . .

Development of any urban area is dependent to a large degree upon the ability of its transportation system to move people and commodities. This is no less true of a rural area except that the modes of transportation are more limited. In a transportation plan, emphasis should be placed upon the development of the total transportation system and consideration should be given to all economically feasible modes of transport. The relationships of transportation planning to the planning area land use patterns and existing or proposed community facilities should also be recognized. The efficient use of energy and long-term maintenance must also be considered in the selection of transportation alternatives.

Roads and Streets. . . .

While McPherson's street system is the major concern of this section, the importance of those highways and roads outside the city should also be considered. They serve to connect the city with the surrounding rural area and with other population centers, thereby greatly affecting the city and its residents both economically and socially.

Through traffic from state and federal highways places additional burdens on streets and the cost of their maintenance. McPherson business and industry transports goods internationally and therefore the importance of transportation systems for the city's and county's economic structure cannot be overemphasized. According to the 1990 Census of Population, 1,712 McPherson County residents were employed outside the county. Individuals from other Kansas counties and other states commuting to work in McPherson County totaled 1,446. Nearly 75 percent of workers commuting to McPherson County were from Saline, Harvey, Reno, and Marion Counties.

A larger perspective on the highway system is illustrated in Figure 9-A showing Regional Highways. In recent years, tremendous changes have taken place in providing better highway service to the McPherson Planning Area. Interstate 135 from Wichita to Salina has been reconstructed with wider shoulders, safer side slopes, and smoother pavement surfaces. U.S. 56 has been improved from Great Bend to Marion. K-61 from McPherson to Hutchinson has been improved dramatically.

The old 81 Bypass (County Road 1961), from U.S. 56 (Kansas Avenue) to First Street, has been reconstructed to provide four lanes of pavement. New driveways and sidewalks have been installed on both sides. The intersection of the old 81 Bypass and U.S. 56 (Kansas Avenue) has been widened with right turn lanes. From the 81 Bypass east to Mulberry Street, Kansas Avenue (U.S. 56 Highway) has been widened to provide five lanes of pavement. New driveways and sidewalks have been installed on both sides. To accommodate state highway traffic, KDOT's corridor management plan advocates continued limitation on the number of access points to old 81 Bypass or Kansas

Avenue. This may mean reducing the number of street access points. Some techniques for doing this are: using collector streets to access internal areas, limiting strip commercial development, combining driveways where possible and facing residential driveways on internal streets. Kansas Avenue serves as a dual purpose major arterial street. Its physical location designates it as U.S. Highway 56, and on the east edge of McPherson it has McPherson's most active interchange with Interstate 135. It also serves as a collector street as well as a local access street with many driveways to abutting properties. Protection of its carrying capacity, therefore, is a high priority.

The intersection of Main and First Streets was widened along Main to add left turn lanes. Main Street from Hulse to Crestview was improved with a closed storm system and widened to four lanes with curb and gutter. Main Street from Crestview Avenue north to the intersection with Mohawk Road, which is also the junction of 14th Avenue and county Road 1961 (old 81 Bypass) should be widened to four lanes with a "T" intersection to alleviate safety problems at the intersection. This should be done in conjunction with the proposed north Bypass improvements along Mohawk Road. The county is continuing to improve 14th Avenue (extended North Main Street) and County Road 1961 from the intersection with McPherson's First Street and continuing north to the City of Lindsborg. The county is also improving 16th Avenue (Centennial Drive) North from Moccasin Road (Northview Road) to Mohawk Road in anticipation of the new I-135 interchange.

West First Street from the Missouri Pacific Railroad, West to old 81 Bypass was improved with a closed storm sewer system and widened to four lanes with curb and gutter. East First Street, from Main Street to Maxwell Street, has also been slightly widened with curb and gutter replacement and closed storm sewers installed.

Maxwell has been improved to arterial street standards from First Street to Avenue A including a major signalized intersection at Kansas Avenue. This route provides some relief to Main Street and First Street which are other arterial streets serving the overall area. The upgrade to arterial status was needed as traffic has increased due to growing residential development to the south of Avenue A, the McPherson High School, and the street's location as a major community access route.

Hartup from the Central Kansas Railroad north to First Street has recently been improved to collector standards to match preceding street improvements south of the railroad. This section of Hartup is a link between residences north of First Street and the middle school. It also is a link between the residences south of First Street and the high school. The "Y" intersection at Hartup and Hill Streets was reconstructed to a "T" intersection to be safer and more efficient.

Northview Road, from the old 81 Bypass to Maxwell Street, should be improved to collector standards and sidewalks should be constructed on both sides. It is currently inadequate for the mix of pedestrian, bicycle, and local traffic due to the schools, churches, and the increasing number of residential developments along this corridor. Much of this road remains at rural road standards with large ditches and drainage pipes at each entrance location. Removal of the ditches and replacement with urban type curbing, storm drains, and sidewalks is highly desirable.

Avenue A from Oak Street to Maxwell, with the exception of the bridge over Turkey Creek, is due for improvements in the Summer of 2015. A major sidewalk improvement is in the design

phase to connect from Lakeside Park, east to connect all of the new residential developments. This sidewalk is needed to provide safe routes to school and to eliminate walking / biking traffic on a two-lane major traffic route. This would eventually provide a walking sidewalk / trail route to the new dog park on South Centennial as well.

Hickory Street from Kansas Avenue to First Street should be widened to collector standards with curbs and gutters. A second phase of construction would be from Kansas Avenue south to Avenue A.

The Public Works Department currently provides pavement management for all asphalt streets. The annual program utilizes maintenance funds to overlay or slurry seal streets in order to maintain the street's structural load carrying capacity. Since 1998, the city has been doing partial or full reconstruction of the curbs and gutters on many of these streets and has been upgrading sidewalks at the intersections to comply with the city's ADA ramp construction program. Maintenance funds are being accumulated for the reconstruction of some of the streets. .

There are a few local streets in the city which are sand or gravel that should be considered for improving to asphalt or concrete. Some of these streets may better serve the city by being vacated as they are a benefit only to specific owners of adjacent properties. Through the site planning process, in conjunction with building permit applications or re-zoning requests, these locations might be considered for vacation as an improvement to the area transportation and to relieve the city of the burden of maintenance.

Outside of the above-described roadways in the remaining Planning Area, there are some paved county roads and many unpaved township roads on mile lines and in developments. The latter vary in their degree of maintenance both by area and season of the year. Some of these roadways are maintained by the county while others are maintained by the individual townships. Many of the early rural residential areas are poorly laid out. Rarely did they leave access for future connections with other property. Often, direct access to mile roads was allowed for each small property which will present a problem in the future to the traffic system. Many of the rural streets are superimposed on the terrain with inadequate drainage or surfacing making it difficult to integrate them into an urban system. An analysis of each subdivision now will be beneficial to obtain rights-of-way for future connections. The city's annexation policy would probably require such roads to be paved as part of any agreement to annex.

Planning for future construction and growth outside of the Planning Area should include classification of roadways. Good transportation planning should provide for traffic corridors to serve the distribution of goods and services which would be separate from local and collector streets. Improvements to Maxwell from Northview north to Mohawk Road and Mohawk Road from 14th Avenue east to Centennial Drive should be planned for funding to take advantage of the new North Interchange at I-135 and Mohawk.

The Public Works Department annually reviews it's Capital Improvement Program to determine street construction needs and to prioritize the projects with regard to the available funding. The Capital Improvement projects are reviewed annually by the City Commission.

As of December 31, 2014, the city had 77.55 miles of paved streets of which 0.9 miles are unpaved. As a policy, the city requires each new subdivision to pave streets to meet minimum city standards and allocate the costs to the development. Postponing such costs causes them to escalate as well as increasing the interim maintenance costs to the city and inconvenience to the public. The maintenance of a properly paved street is far less than a properly maintained gravel one. On the other hand, a poorly paved street, sometimes called a "shoe polish" surface, is more costly to properly maintain than either of the other types.

Functional Street Classifications . . . .

Travelers have two basic needs for roadways: (1) to travel efficiently from origin to destination, and (2) for access to the roadway system. Accordingly, roadways have two primary functions: (1) to carry heavy volumes of traffic at high rates of speed, and (2) to provide access to land. The corresponding facilities are known as arterial roads and local roads, respectively. Since traffic volumes on arterial roads are normally heavy, the main function of an arterial road is to serve as an efficient network supporting high-speed travel and provide capacity to maintain adequate travel speeds.

These two functions, traffic service and land access, are incompatible. A roadway that serves one function cannot serve the other function effectively. Heavy volumes and high-speed traffic on local roads disrupt residential settings, subject pedestrians and pedal cyclists to hazards, and conflict with safety and ease of land access. These effects counteract the purpose of local roads. Similarly, slow traffic operations, caused by points of land access, disrupt the traffic flow, reduce arterial speeds, increase crash potential, and reduce traffic-carrying capabilities. These effects degrade traffic service, increase congestion, and counteract the purpose of arterial roads. Also, degradation of arterial function can cause traffic to seek short-cuts on local streets by speeding through neighborhoods; defeating the purpose of local roads.

Since the two primary functions of roadways are incompatible, a third class of roadway is needed to serve as an interface between the local and arterial. These are collector roads which collect traffic from the local roads and intercept the arterial roads at locations spaced to minimize disruptions.

A leading consideration associated with functionally classified roadways is to overcome the popular misconception that any roadway can serve multiple functions. Multiple functions result in wasteful consumption of energy, transport time, and the allowing of concessions that are irreversible. Because of these functional incompatibilities, it is essential to recognize and preserve the functional integrity of arterial, collector and local roads, not just for the present, but also for future generations.

There are three main categories in a functional urban street system: arterial, collector and local streets. Each type of street serves a different purpose, which requires different design and right-of-way widths. To avoid over-design and cost, the street is related to the amount and type of usage expected. Such a system directs traffic to where it can best be served and reduces through traffic in residential areas. The right-of-way standards described below provide on-street space not only for

the paved street area, but also for limited parking, curbs with adequate turn radii, sidewalks, utilities, storm drainage, signs, street lighting and planting strips for street trees.

American Association of State Highway and Transportation Officials, state, and federal design guidelines provide recommended traffic lane widths as follows:

9' to 12' traffic lanes to provide adequate local vehicle and bicycle lane widths
6' to 8' parking lane

If a street section is constructed with a composite curb (combined curb and gutter), vehicles tend to travel near or on the gutter with the outside wheel. If a street is constructed with a sawed or non-composite curb and gutter, vehicles tend to travel 2' from the face of the curb with the outside wheel. A non-composite curb street section allows for the driving surface to be constructed of either concrete or asphalt. The outside wheel path on asphalt surfacing tends to be even further from the non-composite concrete curb and gutter than the mentioned two feet from the face of curb. The construction cost of a non-composite curb street section is generally higher than a composite section due to the manual labor involved in finish work of the curb. However, many general contractors have curb lay down machines which provide for quick efficient construction of non-composite curbs.

Arterial streets serve major movements of traffic through and within an urbanized area. Planned unit developments offering commercial and industrial facilities as well as residential facilities often are located adjacent to arterial streets. Access to arterial streets should be limited to collector street intersections, preferably of the "T" design to limit the need for traffic signals. If driveway access is permitted, they should be wide, liberally spaced, and combined wherever possible. Arterial streets serve as the area's primary links to the state and federal highway system. It is necessary that they be planned with a wide right-of-way. A desirable arterial standard right-of-way width would be 100 to 150 feet with a roadway initially of 24 feet wide and later 53 feet (four lanes with curb and gutter) or greater. These standards provide room for two 12 foot moving lanes or four 12 foot lanes with curb and gutter for drainage. Additional right-of-way may be needed if considerable truck or larger automobile volumes are expected, major intersection designs are warranted, or if drainage problems are encountered.

Collector streets collect traffic from a number of local streets and channel it to the arterial streets. Local businesses providing goods and services often develop along a collector, as well as a mix of single or multifamily dwellings and schools. Collectors serve to connect neighborhoods and to provide access to facilities such as schools, parks, and shopping areas. A desirable standard for collectors would be an 80-foot wide right-of-way with a paved width of two 8-foot parking lanes and two 12-foot moving lanes. An 80-foot wide right-of-way with 44-foot (three lanes) pavement is desirable for commercial and industrial areas where wider vehicles and wider turning movements can be expected. Additional width may be desired to provide for any dedicated bicycle routes.

Smaller collector streets might be considered adequate in areas connecting primarily residential traffic with arterial streets during shorter peak morning, noon, and evening hours. Unrestricted residential access prevents the maximizing of street area available for parking. Therefore, front yard setbacks must be adequate to provide for multiple-car parking needs. When planning the street width, alternatives might include a 66 to 70 foot right-of-way width with a

pavement width from 37 to 41 feet (back-to-back of curbs) to provide for staggered parking on both sides and two through lanes.

Local streets are used to serve abutting properties, mainly in residential areas. Through traffic should be discouraged. The use of loop streets, traffic circles, cul-de-sacs and "T" intersections should be encouraged to provide safety and privacy to the neighborhoods. A desirable standard for local streets would be a 60 to 66 foot right-of-way with 31 to 37 feet back-to-back of the curbs. This permits up to two 9 foot moving lanes with staggered 8 foot parking lanes. Narrower rights-of-way and pavements may be warranted for streets of shorter lengths, cul-de-sacs and lower population densities and where developers require more off-street parking.

The above standards are applicable to the urbanizing area in and near the city. They vary to some extent with the amount of off-street parking required, storm water drainage problems anticipated and the size and quantity of needed utility easements. Various other standards may apply in the rural area depending upon township, county, state or federal design criteria. The most important aspect of planning for roads and streets is first obtaining adequate rights-of-way. Thus, the paving area can be widened as needed. Rural roads can be converted to urban streets if foresight is used in the initial design criteria. A wide variety of rights-of-way exist in the Planning Area and attention will need to be given to upgrading them during the Planning Period. Subdivision and zoning regulations, including site plans, plus the issuance of zoning and building permits can be utilized to acquire right-of-way dedications.

Proposed Functional Street System - City . . . .

The urban and some of the rural Functional Street System is delineated on Figure 9-C. All mile line roads in the Planning Area, north-south and east-west, are proposed as arterial streets and should acquire 100 to 150 foot rights-of-way. Preservation of the traffic carrying capacities of these future arterial streets is a significant objective of this Plan and is interrelated to plans for land use and community facilities.

Collector streets are difficult to achieve because everyone wants someone else to build them. In general, they should occur at half-mile intervals, but should not necessarily form a contiguous north-south or east-west grid. Depending on land use, there may be as few as three access points to the bordering arterial streets in some sections. In some cases, there is no need to align one neighborhood collector with another and this may avoid an extra traffic light someday. There is an advantage, however, to align north-south collectors in certain sections to assist traffic around the more intensely developed commercial center. Conceptual Patterns for a collector system are delineated in Figure 9-C. Streets not designated as arterial or collector should be considered as "local" streets primarily serving adjacent properties. A few local streets also serve to connect other areas or complete internal circulation patterns.

If the standards for right-of-way and pavement widths previously mentioned for different types of streets cannot be met in some cases, then various alternate methods for achieving the desired traffic flow width can be implemented. The most practical of such methods often is to prohibit parking on one side of the street thereby enabling the use of the parking lane for moving traffic. Stop

signs can also be used to channel traffic in such a way as to create collectors (through streets). Future street improvement projects should also give priority to those streets functioning as either an arterial or collector but not currently having adequate pavement widths. New subdivision developments are usually required to pay for collectors during development. As an alternative, an impact fee could be charged with each new dwelling unit building permit and used to pay for arterial or collector streets. Sometimes subdividers prefer to pay the total amount of a project at the time of construction. A one-half cent sales tax could also be collected to pay for arterial streets as well as for major reconstruction of existing arterials.

Functional Classification System - Federal . . . .

In addition to the functional street system described for the city, the entire Planning Area is part of a nationwide system for federally funding highways and streets under the current MAP-21 program. It involves a coordinated system of transportation planning at the city, county, state and federal levels for a five to ten year period. Each city over 5000 population is required to submit a Functional Classification Map and Urban Area Boundary if it desires to be eligible for federal funding. McPherson County is among those counties required to submit such a map.

Figure 9-D is the Federal Functional Classification System Map as presently adopted for the city and the Planning Area. It should be periodically reviewed and kept up-to-date. From this information, the transportation section of a city or county Capital Improvements Program (CIP) can be assembled. Given the anticipated growth, it is obviously important to the McPherson Planning Area that such classifications be planned far in advance if matching funds are to be obtained in a timely manner and coordinated with the county.

The federal classification system being utilized is as follows:

Interstate
Other Freeways and Expressways (Urban)
Other Principal Arterial
Minor Arterial
Collector (Urban) and Major Collector (Rural)
Minor Collector (Rural)

The basic difference between these classifications is their relative emphasis on the functions of traffic movement and providing access to abutting property. Various federal design standards would be applied to each classification, which would affect the amount of federal funding participation.

Parking . . . .

An efficient traffic circulation system in a community involves an interrelated concern for parking. The basic purpose of streets first is to move traffic and second to park vehicles. A local street system utilizing less than 34-foot pavement widths assumes that parking will be periodic and

staggered to ensure adequate traffic flow. On this width of pavement, it is not feasible to park vehicles on both sides of the street and have two vehicles pass each other at the same time. Public facilities such as schools and parks, where increased numbers of people congregate, should serve as examples in providing off-street parking areas as needed. Plans for adequate parking should be part of the initial planning for the intensity of use of buildings with attention paid to access control, screening and landscaping on site plans. Zoning regulations require that all uses in the city have certain minimum stated amounts of off-street parking except when located within the B-3 Central Business district or B-3a Main Street district within which off-street parking is provided at centralized locations. Off-street parking provided only at this minimum level means that there may be some parking problems at peak times. The latter situation occurs primarily on streets constructed to a local street design on which traffic has increased to a collector or arterial use level. It should be noted that the parking requirements found in the Zoning Regulations are minimum requirements only. New developments should use the best available information in determining the amount of off-street parking that is actually called for.

Other Transportation Methods . . . .

Railroads

Large quantities of raw materials used for manufacturing are delivered in bulk by rail and some of the final product is shipped out in the same manner. The Central Kansas Railroad, the Union Pacific railroad, and the Missouri Pacific railroad all have active lines in the city at present. Improvements are needed at crossings with local streets and some spur lines which no longer serve a purpose should possibly be abandoned. Pedestrian needs should be accommodated at local street crossings through construction of sidewalk approaches and smooth crossings for handicapped persons. The nearest available passenger train service is with Amtrak in Newton and Hutchinson.

Pipelines

Underground pipelines are an important part of the Planning Area transportation system. While some pipelines provide a local service such as natural gas and water distribution, others are segments of interstate pipeline networks. These mainly are crude oil and petroleum product pipelines including refined fuels, natural gas liquids such as propane, and natural gasoline. Liquid fertilizer pipelines also cross McPherson County. Much of the area pipeline activity is involved with the CHS (formerly N.C.R.A.) oil refinery at McPherson and with the underground petroleum products storage and processing facilities at Conway, west of McPherson. Pipelines in the larger category are mapped on Figure 8-C.

Airport Service

The McPherson City/County Airport is located on the west side of McPherson, approximately one and one half miles north of the intersection of K-61 and US 81 Bypass; and approximately one mile south of the intersection of US 81 Bypass and US 56. It has been at this location since 1951 when Janssen Skytel was purchased by the city. McPherson's previous airport was located four miles north and one mile east of the city and was developed in 1941. The current

5,500- by 100-foot concrete runway was constructed in 1996 to accommodate aircraft weights up to 30,000-pounds, providing better service to local businesses and manufacturers. A new parallel taxiway is planned for 2017/2018, bringing all vehicle support surfaces into compliance with current FAA standards, which will open the door to updating other systems on the airport. In 1997 a 15,000 square foot apron was added with eighteen aircraft tie downs, three of which are for turbine or jet aircraft. The airport has nine hangars with a total area of 42,240 square feet capable of housing from 37 to 50 aircraft, and a fixed base operator maintenance shop which can accommodate 5 to 7 aircraft. Pilot services provided by the McPherson Airport Authority include courtesy car, car rental and catering arrangements, 24-hour fuel service for Jet A, AV Gas and MO Gas, pilot supplies, Wi-Fi, Automated Weather Observation Service(AWOS), pilot snooze room, public meeting room, plus RV hookups and tent camping

McPherson County partnered with the City of McPherson in 1964, each assuming an equal share of responsibility and funding for the Airport. The McPherson Airport Authority was formed in 1996, to take over the day-to-day operations and governance of the Airport.

McPherson Airport Authority reviews current plans and standards on an on-going basis and adjusts accordingly in order to continue providing viable services to the community, county and the flying public; it also actively looks for ways to improve public awareness though local media and events, hosting a growing list of public events each year. Additionally, the Airport has developed a Master Plan under guidance from the Federal Aviation Administration, with a date of 3/12/2008 on the most recently accepted version.

Trucking Services

Trucks currently transport, in bulk or dry van, large quantities of bulk materials and the majority of manufactured goods. Atlantic Inland Carriers, Farmland Industries, Linden Trucking, Mid-States Enterprises, CHS Refinery, Smithway Motor Xpress (SMX), S & R Warehouse, and numerous local owner-operators provide trucking services. Large manufacturing companies manage their own truck fleets or utilize common carriers. Trucking services, including interstate carriers, are also available from Wichita or Salina. Beaver Express, UPS, FedEx, and the U.S. Postal Service are local carriers for small freight.

Taxi and Mini-bus Transportation Service

There is a local taxi service, which is public transportation, subsidized by the city for the elderly and handicapped at discounted rates, and for the public-at-large. The City of McPherson owns eight vehicles for elderly and handicapped scheduled service. Many churches and senior citizen groups operate volunteer taxi services and other organized car pooling efforts. There are at least two day care centers operating buses.

Bicycles

Bicycling is a means of transportation which has gained considerable popularity throughout the country. In fact, more bicycles are sold than automobiles in some production years. Physical exercise, the absence of air pollution and elimination of fuel costs are just a few of the advantages. It is an especially suitable means for local transportation in cities such as McPherson because many facilities are within easy biking distance. Almost all of the city streets are paved, but there are no designated bike routes at this time. The importance of these advantages warrants the encouragement of increased bike use, not simply as a means for pleasure or exercise, but also as a bonafide method of getting from one place to another. This can be encouraged by providing adequate numbers of bike racks at schools or parks and in the business areas. A bike path or route connecting the city parks would facilitate the flow of non-vehicular traffic. Such a route might be built in conjunction with a sidewalk program. Other internal bike routes could be designated and signs erected, thus creating a bike system for the community. This could be especially useful to coordinate access inside and between the new planned unit developments and other residential parts of the city.

A "Rails-to-Trails" recreational trail on the abandoned railroad right-of-way between McPherson and Lindsborg, known as the "Meadowlark Trail" is being planned for development with portions being utilized already. Facilities such as this provide safe places for long distance hiking and bicycling which are popular activities for people of all ages.

Pedestrian and bicycle paths that are either constructed or are in early planning stages are shown on Figure 9-F.

Pedestrian Circulation (sidewalks)

Pedestrian travel serves not only as a mode of transportation, but also as a well-documented exercise for good health. A well-planned pedestrian circulation system throughout a community provides safe and efficient access for residents to schools, shopping areas and public facilities. As increases in traffic volume and greater intensities of land use occur, more sidewalks will surely be needed and would continue to be a benefit.

A community where pedestrians are active is one with good neighborhoods portraying a sense of safety. Pedestrians are also important to consider and accommodate in the downtown business areas.

Presently the city requires, as a minimum, that a sidewalk to be installed on one side of local streets and both sides of collector and arterial streets. Internal connecting sidewalks are needed to provide an overall pedestrian system.

The federal ISTEA program has, in the past, provided grants which coordinate pedestrian and bike paths with a beautification program for landscaping. This program was replaced in 1997 by the NEXTEA program which has, subsequently, been replaced by several other programs, the latest being MAP-21 which is scheduled to expire on December 31, 2015. Recent funding for the Avenue A Trail came from the Transportation Alternatives (TAP) Program which is a contained within MAP-21. It is unknown at this time if MAP-21 will be extended or if there will be another program to take its place.

Pedestrian Corridor Plan . . . .

Previous versions of this Plan acknowledged the need for the types of transportation enhancement that can be provided by a contiguous network of sidewalks. These sidewalks may be composed of several different types depending upon the use for which each is envisioned. These types would include: 1) for pedestrian use only as a means of getting to places of need; 2) for multi-use including basic transportation but also allowing for recreational use such as biking and skateboarding; and 3) trails designed specifically for recreation and exercise. A more detailed description of each is provided below.

A study of the Hiking, Biking, walking trails issue was conducted by the Planning Commission beginning in 2008 with assistance from several community members and representatives from the Public Works Department. A citizen's committee was then formed by the City Commission to continue this study which resulted in the designations shown on Figure 9-F. That study divided the possible corridors into the following categories: Note that these are supplemental to normal local residential sidewalks.

Pedestrian Use:

These sidewalk corridors are for pedestrian use and provide functional service. Since these corridors will typically follow existing arterial and collector streets and will be constructed in the public right-of-way, the following criteria should be met:

- Meets or exceeds the Federal Highway Administration (FHWA) standards for sidewalk width. A minimum width of 6 feet is recommended.
- Meets or exceeds the requirements of the Americans with Disabilities Act (ADA).
- Construct on both sides of the street to minimize the number of street crossings necessary and provide greater convenience to sidewalk users.

Biking/Jogging Trail:

These corridors are primarily for recreational use. Because they do not typically follow an existing street or public right-of-way, they are not subject to the same requirements as public sidewalks and may use steeper grades and cross slopes yet remain suitable for biking and jogging users.

Multi-Use Trail:

These corridors are for both functional and recreational use as well as all types of path users (pedestrians, wheelchairs, biking, skateboards, and jogging). They provide connecting links between the recreational trails and access to services, schools or other facilities adjacent to the corridor. One of the following criteria should be used for construction of a multi-use trail:

- Meets or exceeds the FWHA standards for a shared use trail. If constructed in a public right-of-way, the trail should be a minimum of 10 feet wide and be constructed on one side of the

roadway with a sidewalk meeting the Pedestrian Use criteria constructed on the opposing side of the street.

- Meets the requirements for a Pedestrian Use corridor, with bike lanes constructed or allocated within the street.

Boy Scout Walking Path Project:

In 2014 the local Boy Scout troop took on a project to develop designated walking paths within the City of McPherson. This project resulted in the creation of four designated paths which a pedestrian could follow to achieve specified distances. Each of these paths designated Blue 1 (3.00 miles), Blue 2 (2.29 miles), Red 1 (2.80 miles) , and Red 2 (1.57 miles), begin and end at the Northwest corner of Linnea Park. A suggested time for the walk and the number of steps it would take a normal sized person is also included. Diagrams for each of these paths which also include directions to follow were created as part of the project and are included here as Figures 9-G($_{r1, r2, b1, b2}$).