# 2017

# Haysville Bicycle & Pedestrian Master Plan


Bicycle & Pedestrian
Advisory Committee
City of Haysville
200 W. Grand Ave.
Haysville, KS 67060

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# ACKNOWLEDGEMENTS

The City of Haysville would like to thank its citizens whose support played an integral part in the completion of this plan and those who have contributed throughout its development. The City would also like to specifically thank the following groups and individuals for their contributions in preparing the Bicycle & Pedestrian Plan; the long range, non-motorized transportation plan for the City of Haysville.

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# Executive Summary

The City of Haysville has prepared this Bicycle and Pedestrian Master Plan to develop sound strategies for improving bicycle and pedestrian transportation and safety throughout the Haysville area. The goal of this plan is to make bicycling and walking a more convenient mode of transportation for all ages and skill levels.

Bicycling and walking are not only beneficial to the environment, cost effective and energy-efficient, they are also the preferred mode of transportation and exercise for many people. Nationwide there are 127 million people walking and nine million people cycling everyday (2009 National Household Travel Survey). In 2009, the NHTS estimated that 11.9 percent of all trips are done by walking or bicycling, an increase of 2.4 percent since 2001. This increase indicates walking and bicycling have become a significant aspect in our quality of life.

Haysville's vision for the future features expansion of the bicycle/pedestrian path throughout the community providing access to healthy modes of transportation and a variety of recreational opportunities, making the most of the city's natural beauty, parks, and excellent weather.

## Key Recommendations

### Enhance and expand bicycle and pedestrian connections to schools, parks, and shopping centers.

Haysville's layout provides a remarkable opportunity for non-motorized transportation corridors and recreation facilities. The Plan recommends continuing to build additional bicycle/pedestrian pathways, shared roadways, and repairs as needed.

### Complete the network of bicycle lanes on roadways.

Haysville's major roadways link together the entire city. From residential, schools, business, and parks and recreation, ensuring that cyclists and pedestrians have a safe and well-maintained place to ride or walk on or along the city's roadways will help to increase cycling and walking to meet the needs of the citizen.

### Connecting with other communities.

Located on the Southernmost boundary of Wichita, KS, the City of Haysville is in the unique position of partnering with Wichita in connecting both cities, providing a safe and healthy mode of transportation for travel.

### Seek new and innovative funding sources.

Building and maintaining Haysville's bicycle and pedestrian system will require a combination of private and public funding. This plan will outline a wide variety of funding sources, including new and innovative methods to raise the money needed to build new bicycle and pedestrian paths and to maintain the existing network.

### Design and build Complete Streets.

Haysville recognizes the need for Complete Streets which are designed to accommodate all users of the roadway and provide them with safe, attractive, and comfortable travel.


Antique Bicycle at Historical State Bank

# Chapter One

## Introduction

Little did W.W. Hays know back in 1891, how far the town he founded would evolve. As early as 1897 bicycles have been an important mode of transportation within the City of Haysville and allowed its citizens to easily navigate from home to the businesses located on Hays Street. Since its incorporation in 1951, the City of Haysville has continuously worked to improve quality of life by providing a large network of parks where most are connected through the Bicycle/Pedestrian path.

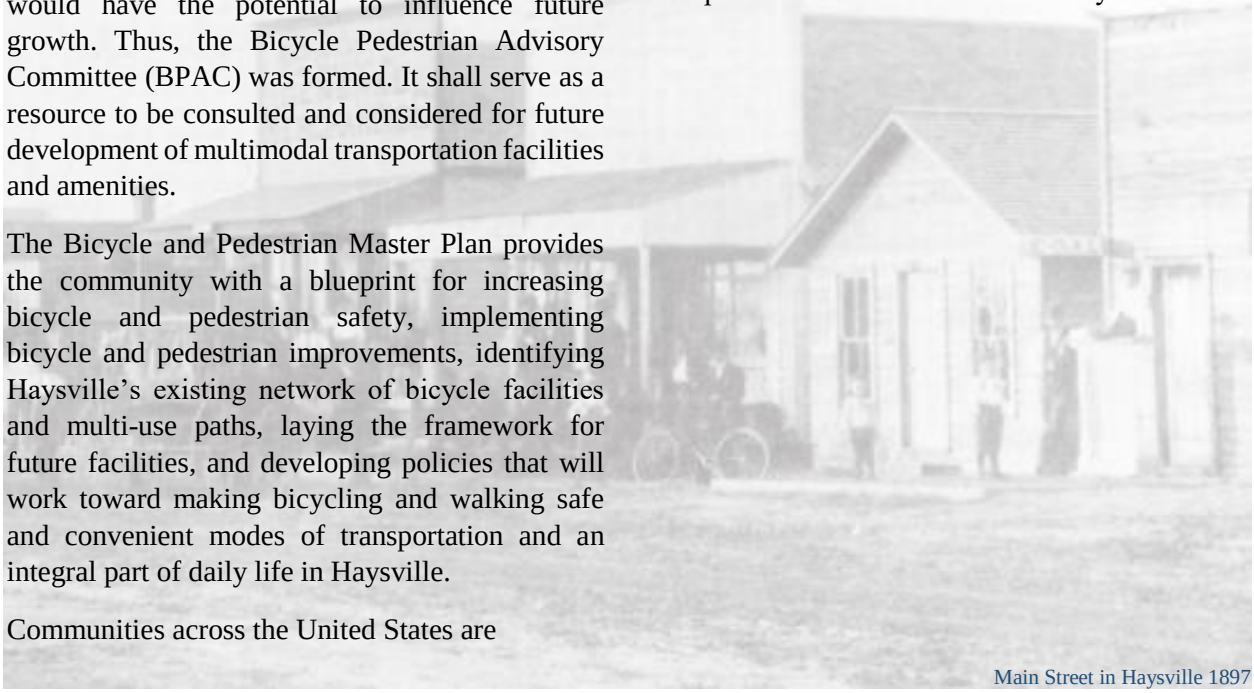
In 2014, The City of Haysville applied for consideration in the League of American Bicyclists' Bicycle Friendly Community Program. During the application and feedback processes the need for a bicycle committee became apparent. In the winter of 2014, the City brought together Haysville Staff, representatives from USD 261, and citizens passionate about the potential for expansion of multimodal transportation to begin the process of creating recommendations which would have the potential to influence future growth. Thus, the Bicycle Pedestrian Advisory Committee (BPAC) was formed. It shall serve as a resource to be consulted and considered for future development of multimodal transportation facilities and amenities.

The Bicycle and Pedestrian Master Plan provides the community with a blueprint for increasing bicycle and pedestrian safety, implementing bicycle and pedestrian improvements, identifying Haysville's existing network of bicycle facilities and multi-use paths, laying the framework for future facilities, and developing policies that will work toward making bicycling and walking safe and convenient modes of transportation and an integral part of daily life in Haysville.

Communities across the United States are recognizing the growing need and multiple benefits of providing alternative transportation options for residents. The state of Kansas recognizes that bicycling and walking are important elements throughout Kansas' transportation system and have developed the Kansas Bicycle and Pedestrian Transportation Plan.

This project has been the collective effort of the Bicycle and Pedestrian Advisory Committee, a working team comprised of Haysville Citizens, representatives from various organizations and city departments, including: the Haysville Police Department, Public Works, and Administrative Services. The group was responsible for providing direction and review of plan components through an extensive series of workshop meetings and multiple public informational meetings.

The Bicycle and Pedestrian Master Plan will be used together in conjunction with the City's Comprehensive Plan to further the City's vision.



Main Street in Haysville 1897

# Mission

The Mission of the City of Haysville's Master Bicycle and Pedestrian Facilities Plan shall be;

- Continue developing safe access to the multimodal transportation facilities and programs throughout Haysville.
- Increase community wellness.
- Reduce the carbon footprint of our home.
- Expand education, increase community outreach, raise awareness, and serve as a guide for ambassadors of bicyclists and pedestrians within our community.
- Serve as a forum of information, resources, and agencies for the community to utilize and better serve the multimodal citizens of Haysville.

Participants in Annual Mayoral Bike Ride

# Objectives

### Assessment

Provide an informational baseline of existing facilities and user data as well as establish a public reporting system to track progress and resolve issues. Vital to any plan, baseline comparisons reveal strengths and weaknesses, and help guide resource allocation.

### Bicycle/Pedestrian Counts

Current counts are provided by Wichita Area Metropolitan Planning Organization (WAMPO), and are recorded twice each year. This serves as an excellent method to record data on a regional level. However, to improve the quality of data for the Haysville community, the City will record data by utilizing the City's street counters in combination with volunteer manual counts. This will establish a baseline of both quality and quantity. To ensure effective results, the Bicycle/Pedestrian Advisory Committee (BPAC) will determine count locations and dates to be monitored on an annual basis. The data will aid in resource allocation, and provide valuable insight on how the bicycle/pedestrian network is utilized.

### Facility Inspections

The Planning Department and Public Works will inspect the bicycle/pedestrian facility network by utilizing the City's GPS unit. The assessment will document, photograph, and map all issues on the facility network. The assessment will log the following conditions: Damaged pathways, vision obstructions, street/pathway markings, and signs. Annual inspections will help develop a maintenance schedule, provide repair cost estimates, and ensure the safety of the bicycle/pedestrian network.

### Public Reporting System

Create a form on the City's website for citizens to report any issues along the bicycle/pedestrian facility network. Information will be forwarded to the necessary parties to help resolve issues, call attention to potential problems, or suggest solutions for the network.

### Survey

Develop and issue surveys to record data from the public. Survey results will assist BPAC and the Planning Department with future planning of the bicycle/pedestrian pathways as well as provide current feedback on the existing system.

## Connectivity

The currently existing facilities contained within the bicycle and pedestrian pathway network connect approximately 65% of the Community. Attainment of inclusivity for all areas of the Haysville Community is an integral part of the Master Plan.

- **Project Development**
  Continue to design bicycle/pedestrian facilities that connect all parts of the Community.

- **Project Ranking**
  After developing a project list, a collaborative recommendation from BPAC, the Planning Department, and Public Works will rank the projects in order of importance. The rankings will serve as a guide for the Governing Body when determining a project's importance to the community.

- **Destination Connectivity**
  WAMPO bicycle/pedestrian counts reveal higher numbers when pathways lead to a destination, i.e., Park, fountain. Completing the bicycle/pedestrian facility network will require safe access to all public destinations via the pathway.


Antique Bicycle at Vickers Service Station

## Amenities

In February 2014, Haysville submitted its application to the League of American Bicyclists in hopes of becoming a Bicycle Friendly Community. The League provides feedback with its assessment, and helps with future applications. One of the League's top suggestions was to provide more bicycle parking.

- **Bicycle Parking**
  Through cooperation between the City and USD 261, bicycle racks are currently being created by the faculty and students of USD 261.

- **Destinations**
  Provide an assessment on all destinations to ensure they are accessible via the bicycle/pedestrian network. If any destination is found inaccessible, develop a plan to incorporate it into the bicycle/pedestrian facility network.

- **Fountains, Benches, and Trashcans**
  The Planning Department and Public Works will inspect the bicycle/pedestrian facility network by utilizing the City's GPS unit. The assessment will document, photograph, and map all fountains, benches, and trashcans currently located on the network. After the assessment, recommendations for future placement locations will be made.

- **Repair Station**
  Bicycle repair stations allow cyclists to make minor repairs to their bikes using a free air pump and other tools that are connected to heavy duty cables. The repair stand improves the convenience for cyclists making minor and routine repairs. Currently plans are underway to install an air pump/repair station at the Vickers building.

Bicycle/Pedestrian Path Pear Tree

## Wayfinding

A comprehensive wayfinding system for bicyclists will include signs and pavement markings that are placed at decision points along preferred bicycle routes. Wayfinding signs direct bicyclists to the best routes connecting destinations or circumventing barriers, while indicating to motorists that bicyclists may be present. There are three main types of signs:

- Confirmation signs inform bicyclists and motorists that they are on a bicycle route.
- Turn signs/markings indicate where a bikeway turns from one street to another.
- Decision signs mark the junction of two or more bikeways. Information may include destinations, arrows, distances, or travel times.

A system of signed routes should balance the need for good bicycling conditions with the need for direct access to destinations.

## Safety and Education

Haysville's goal of increasing safety, education, and awareness can be accomplished through the judicious use of multimedia resources. Outlets such as Channel 7 and social media, in conjunction with wayfaring signage and school-based education programs will ensure a broad audience is reached.

- Establish and Monitor School Programs
- Utilize City Media (i.e. Channel 7, Website, and Social Media)
- Wayfinding Signage
- GIS Mapping

## Encouragement

Active participation and commitment to the success of the goals contained within the Master Plan is necessary. Inspiring an atmosphere of encouragement will require involvement of the business community, school district and City Administration.

- Local Business Promotion
- School District
- City Promotion
- Host Wicked Wind and Bike Across America
- Create a Local Ride in Haysville in addition to the annual Mayoral Bike Ride.

## Evaluation

Haysville has been gathering data for several years through a series of bicycle/Pedestrian Path counts and surveys. As we move forward this data will continue to play a vital role in the implementation of future projects.

- Continue Bicycle and Pedestrian Counts
- Document all improvements
- Perform annual survey
- Compare new data to baseline

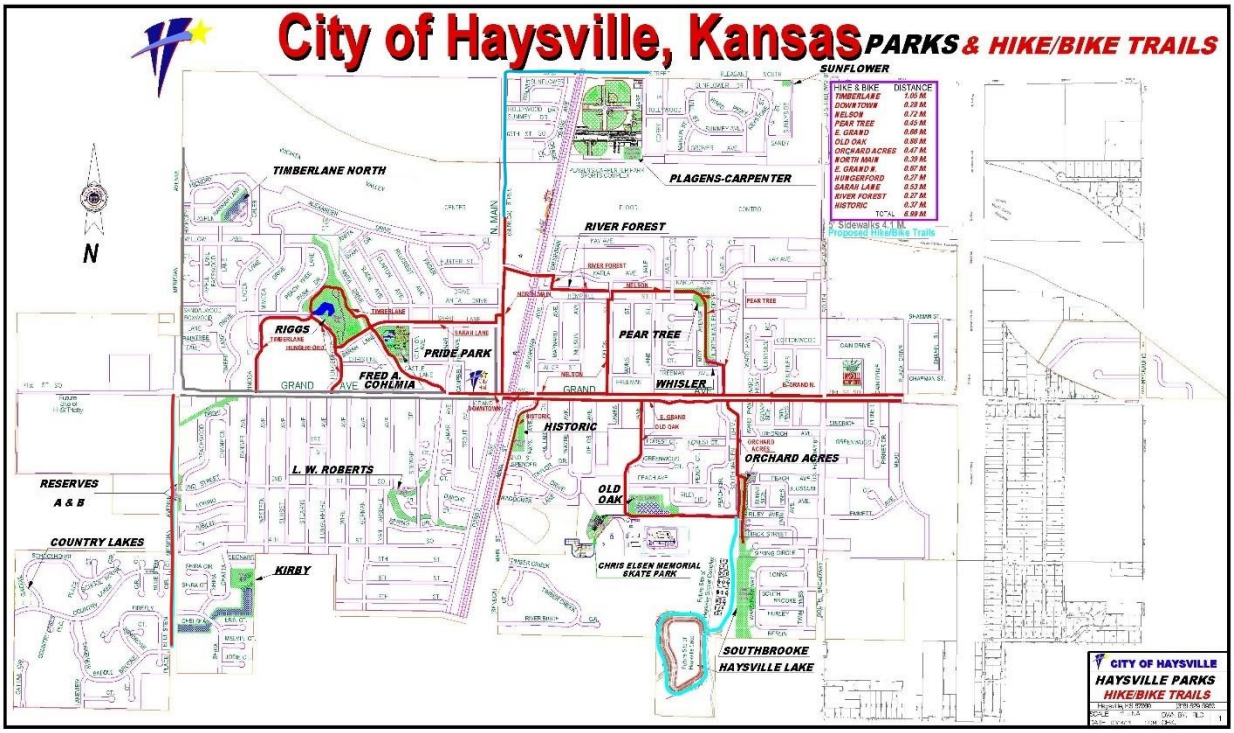
## Bicycle Parking

There has been an increasing demand for cyclists to safely secure their bicycles throughout the city. New bicycle racks are currently being created to meet these demands.

- **Existing Parking**
  Riggs Park main shelter, Library, Senior Center, Haysville Activity Center, Municipal Pool, Campus High School, Haysville Middle School, Rex Elementary, and Nelson Elementary

- **Future Parking**
  Splash Pad, City Hall, Police Station, Vickers/Fountain, Volley Ball Court, Blacksmith Shop, Farmers Market, Skate Park, Old Oak Disc Golf, Public Works, Riggs Park – East Side/Timberlane Shelter/Horseshoe Pit, Plagens-Carpenter Park, Community Building, Post Office/Castle, Rex Practice Fields.

Bicycle/Pedestrian Path




City of Haysville Bicycle/Pedestrian Pathways

# Chapter Two

## Introduction

This chapter describes the types of projects recommended by this Plan to improve cycling and walking throughout Haysville. It will focus on the existing facilities and the facilities that are planned.

## Popular Crossing Countermeasures and How to Improve Them

The public often responds to a tragic bicycle/pedestrian crash with a call for an immediate solution. Commonly requested solutions include traffic signals, flashers, overcrossings or undercrossings, or marked crosswalks. While these can be effective solutions in certain places, in some instances they are not appropriate or effective.

## Traffic Signals

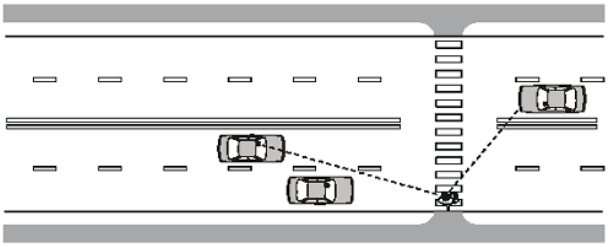
The primary purpose of a traffic signal is to assign right-of-way and create gaps in traffic that otherwise would be hard to find. The Manual Uniform on Traffic Control Devices (MUTCD) warns against the overuse of signals for a variety of reason. Inappropriate traffic signals may increase crashes. Traffic signals are expensive, from $70,000 to $300,000 for one intersection, not including any associated road widening.

## Mid – Block Signal

Traffic signals may be necessary at mid-block pedestrian crossing locations where there are high volumes of crossing cyclists and pedestrians and insufficient gaps in motor vehicle traffic for crossing. A "hot" (nearly immediate) response to pedestrian actuation should be provided in order to maximize pedestrian and motorist compliance.

## Rectangular Rapid Flashing Beacon

Rectangular rapid flashing beacons (RRFB) have proven to be effective devices at uncontrolled intersections for increasing motorist yielding rates and reducing pedestrian-vehicle crashes at crosswalk locations. The LED beacons – often mounted below a standard pedestrian crossing warning sign and above the arrow plaque – are pedestrian-activated (push button or passive detection) and placed on both sides of the street (a third beacon may be placed in median/crossing island where present).



Mid-Block Crossing

The City of Haysville currently utilizes traffic signals at all major intersections and has employed a couple of Mid-Block signals. In addition, there are multiple school crossings. Implementation of additional Mid-Block signals and Rectangular Rapid Flashing Beacons are a priority and will require a thorough study of existing data and citizen surveys.

### Marked Crosswalks Alone

It is important to create safe places for bicyclists and pedestrians to cross roadways at regular intervals. Marked crosswalks should only be installed where there is an expectation of a significant number of pedestrians such as near a school, park or other generator. Without the associated features mentioned so far (signage, islands, curb extensions, illumination etc.), marked crosswalks on their own do not necessarily increase or decrease the security of a pedestrian crossing the roadway, if placed with the following criteria:

### Multilane roads (3 or more lanes):

- Under 12,000 Average Daily Traffic (ADT): no significant difference in crashes
- Over 12,000 ADT without median: crashes marked > crashes unmarked
- Over 15, 000 ADT and with median: crashes marked > crashes unmarked

The study also made the following observations

- Medians reduce crashes by 40 percent
- Pedestrians over 65 are over-represented in crashes relative to crossing volumes
- No evidence was found to indicate that pedestrians are less vigilant in marked crosswalks.

Bicycle/Pedestrian Path at Old Oak

### Improving Crosswalks

Marked crosswalks on their own do not necessarily increase or decrease the security of a pedestrian or bicyclist crossing the roadway. However, their safety can be increased with high visibility pavement markings, advanced stop bars and proper signing. Using high visibility markings ensure that drivers see the crosswalk, not just the pedestrian or bicyclist. Two parallel lines indicating a marked crosswalk can be almost invisible to the motorist. Ladder style (piano keys) markings should always be used at locations without positive traffic control and are advised at locations with positive traffic control (signals, stop signs.).

The City of Haysville has multiple crosswalks that utilize the Advanced Stop or Bar (Yield Line). These crosswalks continue to need maintenance to include re-painting with high visibility paint. Cross walks without a traffic signal can generally be found on side streets throughout the city and will usually include an Advanced Stop. These specific crosswalks are of utmost importance as they do not normally utilize a signaling device.

### Yield Here to Pedestrians/Stop Here for Pedestrians Signs

Advanced yield markings or stop lines in conjunction with “Yield Here To Pedestrians” or “Stop Here For Pedestrians” signs, respectively, have proven to be effective at reducing multiple threat crashes at uncontrolled marked crosswalk locations.

While the City of Haysville has not incorporated “Stop Here For Pedestrians” signs, there is significant evidence indicating that pedestrians and cyclists risks dramatically reduce when these signs are conspicuously positioned for the motorist view. The City of Haysville will continue its research in the effectiveness of these signs and make a determination at a later date.

Bicycle/Pedestrian Path Whisler/Pear Tree

## Intersection Geometry

Intersection geometry has a profound effect on pedestrian safety as it determines to a large extent whether or not drivers will perceive pedestrians, the length of crosswalks, and the speed of approaching and turning vehicles. Intersection design will determine whether best practices for meeting ADA requirements can be applied. For example, tight curb radii will usually allow for two ramps at each corner as opposed to just one. A tight, square intersection is particularly important for the older driver who may find it impossible to turn his/her head to see motorists coming into the intersection at an obtuse angle.

## Tighter Curb Radii

Tighter curb radii benefit pedestrians by shortening the crossing distance, bringing crosswalks closer to the intersection, increasing visibility of pedestrians, and slowing right-turning vehicles. The appropriate radius must be calculated for each corner of an intersection; difficult turns will occasionally occur (for example a large moving truck turning onto a local roadway using a part of another lane). Arterial, Collector, and Commercial entrances should have a minimum 20’ radii.

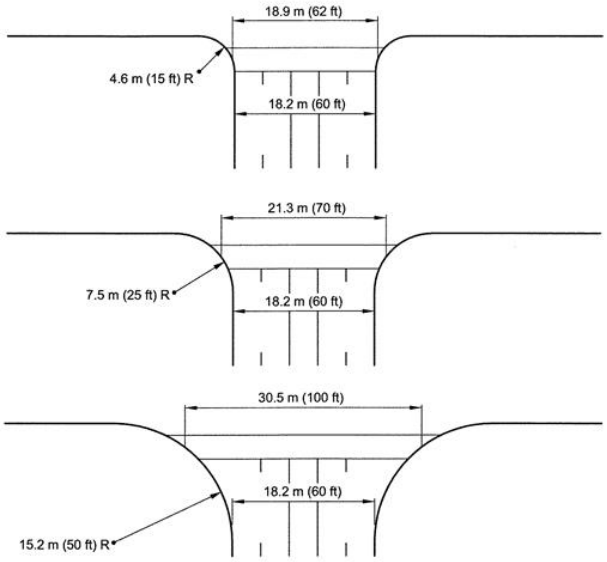
The City of Haysville plans to take into consideration both motor vehicle traffic and pedestrian traffic at intersections prior to their reconstruction/construction to ensure safety as well as feasibility per MUTCD guidelines.

## Proper Curb Ramp Placement and Design

Proper curb ramp placement and design encourages pedestrians to cross in crosswalks, close to the intersection, where drivers can see them, and without undue delay. Curb ramps should be aligned with the crosswalk direction of travel which can only be achieved with two ramps at a corner.

Ramps (wings not included) must be wholly contained within the marked crosswalk. Poorly placed or oriented ramps force wheelchair users to make long detours and they may not cross in the allotted time at a signalized intersection or they may be crossing outside the crosswalk lines where drivers don’t expect them.

The City of Haysville will strive to ensure curb ramps will be perpendicular to the curb to ensure the safety of all citizens using the crosswalk. And will place two ramps at each as well.




Tighter Curb Radii

## Pedestrian Signal Indications

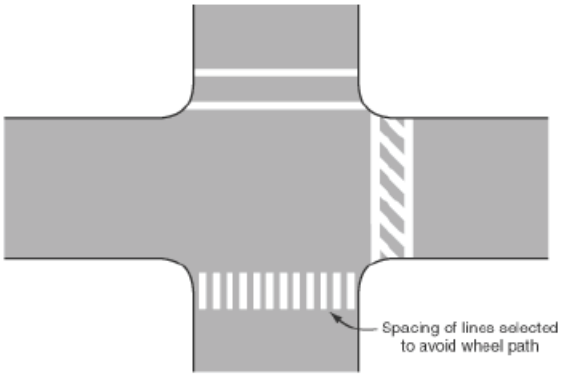
Indicators ensure pedestrians will know when the signal phasing allows them to cross, and when they should not be crossing. On one-way roadways a pedestrian approaching from the opposite direction cannot see the vehicle signal heads and may not realize an intersection is signalized, nor know when

it is safe to cross. Left turn arrows are not visible to the pedestrian.

Whenever a new signal is put in, the City of Haysville will also provide pedestrian indicator signals as well.

### Marked Crosswalks

Marked crosswalks are portions of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface. Marked crosswalks at signalized intersections indicate to the driver where to expect pedestrians/bicyclists and help keep the crossing area clear of vehicles. All legs of a signalized intersection should be marked though considerations should be made where there are no facilities or destinations.




Marked Crosswalks

### Pedestrian Walking Speeds

The 2009 MUTCD reduces the assumed pedestrian walking speed from 4 feet to 3.5 feet/second with a requirement that the total walk time be calculated with two different formulas, one including and one excluding the six feet for the ramp on one side of the street (must go with whatever time is longer). Consult the MUTCD for formulas and more detailed guidance.

The City of Haysville plans to update all crosswalk "walk time' signals to adhere to MUTCD guidelines. The distance of the street shall include the ramp on one side of the street. This will ensure it meets ADA requirements as well as following the guidelines set forth in the MUTCD.

### Location of Push Buttons

Push buttons need to be placed where a pedestrian who is in a wheelchair or is visually impaired can easily reach them, and that clearly indicate which crosswalk the button regulates.

The City of Haysville follows the MUTCD guidelines with regards to push button installation at all signalized crosswalks.

### Signal Timing Techniques

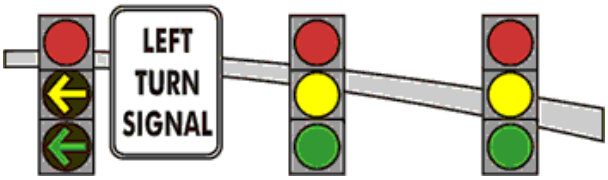
Signal timing techniques are used to reduce the incidence of crashes that occur while the pedestrian is crossing with the WALK signal, include protected left-turn phases, lead pedestrian intervals and pedestrian countdown signals.

Further study is needed to include pedestrians who are in wheelchairs and those who are visually impaired.

### Protected Left-Turn Phases

Protected left-turn phases that allow pedestrians and bicyclists to cross without interference from left-turning drivers; red (then green) left turn arrows make it clear to drivers they must wait before turning (especially important where there are double right or double left turns).

The implementation of a protected left turn at intersections will need to consider a protective/permissive indicator that will switch to protected when the push button is activated.




Protected Left-Turn

### Pedestrian Countdown Signals

Pedestrian countdown signal tell the pedestrians how much time is left in the pedestrian clearance interval and encourages pedestrians to finish crossing before the crossing time runs out. It also reduces the number of pedestrians who initiate a

crossing too late in the cycle. The MUTCD requires that pedestrian signal heads be used at crosswalks where the pedestrian change interval is more than 7 seconds.

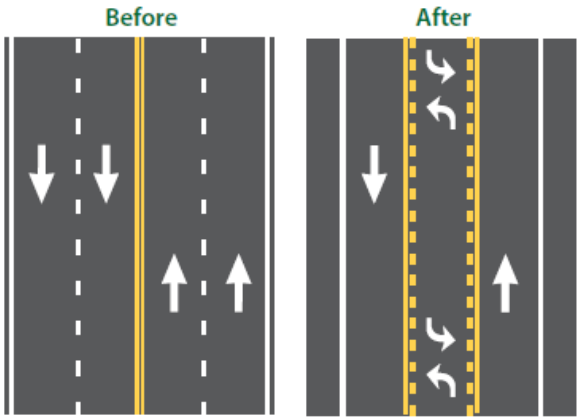
The City of Haysville will consider countdown signals on new signaled intersections and when replacing old facilities.

### Other Techniques to Slow Traffic

#### Road Diets

Reducing the number of travel lanes a pedestrian and bicyclist has to cross can be beneficial to all users. A well-documented technique takes a 4-lane undivided roadway (2 lanes in each direction) and reconfigures it to 2 travel lanes, a center-turn lane and 2 bike lanes (without changing the curb lines). The benefits for pedestrians include fewer lanes to cross and slower traffic speeds. The center-turn lane also creates space for pedestrian crossing islands. The bike lanes add a buffer for pedestrians as well as a place for bicyclists to ride. Variations include reducing a multi-lane one-way roadway by one lane; narrowing the travel lanes to slow traffic and create space for bike lanes; or moving the curbs in to narrow the roadway.

The City already utilizes a "Road Diet" but, as the City continues to grow and traffic increases the need to continue and expand the use of a "Road Diet" will be beneficial to not only the motorist but the pedestrian and cyclist.




Road Diet

#### Speed Limits

Reducing speed is critical to reducing the frequency and severity of pedestrian and bicycle crashes. While many of the countermeasures are already taking place within the City, it is important to have policies in place that articulate optimal speed limits and objectives for reducing speed. This includes articulating how speed limits are established.

As the City continues to grow, additional streets will be needed. The speed limits in residential areas are 20 mph and the main arterial road is 35 mph.

Further study is needed to determine if the speed limits on Meridian and Broadway are optimal. This can only be accomplished through accurate traffic counts and careful review of accidents that have occurred. Speed management guidelines have and will continue to be implemented.

#### Residential Roadway Design

Residential roadways built in the last few decades are often wide and barren, encouraging speeds higher than appropriate such as roadways where children can be expected. Good residential roadway designs are narrow and have on-roadway parking, tight curb radii, short block lengths, buffered sidewalks with roadway trees, short building setbacks, and roadway lights (also see "V. Land Use and Site Design").

Considering the implementation of pathways at the time of street design will guarantee safety measures for the pedestrian and cyclist. Future expansion of city streets and the increasing of pedestrians and cyclists require this measure take place.

# Chapter Three

## Land Use and Site Design

Land use patterns impact pedestrian crashes. Pedestrian crash severity is higher in suburban, auto-oriented locations where speeds are faster and drivers don't expect pedestrians. Pedestrian crashes are less severe in established, traditional urban areas where drivers are more aware of pedestrians. Sample land use and site design techniques that encourage more walking and help manage speed and therefore affect crash rates include:

- Buildings that define roadways. Buildings located at the back of the sidewalk give the driver sense of enclosure; buildings set back with large parking lots in front can give the impression of wide high-speed roads.
- Mixed-use development: Buildings with retail on the bottom and housing on the top encourage pedestrian activity.
- Roadway connectivity and maximum spacing encourages walking because of the reduced travel distance to reach destinations (cul-de-sacs without connector paths reduce pedestrian connectivity, shorter blocks reduce travel distances).
- Parking should not be placed between the sidewalk and buildings; on-street parking is a very effective way to slow traffic and provide a buffer between the sidewalk and vehicle travel lanes.
- Access management principles should be extended to parking: single lots serving multiple stores are preferred over single stores each with its own parking and driveway(s).
- School sitting and space requirements should ensure that schools are placed in neighborhoods, have pedestrian access and allow for shared facilities with parks and community centers.
- Street Frontage Improvements. Street frontage improvements such as street trees, pedestrian-scale lighting, and other pedestrian-oriented amenities can encourage pedestrian activity while also creating visual friction along the roadway, causing vehicles to reduce speed.

The City of Haysville will look to design with mixed-use development in mind. Eliminate parking 1st attitude, and design with a true store front mentality. Future USD 261 development should be with a bottom-up approach, instead of the urban sprawl placement at the city limits. Joint use facilities should continue to be the approach which mutually benefits both municipality and school district.


Hike/Bike Path Cutout

# Chapter Four

## Education and Enforcement

### Education

Public education is essential to reduce pedestrian crashes. It also builds public support for programs, projects and policies to reduce pedestrian crashes. To be effective, it must target those behaviors within selected age groups that will most likely result in fewer pedestrian crashes.

The City of Haysville Police Department will continue:

- To enforce proper crosswalk use the first week of school.
- Continue to update the informational bike/ped map with safety guidelines on flyers and social media.
- Look to provide pedestrian safety education during driver's education.
- Begin bicycle and pedestrian safety classes at the grade school level.
- Be more specific with traffic safety sign.
- Increase outreach to seniors.
- Continue to promote bicycle/pedestrian programs during bicycle month and create a culture awareness.
- Partner with **Safe Kids** to continue educating school children utilizing their *bike to school* and *walk to school* programs and encourage classroom projects focusing on safety while walking and bicycling

### Partnerships

Partnerships with non-profit groups, the private sector, and other local governmental agencies are an excellent way to get the entire community involved in safety education projects and programs. This includes schools, neighborhood groups, advocacy organizations and local businesses, as well as local health departments, hospitals and public safety officials such as firefighters and other first responders.

The City of Haysville should continue to cultivate relationships with the school district and other municipalities, businesses, USD 261 school board, Park Board, BPAC, Senior Advisory Board, and the Recreation department.

### Enforcement

Enforcement is an essential element of an overall program to reduce pedestrian crashes. To be effective, it must be done in partnership with the community and law enforcement. Monitoring motorist and pedestrian behaviors will help to ensure fewer pedestrian crashes and provide a valuable tool for improvements to the bicycle/pedestrian program.

Ticketing/awarding children for crossing safely. All future crosswalks setup with the Nelson system, and looking to convert current crosswalks.

Partnering will create a community/culture based around pedestrian and bicycle safety. Using these partnerships to reach every demographic with safety information and policy. Enforcement will follow education.

### Collaboration

Collaboration with local law enforcement is an essential element of an enforcement program to reduce pedestrian and bicycle crashes. To be effective, it must be done in partnership with schools and other community leaders.

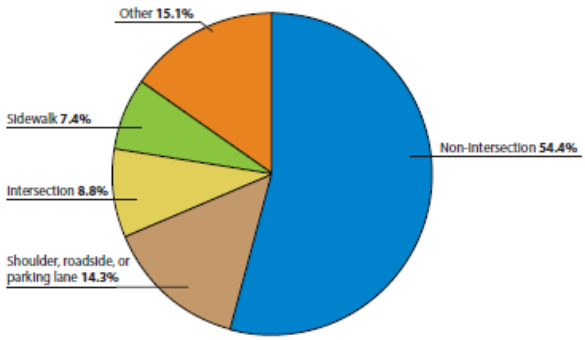

Haysville PD

# Chapter Five

## Data Collection, Analysis and Prioritization

Identifying where crashes occur can be an inexpensive easy way to identify high crash locations, corridors and neighborhoods. It can be done using technologies such as GIS, or on a simple pin map that is done by hand. Typically, five years of crash data should be displayed. In rapidly changing areas, three years might be appropriate. In older areas that are not changing, seven years may be appropriate. Once completed, it should be used as a baseline to focus resources and select counter measures.

Currently, the City of Haysville funnels data through the Police Department and state agencies. Beginning an annual assessment of crash data, and mapping that data is required as the number of bicyclists and pedestrians grow.




Speeding-related fatal bicycle/pedestrian crashes (FHWA)

## Computerized, Timely, Geo-Coded Pedestrian Crash Data

Data is extremely useful to determine whether pedestrian crashes are occurring at a) spot locations, b) along corridors, c) in a neighborhood area, d) throughout an entire jurisdiction (indicating a poor standard practice such as failing to install pedestrian indicators at signals), or e) among certain populations (e.g., children, older adults). In addition to crash reports, agencies should look at other sources of data such as hospitals. See the references to hospital data in the green reference box.

Once categorized, this information can be used to select countermeasures, focus resources, and set priorities for engineering, education and enforcement programs.

The data can also be used in crash typing (see web reference to Ped/Safe Guide). Crash typing categorizes all crashes based on situational and behavioral circumstances and is a way to target countermeasures in engineering, education and enforcement programs at very specific types of crashes.

The City of Haysville currently partners with Sedgwick County Geographic Information Services (GIS). As local platforms develop Haysville will continue utilizing current data using the latest platforms.

## Pedestrian Counts

Pedestrian counts along with field observations (e.g., driver yielding, conflicts, and pedestrian assertiveness) can be very useful in understanding pedestrian behavior and in considering the need for facilities. Counts and behavior studies, when combined with crash data, can also provide insights into specific crash causes and potential countermeasures. On-site observations will often reveal behavior patterns that lead to design changes. Before and after counts can be used to measure success which in turn can be used to help secure funding. Pedestrian counts are also important to assess when and where signals, stop signs and marked crosswalks should be installed.

The City of Haysville currently conducts counts of cyclists and pedestrians at 16 pre-determined locations. The use of volunteers to aid in the counts is a viable solution as long as we develop a consistent approach, and steer away from remote counts.

All data will be made public via the Kansas Open Records Act.

### Sidewalk Inventories

Sidewalk inventories help identify system gaps and unsafe conditions. Sidewalk inventories can simply identify where sidewalks do or do not exist. More extensive sidewalk inventories assess the condition of existing sidewalks (frequently done for ADA purposes). When combined with crash data, pedestrian counts, behavior studies and traffic characteristics, they can be very useful in prioritizing locations for improving existing sidewalks, filling in short gaps between existing sidewalks and installing new sidewalks.

It is recognized that completing comprehensive sidewalk inventories can be expensive. When resources are scarce, an alternative approach is to inventory smaller areas focused around schools, neighborhood commercial areas, neighborhood centers and facilities that serve people with special needs.

The City of Haysville should develop a data collection program that aids both asset management and ADA services for the bike/ped network.

### Marked Crosswalk Inventories

Crosswalk inventories at controlled and uncontrolled intersections and midblock locations are needed to establish annual re-marking programs and to work with local transit agencies (wherever there is a transit stop, there needs to be a location to cross the roadway). When combined with crash data, pedestrian counts, behavior studies and traffic characteristics, they can be very useful in prioritizing locations for evaluating the crosswalk and then identifying measures to upgrade and improve the crosswalk. Maintaining an up-to-date inventory of marked crosswalks is particularly important since the majority of pedestrian crashes involve crossing the roadway. ADT (Average Daily Traffic), road widths (number of lanes) and speeds are three of the most important factors to consider when evaluating crosswalks. When combined with actual crash data and pedestrian counts, this information can be very useful in prioritizing locations for making crossing improvements and determining where to install new marked crosswalks.

The City of Haysville has a complete inventory of marked and unmarked crosswalks.

### Lighting Inventory

Providing appropriate lighting at pedestrian crossing locations is one of the most important factors to consider when evaluating and improving crosswalks. A disproportionate number of pedestrian crashes occur at night. When combined with actual crash data and pedestrian counts, information about lighting can be very useful in prioritizing locations for making lighting improvements.

The City of Haysville should establish a lighting program. This will serve traffic safety with street lighting, signage lighting, and help find resolve with pedestrian disputes. FHWA and AASHTO guidelines should drive all crosswalks and intersections.

### Existing Projects and Programs

Projects and programs should be listed and described in one place to allow for overall agency coordination and to avoid duplication. Examples include programs to repair sidewalks, install new sidewalks, install new curb ramps, install countdown signals, upgrade crosswalks, implement safe routes to school programs and implement enforcement and education programs.

The City of Haysville should continue annual programs, such as bicycle counts and inventory of sidewalk repairs. In addition, the City should incorporate records into NGIS, to streamline data collection and help illustrate the analytics.

Pedestrian and bicycle crash data along with other data (described earlier) should always be considered when prioritizing agency projects and programs. This will help ensure that all projects and programs make pedestrian improvements where appropriate. Since most pedestrian infrastructure is built in conjunction with other projects, inclusion of pedestrian crash data when prioritizing projects is of particular importance.

# Chapter Six

## Facility Types

### Sidewalks

Sidewalks play a vital role in our quality of life. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. Sidewalks are public spaces which serve the community both socially and economically. Safe, accessible, and well-maintained sidewalks are essential and a necessary investment for the City.

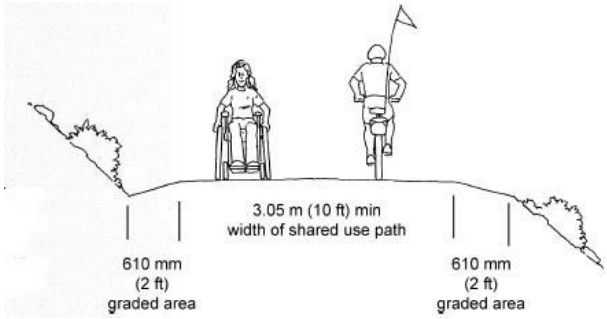
A Sidewalk is a path along the side of a road. It may accommodate moderate changes in grade and is normally separated from the road by a curb. There may also be a road verge/island (a strip of vegetation, grass, bushes and/or trees) between the sidewalk and roadway. Sidewalks must measure at least 5' in width and will occasionally be used by cyclists.

### Bicycle/Pedestrian Pathway

Also known as a shared-use pathway. Shared-use pathways are physically separated from motor vehicle traffic by an open space or barrier. It can be either within the street right-of-way or within an independent right-of-way. Shared-use pathways typically range from eight (8) to ten (10) feet in width and can include bicycle paths, rail-trails, or other facilities built for bicycle and pedestrian traffic. Shared-use pathways may be utilized by pedestrians, joggers, cyclists, and other non-motorized users.

### Bicycle Lanes (Conventional & Buffered)

Bike lanes are an exclusive space for bicyclists through the use of pavement markings and signage. Conventional bike lanes are adjacent to motor vehicle travel lanes and flow in the same direction as motor vehicle traffic. Some of the benefits with bicycle lanes are an increase in comfort and confidence for bicyclists on busy streets, creates a separation between bicyclists and automobiles, increases the predictability of bicyclist and motorist positioning and interaction, increases total capacities of streets carrying mixed bicycle and motor vehicle traffic and visually reminds motorists of bicyclists' right to the street.

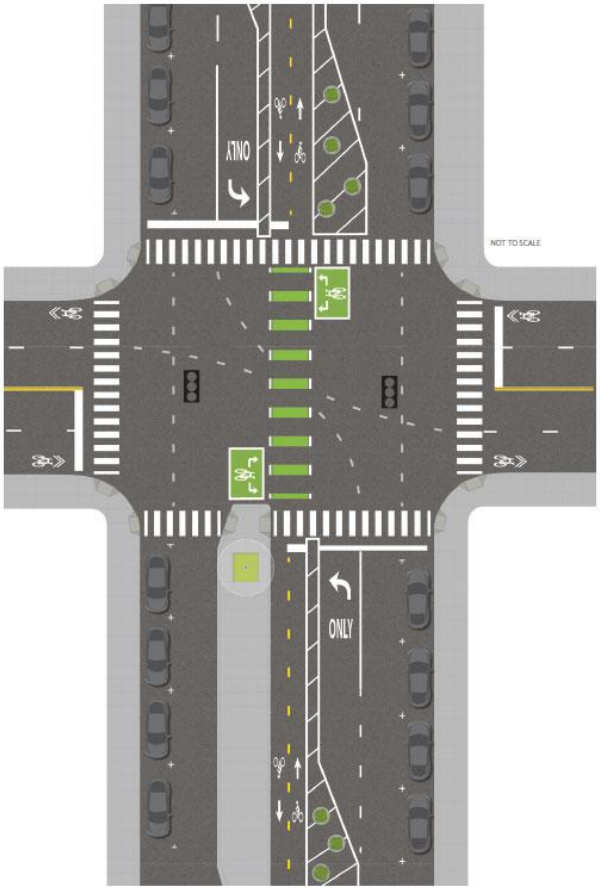



Bicycle/Pedestrian Pathway

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space and separates the bicycle lane from the adjacent motor vehicles and/or parking lane. The benefits to buffered bike lanes are that they provide a greater shy distance between motor vehicles and bicyclists, providing space for bicyclists to pass another bicyclist without encroaching into the adjacent motor vehicle travel lane, encourage bicyclists to ride outside of the door zone when the buffer is between parked cars of the bicycle network, and the bike lane, provide a greater space for bicycling without making the bike lane appear so wide that it might be mistaken for a travel or parking lane, appeal to a wider cross-section of bicycle users, and encourage bicycling by contributing to the perception of safety among users.

### Shared Lane Marking (Sharrows)

Shared Lane Marking (Sharrows) are road markings used to indicate a shared lane for bicycles and vehicles. There are multiple benefits to Sharrows including shared lane markings that reinforce the legitimacy of bicycle traffic on the street, the recommendation of proper bicyclist positioning, and they may be configured to offer directional and wayfinding guidance. Some of the benefits with Sharrows include: encouraging bicyclists to position themselves safely in lanes too narrow for a motor vehicle and a bicycle to comfortably travel side by side within the same traffic lane, alert motor vehicle drivers to the potential presence of bicyclists, alert road users of the lateral position bicyclists are expected to occupy within the travel lane, indicating a proper path for bicyclists through difficult or potentially hazardous situations, such as railroad tracks, advertises the presence of bikeway routes to all users, provides a wayfinding element along bike routes, demonstrated to increase the distance between bicyclists and parked cars, keeping bicyclists out of the "door zone," encourages safe passing by motorists, requires no additional street space, reduces the incidence of sidewalk riding, reduces the incidence of wrong-way bicycling.




Sharrows

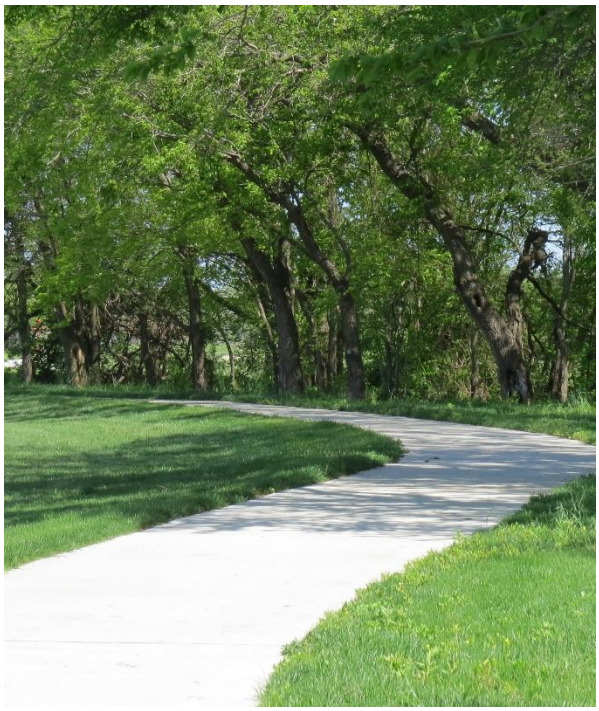
### Costs

With the costs of concrete varying throughout the year, it is difficult to provide an accurate cost with any project involving bicycle/pedestrian pathway in a long range plan. The City will make every effort to make public the cost of any project through the Bicycle & Pedestrian Committees web page on the City's web site.

# Chapter Seven

## Future Pathways

The City of Haysville recognizes the improvement to quality of life that ample bicycle/pedestrians pathways provide. Evidence indicates a growing need for more bicycle/pedestrian pathways in cities across the nation. In Haysville, multiple bicyclists and pedestrians utilize the pathways as a means of getting around the city. Whether for work, exercise, dog walking, shopping, or just to enjoy the beauty of the parks, these pathways have become a part of our daily lives.



Randal L. Dorner Park

The City of Haysville has nearly seven (7) miles of 6-10 foot wide bicycle/pedestrian pathways. Contractors are currently putting the finishing touches on an additional .8 miles located on the West side of South Meridian from W. Grand Ave. to Saddle Brooke St. providing a total of 7.8 miles of bicycle/pedestrian pathways.

Future expansions of the bicycle/pedestrian pathway are underway in the Randal L. Dorner Park, a 68 acre park that includes eight soccer fields, shelters, a concession stand, and a ten acre lake. While the park is not yet ready to be open to the public, the bicycle/pedestrian pathway is already being constructed and will surround the lake and run along the East side of the soccer fields. This pathway will add more than a mile to the already existing pathway and connect to Orchard Acres Park.

The City plans to connect all developments and continue to extend the bicycle/pedestrian pathway. Potential future pathways include N. Main St. at the Valley Center Floodway to 63rd St., then extend this pathway along 63rd St. to Plagens-Carpenter Sports Complex, and on S. Meridian from W. Grand Ave. to 55th St.

Planned completion of each extension of the bicycle/pedestrian pathway will be determined by funding availabilities.

Rigg's Park Bicycle/Pedestrian Bridge

# Chapter Eight

## Funding

Many of us remember walking or bicycling to school as part of our everyday life. We never thought twice about this mode of transportation and for those of us who do remember it provided us a sense of freedom. In 1969, 48% of children either walked or rode their bicycles to school while 12% were driven to school in the family vehicle and 39% rode the school bus. In 2009, the percentage of children walking or bicycling to school had dropped to 13%, while the percentage of children riding the school bus has remained the same the number of children going to school in the family vehicle has risen dramatically to 45%.

Nationwide, the decline in walking and bicycling to school has had an adverse effect on the air quality surrounding the schools and the safety of our children as traffic congestion has dramatically increased. In addition, there is growing evidence that children who lead sedentary lives increase their risks for obesity, diabetes, cardiovascular diseases, etc. Safety issues are a major concern for parents, who consistently express their anxieties about the traffic dangers that prevent their children from walking or bicycling safely to school.

Through programs such as the Federal Safe Routes to School (SRTS) Program which address these issues head on, funding may be available for a wide variety of programs including: building safer street crossings, establishing education programs for both child and parent, programing that encourages children to walk and bicycle safely to school.

Funding programs such as the SRTS require data to help establish a need for monies to be distributed to thousands of communities throughout the country. The citizens of Haysville may be asked to answer short surveys to help provide the data needed for any grants requested. Surveys may be distributed through mailers, on the city website, or at organized events.

Additional data will be required for any grant opportunities by way of traffic counts, paying particular attention to traffic congestion while children are arriving and leaving school. In addition, studies need to be conducted that may include the distance each school is from residences.

### The FAST Act

On December 4, 2015, President Barack Obama signed the Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94) into law. This Act authorizes $305 billion through the combined fiscal years of 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

The FAST Act replaces the Transportation Alternatives Program (TAP) with a set-aside of funds under the Surface Transportation Block Grant Program (STBG). Known as TA Set Aside, funding for programs and projects such as on and off road pedestrian and bicycle facilities, recreational trail projects, and safe routes to school projects $835 million is available nationwide for these projects in 2016 and 2017. The available funds in 2018 through 2020 will increase to $850 million each year.

The City of Haysville's goal is to research all available funding through the TA Set Aside program and secure funding that is available. Studies will be an ongoing aspect of fund requests and citizens may be asked to answer short surveys.