Danville Thoroughfare Plan

A Transportation Plan for Danville, Indiana

Adopted December 6, 2010

Then

Now

Acknowledgements

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Executive Summary

Transportation as a Part of the Comprehensive Plan

This plan is much more than the traditional thoroughfare plan, because it considers more than just motorized vehicular circulation on streets. This transportation plan is only one element of the Town of Danville's comprehensive plan. It is not intended to stand on its own, but to work in harmony with the rest of the comprehensive plan, other plans and ordinances. Danville's Thoroughfare Plan contains several chapters, including background, summary of related studies, public input, goals & objectives and also chapters for transportation issue areas (e.g., alternative transportation and downtown parking & circulation), as well as an implementation section. Maps are also included in the document.

The Town of Danville last did a thoroughfare plan in 1998 as part of their comprehensive plan. A steering committee worked with Town officials and a planning consultant to draft this new plan. The steering committee held one open house type meeting in fall 2009 to gather input from the public. Several different topical stations and surveys were prepared: Background Information, Downtown Parking & Circulation, Alternative Transportation (Bicycles, Pedestrians and Transit), Streets, Highway 36 By-Pass and a Strengths, Weaknesses, Opportunities and Threats Exercise. Approximately 80 people filled out worksheets. Overall, the results did not provide a clear direction. Responses were often almost evenly divided between "yes", "no" and "unsure" answers. In almost all cases, more people were unsure of their positions than were against something. Because their input did not give clear direction, it is crucial that citizen education be a part of Danville's transportation system changes. For more information on public input, see page 18.

Danville's Growth

Danville continues to grow through annexation and development. Because of this, the town determined that they should be proactive and look outside their current boundaries as they created this plan. The boundaries for this thoroughfare plan are County Road 200 North on the north side, County Road 200 South on the south side, County Road 400 East on the east side and County Road 200 West on the west side.

The town's population is estimated to be almost twice the size it was in 1990 and by 2008 had grown to 8124. The downturn in the economy has slowed the rate of growth, but it is reasonable to expect that this Indianapolis suburb will experience more growth pressure in the future. Of special interest is the projected growth of the population aged 65 and over. Indiana Business Research Center projections show that by 2035, senior citizens will make up 1/5 of the county's population, which has big implications for transportation planning because many seniors are unable to drive and will need public transportation. For more growth statistics, see Chapter 1, page 24.

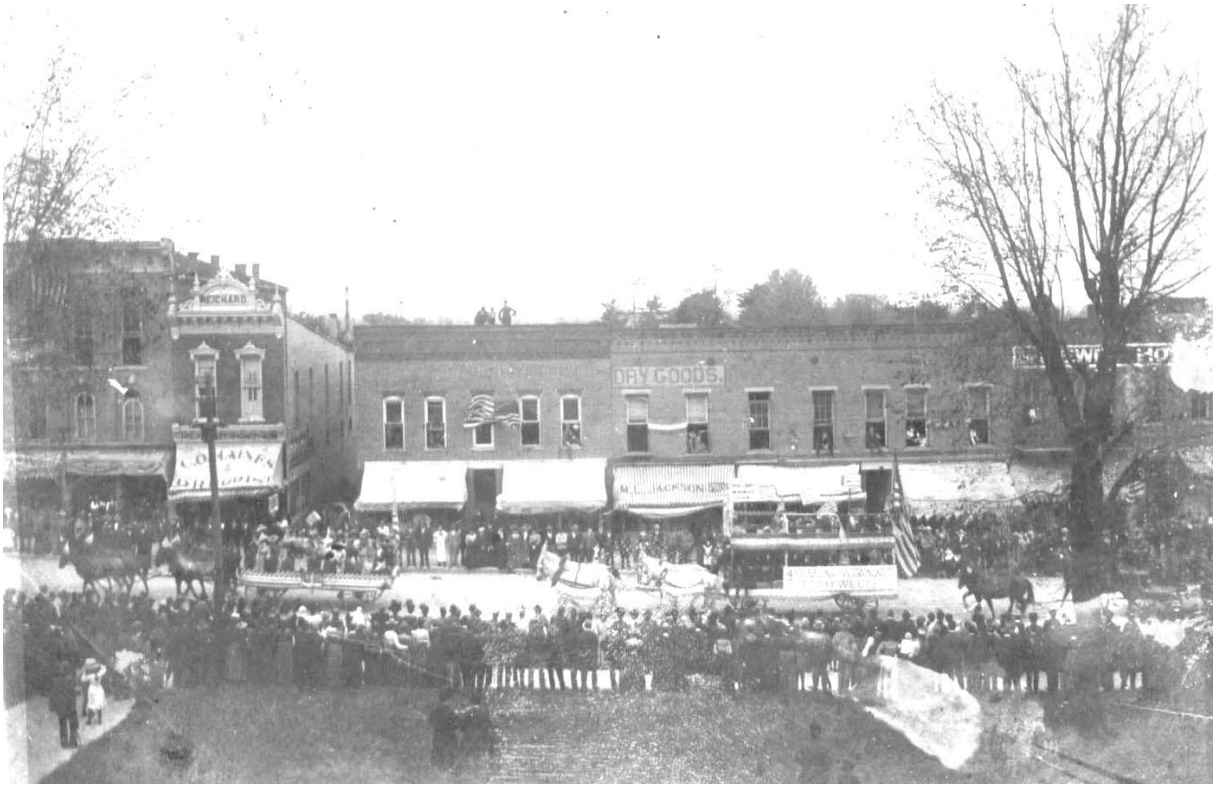


Photo courtesy of *The Republican* archives

Traffic in Danville

Because we are planning for transportation, it is helpful to know what type of trips people make. Traffic counts are the most common way to assess travel patterns. East-west traffic counts confirmed that US Hwy 36 sees the majority of the east-west traffic. On the east side of Danville, CR 100 N, East Main Street and CR 200 S carry1/3 to 1/10 of the 24-hour traffic volume that US Hwy 36 does. Approximately half of the east-west traffic disappears within Danville. On the west side of Danville, Lincoln Street/CR 50 S, CR 200 S and CR 200 N accommodate only a fraction of the traffic that US Hwy. 36 does. Without a Highway 36 bypass currently in place, drivers are relying on Highway 36 for their east-west movements.

Commuters are a big part of Danville's traffic. Based on Indiana Tax Returns for 2008, almost half of Hendricks County's 92,250 person resident labor force worked in another county. Additionally, over 15,000 people live elsewhere, but commute into Hendricks County for work. The majority of these work-related trips still occur during traditional rush hour. Most commuters rely on arterials and collector streets for their journey. Danville, the county seat, is located in the middle of the county and gets a significant amount of that traffic. It is important to give more attention to arterial and collector streets. To find out more about traffic, see Chapter 1, page 26.

Town's Vision for Transportation

The steering committee for this plan developed a vision, goals and objectives related to transportation in Danville that guided their development of the thoroughfare plan. To see the full set of vision, goals and objectives for this plan, see Chapter 2, page 53. The Transportation Vision Statement is:

> Danville's transportation vision is to meet the changing transportation needs of the community and traveling public in a manner that offers a full range of options that are safe, efficient, and sustainable.

Complete Streets Network

Streets are the foundation of any transportation system. However, it is important that we understand that there should be more to the system than just streets. A transportation system also needs connections with other types of transportation networks (i.e., sidewalks and trails). Automobiles are no longer completely dominant, but they are still by far the most common form of transportation in the Danville area. There is more interest in accommodating bicycles and pedestrians with our existing street network, so this thoroughfare plan recommends adoption of a "Complete Streets" policy for the town. It is also time for Danville to be more elder-friendly and consider transit as part of its future, including accessible bus stops, handicap ramps and accessible crosswalks, all which are part of Complete Streets. To find out more about Complete Streets, go to Chapter 3, page 66.

Street Classifications

Danville's last comprehensive plan did not include a classification system for roads. This plan uses the urban standard functional classification system for streets, in accordance with INDOT and the Federal Highway Administration. There are three highway functional classifications: arterial, collector, and local roads. The first step was to classify the arterial streets, those serving the major centers of activity, the highest traffic volumes, and the longest trips, including US Highway 36. Danville's collector streets, including Washington Street, were then designated, which funnel traffic between local streets (where accessing land is most important) and the arterials (where moving through traffic is of primary importance). All remaining streets in Danville's thoroughfare planning area not designated as arterials or collectors fall within the local category. Local streets serve primarily to provide direct access to abutting land. See Chapter 3, page 71 and the Thoroughfare Plan Map on page 76, to find out more about Danville's street classifications.

Improving Danville's Streets

One way to improve Danville's street network is to reduce traffic congestion. In order to do this, the town must first establish the level of service on arterial and collector streets, and then prioritize improvements and repairs. It is important to remember that not every street needs to be perfect. The plan contains guidelines for what levels are acceptable. See Chapter 3, page 77 for more information on level of service.

Another way to improve streets is by improving traffic safety. Unfortunately Danville's emergency services agencies do not keep records of where the most accidents occur in Danville, so traffic

safety concerns were based on anecdotes. Some identified traffic safety problems can only be completely solved by redesign and new construction, such as rebuilding intersections that meet at less than 90°. One other alternative is traffic calming, which is the slowing or reduction of motor-vehicle traffic. Danville should investigate the use of traffic calming techniques identified in this plan. See Chapter 3, page 80 for more information on traffic calming.

Downtown Parking & Circulation

Based on observation, it does not appear that Downtown Danville suffers from a real parking shortage, but there does seem to be a public perception of insufficient parking. As it is with most downtown areas, businesses fronting on the courthouse square (CB-P Zoning District) have no off-street parking requirements and rely on public parking lots and on-street parking. It appears that County Courthouse employees park in short-term spaces around the square, taking those spaces from customers of downtown businesses. The town is already working on solutions to this problem, including constructing additional parking, amending the ordinance to eliminate a loophole that allows people to continually move around within the courthouse parking zone, and enforcing parking violations harder, including towing for multiple offenders. Note that the town also needs to review the maximum parking time; the standard two hours may need to be shortened or lengthened in different areas. For more details about parking, see Chapter 3, page 83.

Another issue to consider related to the downtown is one-way streets. Traffic engineers have historically relied on one-way streets as a way of moving traffic efficiently during peak times. Many communities have begun to convert one-way streets to two-way, in order to slow down traffic and make streets more pedestrian friendly. Potential benefits to Danville in changing to two-way streets would be to increase access to and visibility of businesses and reduce driver confusion. While the Thoroughfare Plan Steering Committee was not ready to make any recommendation at this time, Danville should study this issue in the future. Chapter 3, page 85, contains more information.

Photo courtesy of Laura Parker, Assistant Town Manager

Highway 36 By-pass

One of the primary concerns of Danville residents for years has been the congestion on U.S. 36. This plan supports further study of a by-pass by INDOT, recommending that environmental assessments be conducted for both the North Railroad and the South Railroad alignments. The steering committee urges more public input in the by-pass decision, and expressed some concern that the by-pass alternatives do not support multi-modal transportation. They also have reservations about a bypasses impact on the downtown. See Chapter 3, page 89 for more information on the US Highway 36 By-pass recommendation.

Because a bypass would not happen quickly and because it would not solve all of Danville's transportation problems, the plan recommends further work on local alternative routes around town. These new and improved streets and county roads would create another option for east/west circulation, allowing local residents to avoid U.S. 36 during congested hours. Because these alternative routes are outside the town's jurisdiction, it is imperative to work with Hendricks County to promote these road improvements.

Supporting Alternative Transportation

What is alternative transportation? Basically it is transportation that doesn't rely on single occupancy motorized vehicles. Use of alternative transportation has really increased in recent years as concern over greenhouse gases has grown, in conjunction with the high price of gasoline and the awareness of a need for a healthier lifestyle that involves more exercise. Alternative transportation should be an integral part of any transportation system today. Danville currently has a near-total reliance on the automobile for transportation and access. Changing this reliance can only happen if other acceptable alternatives are offered. Chapter 3, page 91 of this document deals with alternative transportation.

Pedestrians

The safe and efficient accommodation of pedestrians is just as important as the provisions for vehicles. In fact, the Federal Highway Administration requires Indiana to consider pedestrian and bicycle needs for all new roadway projects. Most pedestrian traffic in a community, whether for exercise or to reach a destination should be accommodated on the local sidewalks and paths. Danville's Subdivision Control Ordinance requires that sidewalks be provided on both sides of the street for all new construction. However, since not all of Danville’s sidewalks are connected or are in good repair, the Town needs to do an audit or assessment of conditions. Danville officials can then prioritize improvements to the sidewalk system. Just putting the pedestrian system in isn’t enough. Even when sidewalks and trails are in place, people often have to be trained to walk. The town will need to sponsor and support efforts like Safe Routes to School to encourage walking. See Chapter 3, page 93 to find out more about accommodating pedestrians.

Bicycles

In Danville, as in other communities around the world, there is a growing interest in bicycling. Whether riding a bicycle as a mode of transportation, or as a recreational activity, people are demanding the opportunity to bike more often, to bike more places, and to feel safe while doing so. Bicycling is an affordable form of transportation. Bicycling can also help to reduce roadway congestion. The bottom line is that bicycles make sense as part of our transportation system.

Basically, there are three different types of bike facilities: on-street bicycle lanes, on-street shared lanes and trails (off street facilities). Danville may use any or all of these bicycle facilities. Each potential location will need to be evaluated to determine which type of bicycle facility is most appropriate.

Photo Courtesy of Hendricks County Humane Society's Dick Wagner Memorial Bike Tour, Pedaling for Pets

Making Danville a bikeable community will take time and effort. Becoming truly "bicycle- friendly" means more than just adding isolated bike lanes to a few major streets. It requires an interconnected network of bikeways that make bicycling convenient, safe, and enjoyable, which includes connections to the links shown in Hendricks County's Trails Plan (part of the county's comprehensive plan). This thoroughfare plan recommends that Danville create a bicycle and pedestrian master plan, and use that to guide its actions regarding improvements for bicycles. Additionally, the town needs to amend local ordinances to be “Bicycle-Friendly”, for example, the subdivision ordinance should allow for trails to be built in lieu of sidewalks. Danville also needs to add a cross-section design standard for bicycle lanes and trails. See Chapter 3, page 101 for more discussion on accommodating bicycles and the preliminary bicycle network plan on page 108.

Transit Service

Mass transit or bus service is the most difficult form of alternative transportation to launch and support because it requires a lot of resources and support from a government agency or business organization. Neither the Town of Danville nor Hendricks County currently has a full public transit system. IndyGo, the Indianapolis bus system currently serves only the eastern edge of Hendricks County. Some transit service is available to Danville residents from Hendricks County Senior Services (for age 60+) and from LINK Hendricks County (any age, but within Hendricks County only). Demand is much higher than can be accommodated for both of these van-based services, with reservations required weeks or months in advance. Because these two local transit options are over-booked, no advertising is done and residents are not knowledgeable about them.

For a regional bus system to work at optimum levels, local bus or van commuter service within Hendricks County should be expanded, so that riders can get to the Indianapolis buses that serve the county. The Hendricks County Comprehensive Plan includes a Future Bus System Map. The map shows one segment cutting north-south through Danville, from CR 100 E to Pittsboro RD to downtown Danville and then south on SR 39. Another segment runs east-west from Avon along US Hwy 36 to downtown Danville.

It is crucial that Danville officials continue to support the development of transit service. While regional bus service is desirable, all of Hendricks County's local governments need to join forces to begin work on a county transit system that could stand alone or compliment the regional service. See Chapter 3, page 110 for more complete information on transit, including buses.

Implementation

This plan contains an implementation section, which discusses the steps that need to be taken to implement this plan. The action plan assigns primary responsibility and prioritizes each task. Since the citizen input did not give clear direction, it is crucial that implementation include a great deal of communication with the public. Many of these transportation system changes will require more citizen education to make them work. See Chapter 4, page 112, for details on implementation and for the action plan.

Chapter 1 -- Background Research

Photo courtesy of *The Republican* archives

Introduction

Traditional transportation planning was done with the goal of improving mobility, especially for vehicles, but failed to seriously consider the big impacts of that mobility -- environmental, social and economic.

Environmental Impacts -- Transport systems have significant impacts on the environment, accounting for between 20% and 25% of world energy consumption and carbon dioxide emissions.[2] Greenhouse gas emissions from transport are increasing at a faster rate than any other energy using sector.[3] Road transport is also a major contributor to local air pollution and smog.[4]

Social Impacts -- The social costs of transport include road crashes, air pollution, physical inactivity, [5], time taken away from the family while commuting and vulnerability to fuel price increases. Many of these negative impacts fall disproportionately on those social groups who are also least likely to own and drive cars.[6]

Economic Impacts -- Traffic congestion imposes economic costs by wasting people's time and by slowing the delivery of goods and services.

It is only recently that the general population has started to understand the consequences of not only depending on the automobile more than they should, but have started speaking up about it to public officials. In a 2006 letter to the Indianapolis Metropolitan Planning Organization, the town requested their assistance with funding, while pointing to a broader understanding of what they expected their transportation plan to be:

> We are requesting positive consideration of the …. proposed work program … designed to address the following issues:
>
> - Transporatation Movement and Circulation
> - Pedestrian and Bicycle Movement and Opportunities
> - Transit Service Possibilities

The real purpose of transportation is to provide access to work, education, goods and services, friends and family. This transportation plan, also referred to as a thoroughfare plan, is Danville's tool to do that.

What is a Thoroughfare Plan?

When communities plan, they establish and implement a public policy for the community. The thoroughfare plan's purpose is to improve future access to and circulation within Danville, not only with roads and vehicles, but also for pedestrians, bicyclists, mass transit, etc. Thoroughfare plans are often also called "transportation plans", because they are concerned with more than just streets

(thoroughfares). This thoroughfare plan will become one of the guidelines for decisions on development in Danville and is considered a component of the town's comprehensive plan.

Through the planning process, residents and businesses told local officials what transportation issues are important to them. This input became a set of goals related to transportation in Danville, and guided the development of the thoroughfare plan. Maps are also a major component of a thoroughfare plan and typically include a future thoroughfare map and may also contain maps relating to pedestrian and bicycle circulation, such as a trails map or a bike route map. Danville's thoroughfare plan includes several maps.

As with a comprehensive plan, we try to look 20 to 25 years into the future with the planning. The Town of Danville last did a thoroughfare plan in 1998 as part of their comprehensive plan. A steering committee worked with Town officials and a planning consultant to draft this new plan. Having an updated Thoroughfare Plan will put Danville in a better position to work with INDOT and the regional transportation planning group (the Indianapolis MPO) and will improve chances of funding for projects.

Plan Requirements

In Indiana, comprehensive planning is permitted by the 500 Series of Title 36-7-4 of the Indiana Code. According to IC 36-7-4-506, Thoroughfare Plans may be part of the comprehensive plan.

Specifically, IC36-7-4-506 says:

a) A thoroughfare plan that is included in the comprehensive plan may determine lines for new, extended, widened, or narrowed public ways in any part of the territory in the jurisdiction.

b) The determination of lines for public ways, as provided in subsection (a), does not constitute the opening, establishment, or acceptance of land for public way purposes.

c) After a thoroughfare plan has been included in the comprehensive plan, thoroughfares may be located, changed, widened, straightened, or vacated only in the manner indicated by the comprehensive plan.

d) After a thoroughfare plan has been included in the comprehensive plan, the plan commission may recommend to the agency responsible for constructing thoroughfares in the jurisdiction the order in which thoroughfare improvements should be made.

As added by Acts 1981, P.L.309, SEC.23. Amended by Acts 1981, P.L.310, SEC.30; P.L.335-1985, SEC.8; P.L.220-1986, SEC.11.

Note that one of the three required elements for a Thoroughfare Plan is a statement of policy for the development of public ways, public places, public lands, public structures, and public utilities. State Code defines a public way as including highways, streets, avenues, boulevards, roads, lanes, or alleys.

Plan Jurisdiction

Under Indiana law, in counties where there is an area plan commission, the planning and zoning jurisdiction for cities and towns is limited to their corporate limits. Because Hendricks County has an area plan commission, Danville's Plan Commission has an actual planning jurisdiction that does not extend outside its current municipal boundaries. However, because cities and towns grow over time through annexation, the town determined that they should be proactive and look outside their current boundaries as they created this plan. The boundaries for this thoroughfare plan are:

- North -- County Road 200 North
- South -- County Road 200 South
- East -- County Road 450 East
- West -- County Road 200 West

Site Tour

Town officials and the consultant toured the Danville area, in order to gain a better understanding of issues and concerns related to the thoroughfare plan update. We drove key roads, visited areas of concern (intersections with safety issues, etc.) and saw examples of newer road infrastructure.

INSERT MAP

Transportation Planning Area

Danville, Indiana Thoroughfare Plan
2010

Public Participation

Public participation is a crucial part of the planning process. While the overall comprehensive plan will typically have more public involvement then a single element, like transportation, there were several ways that the town reached out to gather input on transportation.

STEERING COMMITTEE PROCESS

Under Indiana law, the plan commission is in charge of overseeing updates to a community's comprehensive plan. Danville's Plan Commission agreed to use a special sub-committee to guide the planning process, comprised of plan commission members and other citizens and officials representing the town. The steering committee met several times during the process to guide the preparation of the plan.

First Steering Committee Meeting

The steering committee for Danville's Thoroughfare Plan update met for the first time on September 10, 2009 and discussed the following:

- the purpose of the Steering Committee
- the proposed Steering Committee Work Plan, which was reflected in the project's scope of work
- the Thoroughfare Plan purpose & background, including the Plan's boundaries
- initial interview results
- summaries of other studies

The steering committee also engaged in a "SWOT" Exercise, to help brainstorm Strengths, Weaknesses, Opportunities and Threats related to transportation in Danville. The steering committee members got to vote for what they thought were the biggest issues at the end of the meeting. The group also discussed the upcoming public workshop.

Second Steering Committee Meeting

The steering committee for Danville's Thoroughfare Plan update met for the second time on November 4, 2009. The committee focused on reviewing the results of our public input and developing a vision statement and drafting goals for the plan.

Third Steering Committee Meeting

The steering committee made minor revisions to their draft goals and added objectives at their steering committee meeting on January 13, 2010.

Photo courtesy of Laura Parker, Assistant Town Manager

Fourth Steering Committee Meeting

The steering committee held an extra meeting on January 20, 2010 to concentrate on mapping for the thoroughfare plan. The group created two different maps, which will be used to produce the final Thoroughfare Plan Map. The first map was a Land Use Considerations Map, which identified land-use related transportation concerns. The second map they created was the Transportation Issues Map.

Steering Committee Sub-Group Meeting

Members of the steering committee that had a background and expertise in transportation met with the consultant and town officials to assist with the preparation of a draft future thoroughfare plan map, which was then included in the draft plan for the rest of the subcommittee to review.

Fifth Steering Committee Meeting

The steering committee met on July 14, 2010 to review the draft plan and make a recommendation on a Danville US Hwy 36 by-pass.

Sixth Steering Committee Meeting

The steering committee met for a final time on September 15, 2010 to finalize their recommendation on a Danville US Hwy 36 by-pass.

STAKEHOLDER INTERVIEWS

As part of the background preparation, on August 28, 2009, the consultant and town representatives held interviews at Danville Town Hall with several local officials, including the County Engineer and Danville's Fire Chief, Police Chief and Public Works Director. As part of these interviews, areas of concern were recorded on a map. See Appendix A for a summary of the responses.

PUBLIC WORKSHOP

The steering committee held one open house type meeting on October 8, 2009, from 6 - 9 PM to gather input from the public. The meeting was held at the Train Station in Ellis Park. Several different topical stations were set up, with the consultant or a steering committee member manning each station, and offering surveys at each one. The following were the topics for the stations:

1) Welcome & Background Information

- Sign-In sheets
- What is a thoroughfare plan? -- *display board*
- Hendricks County's Thoroughfare Plan -- *display board*

2) DT Parking & Circulation

- Review of previous study
- Parking alternatives and circulation worksheet

3) Alternative Transportation Station

- Complete Streets -- what is it? -- *display board and hand-outs*
- Proposed County Trail & Greenways map
- Mass Transit display and hand-outs -- County's existing LINK service and IndyGo Express Bus service
- Alternative Transportation Worksheet
- Bike and Pedestrians mapping exercise

Photo courtesy of Laura Parker, Assistant Town Manager

4) Roads

- Traffic Calming -- display board and hand-out
- Roads worksheet
- Mapping exercise (missing connections, improvements needed, dangerous areas, etc.)

5) 36 By-Pass

- Previously proposed alternatives from INDOT Study
- By-pass worksheet

6) Strengths, Weaknesses, Opportunities, Threats (SWOT) Exercise

Citizens were asked to categorize Danville's transportation issues, using the SWOT system. They were allowed to add their own issues to the issues generated by steering committee and to vote on the most important transportation issues for Danville before leaving.

The Town sent postcards to all property owners, along with press releases and e-mail notices, however, there was a severe storm the evening of the meeting and the resulting attendance was low. Town Manager Gary Eakin and the consultant agreed that more input was desirable from the community before the steering committee developed the Thoroughfare Plan goals, so additional worksheets were distributed after the public workshop. These worksheets were given to the Chamber of Commerce, Rotary, Optimists, Danville High School Seniors and the Senior Center.

Approximately 80 people filled out worksheets. Overall, the results were very inconclusive. Responses were often almost evenly divided between "yes", "no" and "unsure" answers. In almost all cases, more people were unsure of their positions than were against something. These results point to the need for more citizen education. Highlights of the worksheet responses are discussed below; for complete worksheet results, see Appendix A, page 129.

Alternative Transportation Worksheet Response Highlights:

- Agreement that sidewalks and trails are positive influences on a neighborhood.
- Agreement that the town's sidewalk system is incomplete.
- Agreement that there should be trails in town linking places of interest.
- Divided on whether Danville would use busses, but some interest in it.
- Although they support bicycles, buses and carpooling in Danville, many respondents indicated they would probably not use it

Streets Worksheet Response Highlights:

- Agreement that it is important to connect neighborhoods with multiple streets.
- Agreement that developers should pay for all street costs for new development, and that any necessary upgrades be made before the development, but divided over whether the town or the developer should actually make the improvements.
- Agreement to require sidewalks in all new subdivisions on both sides of all new streets.
- Did not think Danville needed any new North-South or East-West streets.

Highway 36 Worksheet Response Highlights:

- Slight majority said to push INDOT to continue work on a by-pass for Danville and to also improve local roads to make an unofficial bypass.
- Approximately half of the respondents preferred a by-pass over improvements to local streets, but only 1/3 expected to see less traffic.

Downtown Parking and Circulation Worksheets Responses Highlights:

- Majority do not avoid coming downtown due to parking concerns.
- Divided over whether to change one-way streets downtown into 2-way streets.

Photo courtesy of Laura Parker, Assistant Town Manager

SWOT Exercise Most Popular Responses:

- Strengths -- Town is walkable and is a grid layout.
- Weaknesses -- Area lacks full public transit and Hwy 36 traffic is a mess
- Opportunities -- Compact form is good for transit, bikes and pedestrians
- Threats -- Declining funds

Data Analysis

Population

Danville continues to grow through annexation and development. The town's population is estimated to be almost twice the size it was in 1990 and has grown by 27% since 2000. Census 2010 counts have not yet been released to confirm this.

Danville currently accounts for approximately 6% of Hendricks County's population. Because Danville is the county seat, it is a major trip destination, adding to the number of vehicles in the town.

Table 1-A, Population Estimate - Danville

	2008 estimate	2000	1990
Danville Population	8124	6418	4345

Source: US Census Bureau

Building Permits

The downturn in the economy has apparently slowed the rate of growth, based on a dramatic drop in the number of building permits issued. The year 2000 shows a high of 309 residential building permits for Danville with only about half that number of permits being issued in the last two years. It is reasonable to expect, however, that Danville and Hendricks County (one of the fastest growing counties in the U.S.A. in the past decade) will experience more growth in the future, although not at the rate it once did. See Appendix B, Background Data for a table showing residential building permits issued.

Population Projections

Originally released in December 2007, the state's official population projections from the Indiana Business Research Center have been updated using the U.S. Census Bureau's 2005 population estimates as a benchmark. The data for Hendricks County (and other central Indiana counties) was revised in September 2008 to reflect recent trends.

Table 1-B, Population Projections - Hendricks County

	2005	2010	2015	2020	2025	2030	2035	2040
Total Population	127,483	147,906	164,438	175,070	183,677	190,370	195,338	198,893

Source: Indiana Business Research Center

Aging Population

Of special interest is the projected growth of the senior population (ages 65+). In 2005, the Census Bureau estimated that 9.9% of the county's population was in the senior category. Indiana Business Research Center projections show that 30 years later, that proportion of senior citizens will have doubled to 19.6%. This growth of the senior population has big implications for transportation planning, because many seniors become unable to drive themselves and must turn to public transportation or rely on friends or family. The Complete Streets policy, discussed earlier, is designed to meet the needs of the elderly.

Because we are planning for transportation, it is helpful to know what type of trips and the magnitude of those trips. It is difficult to estimate how many bicycle and walking trips Danville's citizens make, but there is some information available for vehicles, which is still the most popular mode of transportation.

Photo courtesy of Hendricks County Senior Services

Traffic Counts

Traffic counts are the most common way to assess travel patterns. For the purposes of this study, we utilized a collaborative database, www.onlinetrafficdata.com that allows posting of traffic counts by any entity. The 24-hour counts included town, county, state and consultant data. Because the data was not all gathered at the same time and under the same circumstances, it must be taken with some amount of skepticism. However, the steering committee agreed that it was adequate for our planning needs.

East-west traffic counts confirmed that US Hwy 36 sees the majority of the east-west traffic. On the East side of Danville, CR 100 N, East Main Street and CR 200 S carry a fraction of the 24-hour traffic volume that US Hwy 36 does. Approximately half of the east-west traffic disappears within Danville. On the West side of Danville, Lincoln Street/CR 50 S, CR 200 S and CR 200 N accommodate only a fraction of the traffic of US Hwy. 36. North-south counts confirm that traffic is by far the heaviest through the center of town, although there is more traffic on the north side than the south side.

Table 1-C, Major East-West Peak Hour Traffic Counts

Count at or Nearest to:	CR 450 E	CR 400 E	CR 350 E	CR 200 E/ 250 E	CR 100 E	SR 39	CR 100 W	CR 200 W
CR 200 N						336		598
CR 100 N	4001			3461				
East Main ST/ Old 36		7940						
US Hwy 36	21,483		19,310		23,590	16,630	11,120	8760
Lincoln/ CR 50 S							518	
CR 200 S				992		1330		

Source: www.onlinetrafficdata.com *Note: Actual intersection may not exist, but location was projected by extension of R.O.W.*

Photo courtesy of Laura Parker, Assistant Town Manager

Vehicle Ownership

The number of vehicles is not currently available for Danville, but can be extrapolated from county data. It is safe to say that vehicle ownership has risen tremendously over the years. In 1970, with a population of 53,974 people, the average number of registered vehicles per person in Hendricks County was 0.69. More recent figures from 2005 for Hendricks County reflect a much higher average of 1.01 registered vehicles per person, slightly less than the high of 1.02 registered vehicles per person in the county in 2000. Registered vehicles include both passenger cars and trucks. Clearly people continue to rely on private vehicles for their trips, so planning a street network to serve all of these vehicles is still very important.

Table 1-D, Total Vehicle Registrations (automobiles and trucks)

	1970	1980	1990	2000	2005
Total Registrations	37,349	61,761	74,613	107,197	128,020
Increase since 1970		65.4%	99.8%	187.0%	242.8%

Source: Indiana Bureau of Motor Vehicles

Work Trips and Commuters

Where do people go in their vehicles? One trip that is easy to track is the work commute. Again, commuting information was not available at the town level, but is available at the county level, and it is reasonable to think that Danville would reflect close to those same percentages. Based on Indiana IT-40 Tax Returns for 2008, almost half of Hendricks County's resident labor force works in another county. Hendricks County's resident labor force was estimated to be 92,250 people, of which 47,189 people worked in Hendricks County and 45,061 worked outside the county. Additionally, 15,238 people live elsewhere, but commute into Hendricks County for work. The majority of these work-related trips occur during traditional rush hour.

Most work commutes, particularly those of more than a few minutes, rely mostly on arterials and collector streets. As the county seat and because it is connected to major employment areas (Indianapolis) by a state highway, Danville gets a significant amount of commuter traffic, which means that it will be very important to give adequate attention to arterial and collector streets in the town's street network. See Appendix B, Background Data for more information on Commuting into and out of Hendricks County.

MPO Projections

The Indianapolis MPO has created a set of traffic projections for 2035. Unfortunately these projections are based on traffic analysis zones (TAZ) whose geography does not resemble Danville's Thoroughfare Plan study area. Of note is the fact that the MPO is using the figure of 0.84 automobiles per household in all of their calculations, less than what the current registered vehicle number per person is.

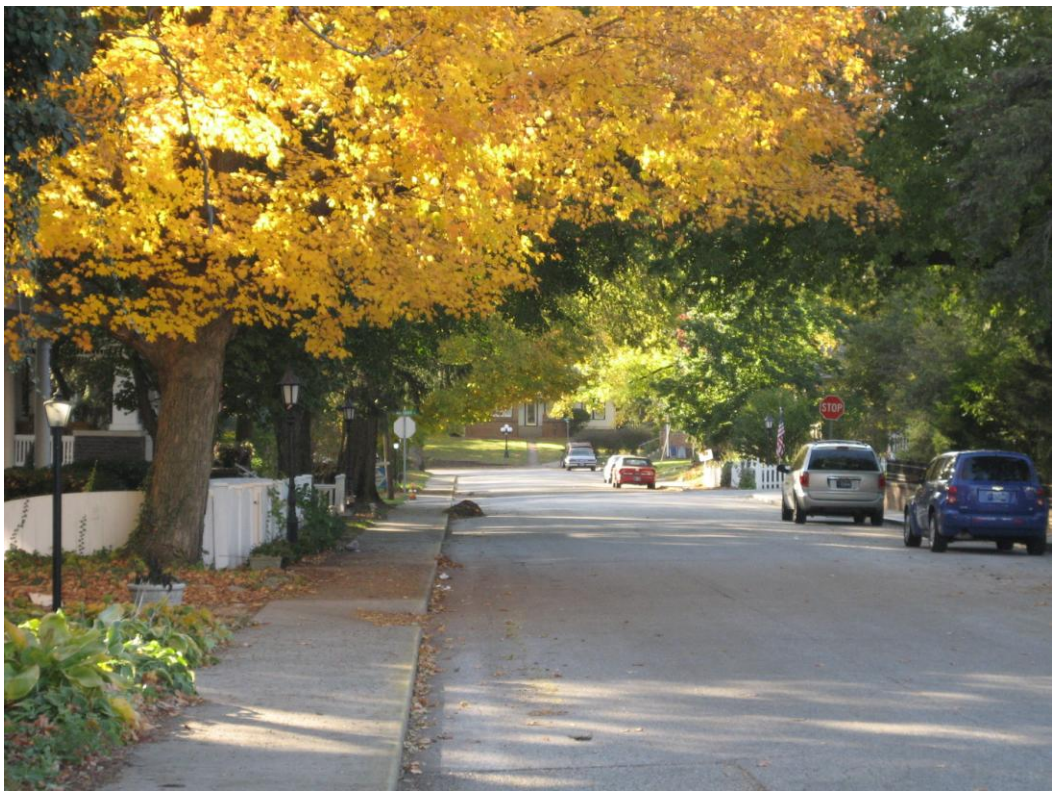


Photo courtesy of Laura Parker, Assistant Town Manager

Review of Related Studies

As part of the background research for the Thoroughfare Plan for Danville, Indiana, the consultant reviewed and summarized the following related studies and plans:

- *Danville Comprehensive Plan*, 1998
- *Danville Parks & Recreation Master Plan*, 2005 - 2009
- *Danville Parking Analysis*, 2001
- *US 36 Corridor/NEPA Study*, 2004
- *The Hendricks County Quality Growth Strategy*, Comprehensive Plan, 2006
- *MPO Regional Pedestrian Plan*, 2006
- *The Avon US 36/East-West Corridor Study*, 2010
- *Indy Connect* (the MPO's Draft Long-range Transportation Plan), 2010

Photo courtesy of Laura Parker, Assistant Town Manager

Danville Comprehensive Plan, 1998

Street Recommendations

The last thoroughfare plan was done as part of the 1998 Comprehensive Plan. Keep in mind that the comprehensive plan and the thoroughfare plan are over 10 years old, and conditions have changed. The following street recommendations were taken from that 1998 Thoroughfare Plan.

East/West Connections

One of the primary concerns of Danville residents was the congestion on U.S. 36. The plan recommended connections to many of the county roads outside of town to avoid future problems. The plan also recommended alternative east-west routes through town. These alternate routes were not to be "advertised" like a bypass would be, but local residents would be made aware of their existence and could avoid U.S. 36 during congested hours. Other modifications suggested for the east/west network were:

- Extend 10th Street and C.R. 100N west to Washington Street.
- Connection of Lawton Avenue to Pittsboro Road
- Re-opening of the connection of East Broadway to Shady Lane, which would require weight limits on the bridge over the creek, to both protect the bridge and to keep heavy truck traffic (especially landfill traffic) out of the residential areas south of downtown.
- Main Street -- In addition to reduced congestion on US 36 due to more east-west connections, the plan recommended some revisions to Hwy 36 itself. It cited 1996's R.W. Armstrong traffic operations study and supported left turn lanes, but with the removal of as little parking as possible.

North/South Connections

North/southbound traffic through Danville faced the same lack of connections as east/westbound traffic, although to a lesser degree. It was recommended that some of the areas on the outer edges of development could provide north/south connections and that these routes should be secured while still possible (before development). Additional recommendations were:

- Upgrade Tennessee -- An upgrade of Tennessee Street was recommended to handle more north/south traffic in order to take some of the pressure off of Washington Street. Removal of parking and striping of the street would have been required.
- A change to S.R. 39 -- INDOT was considering moving the S.R. 39 designation from Kentucky Street to Mackey Road. The comprehensive plan suggested extending Mackey Road north to intersect with S.R. 236, to keep S.R. 39 traffic off of U.S. 36.
- Connection between U.S. 36 and 10th Street -- To accommodate infill development west of the hospital
- Extension of C.R. 150E north to U.S. 36 -- To keep heavy industrial traffic away from town

Downtown Parking

A common complaint in Danville was a lack of parking in the downtown. It was recommended that Danville conduct a parking study. If the result was a parking shortage, Danville was encouraged to provide a public parking lot in the areas behind buildings, with access from side streets, with pedestrian access available through well-lit, paved and landscaped alleys.

Bypass Considerations

The plan recommended that a study be conducted to determine the need for a bypass. The plan states that while a bypass would be helpful in alleviating the rush of traffic from outside town, it would do little or no good in reducing congestion resulting from local traffic.

Hendricks County's Plan at the time did not include a bypass, but instead extended existing county roads to create a “loop” around Danville. This loop consisted of extensions of C.R. 300 East and C.R. 200 North, S.R. 236 extended south to C.R. 200 South, and C.R. 200 South extended to C.R. 300 East.

The plan said that if it was determined that a bypass was needed, possible locations were as follows:

- Alternative 1: Along railroad right-of-way

It was suggested in a charrette that a bypass be placed along the railroad right-of-way south of Main Street. This location was considered convenient, but existing topography in this area would make it difficult. The bypass could make use of railroad right-of-way and run alongside the tracks at the same grade, which would require a large bridge over the creek in the Twin Bridges area, and would require additional right-of-way. The second option would have allowed the road to follow the topography just south of the railroad tracks, resulting in a less elaborate creek crossing, but would cross the Twin Bridges Golf Course.

- Alternative 2: South of the landfill

Because of landfill instability, the closest to town the bypass could be constructed would be just south of the landfill and there would be a problem reconnecting the bypass to U.S. 36 west of town while avoiding school areas. Image of the town as a "landfill" was the biggest concern with this alternative.

- Alternative 3: North of town

Construction of a bypass to the north of town would have required a complete bypass of town limits to avoid conflicting with existing development.

Alternative 3.1

One costly and complicated alternative was to build a new road diverting from the main route at some point prior to the town limits and then rejoining with the main route on the other side of town.

Alternative 3.2

To limit the cost and the amount of private land that must be acquired, another alignment of the north bypass was suggested using some existing roadways. A new road would have been constructed to divert traffic around town, accessed from U.S. 36 by existing roads.

The plan further stated that:

> The impact of a high volume roadway goes beyond just traffic and noise; it tends to bring with it a new character and new land uses beyond the extent of its actual placement. This is an issue that must be considered regardless of the location chosen by the town.

The plan recommended that the town begin a bypass corridor feasibility study as soon as possible that would first determine the need for a bypass based on existing traffic patterns, and then identify possible routes, the costs involved, and any environmental and economic impacts.

Danville Parks & Recreation Master Plan, 2005 - 2009

Existing Park Facilities

Existing park and recreation facilities should be part of the Thoroughfare Plan's land use considerations because they are key gathering places for the Danville community. The Town of Danville has two parks. Ellis Park is a 49.8-acre recreational park located near downtown at 600 East Main Street. The park offers mainly active recreational opportunities such as basketball, football, baseball/softball, tennis, swimming, volleyball, horseshoes as well as picnicking, playgrounds, walking/jogging trails, an outdoor amphitheater, two (2) shelter houses and a gazebo. Ellis Park hosts an annual summer park program for children. The park also hosts outdoor community concerts.

In 1993, the Blanton Family donated the Town's second park, a 53-acre woodland tract on North Washington Street, for a community outdoor education laboratory. The land encompasses 38 acres of upland forest and lower floodplain and 15 acres of agricultural meadow. The open meadows are to attract butterflies and serve as a bird sanctuary. There are several views of White Lick Valley. In addition to the park property, money to provide and build additional access routes to the park was also donated.

While not owned by the Town, the Twin Bridges Recreational Area was established by Waste Management, Inc. Located just south of the Penn Central Railroad crossing, between County Road 150 East and Cartersburg Road, the facility includes approximately 490 acres of land of which 200 acres is currently available for use by the Town. Recreational amenities include baseball/softball diamonds, soccer fields, foot trails, two shelter houses and open space. This space is used by the Danville Optimist Soccer League and also offers a girls' softball complex.

There has also been discussion between the Danville Community School Corporation and the Town of Danville in regards to outdoor recreation. The school system has 3 gymnasiums, assorted fields, courts and an indoor swimming pool, which at various times are open for public use.

Trails

With regards to trails, the plan says the Town proposes major trail and greenway plans throughout the community connecting the park and school facilities to neighborhoods. Continuing addition to the trail system at Blanton and Ellis Parks was one of the top ("A") priorities in the Action Plan. Since the adoption of that plan, the Park Board has put together a working trails plan, which was considered in development of this transportation plan.

Existing trails on the Park Board's plan include:

- Ellis Park
- Blanton Woods
- Sidewalk/trail from Ellis Park to Old Farm (Sycamore Lane)
- Trail from Ellis Park to New Town Hall (needs improvement)

Photo courtesy of Laura Parker, Assistant Town Manager

Proposed trails include:

- Trail from Blanton Woods to SR 39 through Woodfield on Washington Subdivision
- North Washington ST sidewalk/trail
- Trail from Ellis Park to Twin Bridges
- SR 39 North to Old Salem RD
- Old North Salem RD to Columbia to Ellis Park

Danville Parking Analysis, 2001

Parking recommendations included the following:

1) Shorten the 2-hour limit to 30 minutes or 1 hour.

2) Remove the 2-hour limit everywhere but on the square.

3) Reduce handicap spaces to one per block.

4) Utilize two private lots on Cross Street between Main and Marion as free employee lots that require a permit.

5) Make the lot at the NE corner of Marion and Cross free to the public and available to jurors.

6) Consider the entire Courthouse Square a zone to eliminate space jumping within the 2-hour area.

7) Stricter enforcement of the 2-hour limit and increasing the cost of the ticket for habitual offenders.

8) Reserve one space for customers near each business.

9) Create public parking maps that identify short and long-term parking.

Photo courtesy of Laura Parker, Assistant Town Manager

US 36 Corridor/NEPA Study, 2004

INDOT commissioned this study of the US 36 Corridor in order to evaluate alternatives for improving traffic service. Seven alternatives were considered:

1) Northern alignment of bypass -- "new terrain" bypass located approximately 1 mile north of the current Hwy 36

2) Railroad alignment of bypass (north) -- "new terrain" bypass located along the north edge of the CSX railroad

3) Railroad alignment of bypass (south) -- "new terrain" bypass located along the south edge of the CSX railroad

4) Southern alignment of bypass -- partly on "new terrain" and partly located along CR 200S

5) County road improvements -- Improve segments of CR 200S, 200N, 300E and 200W

6) Traffic operational improvements -- Reconstruction of 2 miles to be one lane in each direction plus a reversible center lane.

7) Do nothing

Photo courtesy of Laura Parker, Assistant Town Manager

Only the North and South Railroad Alignments met INDOT's core objectives:

- additional capacity for projected 20 year development patterns with a Peak Hour Level of Service C or better in rural areas and D or better through Town

- Additional flexibility of alternate travel routes and through trip diversions.

Environmental assessments would be the next step for the evaluation of these alternatives.

The Hendricks County Quality Growth Strategy, Comprehensive Plan, 2006

Two chapters of the County's recent comprehensive plan are devoted to transportation: Chapter 7, Moving People, which contains transportation related goals, objectives and action steps and Chapter 11, Transportation Plan, which contains roadway classifications standards, a thoroughfare map, a public transportation map and a trails and greenways map.

Chapter 7 Goals, Objectives & Action Steps

GOAL 7.1: Coordinate County-wide Transportation Master Planning

OBJECTIVES:

- Preserve and enhance important transportation corridors throughout the county through the use of consistent design standards and land planning that are integrated with the Thoroughfare Plan.
- Continue to reserve adequate rights-of-way for new or improved county roads.

ACTION STEPS

- Coordinate the County Transportation Plan with the transportation plans of incorporated towns and surrounding Counties to plan future improvements.
- Refer to the Future Land Use Plan and Capital Improvements Plan to prioritize transportation improvements with other public/private improvements.
- Where possible combine the upgrade of roadways and provision of pedestrian and bike facilities with the extension of infrastructure.
- Develop a Roadway Design Standards Manual to increase consistency of construction throughout the County and involve public safety professionals, the County engineer, and the County highway department.

GOAL 7.2: Plan for Future Growth of Transportation Infrastructure

OBJECTIVES

- Incorporate planned improvements for the Ronald Reagan Parkway into the County Thoroughfare and Capital Improvements plans.
- Support the rerouting of SR 267 in Guilford Township to SR 67.
- Remain aware of potential federal and state environmental regulations associated with the rerouting of SR 267.
- Reserve adequate rights-of-way for upgrades to roads in the rural western part of the County.

ACTION STEPS

- Complete the Ronald Reagan Parkway (RRP) in accordance with the standards set forth in the master plan.
- Participate in the investigation of available funding for SR 267 right-of-way acquisition and negotiations with the airport authority and INDOT.
- Develop a strategy to ensure transportation infrastructure and the needed funding will grow with the population.
- Investigate funding sources. Pursue impact fees or user fees such as a full value wheel tax, sales tax, and gas tax, matching funds and grants, and cooperative efforts between all of Hendricks County's Towns.
- Review appropriate ordinances to ensure adequate rights-of-way for road improvements on local streets and County roads for passing blisters (passing lanes located at intersections), turn lanes, etc.

GOAL 7.3: Address Existing Roadway Congestion

OBJECTIVES

- Complete bypasses around Danville and Brownsburg.
- Improve commute routes both North-South and East-West.
- Support the Thoroughfare Plan when planning transportation improvements.
- Encourage the creation of public transportation such as a public bus or light rail system to reduce traffic on heavily traveled roads.

ACTION STEPS

- Control (limit) access for new roads and thoroughfares. Encourage the creation of frontage roads and shared drives to provide access.
- Support the proposal for an alignment around Danville on the south side from north SR 39 to East U.S. 36, which would increase development opportunities on the west side of Danville and western Hendricks County.
- Provide clear signage, synchronized signalization, turn lanes and controlled access on major thoroughfares when appropriate.
- Develop roadway standards that provide for wider travel lanes, safe shoulders, adequate pavement thickness, and turn lanes, etc.

- Develop, identify and maintain a truck route system consistent with land use and transportation goals.

- Continue to require connectivity through street layouts in major subdivisions that create internal linkages to adjacent existing or future subdivisions.

GOAL 7.4: Encourage the Use of Alternative Transportation

OBJECTIVES

- Consult the Indianapolis Metropolitan Planning Organization's (MPO) Regional Pedestrian Plan and other documents to provide east-west and north-south trail systems linking Hendricks County towns for bicycles, walkers/joggers, and equestrian users.

- Support the construction and protection of the B&O Trail and the National Road Heritage Trail as part of new development.

- Ensure the safety of trail users where trail crossings intersect with major roadways through trail identification signage and the creation of trail over- or underpasses as development occurs.

- Plan for public transit on main thoroughfares by ensuring that roads and rights-of-way are not encroached upon.

- Encourage expansion of the Airport facilities at Indianapolis Airport Authority and Gordon Graham Field.

Photo courtesy of Laura Parker, Assistant Town Manager

ACTION STEPS

- Continue to pursue and support the dedication of easements or purchase of private land to complete greenway and trail corridors within the County.
- Continue to coordinate with the Metropolitan Planning Organization (MPO) to connect trail systems between communities and complete a county-wide trails and greenway master plan.
- Design roads and streets that include means for alternative transportation. Encourage road designs in commercial and residential areas that include bike facilities, pedestrian amenities, landscaping and lighting.

Other Goals & Objectives

- Accommodate all citizens by reviewing proposed projects for compliance with the Americans with Disabilities Act.
- Pursue transportation grants from federal and state sources to provide funding for alternative transportation.
- Support the MPO and CIRTA in developing regional mass transit initiatives such as the proposed high-speed rail route between Indianapolis and Crawfordsville on the Conrail tracks south of I-74.
- Work with the MPO to further develop a rapid transit strategy for the county including solidifying bus routes and stops, and potential commuter or rapid transit routes and connections.
- Explore “park & ride” opportunities for public transportation or bicycle commuters (parking near trails to encourage bicycle commuting into urban areas).

Chapter 11, Transportation Plan

The Transportation Plan is the primary method of implementing the transportation goals for the County. As with any comprehensive plan, the Transportation and Future Land Use Plans work together. The Transportation Plan is comprised of 3 main pieces:

- The Thoroughfare Plan
- Airports and Railways
- Alternative Transportation

Hendricks County has two interstate highways, and U.S. highways (National Road - U.S. 40) cross the county from east – west but similar transportation routes were not developed in the north-south direction.

The County has five road classifications – local, collector, minor arterial, principal arterial and interstate highway. The classifications of roads are further divided into rural and urban because of the development patterns in the county.

Table 1-E, Hendricks County Road Standards

Functional Class	Minimum R.O.W.	# of Moving Lanes	# of Auxiliary Lanes	Pavement Section					Border Section		
				Lane Width	Median Divider Min. Width	Shoulder Minimum Width	Curb & Gutter (each side)	Bicycle Lane (each side)	Tree Lawn Width (each side)	Sidewalk	Multi-use Path
Rural Local	80'	2		12'		7'			10'		8 - 12'
Urban Local	50'	2		12'		7'	2'	4'	5'	5'	8 - 12'
Rural Collector	100'	2		12'		7'			12'		8 - 12'
Urban Collector	100'	2	1	12'	12'	7'	2'	5'	12'	5'	8 - 12'
Rural Minor Arterial	150'	2 - 4		12'	12'	7'		4'	12'	5'	8 - 12'
Urban Minor Arterial	150'	2 - 4		12'	12'	7'	2'	5'	12'	5'	8 - 12'
Rural Principle Arterial	200'	4		12'	12'	7'		4'	12'	5'	8 - 12'
Urban Principle Arterial	200'	4	1	12'	14'	7'	2'	5'	12'	5'	8 - 12'

Source: The Hendricks County Quality Growth Strategy (Comprehensive Plan)

Thoroughfare Map

The county's Thoroughfare Map shows Hwy 36 as an urban principal arterial. The existing Urban Street/Hwy 39/Cross Street is also shown as an urban principal arterial, but has a proposed new alignment, as is CR 300 E north of Main Street. Urban collectors in Danville include CR 300 E south of Main Street, Main Street, Twin Bridges/CR 150 E, Money from 10th St south to the split, Cartersburg Rd, Sycamore extending west to connect with Orchard LN and Peachtree to intersect with SR 39 and 10th ST connecting to Woodfield Green. A rural principle arterial is proposed north of 10th Street, connecting to Money, just north of Sycamore. It would continue as an urban collector south between the conservation club and the hospital to the split.

Access Control

As traffic volumes on roadways increase, the need to control access from abutting properties also increases. Access control is needed to facilitate traffic movement. On county and state roads, the county highway department may regulate access characteristics, including sharing and spacing of access points.

Techniques that the county lists to control access include:

- Regulate minimum spacing of driveways.
- Regulate minimum corner clearance. Provide drivers suitable sight distance to help them execute their turns smoothly and safely.
- Regulate the maximum number of driveways per property frontage.
- Establish minimum frontage requirements for newly subdivided lots.
- Arrange access points so that streets and driveways are immediately across from one another.
- Consolidate access for adjacent properties. Encourage the use of shared driveways and parking and frontage roads.
- Encourage connections (cross-access easements) between adjacent properties.
- Require adequate internal design and circulation planning.

Airports

There are two airports that directly influence the Hendricks County planning area: Gordon Graham Field located to the southeast of Danville, and the Indianapolis International Airport adjacent to the County on the east side. Gordon Graham Field is not discussed.

The Indianapolis International Airport influences planning and development in the County through the impact of its airspace usage and Federal Aviation Administration (FAA) regulations as well as from the location of the Bat Habitat Conservation Area that was created as a result of airport expansion. Development proposed in areas adjacent to the existing or future airport must be

coordinated with the airport authority. This ensures that compatible land uses are created and minimizes conflicts to the community or natural environment. The County is currently undergoing efforts to coordinate with the Indianapolis Airport Authority on utilizing part of the Bat Habitat Conservation Area as County parkland.

Photo courtesy of Hendricks County Airport, Gordon Graham Field

Railroads

Hendricks County currently has two operational railroad lines. CSX Transportation, Inc uses the central line that travels (in part) through Indianapolis, Danville, and Terre Haute for freight transportation. The northern line that travels (in part) from Indianapolis to Chicago is used both for freight by CSX and for passenger transportation by Amtrak. This northern line is also one of the lines that have been federally designated for future high-speed passenger rail.

These lines currently provide economic benefits to the county for freight transportation and may have the potential to increase the County's opportunities for passenger rail in the future. Should more rail lines be abandoned, the County should be prepared to explore opportunities for the reuse of the railroad right-of-ways into multi-use trails or utility corridors.

Trails and Greenways

For Hendricks County, alternative methods of transportation are key. Many groups within Hendricks County have developed plans for trails and greenways that lace the County. The County believes its role is to assist with the implementation of these plans by completing links between communities and to other county recreational and commercial facilities. The Trails and Greenways Map identifies multi-use routes, determined by public input, and information from the MPO's Draft Regional Pedestrian Plan. The County's plan includes information about "complete streets". A Complete Street is safe, comfortable and convenient for travel via automobile, foot, bicycle, and transit. A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.

The County's Plan includes a trails and greenways system that can be extended to connect with local subsystems that currently exist or may be implemented in the future by the County, Towns and developers to connect with schools, parks, libraries, commercial centers and other activity centers.

There are four facility standards that the multi-use paths can be built to:

- On-street adjacent facilities include sidewalks or paths that are located within the road right-of-way, but are separated from the road by tree lawns or other landscaping.
- On-street bicycle lanes are located within road right-of-way and exist as an expansion of driving lane pavement with painted markings to designate them for bicycle users.
- On-street shared lanes occur when pavement is slightly extended, but specific bicycle lane markings do not exist. There is usually some form of shared lane logo to alert drivers that bicyclists use the lanes as well.
- Multi-use pathways or greenways are not located in road right-of-way, and often exist adjacent to natural features such as river and streams, or through wooded areas. Multi-use pathways are open for use by all trail users (pedestrians, bicyclists, and equestrians), and are sometimes located in former railroad right-of-way.

The County's Trails and Greenways Map shows a greenway along the west fork of the White Lick Creek through Danville and extending north and south of town. A greenway is also shown along the creek on the west side of town, ending at Highway 36 on the north end. Other proposed Danville area trails include:

- along old and new Hwy 36, extending beyond existing corporate limits both east and west
- CR 200 E, between 10th and Hwy 36
- 10th Street, from beyond the east boundary to Money LN. along Sycamore to tie into White Lick Creek
- Pittsboro Rd. from north of town to White Lick Creek
- Hwy 236/SR 39 from north of town to Hwy 36

- CR 200 W from Hwy 236 to its intersection with the creek on the southwest side of town
- Kentucky/SR 39 from Hwy 36 south out of town
- Mackey Rd between Hwy 36 and Lincoln
- Lincoln/CR 50 S between Kentucky and 200 W
- Blake ST/Cartersburg Rd from Hwy 36 south past CR 200 S

Photo courtesy of B & O Trail Association, 18th Annual B & O Bicycle Tour

Bus System

The proposed future bus system map shows a proposed route on the east side of Danville along Hwy 36, splitting to go north along Pittsboro Rd and south along SR 39, after making a loop to Columbia on the north side of downtown.

Major Corridors

SR 39

SR 39 is a main north-south corridor through the center of Hendricks County that goes through Danville. Two main realignments for SR 39 have been proposed: 1) an alignment along the western edge of Danville and 2) an alignment that would deter traffic from Clayton. The county's plan states that these realignments could make SR 39 into more of a direct route and from this could potentially encourage development to the north and south of Danville.

SR 39 has also been identified as one of two main corridors in Hendricks County in the Central Indiana Suburban Transportation and Mobility Study (CISTMS) written in 2005. This study highlighted all corridors within the eight counties surrounding Indianapolis that form a loop outside of Indianapolis along existing roads. The document analyzes these key routes and makes recommendations for increasing their levels-of-service (LOS).

Along SR 39, CISTMS identified plans by INDOT include improvements of SR 39 on up to Danville, and monitoring the remaining portion up to Boone County for future access control and traffic engineering.

Photo courtesy of Laura Parker, Assistant Town Manager

Hwy 36

Chapter 12, High Priority Areas contains the following recommendations about Hwy 36, in order to ensure that the effects of growth and congestion do not further negatively impact this corridor:

- Special thoroughfare design standards should be put in place so that if changes or improvements to US 36 occur, the corridor will be able to meet the anticipated demands of traffic.

- Synchronized signalization during specific peak hours and more descriptive roadway signage should be utilized.

- Development design standards, gateway design, and other visual tools will be necessary to ensure that the visual impressions of the corridor do not have negative impacts on the County or the nearby towns.

Additionally, this section discusses the current two options for an alternative route to US 36 through Danville that are identified for further study. Both of these routes follow the active rail lines south of the town. The County's plan lists the two main reasons for the creation of an alternative route as:

1) Residents are concerned that as the County continues to grow Danville will feel the negative impacts of congestion within its historic downtown.

2) Open up development opportunities on the west side of the County.

The plan acknowledges that an alternative route around Danville will significantly change the traffic patterns through the downtown and will potentially increase development away from downtown. Issues that must be addressed include:

- Access control along the alternate route to ensure that congestion does not build up again.

- Design standards or an overlay zone for development that does occur along this route to ensure a quality image of both Danville and the County.

- Potential necessary upgrades to rural roads that may feed into the new alternative route.

MPO Regional Pedestrian Plan, 2006

The Regional Pedestrian Plan is a guide to integrating the pedestrian mode of travel into the overall regional transportation system and was intended to be used by all the local governments in its jurisdiction, including Danville. Counties, towns and cities were given the option of adopting the Regional Pedestrian Plan. Danville was not discussed as part of Hendricks County's existing and planned pedestrian facilities.

Multi-use paths within the right-of-way are recommended as part of the half-to one-mile grid structure along US 36 and SR 39. Multi-use paths within off-street rights-of-way are suggested for linking parks within the county, with the west fork of White Lick Creek connecting Danville's Park further to Morgan County. US 36 is recommended as the transportation related land use designation of a "pedestrian corridor" from Danville's western boundary to the Marion County line. The pedestrian corridor is a quarter-mile in width (or a 5-minute walk from side to side), and requires multi-jurisdictional coordination.

Downtown Danville was used as an example of a "Village Mixed-Use Pedestrian District", characterized by a dense clustering of various destinations and activities, typically located along a multi-modal corridor with ground floor business uses oriented to pedestrians. The downtown is also identified as a "Campus Pedestrian District" because of the proximity of schools to the downtown.

Indy Connect (the MPO's Draft Long-Range Transportation Plan), 2010

Indy Connect is a Central Indiana collaboration of the Central Indiana Transit Task Force, a private sector group that studied public transportation in the region and public entities working toward a defined regional transportation system for the future. The effort is driven by three public agencies:

- Indianapolis Metropolitan Planning Organization (MPO) -- the agency responsible for all transportation planning services for the Indianapolis metropolitan area. The MPO planning process is required for receiving federal funds for airport, transit and highway improvements. Because transportation improvements cut across municipal boundaries, the MPO is needed to coordinate cooperation and participation from all levels of government. The MPO’s plans and recommendations are developed in cooperation with the Indianapolis Regional Transportation Council (IRTC), which consists of leaders from cities, counties and towns within the MPO’s planning area. This area includes Marion County and portions of Boone, Hamilton, Hancock, Hendricks, Shelby, Morgan and Johnson counties. This update of Danville's Thoroughfare Plan is partially funded through the MPO.

- Central Indiana Regional Transportation Authority (CIRTA) -- quasi-governmental organization created in 2004 to develop a comprehensive system of transportation alternatives for Central Indiana residents. CIRTA’s mission is to bring more transportation options that will better connect the urban core of Indianapolis with suburban and rural communities in Marion, Hamilton, Hancock, Shelby, Johnson, Morgan, Madison, Boone, Delaware and Hendricks counties. CIRTA is made up of a 17-member board with representation appointed by elected leaders in Central Indiana, the Indianapolis Regional Transportation Council (IRTC) and the labor organization for IndyGo employees.

- IndyGo -- also known as the Indianapolis Public Transportation Corporation, IndyGo is the Indianapolis bus service provider, and is responsible for determining routes, equipment, facilities, and the scope and standards of service to be provided. IndyGo is led by its Chief Executive Officer and a seven-member, bipartisan board.

  The Indy Connect initiative, including public input, will directly impact the ***MPO's Long Range Transportation Plan*** for the region. The Long Range Transportation Plan helps guide the development of the area's transportation system through the year 2035, and may be amended and updated annually, or as changing conditions and community needs dictate. Danville and much of Hendricks County is under the transportation planning jurisdiction of the MPO.

  The draft plan includes various types of transportation, including major enhancements to the bus system; rail running from downtown Indianapolis north to Fishers and south to Greenwood, along Washington Street in Indianapolis, and west almost to the Indianapolis International Airport; major roadway expansions, and additional bike and pedestrian pathways. The draft plan was presented for public comment at several public meetings throughout Indiana in Spring 2010, including one in Avon Town Hall on April 16, 2010, which was attended by Danville officials.

  Indy Connect's draft plan did not extend as far west as Danville, but it did show the following things in Hendricks County that would likely impact Danville residents:

  - Bus Service
    - New express bus service along US Hwy 36 into Avon
    - Expanded bus route along 10th ST west to SR 267
    - Expanded bus route along US Hwy 40 west to SR 267
    - Expanded bus route along SR 267 between US Hwy 40 and I-74
    - Expanded route along Raceway RD between US Hwy 40 and Crawfordsville RD
  - New light rail parallel to US Hwy 40 from downtown Indianapolis past Girl's School Road, but short of the Indianapolis International Airport
  - Expanded roads:
    - US Hwy 36 west to SR 267
    - East Township Line/CR300 S extending west past SR 267
    - CR 600 E extending south from US 40
    - W. Northfield DR in Brownsburg, connecting to SR 136/Crawfordsville RD
    - Extensions to Ronald Reagan Pkwy north to Crawfordsville RD, south to CR 200 S

  The draft plan will be revised in response to public comments, with the plan expected to be ready for adoption by the end of 2010.

Avon East-West Corridor/Highway 36 Study, 2010

The study looks broadly look at the Town of Avon's East-West transportation needs, considering the traffic impacts on US 36 and the local roads. The primary goal of this study is to identify and prioritize transportation improvements, making recommendations for further evaluation and potential funding.

This project is also funded through the MPO with a local match from Avon. The project area is all of Washington Township in Hendricks County, including the Town of Avon, and looking beyond the current town boundaries into adjacent jurisdictions. Avon officials and the project team met with representatives from surrounding jurisdictions in October 2009, including Danville. Attendees agreed that there need to be more routes developed for east-west traffic through the area than just Hwy 36.

According to the project consultants, The Schneider Corporation, this project is on hold after a poorly attended public meeting in December 2009. They plan to have another public meeting, but the Town has asked them to postpone it until after summer 2010. No preliminary recommendations are available at this time, but Danville officials should stay informed about this project and the recommendations.

Chapter 2 -- Transportation Vision

Photo courtesy of Chuck Parker, Danville citizen

Vision, Goals & Objectives

The vision, goals and objectives are a crucial part of any plan. These statements ensure that everyone understands what direction the plan is proceeding. Since the input to form the vision, goals and objectives comes from public input, public officials can have confidence that the Thoroughfare Plan reflects the desires of Danville's citizens.

What is a Vision?

The vision, goals and objectives for this thoroughfare plan were written based on community input from the public input, stakeholder interviews and steering committee input. There is a hierarchy of these written elements, from general (vision) to detailed (objective).

A vision is a statement that reflects local potential and makes a commitment to future action. A vision generally describes what the community wants to be. It should be clear, succinct and purposeful. It should be a statement that everyone generally agrees with. The vision statement for the Danville Thoroughfare Plan is:

Transportation Vision Statement

Danville's transportation vision is designed to meet the changing transportation needs of the community and traveling public in a way that offers a full range of options that are safe, efficient, and sustainable.

What are Goals and Objectives?

A goal is a concise statement that describes in general terms, a desired future condition. In addition to General Transportation System Goals, goals were also developed for these additional categories: Alternative Transportation, Downtown Parking and Circulation, and Streets.

An objective is a statement that describes a specific measurable future condition that is to be attained during a stated period of time. Objectives are recommendations on how a goal will be accomplished; there should be at least one objective for each goal statement.

Transportation Goals and Objectives

General System Goals

Goal 1-1: Lessen land use conflicts.

Objective 1-1-A: Analyze conflicts between traffic on West Main Street and adjacent properties, then identify changes to the comprehensive plan future land use map and to the zoning map that will lessen that conflict. This objective should include recognizing the change from residential to commercial land use on West Main Street.

Objective 1-1-B: Plan commission should communicate and educate citizens and business owners in these areas with traffic and land use conflicts regularly.

Goal 1-2: Maintain community character.

Objective 1-2-A: Work with INDOT to ensure that any improvements to Highway 36 are compatible with the Danville's small town "Main Street" appearance.

Objective 1-2-B: Seek grants for updated curbs and gutters, as well as period lighting along all of Main Street.

Objective 1-2-C: Continue tree/shrub/flower plantings in downtown area, in both primary and secondary business areas.

Goal 1-3: Promote compatible land use.

Objective 1-3-A: As part of the comprehensive plan update, ensure that land uses which are heavy traffic generators are located adjacent to collector or arterial streets.

Objective 1-3-B: Require traffic analysis as part of the approval process for any developments generating more than a predetermined increase in traffic.

Objective 1-3-C: Refer these recommendations to plan commission work as over-arching philosophy.

Alternative Transportation

Goal 2-1: Develop alternative transportation options, in turn reducing vehicle emissions.

Objective 2-1-A: Identify desired alternative transportation options.

Objective 2-1-B: Work with transportation officials, including the Indianapolis MPO, CIRTA and IndyGo, to promote a Hendricks County/Downtown Indianapolis commuter bus and keep it in the public’s awareness.

Objective 2-1-C: Plan park and ride areas.

Objective 2-1-D: Pursue a local transit system to move commuters from the west side of Danville to east.

Objective 2-1-E: Explore a local transit route to the edge of Indianapolis, should an IndyGo commuter route fail.

Photo courtesy of *The Republican* archives

Goal 2-2: Encourage and expand bicycling through improvements to Danville's biking system.

Objective 2-2-A: Clearly delineate bike paths through appropriate signage and markings.

Objective 2-2-B: Add bike racks, bicycle events and bike routes (with associated safety improvements).

Goal 2-3: Encourage public health and fitness through development of multi-use trails.

Objective 2-3-A: Publicize trails and sponsor events.

Objective 2-3-B: Mark existing trails for safety of pedestrian vs. bike traffic.

Objective 2-3-C: Review any plans for further development of multi-use trails.

Goal 2-4: Improve and expand sidewalk system.

Objective 2-4-A: Survey the current sidewalk system to determine where missing segments are.

Objective 2-4-B: Create GIS sidewalk maintenance database with priorities.

Objective 2-4-C: Prioritize missing links based on a custom rating system.

Objective 2-4-D: Construct sidewalks on both sides of US 36 from downtown to the Kroger intersection.

Goal 2-5: Pursue a "Complete Streets" strategy wherever appropriate.

Objective 2-5-A: Adopt a "Complete Streets" policy for Danville, complete with guidelines for use

Objective 2-5-B: Evaluate, design, allocate funding and prioritize decisions on all of Danville's transportation improvements based on their overall impact on the town's transportation needs, not focusing only on automobiles.

Objective 2-5-C: Plan education sessions for all pertinent parties.

Photo Courtesy of Laura Parker, Assistant Town Manager

Downtown Parking & Circulation

Goal 3-1: Improve circulation in the downtown district.

Objective 3-1-A: Improve signage/way-finding.

Goal 3-2: Encourage parking turnover to enhance local business in Central Business District.

Objective 3-2-A: Update the town's parking regulations to limit the total amount of time a vehicle can be parked in the downtown parking zone.

Objective 3-2-B: Enforce 2-hr zone; include business owners in methodology.

Goal 3-3: Create additional off-street parking within Secondary Central Business District.

Objective 3-3-A: Identify parcels for future parking needs.

Objective 3-3-B: Improve parking areas with tree/shrub plantings.

Streets

Goal 4-1: Identify and improve key strategic intersections.

Objective 4-1-A: Identify intersections where making turns is an issue and increase the turning radii to accommodate larger vehicles.

Objective 4-1-B: Coordinate with INDOT to develop plan for safe turning radii along 36 corridor.

Objective 4-1-C: Use signage to communicate desired and prohibited truck routes.

Objective 4-1-D: Create high-visibility crosswalks at these intersections.

Goal 4-2: Work with the County, the MPO, INDOT and others to coordinate long-range funding.

Objective 4-2-A: Identify persons/group to do this.

Goal 4-3: Work with the state legislature and the federal government to develop alternative funding sources.

Objective 4-3-A: Identify persons/group to do this.

Goal 4-4: Identify and prioritize level of service deficiencies and existing problematic infrastructure.

Objective 4-4-A: Arterial and collector streets should be widened when necessary, so that they meet the Town's adopted standards.

Objective 4-4-B: Improve roadways and intersections to encourage use of desired routes for through traffic.

Objective 4-4-C: Determine whether the town has done this, review and make additional recommendations.

Goal 4-5: Develop maintenance strategies for existing infrastructure.

Objective 4-5-A: Establish a data base for maintenance strategies, review and make additional recommendations.

Photo courtesy of Laura Parker, Assistant Town Manager

Goal 4-6: Regularly analyze Danville's traffic patterns and rank funding priorities.

Objective 4-6-A: Collect traffic volumes and vehicle mix at key locations in town and at major entry points at least every other year.

Objective 4-6-B: Analyze traffic data and make recommendations as needed.

Goal 4-7: Review and update the street classification system for Danville.

Objective 4-7-A: Plan Commission should establish a formal process to do this every five years, at a minimum.

Goal 4-8: Improve street safety.

Objective 4-8-A: Identify and prioritize safety concerns.

Objective 4-8-B: Consider widening existing sidewalks.

Objective 4-8-C: Install new crosswalks at key locations.

Goal 4-9: Create a less congested east-west flow of traffic through town, which will also reduce vehicle emissions.

Objective 4-9-A: Investigate feasibility/desirability of alternate routes, which may include a by-pass.

Objective 4-9-B: Optimize existing traffic signal timings and/or traffic signal interconnection (demand actuated—not pre-timed), in order to move vehicles through town more quickly.

Goal 4-10: Improve transportation links, both vehicular and pedestrian.

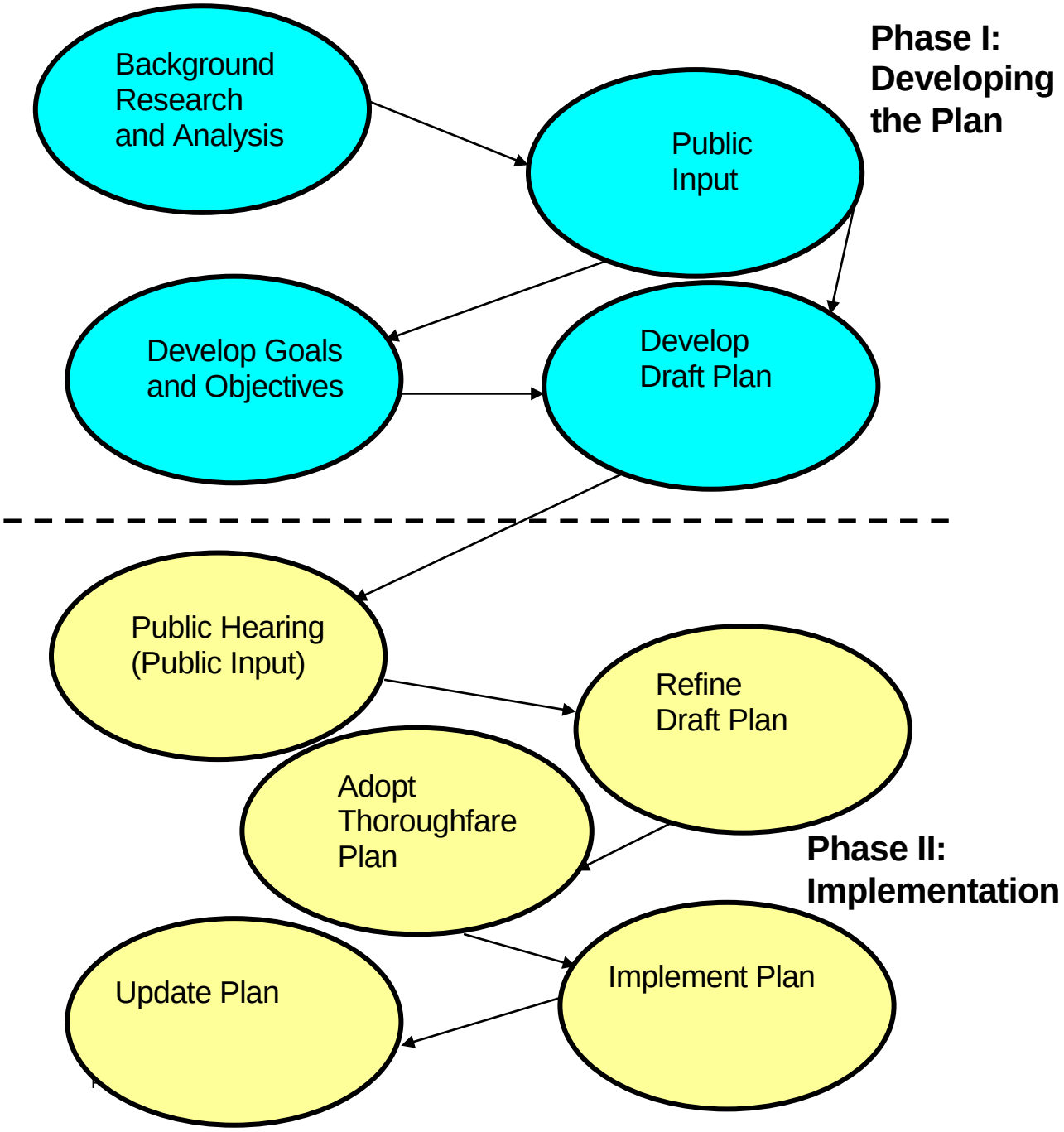
Objective 4-10-A: Identify important transportation links then prioritize necessary enhancements to bring them in line with transportation vision statement.

Chapter 3 -- Thoroughfare Plan

Photo courtesy of Laura Parker, Assistant Town Manager

The Planning Process

The planning process can be just as important as the final plan document, if not more so! The planning process serves as an opportunity to bring different organizations and individuals together that might not meet regularly (or ever), let alone discuss issues and viewpoints together. Many times the energy involved in the creation of a plan ends up leading to other collaborations and efforts between participants. Any planning process, whether large or small should follow the same basic steps:



Preliminary Mapping

The steering committee held an extra meeting on January 20, 2010 to concentrate on mapping for the thoroughfare plan. The group created two different maps, which were used to produce the final Thoroughfare Plan Map. The first map was a Land Use Considerations Map, which identified land-use related transportation concerns. To do this, the group reviewed Hendricks County and Danville's future land use maps (from their comprehensive plans) and Danville's Zoning Maps.

The second map they created was the Transportation Issues Map. This map incorporated the results of the Land Use Considerations Map, in addition to the draft goals, interview results, SWOT and public input worksheet results, and other plan maps (i.e., Hendricks County's Trails Map). Using this information, they were able to identify a hierarchy and current gaps and limitations of public roads and other non-road transportation facilities, such as bicycle and pedestrian trails.

A small group of the Steering Committee members met with the consultant and town officials to create a draft Future Thoroughfare Plan Map, which is basically a map of the streets. Because street right-of-ways form the basic transportation network for not just automobiles, but also bicycles and pedestrians, this map was the first created. In creating the draft Thoroughfare Plan Map, they considered the following things:

- Previous Study Recommendations (See Chapter 1)
- Population Projections (See Chapter 1)
- Public Input (See Chapter 1)
- Goals & Objectives (See Chapter 2)
- Land Use Considerations Map (See Chapter 3, page 63)
- Transportation Issues Map (See Chapter 3, page 64)
- INDOT and FHWA Guidelines
- Traffic Counts (See Chapter 3, page 65)

Insert Map

Land Use Issues

Danville, Indiana Thoroughfare Plan
2010

Insert Map

Traffic Issues

Danville, Indiana Thoroughfare Plan
2010

Traffic Counts

This group used peak hour traffic count information from www.OnlineTrafficData.com, reviewed all of our public input, considered land use, looked at Hendricks County's Thoroughfare Plan and previous Danville plans, and followed Federal Highway and INDOT guidelines. Online Traffic Data is a collaborative data base, represented graphically and accessible to anyone with an internet connection. Data can be added by any entity (i.e., engineering firms, local governments, INDOT, etc). Because it comes from many different entities and was collected on different days, etc., the counts should be taken with a "grain of salt". While the steering committee did not rely on this source solely when making recommendations, using this traffic count data as an additional resource for the steering committee as they were making decisions on road classifications was very helpful.

East-west traffic counts confirmed that US Hwy 36 sees the majority of the east-west traffic. On the East side of Danville, CR 100 N, East Main Street and CR 200 S carry a fraction of the 24-hour traffic volume that US Hwy 36 does. Approximately half of the east-west traffic disappears within Danville. On the West side of Danville, Lincoln Street/CR 50 S, CR 200 S and CR 200 N accommodate only a fraction of the traffic of US Hwy. 36. North-south counts confirm that traffic is by far the heaviest through the center of town, although there is more traffic on the north side than the south side.

Photo courtesy of Laura Parker, Assistant Town Manager

Street System

Streets are the foundation of any transportation system. However, it is important that we understand that there should be more to the system than just streets, and that we think about modes of transportation beyond just automobiles. In order to best serve the needs of its citizens, Danville needs to work toward a complete transportation system, something that was not encouraged in the past, leaving Danville with a system that only focuses on streets and is incomplete. In addition to a network of streets, a transportation system also needs connections with other types of transportation networks (i.e., sidewalks and trails).

While automobiles are no longer completely dominant, they are still by far the most common form of transportation in the Danville area. However, the function of streets is changing. Today there is more interest in accommodating alternative forms of transportation, including bicycles and pedestrians with our existing street network. To help Danville be more responsive to the transportation interests of its citizens, this thoroughfare plan advocates adoption of a "Complete Streets" policy for the town, as reflected in the following Thoroughfare Plan Goal and its related objectives:

Goal 2-5: Pursue a "Complete Streets" strategy wherever appropriate.

What are complete streets?

Complete streets are **designed and operated to enable safe access for all users**. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.

Creating complete streets means transportation agencies must change their orientation toward building primarily for cars. Instituting a complete streets policy **ensures that transportation agencies routinely design and operate the entire right of way to enable safe access for all users**. Places with complete streets policies are making sure that their streets and roads work for drivers, transit users, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities.

What does a complete street look like?

Since each complete street is unique, it is not possible to come up with a standard description. There are common ingredients that may be found on a complete street (although not all need be present):

- sidewalks
- bike lanes (or wide paved shoulders)
- special bus lanes

- comfortable and accessible transit stops
- frequent crossing opportunities
- median islands
- accessible pedestrian signals
- curb extensions
- other features

Keep in mind that a complete street in a rural area will look different from a complete street in a large urban area, but both will balance safety and convenience for everyone using the road.

Where are complete streets being built?

Many states and cities have adopted bike plans or pedestrian plans that designate some streets as corridors for improvements for bicycling and walking. But a few places have gone beyond this to ensure that every street project takes all road users into account.

Among the places with some form of complete streets policy are the states of Oregon, California, Illinois, South Carolina, and Florida. Louisville/Jefferson County in Kentucky incorporated complete streets into its comprehensive plan and followed up with a rewrite of their design manual. Columbia, MO adopted new street standards to encourage healthy bicycling and walking. And the regional body that allocates federal transportation dollars around Columbus, OH has determined that all projects must provide for people on foot and bicycle.

In Indiana, several Metropolitan Planning Organizations have adopted a complete streets policy, including the Northwestern Indiana Regional Plan Commission (NIRPC) and the Bloomington/Monroe County MPO. Bloomington/Monroe County has created a set of internal policies that guide staff in creating complete streets. On the state level, INDOT hosted a Complete Streets workshop in Indianapolis in 2009 and a complete streets bill was proposed in 2010.

What are some of the benefits of complete streets?

According to The National Complete Streets Coalition, complete streets can offer many benefits to a community, regardless of size or location.

- ***Complete streets make economic sense.*** A balanced transportation system that includes complete streets can bolster economic growth and stability by providing accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations.
- ***Complete streets improve safety*** by reducing crashes through safety improvements. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28%.

- ***Complete streets encourage more walking and bicycling.*** Public health experts are encouraging walking and bicycling as a response to the obesity epidemic, and complete streets can help. One study found that 43 percent of people with safe places to walk within 10 minutes of home met recommended activity levels, while just 27% of those without safe places to walk were active enough.

- ***Complete streets can help ease transportation woes***. Streets that provide travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network. Several smaller cities have adopted complete streets policies as one strategy to increase the overall capacity of their transportation network and reduce congestion.

- ***Complete streets help children.*** Streets that provide room for bicycling and walking help children get physical activity and gain independence. More children walk to school where there are sidewalks, and children who have and use safe walking and bicycling routes have a more positive view of their neighborhood. Safe Routes to School programs, gaining in popularity across the country, will benefit from complete streets policies that help turn all routes into safe routes.

- ***Complete streets are good for air quality.*** Poor air quality in urban areas is linked to increases in asthma and other illnesses. Yet if each resident of a community of 100,000 replaced 1 car trip with 1 bike trip once a month, it would cut carbon dioxide emissions by 3,764 tons per year in the community. Complete streets allow this to happen more easily.

- ***Complete streets make fiscal sense.*** Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later. Jeff Morales, former Director of Caltrans, said, "by fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized."

For more information on Complete Streets, visit the website of The National Complete Streets Coalition: http://www.completestreets.org/

Street Networks

Individual streets do not serve travel independently in any major way. Most travel involves movement through a network of streets. It is necessary to determine how travel can be funneled within the network in a logical and efficient manner. Functional classifications are a hierarchy that defines the part each street should play in serving the flow of trips through the street network.

Functional classifications are helpful when applied in thoroughfare planning, determining who is responsible for particular systems (i.e., state, county or town), and in fiscal planning and capital improvement budgeting.

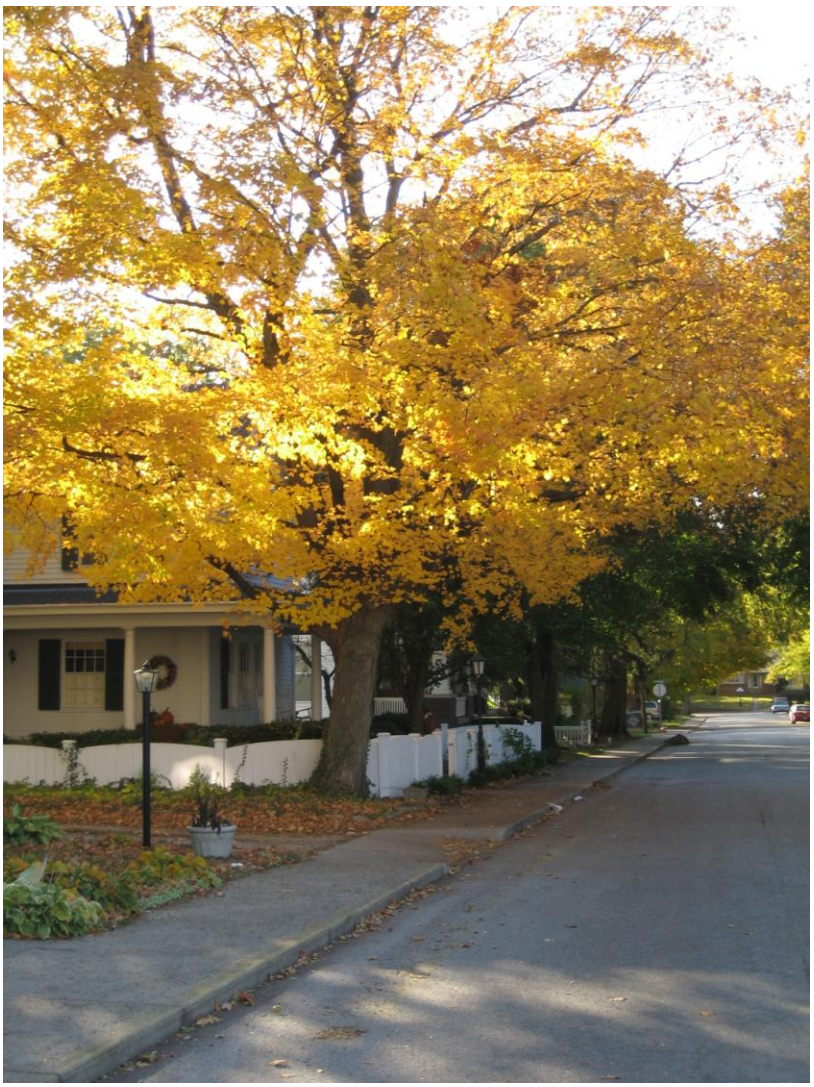


Photo courtesy of Laura Parker, Assistant Town Manager

Land Use and Streets

Existing land use is a primary consideration in the functional classification of streets, because that use governs overall travel patterns, travel density, and street spacing. Think of the town's transportation system as a framework for land development, within which residential neighborhoods and commercial/industrial land uses develop and function. The preservation of neighborhoods, stabilization of desirable land uses, and encouragement of orderly development are among Danville's basic considerations in the development of a functional street system.

However, as the Town grows, land use changes and development, especially at edge of municipal limits, may prompt road functions to change. It is not uncommon for roads that once served as rural local access to farms to now serve residential subdivisions and commercial uses. Changes in land use may prompt reclassification to a collector or arterial depending on the intensity of development

and the type of traffic generated. Along with shifts in the street classifications due to development, street design standards must also match traffic character, volume and street function.

Street design should be "context sensitive", reflecting the land use and environmental conditions adjacent to the roadway. On streets other than a freeway or arterial, as land use density increases, design speed typically decreases. For example, the design speed of a collector in a residential neighborhood should be lower than that for a rural highway. This also recognizes that bicycles and pedestrians would be more likely to use an urban route. Similarly, areas with significant historic or visual interest, like the downtown, may need a lower design speed due to lower operating speeds.

Streets can also have a major impact on land use. Just as some industrial uses may make undesirable neighbors for residential areas, the impact of heavy traffic should be considered upon adjacent land uses. The classification of streets into functional types recognizes this, with local streets giving access to adjacent land and discouraging through-traffic, while arterial streets avoid penetrating neighborhoods. Establishment of Danville's functional street system is crucial for the upcoming comprehensive plan update that Danville needs.

Functional Classifications

For the purposes of this plan, Danville will adhere to the standard functional classification system for streets. According to INDOT and the Federal Highway Administration, "Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide." There are three highway functional classifications: arterial, collector, and local. All streets fall into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access allowed.

Typically, travelers will use a combination of arterial, collector, and local roads for their trips. Each type of road has a specific purpose or function. Some provide land access to serve each end of the trip. Others provide travel mobility at varying levels, as needed in route.

Table 3-A, Street System Functional Classification Purposes

	Services Provided
Arterial	Highest level of service at greatest speed for longest uninterrupted distance, with some access control.
Collector	Less highly developed level of service at lower speed for shortest distances; collects local road traffic and connects it with arterials.
Local	All roads not defined as arterials or collectors; primarily provides land access with little through movement.

Source: Federal Highway Administration

Danville's Classification System

Danville's last comprehensive plan did not include a classification system for roads. The town later unofficially assigned the following working classifications:

- Primary Arterials -- Highway 36 and SR 39 on the north side of Hwy 36
- Secondary Arterials -- Old US 36 and SR 39 south of CR 50

There are fundamental differences between urban and rural areas when it comes to density and types of land use, density of street networks, nature of travel patterns, and the way in which all these elements are related. The FHWA manual provides for separate classification of urban and rural functional systems. Urban classifications are considered in the context of places of 5,000 population or more. Since the US Census Bureau estimated Danville's population in 2008 to be 8,124 people, the urban functional system was considered most appropriate for this plan.

Under the FHWA guidelines, the primary functional categories used for Danville's Thoroughfare Plan could be principal arterial streets, minor arterial streets, collector streets and local streets. The guidelines state that, "…by nature of their size, many small urban areas will not generate internal travel warranting urban principal arterial service." The steering committee agreed with that reasoning and determined there did not need to be two different classifications of arterials in Danville, based on the following reasons:

- Danville is a relatively small town and on the small end of municipalities using an urban functional system, so does not have the variety of streets that a larger city might have.
- There are no Interstates, freeways or expressways within Danville's thoroughfare planning area, which are considered principal arterials.

Photo courtesy of Laura Parker, Assistant Town Manager

The steering committee agreed that all the streets within Danville's planning area, including the area outside of the municipal boundaries, would be classified using the urban functional system, meaning no streets will be classified as rural.

Classifying Danville's Street Network

Arterials

The committee's first step was to classify the arterial streets. The arterial system should serve the major centers of activity, the highest traffic volume corridors, and the longest trip desires. The arterial system should carry the major portion of trips entering and leaving Danville, as well as the majority of through movements desiring to bypass the core. In addition, significant local travel, such as between the downtown and outlying residential areas may be served by this system. The system should also provide continuity for Hendricks County's rural arterials that intersect with the town's boundary. In many communities, the arterial system also is used for bus routes, but ideally should not penetrate neighborhoods.

Major centers of activity, which are often "regional" draws, should be served by arterials. In Danville those regional centers of activity include the following:

1) Downtown business and government district

2) Hendricks County Hospital

3) Airport

4) Twin Bridges Recycling and Disposal Facility

5) Hendricks County Fairgrounds

This plan designates the following as Arterial Streets within Danville's Transportation Planning Area (see also Future Thoroughfare Map, Page 76:

- US Hwy 36
- US Hwy 36 By-pass (new)
- CR 200 E/225 E, with new routing eliminating the 90° turn at CR 100 S
- SR 39/Urban ST/S Cross ST -- The state began looking at realignment of SR 39 in 1939, when they purchased additional right-of-way. Since that time, there has been major development within the area. Danville encourages INDOT to review and revise the alignment for all of SR 39. The thoroughfare plan map on page 76 shows an alternative alignment in Danville, located west of Clear Creek and the schools.
- CR 200 W/250 W -- Note: if SR 39 is rebuilt, then CR 200 W/250 W should be downgraded to a Collector

- CR 200 N to CR 275, with new connections between SR 39 and SR 236 and between N. Washington ST and CR 100 E
- CR 200 S, with new connection between CR 225 E and CR 300 E
- CR 75 W/Mackey RD, with new connection to SR 39

The spacing of urban arterials will be closely related to the density characteristics of the area. There is no firm spacing rule, but the spacing of arterials may vary from less than one mile in the developed core to three miles or more in the sparsely developed fringes, but should normally not be farther apart than 1 mile in fully developed areas. Providing service to abutting land should be secondary to ensuring travel through major traffic movements. Spacing of arterials for Danville should probably be closest to the FHWA guidelines for Minor Arterials, shown below:

Table 3-B, Proposed Arterial Spacing

Area Type	Spacing
Central Business District	1/8 - 1/2 mile
Urban (except CBD)	1/2 - 1 mile
Suburban	1 - 2 miles

Source: Minor Arterial Guidelines, FHWA

Collectors

After the designation of the arterials, the remaining streets are either collectors or locals. Collector streets, which provide both land access and traffic circulation within residential neighborhoods, commercial and industrial areas, funnel traffic between local streets (where accessing land is most important) and the arterial system (where moving through traffic is of primary importance). In order to bridge this gap between locals and arterials, collectors must penetrate neighborhoods. The collector system may also include the downtown street grid that forms a logical traffic circulation system.

As streets were being classified, the steering committee discussed the different results of naming a street as a collector, instead of as a local street:

- Collector streets secure intersection funding over local streets
- On-street parking is more controlled or even prohibited on collectors, but not on locals
- Control of access to site (driveway locations) is easier on collector streets than local streets

Designated as Collector Streets in Danville's Transportation Planning Area (see Future Thoroughfare Map, Page 76):

- CR 300 E
- CR 150 E/Twin Bridges RD
- East Main ST (Old Hwy 36)
- CR 100 N
- Blake ST/Cartersburg RD
- N Washington ST
- Sycamore LN, between Hospital DR and Pittsboro RD
- Money LN
- Pittsboro RD from Sycamore LN to Columbia ST
- Lincoln ST/CR 50 S
- W Mill ST
- Clinton ST between Urban ST/SR 39 and Tennessee ST
- Jefferson ST between Columbia ST and Blake ST
- Tennessee ST between Columbia ST and Lincoln ST
- Old North Salem RD
- CR 200 N from CR 200 E to CR 300 E (includes new connection)
- SR 236 between SR 39 and CR 200 N
- CR 100 S, with new connection between CR 400 E and CR 300 E (the airport)

Note that the FHWA says one-way streets should be classified individually, and mileage and travel accumulated individually, not in pairs. The only one-way streets designated as collectors in the thoroughfare plan are Jefferson ST and Washington ST.

FHWA guidelines also say frontage roads should be classified independently of the controlled-access facility on which they abut. The classification of frontage roads is normally as a collector or local street. There are no frontage roads in the Danville transportation planning area.

Local Streets

With the identification of arterial and collector streets, all remaining streets in Danville's thoroughfare planning area not designated as arterials or collectors will fall within the local category. Local streets serve primarily to provide direct access to abutting land and access to the higher street classifications. It offers the lowest level of mobility and usually contains no bus routes. While through traffic is discouraged, the use of long cul-de-sacs or stub streets should be prohibited. Neighborhoods should always be connected by the street network.

Guidelines for Mix of Streets

The table below contains standard guideline ranges of travel volume (VMT) and mileage for each of the functional systems for urbanized areas. Street systems will usually fall within the ranges shown. Since these numbers function as average guidelines, Danville should consider this only as one way of assessing the suitability of the system. Danville's Plan shows only slightly more road miles for arterials (between 30 and 35 miles) than collectors (approximately 28 miles), so it is on track for the distribution of mileage. Danville's collector streets may carry higher travel volumes than is typical, in comparison to arterials, but that proportion would be expected to drop if a Hwy 36 by-pass (another arterial) was constructed. It appears that Danville's street classifications in this plan are appropriate.

Table 3-C, Danville Street Standards

	Minimum ROW	# Moving Lanes	Lane Width	Shoulder Width	Median Width	Maximum Block Length	Minimum Block Lenqth	Maximum Grade	Minimum Grade	Curb & Gutter	Corner Radius	Bicycle Lane
Local	50'	2	12'			600'	400'**	7%	0.5 %	2' each side	30'	4'
Collector	70'	2	12'	7'		600'	400'**	6%	0.5 %	2' each side	40'	4'
Arterial	100' to 140'	2 to 4	12'	7'	16' min.	2600'*	400'**	6%	0.5 %	2' each side	40' min.	5'

* Requires mid-block pedestrian break
** 330' for downtown blocks

Table 3-D, Danville Street Standards

	Sidewalk (requires ADA ramp compliance*)	Trail	Tree Lawn
Local	4'	8' to 12'	5'
Collector	4'	8' to 12'	12'
Arterial	4'	8' to 12'	12'

* Note: The U.S. Department of Justice issued new regulations in July of 2010, revising Title II and III, including the Americans with Disabilities Act Standards for Accessible Design. The impact those changes will have on the Town's standards had not been determined at the time of the adoption of this Thoroughfare Plan.

Insert Map

Thoroughfare Plan Map

Danville, Indiana Thoroughfare Plan 2010

The Role of Functional Classification in Street Design

The AASHTO Green Book and INDOT's Design Manual address the relationship between highway functional classification and design. Once the functional classification has been established, then so has the allowable range of design speed and the basic roadway cross section (i.e., lane width, shoulder width, type and width of median area, etc.). It is important to remember that there are no "one size fits all" designs for arterials, collectors or local streets.

Cross Sections

The cross section of a street includes some or all of the following elements:

- **Traveled way** (the portion of the roadway provided for the movement of vehicles, exclusive of shoulders)
- **Roadway** (the portion of a street, including shoulders, provided for vehicular use)
- **Median** (the physical or painted separation provided on divided streets between two adjacent roadways)
- **Bicycle and pedestrian facilities**
- **Utility easement and tree lawn areas** (typically the unpaved, landscaped area that separates the sidewalk from the paved roadway)
- **Drainage channels and side slopes** (Danville will typically use curb and gutter for its drainage, but drainage channels may be approved as an alternative)
- **Clear zone width** (i.e., the distance from the edge of the traveled way to either a fixed obstacle or non-traversable slope)

Combining all these elements into a single unit results in the street right-of-way. The right-of-way can be described generally as the publicly owned parcel of land that encompasses all the various cross-section elements. Privately owned streets are discouraged in Danville. Cross-sections for the Town's streets are not part of the Thoroughfare Plan or Subdivision Control Ordinance, but will be contained in a separate design standards document, which is planned for adoption in 2011.

Level of Service

As stated in the following goal, one of Danville's proposed actions is to improve the level of service in the community:

Goal 4-4: Identify and prioritize level of service deficiencies and existing problematic infrastructure.

What is level of Service?

Level of service is a grading system for amount of traffic congestion, using the letter A to represent the least amount of congestion and F to refer to the greatest amount.

- A -- Free flow with low volumes and high speeds.
- B -- Reasonably free flow, but speeds beginning to be restricted by traffic conditions.
- C -- In stable flow zone, but most drivers are restricted in the freedom to select their own speeds.
- D -- Approaching unstable flow; drivers have little freedom to select their own speeds.
- E -- Unstable flow; may be short stoppages
- F -- Unacceptable congestion; stop-and-go; forced flow.

Source: Adapted from the AASHTO Green Book. [1] 1995 Highway Capacity Manual (Special Report 209), Transportation Research Board, Washington, DC, Third Edition, updated 1994

Not every street needs to be an "A". The appropriate degree of congestion (that is, the level of service) to be used in planning and designing street improvements is determined by considering many things, including the desires of motorists, adjacent land use type and development intensity, environmental factors, and aesthetic and historic considerations. These factors must be balanced with the financial resources available.

The table below presents the relationship between street type and location and the level of service appropriate for design, suggested by the AASHTO Green Book. Taking into consideration specific traffic and environmental conditions, Danville can use this guide to provide a reasonable and cost-effective level of service.

Table 3-E, Acceptable Level of Service Based on Street Type

Type of Area and Appropriate Level of Service		
	Urban & Suburban (Inside Danville's Thoroughfare Plan Area)	Rural (Outside Danville's Thoroughfare Plan Area)
Freeway	C	B
Arterial	C	B
Collector	D	C
Local	D	C

Source: Adapted from the AASHTO Green Book

It is important that Danville follow through with the objectives associated with this goal in order to improve traffic flow.

Traffic Safety

One of the biggest concerns in any street network is traffic safety. Unfortunately Danville's Police Department does not keep records of where the most accidents occur in the town, so this list of concerns was compiled from anecdotal information from town staff, the public and steering committee members. During the thoroughfare planning process several traffic safety concerns were identified:

- Convergence of East Main ST, US Hwy 36 and Twin Bridges -- more than two streets intersect, heavy traffic and poor visibility
- Several intersections along US Hwy 36, including at CR 200 E, Stratford Way, Wayne ST and Cross ST, Warrior Way and CR 200 W -- probably all intersections along US Hwy 36 should be evaluated for safety
- Intersection of Cross ST and Mill ST -- poor visibility
- E Main ST (Old 36) at Ridge AVE (Fairgrounds and Post Office) -- poor driver decisions
- SR 39 on the curve where it intersects with SR 236 -- poor visibility and speed
- SR 39 at the offset on CR 200 S -- poor visibility and speed
- CR 75 W, between Lincoln and 200 S -- road is too narrow and shoulder drops off quickly
- Intersection of CR 200 E and CR 200 N -- poor driver decisions and speed
- Intersection of CR 200 E and CR 100 N -- poor driver decisions and speed
- Intersection of Sunset DR and Mackey RD -- poor visibility
- Convergence of Lincoln, Tennessee and Cartersburg RD -- more than two streets intersect, heavy traffic and poor visibility
- Intersection of Cartersburg RD and CR 200 S -- hump in road
- Intersection of Old N Salem RD and SR 39 -- poor visibility
- Intersection of N Cross ST and Columbia
- Intersection of Broadway and Cross ST
- Cross ST, between US Hwy 36 and Lincoln -- speed
- Clear Creek DR -- speed
- Mackey RD, between Lincoln and the railroad tracks -- speed
- SR 39/Urban ST between Gill DR and Woodfield PL -- speed

- Washington ST from Columbia to north of Northridge DR -- speed
- CR 150 E from Twin Bridges to the landfill -- conflicts with truck traffic
- Intersection of Washington ST and Broadway

Some of these traffic safety problems can only be completely solved by redesign and new construction, such as rebuilding intersections that meet at less than 90°. Some of these issues, like lack of patience leading to poor driver decisions, would decline as congestion on roads decline (when level of service increases) and driver frustration with congestion lessens. Some concerns, like speeding, can be reduced by visible police enforcement, which takes a big manpower commitment. One alternative way that many communities are improving traffic safety is through the use of traffic calming techniques.

What is traffic calming?

Traffic calming is the slowing or reduction of motor-vehicle traffic to improve safety for pedestrians and bicyclists and motor vehicles and to improve the environment for residents. Urban planners and traffic engineers have many strategies for traffic calming. Such measures are common in Australia and Europe (especially Northern Europe), but caught on later in the United States. Traffic calming was traditionally justified on the grounds of pedestrian safety and reduction of noise and local air pollution, which are side effects of the traffic. However, streets have many social and recreational functions that are severely impaired by car traffic.

Photo courtesy of Laura Parker, Assistant Town Manager

Traffic Calming Techniques

Danville should investigate the use of these techniques for the areas where there are traffic safety concerns:

- Narrower traffic lanes — extend the sidewalk, add bollards or planters, or add a bike lane or parking. Narrowing traffic lanes differs from other road treatments by making slower speeds seem more natural to drivers and less of an artificial imposition, as opposed to other treatments that physically force lower speeds or restrict route choice.
- Road diets -- reduce the number of lanes; streets that are too wide encourage higher speeds
- Plant street trees -- gives the illusion of less space, slowing drivers down
- On-street parking -- forces drivers to slow as they watch for vehicles entering or leaving a parking spot
- Buildings placed close to streets -- gives the illusion of less space, slowing drivers down
- Tighter turning radii on corners -- forces drivers to slow to make the turn
- Speed bumps, Speed humps, Speed tables, Speed cushions -- while these do slow traffic, they can be an issue for snow plows
- Chicanes -- create a horizontal deflection causing vehicles to slow as they would for a curve
- Raised pedestrian crossings and raised intersections -- effective but may be costly
- Curb extensions -- narrow the width of the roadway at mid-block pedestrian crossings and corners
- Pedestrian refuges -- small islands in the middle of the street; most effective for heavy traffic and arterial streets
- Medians to prevent left turns or through movements into a residential area
- Changing the surface material -- when a driver senses a different road texture, such as brick or cobblestone, they automatically slow
- Additional yield signs
- Converting one-way into two-way streets -- very effective in slowing traffic in downtown areas
- Chokers -- curb extensions that narrow the roadway to a single lane at points
- Converting an intersection into a cul-de-sac or dead end -- this should be considered a last resort for residential areas
- Boom barrier -- restricts through traffic to authorized vehicles only

- Closing of streets to create pedestrian zones
- Reducing speed limits near institutions such as schools and hospitals
- Vehicle activated sign -- signs which react with a message if they detect a vehicle exceeding a pre-determined speed
- Round-abouts -- Force a driver to slow as they think about their movement and go around the curve

Traffic Calming is more than Physical Changes

Many people think of traffic calming as being only the use of the above engineering techniques, but traffic calming is more than just physical design changes. To be successful, Danville should use the "three E"'s together:

- **engineering**
- (community) **education** -- New traffic calming techniques require community education, so that people understand how to use them.
- (police) **enforcement** -- Many traffic-calming techniques also benefit from enforcement, particularly right after they are introduced.

As people get used to traffic calming, education and enforcement become less necessary.

Who Does Traffic Calming?

Many communities in Indiana have adopted traffic calming standards. Carmel, Indiana is well-known for its use of round-abouts. Downtown Columbus, Indiana incorporated curb extensions, different pavement materials, street trees and on street parking in attractive streetscape improvements on Washington Street that also helped calm traffic. INDOT has also started considering the use of traffic calming techniques in their local state highway projects. Danville should consider using some traffic calming techniques to address safety concerns. For example, a road diet for Clear Creek Drive would help reduce automobile speed, while introducing an opportunity for more landscaping and room for other forms of transportation.

DOWNTOWN PARKING

The Thoroughfare Plan contains two goals related to parking:

Goal 3-2: Encourage parking turnover to enhance local business in Central Business District.

Goal 3-3: Create additional off-street parking within Secondary Central Business District.

Perception of Parking Shortage

Based on observation, it does not appear that Downtown Danville suffers from a real parking shortage, but there does seem to be a public perception of insufficient parking. However, public meeting worksheets revealed that people do not avoid the downtown because of perceived parking issues. Unlike many cities and towns, Danville does not have parking meters, making downtown parking basically free. Time restrictions for parking, are only enforced during the workday, Monday through Friday. As it is with most downtowns, businesses fronting on the courthouse square (CB-P Zoning District) have no off-street parking requirements and rely on public parking lots and on-street parking. The secondary downtown area requires standard parking space requirements.

It appears that part of this perception of a parking shortage is caused by County Courthouse employees parking in short-term spaces around the square, instead of those spaces being open for customers of downtown businesses. According to recent research by the business community, the County has 147 daily employees in the courthouse and combined with the employees around the courthouse square, the existing permanent parking on the south side of US Highway 36 is close to what is needed. Four things can be done to solve this problem:

- Construct an additional parking area, reserved for courthouse employee parking, and work with judges and prosecutors to get their employees to use it.
- Amend the town's parking ordinance to eliminate a loophole that allows people to continually move around within the 2-hour zone. The amendment should limit parking to a cumulative maximum of whatever the maximum amount of time is in that zone (see next recommendation).
- Evaluate the maximum time restriction for parking in the downtown area. Currently all public parking is two hours maximum. Some areas may be better served by much shorter time limits, while other parts of the downtown might benefit from more than 2 hours at a time. The town might consider developing different parking zones, with shorter times at the center of downtown and longer times farther out.
- Enforce parking violations harder, including towing for multiple offenders. Work with judicial officials to get county employees to use existing off-street parking facilities. When enforcement becomes a priority, downtown parking works much better.

The Library is another downtown use with a parking problem; they have some off-street parking now, but need more. It is near a successful business whose clients use the library's parking when the business parking is full. Free all-day parking in nicely landscaped parking lots, using wayfinding signs, is a popular solution to downtown parking woes that would work well in Danville.

Additional Parking Recommendations

A downtown parking analysis prepared in 2001 for the Hendricks County Economic Development Partnership gave several recommendations about parking in Danville, which may still be valid, including:

- Consider the entire Courthouse Square one parking zone to eliminate space jumping within the area.
- Stricter enforcement of the 2-hour limit and increasing the cost of the ticket for habitual offenders.
- Create public parking maps that identify short and long-term parking.
- Shorten the 2-hour limit to 30 minutes or 1 hour and remove the time limit everywhere but on the square.
- Utilize some parking lots as free employee lots that require a permit.
- Designate at least part of one lot for jurors.

The town has been working to improve the downtown parking situation. There are funds for acquisition of land for parking. A redesign of courthouse square area on-street parking has added 25 more parking spaces. Downtown parking would benefit from a marketing campaign, so that people realize there is enough parking downtown. It would be good public relations for the Town to continue to work on downtown parking, including determining time limits for each parking area, which may vary from 2 hours maximum to all day.

DOWNTOWN CIRCULATION

The Thoroughfare Plan contains one goal directly related to downtown circulation:

Goal 3-1: Improve circulation in the downtown district.

Congestion

Some of this concern relates to the congestion in the downtown area related to US Hwy 36 during rush hour. A study of the level of service of downtown streets will help focus on where improvements should be made. A US Hwy 36 by-pass would also help alleviate congestion.

One-Way Streets

Another issue to consider related to downtown circulation is the use of one-way streets. Downtown Danville is the only area of town with one-way streets. Most operate as part of a pair of two parallel one-way streets in opposite directions. Historically one-way streets were used for these reasons:

- Efficient way of moving traffic during peak times.
- Street is too narrow for movement in both directions.
- Quick evacuation for disasters.
- To eliminate turns which involve crossing in front of oncoming traffic.

Conversion to 2-way Streets

Since the 1990s, many communities have begun to convert one-way streets to two-way. The goal of conversion to two-way streets is to slow down traffic and make streets more pedestrian-friendly. "There's a lot of emphasis now on taming the automobile and emphasizing walking and biking. It's all part of creating a place that people want to be," according to Marya Morris of the American Planning Association. Many downtowns are looking at two-way streets as a way to get the driver to pay more attention to businesses and make it easier to get to businesses. One-way streets are confusing; two-way streets make it easier for visitors to understand how to get through downtown.

Changing from 1-way to 2-way streets can be done in phases or all at once. Potential benefits to converting some of Danville's 1-way streets to 2-way would be to increase access to and visibility of businesses and reduce driver confusion. While the Thoroughfare Plan Steering Committee was not ready to make any recommendation at this time, Danville should consider further study of this issue in the future.

Highway 36 By-pass

U.S. Highway 36 is the major thoroughfare that cuts straight east and west through the town. Although C.R. 100N also connects Danville to Indianapolis, it does not extend all of the way through Danville. U.S. 36 is a main route for commuters to Indianapolis and also serves as a transportation route to the lakes to the west of Danville. U.S. 36, where it narrows to pass through Danville (Main Street), has very heavy traffic and can be congested during peak rush hours. This congestion makes passing through town slow and makes travel difficult on north and south streets that must cross U.S. 36. U.S. 36 is also a primary route for local traffic that adds to the congestion.

History

A US Hwy 36 by-pass to route commuter traffic out of the downtown has been talked about in Danville and by INDOT since the early 1970s. For years, one of the primary concerns of Danville residents has been the congestion on U.S. 36. INDOT commissioned Edwards and Kelsey to complete a US 36 Corridor NEPA Study. The release of that study in 2004 was the most recent step in the by-pass process.

During this thoroughfare planning process, the steering committee looked at the NEPA study's favored alternatives, as well as an alternative INDOT discarded for alternative local routes around town. Without a by-pass in place, the committee found that Danville citizens have devised their own alternate routes to avoid US 36 traffic, including Cartersburg Road to US Highway 40 and SR 39 to I-74.

Community Opinion on a By-Pass

As part of the public input portion of the thoroughfare plan process, citizens were asked the following questions on the public meeting worksheets:

Do you think Danville should push INDOT to continue work on a "new terrain" bypass?
_32_ yes _21_ no _25_ unsure

Do you think Danville should work to improve segments of local roads, so that there could be an unofficial bypass for local residents?
_35_ yes _17_ no _22_ unsure

Which alternative do you prefer?
_34_ INDOT's New Terrain Bypass 23 Unofficial Local Bypass using Improved Local Roads

The results were extremely inconclusive. It is hard to predict from the 80 people who answered these questions whether the rest of Danville's citizens are as indecisive on the Hwy 36 by-pass. The steering committee was left to consider the question of a by-pass recommendation without significant public input at this time.

Pros and Cons of a By-pass

When attempting to decide the merits of a proposal, it is often helpful to consider the pros and cons. The following tables help to group the positives and negatives of a by-pass, in order to assist with decision-making:

Table 3-F, Pros & Cons of Building a Bypass

Pros	Cons
• Less traffic through downtown core • Keeps DT from being too busy for business • Allows new development • Fewer outsiders in downtown Danville • Less accidents • Faster travel • Can phase land purchases and construction • Fewer angry citizens • Can add bike and walk lanes • Better for buses and large trucks	• Bad for downtown businesses • New development is more competition for downtown • Cost is high • Property loss and displaced homes & businesses in path • Destroys the landscape • Noise and mess of construction • Takes time to make it happen • Congestion might not noticeably improve • Major roads are traffic generators

Case studies of other communities show that a bypass around the downtown would likely be detrimental to the business district, because it would lose the free advertising and convenient location it has with the steady traffic now.

Latest Bypass Study

In 2004, INDOT commissioned this study of the US 36 Corridor in order to evaluate alternatives for improving traffic service. Seven alternatives were considered:

1) Northern alignment of bypass -- "new terrain" bypass located approximately 1 mile north of the current Hwy 36

2) Southern alignment of bypass -- partly on "new terrain" and partly located along CR 200S

3) County road improvements -- Improve segments of CR 200S, 200N, 300E and 200W

4) Traffic operational improvements -- Reconstruction of 2 miles to be one lane in each direction plus a reversible center lane.

5) Railroad alignment of bypass (north) -- "new terrain" bypass located along the north edge of the CSX railroad

6) Railroad alignment of bypass (south) -- "new terrain" bypass located along the south edge of the CSX railroad

7) Do not build a bypass

Local By-pass

Improving other Danville streets would support other options for east/west roads as opposed to requiring traffic wishing to travel east and west to use only Main Street/U.S. 36, East Main ST (Old 36) or CR 100 N (10th ST). This alternate route would use CR 200 N, CR 200 S, CR 300 E and CR 200 W. While this local network would not be advertised" like a bypass would be, local residents would be aware of its existence and could avoid U.S. 36 during congested hours. INDOT determined that this 3rd alternative, county road improvements, did not meet their criteria for a by-pass, because it would only accommodate local development, diverting only a few trips from US Hwy 36, which was predicted to still carry 42,000 vehicles per day at level of service F by the year 2024.

Surprisingly, improvements to these county roads, including design, right-of-way acquisition and construction were actually estimated to cost more than the building of one of the preferred new terrain by-passes. A local county road "by-pass" still potentially reflects a more easily accomplished and potentially faster local solution, because it can be done in phases. The cost of making the improvements for these roads to function as a local by-pass is the essentially the same cost that would incurred to bring them up to Danville's thoroughfare plan standards, which would be targeted with or without a bypass, so the higher cost is somewhat misleading.

Danville's future thoroughfare plan map shows CR 200S, CR 200W/250 W and most of CR 200N as arterials, with CR 300E and the missing segment of CR 200 N that connects to CR 300 E as collectors, including the missing segments of 200 N and 200 S. These cumulative improvements will eventually create a "local" by-pass. Because CR 200S, 200N, 300E and 200W/250 W are all currently outside the town's planning jurisdiction and are not likely to be annexed soon, it is imperative to work with Hendricks County to promote these road improvements.

Hendricks County's Thoroughfare Plan differs from Danville's in the following ways:

- all of CR 200 N is shown by the county as an Urban Principal Arterial, including the missing segment of CR 200 N that connects to CR 300 E, which the town shows as a collector
- CR 300 E is shown on the county's map as an Urban Principal Arterial north of E Main ST (Old Hwy 36) and as a Urban Collector south of E Main, instead of a collector as the Town designates it
- CR 200 S is designated by the county as a collector (urban collector east of Cartersburg and rural west of Cartersburg), instead of the town's classification as an arterial
- The biggest difference is that CR 200 W/250 W is only a local street according to the county, while Danville has listed it as an arterial

The classification differences between the jurisdictions for CR 200S, 200N and 300E are slight enough that they would still make the concept of this outer ring local by-pass work. The biggest difference in classification is that CR 200 W/250 W needs to be considered as at least a collector to make this plan work. It is imperative that the town get buy-in from the county for this plan and formally ask Hendricks County to amend their thoroughfare map to upgrade CR 200 W/250 W to at least a collector status.

Preferred By-Pass Alignments

In the 2004 INDOT commissioned study, only the North and South Railroad Alignments met INDOT's objectives, which were:

- additional capacity for projected 20 year development patterns with a Peak Hour Level of Service C or better in rural areas and D or better through Town
- providing additional flexibility of alternate travel routes and through trip diversions

According to the study, these two "new terrain" by-pass alternatives provide essentially the same levels of traffic service and the flexibility of alternate routes (needed in case Main ST is blocked by an accident). Both alignments similarly impact the White Lick Creek Valley, which has already been disturbed by development and both have a minimum impact on existing neighborhoods. Both the north and south railroad alternatives require coordination with the CSX railroad.

The 1994 study found that the North Railroad Alignment, located along the north edge of the CSX railroad, would be 3.4 miles in length and cost an estimated $26.5 million. It would displace up to three businesses and ten residences, with one of those structures considered historically significant. Approximately 101 acres of new right-of-way would need to be purchased.

That same study found that the South Railroad Alignment, located along the south edge of the CSX railroad needed approximately 124 acres of right-of-way and would be slightly longer, at 4.1 miles in length. One major difference is that the south alignment would not displace residences or businesses, although it would need right-of-way from the golf course. The cost of the south alignment would be substantially more ($45.2 million), due to the need to cross the CSX railroad twice.

By-Pass Recommendation

Only the North and South Railroad Alignments met INDOT's objectives. The steering committee's discussions about the by-pass alternatives revealed that there were several important issues that the State did not consider in their evaluation of the alternatives. One major concern was a perceived incompatibility with alternative transportation. The Hwy 36 By-pass alternatives were designed to move cars, not to consider a multi-modal approach to transportation. In fact, the north and south railroad alignments do not appear to be suited to pedestrian, bicycle or bus use.

Another local concern is the impact that constructing a by-pass will have on the economic health of the Downtown. Danville has a relatively vibrant downtown now. There is considerable anecdotal evidence from other communities that construction of a by-pass has a significant negative impact on the health of a downtown area, sometimes causing it to "die". The committee was unable to think of any way that a by-pass could possibly enhance the economic viability of the downtown, however they agree that quality of life concerns in the downtown would be improved by a reduction in traffic, including large semi-trucks on Main Street.

One other reservation about supporting a by-pass is that putting so much focus on one road could take needed resources and attention away from Danville's other transportation problems. Construction of a US Hwy 36 By-pass would not be a cure-all; there would still be other traffic

issues to address, but potentially fewer resources (attention, time, money) would be left for things beyond the by-pass.

Despite these reservations, the committee almost unanimously agreed to recommend that study of a US Highway 36 Bypass move forward. The committee did not support one of INDOT's acceptable bypass alternatives over another, instead recommending, as the 2004 study did, that both the North and South Railroad Alternatives be further studied. There was some sentiment that the North RR Alternative may have the greatest impact on reducing through traffic, because it would pick up traffic from 10th Street and SR 39, while also providing an alternative on the busier north side of town. The steering committee agreed that before a by-pass decision is made there needs to be a thorough review of long-term impacts to the town, and additional opportunities for the public to weigh in.

Environmental assessments would be INDOT's next step for evaluating these two alternatives. The Town should lobby INDOT and the Indianapolis MPO to continue with the bypass study process. It must still be decided which alternative best meets our local standards, which the environmental assessments will help do, and ultimately whether a bypass is the best solution for Danville. In the meantime, resources should be invested in improving other local streets and county roads, resulting in a more complete and efficient street network for the town, giving citizens more transportation choices.

Alternative Transportation

Alternative transportation can be described as a type of transportation that does not include automobiles or other private low-occupancy vehicles. When people talk about alternative transportation, they are generally referring to walking, bicycling or riding public transit, which includes buses. Alternative transportation should be an integral part of any transportation system today. Because this revelation of the importance of alternative transportation is fairly new, this is the first time it has been considered as part of Danville's Thoroughfare Plan. Because suburban communities like Danville are located away from Indianapolis's employment center and public transit system, they have a near-total reliance on the automobile for transportation and access. Changing this reliance can only happen if other acceptable alternatives are offered.

Interest in alternative transportation has been steadily building since the 1970's and the birth of the environmental movement. Use of alternative transportation has really increased in recent years as concern over greenhouse gases has grown, in conjunction with the high price of gasoline and the awareness of a need for a healthier lifestyle that involves more exercise.

Cost Benefits of Alternative Transportation

According to a 2010 report, ***The Hidden Health Costs of Transportation***, by The American Public Health Association, the oldest and most diverse organization of public health professionals in the world, investments in highways have come at a high expense. Over the years this reliance on vehicles and roadways has resulted in negative impacts on human health. These negative impacts include:

- decreased opportunities for physical activity
- increased exposure to air pollution
- increased traffic crashes

According to the study, the health costs associated with these impacts, including costs associated with loss of work days and wages, pain and suffering, and premature death may be as high as several hundred billion dollars.

The study concludes that, "An investment in a “healthier” transportation system is critical. Providing convenient alternatives, encouraging active modes of transportation and establishing a transportation system that fosters connectivity and social interaction can not only offset health impacts and costs, but generate health benefits." Health impacts and costs have typically not been considered in the transportation policy, planning, and funding process. Growing recognition of the connection between transportation, land development and health has resulted in more studies and examples where health impacts and costs have been considered and assessed. These examples demonstrate that health costs should be a significant factor in decision-making, while showing that calculating such costs is possible.

Alternative Transportation is Green Transport

Most alternative transportation is also considered sustainable transport (or green transport). Green transport is a concept or ideology and, in some places, a governmental policy that consists of strengthening or replacing the current transport systems of an urban/suburban area with more fuel-efficient, space-saving and healthy lifestyle-promoting alternatives. The term 'green transport'' refers to any means of transport with low impact on the environment, and includes human or animal muscle-powered vehicles, low-carbon fueled vehicles, and any kind of vehicle using a renewable source of energy for its propulsion. The most common example of green transport is walking.

Pedestrians

The safe and efficient accommodation of pedestrians along the traveled way is equally important as the provisions for vehicles. Too often, pedestrians are a secondary consideration in the design of roads, particularly in suburban areas, like Danville. Most pedestrian traffic in a community, whether for exercise or to reach a destination should be accommodated on the local sidewalks and paths. Although sidewalks are an integral part of traditional municipal streets, they are much rarer in rural and even suburban areas, despite data that suggest that providing sidewalks along highways in rural and suburban areas result in a reduction in pedestrian accidents. Danville's Subdivision Control Ordinance requires that sidewalks be provided on both sides of the street for all new construction. Just as it is important that a street network has connectivity, it is also imperative that the pedestrian network has connectivity. Danville should be a walkable community.

Common Pedestrian Problems

Having sidewalks alone does not make a community more walkable. According to the Pedestrian and Bicycle Information Center, there are many common barriers to walkability. They suggest that the following list of issues are related to why people may be reluctant or unable to safely walk:

- People do not think to walk in the neighborhood
- There are no sidewalks; existing sidewalks are blocked or in poor repair
- There are access issues for people with physical disabilities
- Motorists drive too fast or do not yield to pedestrians
- Crossing the street is dangerous
- Danville is not an inviting place to walk
- There is concern about crime and walking at night
- There is a need for interesting/important destinations within walking distance
- Children can't walk to school
- Pedestrians act dangerously

Is Danville Walkable?

One way to assess local walking conditions is with a walkability audit, an unbiased examination/evaluation of the walking environment. Audits identify concerns for pedestrians related to the safety, access, comfort, and convenience of the walking environment and can be used to

identify potential solutions (i.e., engineering treatments, new policy, education and enforcement measures).

A walkability audit can focus on one or many types of facilities (e.g., crosswalks, intersections, school zones, sidewalks, etc.). Audits can be performed from the planning and design stage through construction, and on existing facilities.

Informal audits can be performed by anyone. Formal audits that follow a standardized set of procedures are usually performed by a multidisciplinary team of trained professionals, including engineers, planners, transportation researchers, pedestrian and bicycle specialists, and others.

Audits should be performed independent of the person or agency responsible for the design, development, or maintenance of the facility audited, in order to ensure that the audit is unbiased. If a review/evaluation of a facility is conducted by the same group responsible for it, this process is an assessment instead of an audit, also helpful, but not as unbiased.

source: www.walkinginfo.org *Pedestrian and Bicycle Information Center*

How to Encourage Danville to Walk (source: walkinginfo.org)

Even when sidewalks and trails are in place, people often have to be trained to walk. The Pedestrian and Bicycle Information Center suggests the following:

Photo courtesy of Laura Parker, Assistant Town Mgr

- **Walking Maps** -- Neighborhood or business district walking maps are a good way to introduce residents to the idea of walking to local destinations and can show places of interest for shopping or dining and other local destinations. Maps should show routes, benches, distances and crosswalks.

- **Organized Neighborhood Walks** -- A stronger sense of community encourages walking and vice-versa. A neighborhood walk can include: a visit to a park, a walk to an event, a nighttime holiday walk to view decorations or a fitness walk.

- **Focus Activities around an Age Group** -- Two age groups are the least likely to drive on a regular basis: the young and the old. Teaching children safe walking habits is important, as is exposing them to the idea of walking as a real mode of transportation and exercise. For older adults, walking presents a way to exercise and stay social. Examples of age group walking activities are:

  1) Walking clubs for senior citizens -- According to the ***Senior Journal***, researchers discovered that mobility loss in older persons who do not exercise can be reduced by having an active lifestyle. An accessible walking route is important, but encouragement also plays a role. A walking club could be informally organized among neighbors, or more

formally organized through a community club or senior center. For more information, see the Department of Health and Human Services Administration on Aging program, You Can!

2) Safe Routes to School – Danville's school system does not currently allow children to walk to school. The first step in promoting walking to school would be to coordinate and enlist the support of the school corporation. All over the country, the concept of walking to school is gaining positive attention. Walking to school brings children exercise and mental alertness. The Centers for Disease Control and Prevention (CDC) provides information on health and alertness in their web site, Kids Walk-to-School: Health Benefits. Comprehensive information on safe routes to school programs can be found at the National Center for Safe Routes to School web site.

Photo courtesy of Laura Parker, Assistant Town Manager

What is Safe Routes to School?

Danville residents talk about traffic congestion around schools and automobile emissions polluting the environment. Meanwhile, this generation of children in general engage in less physical activity contributing to the growing epidemic of obesity. These problems are not really separate issues. The Safe Routes to School (SRTS) programs can address these challenges.

SRTS programs have a growing record of success as communities seek to increase the number of children walking and bicycling safely to school. As with traffic calming, SRTS uses the 3 "E"s: education, engineering and enforcement to make routes safer for children to walk and bicycle to

school. Safe Routes also adds a fourth "E": encouragement (to children to get them walking and biking). SRS programs have grown in popularity also with the availability of federal and state funding of SRTS programs. In Indiana, INDOT provides non-matching funds for SRTS programming, planning and construction.

Photo courtesy of K.K. Gerhart-Fritz, The Planning Workshop, Inc.

Each school starts from a unique situation and with different circumstances. Successful SRTS programs involve parents, children, neighborhood groups, schools, law enforcement officers, community leaders and transportation and public health professionals. The whole community then identifies issues and solutions. SRTS programs can improve safety not just for children, but for everyone.

source: www.saferoutesinfo.org
National Center for Safe Routed to School

How do you get Safe Routes to School Started?

source: www.saferoutesinfo.org National Center for Safe Routed to School

The following steps provide a framework for Danville starting a Safe Routes to School (SRTS) program, based on what has worked for other communities. These steps are meant to provide guidance and can be modified or done out of order.

1) **Bring together the right people:** Identify people who want to make walking and bicycling to school safe and appealing for children, including children with disabilities.

2) **Hold a kick off meeting and set a vision:** A goal of the first meeting is to create a vision and generate next steps for the group members.

3) **Gather information and identify issues:** Collecting information can help to identify needed program elements and provide a means to measure the impact of the program later.

4) **Identify solutions:** Solutions to identified issues will include a combination of education, encouragement, engineering and enforcement strategies. Safety is the first consideration.

5) **Make a plan:** It doesn't need to be lengthy. Include encouragement, enforcement, education and engineering strategies. Create a time schedule for the plan.

6) **Get the plan and people moving:** Hold a kickoff event starting with a fun activity. Participate in International Walk to School Day or celebrate a Walking Wednesday.

7) **Evaluate, adjust and keep moving:** To sustain the program, consider building additional program champions and letting people know about your successes.

Design and Placement of Sidewalks

Sidewalks are the safest and most common place for people to walk. Danville should support the construction, completion and maintenance of sidewalks. When considering the placement of sidewalks, the town has two options. The sidewalk can either be placed flush with the edge of the street (if a "roll curb" is provided) or next to a tree lawn (a strip of grass or plant material), located between the sidewalk and street. The pros and cons of each option should be weighed and considered by the town, using input from the community.

A sidewalk separated from the street by a tree lawn has these advantages:

- Pedestrians are kept at a greater distance from moving vehicles and thus are more comfortable and safer (where there is on-street parking, parked cars act as a buffer for pedestrians from moving traffic, so a tree lawn may not be necessary for pedestrian safety).

- Tree lawns tend to add to the aesthetics of the area and help reduce the apparent width of hard surface space.

- Tree lawns provide a space for snow storage.

Tree lawns may require more right-of-way that may be difficult in corridors with restricted space. If a tree lawn is provided between the sidewalk and the curb, it should be at least 2 ft. wide to allow for maintenance and provide room for streetlights, fire hydrants, and street trees.

Sidewalk width is an important consideration. Typically, sidewalks in residential or low-density commercial areas vary in width from 4 to 8 feet. Danville has chosen to use a 4-ft. standard sidewalk width. The town should be aware that the 1992 Americans with Disabilities Act sets the minimum passing width on a sidewalk at 5 ft. at least every 200 feet. Wider sidewalks might also be needed in some parts of Danville to accommodate a larger amount of pedestrian traffic.

Sidewalks can also provide space for street furniture, traffic poles and signals. Additional width will be needed if these items are to be located on the sidewalk. The wider the sidewalk, the less difficult it is for people to maneuver around these objects. When considering the placement of objects in the sidewalk, it is important to maintain an unobstructed path. For instance, locating utility poles to the sides and not in the center, of sidewalks is important. This will also help the movements of people with disabilities.

Adding sidewalks where none previously existed can be beneficial to a community. When sidewalks are added along both sides of the street, the result is a more aesthetically pleasing alternative to the shoulder section for the travel lanes, and the sidewalks made it safer for residents to walk between their homes and local commercial facilities. Residents can then interact with each other more easily, fostering a higher level of community spirit.

Pedestrian Case Study – Main Street Improvement Project, Trumansburg, New York

Personalized commemorative bricks helped raise money for the project.

Problem

Several local citizens and community leaders realized that much needed physical changes to their village's pedestrian environment would be the most successful if they unfolded hand-in-hand through a participatory community building process. More than just a sidewalk improvement project, the extensive community participation process inspired a re-visioning of downtown Trumansburg and has led to spin-off projects around town.

Background

In 1995, Paula Horrigan, an area resident and professor of landscape architecture at Cornell University, worked with community leaders and stakeholders to create the Main Street Design Guide, outlining planning, preservation and design vision strategies for Trumansburg's Main Street Corridor. Several years later in 2001, Horrigan and a village trustee successfully applied for and received a TEA-21 grant for $800,000. A Main Street Advisory Committee was formed, and the Main Street Project was born. With a small local government and no professional planning staff, Horrigan worked with the village to apply for a Cornell Research and Extension Integration Grant to assist the village with facilitating the public process. The $20,000 grant enabled Horrigan and another Cornell colleague to assemble the team and hire a graduate student. With Cornell's grant, the process of turning a physical infrastructure project into a community engaged, community capacity building process began.

Solution

This project provided the initial leadership to jump-start and facilitate the Main Street Project's unfolding. From the larger Main Street Advisory Committee several subcommittees including fundraising, design, evaluation, and research teams were formed. Each group drew from resident professionals, citizen "idea-people" and business owners for their members. Each group had different project tasks related to the overall goal of revitalizing Main Street's sidewalks and civic spaces.

Diverse voices, inclusiveness and intergenerational representation were priority concerns of all the groups who used multiple communication and participation modes including public forums posters,

church and school assemblies, website and a biweekly column in the local newspaper to get the word out. Several months into the project, acting on the recommendation of the team, the village hired a part-time Main Street Project Assistant and Coordinator of Volunteers, whose role provided crucial continuity in documenting, communicating and activating the Main Street Project.

The evaluation team gathered community input on all ongoing projects and worked to revise this input into achievable goals and designs. They gave out questionnaires asking participants how they would like to use the public space, how they envision their village, and other opinions on what qualities were valued. The research and advisory teams together prioritized three main questions to investigate:

1) How successful is the main street project in uncovering and addressing concerns of the diverse community?
2) To what extent does the community exercise ownership of the main street project?
3) How does the Main Street Project understand and incorporate community conceptions of the "T-Burg" spirit, identity and place attachment, and the roles of Main Street in the resulting design and its modes of operation?

To answer these questions, the research team conducted interviews with business owners and civic institutions, sent questionnaires to every household along Main Street, and conducted a children's project providing trace paper to draw their desires for the downtown space. As residents often are not sure what specific design goals they want, or know how particular changes would be important to them, surveys often solicited opinions based more on how people envisioned using the space. The many public forums held were not merely places to present developed ideas, but also to actively solicit community input. Breakout groups gave citizens a chance to get involved in the various teams. Sketch artists were on site to give visual form to ideas as they occurred. At one event, hay bales, paint, chalk and set like props (including a clock tower) were used to simulate the changes that would be made to traffic flows, attracting more participants and providing a concrete demonstration to consider. A youth questionnaire was available on the web and at the school, and all active design sessions were recorded. Additionally, the research team observed how people used the streets, noting interactions between cars and people, illegal turns, trucks' turning radiuses, and more. A key to the success of the project was the organic nature of the process. All the various teams consulted with each other often as issues arose.

Additional smaller groups worked on a variety of interests. The bus stops worked in conjunction with the Tompkins County Area Transit, who committed to provide funding to improve local bus stops to encourage more riders. Other volunteers developed a "commemorative bulletin" as a sort of historical scrapbook to catalogue the changes going on in the community. Also included in the

bulletin were winning youth essays on local history. The project actively recruited youth and families to participate. For example, high school students and 4-H members were able to complete community service requirements through fundraising, an Earth Day event had kids help clean up Main Street, and the local Fourth Grade Architecture Project was made a part of the Design Community Meeting.

Several community disagreements were addressed during the process, including a concern over lost parking, the potential violation of NY State Historic Preservation Office (SHPO) guidelines, and concern over a lost "island" turn-around space. Observation and documentation of parking issues revealed that the parking would not be dramatically impacted, however to be safe, extra care was taken to distribute parking to address everyone's needs. To address SHPO, organizers traveled to Albany and argued that the less conventional proposed improvements, which were trying deliberately to avoid a faux traditionalism, would be consistent with the goals of rehabilitating a living vernacular cultural main street landscape. And finally, community members who were concerned over lost turn around space were brought into the planning dialogue when a community-wide vote resulted in a more flexible solution. The island turnaround space was retained and redesigned so it could easily be closed off during community events.

Further funding was obtained through the State legislature with a $100,000 grant, and many local fundraising events added to the pool. In order to attract donor grants, the fundraising group raised money to provide matching funds by selling personalized commemorative bricks and bluestones, and holding streetscape festivals including the autumn "Corn on the Curb" celebration.

Results

Excellent fundraising resulted in enough funding to assure completion of all the projects in the original plan, as well as additional funds to put towards future improvements. The half-time position of Coordinator of Volunteers was so successful that it was expanded into the role of Community Development Coordinator after five years. Projects completed included sidewalk and curb installation, paving, unique seating installation, retaining walls, tree plantings, curb extensions, storm drains, street lighting, and more.

Most of all, the project which started out as an effort to get the community involved in a few downtown improvements has become a community renewal effort. Additional volunteers have begun projects to develop small parks around town, public access points to the creek, local musician fundraising events, and more.

Contacts: http://mainstreet.trumansburg.ny.us/

Paula Horrigan, phh3@cornell.edu

Source

Pedestrian and Bicycle Information Center (PBIC)
The Trumansburg Main Street Project. http://mainstreetproject.blogspot.com/

Bicycles

Why Bicycle?

In Danville, as in other communities around the world, there is a growing interest in bicycling. Whether riding a bicycle as a mode of transportation, or as a recreational activity, people are demanding the opportunity to bike more often, to bike more places, and to feel safe while doing so. The benefits of biking span many aspects of our lives.

Photo courtesy of K.K. Gerhart-Fritz

Money facts

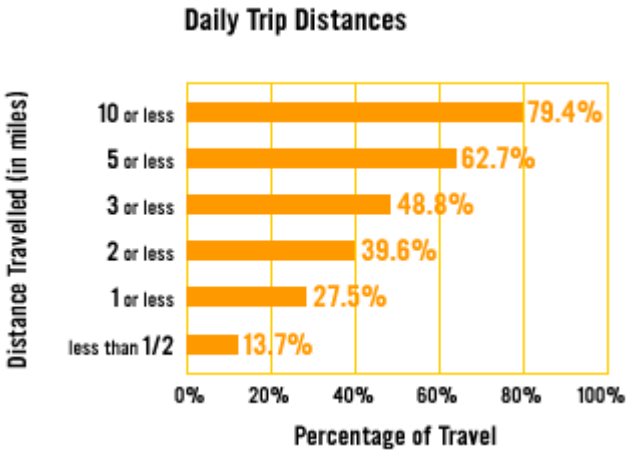
- The cost of operating a sedan for one year is approximately $7,800 (AAA, Your Driving Costs).
- According to 2004 data from AAA estimates and US Census surveys, ownership of one motor vehicle accounts for more than 18 percent of a typical household's income.
- The cost of operating a bicycle for a year is only $120 (League of American Bicyclists).

Benefits of Cycling

- Personal health -- Individuals are more physically active and in better health
- Environmental health -- Less air pollution from automobiles
- Transportation system -- Reduced traffic congestion, enhanced quality of life
- Economic rewards -- Reduced health care costs, reduced auto-related costs, increased economic vitality of communities
- Equitable society -- Helps provide transportation choice for all citizens

Bicycling is an affordable form of transportation. Car ownership is expensive, and consumes a major portion of many Danville citizens' income. When safe facilities are provided for bicyclists, people can ride more and spend less on transportation, meaning they have more money to save or spend on other things in the community.

Table 10, Average Daily Trip Distances



2 miles

30-minute walk

10-minute bike ride

Photo courtesy of Wade Wingler
http://100pounds.wingler.com/cycling.html

Bottom Line – Bicycles Make Sense

Bicycles make sense as part of Danville's transportation system. Bicycling can help to reduce roadway congestion. Many streets and highways, including US Hwy 36, carry more traffic than they were designed to handle, resulting in gridlock, wasted time and energy, pollution, and driver frustration. Bicycling requires significantly less space per traveler than driving. Roadway improvements to accommodate bicyclists can also increase driver safety. Adding paved shoulders on two-lane roads can reduce run-off-road, head-on, and sideswipe motor vehicle accidents.

Bicycling doesn't automatically work in every community. Danville will need to be aware that there will be some issues with bicycling in the community that must be addressed to encourage bicycling. Examples of those issues are listed below.

Common Problems with Bike Networks:

- Not enough bicycling facilities
- Motorists drive too fast or do not yield
- Bicyclists ride dangerously
- Children can't bike to school

Is Danville a Bikable Community?

Creating a bikeable community is a goal that takes time and effort. Becoming truly "bicycle-friendly" means more than just adding a bike lane to one street. It will require an interconnected network of bikeways that make bicycling convenient, safe, and enjoyable in Danville.

Types of Bicycle Facilities

Transportation designers should consider the needs of both commuters and recreational bicyclists when designing the facilities. Basically, there are three different types of bike facilities that a community can provide:

- **On-street bicycle lanes** -- located within street right-of-way on expanded pavement with painted markings to designate them for bicyclists. An example would be Allisonville Road in Indianapolis, between Fall Creek Parkway and 82nd ST

- **On-street shared lanes** -- pavement or shoulders within the right-of-way may be slightly extended, but no pavement markings exist. These are simply streets bicyclists use when they have a comfort level with their riding skills and the condition and traffic on the street.

- **Trails** -- are open to both bicyclists and pedestrians and may either be located within street right-of-way or outside the right-of-way.

Trails within a right-of-way are adjacent to, but separated from the driving area by tree lawns and typically replace sidewalks. An example of a trail in the right-of-way is Hazel Dell Parkway in Hamilton County, between 96th ST and 116th ST.

Trails outside the right-of-way may be located near natural features or on former railroad right-of-way. An example of a trail outside the street right-of-way is the B & O Trail in Hendricks County, built on abandoned railroad right-of-way.

Danville may use any or all of these bicycle facilities. Each potential location will need to be evaluated to determine which type of bicycle facility is most appropriate.

The Bicycle Plan

Because it is important that bicycle travel be part of a network, there were several sources of information to consider before coming up with a basic bicycle plan for Danville: Hendricks County's Trails and Greenways Map, the 2006 Indiana State Trails, Greenways and Bikeways Plan, the 2007 Green Moves Indiana Trails Plan, established rides by the Central Indiana Bicycling Association (CIBA) and public input for this thoroughfare plan.

Hendricks County's Trail System

Trails awareness in Hendricks County has been helped by the B & O Trail organization publicizing the benefits of trails for many years. Hendricks County's Comprehensive Plan did not include a separate bicycle plan. The county's comprehensive plan says that potential bicycle lane locations are to be determined by the location of trails on the Trails and Greenways Map. The only proposed

greenway shown on the map in Danville's jurisdiction was the west fork of White Lick Creek. Locations for proposed trails identified on the Trails and Greenways Map included:

- US Highway 36
- East Main ST
- CR 100 N/10th ST
- Clinton ST
- CR 100 E/CR 50 E
- CR 200 E, between CR 100 N and US Hwy 36
- CR 400 E
- CR 50 N/Sycamore through Sherwood Subdivision to CR 100 N
- SR 39/SR 236
- East Fork Hill Creek
- Cartersburg Rd/West Fork White Lick Creek
- CR 200 S
- CR 200 W/250 W
- Lincoln ST/W CR 50 S
- Mackey RD, between Main ST and Lincoln ST

State Plans

The Indiana Trails Plan Summit in 2006 was led by the Indiana Department of Natural Resources and focused on planning trails, greenways and bikeways by region. SR 39 through Danville was the only thing shown in Hendricks County as a regional trail opportunity.

The Indiana Trails Plan from INDOT in 2007 identified two trails in Hendricks County as "Green Moves" Trails: the B & O Trail and the National Road Heritage Trail (includes the Vandalia Rail-Trail in Plainfield and between Amo and Coatesville). Both of these now partially built trails are outside of Danville's planning area, but it is important to plan for bicycle access from Danville to these two east-west regional trails.

CIBA Routes

The Central Indiana Bicycle Association is a club of experienced riders who do several training rides per week all over central Indiana. Reviewing previous ride maps, it appears their rides in the Danville planning area often include a few core streets:

Photo courtesy of Bicycle Indiana

- CR 50 E
- CR 50 N
- Washington ST
- CR 100 N
- CR 100 E
- CR 200 N

Since these streets are already being used by bicyclists, they would be a good place for Danville to start in accessing and upgrading for bikes. Things like new "Share the Road" signage could improve safety for bicyclists. Evansville has installed Share the Road signs throughout the City with grant funds available from Bicycle Indiana, a state-wide bicycle advocacy group.

Public Input

Public input on bicycling came from anyone who wanted to fill out a survey, not just active bicyclists. They were asked to do a mapping exercise for this plan showing locations for trails, bike routes, bike lanes and sidewalks. The public suggested the following locations for bike facilities:

- **Trails:**
    - East Main Street from CR 300 E to downtown
    - Twin Bridges RD to CR 150 E to CR 200 S to Cartersburg RD south
    - Cartersburg RD north from CR 200 S to West Lincoln ST to East Fork of Hill Creek
    - Mackey RD between Lincoln and Main ST, continuing north of Main to SR 39
    - US Hwy 36 between Mackey and the western town limits
    - North Washington ST
    - CR 200 E north of East Main ST to CR 100 N, then west along CR 100 N
- **Bike Routes:**

CR 200 W from US Hwy 36 south to CR 50 S, then east along Lincoln ST and north along Tennessee to US Hwy 36

- **Bike Lanes:**
    - East Main Street from CR 300 E through downtown to western town limits
    - E Broadway to Twin Bridges RD to CR 150 E to CR 200 S to Cartersburg RD, ending at Tennessee
    - SR 39 from Main ST north to CR 200 N
    - North Washington ST
    - CR 200 E north of East Main ST to CR 100 N

Danville Bicycle System Preliminary Plan

Danville's Bicycle System Preliminary Plan is meant to act as a starting point for community action and discussion. The type of bicycle accommodation for each segment should be decided upon further study, including an evaluation of the town's streets' level of service. Since the bicycle system relies on many of the same streets that are shown as collectors and arterials on the Thoroughfare Plan map, improvements for bicycles can be planned and implemented at the same time as street improvements.

This bicycle section in Danville's Thoroughfare Plan does include some bicycle planning tasks, but this should not be construed as a full Bicycle Master Plan. It is hoped that this plan will prompt additional follow-up study leading to a full bicycle master plan that evaluates each potential location for suitability and the type of facility that is most appropriate. Bicycle and pedestrian master plans are often done together, and that might be a good solution for Danville.

Bicycle Planning Basics

Communities that are bicycle and pedestrian-friendly place a high priority on planning methods and policies that favor non-motorized modes of travel. Planning enables communities to be proactive in addressing biking issues and providing safe, bikeable environments. Successful land use and transportation planning is key in establishing good multi-modal service.

Planning strategies range from a town's small scale bike trail study to the MPO's *Regional Bicycle and Pedestrian Master Plan*. Planning in conjunction with design and engineering helps to ensure that appropriate facilities for bicyclists are provided throughout the built environment. Good policies and plans can take many forms and are developed and implemented at various levels of government, through institutional measures, and public involvement. In many cases, support from the private sector is essential for success.

Bicycle Master Planning

At the local level (and, frequently, the county and regional level) bicycle plans are used to address gaps in the bicycle network and describe the community's levels of desired bicyclist facilities or the overall bicycling environment. A bicycle master plan can vary widely in content and direction, and may include regulations, design standards, cross sections, direction on when and where bike lanes

should be installed, and/or include a specific list of bicycle projects for inclusion in a local or regional funding program. Typical steps in a bicycle master plan are:

- Determine community vision and objectives
- Create a fact-base: document locations of existing facilities and their use
- Identify and prioritize locations needing improvement
- Evaluate alternatives and determine solutions
- Establish key design procedures
- Evaluate and revise plans

Tools to Identify Bicycling Needs

There are various tools available to use to help Danville assess their existing bicycling conditions and identify concerns or potential issues. These tools can also be used to identify some potential alternatives or solutions (such as engineering treatments, policy changes, or education and enforcement measures). The identification of bicycling needs can be done by local officials, consultants or local bicycle advocates.

- Audits and Checklists -- There are several simple checklists available online, including ones that specifically look at bicycle safety. This should be Danville's first step.
- Level-of-Service (LOS) Tools and other Models -- These are more sophisticated tools that look at level-of-service of particular roads for bicycles. Some of them are extremely complicated, and it is unlikely that Danville would wish to use these.

Insert Plan

Bike System Preliminary Plan

Danville, Indiana Thoroughfare Plan
2010

Bicycle-Friendly Ordinances

Danville primarily implements their comprehensive plan (including this transportation plan) through the zoning and subdivision regulations. Each of these types of regulations can potentially improve or hinder the inclusion of bicycle facilities in the community. The subdivision ordinance should allow for trails to be built in lieu of sidewalks. Danville's Zoning Ordinance can amend the parking section to require a minimum amount of bicycle parking and reduce extra impervious surface by setting a maximum number of vehicle parking spaces. Danville should also check other sections of the municipal code to ensure that they are up-to-date and bicycle-friendly.

Street Design Standards for Bicycles

This transportation plan includes street design standards (page 75). These standards list a 4 ft. to 5 ft. width for a bicycle lane. The town has the ability to regulate the cross-section that streets must have. A traditional roadway cross-section presents all the elements that should or must be included within the right-of-way. This is usually more than just the road itself. Danville does not currently have an adopted cross-section design standard including a bicycle lane or trail, and if that standard does not exist, it is less likely that bicycle facilities will be installed.

Transit Service

Mass transit or bus service is the most difficult form of alternative transportation to launch and support because it takes more resources than bicycling and walking, which are both efforts that require individual effort, as opposed to the efforts of a government agency or business organization needed to organize a bus system. Buses need to be part of Danville's transportation system. As baby boomers continue to age, and fewer senior citizens can drive, the importance of providing mass transit will increase.

Existing Local Transit Service

Neither the Town of Danville nor Hendricks County currently has a full public transit system. IndyGo, the Indianapolis bus system currently serves only the eastern edge of Hendricks County. Some transit service is available to Danville residents from Hendricks County Senior Services (for age 60+) and from LINK Hendricks County (any age, but within Hendricks County only). Demand is much higher than can be accommodated for both of these van-based services, with reservations required weeks or months in advance. Because these two local transit options are over-booked, no advertising is done and residents are not knowledgeable about them.

Hendricks County Senior Services

Transportation is provided to senior citizens for daily necessities, like medical appointments, grocery shopping, legal, social service, financial business, nutrition sites, and other life-essential service destinations. This service is provided on a donation basis.

Appointments are made on a first come/first served basis for door-to-door transportation (which accommodates wheelchair transport, portable oxygen, attendants, and service animals) for destinations in Hendricks and the surrounding counties, and the service is usually fully booked two weeks in advance. It is only available Monday through Friday, from 9 AM to 4 PM.

LINK Hendricks County

This service is for anyone, including those needing wheelchair transport, portable oxygen, attendants, and service animals. Anyone under the age of 16 must be accompanied by an adult.

LINK service is scheduled on a first come/first served basis, and the agency asks riders to book up to three (3) months in advance. Curb to curb transportation is available Monday through Friday, 6:00 a.m. to 6:00 p.m. Service is not available on holidays or when inclement weather prohibits safe boarding and/or travel. This is a fee based service, currently $6 round trip within a town; $8 round trip within the county.

Regional Bus Service

ICE is IndyGo's commuter express bus service, operating from suburban communities (currently Fishers and Carmel) to Downtown Indianapolis, Monday through Friday with peak morning and afternoon departures. Hendricks County was also approached by CIRTA for express bus service.

The express buses are funded by a Congestion Mitigation and Air Quality (CMAQ) federal grant, which provides 80 percent of the funding with a 20 percent match from local government. The Central Indiana Regional Transportation Authority, which coordinates the express buses and grants, received approvals from the Avon, Brownsburg, Danville and Plainfield town councils in 2009, as well as the Hendricks County Commissioners, to share in a guarantee of 20 percent of the cost if rider fares don't cover it. According to CIRTA, if the buses were half-full, the county and towns would not be asked to pay for the bus service.

CIRTA had originally hoped to begin express bus service from Hendricks County in 2009, but the targeted park and ride location in Avon did not work. The draft Indy Connect plan shows express bus service along US Highway 36 to Avon, and CIRTA officials believe that Express Bus service will still come to Hendricks County. For More Information on the Express Bus Route, contact CIRTA at info@cirta.us or call at 317-327-7585.

Indy Connect

The Indy Connect draft plan also shows the following expanded bus routes into Hendricks County:

- Along 10th ST west to SR 267
- Along US Hwy 40 west to SR 267
- Along SR 267 between US Hwy 40 and I-74
- Along Raceway/County Line RD between US Hwy 40 and Crawfordsville RD

For the regional bus system to really work, local bus or van commuter service within Hendricks County must be expanded, so riders can get to the Indianapolis buses serving the county.

The Indy Connect draft plan also proposes rail transit in the Indianapolis area, including new light rail parallel to US Hwy 40 from downtown Indianapolis past Girl's School Road, but short of the Indianapolis International Airport. This is the closest proposed rail transit to Hendricks County.

Hendricks County Future Bus System

The Hendricks County Comprehensive Plan includes a Future Bus System Map. The map shows one segment cutting north-south through Danville, from CR 100 E to Pittsboro RD to downtown Danville and then south on SR 39. Another segment runs east-west from Avon along US Hwy 36 to downtown Danville.

It is crucial that Danville officials continue to support the development of transit service. While regional bus service is desirable, All of Hendricks County's local governments need to join forces to begin work on a county transit system that could stand-alone or compliment the regional service. Since arterial streets are best suited to carry bus routes, that is the logical network to begin consideration of.

Chapter 4 -- Implementation

Photo courtesy of Town of Danville

Implementation Process

This plan will only be successful if it is implemented; therefore it is important to understand how it can be brought to life. The first step of implementation is Danville's adoption of the Transportation Plan, as part of the town's comprehensive plan.

Adoption

Under Indiana law, the following steps apply to the adoption of an entire comprehensive plan or a plan element (i.e., the transportation or thoroughfare plan):

1) Plan Commission holds a public hearing

2) Plan Commission adopts the plan and recommends adoption to town council

3) Town council adopts the plan by resolution

Notification

Once a plan is adopted, the process isn't over. Local media should be notified of adoption, so that word can reach the citizens of Danville. Many of the tasks need to be done are outside of the authority of Danville officials, so it is also important to communicate this plan by meeting with and providing a copy to other affected organizations, including:

- The Indianapolis MPO
- Hendricks County Plan Commission, County Commissioners and Highway Engineer
- INDOT
- Central Indiana Bicycling Association
- CIRTA
- IndyGo

Ordinance Amendments

The Zoning and Subdivision Control Ordinances are both implementation tools for the plan, so they should be updated immediately to match the plan.

Zoning Ordinance

The following amendments should be made to the zoning ordinance:

- Set maximums for number of parking spaces for commercial, industrial and institutional uses.
- Set minimum requirements for bicycle parking.
- Add traffic calming standards.
- Create a new zoning district for properties fronting along West Main Street that better recognizes the impact of this busy corridor's heavy traffic pattern. Traffic in this area has resulted in a change to the character of the corridor, leading to a change in what the appropriate uses are.

Subdivision Control Ordinance

The following amendments should be made to the subdivision control ordinance:

- Update the reference to the town's road standards, including standards for trails and bike lanes.
- Require the dedication of ROW for trail corridors if shown on the transportation plan map.
- Enable pedestrian easements.
- Include traffic calming standards (speed humps, etc.)

Administrative Actions

Administration and decision making for planning matters is also very important. Improving training, communication and standards for town officials can have a very positive impact on the development process:

- Provide mandatory orientations to new plan commission and town council members that include the Thoroughfare Plan
- Continue to participate in round table meetings for local planning officials in Hendricks County, with a different pre-selected topic each month, with transportation planning taking a regular slot
- Complete a sidewalk assessment using the town's GIS
- Assess level of service for segments of Danville's collectors and arterial streets. Segment break points include jurisdictional boundaries, points where the number of travel lanes change, locations where land use changes (e.g., commercial vs. residential), points where posted speed limit changes, or where number of adjacent driveways change significantly).
- Establish a capital improvement plan -- Danville does not currently have a capital improvement plan (CIP), which is a budgeting tool for local governments. Many bicycle and pedestrian related projects are funded locally, and therefore may appear in a community's CIP. A CIP

typically is a listing of specific and general projects that will be funded over a five or ten-year period in the community. Typically, specific projects and their expected costs will be listed for the next year, and more general projects and cost estimates will be listed for future years. It is important to note that only those items in a CIP for the next year are actually funded; projects listed for future years may be funded when their year comes, but they might also be moved to a subsequent year, essentially keeping them on the CIP list, but never actually building them. The CIP contains a prioritized list of what the community wants to accomplish; they are usually adopted by the community's governing body a few months before the annual budget is adopted. Just as regulations (zoning ordinances, etc.) indicate what private developers must provide, the CIP usually provides a good indication of what a local government is planning to build.

Additional Planning Activities

Sometimes the process of doing one plan highlights the need to plan for something else. During this transportation planning process, these additional planning needs were identified:

- Comprehensive Plan -- Danville's current comprehensive plan dates from 1998. The transportation plan is only one component of a community's comprehensive plan, which may also include elements on future land use, economic development and other things that have an impact on transportation. This plan will need to be updated after a new comprehensive plan is adopted, so that it is in accord with the goals of the comprehensive plan.

- Bicycle and Pedestrian Master Plan -- This additional plan would help Danville become more bicycle and pedestrian-friendly, and would identify the best way to transition the changes.

- Downtown Improvements Plan – In addition to the work that the town is currently doing with parking downtown, a wider look and plan of action for addressing downtown issues is needed. A public charrette process might be an appropriate method to initiate the study. The study should include a detailed list of potential physical improvements along with policy changes and program recommendations that align with the elements of the Indiana Main Street program. This might be an appropriate project for a college landscape architecture or planning studio class.

- US Highway 36 By-pass Alternatives Environmental Assessments -- Though it will not be the local governments responsibility to do these assessments, Danville will need to lobby State and regional officials to prompt this action, and will need to participate as a partner in the process.

Thoroughfare Plan Related Actions

Planning is a continuing process. Plans must be evaluated, changed and updated as the town changes. These changes can be gradual, as through demographic trends, technological change, or slow economic growth or decline. Sometimes change is more sudden, such as an annexation or a natural disaster (i.e., flood).

- Annual Review of Thoroughfare Plan and Necessary Amendments -- Just like the rest of the comprehensive plan, the Thoroughfare Plan should be reviewed on an annual basis by the plan commission. That assessment should include an evaluation of how well the plan is

working (i.e., is it accomplishing the goals of the plan?) and whether there have been any big changes that the plan needs to respond to. Amendments to the plan may be initiated by the plan commission or by the town council. The procedure for adopting an amendment is the same as the procedure for adopting the plan.

Action Plan

Table 4-A, Priority 1 Tasks: 1st Year -- 2011

Task	Responsibility	Approximate Cost*
Meet with Various Organizations to Present this Plan	Staff	Staff time = no additional cost
Begin Lobbying INDOT to Complete Environmental Assessments for Hwy 36 Bypass	Staff, Elected Officials	Staff time = no additional cost Elected Officials = no additional cost
Amend Subdivision Control Ordinance	Plan Commission	Staff time = no additional cost; Consultant = $2000 to $6000
Amend Zoning Ordinance	Plan Commission	Staff time = no additional cost; Consultant = $3000 to $7000
Adopt Street Standards (e.g., cross-sections)	Consultant, Staff	Staff time = no additional cost; Development of street standards only = $2000 to $2500; full set of design standards for town (including street standards) = $6000 to $9000
Appoint Bicycle & Pedestrian Advocacy Committee	Plan Commission	Staff time = no additional cost; Materials, memberships, etc. = $1000
Begin planning and/or applying for grants to fund a Bicycle and Pedestrian Master Plan	Staff, Bicycle & Pedestrian Advocacy Committee	Staff and volunteer time = no additional cost
Adopt agreements with Danville's school corporation to work on Safe Routes to School program	Town Council	Staff time = no additional cost
Complete Downtown Parking Code Changes	Town Council	Staff time = no additional cost
Designate Truck Route	Town Council	Staff time = no additional cost
Lobby INDOT to encourage that road improvements on State Highways follow Complete Streets policy	Town Council and staff	Staff time = no additional cost; Town Council = no additional cost
Complete Downtown Improvement Plan	Staff & Town Council, possible university students	Staff time = no additional cost; university students expenses = $2000
Coordinate with Park Master Plan Update	Plan Commission, Park Board, Staff	Staff time = no additional cost

**Cost is estimated in 2010 dollars. Actual cost may vary.*

Table 4-B, Priority 2 Tasks: Years 2 & 3 -- 2012 and 2013

Task	Responsibility	Approximate Cost*
Update comprehensive plan	Staff, Consultant, Volunteers	Staff and volunteer time = no additional cost; Consultant = $50,000 to $100,000
Develop a capital plan and budget	Staff and Town Council	Staff time = no additional cost
Complete a Bicycle and Pedestrian Master Plan	Consultant	Consultant = $15,000 to $50,000
Begin Sidewalk GIS Assessment	Staff, Consultant	Staff time = no additional cost
Begin keeping traffic accident information by location	Police Chief & staff	Staff time = no additional cost
Educate the public about bicycling	staff	Staff time = no additional cost; Marketing, Materials, etc. = $5000
Provide community education on downtown parking	staff	Staff time = no additional cost; Marketing, Materials, etc. = $5000
Begin Street Level of Service Assessments	Staff, Consultant	Staff time = no additional cost Consultant = approximately $500 per segment (segments should be at least one mile long)
Continue Sidewalk GIS Assessment	Staff	Staff time = no additional cost
Review driveway permit process and standards	Street Dept and Planning Dept	Staff time = no additional cost
Begin work on Safe Routes to School	School Corporation , Town staff, consultant	Staff time = no additional cost; Project cost = $43,000 to $70,000 (grant amounts = $50,000 to $75,000)
Install wayfinding signage downtown, including to public parking	Town Council	$180,000

**Cost is estimated in 2010 dollars. Actual cost may vary.*

Table 4-C, Priority 3 Tasks: Years 4 & 5 -- 2014 and 2015

Task	Responsibility	Approximate Cost*
Improve accessibility to services by continuing to explore public transportation	Town Council, County Commissioners, councils from other Hendricks County towns	Staff time = no additional cost
Explore "adopt-a-road" program for Town	staff	Staff time = no additional cost
Develop a bicycling and walking map	Staff or consultant	Staff time = no additional cost; Consultant = $5000 to $10,000
Continue Street Level of Service Assessments	Staff, Consultant	Staff time = no additional cost; Consultant = approximately

		$500 per segment (segments should be at least one mile long)
Put up signs for bicycle routes	Street Department	Staff time = no additional cost; Sign Costs = $50 per sign
Encourage expansion of LINK and Senior Citizen Transportation Service	Town Council, County Commissioners, United Way and Area Agency on Aging	Staff time = no additional cost

**Cost is estimated in 2010 dollars. Actual cost may vary.*

Table 4-D, Annual Tasks

Task	Responsibility	Approximate Cost*
Conduct an annual review of the Thoroughfare Plan	Plan Commission	Staff time = no additional cost
Provide orientations to new plan commission and town council members that include the Thoroughfare Plan	Staff	Staff time = no additional cost
Update and maintain town's road inventory	Street Dept.	Staff time = no additional cost

**Cost is estimated in 2010 dollars. Actual cost may vary.*

Table 4-E, On-Going Tasks

Task	Responsibility	Approximate Cost*
Apply for funding for expanded trails	staff member or consultant	Staff time = no additional cost; Consultant = $2000 to $5000 per application
Participate in Bypass process	Staff and elected officials	Staff time = no additional cost Elected Official time = no additional cost
Identify and acquire strategic land for trail purchase or donation	Park Board	Staff time = no additional cost
Coordinate regularly with other Hendricks County local governments regarding transportation projects	staff	Staff time = no additional cost
Continue to support community events, including bike rides, etc.	staff	Staff time = no additional cost
Support completion of regional trails, including connection to Danville Trails	Park Board, Indiana Department of Natural Resources, County Commissioners	Staff time = no additional cost
Use town's street inventory classification and level of use information to prioritize improvements and obtain adequate funds for basic maintenance and to upgrade streets so they meet the minimum standards of their classification	Street Dept., Town Council	Staff time = no additional cost

**Cost is estimated in 2010 dollars. Actual cost may vary.*

Appendix A -- Public Input Responses

Photo courtesy of Hendricks County Planning and Building Department

Interview Summaries

Emergency Services, August 28, 2009, 10:00 AM

Participants: Police Chief Keith Gill and Fire Chief Mark Morgan

Others Present: Town Manager Gary Eakin, Assistant Town Manager and Town Planner Laura Parker, Planning Consultant K.K. Gerhart-Fritz

Those present agreed that while there could be improvements to many problem areas, the town will never be accident-free, because we cannot control poor decisions that people make while driving.

Ms. Gerhart-Fritz asked the Chiefs to mark on the Danville map the locations of transportation issues they would discuss during the interview, which will become a map used in the Thoroughfare Plan update. She told them they were the first of three different interviews that were being conducted as background research, before the Thoroughfare Plan Steering Committee met for the first time.

Accidents/Danger

Chief Gill explained that due to the system used for sorting accident reports, it was very difficult to pull numbers for which intersections were the most dangerous in Danville. The following are the police and fire chiefs' best guesses for most dangerous road intersections and stretches of roads in their jurisdiction.

- Worst is the Highway 36/Main Street split due to sheer volume of traffic.
- Second worst is between two areas:
- The area between Main Street and CR 200 E, specifically the post office/fairgrounds area. The problem there is a failure to yield. To avoid collision one vehicle frequently ends up in the ditch. A 4-way stop was considered by the town, but it was not warranted. The solution has been to use traffic control for high volume events, and that has worked well.
- Warrior Way and Highway 36, on the west side of town. This is especially a concern because of the school on Warrior Way.
- Another bad intersection is Tennessee, Cartersburg, Blake and Lincoln, because it is a multiple point intersection, but it has surprisingly few accidents.
- The new stoplight on Highway 36 and Stratford Way went a long way to reduce the problem of left-hand turning movements when existing Stratford Ridge subdivision or CVS.
- 2 issues with intersections in Kroger area: Conflict point with Phi Kappa Way and Kroger ingress/egress on Main Street. Also, Kroger ingress/egress on Shady Lane is very close to intersection creating conflict points for drivers exiting on Shady Lane.

- College Hill is a problem that is not at an intersection. People drive up the hill to Tennessee intersection and stop, but people behind them aren't prepared, so there are many rear-end collisions.

- The intersection of County Roads 100N and 200E, which is right on the county/town jurisdictional boundary, is a problem. Traffic on 100 N is not required to stop. Only 200 E has stop sign. County has refused to make this a 4-way stop. Said it was not warranted by volume. Half of the intersection is ours and half is County.

- The intersection of SR 39 and Old North Salem Rd is a problem, especially with its proximity to North Elementary School and the Northview Christian Church due to school bus traffic during school and day care traffic created by the church during the week. Intersection of Old North Salem Rd has poor visibility for left-hand turns and during school and morning rush, right-hand turns add to the congestion.

- There are several intersections that they would expect to have lots of accidents, but don't:

- Maple and Clinton

- Old North Salem and Columbia

- Sycamore and Money (drivers disregard stop signs)

- Because of the low volume of traffic, the accidents at Gill Drive and Old North Salem are limited.

- SR 236 and SR 39 have a lot of accidents. It is in the County's jurisdiction, but within the Thoroughfare Plan's planning area.

Traffic Calming

Ms. Gerhart-Fritz explained that traffic calming means slowing or reducing motor-vehicle traffic to improve safety for pedestrians and bicyclists and improve the environment for residents, including reducing traffic accidents. There are many strategies for traffic calming. A number of visual changes to roads can be made to bring about more attentive driving, reduced speeds, reduced crashes, and a greater tendency to yield to pedestrians. Visual traffic calming includes lane narrowings, road diets (reduction in lanes), use of street trees, on-street parking, and using very small or no building setbacks. Physical changes to the roads include road curving, tighter corner radii, changes in pavement texture and speed humps, cushions, and tables. Ms. Gerhart-Fritz then asked what areas in Danville could use traffic calming.

- The hill behind the park, although the rumble strips have significantly reduced collisions

- Mackey Road, between the town's southernmost corporate limits and the stop sign at the intersection of Mackey and Lincoln

- South Cross Street, from Main Street down the hill all the way out

- Clear Creek Drive, which was designed for too high of a speed and is used for a short-cut between Lincoln and Main

- US 36 East between the east split and Danville's town limits

- Main Street between CR 200 E and Manor Drive

- North Washington Street from Columbia all the way out – the transition from country to Town is a quick and surprising one. Traffic control signs are overgrown with vegetation. The area is supposed to be a 30 mph zone.

- Urban Street near future Woodfield entrance down to Old N Salem – the 55mph speed quickly steps down to 30 mph.

Connection Issues

Ms. Gerhart-Fritz asked the Chiefs to think about missing road connections that made their jobs of emergency response harder. They responded with the following:

- Twin Bridges/Shady Lane should be hooked back into Broadway. This makes sense because the Town Garage where they get fuel for their vehicles is there and currently there is no fast or simple way to get there. Chief Morgan said his fire trucks must leave the station and travel almost a complete loop to the Town Garage as part of their trip to get fuel, which isn't efficient – especially when they can see the Town Garage across the creek from the fire station.

- Orchard Estates should be connected to Orchard Lane, but wasn't due to neighborhood opposition.

- Mackey/Highway 36 area is an example of where there should be a connection established from the stoplight at Mackey and Main heading north to SR 39 North.

- Plan Commission reviewed and discussed current Thoroughfare Plan showing future extension of 10th Street (a.k.a. CR 100 N) to N. Washington and then on to SR 39. It was deemed impractical due to topography and the number bridges that would be required

- Missing cul-de-sacs in Orchard Estates result in dead end streets, except for Peach Tree.

Other Transportation Issues

Congestion in Downtown Danville, particularly on Highway 36, during rush hours and increasingly at lunchtime makes it difficult for fast emergency response. Police cars and ambulances can usually make it through the traffic, but fire trucks don't have enough room. Alternative routes to Highway 36 make emergency vehicles lose more time, so they typically just try to make their way through.

Because of traffic volume, it is very difficult to make a left-hand turn anywhere in town that is not at a traffic signal.

Chief Morgan said it is possible to get a device installed on a fire truck that can activate traffic signals. This is being done in other jurisdictions and would be helpful to Danville.

Pedestrians, Bicycles and Transit

The biggest pedestrian project is the $1.4 million for a combination sidewalk and trail connecting N. Washington, Blanton Woods, and Ellis Park. This is currently on hold due to lack of funding, because the Town did not want to issue a bond to pay for the new Town Hall renovations. Ms. Parker noted that all previous sidewalk connections have been paid for with host funds, and that the Town might consider applying for a TEA grant for a portion of the trail, since those funds would not be awarded until 2013.

Chiefs were concerned that the town's existing roads would not be wide enough to add bike lanes.

IndyGo couldn't make the Beechwood Center stop location in Avon work. Commuters from Heritage and Raccoon Lakes could have used mass transit to get to Indianapolis.

New Projects

Round-abouts – The County is building a big roundabout at the old fairgrounds by the jail. The Town will have a small one at the new town hall, in order to make drive-up bill payment easy. Another change in the new town hall area is that the first block of Wayne, north of Main Street will become a 2-way street again.

Engineering Services, August 28, 2009, 11:00 AM

Participants: County Highway Engineer John Ayers and Rob Roberts, Director of Danville's Public Works Department

Others Present: Town Manager Gary Eakin, Assistant Town Manager and Town Planner Laura Parker, Planning Consultant K.K. Gerhart-Fritz

Ms. Gerhart-Fritz asked Ayers and Roberts to mark on the Danville map the locations of transportation issues they would discuss during the interview, which will become a map used in the Thoroughfare Plan update. She told them they were the second of three different interviews that were being conducted as background research, before the Thoroughfare Plan Steering Committee met for the first time.

Accidents/Danger

The jog on SR 39 at CR 200 S is a problem

CR 200 S/Cartersburg Road has also been an issue

Traffic Calming

Ayers said the County is starting to look at this with new subdivisions. The "Complete Streets" philosophy was introduced to the county with the comprehensive plan update.

The County's experiment in the Prestwick Subdivision with using an island to slow traffic did not work, so it will need to be retrofitted.

Ayers and Roberts agreed that enforcement is a huge part of slowing traffic.

Ayers reported that the rumble strips installed by the County on Cartersburg Road, at CR 200 S and at the town of Cartersburg have slowed traffic down and have held up to the traffic.

Connection Issues

In Danville, east-west connections are more crucial than north-south.

Ayers and Roberts agreed that there needs to be a direct east-west connection on the south side of town by the airport. Connecting CR 200 S is logical.

Other

Ayers asked that the Town coordinate their thoroughfare plan update with the County's Plan. Gerhart-Fritz agreed and stated that County Planning Director Don Reitz would be part of the town's steering committee, which would help with the coordination. Ayers and the Danville officials agreed that there were no problems with their road standards clashing (including curb/gutter and ditch methods for drainage) and that they had not had a problem with developers trying to play them against each other, in hope of getting a better infrastructure deal. Parker said that the Town adopted a PUD for the Platinum property that was nearly identical to the one adopted by the county, so the standards would be the same. Ayers said the County offers more choices on road

surfaces than the Town, but that hasn't been an issue. Eakin said that Danville can allow concrete streets, but just does not prefer them.

Ayers also reported that there was a county Judicial Center Study currently underway, which should be complete by the end of the year. One issue is that since parking is spread out, there may be some recommendations on converting additional downtown streets to 1-way traffic.

Alternate Routes to Avoid Downtown

Roberts and Ayers discussed alternate routes that would bypass downtown. They agreed that Old Highway 36 to Terry/Kirtley Boulevard to Sycamore Lane to Columbia Street and Old North Salem to Highway 39 was one way to avoid Danville's downtown traffic congestion. They also acknowledged that CR 200S to either Mackey Rd or Cartersburg Rd were other ways to avoid town traffic.

Parker said she and the Town Manager had considered the idea of creating one-way streets on either side of the courthouse using Main for westbound and Marion for eastbound traffic. Marion would be extended in a northeasterly direction until it reconnected with Main Street near College Hill. The idea was to split the traffic flow into one-ways at the intersection of Main and Cross. Town owns two existing parking lots on the southwest corner of Cross and Main, but the county will likely be moving into old town hall and will need the area for parking. There is also a major problem with topography and drainage near Wayne, which would make engineering difficult and expensive so the idea was never pursued in any formal fashion.

Intersection Improvements

Roberts discussed intersections where he would like to see improvements:

- Tennessee and Main – needs to be wider
- Tennessee and Columbia – turning radius
- Kentucky and Main – north side too tight for fire trucks.
- Wayne and Main and Cross and Main – turning radius. Large trucks have destroyed existing curbs. They have also knocked down signs and hit fire hydrants.

Town officials told Gerhart-Fritz that the town does have a weight limit for trucks, but has never created truck routes. Eakin explained that large trucks are prohibited in the existing alleys. Also, school buses don't go into the town's existing cul-de-sacs.

Pedestrians, Bicycles and Transit

In Danville, bikes have to register and get a license plate. This ordinance is not enforced. Bikes cannot legally ride on the sidewalk in town.

Missing sidewalk links are on North Washington and Lincoln Streets. The town also has many missing sidewalk pieces that are only 1-lot wide. The town does have a sidewalk replacement program that works with property owners to replace sidewalks.

Town officials would like to look into retrofitting the CVS traffic signal on Highway 36 for pedestrians. Parker said there needs to be a safe way for pedestrians to cross the US 36 bridge over White Lick Creek.

The group discussed whether there was a need for a 3rd bridge so the town's trucks wouldn't go through a residential neighborhood to get to the Town Garage. Ayers affirmed that the county rebuilt the truss bridge over the creek at the end of Broadway recently to carry pedestrians and light vehicle traffic only, not trucks.

The town manager said he would like to reclaim alleys in order to accommodate pedestrians near the downtown. Parker said she was concerned about garages encroaching in the alley right-of-ways and the encroachment of utility poles and trees.

The use of golf carts on public streets has not become an issue in Danville, like it has in other small towns.

Poor signage is problem on Highway 36. Semi-trucks miss signs for SR 39 and turn down Jefferson to get to Broadway and then cut back to Cross. The State has added some additional signs, but it doesn't seem to have helped.

Parker confirmed that the town's required intersection visibility triangle is a standard 75' for all street types.

Parking, August 28, 2009, 1:00 PM

Participants: Jerry Vornholt, businessman and local citizen

Others Present: Town Manager Gary Eakin, Assistant Town Manager and Town Planner Laura Parker, Planning Consultant K.K. Gerhart-Fritz

Ms. Gerhart-Fritz explained the marked up Danville map to Vornholt as representing the locations of transportation issues that were discussed in the two previous interviews, and that it will become a map used in the Thoroughfare Plan update. She told him that his interview was being conducted as background research, before the Thoroughfare Plan Steering Committee met for the first time.

Parking Background

Vornholt said he became interested in parking downtown because many locals and potential new businesses saw it a perceived lack of parking. The Downtown Danville Partnership's purpose is to revitalize and enhance the downtown area to make it walkable and attract more people downtown. The perception is that people don't shop downtown because parking not available. He decided to study the downtown parking situation in order to determine whether there was an actual lack of parking and to look for parking solutions.

He said that the County has 147 daily employees in the courthouse and if they are combined with the employees around the courthouse square, the existing permanent parking is close to what is needed. He said he focused on where parking was on the south side of Highway 36, because it is too difficult for pedestrians to cross Highway 36 after parking. He said that if there were just one more parking area off Broadway, there would be enough. If this new parking was reserved for employee parking, and if we work with the judges and prosecutors to get their people to use it, downtown parking would work much better.

Parker said that businesses fronting on the courthouse square (CB-P) have no off-street parking requirements. The secondary downtown area requires standard parking space requirements. The current ordinance does allow shared parking (see Section 11.4 of the Zoning Ordinance). Vornholt said one of the major problems is that courthouse employees are parking in the 2-hour limit parking area, and then moving their car every 2 hours. The town's current ordinance has a loophole that allows people to continually move around within the 2-hour zone. He hopes that the ordinance will be changed to limit parking to a cumulative maximum of 2 hours anywhere within the "district", in the near future. Eakin said that Chief Gill is ready to enforce parking violations harder, and is working on ordinance changes, including towing. Multiple offenders will be towed; booting requires more resources, so the town decided to pursue towing violators instead.

The Library also adds parking problems to the downtown. They have some off-street parking now, but need more. It is near a successful dance studio that uses the library's parking for overflow.

As part of the comprehensive look at downtown parking, the group agreed that they need to determine time limits for each parking area, which may vary from 2 hours maximum to all day.

Vornholt said that not all land at the County Government Center is developed. He suggested using a shuttle to run between extra parking at the government center and the Courthouse. Parker said that she had read that another city, possibly Portland, OR is experimenting with trolleys using Federal funding.

Vornholt said the town needs to purchase some land along Main Street and offer free all-day parking in nicely landscaped parking lots, using wayfinding signs. He said that any downtown parking changes need to be part of a major marketing campaign, lasting one year, so that people finally get the message that there is enough parking downtown.

Eakin said that the Town is making an effort to improve the downtown parking situation. The Council approved funds this week for acquisition of lots and also set priorities for new parking. Parker was able to add 25 more parking spaces around the square through a new layout.

Pedestrians, Bicycles and Transit

Parker said the downtown has only 2 bike racks now, by the art gallery and outside the Comer building. Eakin suggested restricting the nearby alley to pedestrians only and exploring moving the bike rack in there.

Vornholt would like to see a pedestrian cross-over on Highway 36 downtown, while Parker said she would love to see a "Welcome to Danville" sign over Highway 36.

Need to encourage a linear trail through town. Look at the railroad corridor as the connection between Avon and Danville. Eakin said the town has talked to the state and they were open, but it would be more difficult to work with CSX.

Vornholt stated that Washington Street has so many pedestrians, and with the hills, visibility isn't great. A trail is needed for the safety of the pedestrians.

Other

Parker asked Vornholt if he felt slow movement through the downtown would prohibit development on the west side of town? Vornholt said that services like a grocery store (i.e., Casey's convenience store which only does small towns), should do fine. He added that the east side will build out before the west side will develop. Vornholt agreed that a Mackey Road extension is desirable because it would open up a large area for development and the school would support it. He agreed to think more about how traffic movement affects economic development.

Summary of Public Input Worksheets

Alternative Transportation Worksheet Results

Do you think Danville should adopt a "Complete Streets" policy?
yes = 26 no = 2 **unsure = 35**

Do you think sidewalks and trails contribute positively to neighborhood character?
Yes = 51 no = 2 unsure = 12

How important is it to link neighborhoods with trails, bike paths and parks?
Not Important = 8, Somewhat Important = 10, Moderately Important = 12, Important = 16, Extremely Important = 12

Do you think Danville's sidewalk system is complete?
_3_ yes **_43_ no** _21_ unsure

Do you think Danville should develop a trail system that links to trails in other jurisdictions (i.e., Hendricks County)?
29 yes _11_ no **_26_ unsure**

Do you think Danville should develop a trail system that links place of interest within the town (i.e., schools and parks, etc.)?
_47_ yes _4_ no _15_ unsure

How much more likely would you be to walk for exercise if the Town provided a more extensive system of sidewalks and trails?
No More Likely = 12, A Little More Likely = 11, **More Likely = 19,** Much More Likely = 13,
I would definitely walk more! = 8

How much more likely would you be to walk instead of drive if the Town provided a more extensive system of sidewalks and trails?
No More Likely = 22, A Little More Likely = 15, More Likely = 16, Much More Likely = 4,
I would definitely walk more! = 7

Do you think Danville should explore the creation of bicycle lanes, bike paths and marked bike routes?
_31_ yes _16_ no _19_ unsure

Do you think Danville should require that businesses and institutional uses provide bicycle parking, like they are required to provide parking for motor vehicles?
_19_ yes **_24_ no** **_22_ unsure**

How much more likely would you be to ride your bicycle if the Town provided a system of bike routes, bike paths and dedicated bike lanes?
No More Likely = 31, A Little More Likely = 7, More Likely = 11**,** Much More Likely = 5,
I would definitely ride more! = 7

Alternative Transportation Worksheet Results, continued

Do you think Danville should participate in an express bus system to Indianapolis with other jurisdictions in Hendricks County?
22 yes **20 no** **23 unsure**

Would you use an express bus to travel to Indianapolis?
19 yes **25 no** **19 unsure**

Do you think Danville should plan for additional mass transit in its future, including a local bus system?
25 yes 13 no **26 unsure**

How likely would you be to use a local bus system?
Not Likely = 21, **A Little More Likely = 22**, Likely = 9**,** Very Likely = 4,
I would definitely ride the bus! = 7

Do you think Danville should support carpooling and park and ride options more by providing parking areas?
35 yes 11 no 18 unsure

How much more likely would you be to carpool or park and ride if the Town provided parking areas?
No More Likely = 19, **A Little More Likely = 22, More Likely = 17,** Much More Likely = 3,
I would definitely do this! = 1

Do you have any other suggestions or comments regarding alternative transportation in Danville?

- Encouraging more biking and walking by providing appropriate sidewalks & trails benefits everyone. Have a bus or trolley system for those who can't walk or ride.
- Need buses & taxis in Danville.
- Need sidewalks along Hwy 36. People walk on the road now (3).
- Even if I'm not more likely to bike if you build bike facilities, others would be.
- Need sidewalks behind school, up Old 36.
- Need walk signals at 36 and Old 36 intersection.
- Need bike lane on SR 39.
- Need shuttle system in Downtown Danville.
- I support any mass transit with stops in Danville.
- A bike rack for each block is enough -- each business doesn't need one.

Streets Worksheet Results

How important is it for adjacent neighborhoods to be connected to each other?

No connections = 5, Emergency connection only = 5, Single connecting street = 14, **More than one connecting street = 23,** As many connecting streets as possible = 2

Circle all statements you agree with -- you may also write your own statement(s):

1. **I believe that developers should pay for all street costs associated with new development = 37 people**
2. I believe taxpayers should fund street upgrades needed due to new development. = 5 people
3. The town should upgrade streets before new development occurs. = 24 people
4. The developer should upgrade streets before new development occurs. = 22 people
5. Developers should be allowed to substitute trails for sidewalks in their developments.= 10 people
6. **Sidewalks should be required in all new subdivisions on all streets. = 42 people**
7. **Sidewalks should be located on both sides of the street. = 41 people**
8. Sidewalks should only be required on perimeter streets and streets that connect to existing sidewalks or facilities (i.e., schools). = 12 people
9. Pedestrian overpasses should be provided over major streets. = 26 people
10. Use designs that keep the small town feel and encourage biking & walking = 1 person
11. Time crosswalks to work with traffic lights = 1 person

Intersections:

As Danville continues to grow, so does the amount of traffic passing through. Traffic control for major intersections is important. Please list all intersections that apply:

***Stop sign needs to be replaced with* traffic signal:**

- 200E and Old 36 (2)
- 200 N & US 36
- park entrance at 36
- High School by Casey's
- Lincoln & Cartersburg
- Hwys 39 and 36

Traffic signal *needs to be replaced with stop sign:*

- *Mackey and 36, Main ST and 36*

Pedestrian crossing signal needed:

- Hardees and the Park (2)
- all major streets (2)
- Old 36 and 36 by McDonalds

Streets Worksheet Results, continued

Intersection visibility needs to be improved:

- 36 and Wayne (2)
- 39 and Mill (2)
- Sunset and Mackey
- Lincoln and Cartersburg
- Cross ST and ?

Arterials:

Does Danville need additional north/south streets to carry traffic? __3__ yes **or** _**45** **no**

If yes, where?

- North side to get through bypass
- along railroad

Does Danville need additional east/west streets to carry traffic? __15_ yes **or** _**37**_ **no**

If yes, where?

- Bypass (4)
- Hwy 36 (2)
- Main Street
- connect 10th to Washington
- S of railroad
- improve existing streets

Repairs:

- US Hwy 36 (6), Hwy 36 past Middle School heading east (2), Hwy 36 from Kroger to High School
- 39 on south side by cemetery heading north (2)
- Columbia (2)
- Mill (2)
- 200 N (2)
- Old 36 (2)
- 200 E (2), 200 E/300 E connection by Fairgrounds (2)
- Streets on north side
- Mackey RD to 200 S
- Clinton
- Kroger exit
- 75 W
- Cross
- 300 E
- Lincoln round-about
- Tennessee
- E Mills and Broadway drainage basin
- all county roads

Streets Worksheet Results, continued

Do you have any other suggestions or comments regarding alternative transportation in Danville?

- Put sidewalks along Hwy 36 (2)
- Don't pay for it -- let people figure out biking and walking themselves
- Need sidewalk from Old 36 to McDonalds
- Reroute rush hour traffic
- Add bike lanes and walking trails as much as possible
- Focus on improving connections
- Slow down traffic on Broadway, east of Tennessee

US Highway 36 Bypass Worksheet Results

In 2004, INDOT commissioned this study of the US 36 Corridor in order to evaluate alternatives for improving traffic service. Seven alternatives were considered:

1. Northern alignment of bypass -- "new terrain" bypass located approximately 1 mile north of the current Hwy 36
2. Southern alignment of bypass -- partly on "new terrain" and partly located along CR 200S
3. County road improvements -- Improve segments of CR 200S, 200N, 300E and 200W
4. Traffic operational improvements -- Reconstruction of 2 miles to be one lane in each direction plus a reversible center lane.
5. **Railroad alignment of bypass (north) -- "new terrain" bypass located along the north edge of the CSX railroad**
6. **Railroad alignment of bypass (south) -- "new terrain" bypass located along the south edge of the CSX railroad**
7. **Do not build a bypass**

Only the North and South Railroad Alignments met INDOT's objectives, which were**:**

- additional capacity for projected 20 year development patterns with a Peak Hour Level of Service C or better in rural areas and D or better through Town
- providing additional flexibility of alternate travel routes and through trip diversions.

Environmental assessments would be INDOT's next step for evaluating these 2 alternatives.

Do you think it is better to pursue one of the railroad alignment bypass alternatives or to do nothing? *Please consider the pros and cons of each.*

Build a "New Terrain" Bypass Aligned along the CSX Railroad

Pros	Cons
• less traffic (20) • allows new development (6) • fewer outsiders in Danville (4) • less accidents (2) • Faster travel (2) • Land easy to get for south alignment • Can phase land purchases and construction • Fewer angry citizens • More traffic • Cost • Fewer displaced homes & businesses • Can add bike and walk lanes • No bridge needed on north alignment • Shortcut • Better for buses and large trucks • Less intrusion on south side	• Cost (17) • Bad for downtown businesses (5) • New development (2) • Lose houses (2) • Destroy the landscape (2) • Noise • Might stretch further away • Might spread to neighborhoods • Bridge needed for south alignment • Businesses near north alignment can't expand • Time • Town congestion would not improve • Rebuild bridge on 39 S • More traffic on county roads • More people in Town • Property loss • Construction of bypass

US Highway 36 Bypass Worksheet Results, continued

Do Not Build a Bypass

Pros	Cons
• Saves taxpayer money (11) • Town would stay the same (4) • Saves time • Not needed • Less accidents with trains • Better traffic flow • No construction headaches	• Traffic increases (17) • Angry citizens (3) • More money (3) ? • Traffic accidents • Town Center will become too busy for businesses • Construction won't make money • More gas on 36 • Quality of life

Do you think Danville should push INDOT to continue work on a "new terrain" bypass?

_32 yes _21 no _25 unsure

Do you think Danville should work to improve segments of local roads, so that there could be an unofficial bypass for local residents?

_35 yes _17 no _22 unsure

If you answered "yes" to one of the above questions, which alternative do you prefer? *Check one*

_34 INDOT's New Terrain Bypass
_23 Unofficial Local Bypass using Improved Local Road Segments

Do you have any other suggestions or comments regarding a US Highway 36 bypass?

- Start ASAP on bypass (5)
- Build bypass on north side, not south alignment (5)
- Build south alignment
- If you don't like traffic, just avoid 36
- Reduce number of stoplights on 36
- Time stop lights
- Build sidewalks all along 36
- Not sure we need improvements or bypass
- Add bike and pedestrian accommodations
- Need both INDOT's bypass and local improved road segments
- We travel through Danville many times during the week; traffic is terrible and has been for years. City Fathers should have looked at bypass 20 years ago.
- All parking on Main Street should stop. Double the traffic going east in the morning and west in the afternoon.
- Bypass around Danville would be hard to do because of landfill on the west and all the new houses on the east.
- If you started today, it would take 15 - 20 years for funding, land acquisition and right-of-ways; utilities will need to be moved -- however, nothing is impossible!

Downtown Parking Alternatives Worksheet Results

Do you avoid coming downtown because you think parking is a problem?

15 yes **34 no** 9 unsure

A downtown parking analysis prepared in 2001 for the Hendricks County Economic Development Partnership gave several recommendations, including:

- Consider the entire Courthouse Square one parking zone to eliminate space jumping within the 2-hour area.
- Stricter enforcement of the 2-hour limit and increasing the cost of the ticket for habitual offenders.
- Reserve one space for customers near each business.
- Create public parking maps that identify short and long-term parking.
- Shorten the 2-hour limit to 30 minutes or 1 hour and remove the time limit everywhere but on the square.
- Utilize some parking lots as free employee lots that require a permit.
- Make at least one lot free to the public and available to jurors.

It does not appear that Downtown Danville suffers from a real parking shortage, but there does seem to be a public perception of a parking shortage. The Town is currently working to improve the parking situation. Danville's current ordinance has a loophole that allows people to continually move around within the 2-hour zone. Town officials are considering proposing a change to the ordinance to limit parking to a cumulative maximum of 2 hours anywhere within the Courthouse Square District. Ticketing for parking violations has already become more aggressive and towing will begin soon for habitual offenders. The Town Council recently approved funds for acquisition of parking lots and also set priorities for new parking. 25 more parking spaces will be added around the square by using a new parking layout. As part of the comprehensive look at downtown parking, the town still needs to determine time limits for each parking area, which may vary from 2 hours maximum (or less) to all day.

Do you support a change to Danville's ordinance that would limit parking to a cumulative maximum of 2 hours anywhere within the Courthouse Square district?

14 yes **29 no** **20 unsure**

Would you use free all-day parking along Main Street, but not on the Courthouse Square if you had to drive downtown?

37 yes 6 no **21 unsure**

Would you park in a free remote parking location if there was a shuttle available to the Courthouse Square area?

20 yes **23 no** **21 unsure**

Downtown Parking Alternatives Worksheet Results, continued

Do you have any suggestions for other things that could be done to improve parking in the downtown?

- Work with property owners to develop parking areas on their properties
- Maximize parking within existing areas by efficiency of layout
- Mark parallel parking spaces throughout town
- Parking meters!
- Parking on square should not be for courthouse staff. They should have shuttle service from annex parking
- Parking limit on Square should be longer than 2 hours (at least 4 hours). Can't do meals, shopping, movie in 2 hours. Some groups are elderly and can't walk long distances.
- Need designated parking spots for employees of shops on Square and a shuttle for them
- Buy and get more parking
- Get better signage for parking and street flow in the downtown area
- All employees on Courthouse Square should be required to park in lots and shuttle to work.
- Consider shorter term delivery or loading/unloading spots
- Build a fee-based parking structure
- Please take action on the habitual offender. Should ticket all who earn one and do away with permits.
- Keep parking free and with unlimited time
- Add a few shuttle buses to square from new smaller remote parking lots
- Let employees park on Square without having to worry about 2-hour parking and getting a ticket. Have a tag for employees to exempt them from tickets.
- Free parking to jurors and courthouse employees. Need more parking for courthouse employees also.

Downtown Circulation Worksheet

Downtown Danville is the only area of town that includes one-way streets. Traffic engineers have historically listed the following reasons for using one-way streets:

- Street is too narrow for movement in both directions (in this case parking will only be allowed on one side of the street or not at all).
- To prevent drivers from cutting through residential streets to bypass traffic lights or other requirements to stop.
- Quick evacuation for disasters.
- Smoothing routes for commuters to and from city centers.
- Part of a one-way pair of two parallel one-way streets in opposite directions.
- For a proper functioning of a system of paid parking or other paid access, which uses such products as traffic spikes.
- To calm traffic, especially if the street is historic.
- To eliminate turns which involve crossing in front of oncoming traffic.
- To reduce pollution from automobiles.

Many communities have converted one-way streets to two-way. The goal of converting to two-way streets is to typically slow down traffic and make streets more pedestrian friendly. According to the American Planning Association, this trend got rolling in the early 1990s and has been part of the reinvention of cities, which are trying to convince suburbanites that downtowns are livable. "There's a lot of emphasis now on taming the automobile and emphasizing walking and biking. It's all part of creating a place that people want to be," says Marya Morris of the American Planning Association. Many downtowns are looking at two-way streets as a way to slow traffic down, getting the driver to pay more attention to the businesses and to make it easier to get to the businesses.

Do you support changing some or all of Danville's one-way streets to two-way streets?

_22 yes _21 no _20 unsure

If you answered "yes" to the above question, which streets (or portions of streets) do you believe should become 2-way?

- Washington (4)
- Washington between Clinton and Columbia
- All 1-ways (4)
- Jefferson (4)
- Streets adjacent to Courthouse Square (3)
- One by old middle school (2)
- US 36
- Marion between Washington and Indiana
- Wayne between Main and Clinton

Downtown Circulation Worksheet, continued

Do you have any other suggestions or comments regarding one-way versus two-way streets in the downtown?

- 1-ways when used properly do assist traffic flows. Continue to be selective in where they are and how many we have
- I don't find this to be a problem. Many major metropolitan areas are comprised of 1-way streets but are still very easy and safe for those not in cars
- It is not clear that this is a problem today. If people express a concern about feeling unsafe, then yes. If no one is complaining, then no.
- Where 1-way streets are provided, maximize parking.

Strengths, Weaknesses, Opportunities, Threats (SWOT) Exercise Results

Strengths

- "side street" access good
- Main drag goes through downtown (1 public vote)
- Fairly bicycle friendly
- Trail (contained in parks) (1 public vote)
- Sidewalk connections to trails (1 steering committee vote + 1 public vote)
- Plans to fill in missing sidewalk links
- Tight corner radii slows turning traffic
- People are friendly and work together to deal with traffic problems (1 public vote)
- Town is walkable (4 public votes)
- Hwy. 36 functions as a "private interstate"
- Generally not too congested
- Hwy 36/39 connection to I-74
- Downtown has grid pattern of streets (4 steering committee votes)
- Streets are generally in good shape
- Alternative routes exist (2 steering committee votes)
- MPO not watching Danville as closely, so more freedom

Opportunities

- Eliminate parking on Main ST (3 steering committee votes)
- Upgrade East Main and Tennessee (1 steering committee vote + 1 public vote)
- Fix Hwy 36/39 intersection (1 steering committee vote)
- Compact form of Town works well for biking, walking, mass transit (1 steering committee vote +3 public votes)
- Minimize rush hour "through traffic" at park
- Wayfinding signs (1 steering committee vote +2 public votes)
- More awareness by the public (2 public votes)
- Mass transit hub and connection to Indy (1 steering committee vote + 1 public vote)
- Expand airport for corporate jets, etc. (2 public votes)

Weaknesses

- Lack of dedicated bike lanes (3 steering committee votes)
- Signals don't recognize bikes
- Danville on edge of MPO's notice
- Lack of full public transit -- only have LINK (5 steering committee + 1 public vote)
- Lack of awareness of LINK
- Lack of capacity for existing transit demand (1 steering committee + 2 public votes)
- Cul-de-sacs too small for school buses

SWOT Exercise Results, continued

Weaknesses, continued

- Subdivisions need multiple access points
- Big trucks in town
- Left-hand turns on and onto Main Street (1 public vote)
- Configuration of SR 39 on south side (1 steering committee vote)
- Old N. Salem/SR 39 bad (1 public vote)
- Existing design standards
- Hwy. 36 traffic (2 steering committee votes + 4 public votes)
- Lack of sidewalks along Hwy 36 (1 steering committee vote + 2 public votes)
- Corners too tight for turning
- General gaps in sidewalk system (2 steering committee votes)
- By-pass would be a challenge
- Narrow roads -- on-street parking eats up (1 steering committee + 1 public vote)
- State controls Town's main drag, Hwy 36 (1 steering committee + 2 public votes)
- Traffic signal issues
- Railroad location doesn't provide room for stacking and stops traffic (1 steering committee vote)
- County Roads 200 E, 300 E and 200 W have lots of accidents
- Downtown parking (1 public vote)
- Accidents/traffic speed in area of SR 39 and 236 (1 public vote)

Threats

- Growth management that improves conditions may cause more growth
- Declining funds (4 steering committee votes + 1 public vote)
- Population growth (1 steering committee vote)
- Urban expansion (1 steering committee vote)
- "Avonification" (2 public votes)
- Commuter population (1 steering committee vote)
- Other transportation alternatives (golf carts, etc.)
- Lack of planning impacts quality of life
- Increasing non-driving population (aging society)
- Aging infrastructure -- can we afford to maintain (1 steering committee vote)
- More parking problems (1 public vote)
- Air pollution
- Bypass could hurt the downtown (2 public votes)
- No bypass would make school bus routes long (takes more time to get thru traffic)
- Lack of bike and pedestrian paths is a safety issue (3 public votes)

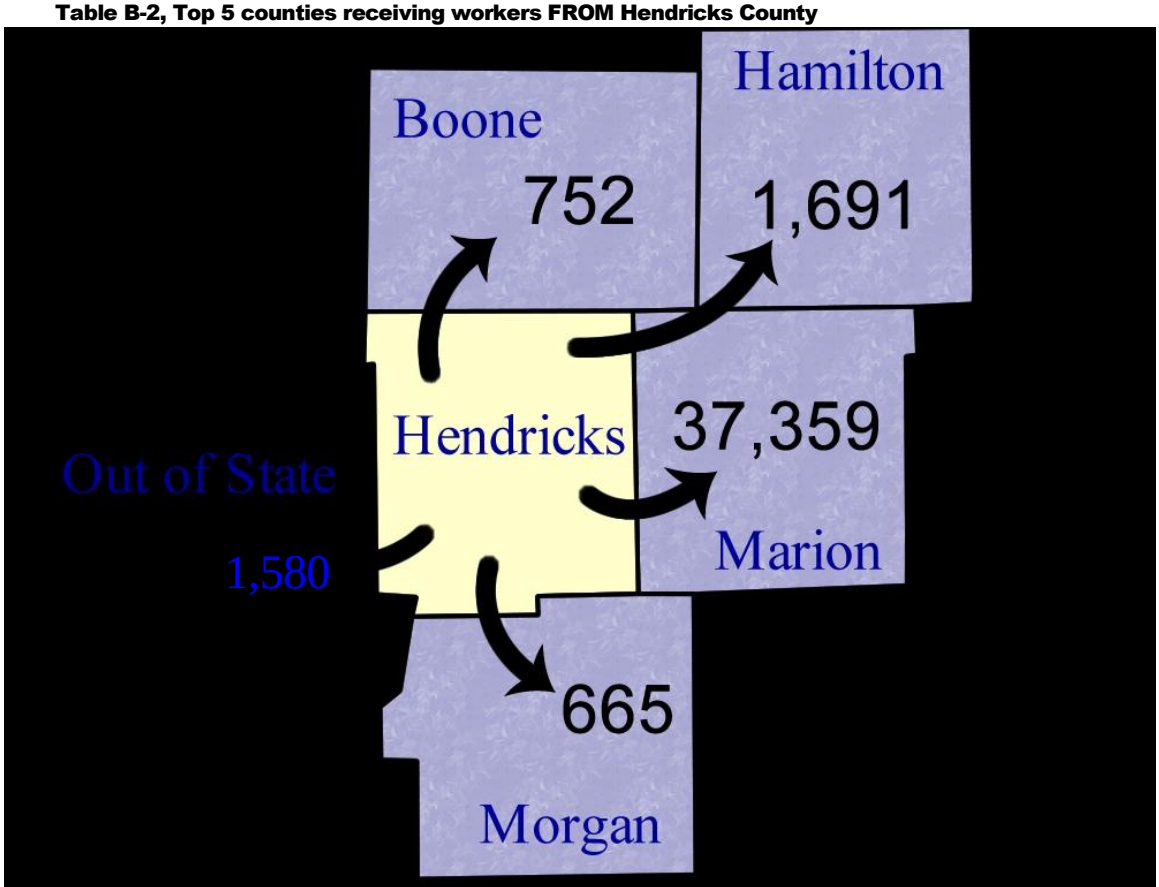
Appendix B -- Background Data

Table B-1, Residential Building Permits Issued

	1990	1995	2000	2005	2006	2007	2008	2009
Danville	75	172	309	286	235	193	151	148
Hendricks County	660	1,493	1,901	2,387	1,416	1,057	910	745

Source: US Census Bureau

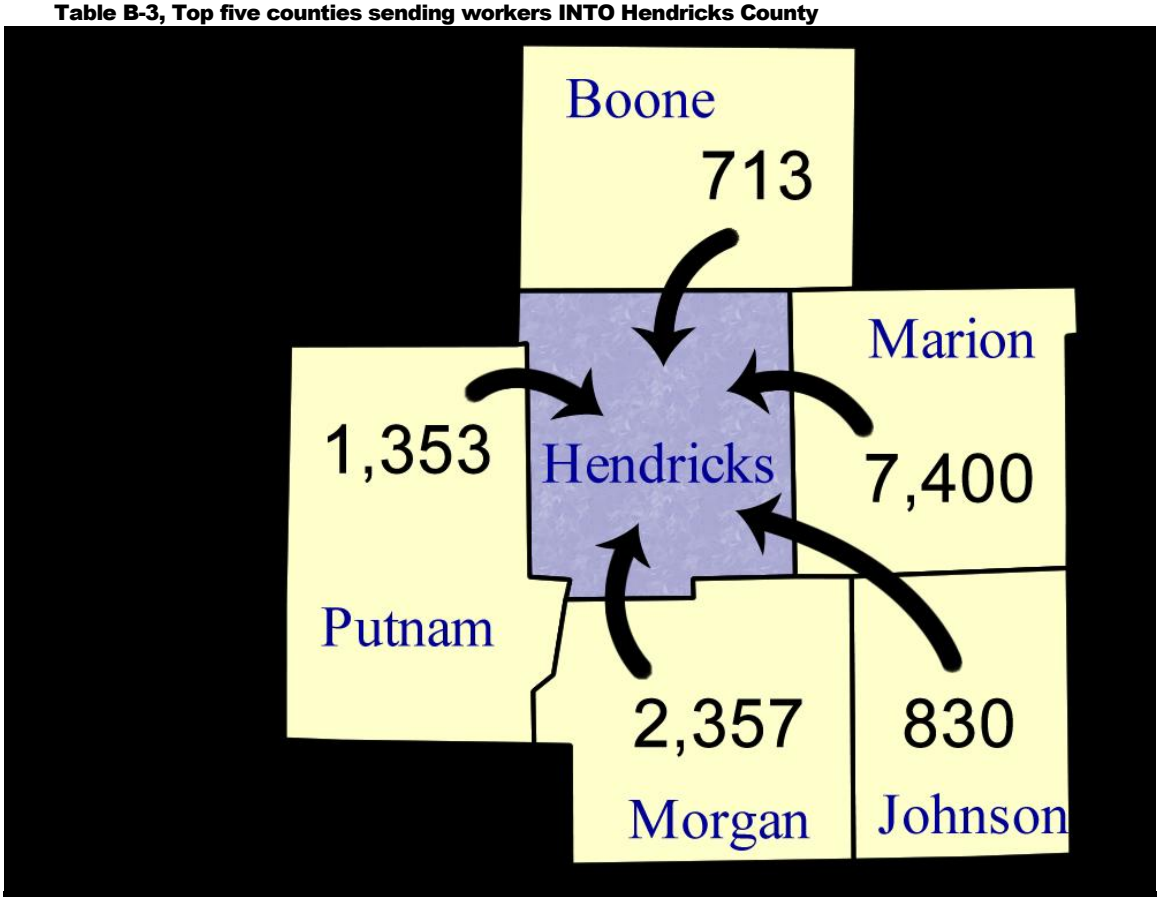
Table B-2, Top 5 counties receiving workers FROM Hendricks County



County Receiving Workers	Workers
Marion County	37,359
Hamilton County	1,691
Out of State *	1,580
Boone County	752
Morgan County	665
Total of above	42,047 (45.6% of Hendricks Co labor force)

STATS Indiana Commuting Profiles Tax Year 2008

Table B-3, Top five counties sending workers INTO Hendricks County



County Sending Workers	Workers
Marion County	7,400
Morgan County	2,357
Putnam County	1,353
Johnson County	830
Boone County	713
Total of above	12,653 (20.3% of Hendricks County workforce)

STATS Indiana Commuting Profiles Tax Year 2008