8.0 WEST CORRIDOR EVALUATION & RECOMMENDATIONS

8.1 Land Use/Developed Areas

North-south travel in the West Corridor is currently served by State Route 267, State Route 39, and State Route 75. Several cities and towns in Boone, Hendricks, and Morgan Counties are linked by these highways, including Lebanon, Brownsburg, Plainfield, Danville, Lizton, Mooresville, Clayton, Monrovia, and Martinsville. Land use along these highways is still largely rural except where they pass through these cities and towns.

Cities and towns in the West Corridor experienced a significant amount of growth between 1990 and 2000. All communities in the corridor grew in population, and particularly near Indianapolis Airport, the area has seen recent rapid development of commercial and warehouse uses.

The growth trends of the West Corridor indicate that north-south access and mobility will be increasingly important as the number of housing units and jobs increase in the cities and towns served.

8.2 Demographic Characteristics/Trends

Population – In the 1990's, the West Corridor experienced the second highest rate of growth of the four corridors reviewed in this study. Population growth in Brownsburg and Plainfield was particularly significant between 1990 and 2000, at 90% and 76%, respectively. During the same period, population grew in Mooresville and Danville at rates of 67% and 48%, respectively. Lebanon grew at a rate of 18% and population in Martinsville remained essentially flat between 1990 and 2000.

Households – Households grew at a similar rate to population between 1990 and 2000 in study area cities and towns. U.S. Census Bureau data indicates growth rates of 89% in Brownsburg, 69% in Plainfield, 68% in Mooresville, 42% in Danville, 23% in Lebanon, and 5% in Martinsville.

Housing Units – Housing units grew in all of the West Corridor communities between 1990 and 2000: These increases were 91% in Brownsburg, 73% in Plainfield, 66% in Mooresville, 46% in Danville, 26% in Lebanon, and 6% in Martinsville.

8.3 Existing Transportation System

A corridor location map showing major transportation facilities, local roadways and incorporated areas in the West Corridor is provided as Figure 8-1.

As with other study corridors, transportation facilities in the West Corridor reflect a strong orientation toward the City of Indianapolis. The highest capacity facilities are east-west, including I-74, I-70, US 36, and US 40. I-65 and SR 67 enter the study area as diagonals oriented toward Indianapolis from the northwest and southwest, respectively. All of these roadways are multi-lane and several are at freeway or expressway standards.

North-south travel in the West Corridor is currently served by State Road 267, State Road 39 and State Road 75. SR 267 is closest to Marion County, beginning at I-65 between Zionsville and

FIGURE 8-1
LOCATION MAP

See oversized figures file for Chapter 8

Lebanon, and passing through Brownsburg, Avon, Plainfield and Mooresville. Clermont is located a short distance from SR 267 to the east. SR 39 links Lebanon with Danville and Martinsville, passing through the approximate center of Boone, Hendricks and Morgan Counties. SR 75 is located on the west edge of these counties. Although considered in overall travel forecasting, SR 75 is not reviewed in detail in this study.

An additional parallel route in development by local communities in Hendricks County is the Ronald Reagan Parkway, located near the Marion County line. This roadway will begin at the Six Points Road interchange with I-70 and will extend north to link with a new interchange at I-74. Interest has been expressed by the Boone County commissioners to consider further extension north to I-65. South of the I-70/Six Points Road interchange, the roadway will continue as Ameriplex Boulevard to SR 67.

Traffic operations for the existing primary state routes have been estimated based on the procedures of the Highway Capacity Manual 2000 (HCM2000). Estimated travel speed and travel time (delay) are primary determinates of the quality of service. Based on data for the roadways provided by INDOT through the road inventory database, video log data compilation and traffic data from the periodic count program, most of the parameters required by the HCM2000 analysis procedures are available for use in this study.

8.4 Overview of Parallel Arterials

As in other study corridors, there are no continuous local arterials that pass through all three counties of the West Corridor. The local grid system of Morgan County in particular is interrupted at many locations by White River. North-south local roadways in the other two counties provide greater continuity, but still lack connectivity for long distances without the need to jog on an east-west roadway.

A number of north-south arterials serve the area, including Girls School Road, Country Club Road (in Marion County), and Raceway Road along the western Marion County line. One north-south arterial of particular significance is Dan Jones Road (Plainfield/Avon) and Hornady Road (Brownsburg), between US 40 and US 136 (See Figure 8-1). Dan Jones Road/Hornady Road is parallel with SR 267 north of US 40 and is located approximately one mile to the east, near the alignment of the "south leg" of SR 267 where it extends to I-70. As such, it serves as a natural extension of SR 267 for local travel. North of US 40, Dan Jones Road carries roughly twice the traffic volume served by SR 267 (14,000 vs 7,000 vehicles per day).

In order to improve north-south travel in the area and to provide a high quality economic development corridor, the local communities of Hendricks County have recently completed a project definition study for the Ronald Reagan Parkway linking Plainfield, Avon and Brownsburg. Ronald Reagan Parkway is parallel with SR 267 and is located about one mile east of Dan Jones Road.

These and other planned projects are described in the next section.

8.5 Overview of State and Local Plans

Interviews were held with INDOT district staff as well as local planning and engineering officials for the purpose of identifying planned and/or programmed roadway improvements near or within the West

Corridor. A number of future projects in early planning or engineering phases will benefit north-south travel within the study area, as described below:

- SR 39, Martinsville (INDOT)

  INDOT is planning a major upgrade to US 39 in Martinsville in response to increasing traffic volumes and in recognition of the importance of SR 39 as a White River crossing point and a key link between SR 37 and SR 67. The existing two-lane roadway will be widened to five lanes to provide a continuous multi-lane roadway, and existing signs and traffic signals will be modernized. This project is programmed for 2006.

- SR 39, Morgan and Hendricks Counties (INDOT)

  INDOT plans to reconstruct or replace the existing pavement of SR 39 from SR 42 to the north side of the Town of Clayton (north of US 40). SR 39 will remain a two-lane roadway, but it will be upgraded to provide 12-foot lanes and 10-foot shoulders at most locations. This project is scheduled for construction in 2007.

- SR 39, Danville (Local Plan)

  Although the project is not currently programmed, INDOT has considered realigning SR 39 to Mackey Road on the west edge of Danville to eliminate the numerous turns and jogs on the existing alignment. The Danville Comprehensive Plan incorporates this element in their Transportation Plan, and recommends that a new section of roadway be added (north of US 36) in order to make the route even more continuous (See Figure 8-2).

- SR 267/I-65 Interchange Modifications, Boone County (Anson Development Plan)

  A traffic impact study prepared for a proposed mixed use development (Anson) along I-65 has identified the future need for improvements to the SR 267/I-65 interchange. These improvements would include local roadway realignment and expansion north of the interchange and widening of the bridge over I-65 to provide at least one additional westbound lane to accommodate double left movements onto the southbound ramp. The study identifies this as a forecasted need in 2010.

- SR 267, Brownsburg (Local Plan)

  Traffic on SR 267 near I-74 in Brownsburg has grown significantly in recent years. A major reason for this is a lack of options for interstate access and for north-south travel in general through the community. As shown on Figure 8-3, the Brownsburg Comprehensive Plan includes two major initiatives to address this. The first is Ronald Reagan Parkway, located between 900E and 1000E, and its interchange with I-74. The second is Northfield Drive, which will provide a "beltway" around the town. As shown on Figure 8-3, the northeast leg is already in place. When this is extended southward and westward, it will provide another option for north-south travel. Overall mobility will also be improved where Northfield Drive intersects Dan Jones Road (CR 800E) and where it is linked with Ronald Reagan Parkway.

FIGURE 8-2
DANVILLE TRANSPORTATION PLAN

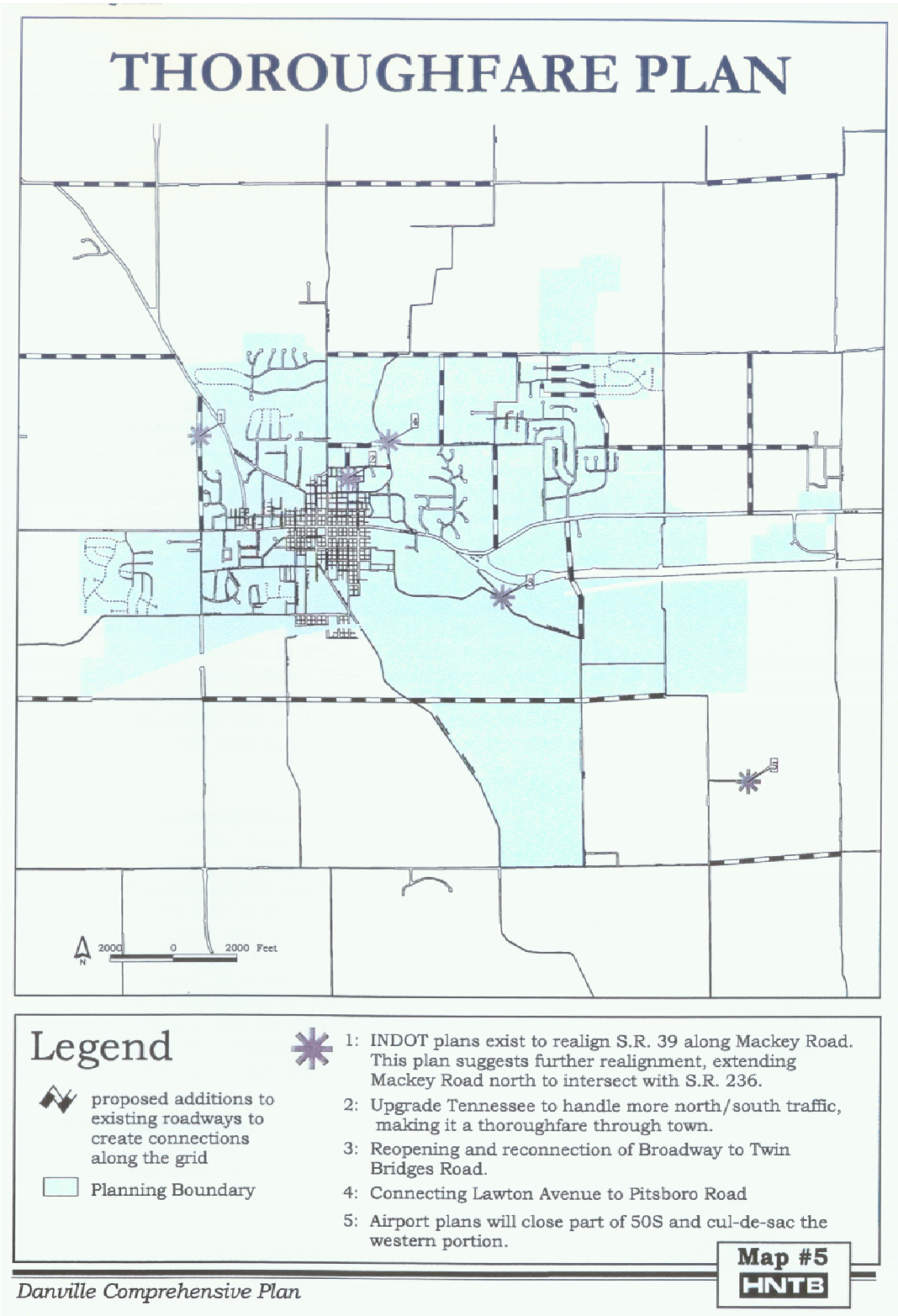
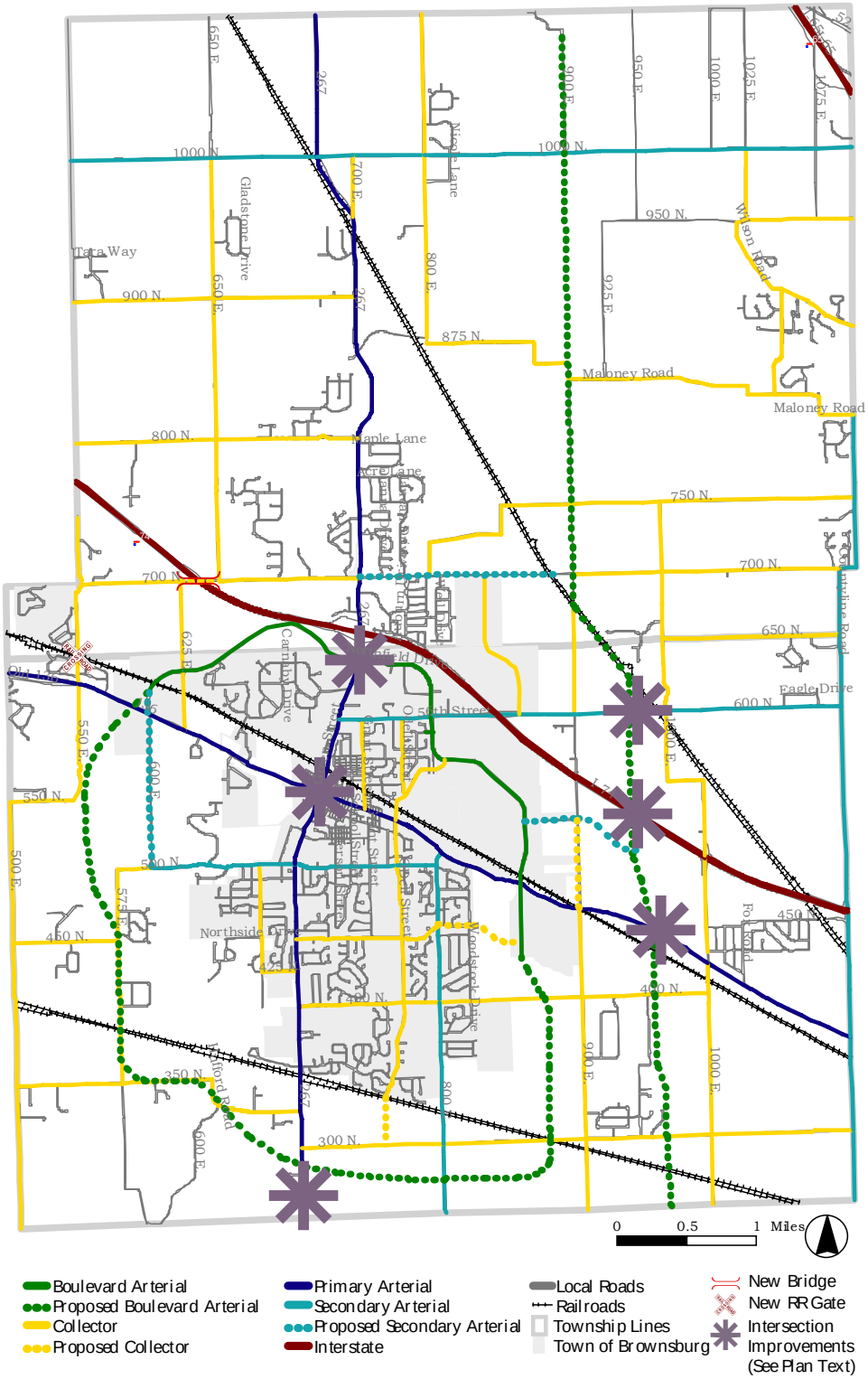


FIGURE 8-3
BROWNSBURG TRANSPORTATION PLAN



SR 267, Plainfield (INDOT)

INDOT is planning a major project for 2005 to rubblize and overlay the concrete pavement of SR 267 between I-70 and US 40 in Plainfield. In addition to pavement repair, the project will include traffic signal modernization, sign modernization and bridge work. INDOT is working with the Town of Plainfield to incorporate landscaping elements and other enhancements to improve the visual character of this major gateway to Plainfield.

- SR 267 Railroad Overpass, Avon (INDOT)

  INDOT has programmed a new bridge to provide a grade separation over the CSX Railroad yard located just south of US 36 in Avon. This work is currently programmed for construction in 2007.

- Ronald Reagan Parkway (formerly "North-South Corridor"); Plainfield, Avon and Danville (Hendricks County)

  A major north-south arterial is being developed to link I-70 with I-74 along the general route of CR 1050E in Hendricks County. Located just east of the Marion County line, this roadway will link Plainfield, Avon and Danville. A multi-agency steering committee with representatives of these three communities, along with Hendricks County and the Indianapolis Airport Authority, recently completed the Ronald Reagan Parkway Master Plan to define land use, aesthetic features and access management for the corridor (See Figure 8-4). A portion of the project has been constructed in Avon and the southern section between I-70 and US 40 is scheduled for construction in 2005.

  As defined in the master plan, the corridor will be developed commercially and the Ronald Reagan Parkway will be a four-lane divided roadway, although some sections will constructed with two lanes as an initial stage. Access management is a major feature of the plan, with median cuts and potential traffic signals to be provided at approximately one-half mile spacing. A model ordinance, including access management provisions, has been prepared for use by local communities to implement the provisions of the master plan.

  Ronald Reagan Parkway will link with the I-70/Six Points Road interchange, completed in 2004. An interchange justification report has been prepared for the planned interchange at I-74 in Brownsburg. The Hendricks County commissioners have met with their counterparts in Boone County regarding a potential extension to I-65 near Lebanon. Subject to more detailed studies, a preliminary location within Boone County is shown on Figure 8-5. With or without this extension, Ronald Reagan Parkway will play a significant role in serving future north-south travel demand in the West Corridor.

- Dan Jones Road Improvements (Plainfield)

  Dan Jones Road, located east of SR 267 has emerged as an important local arterial during recent years. Plainfield has programmed a project for use of federal funding to widen the roadway to four lanes between US 40 and CR 100S (Township Line Road). Construction of this project is scheduled to begin in 2005.

FIGURE 8-4
RONALD REAGAN PARKWAY
CORRIDOR LOCATION MAP

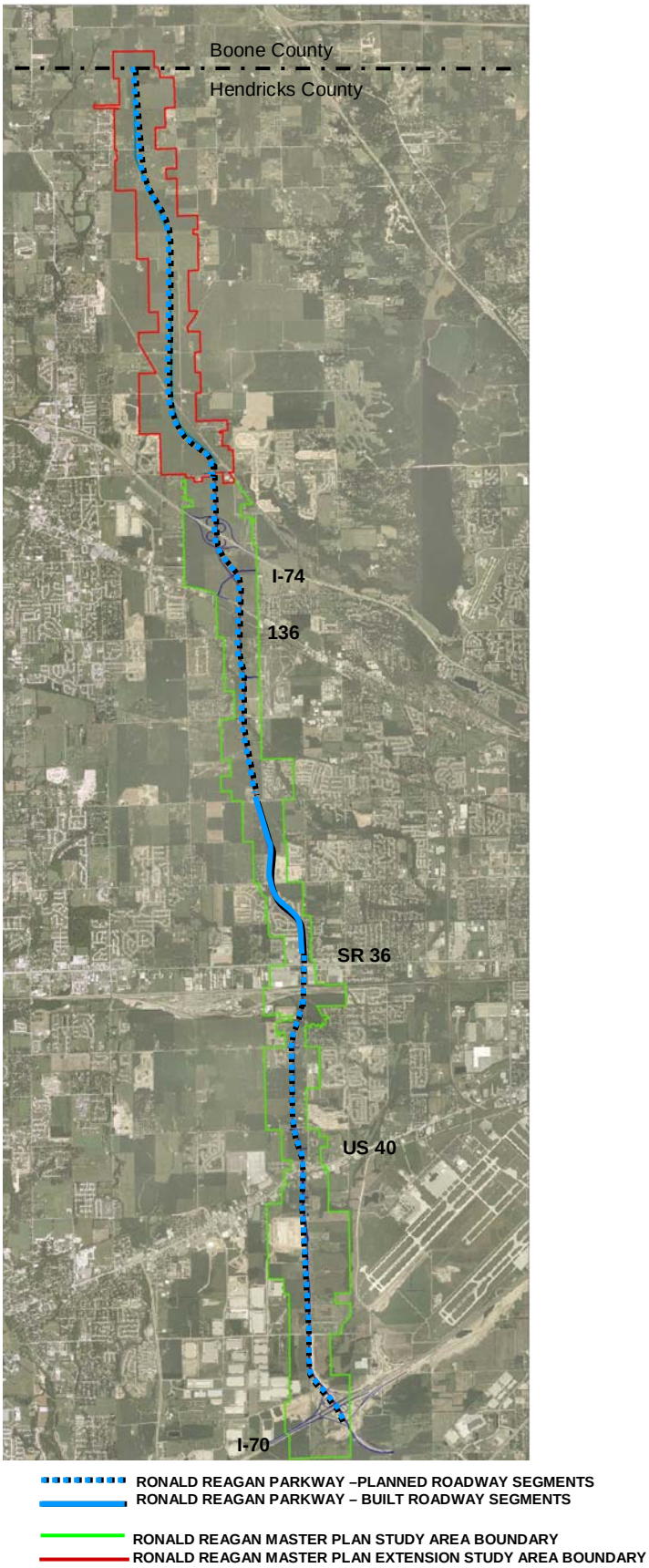


FIGURE 8-5
RONALD REAGAN PARKWAY
PROPOSED BOONE COUNTY EXTENSION

See oversized figures file for Chapter 8

Dan Jones Road Improvements (Avon)

Avon has programmed two projects for Dan Jones Road. Both are dual lane roundabouts to replace existing intersections currently controlled by traffic signals. The roundabout at CR 100S is programmed for 2005 construction. A second roundabout at CR 100N is programmed for construction in 2006. Both roundabouts will have dual lane entries and exits to meet the need for additional capacity at these locations.

- SR 267 Relocation (INDOT/Plainfield/Mooresville)

South of I-70, SR 267 is located on an alignment that enters the center of Mooresville and ends at SR 42. The potential to reroute this section to link with SR 67 north of Mooresville has been in the discussion stage for many years. INDOT prepared a preliminary feasibility study for this realignment in 1988, and Plainfield recently identified a need for this new linkage in their Thoroughfare Plan. There is little question that a more direct route would provide greater utility for the roadway in terms of serving current travel patterns.

Although the Plainfield Thoroughfare Plan (Figure 8-6) indicates he need for a new southern route for SR 267, a specific alignment is not defined. A southern terminus near Heartland Crossing on SR 67 is indicated, but more detailed studies are needed to define the best route. Constraints are the habitat conservation area created by the Indianapolis Airport Authority to establish bat habitat, existing development, and areas of challenging terrain.

Realigning the southern portion of SR 267 would serve the interest of local and regional travel. A coordinated planning approach involving Plainfield, Mooresville and INDOT could be an effective means to define the project. In that way, land use planning and access management strategies could be developed concurrently with roadway plans, in a manner similar to the Ronald Reagan Parkway. It would be desirable to complete these more detailed location studies soon so that right of way can be identified and protected before the surrounding area develops further.

8.6 SR 267 Traffic Review

Traffic flow on SR 267 varies by location, with the highest volumes occuring near interchanges with I-70 and I-74. Traffic levels at I-70 in Plainfield have approached 40,000 vehicles per day to the north and 32,000 to the south. This section of SR 267 has grown rapidly during the past ten years as a result of nearby commercial and warehouse development, and growth in Plainfield. (These volumes will be less beginning in 2005 due to the new interchange at Six Points Road.) SR 267 traffic levels at I-74 in Brownsburg have also grown in recent years and are now approaching 30,000 vehicles per day.

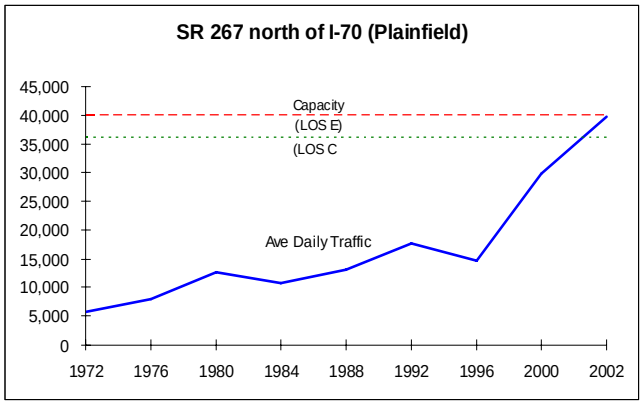
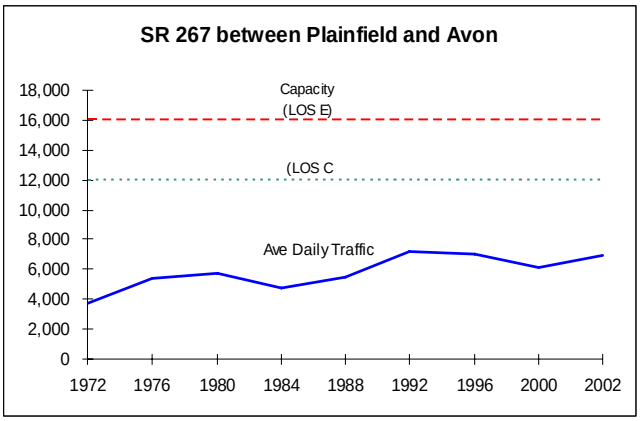


FIGURE 8-6
PLAINFIELD TRANSPORTATION PLAN

See oversized figures file for Chapter 8

Generally, traffic levels in the urbanized areas of Plainfield, Danville and Avon are in the 20,000 to 25,000 vehicles per day range, and sections between these communities are 10,000 to 12,000 vehicles per day. These traffic patterns suggest that SR 267 is used extensively for local travel and for access to major east-west highways, including I-70, US 40, US 36, and I-74.

As indicated previously, studies indicate that the new Six Points Road interchange and Ronald Reagan Parkway will offer significant relief to the most congested section of SR 267, located just north of I-70 in Plainfield. In combination with Stafford Road, this route will provide a shorter and less congested path for travel between Marion County and the center of Plainfield. Plainfield has gathered "before" traffic count data to provide a base for identifying this effect after both of the new facilities are open.



8.7 Detailed Route Review – SR 267 (West Corridor)

SR 267 begins just inside Boone County at I-65 between Zionsville and Lebanon, crosses Hendricks County from north to south, and ends just inside Morgan County at SR 42 in Mooresville. The areas it passes through are becoming increasingly urban as Brownsburg, Avon, Plainfield and Mooresville grow. Traffic volumes are particularly high where the route crosses I-70 and I-74 near Plainfield and Brownsburg, respectively.

Outside urbanized areas, SR 267 is classified as a rural minor arterial in Boone, Hendricks and Morgan Counties under INDOT's functional classification system. It is classified as an urban principle arterial in Brownsburg, Avon, and Plainfield due to its function of moving significant volumes of traffic through these areas of Hendricks County. Since virtually the entire route of SR 267 is located within Hendricks County, that is the focus of the following review.

State Route 267 – Hendricks County

SR 267 is a two-lane highway through Hendricks County except for a four-lane section between I-70 and US 40 through Plainfield, and where auxiliary lanes are provided at major intersections in Brownsburg. The roadway jogs in Plainfield, following the route of US 40 for about 1-1/2 miles as it passes through the center of town. Otherwise, the roadway is continuous through the county.

The property abutting SR 267 is farmland for most of its length. Exceptions are within the urbanized areas of Plainfield, Avon and Brownsburg. About 67% of the route of SR 267 is classified as rural within Hendricks County.

Between Mooresville and Plainfield SR 267 is a curvy two-lane rural highway passing through hilly terrain.

Figures 8-7 and 8-8 show the existing physical features and factors related to traffic operations for State Route 267 in Hendricks County. For purposes of review, the route has been divided into seven segments, generally described as follows:

1. South county line to I-70 (3.2 miles): two-lane, rural
2. I-70 interchange to Stafford Road (1.5 miles): multi-lane, rural
3. Stafford Road to US 40 (1.7 miles): multi-lane, urban
4. US 40 to Brownsburg (8.0 miles): two-lane, rural
5. Town of Brownsburg to I-74 interchange (2.8 miles): two-lane, rural and urban
6. I-74 interchange (0.2 miles): multi-lane, rural
7. I-74 to county line (4.3 miles): two-lane, rural

A summary of key traffic operational features for SR 267 within Hendricks County is presented by segment in Table 8A.

Table 8A: Key Operational Features

SR 267 -- Hendricks Co.	Segment							County Total
Data	1	2	3	4	5	6	7	
Length	3.2 mi	1.5 mi	1.7 mi	8.0 mi	2.8 mi	0.2 mi	4.3 mi	21.7 mi
Two-Way Ave Daily Traffic (ADT)	12,300	32,600	23,000	11,600	21,900	28,900	10,200	19,800
Ave One-Way Peak Hour Volume	800	1,560	1,100	590	1,040	1,360	470	980
Typical Speed Limit (mph)	45	50	55	40	30	40	45	45
Ave Operating Speed (mph)	30	50	30	20	10	35	30	20
Ave Traffic Signals per Mile	0	1.96	1.75	0.63	1.45	8.34	0.23	0.83
Ave No Passing Zones per Mile	0.68	0	0	0.59	0.59	1.00	0.53	0.51
Ave Access Points per Mile	17	48	31	21	8	37	32	20
Ave Peak Hour Level of Service	E	B - C	B	F – F	E – F	C	D - E	E - F
Accidents per million veh miles	4.09*	4.09*	4.09*	2.27**	2.58***	1.97+	1.97+	2.85

*Guilford Twp **Washington Twp ***Lincoln Twp +Brown Twp

Physical features by mile point for SR 267 through Hendricks County are described on Figure 8-7. Currently, SR 267 is a two-lane roadway except through Plainfield and at its approaches to I-74. Within Plainfield, between I-70 and US 40, SR 267 is a divided roadway with wide right of way and controlled access. In other portions of Plainfield, Avon and Brownsburg, the roadway utilizes city streets flanked by curb and gutter sections. Shoulder widths on two-lane rural sections vary between one and three feet south of Brownsburg and three to five feet north of I-74. The roadway is somewhat rolling, with numerous no-passing zones outside the four-lane section at Plainfield.

SR 267 is discontinuous in Plainfield, using a portion of US 40 to link north and south segments.

There is minimal access control on SR 267, except for the four-lane section between I-70 and US 40 in Plainfield. Intersections and driveways are located over the remainder of the roadway in a manner typical of highways passing through rural areas that are becoming urbanized. The existing right of way of SR 267 is 80 to 100 feet south of I-70, 200 feet between I-70 and US 40, and only 33 feet between Plainfield and Brownsburg.

Figure 8-7: Physical Features - SR 267, Hendricks County

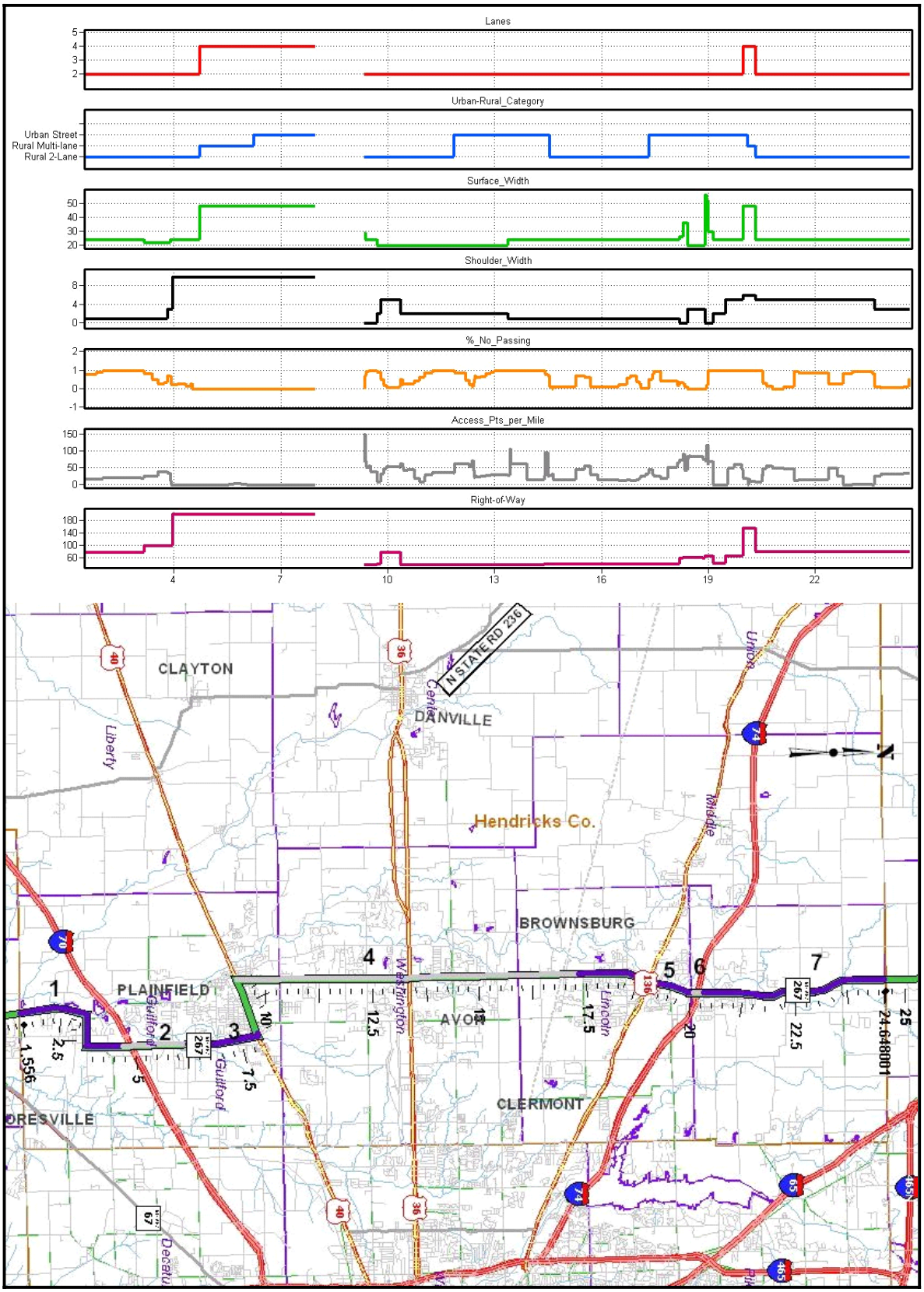
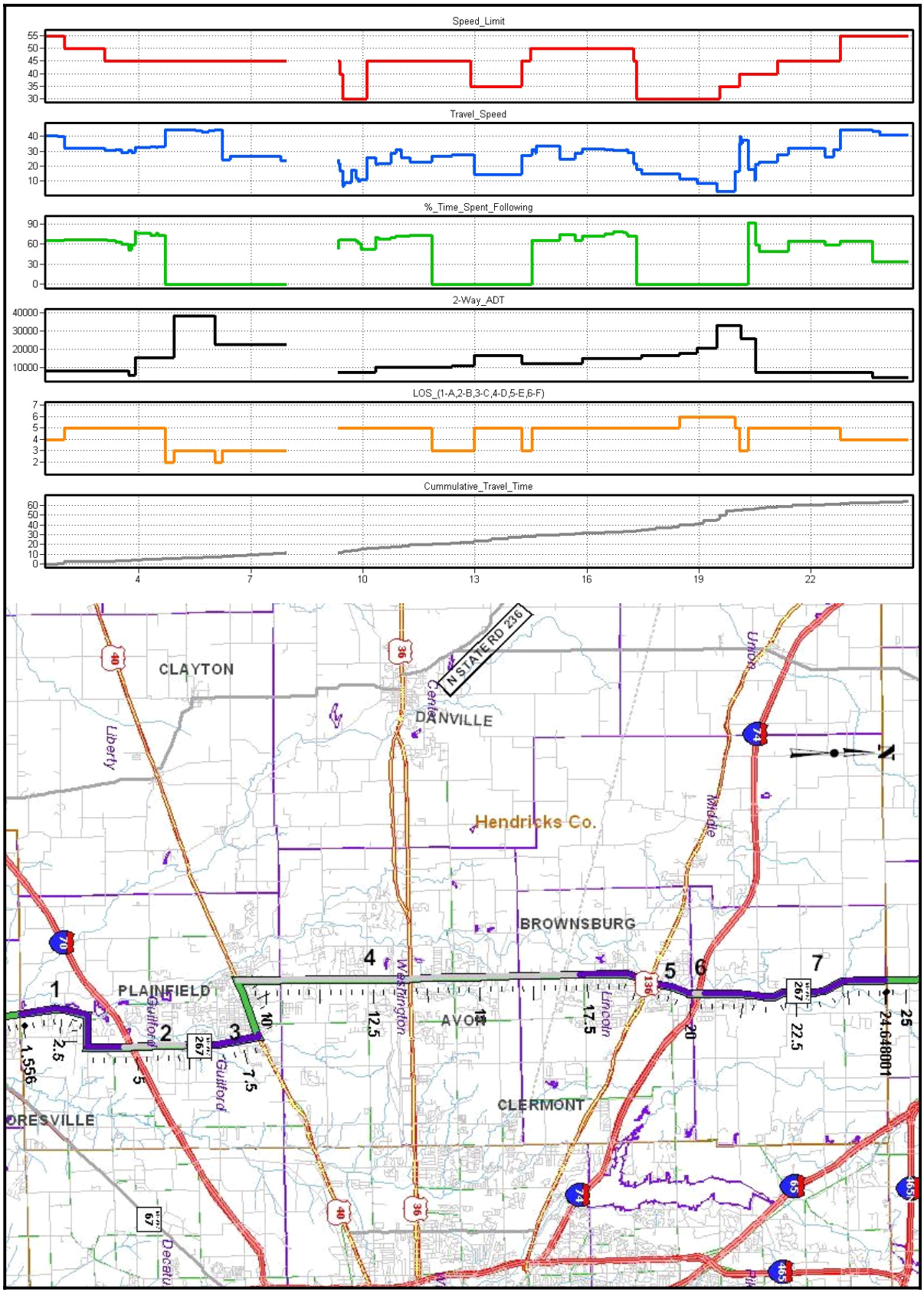


Figure 8-8: Traffic Operations - SR 267, Hendricks County



Data related to traffic operations on this section of SR 267 are illustrated by mile point on Figure 8-8. The posted speed limit varies from 45 to 55 mph on most sections outside the urbanized areas. Speed limits vary between 30 mph and 55 mph in Plainfield, and are reduced to 30 mph and 40 mph through Avon and Brownsburg. Reductions in travel speed occur primarily where speed limits are reduced through these urbanized areas. An exception is just north of I-70 in Plainfield, where SR 267 is a divided four-lane roadway with wide right of way and managed access.

SR 267 is a two-lane street through Brownsburg.

Existing traffic operations exhibit an average operating speed of only 20 mph due to the urbanized character of this corridor. Travel speeds on the rural sections between the Towns of Plainfield, Avon and Brownsburg are generally in the range of 40 mph to 50 mph. The current level of service is LOS E or LOS F between Plainfield and Brownsburg. Roadway sections to the north and south of these two communities operate somewhat better with a LOS of D or E. The four-lane section through Plainfield and the multi-lane approaches to I-74 operate at LOS B or C.

8.8 Planning Recommendations for SR 267

SR 267 varies significantly in character as it passes from one community to another. Between Mooresville and I-70, it is an "old" state highway, following the curvilinear route of Center Creek and providing less than desirable geometric conditions for travel. Between I-70 and US 40 within Plainfield, SR 267 is a modern highway, with wide lanes and shoulders, a grassed median, and managed access. At the northern end of this section, SR 267 is discontinuous, requiring a 1-1/2 mile "jog" to the west on US 40 prior to continuing northward. North of US 40, it has the characteristics of an urban arterial in Avon and Brownsburg, and is generally a two-lane rural highway that is gradually becoming urbanized between these incorporated areas.

Table 8B lists forecasted traffic volumes for each section of SR 267. In general, traffic flow patterns in 2025 will be similar to those that exist today. The highest concentrations of traffic will occur near the I-70 interchange in Plainfield and the I-74 interchange in Brownsburg. (See previous tables for current traffic estimates.)

Table 8C lists forecasted traffic volumes for each section of SR 267. Historically, the highest traveled portion of SR 267 has been in Plainfield. As noted elsewhere, this has been the fastest growing section of roadway in the study area during the past ten years due to the influence of rapid urban development in this area. Although development is expected to continue, the expected traffic growth rate is much lower due to the relief afforded by the recently opened Six Points Road interchange and Ronald Reagan Parkway, which is currently being constructed in stages.

Table 8B: Estimated 2025 Conditions, Base Scenario – SR 267

SR 267–Hendricks County	lanes	area	Previously Planned Improvements	Length	2025 Daily Traffic	Peak Hour Traffic	Speed Limit	Ave Op Speed	Level of Service
1. South county line to I-70	2	Rural		3.2 mi	13,600	890	45 mph	30 mph	E - F
2. I-70 interchange to Stafford Road	4	Rural	Roadway Rehabilitation	1.5 mi	30,700	1,480	50 mph	50 mph	B - C
3. Stafford Road to US 40	4	Urban	Roadway Rehabilitation	1.7 mi	26,100	1,250	55 mph	30 mph	B - C
4. US 40 to Brownsburg	2	Rural		8.0 mi	13,200	670	40 mph	15 mph	F - F
5. Town of Brownsburg to I-74	2	Rur/Urb		2.8 mi	22,100	1,050	30 mph	5 mph	E - F
6. I-74 interchange	4	Rural		0.2 mi	42,500	1,990	40 mph	35 mph	D
7. I-74 to county line	2	Rural		4.3 mi	21,100	980	45 mph	45 mph	E - F

Table 8C: Estimated 2025 Conditions, Recommended Improvements – SR 267

SR 267–Hendricks County	lanes	area	Recommended Improvements	Length	2025 Daily Traffic	Peak Hour Traffic	Speed Limit	Ave Op Speed	Level of Service
1. South county line to I-70	**4**	Rural	Realign to link with SR 67	3.2 mi	**16,500**	**1,070**	**50 mph**	**50 mph**	**A - B**
2. I-70 interchange to Stafford Road	4	Rural	Maintain (no new construction)	1.5 mi	30,700	1,480	50 mph	50 mph	B - C
3. Stafford Road to US 40	4	Urban	Maintain (no new construction)	1.7 mi	26,100	1,250	55 mph	30 mph	B - C
4. US 40 to Brownsburg	2	Rural	Maintain (w/ traffic eng & TSM impr)	8.0 mi	13,200	670	40 mph	15 mph	F - F
5. Town of Brownsburg to I-74	2	Rur/Urb	Maintain (w/ traffic eng & TSM impr)	2.8 mi	22,100	1,050	30 mph	5 mph	E - F
6. I-74 interchange	4	Rural	Maintain (no new construction)	0.2 mi	42,500	1,990	40 mph	35 mph	D
7. I-74 to county line	2	Rural	Road Rehab (min 6' shoulders)	4.3 mi	21,100	980	45 mph	45 mph	E - F

Estimated Costs:		
	New Roadway, I-70 to south county line	$26 million
	Roadway Rehabilitation, I-74 to north county line	$5 million

Forecasts shown in Table 8B indicate that traffic volumes on SR 267 will grow most significantly north of Brownsburg, where growth is expected to continue and fewer options exist for accessing the Interstate highway system. Traffic volumes on these roadway sections are expected to double between now and the year 2025.

Table 8B also shows anticipated 2025 levels of service with the Base Scenario, which assumes existing conditions and currently planned improvements. INDOT is planning a significant maintenance project for the four-lane section of SR 267 within Plainfield. The project includes landscaping features, curb and gutter, closed drainage (within the median), and other general improvements. Traffic signals will be modernized, but no capacity expansion elements are included. Construction is scheduled for 2005/2006.

For long range planning purposes, the alternate improvement scenarios described in Chapter 4 were used to test various alternatives to improve service levels on SR 267 and the results were reviewed with staff of INDOT and the Indianapolis MPO. The resulting recommendations are summarized in Table 8C, along with estimates of associated 2025 traffic forecasts and levels of service. Corridor recommendations are also show shown graphically on Figure 8-16, located at the end of this chapter.

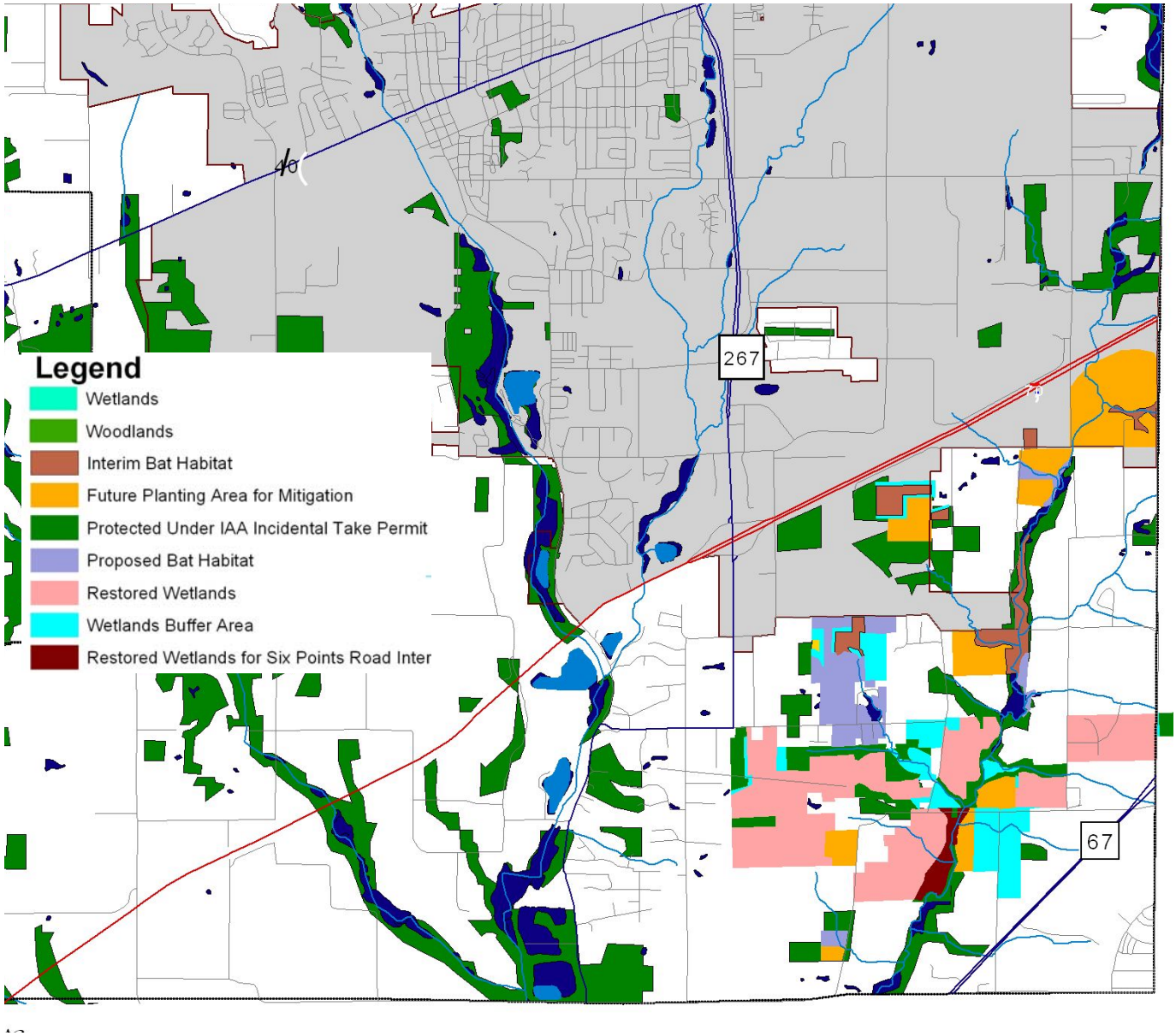
As indicated in the review of existing conditions, the section of SR 267 south of I-70 is relatively unsafe (as indicated by geometric conditions and by accident rates) and is not well located for the service needed in that area. Both INDOT and the Indianapolis MPO have included a new link to SR 67 in their long range plans. A concept planning study by INDOT identified a preliminary alignment many years ago, but since that time, a number of environmental constraints have emerged, including habitat preservation areas to mitigate potential impacts of nearby airport expansion. (See Figure 8-9.)

There is general agreement by all local governments in the region that the previously planned relocation of SR 267 south of I-70 would be desirable. It is recommended that INDOT work with representatives of Morgan and Hendricks Counties and the communities of Mooresville and Plainfield to identify a future configuration for this roadway that better serves these communities and more effectively meets the regional travel service objectives of INDOT.

The forecasted modest traffic growth on SR 267 north of I-70 indicates that no changes beyond those being implemented in the current maintenance project will be necessary between now and 2025. Nevertheless, it will be important on this section to continue to protect access and to adjust traffic signals and other controls to respond to shifts in traffic levels over time. Given the intensity of commercial and industrial development in the area, the existing right of way of this section should be protected to maintain the option of adding travel lanes if warranted by higher than anticipated demand in the future.

Traffic levels on SR 267 north of Plainfield are forecasted to grow by only about 15% between now and 2025. This low growth rate relates to planned improvements on alternate routes, including Dan Jones Road and Ronald Reagan Parkway. Nevertheless, portions of this segment are operating at poor levels of service, particularly through Avon and Brownsburg, where opportunities to add travel lanes are limited by right of way constraints. Conditions on this section should be monitored for the application of access management and traffic engineering improvements in order to maximize the utility of the existing roadway.

Figure 8-9 Environmentally Sensitive Areas – Potential SR 267 Relocation Area



Traffic growth on SR 267 north of I-74 is forecasted to be more significant, with traffic growing from about 10,000 vehicles per day to over 20,000 vehicles per day in 2025. Rehabilitation of this roadway is recommended, but conditions should be monitored closely to determine whether added travel lanes are needed to meet evolving future conditions. Safety improvements, traffic engineering modifications and access management actions should be implemented as a need is indicated by changing conditions to maximize the utility of the existing facility.

8.9 Strategies to Maximize System Efficiency – SR 267

Following is a review of potential strategies to increase existing system efficiency to better serve current users of SR 267.

Access Management. The number of access points per mile on SR 267 varies significantly from one end of the corridor to another. Within Plainfield, Avon and Danville, SR 267 has between 20 and 40 access points per mile. This places these sections in the "high" category for access points, compromising both the safety and capacity of the roadway. Correction of these deficiencies would require major reconstruction, most likely including extensive sections of new alignment. Given the role of SR 267 as a "collector" for local areas to link with the many crossing highways, access management restrictions would need to be balanced with the local service function of the roadway. Nevertheless, as sections are reconstructed or if new alignments are provided (such as south of I-70), sound access management principles should be applied at every opportunity.

The number of access points on the rural sections of SR 267 between communities within Hendricks County is significantly lower (within the 10 to 20 range of access points per mile). Access management is not currently a major priority in these rural areas, but access should be carefully reviewed with development proposals in an effort to maintain the roadway's safety and utility over time.

It should be noted that a high accident rate (over four accidents per million vehicle miles) exists on SR 267 south of I-70. The number of access points on this section is moderate (17 per mile), suggesting that although access control might be a factor in improving the route's safety, it is not the major problem. The curvilinear alignment, relatively narrow pavement, and minimal shoulders are probably more significant contributors to the safety problems on this section.

Traffic Engineering Improvements. Opportunities to improve conditions through traffic engineering improvements are limited in the urbanized areas of Plainfield, Avon and Brownsburg. In most cases, INDOT has already modernized traffic signals and installed turn lanes where reasonably feasible. Given the rapid rate of growth in all of the communities served by SR 267, traffic signal timing at major intersections along the route should be reviewed on a periodic basis to ensure consistency with any changes in localized traffic demand.

Intelligent Transportation Systems (ITS). The high accident rate on the southern portion of SR 267 might suggest improved incident detection and response systems, but that investment is not warranted by the low traffic demand on that section.

The best opportunities for ITS applications are likely to relate to the function of SR 267 as a local "collector" for high volume radial routes such as I-70, US 40, US 36, and I-74. Consistent with typical travel patterns for users of SR 267, the motorist information component of the regional ITS system could allow motorists to choose among these alternate corridors while still on SR 267 if the information was sufficiently informative and timely. This could occur with changeable message signs at interchanges with I-70 and I-74, or by a broader approach such as highway advisory radio. Consideration should be given to these opportunities as appropriate within an overall regional ITS strategy.

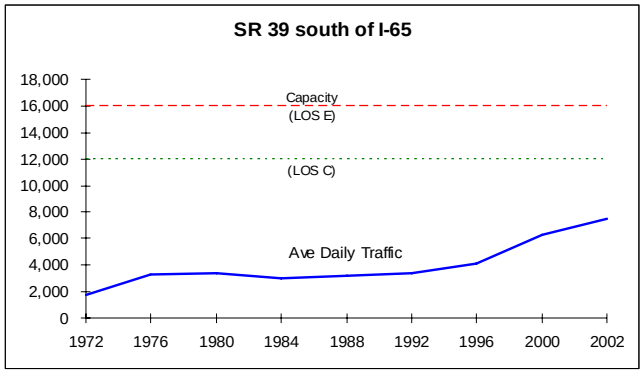
Transportation Demand Management (TDM). Staggered work hours, ridesharing and flexible working hours may be most beneficial in Plainfield, where there is a concentration of light industrial/warehouse land use in the vicinity of SR 267. Future plans call for a continuation of this land use pattern, consistent with residential development restrictions associated with noise impacts of Indianapolis International Airport operations. These potential TDM actions would best be initiated by the Town of Plainfield as the area builds out.

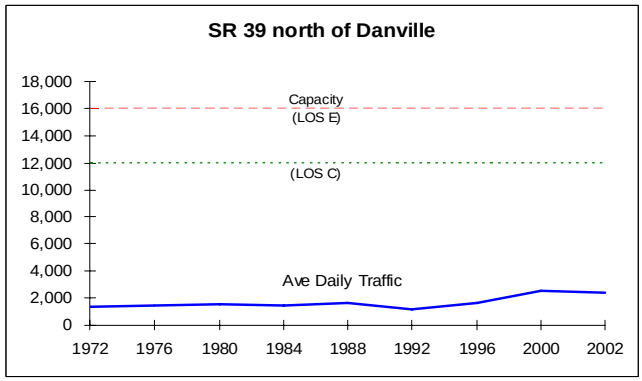
8.10 SR 39 Traffic Review

Existing traffic volumes on SR 39 are low (3,000 to 6,000 vehicles per day) over most of its length. Exceptions occur within Lebanon and Martinsville, where traffic approaches 20,000 vehicles per day at some locations.

In Lebanon, SR 39 serves as an important connector to I-65 and acts as an arterial city street. In Martinsville, SR 39 provides an essential link across the White River between SR 37 and SR 67.

Predominant development patterns suggest that SR 39 is located beyond the western edge of the urbanized growth area of the Indianapolis region. Much of the land abutting SR 39 is undeveloped. The character of this roadway and the quality of its traffic operations could vary considerably in the future should the prevailing land use change from rural to urban.





8.11 Detailed Route Review – SR 39 (West Corridor)

Outside urbanized areas, SR 39 is classified as a rural major collector under INDOT's functional classification system in Boone, Hendricks and Morgan Counties. It is classified as an urban principle arterial in Lebanon, Danville, and Martinsville. In Martinsville, SR 39 links SR 67 to SR 37, making SR 67 an alternate route to SR 37 for a portion of the route between Indianapolis and Bloomington. The following sections describe the existing physical features and factors related to traffic operations for SR 39 in each county.

State Route 39 – Boone County

SR 39 is a two-lane roadway through all of Boone County except immediately adjacent to I-65 and for a one-mile section on the north side of Lebanon, where four travel lanes are provided. As shown on Figure 3-8, SR 39 crosses SR 32 and I-65 at Lebanon. The roadway is classified as rural in Boone County except within the City of Lebanon.

South of Lebanon, SR 39 passes through the unincorporated areas of New Brunswick (speed limit 55 mph) and Milledgeville (speed limit 50 mph). Overall, SR 39 is a good two-lane highway through most of Boone County.

SR 39 crosses SR 32 in downtown Lebanon.

For purposes of review, SR 39 has been divided into five segments in Boone County. These sections are generally described as follows:

1. South county line to Lebanon (8.5 miles): two-lane, rural
2. City of Lebanon (2.1 miles): two-lane, urban
3. City of Lebanon (0.6 miles): multi-lane, urban
4. City of Lebanon (0.4 miles): multi-lane, rural
5. Lebanon to north county line (7.1 miles): two-lane, rural

A summary of key traffic operational features for SR 39 within Boone County is presented by segment in Table 8D.

Table 8D: Key Operational Features

SR 39 -- Boone County	Segment					County Total
Data	1	2	3	4	5	
Length	8.5 mi	2.1 mi	0.6 mi	0.4 mi	7.1 mi	18.7 mi
Two-Way Ave Daily Traffic (ADT)	3,100	16,700	20,300	17,400	4,700	10,100
Ave One-Way Peak Hour Volume	210	910	1,060	910	250	560
Typical Speed Limit (mph)	55	35	35	45	55	45
Ave Operating Speed (mph)	45	20	30	35	45	40
Ave Traffic Signals per Mile	0	2.34	1.66	2.54	0	0.37
Ave No Passing Zones per Mile	0.63	0.84	0.54	1.00	0.12	0.47
Ave Access Points per Mile	11	21	31	36	46	40
Ave Peak Hour Level of Service	C - D	C - D	B	B - C	C - D	C – D
Accidents per million veh miles	1.06*	1.61**	1.61**	1.61**	NA	1.51***

*Harrison Twp **Center Twp ***Harrison/Center Twp

SR 39 is a good two-lane highway through most of Boone County.

Figure 8-10 presents the physical features by mile point for SR 39 through Boone County. It is a two-lane roadway for virtually all of its length, with curb and gutter through Lebanon and varying shoulder widths of three to five feet south of Lebanon. The roadway is gently rolling, with periodic no-passing zones. There are multiple intersections and drives located within Lebanon, but in other areas, access points are few. Right-of-way is generally 75 feet south of Lebanon.

Data related to traffic operations on this section of SR 39 are illustrated by mile point on Figure 8-11. Generally, the posted speed limit is 55 mph except within Lebanon. Daily traffic volumes are just over 20,000 vehicles per day (vpd) in Lebanon, and are less than 5,000 vpd on rural sections. Travel speed on the south section is reduced somewhat by the terrain and no-passing zones. Peak hour traffic operations exhibit an average speed of 40 mph, influenced by lower speeds in the Lebanon area. Levels of service vary over the route, with LOS C or better in rural areas and LOS C to LOS E in Lebanon.

State Route 39 – Hendricks County

SR 39 is a two-lane highway through Hendricks County except where auxiliary lanes are provided in Danville. The roadway is continuous except for a jog as it joins US 36 for a short distance through Danville. Most of the property abutting SR 39 is rural, with the only significant exceptions being the urbanized areas of Danville and Lizton, the Town of Clayton, and the unincorporated area of Belleville. About 93% of the route is classified as rural within the county.

SR 39 passes through a historic district in Danville.

For purposes of review, SR 39 within Hendricks County has been divided into three segments. These segments are generally described as follows:

1. South county line to Danville (12.1 miles): two-lane, rural
2. Town of Danville (1.6 miles): two-lane, urban
3. Danville to north county line (10.8 miles): two-lane, rural

Figure 8-10: Physical Features - SR 39, Boone County

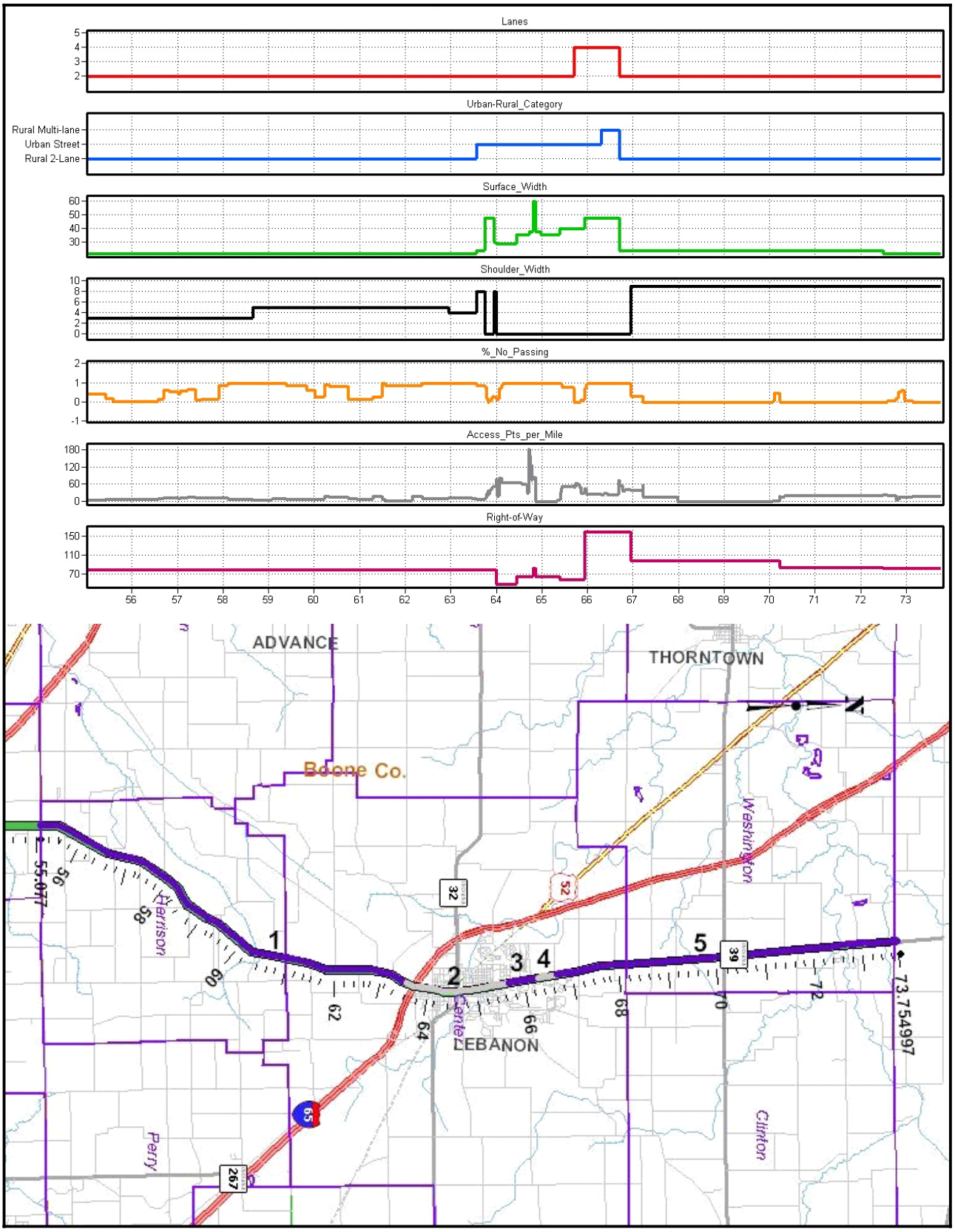
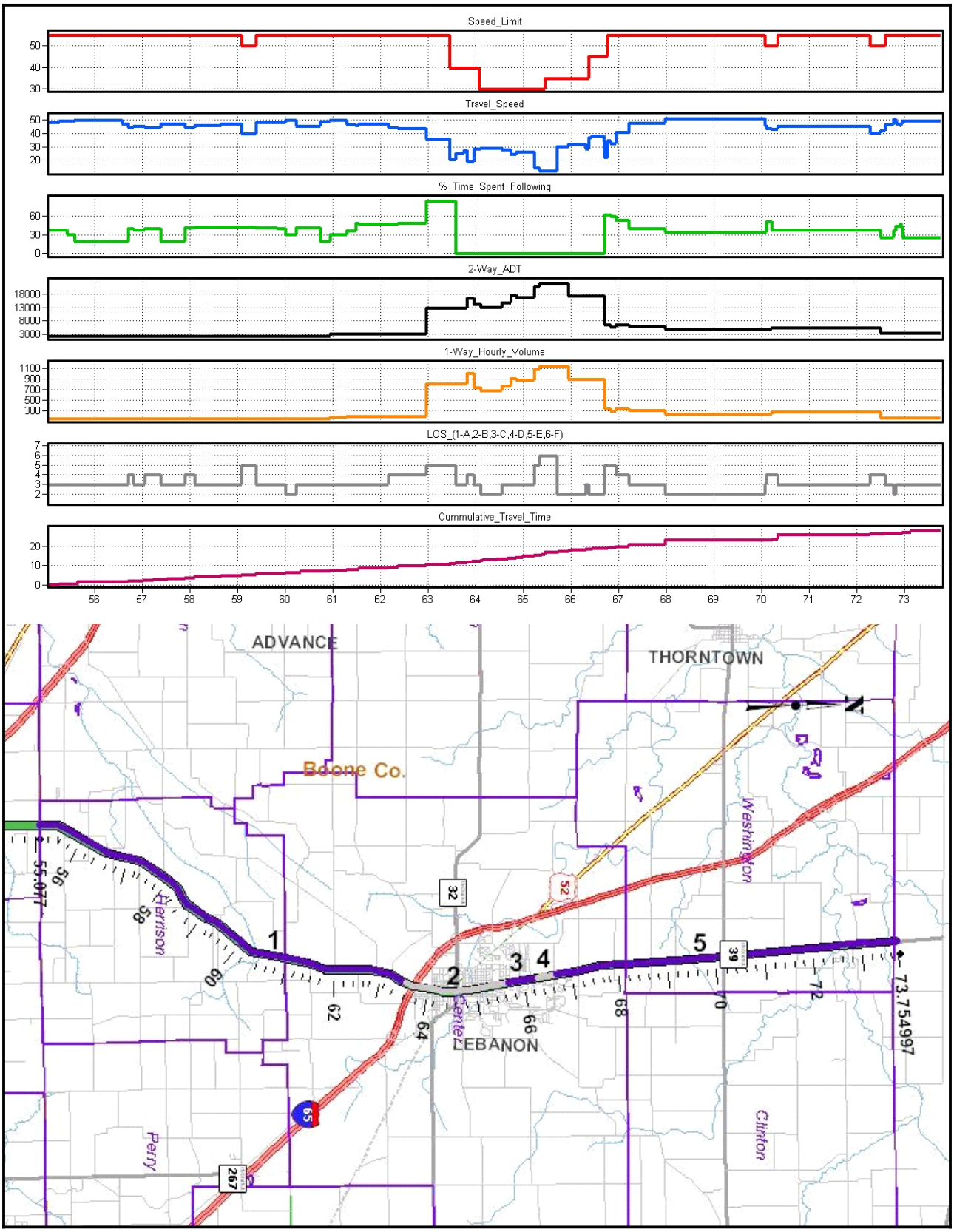


Figure 8-11: Traffic Operations - SR 39, Boone County



A summary of key traffic operational features for SR 39 within Hendricks County is presented by segment in Table 8E.

Table 8E: Key Operational Features

SR 39 -- Hendricks County	Segment			
Data	1	2	3	County Total
Length	12.1 mi	1.6 mi	10.8 mi	24.5 mi
Two-Way Ave Daily Traffic (ADT)	3,800	9,200	4,800	4,700
Ave One-Way Peak Hour Volume	220	490	280	270
Typical Speed Limit	45 mph	40 mph	50 mph	45 mph
Ave Operating Speed	30 mph	35 mph	40 mph	35 mph
Ave Traffic Signals per Mile	0.08	0.63	0	0.08
Ave No Passing Zones per Mile	0.79	0.84	0.43	0.64
Ave Access Points per Mile	16	35	39	34
Ave Peak Hour Level of Service	D - E	A - C	C – D	D – E
Accidents per million vehicle miles	3.51*	1.97**	1.06***	2.35
	*Liberty Twp	**Center Twp	***Union Twp	

Physical features for SR 39 (by mile point) through Hendricks County are described on Figure 8-12. SR 39 is a two-lane rural roadway through virtually the entire county. Within Danville, the roadway utilizes city streets flanked by curb and gutter sections. Shoulder widths on rural sections vary between two and four feet outside the urbanized area. The roadway is somewhat rolling and winding through many sections, resulting in numerous no-passing zones.

Approximately 36% of the roadway is available for passing within Hendricks County. There is minimal access control, and intersections and drives are located in a manner typical of rural highways. Right of way is 80 feet north of Danville and only 40 to 45 feet south of Danville.

Data related to traffic operations on this section of SR 39 are illustrated by mile point on Figure 8-13. The posted speed limit is 50 to 55 mph on most sections outside Danville. Daily traffic volumes are less than 5,000 vehicles per day (vpd) outside Danville. The highest volumes on this section are approximately 19,000 vpd where SR 39 joins US 36 in Danville and 10,000 vpd at I-70 near the south county line.

Reductions in travel speed occur primarily where speed limits are reduced through Danville and within the no-passing zones south of Danville. Existing traffic operations exhibit an average 35 mph speed and much of the route operates at LOS D or LOS E. Generally, this level of service relates to the roadway's alignment rather than to a high volume of traffic.

SR 39 passes through rolling terrain with numerous curves south of I-70.

Figure 8-12: Physical Features - SR 39, Hendricks County

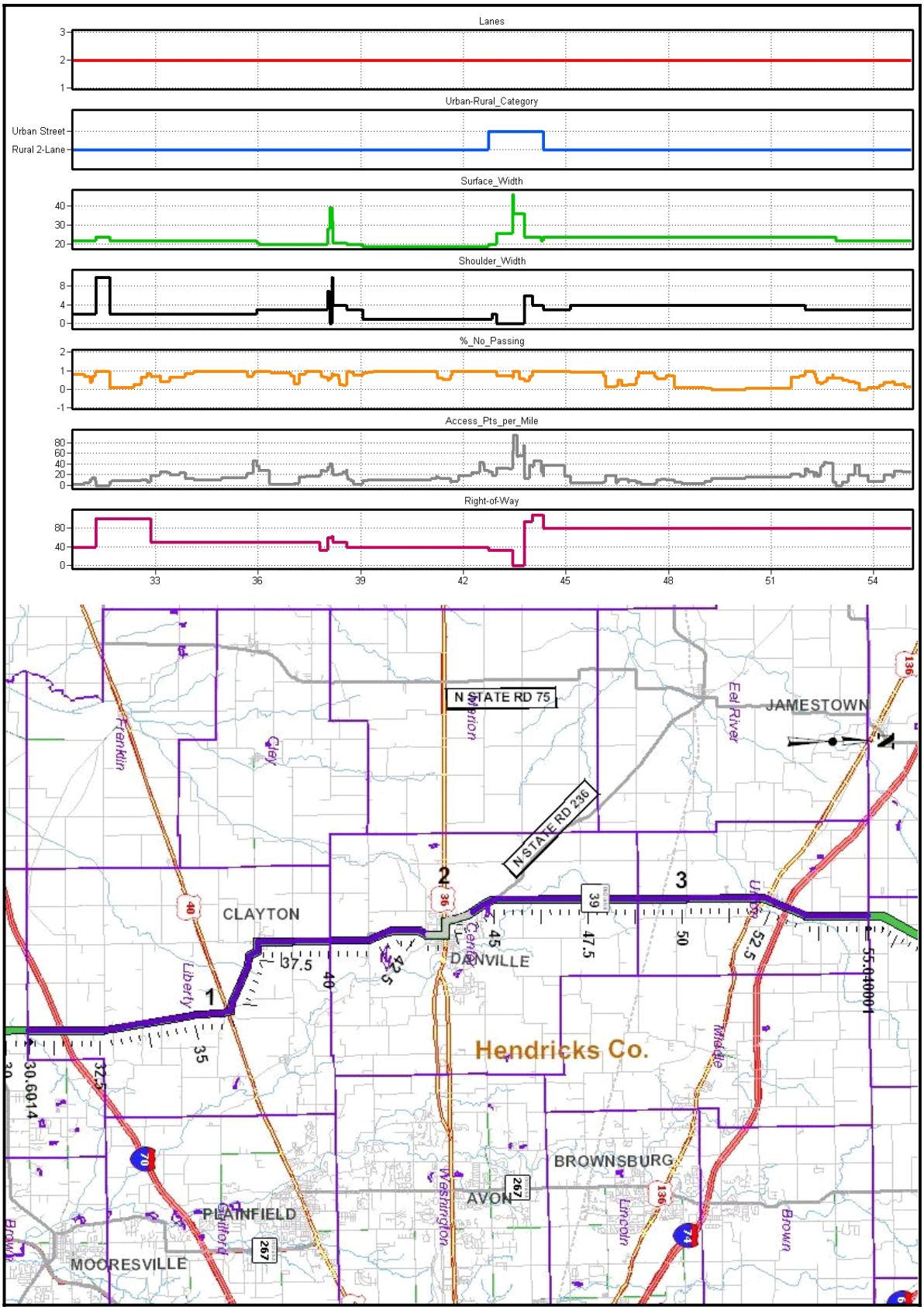
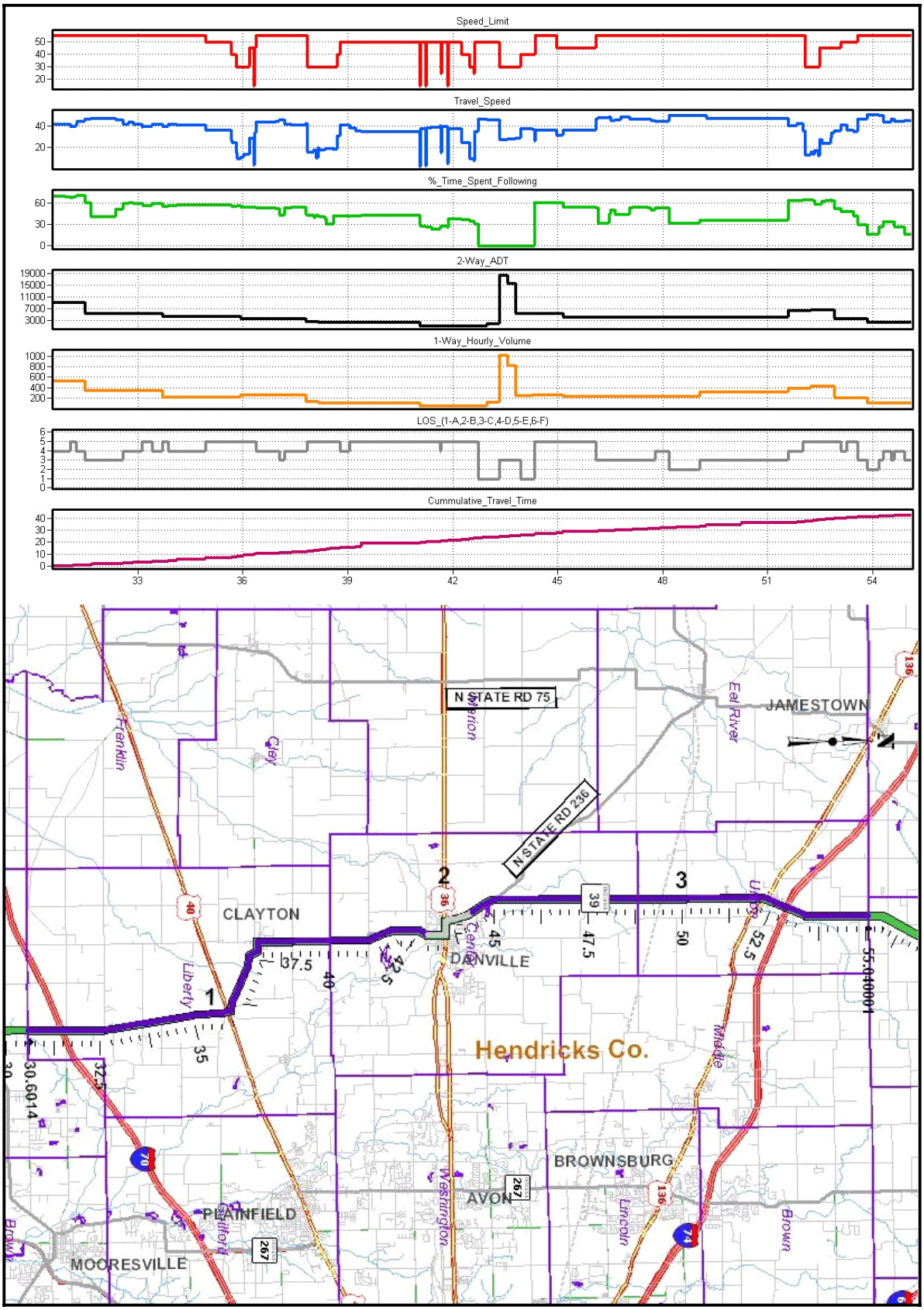


Figure 8-13: Traffic Operations - SR 39, Hendricks County



State Route 39 – Morgan County

Most of SR 39 in Morgan County is a two-lane rural highway. The only exception is a four-lane section near Martinsville where it joins with SR 67. From SR 67 north to I-70, it is a curvy two-lane rural roadway.

The land use abutting SR 67 is primarily farmland on this section. Although traffic volumes are low (less than 3,000 vehicles per day), level of service on this section is poor due to the lack of opportunities for passing.

At its southern end, SR 39 provides an important crossing point over White River. This section of SR 39 joins SR 37 on the south side of Martinsville with SR 67 west of Martinsville. Both SR 37 and SR 67 are multi-lane regional highways serving southern and southwestern Indiana.

SR 39 provides an important link between SR 37 and SR 67 at Martinsville.

For purposes of review, SR 39 within Morgan County has been divided into five segments, as shown on Figures 8-14 and 8-15. These segments are generally described as follows:

1. SR 37 to Martinsville (0.4 miles): two-lane, rural
2. City of Martinsville (2.0 miles): two-lane, urban
3. Martinsville to SR 67 (0.5 miles): two-lane, rural
4. SR 67 joint right of way (3.3 miles): multi-lane, rural
5. SR 67 to North county line (8.9 miles): two-lane, rural

A summary of key traffic operational features for SR 39 within Morgan County is presented by segment in Table 8F.

Table 8F: Key Operational Features

SR 39 -- Morgan County	Segment					County Total
Data	1	2	3	4	5	
Length	0.4 mi	2.0 mi	0.5 mi	3.3 mi	8.9 mi	15.0 mi
Two-Way Ave Daily Traffic (ADT)	9,000	16,700	19,700	16,900	4,000	13,300
Ave One-Way Peak Hour Volume	400	740	930	920	290	710
Typical Speed Limit (mph)	55	40	55	55	40	50
Ave Operating Speed (mph)	40	25	35	55	25	30
Ave Traffic Signals per Mile	0	1.01	0	0	0	0.13
Ave No Passing Zones per Mile	0.14	0.32	0.17	0.04	0.83	0.55
Ave Access Points per Mile	39	27	35	53	27	31
Ave Peak Hour Level of Service	D - E	C - D	E	A - B	D - E	B - C
Accidents per million veh miles	1.52*	1.52*	1.52*	1.52*	3.69**	2.03

*Washington Twp **Clay, Greene, Monroe Twp

Figure 8-14: Physical Features - SR 39, Morgan County

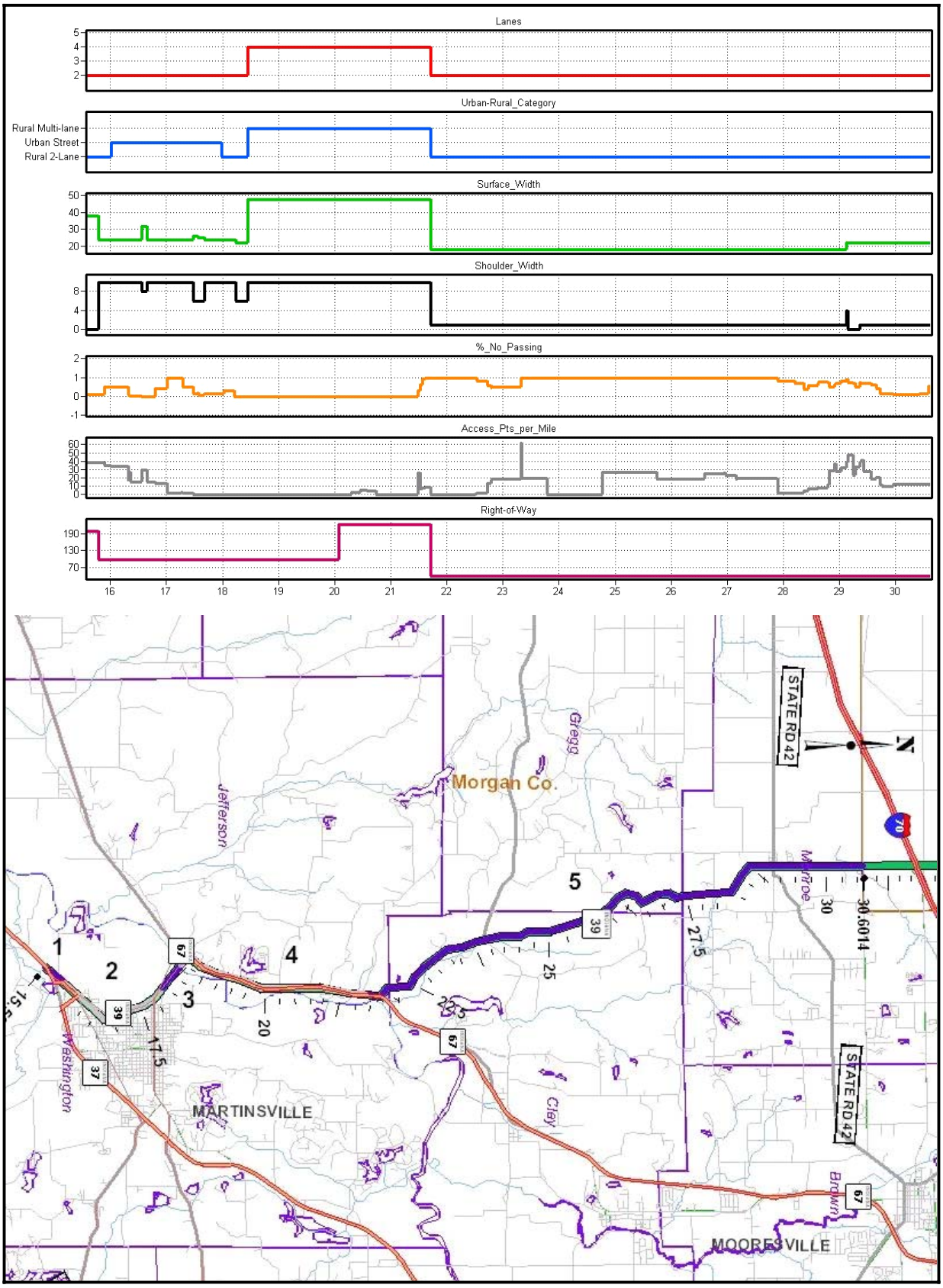
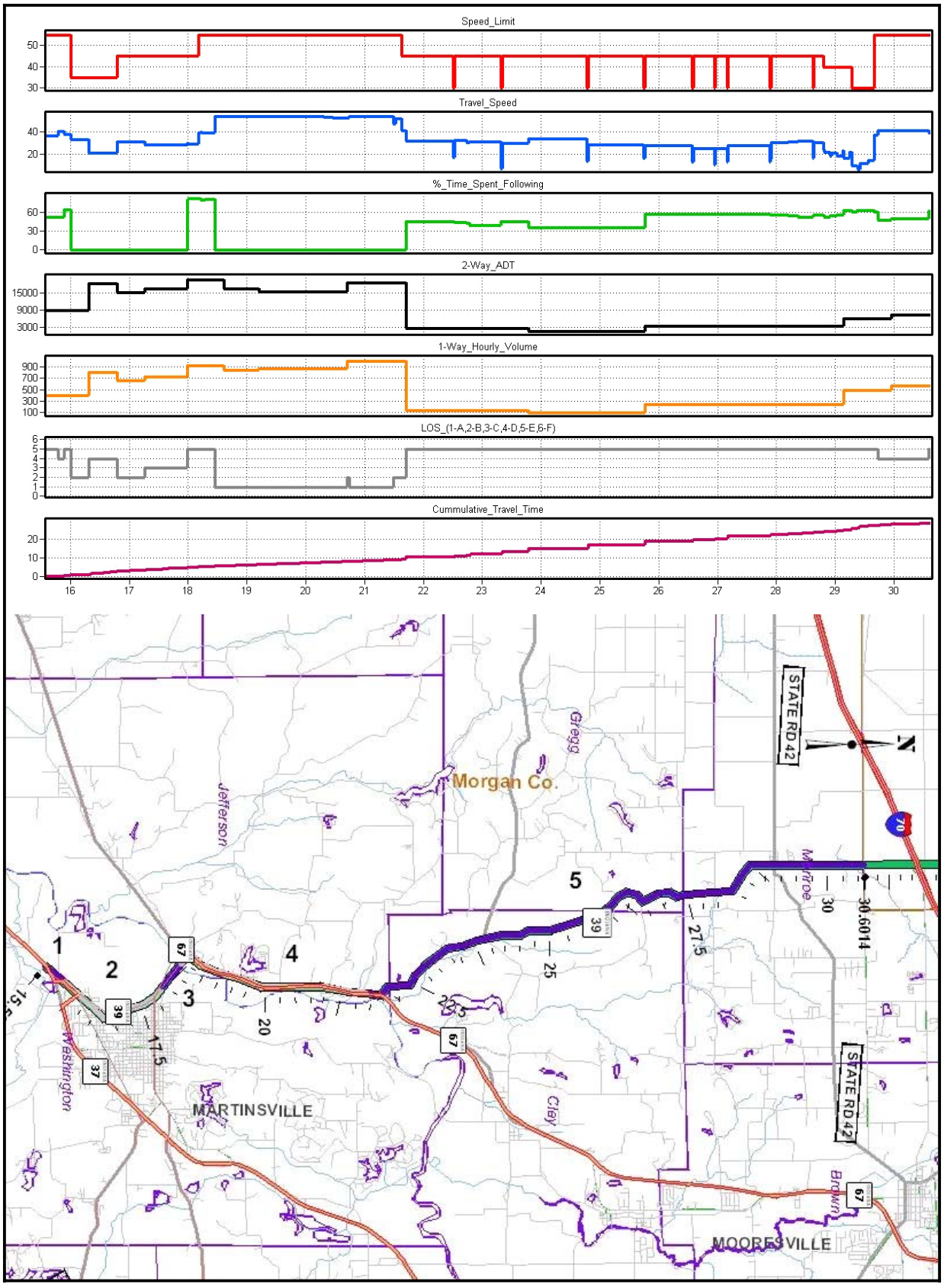


Figure 8-15: Traffic Operations - SR 39, Morgan County



Physical features by mile point for SR 39 through Morgan County are described on Figure 8-14. SR 39 is a two-lane urban roadway through the built up area of Martinsville and utilizes four lanes where it joins with SR 67. North of SR 67, SR 39 is a curvy two-lane rural roadway with narrow shoulders. Geometric conditions are less than optimum as the roadway passes through hilly terrain. There is little opportunity for passing on this section.

North of SR 67, SR 39 is a two-lane highway with narrow shoulders and limited passing opportunities.

Data related to traffic operations on this section of SR 39 are illustrated by mile point on Figure 8-15. The posted speed limit is 35 and 45 mph through Martinsville, 55 mph along SR 67, and 45 mph on most sections north of SR 67. Daily traffic volumes approach 20,000 vehicles per day (vpd) on the west side of Martinsville, drop to 4,000 vpd or less north of SR 67, and increase to 5,000 vpd to 9,000 vpd as the roadway approaches I-70.

Reductions in travel speed occur within Martinsville, and operating speeds are limited north of SR 67 by the geometrics of the existing roadway. Traffic operations exhibit an average speed of only 30 mph due to the physical limitations and lack of passing opportunities between SR 67 and the north county line (I-70). These same factors contribute to a level of service E over this section. Most other sections operate at LOS D or better.

There is no apparent access control on SR 39, except for the section that it shares with SR 67. North of SR 67, there are multiple intersections and drives located along the roadway. Existing right of way is generally 100 feet or more south of SR 67 and is only 33 feet between SR 67 and I-70.

8.12 Planning Recommendations for SR 39

SR 39 is serves the central areas of Morgan, Hendricks and Boone Counties. The roadway is two lanes except for short four-lane sections in Martinsville and Lebanon. Except where it passes through Martinsville and Lebanon, it appears to be impacted little by the urbanized growth of the Indianapolis region, and the existing two-lane roadway provides adequate capacity for the traffic volumes currently being served.

Table 8G lists forecasted traffic volumes for each section of SR 39 analyzed in this report. The highest traffic growth is expected within Martinsville, partially as a result of I-69 construction (assumed prior to 2025). Traffic forecasts indicate a growth rate of 50% to 100% through the city. (See previous tables for current traffic estimates.) Likewise, traffic growth in Lebanon is expected to be in the 50% range between now and 2025.

Traffic is forecasted to double (to about 10,900 vehicles per day) on SR 39 just north of SR 67, but the growth rate on other rural sections and through Danville is expected to be more modest. Volumes on

Table 8G: Estimated 2025 Conditions, Base Scenario – SR 39

SR 39 – Morgan County	lanes	area	Previously Planned Improvements	Length	2025 Daily Traffic	Peak Hour Traffic	Speed Limit	Ave Op Speed	Level of Service
1. SR 37 to Martinsville	4	Rural	2 added lanes	0.4 mi	18,900	840	55 mph	45 mph	A - B
2. City of Martinsville	4	Urban	2 added lanes	2.0 mi	31,400	1,400	40 mph	25 mph	B - C
3. Martinsville to SR 67	4	Rural	2 added lanes	0.5 mi	29,900	1,420	55 mph	50 mph	B - C
4. SR 67 joint right of way	4	Rural		3.3 mi	26,700	1,450	55 mph	55 mph	B - C
5. SR 67 to North county line	2	Rural	Road reconstr SR 42 to North	8.9 mi	10,900	780	40 mph	25 mph	E
SR 39 –Hendricks County	**lanes**	**area**	**Previously Planned Improvements**	**Length**	**2025 Daily Traffic**	**Peak Hour Traffic**	**Speed Limit**	**Ave Op Speed**	**Level of Service**
1. South county line to Danville	2	Rural	Rd Rehab. Min 24' pvt 6' shldr	12.1 mi	6,700	390	45 mph	35 mph	D - E
2. Town of Danville	2	Urban		1.6 mi	11,200	590	40 mph	35 mph	A - B
3. Danville to north county line	2	Rural		10.8 mi	9,200	530	50 mph	35 mph	D - E
SR 39 – Boone County	**lanes**	**area**	**Previously Planned Improvements**	**Length**	**2025 Daily Traffic**	**Peak Hour Traffic**	**Speed Limit**	**Ave Op Speed**	**Level of Service**
1. South county line to Lebanon	2	Rural		8.5 mi	6,600	450	55 mph	40 mph	C - D
2. City of Lebanon	2	Urban		2.1 mi	24,900	1,360	35 mph	10 mph	E - F
3. City of Lebanon multi-lane, urban	4	Urban		0.6 mi	28,000	1,460	35 mph	30 mph	B - C
4. City of Lebanon multi-lane, rural	4	Rural		0.4 mi	25,200	1,320	45 mph	35 mph	C - D
5. Lebanon to north county line	2	Rural		7.1 mi	12,200	640	55 mph	40 mph	D - E

these sections are anticipated to be under 12,000 vehicles per day. This is well within the range of service of a two-lane roadway.

Table 8G also shows anticipated 2025 levels of service with the Base Scenario, which assumes existing conditions and currently planned improvements. The most significant project currently planned for the SR 39 corridor is within Martinsville, where added travel lanes are being constructed to provide four travel lanes between SR 37 (future I-69) and SR 67. This is a particularly important link for maintaining mobility through this area due to the limited number of opportunities to cross White River.

A second previously planned project is the reconstruction and rehabilitation of SR 39 between SR 67 and Danville. INDOT has recently repaved portions of this roadway, including the provision of full depth shoulders as feasible within existing right of way and roadside constraints.

For long range planning purposes, the alternate improvement scenarios described in Chapter 4 were used to test various alternatives to improve service levels, and the results were reviewed with staff of INDOT and the Indianapolis MPO. The resulting recommendations are summarized in Table 8H, along with estimates of associated 2025 traffic forecasts and levels of service. Corridor recommendations are also show shown graphically on Figure 8-16, located at the end of this chapter.

Traffic forecasts indicate that the new four-lane section linking SR 37 and SR 67 through Martinsville will be adequate to meet long term needs in that area. As stated previously, the upgrade of SR 37 to form part of the I-69 freeway link to Evansville is assumed for the purposes of these forecasts. SR 39 shares the SR 67 roadway for about 3-1/2 miles before turning northward through Morgan and Hendricks Counties. No additional needs are identified on this joint use section.

The need for roadway reconstruction and rehabilitation between SR 67 and Danville is confirmed in this study. The SR 39 corridor should be developed as a good two-lane rural roadway with two 12-foot travel lanes and 6-foot shoulders wherever feasible within existing right of way.

Forecasted operations on SR 39 in Danville appear to be acceptable in terms of level of service, but an existing jog and conflicts with pedestrians and local traffic circulation in the downtown are less than desirable. If there should be a need to provide additional capacity on SR 39 in the future, opportunities to widen the existing roadway would be severely limited by right of way constraints. For these reasons, a north-south Danville bypass was tested as a part of Alternative Scenario 5. It was not found to draw sufficient traffic to significantly impact traffic conditions and is not recommended. (This should not be confused with the potential benefits to US 36 of an east-west bypass currently being reviewed by others.)

For long term planning purposes, roadway reconstruction is recommended for SR 39 north of Danville. Existing and forecasted traffic levels are gradually smaller as the distance from Danville increases, and this improvement is currently recommended only to the Hendricks/Boone County line. Although traffic forecasts indicate that traffic growth between Danville and Lebanon will be modest, the entire segment should be monitored for the application of access management and traffic engineering improvements to maximize the utility of the existing facility.

Existing and forecasted service levels of SR 39 in the Boone County portion of the study area are generally good, except where SR 39 passes through Lebanon. Since opportunities for adding travel

Table 8H: Estimated 2025 Conditions, Recommended Improvements – SR 39

SR 39 – Morgan County	lanes	area	Recommended Improvements	Length	2025 Daily Traffic	Peak Hour Traffic	Speed Limit	Ave Op Speed	Level of Service
1. SR 37 to Martinsville	4	Rural	2 added lanes	0.4 mi	18,900	840	55 mph	45 mph	A - B
2. City of Martinsville	4	Urban	2 added lanes	2.0 mi	31,400	1,400	40 mph	25 mph	B - C
3. Martinsville to SR 67	4	Rural	2 added lanes	0.5 mi	29,900	1,420	55 mph	50 mph	B - C
4. SR 67 joint right of way	4	Rural	Maintain (no new construction)	3.3 mi	26,700	1,450	55 mph	55 mph	B - C
5. SR 67 to North county line	2	Rural	Road Reconst– 24'pvmt, 6' shldrs	8.9 mi	10,900	780	40 mph	**30 mph**	**D - E**
SR 39 –Hendricks County	**lanes**	**area**	**Recommended Improvements**	**Length**	**2025 Daily Traffic**	**Peak Hour Traffic**	**Speed Limit**	**Ave Op Speed**	**Level of Service**
1. South county line to Danville	2	Rural	Rd. Rehab (min 6' shoulders)	12.1 mi	6,700	390	45 mph	35 mph	D - E
2. Town of Danville	2	Urban	Maintain (no new construction)	1.6 mi	11,200	590	40 mph	35 mph	A - B
3. Danville to north county line	2	Rural	Rd. Rehab (min 6' shoulders)	10.8 mi	9,200	530	50 mph	**40 mph**	D - E
SR 39 – Boone County	**lanes**	**area**	**Recommended Improvements**	**Length**	**2025 Daily Traffic**	**Peak Hour Traffic**	**Speed Limit**	**Ave Op Speed**	**Level of Service**
1. South county line to Lebanon	2	Rural	Maintain (no new construction)	8.5 mi	6,600	450	55 mph	40 mph	C - D
2. City of Lebanon	2	Urban	TrafficEng/TSM+ reconstr to US 52	2.1 mi	24,900	1,360	35 mph	10 mph	E - F
3. City of Lebanon multi-lane, urban	4	Urban	Maintain (no new construction)	0.6 mi	28,000	1,460	35 mph	30 mph	B - C
4. City of Lebanon multi-lane, rural	4	Rural	Maintain (no new construction)	0.4 mi	25,200	1,320	45 mph	35 mph	C - D
5. Lebanon to north county line	2	Rural	No Recommendation	7.1 mi	12,200	640	55 mph	40 mph	D - E

Estimated Costs:		
	Added travel lanes, SR 37 to SR 67	$29 million
	Roadway reconstruction, SR 67 to north county line	$19 million
	Roadway rehabilitation, SR 42 to Danville	$9 million
	Roadway rehabilitation, Danville to north county line	$14 million

lanes through Lebanon are limited, improvement scenarios were tested to evaluate the effectiveness of an SR 39 bypass. The volume of diverted traffic was relatively low, indicating that many trips on SR 39 have an origin or a destination in Lebanon or existing roadways provide a better route for intended trips. Improvements to local routes should be evaluated in the context of local thoroughfare planning, and access management and traffic engineering improvements should be implemented to maximize the utility of the existing facility.

Overall, SR 39 should continue to be managed as a good two-lane rural highway. If conditions change and the need occurs in the future to provide added capacity in this corridor, SR 39 north of Monrovia (located just south of I-70) offers additional potential for meeting long term needs of INDOT. It provides available right of way, reasonably good geometric design and relatively straight alignment. Care should be taken over the long term to preserve the corridor, manage access, and improve the roadway to meet changing needs. INDOT should protect and maintain this corridor, and continue to coordinate with urban areas as they develop long term plans to meet their transportation needs.

8.13 Strategies to Maximize System Efficiency – SR 39

Following is a review potential actions to increase existing system efficiency to better serve current users of SR 39.

Access Management. Generally, the number of access points on SR 39 is in the range of 10 to 20 (moderate) in rural areas and 30 to 40 (high) in the urbanized areas of Martinsville, Danville and Lebanon. At existing traffic levels, access management is not a major priority in the rural areas, and would be difficult to achieve on the urban sections.

Controlling access and turning movements through the installation of raised medians is not an option at most locations along the SR 39 corridor due to the fact that multiple lanes are not provided. Overall, no special access management actions are recommended, although ordinary care should be taken to manage access for new developments as future growth occurs near Martinsville, Danville and Lebanon.

Traffic Engineering Improvements. There are a number of locations on SR 39 that would benefit from traffic engineering improvements when these are warranted by traffic demand. Traffic on SR 39 is currently regulated by STOP signs at several locations, including at intersections with US 136, US 36 and SR 42. Traffic signals and auxiliary turn lanes should be installed at each of these locations when warrants of the Indiana Manual on Uniform Traffic Control Devices are met.

No other specific traffic engineering improvements have been identified for SR 39. The best opportunities to improve conditions through traffic engineering improvements exist within the urbanized areas of Martinsville, Danville and Lebanon. In each community, INDOT has already modernized traffic signals and installed turn lanes where reasonably feasible. Opportunities in downtown areas are limited due to the proximity of downtown buildings. Traffic signal timing should be reviewed on a periodic basis to ensure consistency with any changes in localized traffic demand.

Intelligent Transportation Systems (ITS). A relatively high accident rate (3.51 accidents per million vehicle miles) on the southern portion of SR 39 in Hendricks County might suggest improved incident detection and response systems, but that investment is not warranted by the low traffic demand on that section. The best opportunities for ITS applications are likely to be motorist information components where SR 39 traffic accesses I-70, I-74 and I-65. These components might include changeable message signs or highway advisory radio (HAR). Consideration should be given to these locations as appropriate within an overall regional ITS strategy.

Transportation Demand Management (TDM). Current development levels, land uses, and low traffic volumes do not indicate that staggered work hours, ridesharing and flexible working hours would be particularly beneficial or necessary for the SR 39 corridor under existing conditions.

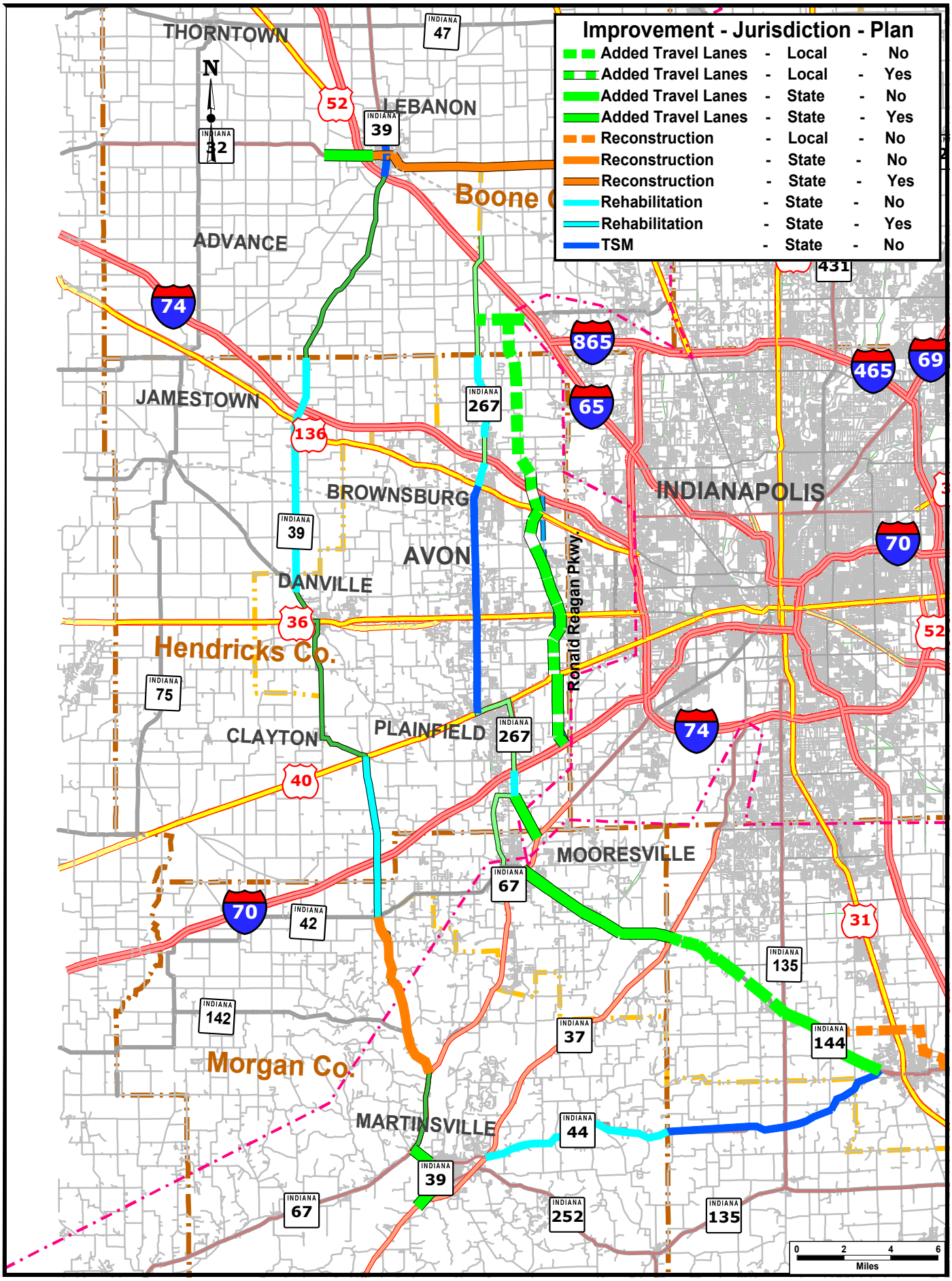


Figure 8-16: West Corridor Recommened Improvements