



Central Indiana Suburban Transportation & Mobility Study

Peer Cities Review

EXECUTIVE SUMMARY

Prepared by:
HNTB Corporation

In Association with:
Parsons Brinckerhoff Quade & Douglas, Inc.
Cambridge Systematics, Inc.

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CENTRAL INDIANA SUBURBAN TRANSPORTATION & MOBILITY STUDY EXECUTIVE SUMMARY

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Background

The purpose of the Central Indiana Suburban Transportation and Mobility Study (referred to as CISTMS and pronounced “systems”) is to examine transportation and mobility needs among and between the communities surrounding Indianapolis in order to identify suburban travel needs and develop recommendations for improvements. Many studies have been conducted for radial routes leading to Marion County. Few have addressed “crosstown” travel between surrounding counties as will be accomplished by this study.

The study focuses on broad corridor areas in central Indiana, including State Route 32 and State Route 38 on the north, State Route 9 on the east, State Route 44 on the south and State Route 267/39 on the west. The implementation of one or more of these broad corridors could establish a portion of a circumferential roadway that could “bypass” segments of I-465 or possibly create an entire outer beltway. Other parallel roadways that may be under the jurisdiction of the state, county or the local municipality may also be considered if appropriate. Major problems and deficiencies are being identified and solutions investigated for key areas along those corridors.

Peer Cities Examination of Outer Beltways

A key task of the Central Indiana Suburban Transportation and Mobility Study was the examination of other cities’ experiences with the development of “outer belts” (freeways or limited access roadways) that were built outside an initial freeway “ring” surrounding an urban area.

This report addresses the experience of other communities with outer belts (and related topics associated with urban bypasses) in two ways: through a literature review of research intended to address the experience of a large number of metropolitan areas, and by a more detailed review of the direct experience of four “peer” cities.

Key Findings of Literature Review

Beltways, Traffic and Sprawl: The Empirical Evidence, 1990-1997, David T. Hartgen, University of North Carolina at Charlotte. September 29, 2000. (65 Cities with Beltways)

- Employment rather than roadways is the key factor related to traffic growth.

- Growth Impacts: No-beltway and partial-beltway cities grew faster in area, population and employment.
- Beltways are generally a minor factor in the low-density “spread” of urban areas (sprawl).
- Conclusion: Many factors besides transportation relate to growth and sprawl, including the quality of housing, perceptions of crime, schools, taxes, and a host of other factors.

Measuring Sprawl and its Impact, Rutgers and Cornell Universities for Smart Growth America, 2000. (83 Metropolitan Areas)

- Land use and density were used to measure sprawl (1st=most sprawl; 83rd = least sprawl).
- Some cities with no outer beltways ranked high: Greensboro/Winston-Salem, NC (#2), Greenville/Spartanburg, SC (#5), Knoxville, TN (#8), and Rochester, NY (#12). Other no-beltway cities were at the bottom of the list: Springfield, MA (#68), and Albuquerque, NM (#72).
- Houston, with two freeway belts, and a third beltway under construction, was ranked in the middle (#32) right next to Indianapolis (#33). Dallas, with a partial outer beltway, ranked in the top 15. Baltimore, with partial beltways 5, 10 and 15-miles out ranked 64th.
- Considering residential density, neighborhood mix, strength of activity centers and downtowns, and accessibility of the street network, little correlation was found between urban sprawl and the presence of beltways.

Road Expansion, Urban Growth, and Induced Travel: A Path Analysis, Robert Cervero, APA Journal, Spring 2003, Vol. 69, No. 2. (California freeways)

- In both the long and short term, induced travel and induced development (new building) was found along the expanded freeway corridors, but the magnitude of the induced-travel growth effects was not as great as what was found in previous research.

Land Use and Travel Choices in the Twin Cities, 1958-1990, Gary Barnes and Gary Davis (Minneapolis/St. Paul)

- People spent about the same time traveling to work in 1990 as they did in 1958. Census data shows similar results between 1980 and 2000 (three-minute variation). Beltways (and radial freeways) can extend the distance traveled within a given “time budget,” thus extending the potential development area and contributing to urban sprawl.

The Effect of Beltways on Metropolitan Economic Activity, A. C. Nelson and Mitchell Moody, Journal of Urban Planning and Development, December, 2000. (44 Standard Metropolitan Statistical Areas)

- “...beltways would appear to so disperse populations that market thresholds needed to support marginal retail and service operations are not achieved. The result is that, with regard to economic activity in those sectors, metropolitan areas with beltways are made somewhat worse off than those without.”

Market Choices and Fair Prices: Research Suggests Surprising Answers to Regional Growth Dilemmas, Report #17, Transportation & Regional Growth series. University of Minnesota Center for Transportation Studies, January 2003 (Minneapolis/St. Paul)

- Sprawl issues aside, people are going to travel, whether the path is fast or slow. And they will take jobs and pick places to live for a complex set of reasons, including school quality, closeness to friends and relatives, and personal preference. Daily travel is but one of those factors.

The Economic Impact of Highway Bypasses on Communities; Summary; A Research Project by the Wisconsin Department of Transportation,” January 1988 (17 Cities)

- These Wisconsin communities considered their bypasses to be beneficial, while suggesting a proactive approach to ensuring the most benefits and fewest adverse impacts for individual businesses. The need for coordinated, multi-jurisdictional plans was often cited.

Key Findings of Peer Cities Analysis

Boston, Massachusetts

- I- 95 (formerly MA-128), 15 miles from the CBD, was constructed in 1936.
- I-495, 30 miles from the CBD was completed in 1977.
- The I-495 corridor is characterized by open space, New England town culture, good access to central Boston, and relatively low housing prices.
- During the 1990’s, the I-495 corridor became the fastest growing area in the state. Roughly 29 percent of all manufacturing jobs in the state are found in this corridor and by 2025, it is expected to be chronically congested due to continued economic growth.
- In the past, regional plans in the I-495 corridor have been unsuccessful due to a strong “home rule” tradition, but a visioning process called “the I-495 Initiative” has been instituted to begin to establish control of growth along the highway.
- Lessons Learned: In order to be most effective, outer beltway planning should include the affected jurisdictions from the beginning. The process should proceed through the following three steps:
 1. Visioning – to identify the purpose of the proposed facility.

2. Planning & Design – to design the facility to “fit” the characteristics of the areas it will serve.
3. Land Use Controls & Zoning – to facilitate urban development as envisioned.

Houston, Texas

- Houston has three circumferential roads around its downtown and is moving forward on developing a fourth, to be 170 miles long, called the Grand Parkway to serve suburb-to-suburb travel.
- Land along the inner three beltways is nearly fully developed.
- An “expert panel” has determined that development will continue to spread (along radial highways) with or without the Grand Parkway.
- The Grand Parkway Association was formed in 1984 “to facilitate the efficient development of the...outer highway loop and to serve the regional mobility needs of metropolitan Houston and the eight surrounding counties.” The seven member board of directors is appointed by the Governor’s Texas Transportation Commission.
- Lessons Learned: Houston’s experience with the Grand Parkway project suggests the following lessons for Central Indiana:
 1. Despite considerable national and local attention, there will continue to be controversy regarding whether an outer loop will cause urban sprawl.
 2. Portions of outer beltways may warrant the institution of tolls as a financing mechanism without compromising the overall objectives of the beltway.

Nashville, Tennessee

- The existing “inner loop” is only three to five miles from downtown.
- An outer loop, called SR 840, will be 20 to 50 miles from downtown. It is approximately 30% complete, primarily south of Nashville.
- The primary purpose of the road is “to provide economic development opportunities in areas around Middle Tennessee.” Traffic relief on urban interstates in Nashville and improved through-travel for trucks and other long-distance vehicles is identified as a “by-product” of the roadway.
- The trucking industry has been solidly in favor of this outer beltway “bypass” around Nashville.
- Lessons Learned: The proposed outer beltway for Nashville is seen either as a bypass for through-traffic or as an economic development tool for the area it is passing through.

Following are some lessons for Central Indiana:

1. Outer loops can benefit through-traffic, particularly trucks, by providing an “external bypass” around urbanized areas. A full loop may not be needed as long as heavily traveled routes entering and leaving the area are connected.
2. Outer beltway segments located far from the urban core can be seen either as economic development opportunities or threats to local quality of life. Local areas should determine their expectations of the roadway and take actions to plan future land use and zoning prior to roadway construction.
3. Depending on the purpose to be served by the roadway and the opinions of citizens along the roadway’s path, one or more “bypasses” may be preferable to a full outer loop.

Charlotte, North Carolina

- Construction of I-485 (8-12 miles out) began in 1988 and will be complete around 2010. Planning for a second outer beltway began in the early 1990’s.
- Two options resulted from the planning study of the outer beltway: a new-terrain beltway 25 to 40 miles from the Charlotte CBD, and the upgrading of existing roads to form a circle connecting existing cities and towns.
- The new-terrain option was rejected in favor of the “improve existing” alternative. Towns outside Charlotte wanted development and traffic relief, but after further consideration decided their objective was actually to provide a better way to get to other suburban and exurban towns.
- Currently the towns are improving existing links to four-lane divided arterials at their own pace. The original plan has been split into dozens of independent plans and projects for improving links between various destinations.
- In addition to rejecting a new terrain outer belt, Charlotte’s MPO, the Mecklenburg-Union Metropolitan Planning Organization (M-UMPO), studied ways to avoid the negative land use impacts of I-485 (still under construction). The guiding principles and general recommendations of that study (attached) may be relevant to Indianapolis.
- Lessons Learned: Charlotte’s experience in evaluating beltway vision and design “later” in the process of interstate highway construction suggests several timely lessons for Central Indiana, as follows:
 1. The purpose of a proposed bypass or beltway needs to be identified (and agreed to) by affected jurisdictions up front.
 2. The best way to encourage positive growth around interchange areas is to plan and adjust for it in advance.

3. Establishing and agreeing on guiding principles for design is an important initial step, particularly if implementation is to be accomplished by multiple agencies.

Conclusions

1. The national trend of urban growth and economic expansion, combined with a trend favoring decentralized development, has prompted a concern for urban sprawl that is virtually nationwide. These trends were noted in all the cities surveyed.

In areas where growth is occurring, the research findings were inconclusive regarding whether the presence of a beltway contributed to the overall expansion of the area and urban sprawl. Rather, land use planning was found to be a key factor. In areas where land use planning was emphasized and coordinated, the control of growth was more orderly and focused.

2. Beltways (and radial freeways) do impact the location of development and may contribute to some loss of marginal retail and service operations, but research is inconclusive regarding the causal relationship of beltways and urban sprawl. Experience of peer cities clearly indicates, however, that local and regional land use effects (and policies) should be a major part of beltway planning.
3. Since land use policies are determined locally (in Indiana and in all the peer cities reviewed), coordinated planning among jurisdictions is essential for effective beltway planning. Objectives to be served may be regional, but land use impacts are local. Beltway segments need to be integrated with local comprehensive plans.
4. Beltways are not a panacea for improving congestion on existing routes. Linking suburban centers by improved arterial routes rather than a suburban freeway or beltway may best satisfy local needs. The key is to clearly identify the objectives being served through regional studies, local impact reviews and public involvement.
5. Coordinated planning by jurisdictions being served is the best way to establish common design standards and reduce the negative land use impacts of beltways (freeway or arterial). Consensus among jurisdictions should be reached on common principles and guidelines early in the planning process. They should be project specific and should reflect state-of-the-art knowledge of the potential development impacts of transportation facilities. A three-step process should be used:
 - *Visioning* to identify the purpose of the project,
 - *Design and Location Studies* to fit the plan to the context, and

- *Zoning and Land Use Controls* prior to construction to control development.

CISTMS will contribute to the important first step of visioning. The relationship of land use and transportation will be explored through a local expert panel, public involvement, and state-of-the art modeling. Coordination among jurisdictions will be encouraged and facilitated, establishing a pattern that should be continued through project construction.

At the conclusion of the study, the objectives and character of each roadway segment will be identified, and recommendations will be developed for implementation. These recommendations will include facility descriptions to guide design and location studies, and suggested guidelines for land use controls by local agencies.