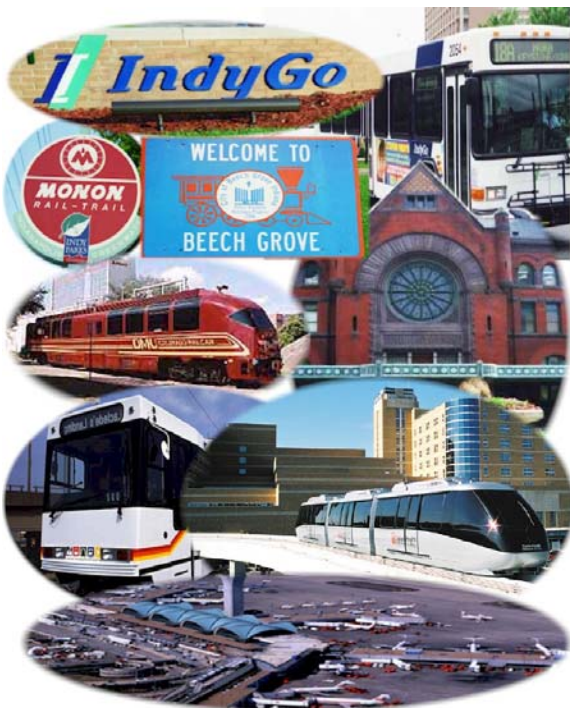




**INDIANAPOLIS  
METROPOLITAN PLANNING ORGANIZATION**

**Tech Memo**  
**Response to Public Hearing Comments**  
**from ConNECTIONS Study**

**Indianapolis Metropolitan Area Rapid Transit Study**



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Appendix B – Northeast Corridor Transportation, “ConNECTions:” Major Investment Study (MIS)/Draft Environmental Impact Statement (DEIS), Indianapolis Metropolitan Planning Organization (MPO) and INDOT, Sept. 2001

Appendix C – Northeast Corridor Evaluation – Final Report (Feasibility Study), Indianapolis Dept. of Metropolitan Development (DMD), June 1997



## Tech Memo - Response to ConNECTions Public Hearing Comments

### I. INTRODUCTION

The purpose of this technical memorandum is to review the comments generated by the Northeast Corridor Draft Environmental Impact Statement (DEIS) for their relevance to making transit improvements in the Indianapolis region. These comments include:

- comments raised at two well-attended public hearing sessions conducted by the Indiana Department of Transportation (INDOT) and the Metropolitan Planning Organization (MPO);
- comments raised in letters from governmental agencies and from others on the DEIS; and
- comments raised in the news media as a result of the ConNECTions study.

The first two categories of comments are included in the December 3, 2001 INDOT “Official Public Hearing Transcript” for the two sessions of the November 15, 2001 public hearing. The hearings were held to discuss highway and public transit alternatives in the Northeast Corridor between downtown Indianapolis and areas of Fishers, Carmel, and Noblesville, as presented in the “ConNECTions” Transportation Study.

Following the public hearing, the ConNECTions Policy Steering Committee (PSC) met and, after reviewing the public hearing comments, decided that INDOT should advance the highway component of the Northeast Corridor project to a Final Environmental Impact Statement (FEIS). The PSC also decided that the MPO should pursue a regionwide study of transit, including consideration of a downtown-to-airport link, which would include addressing issues of mode, cost, feasibility, etc. The Indianapolis Metropolitan Area Rapid Transit Study, for which this tech memo is a product, is the MPO’s response to the direction for additional study requested by the PSC.

This tech memo’s analysis of the Northeast Corridor comments is focused only on rapid transit (comments dealing with proposed highway improvements are excluded from consideration in this tech memo). Preliminary analysis given in this memo should be interpreted as directional for further study, as the Indianapolis Metropolitan Area Rapid Transit Study progresses.

### II. SUMMARY OF COMMENTS AND STATUS OF RESPONSES

#### A. Public Hearing Comments and Responses

The ConNECTions Study provided both highway and transit alternatives in the northeast corridor; this study focuses on regional rapid transit, including rapid bus (a rapid transit solution that may require additional highway construction). To this extent, these current efforts will deal with an impact of both fixed guideway regional rapid transit systems and highway-oriented regional rapid transit systems.

A number of public hearing comments were made that influenced the PSC’s decision to ask the MPO staff to undertake the current Rapid Transit Study. These comments magnify the following: public and private interests for the consideration of transit improvements in corridors other than the Northeast Corridor (e.g., a corridor connecting to the airport); interests in looking at a full range of modal alternatives (e.g., light rail transit, bus rapid transit, commuter rail, monorail, etc.) and a full range of technologies for each mode (e.g., diesel multiple units (DMU)); and an interest

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providing for an intermodal network (e.g., address good bus service connections). The preparation of this study, which will consider a full range of modes and multiple corridors, will address these comments.

Numerous positive comments about rapid transit options were made that will be examined and quantified in the results of the current Rapid Transit Study. These comments included statements like: rail/bus gets cars off the road, improves air quality, reduces noise, makes streets safer for kids, improves mobility, is less disruptive to build than highway expansion, stimulates development, and may reduce the need for parking at such new developments. Obviously, the addressing the accuracy of these statements will depend on the mode being considered, which will include options such as commuter rail (perhaps using DMU) or light rail (LRT) or bus rapid transit (BRT), as well as the corridor in which the transit improvement is proposed (exclusive right-of-way, in-street mixed-traffic running, etc.).

A number of comments raised concerns about potentially negative effects of proposed transit improvements. While these comments were focused on the specifics of the ConNECTions options in the Northeast Corridor, they raise issues that will need to be evaluated for each option considered in the myriad corridors under consideration for the current Indianapolis Metropolitan Area Rapid Transit Study. These issues include: noise and vibration; air quality; housing values; congestion and safety at grade crossings; funding availability and tax burden; advantages and disadvantages of rail and bus modes; mode change penalties, for example, between auto and rail; and adequacy of land use policies. The following bullet points provide a preliminary response as to the direction the current Rapid Transit Study will pursue to define the effects of these issues as they concern transit options within each of the considered Indianapolis corridors:

- **Noise and vibration**—The noise levels and vibration potential of transit options will vary according to the mode chosen (e.g., commuter rail, light rail transit, or bus rapid transit) and the frequency of proposed operations. The proximity of sensitive receptors is also a factor. This issue will be included in mode choice decisions. US Department of Transportation (DOT) noise guidelines will also be used to evaluate the effects of this issue for specific options evaluated in detail. Mitigation measures, such as a low noise wall to block the transmission of steel wheel on steel rail noise to sensitive receptors, for example, will be entertained, as appropriate, to address any situations where DOT guidelines may be exceeded.
- **Air quality**—Air quality effects are typically considered at both the regional (mesoscale) and localized (microscale) level. Regional-level effects are measured by determining the effect of the proposed transit improvements on the area's pollutants using the region's air quality model and reviewing for conformity with the State Implementation Plan. Localized effects include a consideration of the severity and number of worst-case conditions, for example, bus and auto concentrations at park-n-ride lots during peak periods.
- **Housing values**—Property values can change with the introduction of a major capital investment, such as a fixed rail system. Positive effects may yield greater value for commercial development, enhanced pedestrian access, or short drive/bus shuttle connection to a station, which becomes a selling point for property so located. Avoiding the negative effects involves carefully fitting the improvement into the existing setting, with the inclusion of noise attenuation measures where warranted, appropriate grade crossing solutions, introduction of landscaping and landscaped berms and aesthetic enhancements, etc. These features will need to be carefully considered in the evaluation of transit options pursued in the current Rapid Transit Study.



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- **Congestion and safety at grade crossings**—A transit improvement can introduce an additional stopping penalty for existing traffic and/or increase the amount of vehicular traffic going to and from a new transit station. Where this is expected to occur, the current Rapid Transit Study will need to project the number of vehicles that may be affected and the extent of delays to determine the adequacy of the existing street network to handle the traffic with a reasonable level of service. Where congestion is projected, changes in the roadway infrastructure, such as lane-widenings or introduction of dedicated left-turn lanes may be considered, as well as grade-separation to mitigate or obviate the problem. Safety at grade crossings can be addressed by physical enhancements and by education. Double gates, pedestrian guardrails, signage, and lighting can enhance safety at grade crossings. Depending on the mode, the time a driver needs to wait at a grade crossing can be very short. Compared with a typical freight train, the 200-ft-long light rail trains in St. Louis, for example, cross an intersection in a fraction of a minute—less time than one typically has to wait at a signalized intersection. Furthermore, appropriate signal timing can eliminate further delays.
- **Funding availability and tax burden**—Both capital and operating funding are critical for a region to have a fixed guideway transit system. The current Rapid Transit Study will estimate both the capital and operating costs of any finalist alternatives presented to the community for consideration. Discussion of potential funding sources will also be included. The community and its elected leaders will make the decision on the source(s) and allocation of any needed funds, including whether a Regional Transportation Authority (RTA) is an appropriate institutional structure to use.
- **Advantages and disadvantages of rail and bus modes**—Commuter rail, light rail transit, bus rapid transit (BRT), and other fixed guideway transit modes have different features that may lend themselves better to different corridor conditions. Every fixed guideway system benefits from, and should by definition include, a feeder bus system. The current Rapid Transit Study will evaluate a full range of modal options and will consider the most appropriate mode for individual corridors yielding a workable multimodal regional system including a feeder bus network.
- **Mode change penalties**—Whenever a person needs to change from auto to bus or rail, or from bus to rail, or vice versa, the change takes time and involves an inconvenience that results in a fall-off in the number of persons willing to make the trip using the multiple modes. This mode change penalty will be included in the modeling of projected ridership to be prepared for the various options evaluated in the current Rapid Transit Study using the MPO's regional transportation model.
- **Adequacy of land use policies**—When a major capital investment in transit is made in a corridor, land use plans, as well as subdivision regulations and zoning ordinances need to reflect the interests of the community. Where economic development is desired, plans with appropriate tools to assist in implementation need to be in place to capture the return from the government investment in the corridor (transit oriented development/TOD). Where conservation of a particular neighborhood or individual land use is desired near a new transit station that might stimulate changes in land use, then the plans and tools need to be in place to preserve those areas of local interest. These issues will be addressed in the Indianapolis Metropolitan Area Rapid Transit Study.



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### B. DEIS Letters and Responses

A number of letters commenting on the Northeast Corridor DEIS are included in the Official Public Hearing Transcript for the Northeast Corridor. A few additional issues are raised in these letters. Notably, the November 28, 2001 US Environmental Protection Agency (USEPA) letter addresses many of the issues discussed above, as well as a number of others with respect to transit options as follows: environmental justice; wetland avoidance, minimization, and compensatory mitigation measures; water quality/storm water management and mitigation; floodplains and mitigation; farmland; historic preservation; threatened & endangered species (e.g., Indiana Bat); and secondary and cumulative impacts. Also, the USEPA notes a Federal Railroad Administration (FRA) regulation calling for the sounding of a locomotive's horn at grade crossings and the effect of this requirement on noise levels. Each of the USEPA issues addressed DOT EIS documents will be included in the DEIS developed as part of the Indianapolis Metropolitan Area Rapid Transit Study. These issues are areas of concern based on federal legislation, executive orders, and federal-agency and court-case interpretation of such legislation and orders; they form a checklist of items to consider in defining options that will minimize adverse environmental impacts and be able to be permitted for construction.

Still other letters that comment on the Northeast Corridor DEIS note concern for the following issues: nature and conservation areas; consideration of reverse commuting; effects on downtown development and parking demand; and in-street rail operation in the downtown area. Avoiding and mitigating "Section 4(f)" publicly-owned parks, recreation areas, and nature preserves is a significant requirement for the expenditure of federal dollars and will be addressed in the definition of project transit options and the DEIS developed as part of the current Rapid Transit Study. Similarly, the other issues will be addressed in the evaluation of the transit options developed for the current Rapid Transit Study; these issues may be factors in choosing among the options developed.

### C. Other

Other comments raised in the media following the public hearing and more recently have addressed other topics. These include: consideration of the Greenwood corridor as a priority, as well as links to Avon, Speedway, Brownsburg, and Zionsville; implementation of a downtown bus transfer center for IndyGo near Union Station; and Eli Lilly's proposal to move heavy rail (freight and passenger rail) out of downtown and onto the beltway tracks. These items will need to be considered in the definition and evaluation of transit options for the current Rapid Transit Study.

## III. SUMMARY OF ISSUES REQUIRING ATTENTION DURING THE STUDY DEVELOPMENT

The following listing includes a number of key issues identified to date that will be explored in the Indianapolis Metropolitan Area Rapid Transit Study, which will consider a full range of transit options in multiple corridors:

Noise and vibration	Funding availability and tax burden	Adequacy of land use policies
Air quality	Advantages and disadvantages of alternative rail and bus modes and technologies (e.g. DMU)	Environmental justice
Housing values	Mode change penalties	Wetlands
Congestion and safety at grade crossings		Water quality/storm water management

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Floodplains

Farmland

Historic preservation

Threatened & endangered  
species

Secondary & cumulative impacts

Nature and conservation areas

Reverse commuting

Downtown development and  
parking

In-street rail operation downtown

Downtown IndyGo bus transfer  
center

Removal of heavy rail from  
Union Station