

# NEPA Issues for Toll Road Turnpike Projects

11/21/06



NORTH CAROLINA

**Turnpike Authority**

# Reference Materials

- FHWA Memorandum to Colorado DOT, "NEPA for Toll Roads" (Oct. 2004)
- AASHTO Practitioner's Handbook, "Managing the NEPA Process for Toll Lanes and Toll Roads" (June 2006)

# NEPA Issues for Toll Road Projects

- Purpose and Need
- Screening of Alternatives
- Environmental Impacts
- Traffic Modeling
- Planning and Conformity
- Financial Analysis ↔ NEPA Process

# Purpose and Need

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*Can tolling be part of the P&N?*

# Purpose and Need

- FHWA Guidance

P&N for a project can include the goal of building a toll road, *if* the statewide or metropolitan long-range plan specifically calls for completion of a toll road.

*FHWA, "NEPA for Toll Roads," Oct. 2004*

# Purpose and Need

- For tolling to be included in P&N, the State or metropolitan planning process should:
  - Take into account the availability of public and private resources and analyze its transportation priorities based on these.
  - Specifically include, as one of the goals and objectives of a transportation plan, the use of toll revenues to enhance funding for transportation projects.
  - Document this analysis.

# Purpose and Need

"If the long-range transportation plan identifies a toll road or other public-private partnership as a goal, this may mean the community has determined that other non-toll sources of funds are needed for projects on which tolls would not be a viable option. In this circumstance, a toll road becomes necessary to fulfill the community's vision of its optimal transportation system, and thus could appropriately be included in the purpose and need statement."

*FHWA, NEPA for Toll Roads, Oct. 2004*

# Purpose and Need

"An MPO might identify toll revenues as a funding source for a highway in its transportation plan because all other public funds are committed for other projects and not available. In this circumstance, the need for a project can include a need for a particular revenue source, such as tolls, to pay for the project."

*FHWA, NEPA for Toll Roads, Oct. 2004*

# Purpose and Need

- Key points from FHWA Guidance:
  - Tolling *can be* included in the P&N as a specific goal of a project.
  - But only if project is included as a toll road in state or MPO's fiscally constrained plan.
  - Decision needs to be made project-by-project.

# Screening of Alternatives

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*If P&N does not call for a toll road,  
can non-toll alternatives be eliminated?*

# Screening of Alternatives

## ■ FHWA Guidance

- If P&N does not specifically call for a toll road, non-toll alternatives still could be screened out.
- This decision could be based on:
  - Inability to meet objectives specified in P&N – e.g., congestion relief.
  - Economic infeasibility – i.e., lack of funding for non-toll alternatives.

# Screening of Alternatives

- “If a specific need for a toll road does not arise out of the planning process, it is still possible that the **only alternatives that would satisfy the purpose and need statement might be toll alternatives.**”

*FHWA, NEPA for Toll Roads, Oct. 2004*

# Screening of Alternatives

- “Several transportation objectives could narrow the range of reasonable alternatives to be considered.”
- Examples:
  - Reducing congestion on an existing route
  - Accommodating freight carried by trucks

*FHWA, NEPA for Toll Roads, Oct. 2004*

# Screening of Alternatives

- “Importantly, the need to complete a project urgently could indirectly eliminate alternatives for which public funding is not immediately available. In such urgent circumstances, public-private partnerships such as toll roads might be the only alternatives that would adequately meet the purpose and need.”

*FHWA, NEPA for Toll Roads, Oct. 2004*

# Screening of Alternatives

- Key points from FHWA Guidance:
  - Even if tolling is not specifically included in the P&N, there still may be a basis for eliminating non-tolled alternatives.
  - Non-tolled alternatives can be eliminated if they are shown to be “unreasonable.”
    - Lack of funding is one possible basis.
  - Decision needs to be made project-by-project.

# Screening of Alternatives

- NC legislation limits ability to toll existing roads.
- This means:
  - *Tolled* alternatives generally will be on new location.
  - *Non-tolled* alternatives can be on new location or can involve improvements to existing roads.
  - Financial feasibility will be considered in determining the reasonableness of alternatives.
    - Non-tolled alternatives may not be reasonable if there is no funding available to pay for those alternatives.

# Environmental Impacts

*How does tolling affect the  
environmental impacts of  
alternatives?*

# Environmental Impacts

- Types of impacts that could change due to tolling:
  - Direct (footprint) impacts
  - Traffic-related impacts
    - Air
    - Noise
    - Traffic Congestion
    - Indirect and Cumulative
  - Environmental justice

# Environmental Impacts

## ■ Direct Impacts

- Footprint of toll road is generally similar to footprint of non-toll road.
- Impact of toll-collection facilities will be considered.
  - But likely to be minor if ETC is used
- Other possible differences in footprint include:
  - Change in number of lanes
  - Change in number of interchanges
  - Other changes to reduce cost and/or increase financial feasibility.

# Environmental Impacts

## ■ Traffic-Related Impacts

- Tolling reduces volumes on tolled facility; shifts some traffic to non-tolled roads.
- Tolloed traffic forecasts are needed to develop impact estimates for:
  - Noise
  - Air quality
  - Traffic congestion on other roads
  - Indirect/cumulative impacts (induced growth)

# Environmental Impacts

## ■ Environmental Justice

- Does tolling disproportionately affect low-income populations?
- Analysis may address:
  - Benefits as well as impacts
  - Alternative free routes
  - Ability of low-income residents to use toll facilities

# Planning and Conformity

What changes are needed to MPO plans?

How does tolling affect conformity findings?

# Planning and Conformity

- Planning issues:
  - Developing capability in MPO model to generate tolled traffic forecasts
  - Updating or amending Plan and TIP to show project as a toll road
  - Updating revenue forecasts - for fiscal constraint - to include toll revenues
  - *All of this requires close coordination with MPO, NCDOT, and FHWA.*

# Planning and Conformity

## ■ Conformity Issues

- Conformity finding needed prior to NEPA completion.
- Need consistency in “design concept and scope” between NEPA document and project included in conforming Plan.
  - Toll vs. non-toll
  - Type of facility
  - Number and location of interchanges

# Financial Analysis vs. NEPA Process

- NEPA process takes place in parallel with evaluation of financial feasibility
- “Feedback loop” works both ways
  - NEPA → financial analysis
  - Financial analysis → NEPA process
- Examples:
  - Environmental commitments increase cost, or
  - Financial analysis leads to reduction in project scope.

# Other Issues

- What if the project doesn't use any Federal funds?
- What if the project is developed as a PPP?
  - What is the private sector's role in NEPA?
- What if NEPA has already been completed for the project as a non-toll facility?