



Corridor Studies

Presentation Outline

What is a Corridor Study?

- Essential Elements
- Optional Elements

Developing a Corridor Study

Corridor Studies

A "Master Plan" for the Corridor



Essential Elements

- Analysis of Existing Corridor
- Systems-level Purpose and Need for Improvements
- Coordination/Collaboration with Partnering Agencies/Key Stakeholders
- Community Involvement
- Alternatives Development & Analysis
- Implementation or Action Plan

Analysis of Existing Corridor

Purpose: To gather/evaluate the current state of the facility/corridor.

- Facility type(s)/cross-section(s)
- Travel demand (multi-modal if applicable)
- Freight movement
- LOS and capacity
- Crash history/rates
- System linkage

Outcome: Transportation Profile

Systems-level Purpose & Need

Purpose: To develop the purpose and needs for improvements along the corridor.

- Specific goals of the study
- Designation of facility as a SHC
- Future travel demand (multi-modal if applicable)
- LOS and capacity analysis of future travel demand

Outcome: Problem Statement

Stakeholder Coordination

Purpose: To mutually agree upon solution to the identified transportation problem(s).

- Critical to success of the study and subsequent projects
- Coordination from inception of study
- All relevant stakeholders should be involved (FHWA, MPOs, RPOs, resource agencies, local jurisdictions, general public, etc.)

Outcome: Documented mutually agreed upon solution for transportation problem.

Community Involvement

Purpose: To seek input and comments from the community (general public) on all aspects of the study.

- Critical to success of the study and subsequent projects
- Level of outreach depends on elements in the study
- Input garnered in several ways (info meetings, workshops/charettes, hearings, interviews, etc.)

Outcome: General consensus on a solution for identified transportation problem.

Alternatives Analysis

Purpose: To develop and analyze alternatives that meet the goals, intent and purpose & need of the study.

- Mobility benefits
- Economic benefits
- Environmental benefits/challenges
- Effects on the transportation system
- Cost

Outcome: Documentation of alternatives analyzed and recommended for implementation.

Implementation Plan

Purpose: To develop a plan to implement recommended improvements.

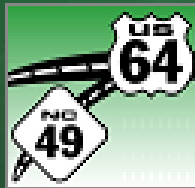
- Incorporation in plans and programs
- Prioritization/staging of improvements
- Funding mechanisms
- MOUs

Outcome: Implementation/Action Plan.

Optional Elements

- Operations/Access Management Analysis
- Functional Design
- Land use Analysis
- Systems-level Environmental Analysis
- NEPA or Record of Decision
- Economic Impact Analysis

Optional Elements



Operations/A.M. Analysis

Purpose: To develop improvements which address mobility, capacity, and safety along a corridor, while balancing access needs.

- Level of access control
- Medians/median openings
- Driveways/property access
- Traffic signals
- Interchanges/intersections

Outcome: Documentation and maps showing recommended improvements (A.M. plan)

Operations/A.M. Analysis

Purpose: To develop improvements which address mobility, capacity, and safety along a corridor, while balancing access needs.



Outcome: Documentation and maps showing recommended improvements (A.M. plan)

Conceptual Design

Purpose: To develop design(s) of proposed improvements to assist NCDOT and local officials in decision-making process.

- Short-term improvements (A.M. Strategies)
- Long-term improvements
- Additional r/w requirements

Outcome: Conceptual/Functional design of proposed improvements

Conceptual Design

Purpose: To develop design(s) of proposed improvements to assist NCDOT and local officials in decision-making process.



Outcome: Conceptual/Functional design of proposed improvements

Land Use Analysis

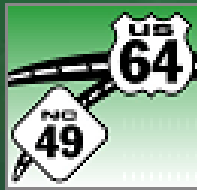
Purpose: To examine existing and future land use along the corridor.

- Focus on transportation goals and development objectives
- Transportation/land use compatibility
- Land use around interchanges

Outcome: Documentation of existing & future land use; guidelines for future development

Land Use Analysis

Purpose: To examine existing and future land use along the corridor.



Outcome: Documentation of existing & future land use; guidelines for future development

Environmental Analysis

Purpose: To identify natural and human environmental features and examine for potential impacts

- Systems-level analysis
- Primary tool is GIS
- May include indirect and cumulative effects analysis

Outcome: Documentation and/or mapping of environmental features and/or impacts

Environmental Analysis

Purpose: To identify natural and human environmental features and examine for potential impacts



Outcome: Documentation and/or mapping of environmental features and/or impacts

Record of Decision

Purpose: To achieve a Record of Decision, by developing a Tiered EIS

- Systems-level NEPA study (Tier 1)
- Help streamline individual project studies
- For use on corridors of 50+ miles
- New to NC- has only been used on SEHSR (no highway studies)

Outcome: Tier 1 Draft EIS, Tier 1 Final EIS,
Tier 1 ROD

Record of Decision

Purpose: To achieve a Record of Decision, by developing a Tiered EIS



Outcome: Tier 1 Draft EIS, Tier 1 Final EIS,
Tier 1 ROD

Economic Impact Analysis

Purpose: To examine potential benefits and effects improvements may have on economies influenced by the corridor.

- Provides officials info for decision-making and improvement implementation
- Construction spending, travel cost savings, market attractiveness, quality of life

Outcome: Documentation of Economic Impact Analysis

Economic Impact Analysis

Purpose: To examine potential benefits and effects improvements may have on economies influenced by the corridor.



Outcome: Documentation of Economic Impact Analysis



Developing Corridor Studies

Developing Studies

Step #1 - Determine Purpose of the Study

- A. Preserve/Improve Existing Corridor and/or Plan for Ultimate Footprint (Future General Alignment is Known)
- B. Determine How to Achieve the SHC Vision (Alignment is Unknown)
- C. Develop Improvement Costs for TIP (Project Specific)
- D. Move Forward with a TIP Project (NEPA Document)

Developing Studies

Step #1 - Determine Purpose of the Study

Step #2 - Determine Appropriate Elements to Include in the Study

A. Preserve Existing Corridor

Is the Existing Corridor Consistent with the Vision?

Yes

- Operations/Access Management Analysis
- Land Use Analysis
- Collector Street Plans

A. Preserve Existing Corridor

Is the Existing Corridor Consistent with the Vision?

No

- Functional/Conceptual Design
- Operations/Access Management Analysis
- Land Use Analysis
- Systems-level Environmental Analysis
- Collector Street Plans

B. Achieving the Corridor Vision

Is the Study for Upcoming TIP Project(s)?
(Out or Post Years in TIP)

Yes

- Tiered EIS (50+ miles)
- Economic Impact Analysis

B. Achieving the Corridor Vision

Is the Study for Upcoming TIP Project(s)?
(Out or Post Years in TIP)

No

- Corridor Master Plan Study
 - General Alignment Analysis
 - Systems-level Environmental Analysis
- Economic Impact Analysis

For Sections to be Upgraded on Existing Location,
Go to Previous Section on Improving Existing
Facility

C. *Improvement Costs*

Feasibility Studies

- Primary Purpose is to Determine Cost Estimate
- Typically No/Little Public Involvement
- Evaluate Limited # of Alternatives
- Systems-level Environmental Analysis
- Typically Project Specific/Short Segments
- Typically Centerline Designs Only

D. Advancing TIP Projects

NEPA Studies

- Primary Purpose is to Move Forward with a TIP Project
- Categorical Exclusion
- Environmental Assessment
- Environmental Impact Statement

Funding

Varies by type of Study. Most likely includes multiple funding partners.

- NCDOT
- MPOs
- RPOs
- FHWA
- COGs
- Local Municipalities
- Counties

Questions?

