

SCDOT Memorandum on Purpose & Need Statements for Federally Funded Projects

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Background and Importance:

The requirement for the purpose and need statement began with the National Environmental Policy Act (NEPA) that requires all federal agencies to consider the impacts of their actions on the environment. It is the most important section of the environmental document and establishes the reason why an agency is proposing a project. In addition, the purpose and need statement justifies the expected outcome of public expenditure and allows decisions to be defensible.

A purpose and need statement is required to be included in all environmental studies prepared for SCDOT/FHWA Review. These studies include Environmental Impact Statements (EIS), Environmental Assessments (EA) and Categorical Exclusions (CE). This memorandum is intended to create a uniform approach when developing purpose and need statements. Most importantly this document should be used as an informational toolkit when developing purpose and need statements.

Legal Guidance:

The legal guidance on purpose and need originates from the **NEPA CEQ Regulation 40 CFR 1502.13** – which states the purpose and need statement “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” Each federal agency has its own guidance on NEPA Documents.

FHWA Technical Advisory T 6640.8A directs State DOT’s to “identify and describe the proposed action and the transportation problem(s) or other needs which it is intended to address.” The FHWA Technical Advisory (TA) goes on to highlight nine factors (purposes “reason why”) that may be helpful in establishing the need for a proposed action/project. The factors include: system linkage, capacity, transportation demand, legislation, social demands or economic development, model interrelationships, safety, roadway deficiencies and project status.

Importance of Purpose and Need in the Planning Process:

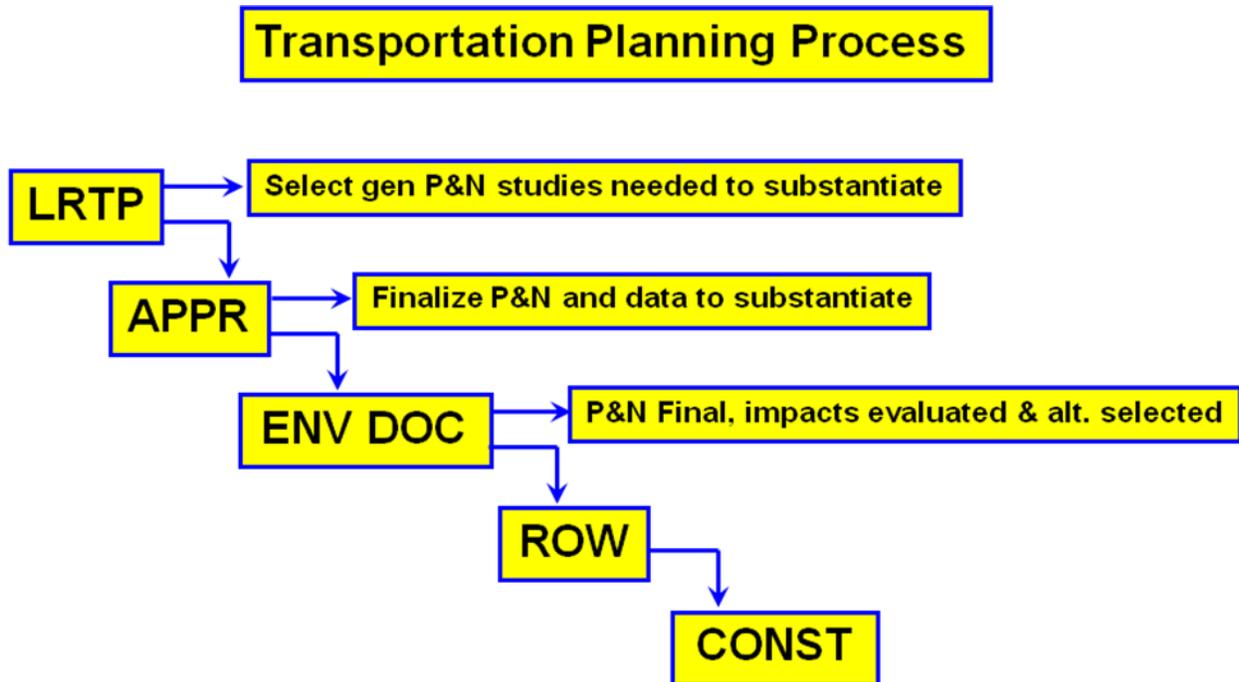
Recently there has been strong interest geared towards the development of purpose and need statements early in the planning process (LRTP). The FHWA North Carolina Division addresses this topic in their document titled “Purpose and Need Guidance for FHWA-Funded Projects in NC.” Logically, a purpose and need statement will not be completed during the planning process because it consists of ongoing development. However, early on we must strive to take a “hard look.” **(See Figure 1)**

This consists of making sure that data and decision making made at the planning level continues into project development. As stated in FHWA regulations, “the transportation planning process



should serve as the primary source of information for establishing purpose and need (CFR 23, Appendix A Part 450)” (i.e. information and forecast of vehicle miles of travel, travel demand, highway and travel speeds, traffic diversion and accident rates). Overall the planning process should identify the need for a transportation improvement between points x and y at some future date.

Figure 1:



Developing the Purpose and Need Statement:

The purpose and need statement sets the stage for the identification and evaluation of project alternatives. Also it should be concise and understandable as possible (to the point).

- A. The Purpose** – Defines the transportation problem (need) to be solved and outlines the goals and the objectives of a specific project. It should be noted that the purpose is not a solution but the reason why an agency is proposing a certain project. For example, “The purpose of this project is to widen the roadway from 2 to 5 lines” is incorrect. It should state, “The purpose of this project is to increase capacity of the roadway due to the major increase in future traffic volumes.”

- B. The Need (Problem)** – Provides data to support the problem statement (purpose). In addition, the need describes the key problem or problems that are being addressed and the cause of those problems. Overall the need provides the factual foundation for the



statement of the project purpose (establishes the evidence that a problem exists). Empirical data in tables and graphs should be used to demonstrate need.

C. Primary Purpose vs. Secondary Purpose – It should be noted that when developing a purpose and need statement there can be a primary and a secondary purpose.

- **Primary Purpose** – Is the “driver” of the project (reflects the fundamental reason why the project is being pursued).
- **Secondary Purpose (or other desirable outcome)** – Is an additional purpose that is desirable, but not the core purpose of the project.

Example – The purpose of this project is to improve roadway deficiencies (primary purpose) along Two Notch Road between I-20 and Strawberry Blvd. In addition, a goal of this project is to improve safety conditions (secondary purpose) for vehicle and pedestrian traffic. (Data must be provided for both primary and secondary purposes)

(It is important during the planning process to identify the true driver (primary purpose) of the proposed project)

D. Other Goals and Objectives – Project outcomes beyond the transportation issues identified in the project purpose should be included in the purpose and need statement as goals and objectives. The goals and objectives should balance environmental and transportation values. There should be acknowledgement of early interagency coordination to support environmental stewardship, streamlining and project delivery.

The Goals and Objectives will be different for each project and may include the following:

- **Community Goals** – improving air quality, supporting economic development, or creating an uncongested, pedestrian-friendly downtown business district.
- **Environmental Goals** – avoidance and minimization of impacts, or enhancement opportunities.
- **Regulatory Compliance** – protecting wetlands, wildlife, historic properties or complying with the Statewide Multimodal Plan.



Different Types of Proposed Actions (Purposes), Supporting Information and Questions to be Addressed:

The following items identified below may be listed and described in the purpose and need statement for a potential purpose/proposed action. It should be noted that this is a brief list of traditional proposed actions but not an all-inclusive list. There should be careful consideration when using specific purposes/proposed actions. More specifically, items cannot be listed in the purpose and need statement for the sake of increasing substance. For example, “the purpose of this project is to increase capacity, improve safety and modal interrelationships.” If there is only data to support the capacity problem then safety and modal interrelationships should not be included in the purpose and need statement. Overall only purposes that have supporting data and factual information should be included in the purpose and need statement.

- A. Capacity** – Addressing capacity may be the most common purpose for transportation projects. This typically occurs when congestion is an issue along a roadway segment. When considering capacity as a purpose you must ask: Is the capacity of the present facility inadequate for the present traffic? Projected traffic? What capacity is needed? What is the level of service for existing and proposed facilities?

Example – The purpose of this project is to increase capacity along I-26 between Harbison Blvd and Bush River Road due to an increase (50%) in future traffic volumes. The existing facility will not be able to meet the traffic demand in the future. **Existing and future traffic data (traffic counts and LOS) should be provided.**

- B. Safety** – Historically safety has been incorporated into purpose and need statements based on the assumption that by simply modifying a facility it will become safer and that is not true. When including safety in the purpose and need you must identify whether there is actually a safety problem. The safety argument should be supported by crash rates, crash types (head on, rear end, weather etc) and identification of problem areas (roadway section, railroad crossing, signalized intersection etc). In most cases accident data is compared to the “average rate” and a comparison is performed to demonstrate that a safety problem exists. There should be careful consideration of including safety in the purpose and need. Most importantly, knowing when to use safety as a primary or secondary purpose.

Example – The purpose of this project is to improve safety on Main Street between Taylor and Gervais Streets. Between 2006 and 2008 there were 125 accidents, 30 percent higher than the average rate (50 rear-end, 50 head on, and 25 weather). It should be noted that 20 percent of the accidents were fatal crashes.



C. Roadway Deficiencies – This is one of the most straight forward considerable purposes of a project. Roadway/Facility Deficiencies are physical characteristics of a facility that are below the desired performance: substandard geometrics, load limits on structures, inadequate cross-sections; and/or high maintenance cost. Data sources to identify the need consist of pavement management system, bridge management system, maintenance management system and roadway design manuals/guidelines to name a few.

Example – The purpose of this project is to replace the existing bridge structure on SC-41 over the Wando River. This bridge has been identified as structurally deficient and functionally obsolete based on the SCDOT bridge management data. This bridge has been ranked #1 on the state project list.

D. System Linkage – When considering system linkage as a purpose there must be an underlying need for generating a connection/link. Is the proposed project a “connecting link?” (Links include connection of existing transportation facilities, modal facilities, geographic areas etc.) How does it fit in the transportation system? It should be noted that there should be careful consideration when considering system linkage as a primary (usually not a primary purpose) or secondary purpose.

Example – Currently residents who live on the southwest side of Columbia do not have efficient access to employment centers and commercial activity on the northeast side of the city and vice versa. Under existing conditions residents have access to both areas via SC-9 which is congested and travelers experience long delays. The purpose of this project is to generate an efficient traffic link that will connect the two areas of the city. The 2035 traffic model suggests that by creating this link it will relieve future congestion on neighboring roads and increase access for travelers.

E. Transportation Demand – Demand as a potential purpose should be based around the discussion of the proposed project relationship to statewide plans, or adopted urban transportation plans. In addition, explain any related traffic forecasts that are significantly different from previous estimates.

Example – The purpose of this project is to improve the existing transportation network to meet future transportation demands. This can be achieved by creating a new location road south of I-126 and Elmwood Street. Based on the 2035 traffic model, travel demand is set to increase heavily due to an increase in commercial and housing



development in the area. If a new location road is not created the existing network will result in poor levels of service in the future.

- F. Modal Interrelationships** – There should be an explanation of how the proposed project/action will interface with and serve to compliment various modes of transportation such as airports, rail facilities, port facilities and mass transit services.

Example – The purpose of this project is to improve modal interrelationships in the downtown Columbia area. Public transportation service along the Assembly Street corridor is negatively impacted by traffic congestion and transfers to local bus routes are not easily scheduled. As demand for transit services continue to increase in the future, planning analysis along Assembly Street should consist of alternative modes of travel such as biking and walking.

- G. Legislation** – During the consideration of legislation as a purpose you must look into whether there is a specific legislation related to the project, does it indicate a certain design, location or mode? Is there a Federal, State or local government mandate for the action? A source for legislative intent could be a Congressional Earmark. Even in the case of an Earmark there is just a brief description of a project and may not be enough to support a purpose and need. **Legislation is rarely used in purpose and need statements.**

Example – The purpose of this project is to increase capacity along I-95 between Charleston and Myrtle Beach. The current facility will not meet future traffic demand. According to the 2010 list of congressionally earmarked projects this project has been earmarked for \$35 million dollars. (As mentioned, Earmarked congressional funds in some instances are not enough to support a project)

- H. Economic Development** – When growth and/or economic development is desired in the purpose and need there should be a description of how the proposed action/project will foster new employment, benefit schools, land use plans and recreation facilities. Most importantly, describe the projected economic development/land use changes that indicate the need to improve or add to the highway capacity.

Example – It should be noted that when using economic development in the purpose and need it needs to be grounded in transportation. For example, a project purpose and need states, “the purpose is to promote growth/economic development.” It should be “the purpose is to provide transportation infrastructure to support community



growth/economic development as identified in (specific plan).” Economic Data and Forecasting numbers are needed to support this statement.

I. Complete Purpose and Need Statement Example

Purpose – The purpose of this project is to increase capacity on I-77 from Killian Road to Blythewood Road and improve safety along the segment.

Need – The existing congestion and safety performance on I-77 is considered deficient based on roadway capacity and an occurrence of traffic accidents. The following information justifies the need for the facility improvement:

- **Roadway Capacity** – The existing facility consists of a two lane divided roadway with a 10ft median. Under existing conditions the facility is operating at a LOS D with an ADT of 14,000. In the future (2035) the facility is projected to operate at an LOS F with an ADT of 24,000. Based on an increase in future traffic volumes the existing facility will not be able to meet future traffic demand.
- **Safety** – Between 2007 and 2009 there were a total of 50 accidents along the project segment (average of 16.6). These crashes have resulted in 14 rear-ends, 20 property damage only, 10 injuries and 6 weather conditions. The predicted average number of crashes for this type of roadway is 10. The actually crash frequency is nearly 60 percent higher than the predicted crash frequency.

Logical Termini:

The discussion of logical termini is very important in the development of purpose and need statements as it defines the project limits for environmental documents. The purpose and need of a proposed project/action establishes and justifies logical termini. Logical termini is defined as (1) Rational end points for a transportation improvement, and (2) Rational end points for a review of the environmental impacts.

The Federal Highway Administration (FHWA) regulations outline three general principles in 23 CFR 771.111(f) that are to be used to frame a highway project:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope;



2. Have independent utility or independent significance, i.e., be usable and be reasonable expenditure even if no additional transportation improvements in the area are made; and
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Overall logical termini is the decision to propose a project between points x and y and have supporting information to justify the chosen termini. This is important as to prevent segmentation of projects.

Additional Points:

As stated earlier, this document is intended to create a uniform approach when developing purpose and need statements. However, agencies involved in the purpose and need development are encouraged to read and use the sources below in further understanding purpose and need. For any questions in reference to the development of this document you can contact Brandon A. Buckner at brandon.buckner@dot.gov or Mark Pleasant at pleasantmd@dot.state.sc.us



Sources:

- “Purpose and Need Statement Instructions for ODOT (Oregon Department of Transportation) Projects” Adopted December 18, 2001; Revised September 8, 2003
<http://knowledge.fhwa.dot.gov/ReNEPA/ReNepa.nsf/All+Documents/FDF9F0D8A68449CE85256B510079A65>
- “UDOT (Utah Department of Transportation) Guidance on Purpose and Need Statements” <http://www.udot.utah.gov/main/uconowner.gf?n=200407061451441>
- “FHWA Guidance on Purpose and Need”, July 2003
<http://www.environment.fhwa.dot.gov/guidebook/Gjoint.asp>
- “Executive Order 13274 Purpose and Need Work Group”, March 2005
<http://www.dot.gov/execorder/13274/workgroups/pnreport031505.pdf>
- “FHWA Environmental Review Toolkit”
<http://www.environment.fhwa.dot.gov/projdev/pd3tdm.asp>
- “FHWA Guidance on the Development of Logical Project Termini”, 1993
<http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/All+Documents/641B01AAB5A355DA85256935005FEC77>
- “FHWA SC Division Purpose & Need Training Presentation”, November 2009
(If a copy is needed contact Brandon Buckner, Jessica Hekter or Jeffrey Belcher FHWA SC Division)
- “FHWA NC Division Purpose & Need Guidance for FHWA-Funded Projects in North Carolina”, Version 2 February 2009
- “The Importance of Purpose and Need in Environmental Documents”, September 1990
<http://www.environment.fhwa.dot.gov/projdev/tdmneed.asp>