Training on Purpose and Need Statements

October 2023





Training Topics

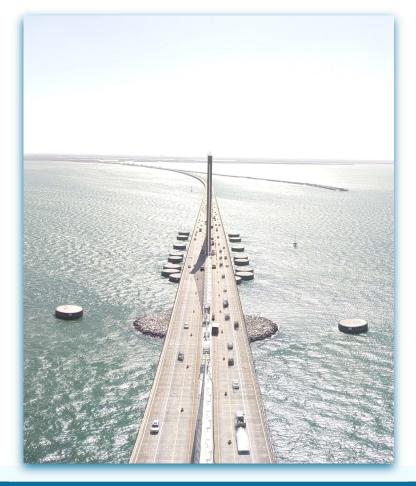




How Do We Develop a Purpose and Need Statement?

How Do We Use a Purpose and Need Statement?

A Purpose and Need Statement can be the most difficult section to write in a NEPA document.





Why Is a Purpose and Need Statement Required?



 The CEQ issued Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR Section 1500-1508)

NEPA Regulations: "*The statement* shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action". (40 CFR 1502.13) Purpose and Need Legal Requirements

• To address CEQ requirements, FHWA issued regulations: *Environmental Impact and Related Procedures* (23 CFR Section 771)

23 CFR Appendix A to Part 450 (Linking the Transportation Planning and NEPA Processes) states " The transportation planning process also provides a potential forum to define a project's purpose and need by framing the scope of the problem to be addressed by a proposed project"

FOOT Office of Environmental Management

What is a Purpose and Need Statement?

menti.com

Why Is a Purpose and Need Statement Required?



Purpose and Need Statements Will:

- Explain why impacts are acceptable based on the project's importance.
- Establish why FDOT is proposing to spend large amounts of taxpayers' money.
- Justify to the public and decisionmakers that the expenditure of funds is necessary.





Avoid Legal Challenges



The APA is a federal act that governs the procedures of administrative law such as NEPA.

In NEPA, plaintiff's common claims challenge a federal agency's actions as being:

- Arbitrary and capricious.
- An abuse of discretion because of agencies failure to meet NEPA's requirements.
- Insufficient documentation of environmental review.



A well written Purpose and Need Statement supports the decision-making process when it is:

- Written with simple and clear text.
- Understandable to lay readers (including a judge).
- Shows the reader the FDOT has a credible rational for proposing actions in the project area.





What is a Purpose and Need Statement?

What is a Purpose and Need Statement?



A Purpose and Need Statement provides justification of why the proposed improvement should be implemented.

It drives the process for development and evaluation of reasonable, prudent, and practicable alternatives consideration, and ultimately the selection of a Preferred Alternative.

It is comprehensive, as specific as possible, and is reexamined and updated as appropriate throughout the project development process.



What is a Purpose and Need Statement?

FHWA

Guidance

Personal and

A Purpose and Need Statement is...



The **Purpose** is the "what" of the proposed action (i.e., what FDOT is trying to accomplish).

The **Purpose** should be stated as the positive outcome that is expected (e.g., "the purpose is to reduce traffic congestion in the corridor"). Purpose and Need Statement The **Need** is the "why" the proposed action is needed. It identifies the problem(s) the proposed project will address.

The **Need** should establish the evidence that the deficiency or problem exists or will exist if projected population and planned land use growth are realized.

FOOT, Environmenta Managemer

What is a Purpose and Need Statement?

A Purpose and Need Statement is the Project Foundation



Development of a Purpose and Need Statement is the critical first step that begins in Planning and evolves through PD&E as more information is known about the project.

It is the foundation the project is built on.



Which foundation will your project be built on?



vironmental What is anagement and Need

What is a Purpose and Need Statement?

A Purpose and Need Statement is NOT...



- Too vague to be useful.
- Written in complicated, unclear text.
- Obviously biased in the project justifications.
- Inadequate to support each subsequent step in NEPA analysis and in the final FDOT decision document.
- A discussion of alternatives or a particular action.



Not for Sale



Do NOT sell the project with the Purpose and Need Statement.



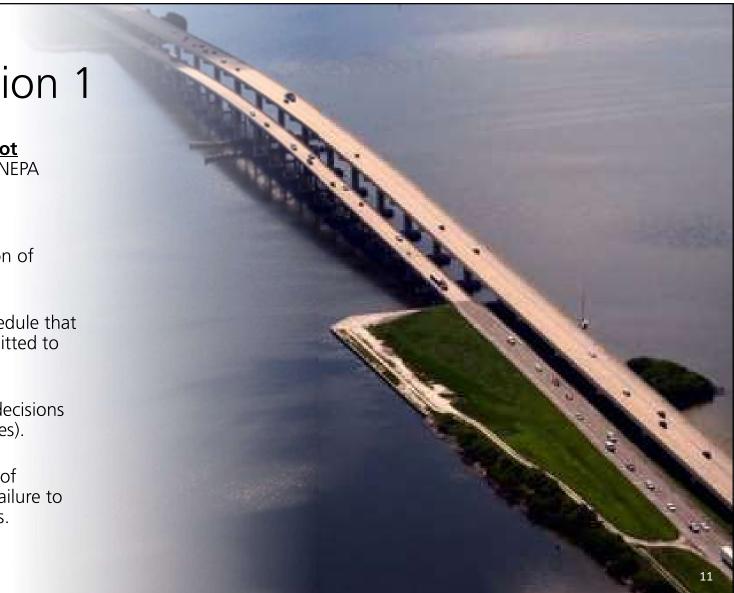


What is a Purpose and Need Statement?

Quiz – Question 1

Which of the following are **<u>not</u>** common legal challenges to NEPA documents?

- a. Insufficient documentation of environmental review.
- b. A failure to meet the schedule that the federal agency committed to during scoping.
- c. Arbitrary and capricious decisions made by federal agency(ies).
- d. A federal agency's abuse of discretion because their failure to meet NEPA's requirements.



Quiz – Question 1 Answer

Which of the following are **not** common legal challenges to NEPA documents?

b. A failure to meet the schedule that the federal agency committed to during scoping.

The schedule is created at the beginning of the project, and it is usually modified throughout the PD&E study. It is typically not used as a basis for a legal challenge.

Quiz – Question 2

True or False?

The Purpose and Need Statement drives the process for development and evaluation of reasonable, prudent, and practicable alternatives.

Quiz – Question 2 Answer True or False?

The Purpose and Need Statement drives the process for development and evaluation of reasonable, prudent, and practicable alternatives.

True

The Purpose and Need Statement explains to the reader why an agency action is necessary and serves as the basis for identifying reasonable alternatives which meet the Purpose and Need.

Define the Purpose...the "What" of the Proposed Action



- Write a problem statement.
- State the reason why FDOT is proposing a certain project.
- Articulate in one or two sentences the project's <u>primary</u> objective.
- Do not be overly broad such that it invites the consideration of an infinite number of alternatives.

Good "Purpose" Sentence



The purpose of the project is to reduce congestion and improve mobility on SR 76 between Elm Street and Oak Avenue.

Bad "Purpose" Sentence



The purpose of the project is to widen SR 76 between Elm Street and Oak Avenue from a two-lane road to four lanes to relieve congestion.

This Purpose Sentence gives a solution, discusses a particular action, and does not fully state the problem.



Should Primary and Secondary Purposes Be Included?

- There can be primary and secondary Purposes, but it is not required to have both.
- Data must be provided to support both primary and secondary Purposes.

Primary

- Is the "driver" of the project.
- Reflects the fundamental reason why the project is being proposed.
- Used to develop and screen alternatives.

Secondary

- Is an additional purpose that is desirable (non-critical), but not the core purpose of the project.
- Not used to screen alternatives, however they may be able to support selection of the preferred alternative.

Example

The Purpose of this project is to improve roadway deficiencies (primary purpose) along Florida Road between Riverview Drive and College Avenue. In addition, a goal of this project is to improve safety conditions (secondary purpose) for vehicle and pedestrian traffic.

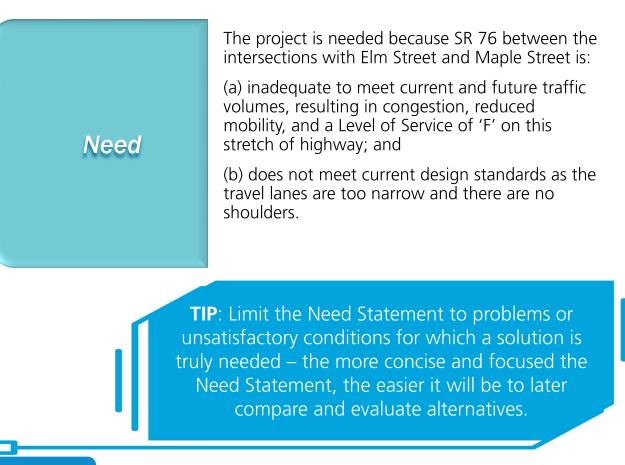
VS.

How Do We Use a Purpose and Need Statement?

Define the Need ... the "Why" the Proposed Action is Needed



- Provide data to support the problem statement (purpose).
- Describe the key problem(s) and the cause of those problems that are being addressed by the proposed project/action.
- Provide verifiable data in tables and graphs to document a demonstrated need.
- Do not include nontransportation-related issues or outcomes and goals that are desirable, but not essential. For example, do not include "minimization of environmental impacts."
- Be consistent with the Purpose sentence.







9 Elements of Need Legislation **Project Status Purpose and Need** Statements must Roadway Capacity Deficiencies include Project Status and any other Need 22 elements that are Modal Safety applicable. Interrelationships **Transportation Social Demands or Economic Development** Demand System Linkage How Do We Develop a Environmental 18 **Purpose and Need Statement?** lanagement

FDOT

Need Element - Project Status



Data Sources

- Local Plans
- Regional Long Range Transportation Plans
- TIP
- STIP
- Feasibility Studies
- Bicycle & Pedestrian Master Plans
- Comprehensive Plans



- Project Status is required for all projects.
- Planning Consistency is a component of Project Status.
- Provide a narrative referencing the FDOT STIP and, if applicable, the MPO's Cost Feasible LRTP and TIP that describes all project phases. Attach pages from these documents as appropriate.
- Confirm the project description text, including limits, match what is shown in LRTP.
- Describe the project's history including measures taken to date, other agencies and governmental units involved, action spending, schedules, etc.



Need Element - Project Status

Project Example

A Feasibility Study was completed for this project in 2023. A Build Alternative was recommended for further review during the PD&E study that will provide 4-lane divided roadway with multi-modal improvements on Sunset Boulevard from 4th Street to the Bay Bridge. The preliminary results also indicate that the left, center, and right alignment options are similar when compared to natural and human environment impacts. With this knowledge, the PD&E study will have the opportunity to further reduce adjacent impacts by considering potential combinations of all the mentioned alternative alignments in order to determine an optimal solution.

Sunset Boulevard from 4th Street to the Bay Bridge is listed in the Cost Feasible Plan (project 33) of the Pinellas County MPO 2050 Long Range Transportation Plan (LRTP) for preliminary engineering to provide multi-modal improvements.

Funding for PD&E and Design for Sunset Boulevard is listed in the Forward Pinellas 2023/24-2028/29 Transportation Improvement Program (TIP). The project is included in the current FDOT 2023-2027 State Transportation Improvement Program (STIP) and the FDOT 2023-2027 Five-Year Work Program with \$1,700,000 programmed for the PD&E phase in Fiscal Year (FY) 2025.

Environmental Management

Need Element - Capacity



Data Sources

- Traffic Counts
- Level of Service

Questions to Consider

- Is the capacity of the existing facility inadequate to serve traffic?
- What is the projected transportation demand?
- What capacity is needed?
- What is the Level of Service (LOS) for existing and proposed facilities?

How to Answer

- Discuss the capacity of the present facility and its ability to meet present and projected traffic demands.
- Discuss the capacity of the existing facility, its existing and anticipated LOS, and any operational deficiencies.
- State the target LOS.



How Do We Develop a

Purpose and Need Statement?



Project Example

Purpose

Need

(Insert data to support Need after

this statement)

Need Element - Capacity - Example



Currently there are capacity issues on US 15 from Dragger Street to SR 401, in the Town of Goodwin. Given the existing land uses that includes a Walmart Distribution Center with heavy truck traffic, this problem is expected to increase. The Town wants to make capacity improvements to US 15 to address existing and future congestion.

The **Purpose** of this project is to provide additional capacity on US 15 from Dragger Street to SR 401 in order to accommodate existing capacity and future traffic demand for vehicular and truck traffic along the corridor.

The **Need** is to reduce traffic congestion on US 15 from Dragger Street to SR 401 since the corridor is currently operating at a failing LOS F, but the Target Level of Service is LOS C. This project is needed to accommodate future traffic demand since traffic, including truck volumes, is projected to increase. US 15 is an important east-west connection between the Towns of McKinney and Goodwin and serves as an important regional trucking route.

Environmental Management

Need Element - Transportation Demand



Data Sources

- Transportation Model
- Florida Transportation Plan
- Adopted Urban Transportation Plans
- Freight Plans
- Corridor Traffic Forecasting Studies
- Project-Level Traffic Forecasting Studies

Questions to Consider

Will the project accommodate the forecasted transportation demand as shown in the adopted state and local transportation plans?
Will the project meet future transportation demands based on the projected population, employment growth, and increase in freight movement, or other demands on the transportation system?

How to Answer

- Discuss the project's relationship to any statewide transportation plan or adopted urban transportation plan.
- Explain any related traffic forecasts that are different from previous estimates.





How Do We Develop a Purpose and Need Statement?

23

Need Element - Transportation Demand - Example



Project Example

Purpose

Need (Insert data to support Need after this statement) US 15 in Andorra has 23 signalized intersections along the corridor. The projected 2050 future traffic results in unacceptable signalized intersection Level of Service (LOS) at all intersections. Therefore, the corridor does not meet the future transportation demand based on projected population and employment growth. As such, additional capacity is needed on US 15 in order to meet the future transportation demands as outlined in the Florida-Alabama TPO LRTP.

The **Purpose** of this project is to provide intersection improvements along US 15 in order to meet the future traffic demand along the corridor. In 2050, the Florida-Alabama TPO LRTP states that all 23 signalized intersections along the corridor need to operate at a Level of Service (LOS) C or above.

The **Need** of this project is to improve intersection configurations in order to meet the future transportation demand **based on projected population and employment growth** and desired LOS as outlined in the Florida-Alabama TPO LRTP.



2045 FLORIDA-ALABAMA TRANSPORTATION PLANNING ORGANIZATION



Environmental Management

Need Element - Social Demands or Economic Development





Data Sources

- Zoning and Development Master Plans
- Regional Planning Studies
- Origin/Destination Studies
- Local Economic Plans/Visioning Documents
- Access Management Studies
- Corridor Freight Studies
- Sustainability Studies
- Economic Impact and Forecasting Analysis



How Do We Develop a Purpose and Need Statement?

Question to Consider

• What projected economic development/land use changes indicate the need to modify the transportation facility, network or system?

TIP: This Needs Element is uncommon and must be well documented.

How to Answer

- Describe how the action will foster new employment, benefit schools, land use plans, recreation facilities, etc.
- Discuss types of social and economic traffic generators, both existing and planned, which exert travel demands on the facility.
- It is important that the Purpose and Need be grounded in transportation and as such a description of the projected economic development/land use changes that indicate the need to improve the highway.

25



Need Element - Social Demands or Economic Development - Example



Project Example

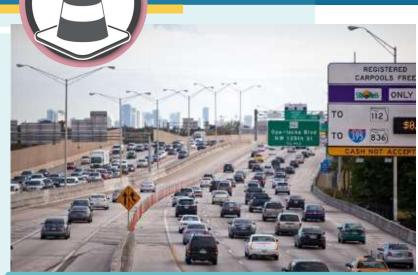
Purpose

(Insert data to support Need after this statement) Over the past few years, the Town of Kerry has experienced a tremendous increase in traffic in the vicinity of the I-99 and US 83 interchange as a result of a lack of long-range transportation planning. New, significant businesses, including big box stores and an existing adjacent casino are causing increased transportation demands along the existing network. In addition, a planned expansion of the casino through adjacent available lands located in the southeast quadrant of the interchange has been proposed. It has been shown that the proposed development can generate increases in annual sales tax revenue for the Town of Kerry. An economic analysis was completed for this project.

The **Purpose** of this project is to facilitate economic development by improving access and traffic operations to both developed and undeveloped lands located near the interchange.

The **Need** for this project is to reduce the existing and future congestion at the interchange. Based on a report by the FDOT, the existing road network would not support the casino expansion which would then limit an increase in jobs and continue to constrain traffic to other local businesses.

Need Element - Safety



Data Sources

Crash data

 Hurricane Evacuation Designated Route Map

Questions to Consider

- Is the proposed project necessary to correct an existing or potential safety hazard?
- Is the existing crash rate higher that the statewide average for similar facilities?
- How will the proposed project improve it?

How to Answer

- Discuss crashes which have occurred in the study area that may indicate a need for improvements. The discussion may include crash types, frequency, crash pattern, crash contributing causes, and the rate of crashes when compared with the statewide average for similar facilities.
- Identify existing high-hazard sections of the facility and how the project will address the safety problem.
- If applicable, discuss how the project will support emergency evacuation of designated evacuation routes.





Need Element - Safety



Project Example

Purpose

Need (Insert data to support Need after this statement) S.R. 234 from Campmor Road to Haskle Drive is a two-lane undivided rural roadway with a 55-mph speed limit. Although the roadway has adequate signage and road stripping, it does not have lighting, has several areas with sharp turns, and the roadway does not have passing lanes. These road conditions have led to a recent increase in head-on collisions and fatalities.

The **Purpose** of this project is to address safety issues on S.R. 234 from Campmor Road to Haskle Drive.

The **Need** is to address safety concerns on S.R. 234 from Campmor Road to Haskle Drive resulting from the high crash rates, which are significantly higher with and average crash rate of 4.35 than the statewide average of 1.72 for similar facilities. The two-lane undivided highway is experiencing a recent increase in the number of head on collisions resulting in eight fatalities between 2020 and 2022. These collisions are due to the roadway having sharp turns and vehicles passing each other. There are currently no passing lanes along this segment of the corridor.

Environmental Management

Need Element - System Linkage





Data Sources

- Local or Regional Long Range Transportation Plans
- Development Plans
- Origin/Destination Studies
- Access Management Studies
- Existing Land Use
- Feasibility Studies



How Do We Develop a Purpose and Need Statement?

Questions to Consider

- Is the proposed project a local, regional, or interregional "connecting link"?
 (Links include connection of existing transportation facilities, modal facilities, geographic areas, etc.)
- How does it fit in the transportation system?

How to Answer

- Discuss how the proposed project fits into the existing and future local, regional and state transportation system (network) and contributes to the movement of people, goods, and services.
- Discuss how the proposed project contributes to the multi-modal transportation network.

29

Need Element - System Linkage - Example



Project Example

Purpose

Need (Insert data to support Need after this statement) Currently the City of Bayfield along with surrounding regional destinations, including the Stateside Air Force Base (AFB), access to I-70 via SR 65 through downtown Bayfield. SR 65 is currently overcapacity because every road uses SR 65 to access the Interstate. The City is planning a bypass around Bayfield to connect Stateside AFB directly to I-70, which would reduce traffic on SR 65 and improve regional mobility and connectivity.

The **Purpose** of this project is to increase access to I-70, to reduce travel demand on SR 65, and improve regional mobility and connectivity for Stateside AFB.

The **Need** for the project is to better facilitate regional travel by providing an alternative route to the highway and provide relief to the congested SR 65 corridor. Running between Sunny Beach to the south and Kannerville to the north, SR 65 carries the majority of the regional traffic and provides primary access to and from Stateside AFB and the surrounding beach communities.

Diffice of **Environmental** Management

Need Element - Modal Interrelationships



Data Sources

- Freight Plans
- Bicycle and Pedestrian Master Plans
- Local or Regional Long Range Transportation Plans
- Development Plans
- Comprehensive Plans

Question to Consider

 How will the proposed project interface with and serve to complement other modes of transportation such as airports, freight facilities, rail and port facilities, bicycle and pedestrian facilities, and passenger transit services?

How to Answer

- Identify the needs to address other modes of transportation (e.g., airports, rail and port facilities, passenger transit services, bicycle/pedestrian accommodations, ridesharing, special use lanes) associated with the project.
- Discuss how the proposed action will compliment other modes of transportation.



How Do We Develop a Purpose and Need Statement?

31



Need Element - Modal Interrelationships - Example



Project Example

Purpose

Need (Insert data to support Need after this statement) The Port of Riverdale is expanding its facility to receive and distribute more goods. Hwy 10 is the major distribution route that connects the port to I-99. Hwy 10, a two-lane road, is currently at capacity for vehicles and port freight and will not be able to accommodate the additional future freight traffic from an expanded port facility.

The **Purpose** of this project is to improve intermodal connectivity by creating a corridor with increased capacity along Hwy 10 between the port and I-99 to accommodate future freight.

The **Need** for this project is to improve projected Level of Service F on Hwy 10, expected to occur within the next two years, and to eliminate significant delays of freight between the port and I-99.

How Do We Develop a Purpose and Need Statement?

32

Need Element - Roadway Deficiencies





Data Sources

- Bridge Inspection Reports
- Pavement Condition Ratings
- Florida Design Manual
- USCG Guide Clearance Lists and Navigational Maps

Questions to Consider

- Is the proposed project necessary to correct existing roadway deficiencies?
- How will the proposed project address the deficiencies?
- Is there a deficient or substandard bridge?
- Does the current facility meet Design Standards?

How to Answer

- The need and rationale behind reconstructing or replacing a roadway or existing bridge must be provided.
- Provide a detailed description of the existing structure(s) and their deficiencies. Deficiencies may include substandard geometrics, load limits on structures, inadequate SIS roadway design standards and/or high maintenance costs.
- For bridges, the deficiencies identified may be the result of structural and functional ratings, horizontal and vertical clearances, state of repair, weight restrictions or limitations.



How Do We Develop a

Purpose and Need Statement?



Project Example

Purpose

Need

(Insert data to support Need after

this statement)

Need Element - Roadway Deficiencies - Example



connect the communities of Westport and Seaside Beach. The north bridge does not meet minimum USCG clearances and is starting to deteriorate from the saltwater conditions. The current bridge structures, constructed in 1960, are nearing the end of their useful service lives and are considered structurally deficient and functionally obsolete by the FDOT. The next closest bridge crossing to the mainland from the beach communities is 20 miles south in Loveland Beach.

The Seaside Beach Causeway consists of two bridges (north and south) that

The **Purpose** of this project is to address structural issues related to the existing Seaside Beach Causeway bridges.

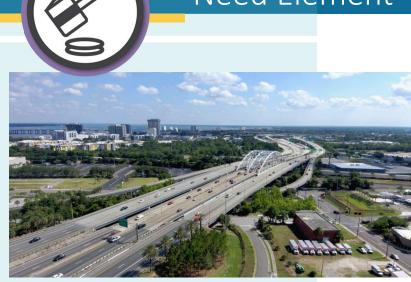
The **Need** for this project is to address the deficiencies of the existing Seaside Beach Causeway Bridges which are considered structurally deficient and functionally obsolete by FDOT, and the current navigational and vertical clearance of the north bridge do not meet the minimum requirements by the USCG for bridge height over the Gulf Intracoastal Waterway.

How Do We Develop a Purpose and Need Statement?



34

Need Element - Legislation



Question to Consider

 Is there a federal, state, or local government mandate for the action?

How to Answer

- Document the need to respond to federal, state, or local government requirements.
- When using a federal, state or local government mandate to support the purpose and need for a proposed project/action it is important to check the wording of the legislation for specific references to the project with respect to design, location, mode, etc.





Need Element - Legislation - Example



Project Example

Purpose

Need (Insert data to support Need after this statement) The US 99 corridor between the Metro Parkway and I-90 in Newtown currently consists of a 4-lane rural arterial roadway that is part of the FDOT Strategic Intermodal System (SIS). Due to continued population growth throughout the state and increasing pressure on Florida's interstate system, Florida Statute 339.66 has mandated the FDOT to consider improvements along US 99 in order to maintain and preserve free-flow conditions into the future. The US 99 PD&E study will evaluate non-toll based solutions for improving the operations and capacity along this corridor in order to achieve this purpose.

Consistent with 339.66 of the Florida Statutes, the **Purpose** of the proposed action is to upgrade existing facilities to controlled and/or limited access arterial roadways to achieve free-flow conditions between the Metro Parkway and I-90.

The **Need** of this project is to improve the operational deficiencies along US 99 to meet the requirements of 339.66 of the Florida Statutes.

DOT) Office of Environmental Management

Purpose and Need Considerations



- Careful consideration should be given when describing purposes for proposed actions.
- Items should not be included in the Purpose and Need Statement for the sake of increasing substance.
- Although environmental protection and community enhancement are important goals, these issues should not be a part of the Purpose and Need Statement.

For example, "the Purpose of this project is to increase capacity, improve safety and modal interrelationships." If data is only available to support the need to increase capacity and safety, then modal interrelationships should not be included in the Purpose and Need statement. Only needs that have supporting data and factual information should be included.



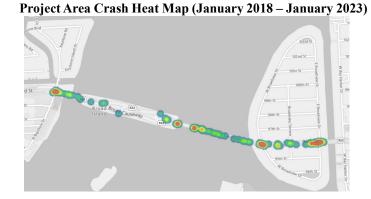


How Do We Develop a Purpose and Need Statement?

Purpose and Need Considerations



- Use plain language. *
- Use action verbs: to provide, to * obtain, to repair, etc.
- Use bullets or numbering to itemize * purpose and needs.
- Provide specific supporting data for \diamond each need.
- The supporting data should be * current, accurate, and above all relevant to the issues being considered.
- If any exists, describe agency and public involvement in developing the purpose and need.



Safety Supporting **Data Visuals**

US 84 LOS Evaluation for Year 2021 and Year 2050

| Segment: | No. of Lanes | 2021 AADT | 2021 LOS | 2050 AADT | 2050 LOS | Target LOS |
|--|-----------------|--------------|----------|-----------|----------|---------------|
| East of the Harbor Bridge to Gulf Drive | 4 | 50,500 | F | 75,700 | F | D |
| Gulf Drive to West Pass Bridge | 4 | 43,000 | F | 85,000 | F | D |

US 84 Crash Rates for 2017-2021

| Segment | 2017 | 2018 | 2019 | 2020 | 2021 | 2017-2021 Average | Statewide Average |
|--|------|------|------|------|------|----------------------|----------------------|
| East of the Harbor Bridge to the West Pass Bridge | 2.02 | 1.89 | 1.94 | 1.95 | 1.89 | 1.94 | 1.711 |

US 84 Top Five Crash Types for 2017-2021

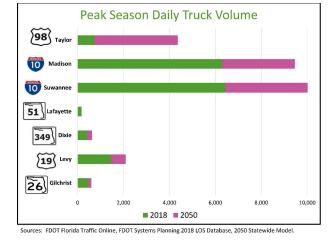
| Use graphics, charts, tables, r illustrate needs. | naps to | Segment | Rear End | Side swipe | Off Road | Other | Left Turn | Total Fatalities |
|---|-----------------------------|--|-------------|---------------|-------------|-------|--------------|---------------------|
| Office of | How Do We Develop a | East of the Harbor Bridge to the West Pass Bridge | 398 | 91 | 60 | 58 | 54 | 15 |
| Management | Purpose and Need Statement? | | | | | | | 38 |

Purpose and Need Considerations











| | | All Ve | hicles | Trucks | | |
|---------------|---|------------|---------------------|------------|---------------------|--|
| Trip Category | Type of Trips | # of Trips | % of Total Trips | # of Trips | % of Total Trips | |
| Category 1 | Trips that both start and end completely within each study area county. | 509,894 | 71% | 5,284 | 20% | |
| Category 1 | Trips that both start and end completely within the study area while traveling between the study area counties. | 26,177 | 4% | 1,180 | 5% | |
| Category 2 | Trips that start within the study area, then end outside the study area and trips that start outside the study area, then end inside the study area. | 153,739 | 22% | 17,547 | 66% | |
| Category 3 | Trips that both start and end completely outside the SCC study area, but pass- through the study area | 22,644 | 3% | 2,482 | 9% | |
| Total | | 712,454 | 100% | 26,493 | 100% | |
| | | | | | 3 | |

Purpose and Need Example

Three parts to a Purpose and Need Statement:

- Purpose
- Need
- Supporting Facts/Data

Purpose

The purpose of this project is to accommodate future traffic volumes and address safety issues along SR 268 (21" Street) from the US 99 flyover to SR 190.

Need

This project is needed to evaluate traffic congestion and safety concerns on SR 268 (21st Street) from the US 99 flyover to SR 190. This segment projected to operate at LOS F in the year 2040 if no capacity improvements are constructed. The route from US 99 Flyover to SR 190 is a direct access from US 241 in Sweet Haven and north Gulf County to Port Homestead City. Since the facility is a Strategic Intermodal System (SIS) Connector and is listed as a Highway of Commerce in the Gulf County Transportation Planning Organization (TPO) Congestion Management Process Plan it is vital that capacity is preserved in order to efficiently move passengers and freight.

Project Status

This project is listed in the Gulf County TPO 2040 Long Range Transportation Plan (LRTP) Cost Feasible Plan. The project is listed in the Gulf County TPO FY 2022-2026 Project Priorities Transportation Improvement Program (TIP) and the FDOT State Transportation Improvement Program (STIP).

The Project Development and Environment (PD&E) phase is listed as Priority Rank 6 of the FY 22-26 Strategic Intermodal System (SIS) Project Priorities and is also listed as Project ID 3325 in the FDOT Strategic Intermodal System (SIS) LRTP for FY 2029-2045 with funding for all project phases.

Capacity

SR 268 (21" Street) currently has a 2020 AADT of 34,000 and is operating at LOS C. The maximum acceptable volume at LOS D is 36,700 based on the Gulf County concurrency management system. The roadway is projected to operate deficiently at LOS F, in 2040. Table 1 summarizes these results.

Table 1- SR 268 (21^{at} Street) LOS Evaluation for Year 2020 and Year 2040

| Segment | No. of | 2020 | 2020 | 2040 | 2040 | |
|-------------------------|--------|--------|------|--------|------|--|
| | Lanes | AADT | LOS | AADT | LOS | |
| US 99 Flyover to SR 190 | 4 | 34,000 | С | 41,000 | F | |

Source: Florida Traffic Information Online and Gulf County Concurrency Management System

Safety

Within the study segment there was a high numbers of crashes which totaled 515 crashes for the years 2016-2020. The attached Table 2 lists these crashes by year and the corresponding crash rates are summarized in Table 3. The overall 2016-2020 average crash rate for this portion of SR 268 (21st Street) of 5.58 was slightly lower than the statewide average of 6.11 for similar roadway facilities.

In addition to examining crash totals and crash rates, types of crashes were also evaluated. Rear-end and sideswipe crashes are the most common crash occurrences within the project study area accounting for 67% of the crash types since 2014. Rear-end and sideswipe crashes are resulting from congestion. Therefore, the proposed improvements are necessary help address this existing safety issue. Table 4 summarizes the top five crash types for the project segment.

Table 2 - SR 268 (21st Street) Number of Crashes for 2016-2020

105

2016 2017 2018 2019 2020

116

113

68

113

Segment US 99 Flyover to SR 190 Source: FDOT Crash Analysis Reporting System

Table 3 - SR 268 (21st Street) Crash Rates for 2016-2020

| Segment | 2016 | 2017 | 2018 | 2019 | 2020 | 2016-2020 Average | Statewide Average |
|----------------------------|------|------|------|------|------|----------------------|----------------------|
| US 99 Flyover to SR 190 | 5.02 | 5.40 | 5.54 | 5.58 | 3.30 | 5.58 | 6.11 |

Source: FDOT Crash Analysis Reporting System

Table 4 - SR 268 (21st Street) Top Five Crash Types for 2014 - 2021

| Segment | Rear End | Side swipe | Left Turn | Other | Angle |
|-------------------------|-------------|---------------|--------------|-------|-------|
| US 99 Flyover to SR 190 | 442 | 109 | 94 | 72 | 45 |

Source: FDOT Crash Analysis Reporting System

Modal Interrelationships

SR 268 (21st Street) connects Port Homestead City to SR 65 as well as US 241, both of which ultimately connect with L40 and the greater southeast region. SR 268 (21st Street) is a designated SIS Highway Connector and a component of the larger regional and statewide transportation network needed to efficiently move passengers and freight. The objectives of the SIS system include interregional connectivity to ensure the efficiency and reliability of multimodal transportation connectivity between Florida's economic regions and also between Florida and other states, intermodal connectivity to expand transportation choices and integrate modes for interregional trips, and economic development to provide transportation systems to support Florida as a global hub for trade, tourism, talent, innovation, business, and investment.



How Do We Develop a

Purpose and Need Statement?



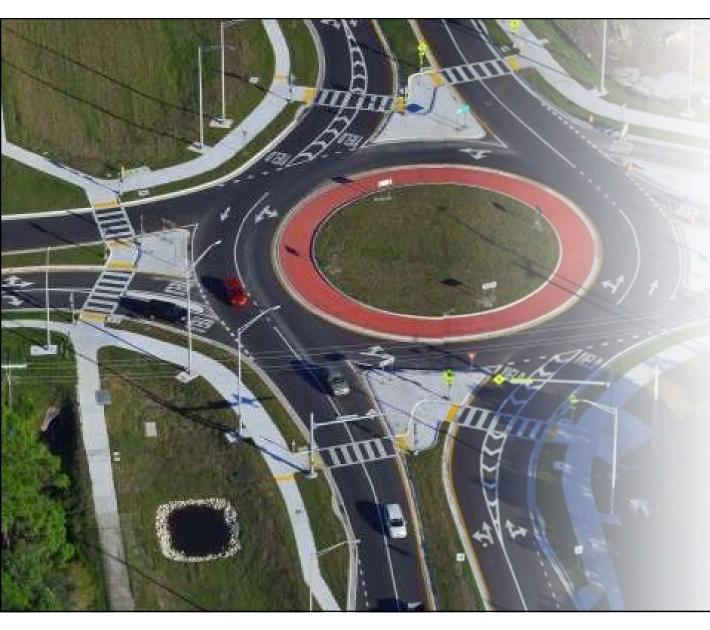
Total

515



Which of the following tips is <u>not</u> recommended for developing a Purpose and Need Statement?

- a. Use plain language.
- b. Use graphics, charts, tables and maps to illustrate needs.
- c. Provide a list of preliminary alternatives under consideration.
- d. Provide specific supporting data for each need.



Quiz – Question 3 Answer

Which of the following tips is **not** recommended for developing a Purpose and Need Statement?

c. Provide a list of preliminary alternatives under consideration.

The Purpose and Need Statement is not a discussion of potential solutions to the problem(s).



True or False?

A Project Status description is only required in the Need when the project has a long history with other agencies and governmental units.



Quiz – Question 4 Answer

True or False?

A Project Status description is only required in the Need when the project has a long history with other agencies and governmental units.

False

The Project Status is an element of the Need and is required for every project.

Which of the following data sources are <u>not</u> recommended for understanding capacity needs?

- a. Future land use maps
- b. Traffic counts
- c. Population and employment growth projections
- d. Sustainability studies



Quiz – Question 5 Answer

Which of the following data sources are <u>not</u> recommended for understanding capacity needs?

d. Sustainability studies

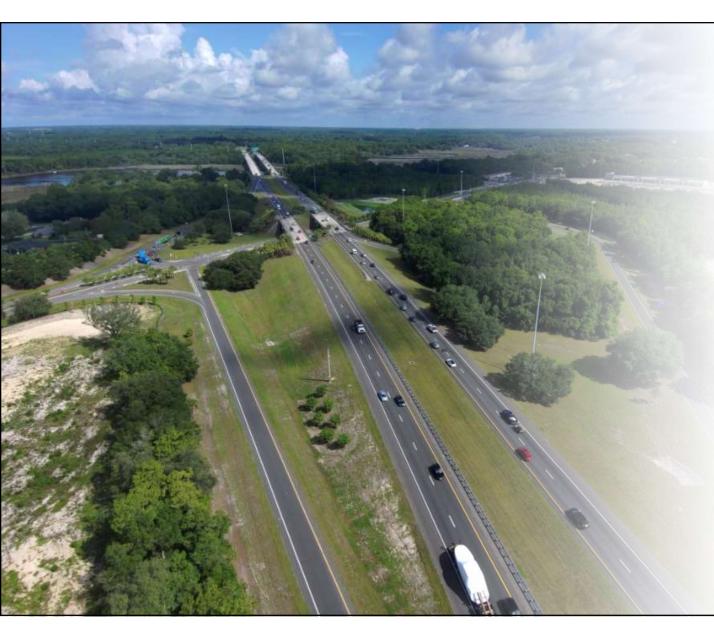
Sustainability studies do not typically provide evidence of capacity needs.





Which one of the following topics is included in a Purpose and Need Statement?

- a. Benefits of the project
- b. Preliminary cost estimates
- c. A justification of why FDOT is completing the project
- d. Environmental impacts summary



Quiz – Question 6 Answer

Which one of the following topics is included in a Purpose and Need Statement?

c. A justification of why FDOT is completing the project

The justification of why the project is being completed is included to satisfy the Need of the project.

How is a Purpose and Need Statement Used?



Is used as a key factor in determining the range of alternatives.

Is used as a vital component to meeting the requirements of:

- Section 4(f) (49 USC 303) (23 CFR774)
- Executive Order on Wetlands (E.O. 11990)
- Executive Order on Floodplains (E.O. 11988)
- Clean Water Act Section 404(b)(1)
 Guidelines

Is used in FDOT decision documents to explain why the FDOT is choosing a single alternative.

- ✤ Record of Decision (ROD)
- Finding of No Significant Impact (FONSI)





Develop, Evaluate, and Eliminate Alternatives



Purpose and Need is the heart of NEPA analysis.

A well-defined Purpose and Need Statement will determine which alternatives are reasonable, prudent and practicable.

Alternatives that fail to meet the Purpose and Need can be eliminated without detailed study.

Secondary Purpose and Needs are not used to evaluate and eliminate or advance project alternatives.





Develop, Evaluate, and Eliminate Alternatives - Example



The project is to repair or replace the aging Lincoln Causeway Bascule Bridge. This project has three needs:

- 1. Meets USCG requirement for navigation.
- 2. Reduces bridge openings.
- 3. Provides safe access for multi-modal transportation.

| Potential Alternatives | Meets USCG Requirements for Navigation | Reduces Bridge Openings | Provides Safe Access for Multi-modal Transportation | | Meets Purpose and Need | |
|---|--|-------------------------------|---|--------------|---|--|
| No-Build/ Repair | Yes | No | No | | No – Remains a viable option throughout the PD&E study. | |
| Low-level Moveable Bridge (21 ft MHW) Replace In-kind | Yes | No | Yes | × | No – Eliminate from detailed evaluation. | |
| Mid-level Moveable Bridge (45 ft MHW) | Yes | Yes | Yes | \checkmark | Yes – Advance to detailed evaluation. | |
| High-level Fixed Bridge (55 ft MHW) | Νο | Yes | Yes | × | No – USCG requires new fixed bridge at this location to be 65 ft or higher. Eliminate from detailed evaluation. | |
| High-level Fixed Bridge (65 ft MHW) | Yes | Yes | Yes | | Yes – Advance to detail evaluation. | |
| Environmental Management | | | How Do We Use a Purpose and Need Statement? | | | |

Develop, Evaluate, and Eliminate Alternatives

FDOT





Develop, Evaluate, and Eliminate Alternatives



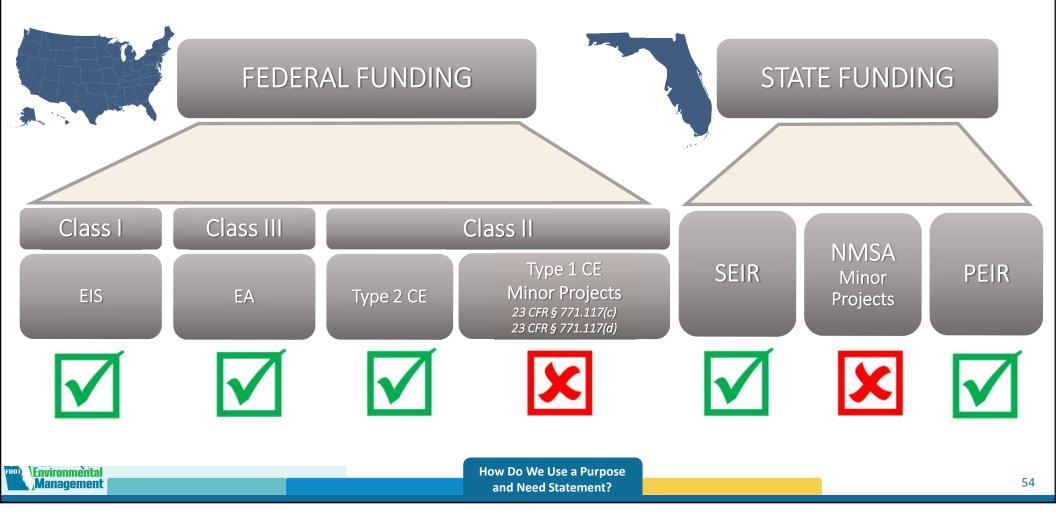
CR 368 from SR 35 and SR 76 PD&E Study – Purpose and Need Matrix

| Purpose and Need | No Build | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 | Alt. 5 New Alignment | Alt. 6 | Alt. 7 | Alt. 8 New Alignment |
|---|--|--|--|--|--|---|--|--|---|
| Correct geometric and operational deficiencies of the existing highway. | No | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Improve access to the intermodal and freight activity centers in the Homer City area and new international airport. | Νο | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Provide capacity to meet future traffic demands. | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Improve emergency evacuation network and reduce evacuation times. | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Meets Purpose and Need | No – Remains a viable option throughout the PD&E study. | Yes – Advance to detailed evaluation. | Yes – Advance to detailed evaluation. | Yes – Advance to detailed evaluation. | Yes – Advance to detailed evaluation. | No – Eliminate from detailed evaluation. | Yes – Advance to detailed evaluation. | Yes – Advance to detailed evaluation. | No – Eliminate from detailed evaluation. |



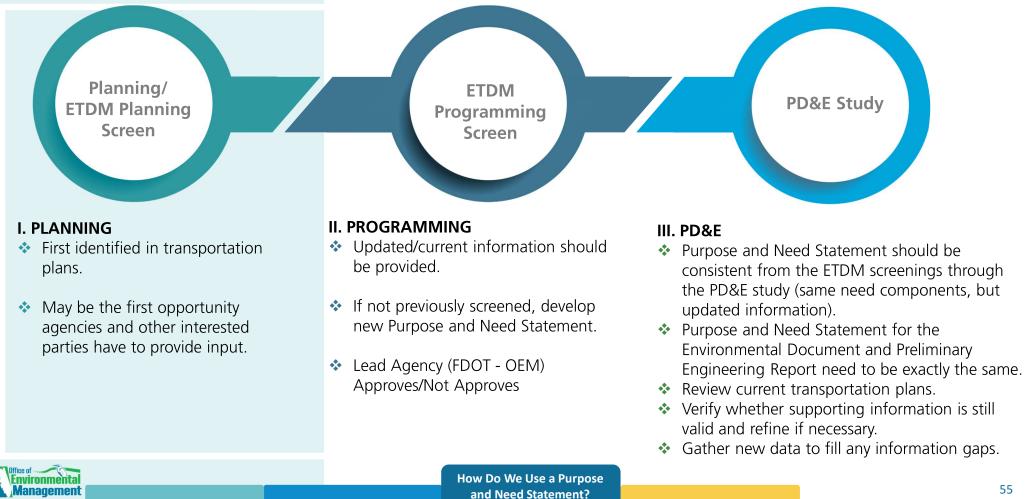
What Projects Require a Purpose and Need Statement?



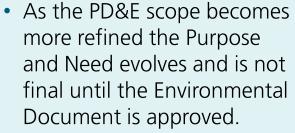


Purpose and Need Statement Timeline





Caution...Refine vs. Change During the PD&E Study



 No changes or refinement can occur in the Design phase.



Refine

- Data used to establish the Need can become outdated as the PD&E study moves forward.
- Refine with current data or more detail.
- Purpose and Need Statement does not have to be re-approved by Office of Environmental Management (OEM).

Purpose and Need Statement is

Change

VS.

- Purpose and Need Statement is altered to add, change, or eliminate previously approved Purpose and Need.
- If changes are made, it may be necessary to revisit prior alternatives screening decisions and potentially re-initiate the public and participating agency involvement pursuant to 23 USC 139.
- Required to coordinate and have Purpose and Need Statement approved again by OEM.

True or False?

The PD&E Purpose and Need Statement must be consistent with what is in the ETDM Programming Screen.



Quiz – Question 7 Answer

True or False?

The PD&E Purpose and Need Statement must be consistent with what is in the ETDM Programming Screen.

True

The PD&E Purpose and Need Statement must be consistent with what is in the ETDM Programming Screen. Refinements can be made to reflect current data and more detail, but any changes will require coordination with and approval from OEM.

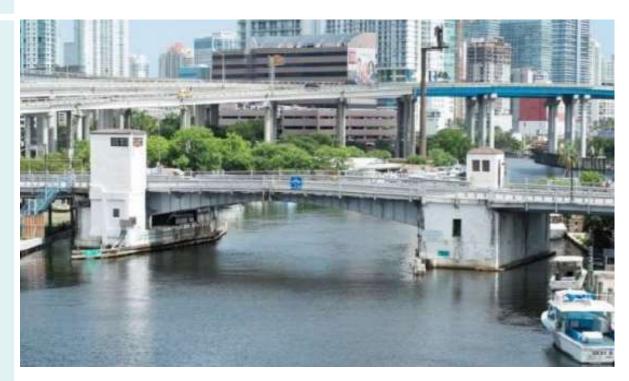
CHEVROLET

400.2



Takeaways

- The Purpose is the "what" of the proposed action. It is not a solution statement.
- The Need identifies the problem(s) the proposed project will address.
- The Purpose and Need is the foundation the project is built on.
- A well-defined Purpose and Need can help determine which alternatives are reasonable, prudent and practicable.
- Alternatives that fail to meet the Purpose and Need can be eliminated without detailed study.
- Purpose and Need can be refined in the PD&E study, but if it is changed it must go back to OEM for coordination and re-approval.





Resources







Questions?

FDOT OEM Contact:

Engy M. Samaan, PE Project Development Engineer Phone: (850) 414-4804 engy.samaan@dot.state.fl.us

