Florida Department of Transportation
Office of Policy Planning

Transportation and Community Planning Coordination

Case Studies

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1. Overview

This document provides several examples of state, regional, and corridor-level approaches to coordinating transportation and community planning. This coordination enables broader approaches to implementing multimodal options in both existing and new transportation corridors while minimizing costly adjustments to transportation plans and systems to accommodate land use changes.

Coordination of transportation and community planning presents a challenge for agencies across the United States for several reasons. While the benefits of transportation and community planning coordination are clear, the steps to achieve those benefits can be difficult, particularly in areas with a strong tradition of home rule and commitment to property rights.

Coordination Considered from Two Viewpoints

- Coordination can improve transportation options to serve existing communities and planned developments. For example, active corridors that provide an insufficient infrastructure for biking and walking and infrequent or unreliable transit service may benefit from an analysis of the existing and forecasted multimodal transportation demands along the corridor. **Transportation agencies can take steps to better coordinate the transportation system with existing and planned land uses.** They can identify and implement projects such as bicycle facilities, pedestrian amenities, and dedicated bus lanes that provide better access and mobility along the corridor. **This approach can be accomplished by conducting corridor studies and plans.** The Florida Department of Transportation's (FDOT's) SR 80 Action Plan and I-95 Corridor Mobility Planning Project are examples of this approach.
- Transportation and community planning coordination is particularly important when anticipating changes in land use, which are especially common in places that experience significant growth and propose land use patterns that focus on planning for major new developments or infill development. **This coordination requires highly collaborative planning, an analysis of future population and economic growth in a jurisdiction or region, interagency coordination, and extensive public outreach to establish a vision to accommodate growth.** This can include an assessment of the population's residency preferences (e.g., rural, suburban, or urban areas, residence sizes) and commerce functionality and the types of demands it will place on transportation systems. Communities can plan for land uses that enable multimodal options, such as well-connected grids of streets and multimodal corridors with many types of transportation options near housing, jobs, and other destinations. Agencies can take steps to improve access and mobility outcomes, while also achieving other community benefits. **This approach is a slow process that can take many years while leadership and the public review the proposed land use plans. Land use changes require zoning updates, a lengthy process that can be contested by residents who disagree with a rezoning recommendation.** San Antonio's SA Corridors and Virginia DOT's Urban Development Areas are examples of this approach.

Benefits of Transportation and Community Planning Coordination

Coordinating transportation and community planning using strategies that enable multimodal transportation options can benefit people, communities, and the environment. Benefits may include:

- Improved access and mobility.
- Lower and more stable transportation costs.
- Redevelopment and reinvestment in communities.
- Efficient land use patterns.
- Maintenance of rural character or green space.
- Increased local revenue.
- Leverage infrastructure investments.
- Improved air and water quality.

Key Issues for Consideration

- In Florida, land use authority lies with the Florida Department of Economic Opportunity and local jurisdictions. Therefore, agencies must understand community land use decisions.
- Transportation and community planning coordination requires active and inclusive community engagement during the planning process. Transportation planners must engage the community to understand its needs.
- While there are public benefits to transportation and community planning coordination, planners must engage property owners in a thoughtful manner. Property owners often seek to gain the highest value or return on their property, and they want control over how their land is used. For instance, if coordination requires zoning changes, then there are implications for the potential economic opportunities associated with the affected land. In some cases, local jurisdictions create policies to allow owners to still benefit from the development potential of their land, without developing it (e.g., Transfer of Development Rights).
- Community planning must be context sensitive and reflect an understanding of a community's values. Many people are resistant to change; honoring the existing character of a place while planning for growth is an important consideration.
- Planning for the future is challenging—and many people, including many in positions of authority, have trouble imagining a future and the land uses required to accommodate the population and economic growth. Understanding how to communicate effectively about the changes needed to accommodate growth is an important consideration.

2. Case Studies

The authors selected the following case studies to provide examples of interagency transportation and community planning coordination that demonstrate a range of approaches; the authors also selected studies based on their professional experience and insights without relying on extensive research. The FDOT case studies highlighted in this paper were recommended by the FDOT Office of Policy Planning (OPP). The following is a brief description of the case studies, including:

- **The FDOT District 5 Multimodal Corridor Planning Handbook** provides an effective, consistent, predictable, and repeatable approach to accumulating useful data and information needed for stakeholder engagement, problem identification, and the development of appropriate multimodal transportation solutions.
- **The FDOT District 5 Robinson Street Corridor Planning Study** is a corridor planning study on Robinson Street, in Downtown Orlando, to objectively evaluate improvements to the corridor that will enhance multimodal safety, operations, and connectivity and address the increased demand for travel options using the D5 Multimodal Handbook as a guide.
- **The State Road 80 Action Plan** was developed to enhance traffic and freight operations over a 20-year period along the State Road 80 corridor. The study also investigates strategies to improve safety and accommodations for pedestrians, bicyclists, and transit riders.
- **The I-95 Corridor Mobility Planning Project** addresses congestion on I-95 and broader mobility and land use issues in eastern Broward and southeastern Palm Beach counties. The project synthesizes previous studies and existing planning documents; develops a framework of facility types and place types; and identifies strategies and performance measures.
- **The Commonwealth of Virginia Transportation Secretariat, Office of Intermodal Planning and Investment Urban Development Areas** (UDAs) seek to minimize the growth of dispersed development patterns that increase the financial burden of maintaining and expanding the transportation system. UDAs are growth areas designated by local jurisdictions that meet certain traditional neighborhood design (walkable communities) and capacity criteria. The UDAs improve the future efficiency of the transportation system and alleviate the transportation system impacts of low density/single use development.
- **The PennDOT Connects Policy** requires that PennDOT staff and planning partners “consider community needs at the beginning of the planning process to ensure the best allocation of resources. This new approach is intended to make the PennDOT planning processes more efficient and cost effective to the benefit of all Pennsylvanians. The policy includes collaboration requirements and planning considerations, as well as an implementation timeline.” The collaboration included meetings with Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and local governments to become a routine element of the PennDOT planning process. As stated in the policy: “Collaboration provides the opportunity for details unique to communities to be identified and discussed for each project in planning, prior to developing project scopes and cost estimates.”
- **The City of San Antonio and VIA Metropolitan Transit**, after working together on land use and transportation coordination together for several years, conducted a land use study of 12 corridors in

the region, known as SA Corridors. The strategy focuses on revising land use policies that would enable and catalyze infill development along the 12 corridors. It also focuses on planning for and investing in rapid transit and improved infrastructure for biking and walking, which are essential to serve and shape the communities and economic centers that it connects.

FDOT District 5 Multimodal Corridor Planning Handbook[1]

What problems did the agencies need to solve?

FDOT District 5 identified the following reasons to develop the handbook:

- **Money:** Transportation dollars are limited and scarce. Multimodal solutions can provide more mobility and more travel choices for less money.
- **Safety:** Roadways in District 5 are among the most dangerous roadways in the country for bicycle and pedestrian travel.
- **Improve Work Program Predictability and Streamline Project Delivery:** Early planning can help save money, deliver projects and programs efficiently and effectively, and ensure that transportation solutions are affordable, implementable, and meet community desires.
- **Community Driven:** MPOS, Transportation Planning Organizations (TPOs) and communities served by FDOT District 5 expressed increasing demand for multimodal solutions.

FIGURE 1. FDOT MULTIMODAL CORRIDOR PLANNING GUIDEBOOK

The handbook provides an effective, consistent, predictable, and repeatable approach to accumulating useful data and information required for stakeholder engagement, problem identification, and the development of appropriate multimodal transportation solutions.

What actions did the agencies take?

District 5, with support from FDOT Central Office and District 1, 3, 4, and 6 staff, engaged in significant outreach to external partners as they developed the handbook. They also conducted several training workshops with their external stakeholders.

What partners were involved?

- East Central Florida Regional Planning Council
- Lake Sumter MPO

[1] *FDOT District 5 Multimodal Corridor Planning Guidebook, http://cfgis.org/getattachment/41d2f51a-6b2e-4738-a786-b779904ec1e3/FDOT-D5-Multimodal-Corridor-Planning-Guidebook.aspx?disposition=attachment*

- MetroPlan Orlando
- Ocala/Marion TPO
- Volusia TPO
- City of Orlando
- Orange County
- Seminole County
- LYNX
- VOTRAN

What were the lessons/outcomes?

As a result of this effort, the District:

- Developed a matrix outlining the study types and their typical characteristics (simple, moderate, and complex).
- Provided example tools and existing policies to use during multimodal planning.

FIGURE 2. STUDY TYPES AND THEIR TYPICAL CHARACTERISTICS[2]

	Nature of Problem	Study Area Size	Stakeholders Involved/Impacted
SIMPLE	Recognized problem by stakeholders	An intersection Corridor along one to two city blocks	Immediate property owners, local jurisdiction, FDOT
MODERATE	Recognized problem by some stakeholders Solution is not fully vetted	Corridor less than 5 miles Area less than 30 acres (4 or 5 city blocks)	Multiple stakeholders
COMPLEX	Nature of problem is not known or clearly defined by stakeholders	Corridor more than 5 miles Area more than 30 acres (4 or 5 city blocks)	Multiple stakeholders

[2] *FDOT District 5 Multimodal Corridor Planning Guidebook, http://cfgis.org/getattachment/41d2f51a-6b2e-4738-a786-b779904ec1e3/FDOT-D5-Multimodal-Corridor-Planning-Guidebook.aspx?disposition=attachment*

- Developed multimodal planning steps for example study types. Outlined specific steps, questions, information, and decisions needed to complete each type of multimodal study.
- Designed a set of community engagement tools for specific steps of the planning process.

What guidance can be shared?

- **Concept Development:** This process moves from a broad view of issues and opportunities to the relevant concepts that can help decision-makers identify a preferred alternative and pertain only to the preliminary engineering work for projects that will not require the full Project Development and Environment (PD&E) process.
- **Complete Streets:** FDOT's Complete Streets Policy, Implementation Plan, and Context Classifications document outlines an implementation framework and process for integrating a Complete Streets approach into the agency's practices to ensure that future transportation decisions and investments address the needs of all transportation network users and respond to community goals and context.
- **FDOT Project Development Process**: A comprehensive process involving: Planning, PD&E, design, right of way (ROW), and construction phases.
- **Priority Projects Programming Process (4P):** The FDOT 4P is an internal programming process for FDOT-funded studies and projects.

FDOT District 5 Robinson Street Corridor Planning Study

What problems did the agencies need to solve?

Agencies conducted several transportation studies for Robinson Street in the past, but none took a holistic planning-level view of the corridor's multimodal needs and opportunities. Thus, this study aimed to take a comprehensive look at the role of Robinson Street in the surrounding network and identify potential improvements to meet the immediate transportation needs of the corridor and support the larger corridor community's vision of enhancing multimodal travel in downtown.

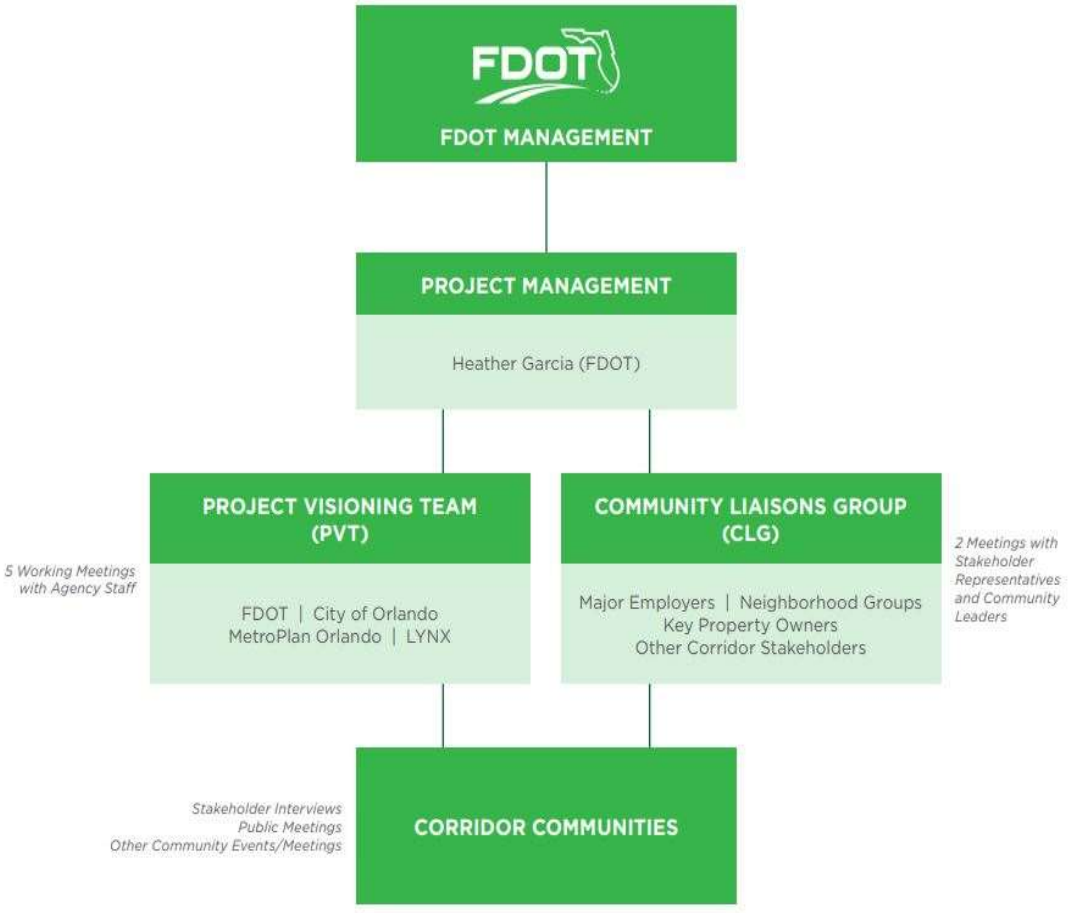
FIGURE 3. ROBINSON STREET CORRIDOR[3]

What actions did the agencies take?

FDOT and key stakeholders established a Project Visioning Team (PVT) and a Community Liaisons Group (CLG). The project management team engaged these groups to seek input into the planning process, promote a heightened awareness of the issues and challenges of the corridor, and better understand the corridor community and their issues. The project management team also held two series of public workshops, conducted an online survey, received public input via the use of an online commenting website, and conducted two rounds of briefings with the city of Orlando's commissioners from the districts and neighborhoods that connect with Robinson Street.

[3] *FDOT Central Florida Roads website, http://www.cflroads.com/asset/file/2832/2016-09_Project_Study_Area_Map_pdf*

FIGURE 4. ROBINSON STREET CORRIDOR DECISION-MAKING FRAMEWORK[4]



What partners were involved?

- PVT: Agency staff from the various units of FDOT, the City of Orlando, LYNX, and MetroPlan Orlando.
- CLG: Representatives from the local community including residents, large employers, institutions, and property owners.

What were the lessons/outcomes?

The existing conditions presented in this report were synthesized into a Purpose Statement with eight overall needs that the Robinson Street Corridor Study will address. These needs were defined with the PVT that helped identify objectives to support each need. These objectives led to performance measures

[4] *Robinson Street Corridor Planning Study, May 2017, http://www.cflroads.com/asset/file/3417/2017-05_Planning_Study_Final_Report_Reduced_pdf*

that the team could use to evaluate proposed alternatives. Figure 5 provides an example of Need 1. After needs, objectives, and performance measures were developed, the project management team identified potential solutions that were categorized into:

- Corridor-Wide Strategies.
- Cross Section Alternatives.
- Spot Improvements.

FIGURE 5. ROBINSON STREET CORRIDOR NEED 1 EXAMPLE[5]

Need 1: Improve multimodal access to support Downtown growth and development.

Downtown Orlando is evolving into a 24-hour downtown where more people are living, working, and recreating in Downtown, and where both workers and residents are looking for multimodal options to travel.

Objective	Long List Evaluation Measure
Identify cross section changes that are tailored to each character district/segment.	On-street parking provided to support District Needs
Consider cross section changes that improve access to and from the downtown roadway network.	Intersection delay for key turning movements
Provide for local delivery traffic and needs.	Cross section allows for delivery needs where critical

The District conducted an Open House on May 23rd, 2019, and now the project management team is concluding Concept Development, which will set up the project for the FDOT Design Phase.

What guidance can be shared?

The process used to arrive at the recommended alternatives and common vision for the Robinson Street corridor involved extensive coordination with public agencies, area stakeholders, and the public. The recommendations of this study are consistent with FDOT's Complete Streets policy and shift away from functional class-based design and solutions that focus solely on providing vehicular mobility on state roadways. Instead, the solutions are consistent with FDOT's push toward context sensitive design. As a significant change from previous established processes, the implementation of the solutions for Robinson Street will require innovative thinking that applies engineering judgment to established standards and processes.

Some proposed ideas involve incremental implementation of changes to character districts. This will help prioritize improvements as funding becomes available and allows the community to reevaluate its vision for Robinson Street at various stages along the way. This is especially important in districts where the demand for multimodal travel is expected to increase in the future. As Downtown Orlando continues to grow and evolve, travel patterns and preferences will change. Robinson Street should continue to evolve along with Downtown Orlando to better meet the needs of all users. In addition to the study, other resources include FDOT's Robinson Street Corridor project files, which are located here: http://www.cflroads.com/project/436394-1/Robinson_Street_Corridor_Study.

[5] *Robinson Street Corridor Planning Study, May 2017, http://www.cflroads.com/asset/file/3417/2017-05_Planning_Study_Final_Report_Reduced_pdf*

FDOT State Road 80 Action Plan

What problems did the agencies need to solve?

Traffic estimates show that State Road (SR) 80 needs additional capacity to accommodate the approved new development (residential, commercial, and industrial) along the corridor. The approved new development traffic would exceed FDOT's targeted level of service (LOS) of "D" in the urban areas and "C" in the rural areas. With the potential for even more new development traffic on the corridor, FDOT initiated the SR 80 Action Plan to investigate a broad range of transportation alternatives and land use strategies affecting travel demand along the corridor.

FIGURE 6. STATE ROAD 80 CORRIDOR STUDY LOCATION MAP[6]

What actions did the agencies take?

The Action Plan for the corridor aimed at improving traffic and freight operations over a 20-year period and investigate strategies to improve safety and accommodations for pedestrians, bicyclists, and transit riders.

The Action Plan formed Technical Review Committees (TRCs) to serve as technical sounding boards and advisory groups while the study team shared findings and developed alternative strategies for the SR 80 corridor. Given the breadth of the study, two TRCs were formed, one to represent the eastern portion of the corridor and one to represent the western portion. The TRCs met approximately every three months throughout the study process and its members are listed in the plan.

FDOT also conducted stakeholder interviews, additional one-on-one outreach, and two public workshops, which are also documented in the plan.

What partners were involved?

- Municipalities, communities, and businesses along SR 80
- Palm Beach Transportation Planning Agency
- Palm Tran Public Transportation

[6] *State Road 80 Action Plan, http://www.sr80actionplan.com/docs/FINAL_april2018.pdf*

- South Florida Water Management District
- Palm Beach County Engineering and Public Works Department
- Palm Beach County Zoning & Building Department
- The Florida Turnpike Enterprise

What were the lessons/outcomes?

- There is a need for better bicycle and pedestrian infrastructure, access, and connectivity.
- There is little coordination between transportation and land use decision-making.
- Freight is an important component of the corridor.
- Recurring congestion in the corridor will increase in the future.
- There is a need to improve roadway network connectivity.
- The context of the corridor changes from west to the east.
- There is poor transit access and connectivity in the corridor.

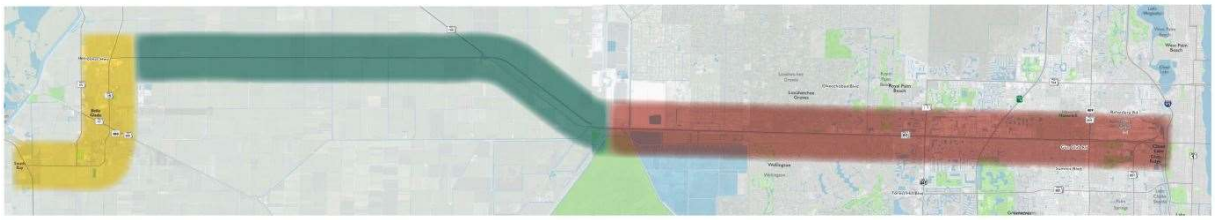
The plan also developed a list of goals and strategies that are based on the existing and future conditions analysis and a consideration of the context, character, and desires of the stakeholders.

What guidance can be shared?

Based on the analysis, there are three character districts in the SR 80 study area that will inform FDOT's planning, PD&E, design, construction, and maintenance approaches. These character districts reflect the current conditions of the corridor and are used to dictate the future land use and transportation form of the corridor in a context sensitive manner. They are:

- Agricultural (Yellow): Focused on throughput with high truck percentages, little access, and low network connectivity.
- Rural Town (Green): Desire for complete streets with a main street feel and mix of uses and a need to address truck/pedestrian/bicycle interaction.
- Suburban (Red): Auto-oriented commercial uses, little pedestrian/bicycle activity, and a lot of destinations but spread far apart.

FIGURE 7. STATE ROAD 80 CORRIDOR CHARACTER DISTRICTS[7]



Using these character districts, FDOT identified specific needs for the three segments along with potential alternatives and strategies to address those needs.

Additional guidance and resources are available on FDOT's State Road 80 Corridor Action Plan website: http://www.sr80actionplan.com/.

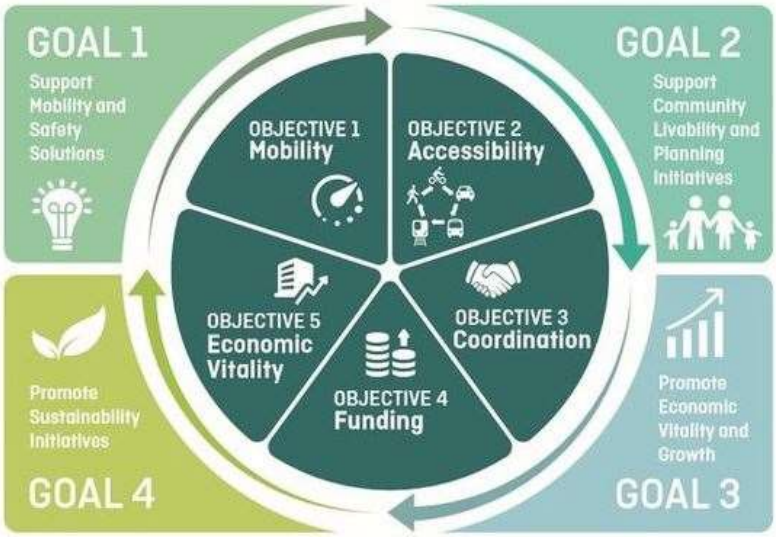
[7] *State Road 80 Action Plan, http://www.sr80actionplan.com/docs/FINAL_april2018.pdf*

I-95 Corridor Mobility Planning Project

What problems did the agencies need to solve?

I-95 was failing to provide reliable transportation due to daily congestion, crashes, and unexpected delays. Congestion on I-95 was not just a daily challenge; it was a symptom of broader mobility and land use issues.

FIGURE 8. I-95 CORRIDOR MOBILITY PLANNING PROJECT GOALS AND OBJECTIVES[8]



The I-95 Corridor Mobility Planning Project addresses congestion on I-95 and broader mobility and land use issues in eastern Broward and southeastern Palm Beach counties. It was guided by four goals and five objectives, as shown in Figure 8. The project:

- Synthesized the previous studies and existing planning documents.
- Developed a framework of facility types and place types.
- Identified strategies and performance measures.

What actions did the agencies take?

The agencies involved in the project developed a list of 113 strategies and 469 examples of initiatives, programs, and projects from Broward and southeastern Palm Beach counties to implement the goals and objectives of the project. Each strategy is associated with a specific "implementing" agency, including local, regional, state, and national agencies.

For external coordination, the project used a Core Group, made up of a District staff and key external stakeholders, to review and prepare documents for the Stakeholder Working Group. The Stakeholder Working Group was a larger group that convened several times during development, with the task of affirming the vision map, identifying strategies, and reviewing baseline performance assessment results. Stakeholders participated in listening sessions and a stakeholder summit in October 2016. The Working Group brainstormed project objectives that reflected the full range of desired project outcomes.

[8] *I-95 Corridor Mobility Planning Project website, http://www.i95corridormobility.com/*

What partners were involved?

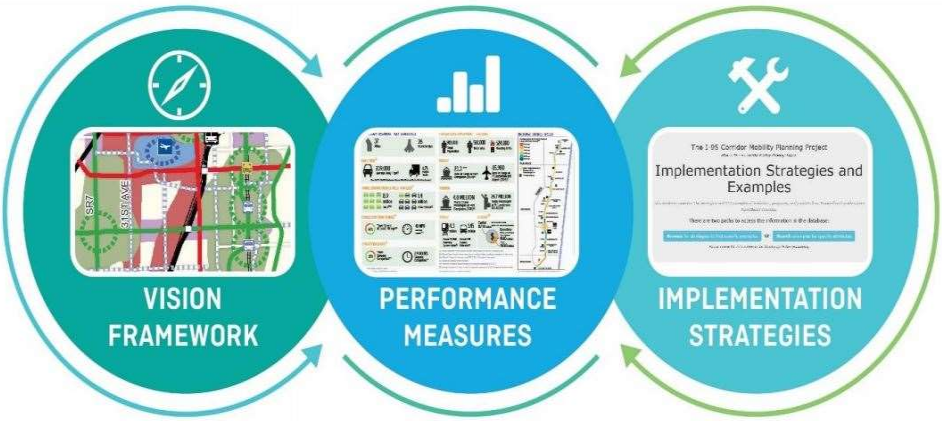
The Stakeholder Working Group included:

- Cities in Broward and Palm Beach Counties.
- Agencies in Broward and Palm Beach Counties.
- Multicounty agencies.
- Port Everglades.
- Hollywood/Fort Lauderdale International Airport.
- Fort Lauderdale Executive Airport.

What were the lessons/outcomes?

There are three integrated components of the I-95 Corridor Mobility Planning Project, as shown below. The aspirational future vision map reflects stakeholders' transportation and land use visions and plans through a framework of facility types and place types. The implementation strategies demonstrate the variety of initiatives enacted by stakeholders in pursuit of the vision. The performance measures monitor progress towards the vision in comparison with desired trends.

FIGURE 9. I-95 CORRIDOR MOBILITY PLANNING PROJECT KEY COMPONENTS[9]



What guidance can be shared?

The project detailed the lessons learned from the public involvement process and recommendations for next steps:

1. **Identify priority implementation strategies and examples:** The stakeholders universally agreed that there were too many examples and no current way to identify which were the most important.

[9] *I-95 Corridor Mobility Planning Project website, http://www.i95corridormobility.com/*

There were several ways to think about identifying priorities, which could reflect the priorities of the individual stakeholders to achieve the I-95 Corridor Mobility Planning Project's aspirational future vision and influence the project's performance measures.

2. **Help stakeholders better connect the dots:** An enhanced framework with clearer links between the aspirational future vision map, performance measures (with targets by facility type and place type), implementation strategies, and examples will allow the stakeholders to understand which strategies and examples are most effective at achieving the desired performance targets.
3. **Make enhancements to the web-based tool for easier searching and better overall usability:** More specific improvements that came out of the update effort include:
    - Restricting editing capabilities so that stakeholders cannot edit each other's examples.
    - Creating the ability to select more than one strategy for each example.
    - Showing the objective, strategy category, and strategy pairs more directly.
    - Adding a search bar for key words.
    - Presenting the search results in an alternative format and exporting the results to a formatted PDF.
4. **Develop implementation guidance for stakeholders:** Stakeholders, for the most part, see the value in the aspirational future vision map but are unsure how to apply the facility types and place types, the project's performance measures and implementation strategies, and examples in their planning and decision-making processes. [10]

The I-95 Corridor Mobility Planning Project website, http://www.i95corridormobility.com/, provides additional resources including links to documents, strategies, measures, listening sessions, and a 2016 Stakeholder Summit.

[10] *I-95 Corridor Mobility Planning Project Report on Stakeholder Implementation Strategies Update, September 2017, http://www.i95corridormobility.com/uploads/4/4/7/9/44790795/memo_stakeholderstrategyupdates2017.pdf*

Virginia Urban Development Areas

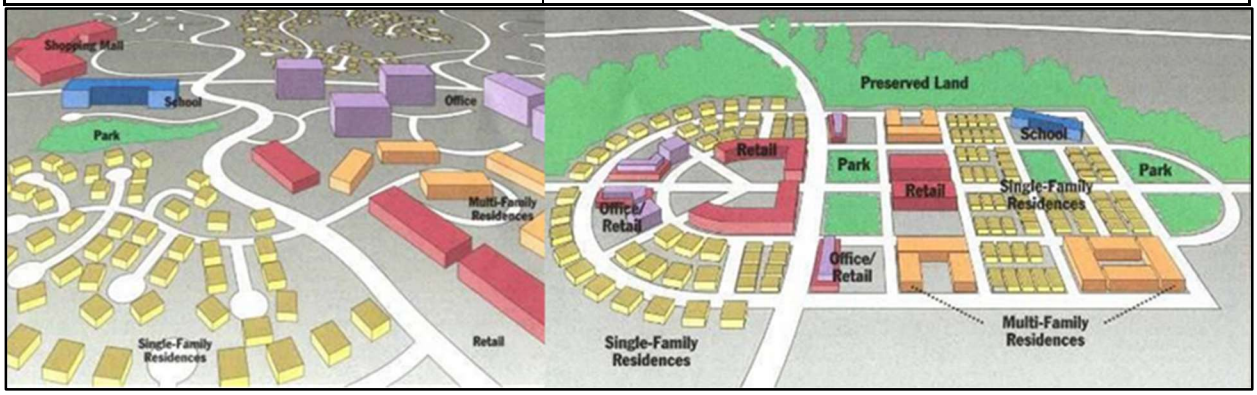
What problems did the agencies need to solve?

The Commonwealth of Virginia recognized that dispersed development patterns, caused in part by the lack of coordination between transportation and land use decision-making, were increasing the financial burden of maintaining and expanding the transportation system. Promotion and expansion of Urban Development Areas (UDAs) in the state can improve the future efficiency of Virginia's transportation system in the following ways:

- Encouraging compact development and traditional neighborhood design (TND) can alleviate the transportation system impacts of low density/single use development.
- By locating residences and businesses closer together and in areas with existing infrastructure, new development requires less new system capacity and less overall maintenance.
- By mixing uses together, communities require shorter trips to access daily needs and more trips can be completed by walking and biking.

FIGURE 10. VIRGINIA UDAS – BEFORE AND AFTER[11]

From This:	To This:
• Arterial "spines" carry all trips • Typical six-lane arterials needed • Separated land uses = longer trips • All trips by automobile • "Bottlenecks" for emergency access • Higher personal transportation costs • More/wider roads = more public costs	• Distributed Road Network • Arterial "spines" free of local traffic • Mixed uses = shorter trips • 'Communities,' not 'Subdivisions • Better routes for emergency access • Bicycle/pedestrian options for short trips • More cost efficient



[11] *UDA Process in Virginia: History and Requirements Presentation,* https://www.virginiadot.org/info/resources/Land_Use_forums_2016/UDAProcess.pdf

What actions did the agencies take, and how did they do it?

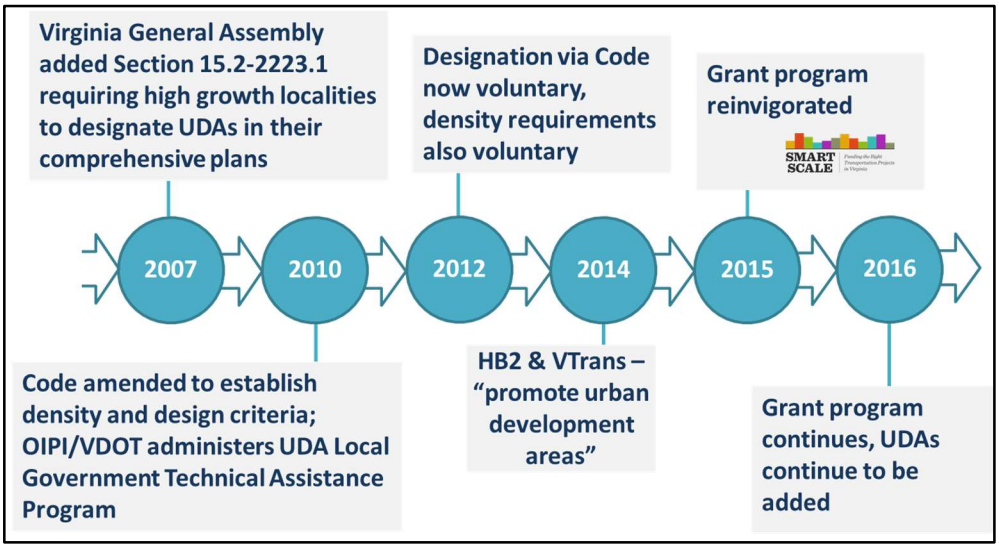
The local process for designating UDAs started is 2007, when the Code of Virginia was amended to require high growth localities to designate UDAs in their comprehensive plans (15.2-2223.1, Code of Virginia). This defined UDAs as:

- Areas designated by a locality that may meet projected residential and commercial growth criteria in the locality for an ensuing period of at least 10 but not more than 20 years.
- Where an urban development area in a county includes planned or existing rail transit, the planning horizon may have an ensuing period of at least 10 but not more than 40 years.
- Areas that may be appropriate for development at a density level of at least four single-family residences, six townhouses, or 12 apartments, condominium units, or cooperative units per developable acres and an authorized floor area ratio of at least 0.4 per acre for commercial development, or any combination thereof.

The law also required UDAs to incorporate principles of TND.

A few years later, the Code was amended again to establish density and design criteria for UDAs, improve transportation and land use coordination, and require the Virginia Department of Transportation (VDOT) to administer a UDA Local Government Assistance Program (grant program). However, the program almost came to an end when the UDA designation was made voluntary by the Virginia General Assembly in 2012.

FIGURE 11. UDAs IN VIRGINIA – TIMELINE[12]



[12] *UDA Process in Virginia: History and Requirements Presentation, https://www.virginiadot.org/info/resources/Land_Use_forums_2016/UDAProcess.pdf*

In 2014, several things happened to reinvigorate interest in UDAs. VDOT's Office of Intermodal Planning and Investment (OIPI) began promoting the concept of UDAs; since UDAs are in urban, suburban, and rural communities, OIPI also allowed the designation of UDAs to be called Designated Growth Areas (DGAs) provided they were consistent with §15.2-2223.1. In rural areas of the state, it was deemed that the term "UDA" was not consistent with some community visions and identities. The term "DGA" allowed for context sensitive considerations and speech while not altering the technical/land use requirements.

At about this same time, the state revised its HB2 project prioritization process to specifically include projects that promote UDAs. [13] Going forward, jurisdictions that amend their comprehensive plans to include the proper Code of Virginia reference for locally designated growth areas that meet the intent of §15.2-2223.1 are eligible to submit projects that address the needs of those areas.

In addition, OIPI linked the designation of UDAs to the state's long-range transportation planning process and to competitive funding mechanisms (such as the Virginia SMART SCALE transportation funding program described below) and offered a competitive grant program to help jurisdictions update land use codes and conduct other planning activities for designated UDAs.

Long Range Transportation Plan—As part of the long-range transportation planning process, VTrans 2040, OIPI conducted a comprehensive needs assessment, which included 11 Corridors of Statewide Significance. These corridors were defined as those facilities and services that comprise the multimodal network connecting major centers of activity (regional networks and UDAs) and accommodate inter-city travel between these centers and interstate traffic. The primary considerations for the needs assessment were mobility and safety, and accessibility within regional networks and UDAs was captured in each corridor's needs assessment. VTrans 2040 was a major milestone in a performance-based planning framework, and it also established a direct link between planning and funding (Smart Scale).[14]

Smart Scale Funding—This program provided funding to UDAs through a competitive process based on a transparent and objective evaluation of projects that determines how effectively they will help the state achieve its transportation goals and ensure the best use of limited tax dollars. Funding for project prioritization comes from two primary sources – the construction District Grants Program (DGP) and the High-Priority Projects Program (HPPP) – both established in 2015 under §33.2-358, Code of Virginia. Projects must address improvements to a Corridor of Statewide Significance, regional network, or UDA. In addition to localities, Smart Scale projects may be submitted by regional entities, including MPOs, Planning District Commissions (PDCs), and public transit agencies. [15]

UDA Technical Assistance Grant Program—This program promotes economic development and quality of life along with the coordination of transportation and land use planning. The program provides assistance for localities interested in:

- Conducting planning to identify and designate newly identified UDAs.

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[13] House Bill 2, passed by the Virginia General Assembly in 2013, was branded as HB2 – Funding the Right Transportation Projects

[14] VTrans2040 website, http://www.vtrans.org/archive/vtrans2040

[15] Smart Scale website, http://vasmartscale.org/

- Updating plans for areas already designated as UDAs.
- Updating similarly designated growth area plans to meet the legislated characteristics of UDAs.
- Revising applicable land use ordinances (including appropriate zoning classifications and subdivision ordinances) to incorporate the principles of traditional neighborhood design.
- Assisting with public participation processes and other related tasks.

What was the approach to coordination, process, and content? What was the model of communication structure internally?

At the time that OIPI began promoting UDAs, there were some existing UDAs in Virginia because of the legislation that passed in 2007, but OIPI did not know how many or where they were located. OIPI charged its consultants with researching this information. OIPI relied heavily on consultant support, since the office consisted of one person. After determining the universe of existing UDAs, OIPI leveraged the ongoing VTrans 2040 planning activities (e.g., regional meetings) as a platform to share information on the UDA program and took the following steps to encourage localities to designate and advance projects in UDAs:

- **Flyers and Fact Sheets**: OIPI produced and distributed information about UDAs to localities, MPOs, and PDCs across the Commonwealth of Virginia.
- **Webinars:** OIPI conducted a series of webinars providing an overview of UDAs that informed localities, MPOs, and PDCs of the following information:
  - How UDAs were included in the long-range transportation planning process, VTrans 2040.
  - The process for designating a UDA, including the land use requirements and other process requirements.
  - How projects in designated UDAs could be funded through Smart Scale.
  - Examples of UDAs that were already designated and stories of their challenges and successes.
- **Direct Support to Localities:** OIPI's consultant support was available to respond to questions from jurisdictions about UDAs.
- **UDA Designation Review:** OIPI's consultants reviewed designations for UDAs submitted by localities.

What partners were involved?

The following partners were involved in promoting UDAs:

- VDOT's OIPI.
- Office of the Transportation Secretary.
- Consultant staff.
- Localities.
- MPOs.

- PDCs.

What were the lessons/outcomes?

Key lessons include:

- Linking land use coordination to both the transportation planning and funding process is critical to promoting transportation efficient land development patterns.
- Local and regional authorities might be more motivated to coordinate land use and transportation when there is a potential funding incentive.
- Smaller localities may desire to improve land use policies and codes but lack the resources to go through an update process. Many smaller localities, especially those in non-urban areas, lack the expertise to manage or oversee infill development; they are accustomed to greenfield developments and subdivisions. OIPI recognized this and responded by providing UDA grants.

Key outcomes include:

- Seventy-two (72) localities designated 212 UDAs as of January 1, 2017.[16]
  - 36 Counties – 130 locations
  - 21 Cities – 51 locations
  - 15 Towns – 31 locations
- Numerous localities submitted projects for Smart Scale funding in UDAs, leading to improvements in multimodal transportation in these areas.
- Thirteen localities received UDA Technical Assistance Grants to conduct an array of land use planning activities for neighborhoods, developments, and corridors, as demonstrated below:
  - A new mixed use, walkable "gateway" to an historic village (Town of Marshall).
  - Over 350 housing units approved in a designated growth area and new businesses locating on Main Street for the first time since 2011 (Town of Marshall).
  - Zoning ordinance revisions for high-density mixed uses at the entrance to the City of Harrisonburg (Rockingham County).
  - Congestion relief on I-81 with a compatible land use plan around an interchange (Botetourt County).
  - Over 600 jobs coming to the Botetourt County in the next two to three years (Botetourt County).
  - Plan for a new Tide light rail extension and transit-oriented neighborhoods (City of Norfolk).

[16] *VDOT Urban Development Area Grant Program PowerPoint Presentation, June 2017, http://www.ctb.virginia.gov/resources/2017/june/pres/presentation_urban_dev_program.pdf*

  - New development activity focused on senior needs including trails and trail connectivity (Franklin County).
  - Long term vision for transforming a corridor helped the Route 29 Solutions Project address traffic flow (Albemarle County).
  - A detailed land use plan for three phases of development, which will be refined into an urban design and zoning strategy (Albemarle County).
- The importance and purpose/benefits of transportation and land use coordination was elevated as discussions of UDAs became commonplace throughout the Commonwealth.

The benefits of UDA grants can benefit localities and the Commonwealth.

- Localities can:
  - Plan for economic development of growth areas.
  - Gain expertise in how to plan for mixed use and redevelopment.
- The Commonwealth gains:
  - More compact and efficient development.
  - Lower expenses for transportation and utility expansion and maintenance.
- Both parties receive:
  - Additional public support for designated and managed growth.
  - More efficient development costs.

What guidance can be shared?

Several online resources exist that provide additional information and guidance on Virginia's UDAs and supporting programs, including:

- UDA Overview (fact sheet #1)
- UDA Needs Assessment Approach (fact sheet #2)
- UDA Process in Virginia: History and Requirements (PPT)
- UDA Grant Program (PPT)
- Smart Scale – Funding the Right Transportation Project in Virginia
- HB2 Implementation Policy Guide
- VTrans – Virginia's Transportation Plan

Pennsylvania DOT – PennDOT Connects

What problems did the agencies need to solve?

The Pennsylvania Department of Transportation (PennDOT) identified several opportunities to improve internal coordination and external coordination between planning and project development across the state. The PennDOT Secretary led the initiative to engage communities early and often about transportation projects, incorporate more multimodal options into early plans for projects, and avoid missed opportunities for creating transportation choices in the communities of Pennsylvania. This coordinated planning approach sought to reduce costs by making improvements at one time (rather than sequentially), include all aspects of a project that are important to each community, and reduce impacts of transportation projects.

What actions did the agencies take, and how did they do it?

PennDOT established a PennDOT Connects Policy, which tasks staff and planning partners to "consider community needs at the beginning of the planning process to ensure the best allocation of our resources." This new approach "intended to make the PennDOT planning processes more efficient and cost effective to the benefit of all Pennsylvanians. The policy includes collaboration requirements and planning considerations, as well as the implementation timeline."[17] The collaboration included meetings with MPOs, RPOs, and local governments, which would become a routine element of the PennDOT planning process. As stated in the policy: "Collaboration provides the opportunity for details unique to communities to be identified and discussed for each project in planning, prior to developing project scopes and cost estimates."[18]

The goal of PennDOT Connects is "Better Communities and Mobility Powered through Collaboration." The program:

- Builds partnerships that invest in sustainable transportation.
- Leverages resources to improve communities.
- Leads and innovates for a more livable Pennsylvania.
- Delivers projects that improve economic competitiveness, access to work, and overall quality of life[19]

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[17] *PennDOT Connects Flyer, accessed February 2019: http://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20801.pdf*

[18] *PennDOT Connects Policy, https://www.penndot.gov/ProjectAndPrograms/Planning/Documents/PennDOTConnects/PennDOT%20Connects%20Policy%20Statement.pdf*

[19] *PennDOT Connects Flyer, accessed February 2019: http://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20801.pdf*

To implement PennDOT Connects, the agency meets with its planning partners and local governments on a regular basis. Meetings include a discussion of project details, which must occur prior to developing project scopes and cost estimates; this requirement applies to projects without previously defined project phases that have not begun preliminary engineering. The group considered all mobility needs, including:

- Bicycle
- Pedestrian
- Transit
- Freight
- Operations and ITS
- Utilities
- Community health
- Stormwater management
- Green infrastructure

What was the approach to coordination, process, and content? What was the model of communication structure internally?

After designing the policy, PennDOT developed and implemented a range of activities to communicate with the local jurisdictions and partners across the state.

- Training and Outreach:
  - Utilizes PennDOT Connect Workshops to share best practices, identify challenges and opportunities, and make recommendations for next steps.
  - Communicates successful outcomes and processes through PennDOT connects Video Testimonials.
  - Provides Module Presentations and Training Videos on a variety of topics, including access management and highway occupancy permitting; loan and funding; site design and roadway standards; Transit Revitalization Investment District (TRID); and transportation and land use.
  - Provides a PennDOT Connects Municipal Training for Transportation and Land Use Planning brochure that explains how to request training, the various training modules, and how to register a PennDOT Connects user account.
- Staffing:
  - PennDOT Connects support team to ensure ongoing collaboration and program implementation.
  - Created new planning positions in each District Office to serve as the primary administrator of planning functions within the District and act as a primary liaison between PennDOT and its regional planning partners.

- Resources:
  - Developed a PennDOT Connects Implementation report.
  - Provides PennDOT Connects Best Practices.
  - Created and supports a PennDOT Support Hub.

What partners were involved?

- PennDOT Secretary Leslie Richards (champion)
- PennDOT Connects support team
- District Planners

What were the lessons/outcomes?

The PennDOT Connects Implementation Report includes observations from each of the PennDOT Districts and summarized as follows:

- Recognizing, respecting, and capitalizing on the working relationships PennDOT's planning partners have with local communities is key to effectively implementing PennDOT Connects.
- Working together through the PennDOT Connects process allowed PennDOT to meet many agencies' goals and improve safety and traffic flow.
- PennDOT Connects provides a voice and forum for municipalities and improves working relationships among the agencies and municipalities involved in the process.
- Municipalities are appreciative of the opportunities for collaboration and active engagement with PennDOT enhances projects and builds support.
- Early contact with municipalities identifies community concerns before decisions are made and avoids what might otherwise be costly impacts during project development, such as avoiding disruptive utility work in areas with recently resurfaced roadways.
- Involving staff from multiple affected municipalities helps identify future development plans and local needs. [20]

Through PennDOT Connects, the Districts conducted face-to-face meetings with their municipalities on hundreds of projects as shown in Figure 12.[21]

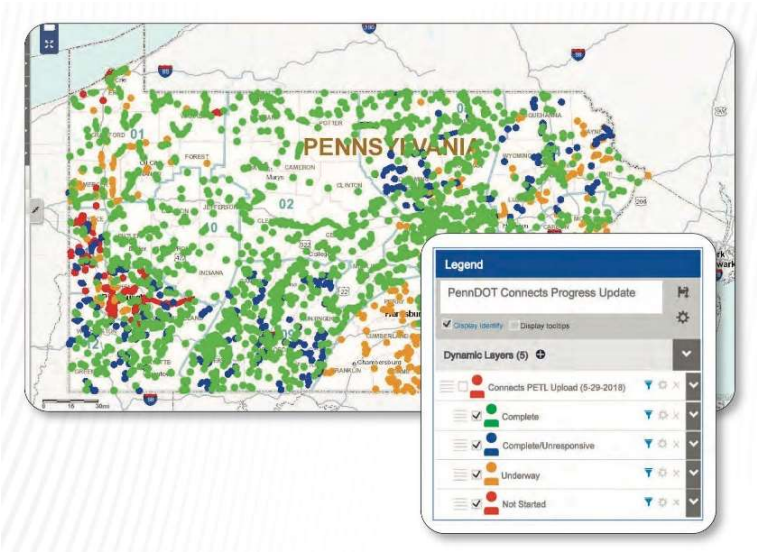
[20] *PennDOT Connect Implementation Report,* *https://www.dot.state.pa.us/public/Bureaus/press/Connects/PennDOT_Connects_2018/PennDOT_Connects.html*

[21] *https://www.dot.state.pa.us/public/Bureaus/press/Connects/PennDOT_Connects_2018/PennDOT_Connects.html*

FIGURE 12. TRACKING PENNDOT CONNECTS OUTREACH[22]

District	Municipalities	Projects
1	13	101
2	157	174
3	46	250
4	22	170
5	48	104
6	29	42
8	43	214
9	121	434
10	109	140
11	96	124
12	75	118
TOTAL	759	1,871

Note: PennDOT does not have a District 7



PennDOT also designates $3 million every year for planning studies. Funded projects include:

- Pedestrian Facilities and Planning Portal
- Multimodal Comprehensive Plan for Cameron, McKean, and Potter Counties
- Lehigh Valley International Airport Area Freight Plan
- Borough of Greenville Pedestrian Circulation Study
- Greater Hershey Regional Transportation Study
- Update to the Southeastern Pennsylvania Transportation Authority's Bus Stop Design Guidelines

What guidance can be shared?

The PennDOT Connect website includes a wealth of resources and information including:

- PennDOT Connects Policy
- PennDOT Connect Implementation Report
- PennDOT Connects Video Testimonials
- PennDOT Connects Flier

[22] *PennDOT Connects Implementation Report, https://www.dot.state.pa.us/public/Bureaus/press/Connects/PennDOT_Connects_2018/PennDOT_Connects.html*

- PennDOT Connects Workshop Summary
- PennDOT Connects Support Hub

The website also includes seven best practices (case studies) and several different PowerPoint presentations related to the program.

San Antonio's SA Corridors

What problems did the agencies need to solve?

The City of San Antonio is the seventh largest city in the United States. In the last six decades, much of that growth occurred through suburban sprawl and annexation. According to the City of San Antonio's 2016 Comprehensive Plan, it anticipates 1.6 million more residents by 2040. The region is already facing significant challenges with congestion, so reducing travel times and improving multimodal access to key destinations is a priority. The travel demands of additional population growth cannot simply be accommodated by adding more roads and more cars.

What actions did the agencies take, and how did they do it?

The City of San Antonio and VIA Metropolitan Transit, the regional transit agency serving San Antonio, recognized that coordinating land use and transportation could address many regional goals, including limiting the growth of congestion, improving quality of life, and increasing cost-effective access to jobs, housing, schools, and other essential destinations. The strategy focused on planning for and investing in rapid transit and improved infrastructure for biking and walking, which are essential to serve and shape the communities and economic centers that they connect. VIA Metropolitan transit lead the coordination.

Key activities and products include the following:

- VIA and its regional partners developed a typology of future rapid transit station types and created the Guide to Transit-Supportive Land Use (2014).
- VIA coordinated with the City of San Antonio; VIA updated its long-range plan (VIA Vision 2040, 2016), while the city developed its first comprehensive plan (SA Tomorrow, 2016).
- VIA developed concept plans to demonstrate the station area typologies, which were illustrated in the VIA Strategic Plan for Transit Station Areas (2016).
- In March 2019, VIA published the Urban Design Guidelines for Transit Station Areas, a document developed with the City of San Antonio to be a resource for public agencies, developers, and city planners to use to improve urban design outcomes in future transit station areas.

What was the approach to coordination, process, and content? What was the model of communication structure internally?

The Need for Coordinating with Regional Partners

VIA, the City of San Antonio, and other partners understood that a growing community meant there would be an increased demand for transportation services and growth in residential and commercial centers throughout the region. Over the last five years, VIA advanced innovative partnerships with municipalities, regional housing agencies, and private investors to develop and endorse policies that promote walkable, compact, and mixed-use developments with access to frequent transit services

VIA recommendations for transit station policy include plans for pedestrian-oriented design, ample housing across a range of prices near transit station areas, and vibrant spaces that offer frequent, economical transit options. To implement transit supportive land use policies and the resulting transit-

oriented communities (TOC) and transit-oriented development (TOD), VIA coordinates with partners through joint development agreements, regional coordination, and implementation of proven strategies to develop successful transit stations.

Setting a Vision for Transit-Supportive Land Use

In 2013, VIA began to define a vision for transit supportive land use in the San Antonio region by conducting workshops with partners from the City of San Antonio, the San Antonio Housing Authority (SAHA), local economic representatives, and others to create a station area typology. The participants worked together to determine what types of land use, density, urban form, and transit service could be expected across a range of transit station types and they discussed the future demand for TOD in the region and its benefits for developers, residents, visitors, employers, and taxpayers.

These conversations led to the development of the Transit Supportive Land Use (TSLU) Guide in 2014. [23] At the same time, VIA led a study to examine policies in the City of San Antonio and other municipalities served by VIA to determine where TSLU policies existed and where recommendations could be made for TSLU policies in future plans and development code updates. This study resulted in a TSLU Toolkit, which defined notable practices for land use policies that promote walkable communities supported by high frequency transit.[24] VIA led another study that examined notable practices for co-locating housing and rapid transit, recognizing that density and urban form play a role in transit's success and that high quality, rapid transit located near housing can reduce the combined cost of housing and transportation. This study resulted in another toolkit: The Strategic Housing Policy for High Capacity Transit Corridors.[25] Each of these documents was used to advance the conversation in the region about the important relationship between land use and transportation choice.

[23] *Transit Supportive Land Use Guide, 2014, http://www.viainfo.net/wp-content/uploads/2018/05/05-2014-Guide-to-Transit-Supportive-Land-Use-small.pdf*

[24] *Transit Supportive Land Use Toolkit, September 2014, http://www.viainfo.net/wp-content/uploads/2018/05/04-2014-Transit-Supportive-Land-Use-Toolkit.pdf*

[25] *Strategic Housing Policy for High Capacity Transit Corridors, https://www.viainfo.net/wp-content/uploads/2018/05/03-2014-Strategic-Housing-Policy-Toolkit.pdf*

Implementing the Vision for Transit-Supportive Land Use

Stemming from these workshops, an Interagency Committee took form to continue the conversations about transportation and land use coordination, promote coordinated planning, share information, coordinate community outreach activities, and support grant applications. VIA and SAHA officially formed the committee that included city planning and transportation officials. VIA continued to advance the consideration of land use and transit in the region, providing input into the City of San Antonio's 2016 Comprehensive Plan. The transit agency also developed a Strategic Plan for Transit Station Areas (2016) that provides an overview of key issues regarding growth, transit, and land use coordination and defines the benefits of a coordinated approach to station area development and catalytic investment.[26] It also describes the discrete roles that regional agencies serve in supporting the enhancement of local communities with high-quality walkable environments served by rapid transit. As of 2019, VIA is completing Urban Design Guidelines for Transit Station Areas in close cooperation with agency partners.

FIGURE 13. SAN ANTONIO VISION 2040 STRATEGIC PLAN FOR TRANSIT STATION AREAS

Land use plays a critical role in transportation choices. Continued emphasis on urban design and land use plans, policies, and investments that facilitate multimodal transportation options is essential to increasing transportation choice across many geographies.

SA Corridors[27]

SA Corridors was a city-wide collaborative effort, managed by the City of San Antonio's Planning Department and supported by VIA Metropolitan Transit, to help direct future development and facilitate transit use, walking, and biking. SA Corridors was the first step to implement the SA Tomorrow Comprehensive Plan[28] and VIA's Vision 2040 Long Range Plan.[29] SA Corridors created a "road map" for implementation of the aligned agency plans.

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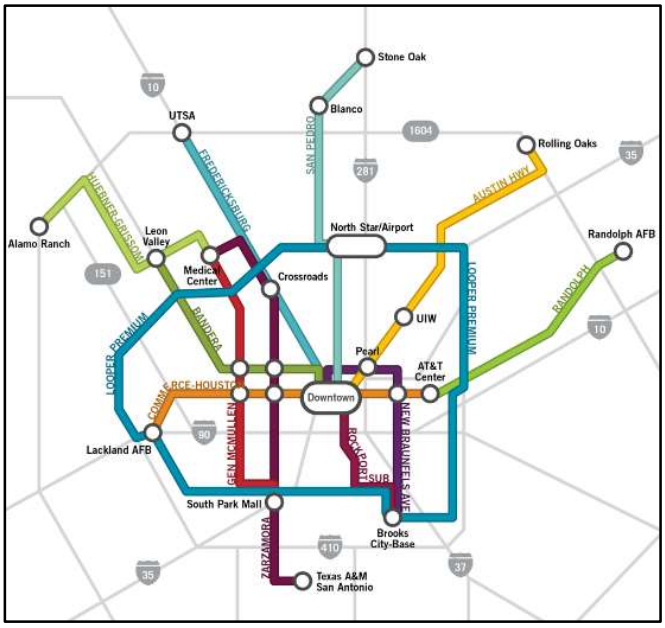
[26] *Vision 2040 Strategic Plan for Transit Station Areas in the Greater San Antonio Region, http://www.viainfo.net/wp-content/uploads/2018/05/07-2016_1220_Vision_2040_Strategic-Plan-for-Station-Areas_FINAL.pdf*

[27] *SA Corridors website, https://www.sanantonio.gov/Planning/Resources#133573534-sa-corridors*

[28] *SA Tomorrow Comprehensive Plan, https://www.sanantonio.gov/Planning/PlanningUrbanDesign/ComprehensivePlan*

[29] *VIA Vision 2040 Long Range Plan, http://www.viainfo.net/wp-content/uploads/2018/05/2016_0824_VIA_2040_LRP.pdf*

FIGURE 14. SA CORRIDORS 12 RAPID TRANSIT CORRIDORS[30]



SA Corridors studied 12 rapid transit corridors that were part of VIA's Vision 2040 Plan; it developed preliminary plans and recommendations to accommodate future growth in areas within a half mile of VIA's current and proposed Bus Rapid Transit (BRT), both within the San Antonio city limits and in surrounding communities.

What partners were involved?

- VIA Metropolitan Transit
- City of San Antonio
- San Antonio Housing Authority
- Centro downtown partnership

What were the lessons/outcomes?

- By inviting partners to the table to discuss the future of land use and to define qualities of future station areas, VIA established lasting partnerships and developed forward thinking policy documents that included partner priorities that focused on land use planning and policy.
- The VIA/SAHA Interagency Committee created an avenue for ongoing planning discussions, opportunities for coordination of investments and services, and a platform for information sharing. The agencies and city were able to use this committee to discuss and provide input to federal grant applications. Working with partners, in December 2018 VIA was awarded an Access and Mobility Partnership Grant by the Federal Transit Administration (FTA).
- The collaborative process enabled VIA to be an important partner in planning and policy-making. For example, the City of San Antonio developed “Place Types” in the 2016 comprehensive plan, and VIA and the city merged these place types with the VIA station area typology to create an aligned approach to station area planning and development in future years.
- Creating community type or station area typologies communicates potential land use changes to partners, developers, local decision-makers, and the public. Using typologies and visualizations can be important tools when communicating with underrepresented communities.
- Clarifying the roles and responsibilities of coordinating agencies and partners can improve communication about station area project development and design.

[30] *SA Corridors Strategic Framework Plan, Executive Summary,* https://www.sanantonio.gov/Portals/0/Files/Planning/Resources/SACorridors/StrategicFrameworkPlan.pdf

- The SA Corridors project was a result of all the previous coordination efforts. It provides direct policy recommendations for updating land use policies in the City of San Antonio and resulted in specific recommendations for improving walking, biking, and transit access in future station areas.

What guidance can be shared?

The documents and toolkits discussed and footnoted above provide a wealth of resources and guidance. In addition, VIA plans to release Urban Design Guidelines for Transit Station Areas in 2019.

3. Potential Next Steps

This white paper was produced primarily using the authors' knowledge of the topics, so there are additional opportunities to conduct research and activities that could further inform FDOT's approaches to coordinate transportation and community planning. These include the following suggestions:

- Webinar to Review Case Studies—Presentations on the topics described in this document could provide a basis to create webinars that enable a greater understanding of the approaches, challenges, and interactions.
- Peer Exchange/Discussion—FDOT could host a peer exchange with colleagues from Virginia, Pennsylvania, San Antonio, and FDOT Districts 4 and 5 to exchange ideas, goals, and best practices that will benefit all participants.
- Internal Communication—Explore opportunities to share best practices among FDOT's Districts. Each Intermodal Systems Development Managers' meeting could include an opportunity for a District to present on a best practice, beginning with Districts 4 and 5.
- Expanded Research—The case studies above were largely developed based on existing knowledge of the topics, and some of the case studies point to a need for additional research. While there may be an opportunity to gather more information on-line, the most successful approach would include arranging and conducting a series of interviews with agency staff at peer agencies and reviewing national literature.

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